



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC WELFARE
Procurement Section
Room 106, Health & Welfare Building
Commonwealth Avenue & Forster Street
Harrisburg, PA 17120

BUREAU OF CONTRACT POLICY
MANAGEMENT AND PROCUREMENT

January 8, 2007

**SUBJECT: RFP NO. 39 – 06 Pennsylvania Child Support Enforcement System (PACSES)
Application Maintenance and Operational Support Services**

Dear Prospective Bidder:

You are invited to submit a proposal for the above subject RFP for the Commonwealth of Pennsylvania, Department of Public Welfare in accordance with the attached Request for Proposal (RFP). This RFP is being issued contingent upon federal approval and is subject to change resulting from their review. DPW will issue such changes as an addendum to the RFP.

All proposals must be submitted in one (1) original and eight (8) copies to the Pennsylvania Department of Public Welfare, Bureau of Contract Policy, Management and Procurement, Room 106, Health and Welfare Building, Commonwealth Avenue & Forster Street, Harrisburg, Pennsylvania 17120. **Proposals must be received at the above address no later than two o'clock p.m. (2:00 P.M.) on February 22, 2007. Late proposals will not be considered regardless of the reason.**

All questions should be directed, in writing, to Ms. Teresa Shuchart, Chief Information Officer, Pennsylvania Department of Public Welfare, Room 62, Willow Oak Building, Harrisburg, Pennsylvania 17102; e-mail at ra-pacsesrfp@state.pa.us no later than **January 18, 2007**. All contractors will be provided answers to questions asked by any one contractor.

In addition, a Preproposal Conference will be held at nine o'clock am (9:00 A.M.) on January 22, 2007 at the State Museum Building, 300 North Street, Harrisburg, Pennsylvania, 17120.

Proposals **must** be signed by an official authorized to bind the vendor to its provisions. Also, please include your Federal Identification Number, SAP Vendor ID Number and the Point of Contact's e-mail address on the cover sheet of your proposal. Evaluation of proposals and selection of vendors will be completed as quickly as possible as receipt of proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'Daniel R. Boyd'.

Daniel R. Boyd
Director of Procurement

Attachments

FROM

PW 307P - 04/00

TO:

BID : RFP NUMBER: *RFP 39-06*
OPENING DATE & TIME: *2/22/07*
DEPARTMENT OF PUBLIC WELFARE
DIVISION OF PROCUREMENT
HEALTH & WELFARE BLDG., ROOM 106
COMMONWEALTH & FORSTER STS.
HARRISBURG, PA 17120
2 P.M.

TECHNICAL

FROM

PW 307P - 04/00

FROM

PW 307P - 04/00

TO:

BID : RFP NUMBER: *RFP 39-06*
OPENING DATE & TIME: *2/22/07*
DEPARTMENT OF PUBLIC WELFARE
DIVISION OF PROCUREMENT
HEALTH & WELFARE BLDG., ROOM 106
COMMONWEALTH & FORSTER STS.
HARRISBURG, PA 17120
2 P.M.

DISADVANTAGED BUSINESS

FROM

PW 307P - 04/00

TO:

BID : RFP NUMBER: *RFP 39-06*
OPENING DATE & TIME: *2/22/07*
DEPARTMENT OF PUBLIC WELFARE
DIVISION OF PROCUREMENT
HEALTH & WELFARE BLDG., ROOM 106
COMMONWEALTH & FORSTER STS.
HARRISBURG, PA 17120
2 P.M.

COST

TO:

BID : RFP NUMBER: *RFP 39-06*
OPENING DATE & TIME: *2/22/07*
DEPARTMENT OF PUBLIC WELFARE
DIVISION OF PROCUREMENT
HEALTH & WELFARE BLDG., ROOM 106
COMMONWEALTH & FORSTER STS.
HARRISBURG, PA 17120
2 P.M.

C.P.P.

REQUEST FOR PROPOSAL FOR

**PENNSYLVANIA CHILD SUPPORT ENFORCEMENT SYSTEM
(PACSES)
APPLICATION MAINTENANCE AND OPERATIONAL SUPPORT
SERVICES**

ISSUING OFFICE

**Department of Public Welfare
Bureau of Contract Policy, Management and Procurement
Office of Administration
106 Health and Welfare Building
Commonwealth Avenue & Forster Street
Harrisburg, Pa. 17120**

RFP NUMBER

39 – 06

DATE OF ISSUANCE

January 8, 2007

REQUEST FOR PROPOSALS FOR
PENNSYLVANIA CHILD SUPPORT ENFORCEMENT SYSTEM
APPLICATION MAINTENANCE & OPERATIONAL SUPPORT SERVICES

Table of Contents

CALENDAR OF EVENTS	iii
PART I GENERAL INFORMATION	1
<i>I-1 Purpose</i>	<i>1</i>
<i>I-2 Issuing Office.....</i>	<i>1</i>
<i>I-3 Scope</i>	<i>1</i>
<i>I-4 Problem Statement.....</i>	<i>2</i>
<i>I-5 Type of Contract.....</i>	<i>3</i>
<i>I-6 Rejection of Proposals</i>	<i>4</i>
<i>I-7 Incurring Costs</i>	<i>4</i>
<i>I-8 Preproposal Conference</i>	<i>4</i>
<i>I-9 Questions and Answers</i>	<i>4</i>
<i>I-10 Addenda to the RFP.....</i>	<i>5</i>
<i>I-11 Response Date.....</i>	<i>5</i>
<i>I-12 Proposals.....</i>	<i>5</i>
<i>I-13 Disadvantaged Business Information.....</i>	<i>6</i>
<i>I-14 Information Concerning Small Businesses in Enterprise Zones</i>	<i>7</i>
<i>I-15 Contractor Partnership Program (CPP)</i>	<i>8</i>
<i>I-16 Economy of Preparation.....</i>	<i>8</i>
<i>I-17 Alternate Proposals.....</i>	<i>9</i>
<i>I-18 Discussions for Clarification</i>	<i>9</i>
<i>I-19 Prime Contractor's Responsibilities.....</i>	<i>9</i>
<i>I-20 Proposal Contents.....</i>	<i>9</i>
<i>I-21 Best and Final Offers.....</i>	<i>10</i>
<i>I-22 News Releases</i>	<i>10</i>
<i>I-23 Restriction of Contact.....</i>	<i>10</i>
<i>I-24 Debriefing Conferences.....</i>	<i>10</i>
<i>I-25 Department Participation.....</i>	<i>10</i>
<i>I-26 Key Staff Diversions or Replacements</i>	<i>11</i>
<i>I-27 Special Requirements</i>	<i>12</i>
<i>I-28 Term of Contract</i>	<i>12</i>
<i>I-29 Offeror's Representations and Authorizations.....</i>	<i>12</i>
<i>I-30 Notification Selection.....</i>	<i>14</i>
<i>I-31 RFP Protest Procedure</i>	<i>14</i>
<i>I-32 Use of Electronic Versions of this RFP</i>	<i>14</i>
<i>I-33 Access to Documents.....</i>	<i>14</i>
<i>I-34 Commonwealth Rights</i>	<i>14</i>
<i>I-35 Information Handling</i>	<i>15</i>
<i>I-36 Business/Technical Standards.....</i>	<i>15</i>
<i>I-37 Project Folder</i>	<i>15</i>
<i>I-38 Out of Scope Work.....</i>	<i>15</i>
<i>I-39 Access to Systems and Records.....</i>	<i>15</i>

I-40 Liquidated Damages	16
PART II PROPOSAL REQUIREMENTS.....	17
II-1 Technical Response Requirements	18
II-2 Disadvantaged Business/Enterprise Zone Small Business Utilization.....	24
II-3 Cost Submittal	29
II-4 Domestic Workforce Utilization Certification	31
II-5 Contractor Partnership Program (CPP)	32
PART III CRITERIA FOR SELECTION.....	35
III-1 Mandatory Responsiveness Requirements	34
III-2 Technical Nonconforming Proposals.....	34
III-3 Evaluation.....	34
III-4 Criteria for Selection.....	34
PART IV WORK STATEMENT	39
IV-1 Work Statement/Service Specifications.....	37
IV-2 General Information	38
IV-3 Organization of Pennsylvania's Child Support Program.....	38
IV-4 Overview of the Current PACSES Technical Environment.....	42
IV-5 Contract Requirements-Disadvantaged Business Participation and Enterprise Zone Small Business Participation.....	84

Appendix A	Contract Terms and Conditions
Appendix B	DPW Addendum to Standard Contract Terms and Conditions
Appendix C	Audit Clause C and D
Appendix D	Lobbying Certification Forms
Appendix E	Business Associate Appendix
Appendix F	Standard Invoice
Appendix G	RFP Protest Procedure
Appendix H	M-WBE Reference List
Appendix I	Domestic Workforce Utilization Certification Form
Appendix J	DPW Project Governance Teams: Detailed Roles and Responsibilities
Appendix K	Functional Description: Office of Information Systems
Appendix L	BCSE / DACSES Organization Chart
Appendix M	DPW Business and Technical Standards – Table of Contents
Appendix N	Business Review Board and Architecture Review Board Guidelines
Appendix O	DPW System Development Methodology (SDM)
Appendix P	DPW Project Folder Documents
Appendix Q	DPW Project Change Management Guideline
Appendix R	PACSES Holiday Schedule for 2007
Appendix S	DPW Deliverables Review Process Guideline
Appendix T	PACSES Library (Documentation Listing)
Appendix U	Cost Submittal Templates
Appendix V	PACSES Mainframe Operations Responsibility Matrices
Appendix W	Proposal Cover Sheet

CALENDAR OF EVENTS

The Commonwealth will make every effort to adhere to the following schedule:

Activity	Responsibility	Date
Deadline to submit questions prior to pre-proposal conference via email to ra-pacsesrfp@state.pa.us	Potential Offerors	1/18/07
Pre proposal Conference – State Museum Deadline to submit questions to DPW	DPW/ Potential Offerors	1/22/07
Answers to pre-proposal questions posted to the DGS website (http://www.dgsweb.state.pa.us/comod/main.asp) Please monitor website for all communications regarding the RFP.	DPW	1/25/07
Deadline to submit proposal to the Issuing Office (at address listed on cover page to this RFP).	Potential Offerors	2/22/07

PART I

GENERAL INFORMATION

I-1 Purpose This Request for Proposal (RFP) provides to those interested in submitting proposals for the subject procurement (“Offerors”) sufficient information to enable them to prepare and submit proposals for consideration by the Commonwealth of Pennsylvania, Department of Public Welfare (DPW or the Department) to provide Information Technology (IT) Application Maintenance and Operational Support Services for DPW’s Pennsylvania Child Support Enforcement System (PACSES).

The procurement process for this RFP will be conducted in accordance with the federal laws and regulations, including 45 C.F.R. Part 74, 45 CFR Subpart F, and applicable procurement procedures established by the Commonwealth of Pennsylvania.

Detailed information on the Department’s PACSES strategic business system and the required IT services is provided in Part IV, Work Statement.

I-2 Issuing Office This RFP is issued for the Commonwealth of Pennsylvania by the Department’s Bureau of Contract Policy, Management and Procurement, on behalf of the Office of Administration, Bureau of Information Systems (BIS), in association with the Governor’s Office of Administration. Offerors must direct all inquiries concerning this RFP to the RFP Project Officer. Under no circumstances should an Offeror contact the RFP Project Officer by telephone. The RFP Project Officer for this RFP is:

Ms. Teresa Shuchart
Department of Public Welfare
Office of Administration
Bureau of Information Systems
P.O Box 2675
Harrisburg, PA 17105-2675

Email: ra-pacsesrfp@state.pa.us

The RFP Project Officer is the sole point of contact in the Commonwealth for this RFP.

I-3 Scope This RFP contains instructions governing the requested proposals, including the requirements for the information and material to be included; a description of the services to be provided; requirements which Offerors must meet to be eligible for consideration; general evaluation criteria; and other requirements specific to this RFP.

I-4 Problem Statement

A. Background The Commonwealth of Pennsylvania implemented an automated statewide child support enforcement system known as PACSES in February 1999, which was mandated by the federal Department of Health and Human Services (DHHS), Office of Child Support Enforcement (OCSE). PACSES was federally certified under the Family Support Act of 1988 (FSA) and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in October 2001. The current system is largely mainframe based and uses a screen scraper (eQuate) for user functionality. A portal has also been developed using an Oracle platform and .Net programming language, which provides web-based information for child support users and clients.

Since January 2002, the Commonwealth has had a contract for the provision of application development, database administration, and operational support services for PACSES. This contract includes designing and implementing change controls involving significant changes in system functionality, based on either new or revised federal and state regulations, and/or as a result of user requests to modify existing system functionality. In addition, the existing contractor administers the PACSES databases; coordinates PACSES operations with the mainframe vendor (located offsite); and provides extensive user support services. The contract for these services ends on June 30, 2007.

B. Business Challenges the Department is Currently Facing While the Commonwealth continues to work on solutions to address the dramatic rise in operating costs in Pennsylvania over the past several years, Executive agencies under the Governor's jurisdiction are seeing increased pressure to reduce agency spending. In fact, one of the areas hardest hit by budget reductions over the past several years is spending on IT.

Cost containment in the Commonwealth, and specifically in DPW, is part of an ongoing effort to refocus general government operation dollars from some of the traditional areas to assist in covering the gap in State revenues versus State expenditures. As part of this overall strategy, the Department is also consolidating and integrating the management of all DPW IT systems under the DPW Chief Information Officer (CIO). This business realignment allows for integration and synchronization in IT contract management, program management, and portfolio management. It will also allow the Department to take advantage of resource prioritization and distribution of infrastructure, people, facilities, tools, and knowledge.

C. Goals and Objectives The Department's goals for this RFP are:

1. **Effective Program/Project Management Services** – In order for the Department to successfully achieve its business goals, it must be able to effectively manage and deliver IT support for PACSES and other DPW IT

- projects while simultaneously refining the Department's program and project management skills, technologies, and methodologies, as needed.
2. **Open Communication and Reporting** – Timely and open communication with the Department's program office, the PACSES user community, and Federal and State oversight agencies is another critical success factor for the Department's technology organization.
 3. **Planning and Organization** – Planning must exist at all levels from setting work priorities, to planning an individual's workload, to establishing individual software releases.
 4. **Project Human Resource Management** – The Department seeks the effective organization and management of the individuals proposed for the PACSES system within this RFP.
 5. **Flexibility** – Today's public sector environment dictates a management style that is flexible. The success of the Department's information technology organization is dependent on being able to be responsive to the business needs of the organization.
 6. **Quality** – The Department's goal is the development, delivery, and maintenance of quality systems for customers of the Department and the citizens of the Commonwealth.
 7. **Knowledge Transfer** – To help facilitate the transition of DPW's strategic business systems to State or other contracted staff, the Offeror will partner with the DPW and share all necessary system documentation on an on-going basis.

The specific objectives related to achieving these goals are:

1. **Objective 1:** Support the Department's Program Office in achieving their business goals.
2. **Objective 2:** Provide timely, accurate, reliable, efficient, and secure solutions.
3. **Objective 3:** Institutionalize the Department's System Development Methodology (SDM), **Appendix O**, with supporting tools that provide a seamless system development life cycle.
4. **Objective 4:** Develop, deliver, and maintain a quality PACSES system that meets the approval and satisfaction of the customers and stakeholders.
5. **Objective 5:** Transition and transfer system development, maintenance, and knowledge to State staff or other contracted staff in order to reduce dependency on contracted PACSES system support.

A general overview of the PACSES system is provided in **Part IV, Work Statement**.

I-5 Type of Contract If a contract is entered into as a result of this RFP, it will mostly be a deliverables based firm fixed price contract and will include **Appendix A: Contract Terms and Conditions; Appendix B: DPW Addendum to Standard Contract Terms and Conditions**, including its attachments; one of the audit clauses, shown in **Appendix C: Audit Clause C and D**; and the Lobbying Certification Forms,

shown in **Appendix D: Lobbying Certification Forms** and the Commonwealth of Pennsylvania Business Associate Appendix, shown in **Appendix E: Business Associate Appendix**. The awarded entity will be subject to one of the audit clauses attached as **Appendix C**. The Department will determine the applicable audit clause during contract negotiations.

The Department intends to finalize a performance-based contract, which includes business requirements conveyed in terms of deliverables with quality measurements of agreed upon key performance indicators. The Department may, in its sole discretion, undertake negotiations with Offerors whose proposals as to price and other factors show them to be qualified, responsible and capable of performing the work, and meeting performance indicators.

The Department will enter into a deliverables based firm-fixed price contract for the provision of services and tasks defined as “deliverables” within this RFP. In addition, all application maintenance and application modifications (as defined in Sections II-3 and Part IV, Work Statement) will be subject to a change control process, identified in **Appendix Q: DPW Project Change Management Guideline**, to manage the consumption of hours. During the contract term, additional deliverables may be identified and agreed to by both parties for all application maintenance and application modifications. All services and tasks will be subject to performance measures.

I-6 Rejection of Proposals The Department, in its sole and complete discretion, may reject any proposal received as a result of this RFP.

I-7 Incurring Costs The Department is not liable for any costs the Offeror incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of the contract.

I-8 Preproposal Conference The Department will hold a Preproposal conference as specified in the Calendar of Events. Attendance for the Preproposal conference is optional but is strongly encouraged. The purpose of this conference is to provide an opportunity for clarification of the RFP. Offerors should forward all questions to the RFP Project Officer in accordance with **Part I, Section I-9 Questions and Answers**, to ensure adequate time for analysis, before DPW provides an answer. Offerors may also ask questions at the conference. The preproposal conference is for information only. Any answers furnished during the conference will not be official until they have been verified, in writing, by DPW. All questions and written answers will be posted on the Department of General Services’ (DGS) website at www.dgsweb.state.pa.us/comod/main.asp as an addendum to, and shall become part of, this RFP.

I-9 Questions and Answers If an Offeror has any questions regarding this RFP, the Offeror must submit the questions by email (**with the subject line “RFP #39-06 Question”**) to the RFP Project Officer named in **Part I, Section I-2** of the RFP. If the Offeror has questions, they must be submitted via email **no later than** the date

indicated on the Calendar of Events. The Offeror shall not attempt to contact the RFP Project Officer by any other means. DPW will post the answers to the questions on the DGS website by the date stated on the Calendar of Events.

All questions and responses as posted on the DGS website are considered as an addendum to, and part of, this RFP in accordance with RFP **Part I, Section I-10 Addenda to the RFP**. Each Offeror shall be responsible to monitor the DGS website for new or revised RFP information. DPW shall not be bound by any verbal information nor shall it be bound by any written information that is not either contained within the RFP or formally issued as an addendum by DPW. The Department does not consider questions to be a protest of the specifications or of the solicitation. The required protest process for Commonwealth procurements is described in Appendix G to this RFP.

I-10 Addenda to the RFP If the Department deems it necessary to revise any part of this RFP before the proposal response date, it will post an addendum on the DGS website at www.dgsweb.state.pa.us/comod/main.asp. It is the Offeror's responsibility to periodically check the website for any new information or addenda to the RFP. Answers to the questions asked during the Questions & Answers period will be posted to the DGS website as an addendum to the RFP.

I-11 Response Date To be considered for selection, hard copies of proposals must arrive at the Issuing Office on or before the time and date specified in the RFP Calendar of Events. The Issuing Office will **not** accept proposals via email or facsimile transmission. Offerors who send proposals by mail or other delivery service should allow sufficient delivery time to ensure timely receipt of their proposals. If, due to inclement weather, natural disaster, or any other cause, the Commonwealth office location to which proposals are to be returned is closed on the proposal response date, the deadline for submission will be automatically extended until the next Commonwealth business day on which the office is open, unless the Issuing Office otherwise notifies Offerors. The hour for submission of proposals shall remain the same. The Department will reject, unopened, any late proposals.

I-12 Proposals To be considered, Offerors must submit a complete response to this RFP, using the format provided in the RFP. Proposals should be as concise as possible. Offerors must submit one (1) original and eight (8) copies of the Technical, Cost, and Domestic Workforce Utilization Certification Submittals, one (1) original and one (1) copy of its Disadvantaged Business Submittal, and one (1) original and one (1) copy of its Contractor Partnership Program (CPP) to the Issuing Office. Offerors must complete and include with their submission **Appendix W: Proposal Cover Sheet**. In addition, Offerors must submit one (1) copy of their entire proposal on CD-ROM in Microsoft Word or Microsoft Word-compatible format. The Offeror will make no other distribution of proposals. Each proposal page should be numbered for ease of reference. Proposals must be signed by an official authorized to bind the Offeror to its provisions. For this RFP, the proposal must remain valid for one hundred-eighty (180) days or until a contract is fully executed. This RFP, and the incorporated contents of

the selected contactor's proposal, become contractual obligations if a contract is entered into.

Each and every Offeror submitting a proposal specifically waives any right to withdraw or modify it, except as provided in this RFP. Proposals may be withdrawn by written or facsimile notice received at the Issuing Office's address, for proposal delivery, prior to the exact hour and date specified for proposal receipt. However, if the Offeror chooses to attempt to provide such written notice by facsimile, the Commonwealth shall not be responsible for errors in facsimile transmission or receipt. A proposal may be withdrawn in person by an Offeror or its authorized representative, provided its identity is made known and it signs a receipt for the proposal, but only if the withdrawal is made prior to the exact hour and date established for proposal receipt. A proposal may only be modified by the submission of a new sealed proposal or submission of a sealed modification, with copies as previously stated, and within the requirements of this RFP.

I-13 Disadvantaged Business Information The Department encourages participation by small disadvantaged businesses as prime contractors, joint ventures and subcontractors/suppliers, and by socially disadvantaged businesses as prime contractors.

Small Disadvantaged Businesses are small businesses that are owned or controlled by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantages. The term includes:

- a. Department of General Services Bureau of Minority and Women Business Opportunities (BMWBO)-certified minority business enterprises (MBEs) and women business enterprises (WBEs) that qualify as small businesses; and
- b. United States Small Business Administration-certified small disadvantaged businesses or 8(a) small disadvantaged business concerns.

Small businesses are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than one hundred (100) persons and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

Socially disadvantaged businesses are businesses in the United States that BMWBO determines are owned or controlled by a majority of persons, not limited to members of minority groups, who are subject to racial or ethnic prejudice or cultural bias, but which do not qualify as small businesses. In order for a business to qualify as "socially disadvantaged," the Offeror must include in its proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person's color, ethnic origin or gender.

Questions regarding this Program can be directed to:

Department of General Services
Bureau of Minority and Women Business Opportunities
Room 611, North Office Building
Harrisburg, PA 17125
Phone: (717) 787-6708
Fax: (717) 772-0021
Email: gs-bmwbo@state.pa.us

Program information and a database of BMWBO-certified minority- and women-owned businesses can be accessed at www.dgs.state.pa.us, DGS Keyword: BMWBO. The federal vendor database can be accessed at <http://www.ccr.gov> by clicking on *Dynamic Small Business Search* (certified companies are so indicated)

In addition, the Department is providing Offerors with **Appendix H: M-WBE Reference List**, which is a list of DGS, certified MBE/WBE vendors based upon the commodity codes identified. NOTE: Offerors are not limited to the use of these vendors, nor is the Department suggesting that this list be considered preferred MBE/WBE vendors. The list is provided solely as a resource that may be used to identify qualified MBE/WBE subcontractors.

I-14 Information Concerning Small Businesses in Enterprise Zones The Department encourages participation by small businesses, whose primary or headquarters facility is physically located in areas the Commonwealth has identified as Designated Enterprise Zones, as prime contractors, joint ventures, and subcontractors/suppliers.

The definition of headquarters includes, but is not limited to, an office or location that is the administrative center of a business or enterprise where most of the important functions of the business are conducted or concentrated and location where employees are conducting the business of the company on a regular and routine basis so as to contribute to the economic development of the geographical area in which the office or business is geographically located.

Small businesses are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than one hundred (100) persons and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

There is no database or directory of small businesses located in Designated Enterprise Zones. Information on the location of Designated Enterprise Zones can be obtained by contacting:

Aldona M. Kartorie
Center for Community Building
PA Department of Community and Economic Development
4th Floor, Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120-0225
Phone: (717) 720-7409
Fax: (717) 787-4088
Email: akartorie@state.pa.us

I-15 Contractor Partnership Program (CPP) The Contractor Partnership Program (CPP) was created by Pennsylvania's Department of Public Welfare to create additional employment opportunities within the Commonwealth. The CPP is designed to leverage the economic resources of the Commonwealth to create jobs for welfare recipients by maximizing the recruitment, hiring, and retention of welfare clients by Commonwealth contractors, subcontractors, and grantees. The CPP will utilize its partnerships with the local Workforce Investment Agencies (WIAs), County Assistance Offices (CAOs), service delivery providers, and other community action agencies to advance this goal.

The CPP will require all individuals interested in contracting with DPW to make a commitment to hire a specified number or percentage of their workforce from the welfare to work population. DPW will monitor all performance commitments to ensure contractors remain in compliance with the terms of their contract. The CPP will offer assistance to the contractors in fulfilling their requirements. The CPP will work cooperatively with contractors to assist in identifying hiring needs that may be met through the employment of welfare clients. In addition, the CPP will coordinate the resources of local service providers to assist in the identification of qualified individuals for employment opportunities.

Through CPP, DPW expects not only to increase the employment rate for welfare recipients, but to continue to contribute to the economic growth of the Commonwealth.

For more information regarding this program please contact:

Lisa M. Watson, Esq.
Director, Contractor Partnership Program
PA Department of Public Welfare
M & M Building
900 North 6th Street, 1st Floor
Harrisburg, PA 17102
Phone: (717) 705-7716/Fax: (717) 787-4106
Email: c-lwatson@state.pa.us

I-16 Economy of Preparation Offerors should prepare proposals simply and economically, providing a straightforward, concise description of the Offeror's ability to meet the requirements of the RFP.

I-17 Alternate Proposals The Department has identified the basic approach to meeting its requirements and encourages Offerors to be creative and propose their best solution to meeting these requirements. DPW will not accept alternate proposals.

I-18 Discussions for Clarification Offerors that submit proposals may be required to make an oral or written clarification of their proposals to DPW to ensure thorough mutual understanding and Offeror responsiveness to the solicitation requirements. The RFP Project Officer will initiate requests for clarification.

I-19 Prime Contractor's Responsibilities The contract will require the Offeror to assume responsibility for all services offered in its proposal whether it produces them itself or by subcontract. DPW will consider the Offeror to be the sole point of contact with regard to contractual matters.

I-20 Proposal Contents Offerors should not label proposal submissions as confidential or proprietary. DPW will hold all proposals in confidence and will not reveal or discuss any proposal with competitors for the contract, unless disclosure is required:

- i) Under the provisions of any Commonwealth or United States statute or regulation; or
- ii) By rule or order of any court of competent jurisdiction.

After a contract is executed, however, the successful proposal is considered a public record under the Right-to Know Law, 65 P.S. § 66.1—66.9, and therefore subject to disclosure. The financial capability information submitted under Part II, Section II-1.F.2 and the Cost Justification information submitted under Part II, Section II-3.J.2.d, shall not be disclosed in the final contract. All material submitted with the proposal becomes the property of the Commonwealth of Pennsylvania and may be returned only at the DPW's option. DPW, in its sole discretion, may include any person other than competing Offerors on its proposal evaluation committee. DPW has the right to use any or all ideas presented in any proposal regardless of whether the proposal becomes part of a contract.

I-21 Best and Final Offers DPW may conduct discussions with Offerors for the purpose of obtaining "best and final offers." To obtain best and final offers from Offerors, the DPW may do one or more of the following:

- i) Enter into pre-selection negotiations;
- ii) Schedule oral presentations; and
- iii) Request revised proposals.

The DPW will limit any discussions to responsible Offerors (those that have submitted responsive proposals and possess the capability to fully perform the contract requirements in all respects and the integrity and reliability to assure good faith performance) whose proposals DPW has determined to be reasonably susceptible of being selected for award. The Criteria for Selection found in **Part III, Section III-4**, shall also be used to evaluate the best and final offers. Except to the extent that DPW requests changes to the Technical submittal, price reductions shall have no effect upon the Offeror's Technical Submittal. Dollar commitments to Disadvantaged Businesses and Enterprise Zone Small Businesses can be reduced only in the same percentage as the percent reduction in the total price offered through negotiations, however, Offerors are encouraged to maintain or increase their commitment to Disadvantaged Businesses as part of BAFO process

I-22 News Releases Offerors shall not issue news releases, Internet postings, advertisements or any other public communications pertaining to this Project without prior written approval of DPW, and then only in coordination with DPW.

I-23 Restriction of Contact From the issue date of this RFP until DPW selects a proposal for award, the RFP Project Officer is the sole point of contact concerning this RFP. Any violation of this condition may be cause for DPW to reject the offending Offeror's proposal. If the DPW later discovers that the Offeror has engaged in any violations of this condition, DPW may reject the offending Offeror's proposal or rescind its contract award. Offerors must agree not to distribute any part of their proposals beyond the Issuing Office. An Offeror who shares information contained in its proposal with other Commonwealth personnel and/or competing Offeror personnel may be disqualified.

I-24 Debriefing Conferences Offerors whose proposals are not selected will be notified of the name of the Offeror selected and given the opportunity to be debriefed. The RFP Project Officer will schedule the time and location of the debriefing. The debriefing will not compare the Offeror with other Offerors, other than the position of the Offeror's proposal in relation to all other Offeror proposals. An Offeror's exercise of the opportunity to be debriefed does not constitute the filing of a protest.

I-25 Department Participation Offerors shall provide all services, supplies, facilities, and other support necessary to complete the identified work, except as otherwise provided in this **Part I, Section I-25**.

The Offeror will be required to provide a facility for the contract staff proposed in this RFP. The location of the facility must be within a 15 mile radius of the Willow Oak Building located at the DGS Annex Complex.

The Commonwealth staff assigned to the project will be located separately. The Offeror's project site must include appropriate office space, meeting and parking facilities in order to host regular and frequent Commonwealth staff participation.

The Commonwealth **will not** provide the selected Offeror with the following:

- Office Hardware to include: Personal Computers (PCs), Local Area Network servers, printers, facsimile machines, copiers, scanners, shredders, and desktop phones.
- General Office Software to include: Word Processing, Spreadsheet, Project Management, Email, and Presentation.
- Office Supplies such as, pens, pencils, paper, and binders.
- Office Furniture
- Technical support for the previously noted hardware and software.
- Internet access and nationwide phone service, as needed for Offeror staff.

The Department **will** provide Wide Area Network (WAN) connectivity (data circuit) between the Project facility and the Commonwealth technical resources necessary to perform contract responsibilities. Further, DPW will provide the following types or equivalents of software related to the development, maintenance, and operations of PACSES:

- Data Base – Oracle and all Unisys products.
- Software development and management – Visual Studio, .Net Framework, Infragistics, IQU, QPlex, Louis, SQL Server, ErWin, AccVerify, ActivEdit, WebMethods Developer, Web Services Enhancements, Rational Robot, Code-1 plus, Crystal Reports, Dreamweaver, Depcon, WebTS, Alchemy, Support Magic, Adobe, JetForms, Toad for Oracle, View Finder, Enterprise Architect, Equate, RoboHelp, and Cognos.

I-26 Key Staff Diversions or Replacement Once Key Staff Personnel (defined as Project Manager and first level managers) are assigned and approved by DPW, the Offeror may not divert or replace key personnel without approval of the DPW Contract Officer and in accordance with the following procedures.

The Offeror must provide notice of a proposed diversion or replacement to the DPW Contract Administrator at least sixty (60) days in advance and provide the name, qualifications, and background check of the person who will replace the diverted or removed staff. The DPW Contract Administrator will notify the Offeror within fifteen (15) days of the diversion notice whether the proposed diversion is acceptable and if the replacement is approved.

Divert or diversion is defined as the transfer of Key Personnel by the Offeror or its subcontractor to another assignment within the control of either the Offeror or subcontractor. It does not include resignations, death, and disability, dismissal for cause or dismissal as a result of the termination of a subcontract or any other causes that is beyond the control of the selected Offeror or its subcontractor.

The DPW Contract Administrator may request that the selected Offeror remove its staff person at any time. In the event that the selected Offeror staff person is removed from the project, the selected Offeror will have thirty (30) days to fill the vacancy with a staff

person acceptable in terms of experience and skills, subject to the DPW Contract Administrator's approval.

I-27 Special Requirements This RFP Part IV constitutes the work for the first contract year. In order to align DPW's business requirements with the Commonwealth's budget process, the Offeror must submit annual work orders for subsequent years of the contract based upon annual planning sessions with the DPW management team. The annual planning process will occur on a fiscal year basis (July to June). These planning sessions will be used to outline and negotiate agreement on future deliverables and work products for the following year and will be provided to the Offeror by March-April of the prior fiscal year. Through DPW's annual IT planning process, BIS will provide a clear list of project priorities and anticipated deadlines for the following fiscal year. From this, the selected Offeror will provide the DPW Contract Administrator with an annual work order detailing the resources, hours, cost, deliverables, and work products necessary to achieve the DPW business plan for that year. The Offeror must submit their work order estimates by May of the prior fiscal year to allow adequate processing time. The DPW management team will continue to measure the performance of the Offeror against deliverables identified during these planning sessions and reflected in work orders.

The selected Offeror will adopt the existing DPW methodologies and processes and assist in adapting and maturing these to increase efficiencies and performance.

I-28 Term of Contract The term of the contract will commence on the Effective Date, as defined below, and will remain in effect for twenty-four (24) months with three (3) one (1) year renewal options. The Issuing Office will fix the Effective Date as the later of: 1) the date after the contract has been fully executed by the Offeror and by the Commonwealth and all approvals required by Commonwealth contracting procedures have been obtained or 2) the date on which all necessary federal approvals are obtained. The selected Offeror shall not start the performance of any work prior to the Effective Date of the contract and the Commonwealth shall not be liable to pay the Offeror for any service or work performed or expenses incurred before the Effective Date of the contract.

I-29 Offeror's Representations and Authorizations By submitting its proposal, each Offeror understands, represents, and acknowledges that:

- a. All of the Offeror's information and representations in the proposal are material and important, and DPW may rely upon the contents of the proposal in awarding the contract.
- b. The Offeror has arrived at the price(s) and amounts in its proposal independently and without consultation, communication, or agreement with any other Offeror or potential Offeror.

- c. The Offeror has not disclosed the price(s), the amount of the proposal, nor the approximate price(s) or amount(s) of its proposal to any other firm or person who is an Offeror or potential Offeror for this RFP, and the Offeror shall not disclose any of these items on or before the proposal submission deadline specified in the Calendar of Events of this RFP.
- d. The Offeror has not attempted, nor will it attempt, to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
- e. The Offeror makes its proposal in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.
- f. To the best knowledge of the person signing the proposal for the Offeror, the Offeror, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last **four (4)** years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as the Offeror has disclosed in its proposal.
- g. To the best of the knowledge of the person signing the proposal for the Offeror and except as the Offeror has otherwise disclosed in its proposal, the Offeror has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Offeror that is owed to the Commonwealth.
- h. The Offeror is not currently under suspension or debarment by the Commonwealth, any other state or the federal government, and if the Offeror cannot so certify, then it shall submit along with its proposal a written explanation of why it cannot make such certification.
- i. The Offeror has not made, under separate contract with DPW, any recommendations to DPW concerning the need for the services described in its proposal or the specifications for the services described in the proposal.
- j. Each Offeror, by submitting its proposal, authorizes Commonwealth agencies to release to the Commonwealth information concerning the Offeror's Pennsylvania taxes, unemployment compensation, and workers' compensation liabilities.

- k. Until the Offeror receives a fully executed and approved written contract from the Issuing Office, there is no legal and valid contract, in law or in equity, and the Offeror shall not begin to perform.

I-30 Notification of Selection The Department will notify the responsible Offeror in writing of its selection for negotiation after the Department has determined, taking into consideration all evaluation factors, the proposal that is the most advantageous to the Commonwealth.

I-31 RFP Protest Procedure A protest by a party not submitting a proposal must be filed within **seven (7)** days after the protesting party knew or should have known of the facts giving rise to the protest, but no later than the proposal submission deadline specified in the Calendar of Events of the RFP. Offerors may file a protest within **seven (7)** days after the protesting Offeror knew or should have known of the facts giving rise to the protest, but in no event may an Offeror file a protest later than **seven (7)** days after the date the notice of award of the contract. The date of filing is the date of receipt of the protest. A protest must be filed in writing with the Issuing Office. See **Appendix G** for additional information on the protest procedure.

I-32 Use of Electronic Versions of this RFP This RFP is being made available by electronic means. If an Offeror electronically accepts the RFP, the Offeror acknowledges and accepts full responsibility to insure that no changes are made to the RFP. In the event of a conflict between a version of the RFP in the Offeror's possession and the DPW's version of the RFP, the DPW's version shall govern.

I-33 Access to Documents A procurement reference library has been established at the Willow Oak Building, Room 49, of the DGS Annex Complex.

The procurement reference library contains resource materials and systems documentation that Offerors may find useful in preparing proposals. All possible effort has been made to ensure that library material is complete and current. DPW, however, does not guarantee that the information is complete or current at the time of viewing. When a conflict exists, the RFP requirements specified herein will take precedence over materials in the procurement reference library.

The procurement reference library, which will include the documents referenced in **Appendix M: DPW Business and Technical Standards – Table of Contents** and **Appendix T: PACSES Library (Documentation Listing)**, will be available to offerors **by appointment only**, from January 8, 2007 through February 21, 2007, from 8:30 a.m. to 4:00 p.m. (ET), except for weekends and Commonwealth of Pennsylvania holidays. Interested Offerors should arrange an appointment with Ginny Magnotta at (717) 705-9761 or via email at ra-pacsesrfp@state.pa.us.

Interested parties may make copies of materials in the Procurement Library. DPW will provide access to a copy machine. Potential Offerors may not remove any material from the Procurement Library. Copies will be provided at the Offeror's expense at \$.20 per single-sided page (only checks made payable to the

Commonwealth of Pennsylvania will be accepted.)

I-34 Commonwealth Rights The Commonwealth retains ownership rights to the curriculum, programs, modifications, source codes, software, data, and all other materials developed by the successful Offeror under this contract. The Commonwealth will have the right to reproduce and use any and all of these materials. The Offeror may not reproduce or otherwise distribute these materials without the express written permission of the DPW Contract Administrator.

I-35 Information Handling The selected Offeror must protect the confidentiality of all Commonwealth and Department information. The selected Offeror agrees that any breach of this provision may result in immediate termination of its contract.

The nature of the work described in this RFP requires the handling of both sensitive and confidential information. The selected Offeror must treat all client information, as confidential and is prohibited from using or disclosing any confidential or sensitive information except when required to perform its contractual duties. The selected Offeror is responsible for ensuring that adequate measures are in place to prevent unauthorized access, copying, and distribution of such information. The selected Offeror is responsible for proper disposal (i.e. shred, surrender) of both hard and electronic copies of all confidential and sensitive information obtained as a result of any contract that may be awarded.

For additional information concerning the handling of confidential and sensitive information, see **Appendix A: Contract Terms and Conditions** and **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**.

I-36 Business/Technical Standards The Bureau of Information Systems created and published the Technology Standards and Policies to be consistent with the Department's IT vision and mission statements. The selected Offeror must comply with DPW Business and Technical Standards and Guidelines and the Commonwealth's Office for Information Technology (OIT) standards.

I-37 Project Folder The selected Offeror is responsible for placing all working and final documentation in the Project Folder. The Project Folder is a central repository for all system related documentation for DPW's IT projects and is a collection of all documents related to a specific project including deliverables received, decisions made, issues raised, and correspondence exchanged, information regarding the Project Folder repository is included in **Appendix P: DPW Project Folder Documents**. This collection documents the history and evolution of the project. The Project Folder is established at start-up and updated throughout all phases of the system lifecycle.

I-38 Out of Scope Work The selected Offeror must monitor all work performed under the resulting contract and identify issues that are outside the scope of its contract. The selected Offeror may not perform any work that is outside the scope of its contract unless and until a contract amendment has been fully executed and approved by all necessary parties.

I-39 Access to Systems and Records In accordance with 45 CFR part 74 and as required by 45 CFR § 95.615, the selected Offeror must allow federal and state representatives to access the systems in all aspects, including: design developments, operation, and cost records of the selected Offeror and subcontractors at such intervals as are deemed necessary by the above government entities to determine whether the conditions for approval are being met and to determine the efficiency, economy, and effectiveness of the system.

I-40 Liquidated Damages Delays in the delivery of deliverables due to the fault of the selected Offeror or its agents may cause damages to the Commonwealth, which are uncertain and impractical or extremely difficult to ascertain. Therefore, the Department may assess the amounts described in the contract as liquidated and agreed upon damages. In its sole discretion, DPW may refrain from imposing liquidated damages. The Department may assess liquidated damages as follows:

- A. **Relating to Deliverables** If assessed, the Offeror shall pay liquidated damages for failing to receive Acceptance for each Deliverable by its deliverable acceptance due date. In determining the amount of liquidated damages, the Department will multiply the liquidated damage amount by the number of business days in which the acceptance of the deliverable was delayed. Liquidated damage amounts for failing to receive acceptance for a deliverable by its due date will not exceed five percent (5%) of the deliverable value per business day unless agreed to otherwise through negotiations with the Offeror. If assessed, the liquidated damages will not exceed the value of the deliverable.

- B. **Relating to Service Level Agreements** Within **Section II-1, Tab 5, “Contract Standards”**, Offerors are required to propose Service Level Standards and Service Level Objectives to measure performance against all approved standards and objectives for the contract. The Department intends to finalize performance measures as either Service Level Agreements or Service Level Objectives through negotiations with the Offeror, as well as amount of liquidated damages that may be assessed for those performance measures designated as Service Level Agreements.

PART II

PROPOSAL REQUIREMENTS

Offerors must submit their proposals in the format, including heading descriptions, outlined within Part II. To be considered, the proposal must respond to all requirements of the RFP. Offerors should provide any other information thought to be relevant, but not applicable to the enumerated categories, as an appendix to the Proposal. All cost data relating to this proposal and all Disadvantaged Business cost data should be kept separate from, and not included in the Technical Submittal. Each Proposal shall consist of the following **four** (4) separately sealed submittals:

- a. Technical Submittal, which shall be a response to RFP **Part II-1, Sections A – G, Tabs 1 through 7;**
- b. Disadvantaged Business Submittal, in response to RFP **Part II-2, Section H – I, Tabs 8 through 9;**
- c. Cost and Domestic Workforce Utilization Certification Submittal, in response to RFP **Parts II-3, Section J, Tab 10 and Part II, Section II-4;** and
- d. Contractor Partnership Program (CPP) Submittal in response to RFP **Part II-5.**

The Offeror must also complete and submit Appendix W: Proposal Cover Sheet with its proposal.

The electronic files submitted as part of an Offeror's proposal response must be limited to versions of Microsoft Word 2000, Excel 2000, and Project 2003. **(NOTE: PDF versions of any portion of the proposal response will NOT be accepted. The PDF requirement does not apply to copies of the Offeror's financial statements.)** The outline section headings shown in Part II **MUST** be used and each proposal page must be numbered for ease of reference. All portions of the proposal must be submitted in separate binders and all fonts must be font size 12 or larger. This font size requirement does not apply to graphics, tables, and Microsoft project plans.

The Department may request any additional information which, in the Department's opinion, is necessary to assure that the Offeror's competence, number of qualified employees, business organization, and financial resources are adequate to perform according to the RFP.

The Department may make such investigations, as deemed necessary, to determine the ability of the Offeror to perform the work, and the Offeror shall furnish to the Commonwealth all such information and data for this purpose as requested. The

Department may reject any proposal if the evidence suggests that the Offeror is not properly qualified to carry out the obligations of a contract and complete the work specified.

Examples provided within this Part II represent the minimum criteria for the respective topic.

II-1 Technical Response Requirements Responses to Tabs 1 through 7 must be bound, sealed, and identified separately as the Technical Proposal. Cost Data must not be presented in the technical portion of the proposal.

- A. **TAB 1 COVER LETTER** The Offeror must provide DPW with a primary contact person for the purposes of this RFP. Contact information for this individual should be displayed prominently in a cover letter and on the first page of the Offeror's Technical Submittal.

The following must be included in the Offeror's cover letter:

1. Contact information for the executive(s) in charge of the contract and the manager who will direct the project team on a day-to-day basis.
2. The name, title, phone number, facsimile number, mailing address, and work hours of a qualified Offeror representative who will be responsible for and available to answer any questions concerning the proposal.
3. Federal Employer Identification Number (FEIN) of the Prime Offeror and any subcontractors.
4. Signature of an authorized representative of the Offeror.

- B. **TAB 2 MANAGEMENT SUMMARY** DPW must acquire an Offeror to perform the tasks and services outlined in Part IV of the RFP immediately upon the Effective Date in the Letter of Notice to Proceed. Through their proposal, Offerors must demonstrate their expertise in providing effective management of large-scale business systems, application maintenance and modification, and operational support services. It must convey the Offeror's capability to provide a qualified staff that is prepared to begin these responsibilities within this timeframe.

In this Tab, the Offeror must include a brief narrative description of the proposed effort and a list of the items to be delivered or services to be provided. The summary will condense and highlight the contents of the technical proposal in a way that provides the Department with a broad understanding of the entire Technical Submittal.

1. Provide a description of the Offeror's understanding of the purpose of this RFP.
2. Present a summary of its proposal that includes an overview of the approach to completing the tasks identified in Part IV.
3. Present a description of how the staff resources required by this RFP will be provided. Include timeframes for providing these resources.

4. Explain how the project will be administered from a corporate level.
5. Explain how the prime Offeror plans to monitor and evaluate the performance of subcontractors (if used) and Offeror personnel.

C. TAB 3 APPROACH TO PROJECT START-UP For the purposes of this Tab, the Offeror should provide a discussion of the transition issues and solutions recognizing that three (3) months time will be available for the actual transition. The Offeror should present its understanding of how the PACSES project currently operates and describe how it would handle the transition from the current contractor to its proposed operating methods and structure. It should also recognize and discuss how the Offeror intends to interface with Commonwealth staff assigned to the project as well as other vendors that support the PACSES project.

Include a brief narrative description of the proposed effort and a list of the items to be delivered or services to be provided. The summary will condense and highlight the contents of the technical proposal in a way that provides the Department with a broad understanding of the entire proposal.

The current vendor, for the PACSES project, is under contract to provide services through June 30, 2007. The vendor will develop knowledge transfer plans. If any contracts are awarded as a result of this RFP for the PACSES project, the contract is expected to take effect April 1, 2007 to accomplish receipt of knowledge to ensure that by July 1, 2007, all the appropriate knowledge is obtained so that a sound takeover occurs. No costs will be reimbursed by the Commonwealth for knowledge transition services prior to July 1, 2007. However, vendors must propose knowledge transition costs as a deliverable with a due date no earlier than July 1, 2007. If there is no cost for this knowledge transition, indicate "none" or "no cost" in Appendix U. Due to the period April 1, 2007 through June 30, 2007, being solely designated for knowledge transition, no deliverables can have due dates prior to July 1, 2007.

D. TAB 4 WORK PLAN Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in Part IV of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task. If more than one approach is apparent, comment on why you chose this approach. Offerors should also propose a timeline that includes the anticipated completion date for each task. Include an organizational chart of the proposed staffing and structure.

The Offeror must present all proposed deliverables in an organized format along with proposed due dates with an attachment giving a brief description of each deliverable. For those deliverables for which this RFP specifies a due date, the Offeror may propose alternative due dates with justification; however, the Offeror should not assume that the Department will accept these alternate due dates.

E. TAB 5 CONTRACT STANDARDS In this Tab, the Offeror must propose Service Level Standards and Service Level Objectives that DPW can use to monitor the selected Offeror's performance and ensure that the tasks included in the scope of this RFP are successfully completed. The Offeror must also describe the process that will be employed to measure and report its progress in meeting the proposed performance standards on a quarterly basis. These reports must allow the Department to assess the Offeror's performance against all approved standards for the current reporting period and historically throughout the contract period.

During contract negotiations, the Department intends to finalize the Service Level Agreements (SLA) and Service Level Objectives (SLO) consistent with other contracted DPW applications. For purposes of this RFP, the key difference between a SLA and a SLO is that a SLA will include financial penalties for failure to meet the agreed upon standard.

The intent of achieving agreed upon SLA/SLO standards is to ensure that the successful Offeror provides the efficient and effective services expected by the Department. The chart that immediately follows is a model and provides possible examples of SLAs/SLOs as a reference:

Service Level Agreements and Objectives

Description	Activities	Metric	Goal	Performance Target	Frequency of Review
<p>#1 Corrective Maintenance – defined as activities associated with root-cause analysis and bug-fix isolation and resolution:</p> <p>Root-cause analysis – Problems must be reviewed to determine their root causes, measures must be taken to correct the sources of the problems, and reports must be prepared and distributed in a timely manner.</p> <p>Bug fixes – Defined as the emergency repair of any system operation. This includes system errors. “hung” or halted screens, or unexpected results within the system that render it unusable for the purpose for which it was designed.</p>	1) Assist in problem prioritization	Response time			
	2) Provide immediate support on application failure – Provide call back to user	Time to acknowledgement			
	3) Provide application recovery from outages	Recovery time			
	4) Fix production system problems (includes code or data changes, testing, and deployment)	Correction time			
	5) Provide feedback and status reporting until the problem is resolved and closed	Intervals through resolution			
	6) Disseminate information to ensure effective user support	Response time			
	7) Disseminate information to prevent future reoccurrence of the problem	Lapse time following resolution			
	8) Implement and document changes in supporting environments (e.g., training)	Lapse time following resolution			

**PA Department of Public Welfare
PACSES Application Maintenance and Operational Support Services**

Description	Activities	Metric	Goal	Performance Target	Frequency of Review
#2 Application Monitoring Defined as periodic monitoring of production applications to assess application availability	Make use of monitoring tools to detect problems before they impact users	Unscheduled downtime			
#3 Adaptive Maintenance Defined as activities relating to upgrades or conversions to an application due to new versions of operating environment, including operating system, application server, or database software	Coordinate planning, scheduling, and deployment with designated DPW staff	Timeliness			
#4 On-Call Support Management – Staff available to respond to trouble calls beyond the established, routine work week	Establish points of contact who can rally appropriate staff in response to a problem report	Availability			
#5 Modification Requests Defined as existing PCRs pending resolution	Reduce the PCR backlog	Backlog size			
#6 Enhancement Assignments – Defined as coding tasks assigned including, but not limited to: A. New or added interfaces to other systems B. Adding new screens or modifications to existing screens C. Report creation D. Addition of data fields E. Business rule changes	Code and test in accordance with detailed program specifications	Timeliness			
		Defect Rates			
		Standards Compliance			
		Service Satisfaction			

F. TAB 6 OFFEROR QUALIFICATIONS

1. **Organizational Status** The Offeror must describe its corporate identity, legal status and forms, including name, address, telephone number, facsimile number, and email address for the legal entity with whom the contract will be written. In addition, please provide the name and address of the principal officers, a description of its major services, its legal status as a for-profit or not-for-profit company, and any specific licenses and accreditations held by the Offeror.

Offerors must provide similar organizational background information on any significant subcontractor (exclusive of affiliates). A significant subcontractor is defined as an organization undertaking more than ten percent (10%) (on a total cost basis) of the work associated with this RFP.

2. **Financial Information** Offerors must submit information about the financial conditions of the company in this section. This section is distinct from Part II-3 Cost Submittal. No information required in the Cost Submittal should be included in this section or anywhere else other than in the Cost Submittal. Failure to provide all information requested below may result in disqualification. Financial Statement information will not be a part of a publicly accessible finalized contract. The Offeror must provide the following information as an appendix to the proposal:
 - a. The identity of a related party who may have submitted a proposal, and how the other party meets the definition of a related party. Compliance with this requirement does not require an Offeror to seek out information that it does not already have available.
 - b. The identity of each entity that owns at least five percent (5%) of the proposing entity. Provide the below required information on the proposing entity, and for each entity that owns at least five percent (5%) of the proposing entity, and for any proposed subcontractors that will be providing goods/services equal to ten percent (10%) or more of the proposed contract value. If any information requested is not applicable or not available, provide an explanation. Offerors may submit appropriate documentation to support information provided.
 - c. Audited financial statements for the two (2) most recent fiscal years for which statements are available. The statements must include a balance sheet, statement of revenue and expenses, and a statement of cash flows. Statements must include the auditor's opinion, the notes to the financial statements, and management letters submitted by the auditor to the Offeror. If audited financial statements are not available, explain why, and submit unaudited financial statements.
 - d. Unaudited financial statements for the period between the last month covered by the audited statements and the month before the submission of the proposal.

- e. Documentation about lines of credit that are available, including maximum credit amount and amount available thirty (30) days prior to the submission of the proposal.

The Offeror must provide copies of all proposed subcontracted arrangements as an appendix to the Technical Submittal and include the following information:

- a. The full name and address of any proposed subcontractor in which the Offeror has a five percent (5%) or more ownership interest. The Offeror will provide a copy of its Financial and Accounting Policies and Procedures.
- b. The full name and address of any organizations with which the Offeror anticipates subcontracting. The Offeror must describe how it will ensure a smooth working relationship with subcontractors.
- c. A list of any financial interests the subcontractor may have in its organization or any financial interest its organization has in proposed subcontractors.
- d. Information about any pending litigation.

The Offeror should include in this Tab a general statement regarding its corporate resources and financial stability that demonstrates its ability to perform the work required in this RFP.

The Offeror must append its financial documentation rather than including it in the main body of the Technical Submittal.

- 3. **Prior Experience** Offerors must provide the Department with information on up to three projects that were similar to this project in size, scope, and complexity. Additionally, the Offeror should describe other projects that it believes will establish its ability to successfully complete the requirements of the RFP.

For each identified project, Offerors must provide a summary information sheet(s) that includes the following information:

- a. the name of the client;
- b. the name of the project;
- c. a brief narrative description of the scope of the work performed, including types of reports provided;
- d. the role of the prime Offeror;
- e. the time period of the project (and whether it is currently in place);
- f. the staff months expended in transfer, design, development, implementation, and operation phases;
- g. the scheduled and actual completion dates for development, implementation, program training, and operations tasks;
- h. a disclosure of liquidated or other damages imposed or sought against the Offeror, including the circumstances and amounts involved;

- i. the subcontractor(s) used in each project, their scope of work, the percentage of the subcontractor(s) work on the project as well as, any client references as defined above; and
- j. a client reference (including name, address, email address, and current telephone number of the responsible project administrator or manager who is familiar with the Offeror's performance).

DPW may conduct reference checks to verify the accuracy of submitted materials and to ascertain the quality of past performance. DPW may pursue any reference that may assist in completing the Technical Proposal evaluation. Reference checks shall be used in scoring this and previous sections of the RFP.

- G. TAB 7 OBJECTIONS AND ADDITIONS TO STANDARD CONTRACT TERMS AND CONDITIONS** The Offeror will identify which, if any, of the terms and conditions contained in **Appendix A: Contract Terms and Conditions** or **Appendix B: DPW Addendum to Standard Contract Terms and Conditions** it would like to renegotiate and what additional terms and conditions the Offeror would like to add to these standard contract terms and conditions. The Offeror's failure to make a submission under this paragraph will result in its waiving its right to do so later, but DPW may consider late objections and addition requests if to do so, in DPW's sole discretion, would be in the best interest of the Commonwealth. DPW may, in its sole discretion, accept or reject any requested changes to the standard contract terms and conditions. The Offeror may not request changes to other provisions of the RFP, nor any Offeror request to completely substitute its terms and conditions be substituted for **Appendix A: Contract Terms and Conditions** and/or **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**. All terms and conditions must appear in one integrated contract. DPW will not accept references to online guides or online terms and conditions contained in any proposal.

Regardless of any objections set out in its proposal, the Offeror must submit its proposal, including the cost proposal, on the basis of the terms and conditions set out in **Appendix A: Contract Terms and Conditions** and **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**. The Department will reject any proposal that is conditioned on the negotiation of terms and conditions other than those set out in **Appendix A: Contract Terms and Conditions** and **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**.

II-2 Disadvantaged Businesses/Enterprise Zone Small Businesses Utilization

- H. TAB 8 DISADVANTAGED BUSINESSES INFORMATION** DPW is committed to increase Disadvantaged Business (DB) participation levels in

Commonwealth procurements. Since the scoring for DB portion of the proposals will represent an important component of the evaluation of this RFP, actual DB participation will be a measurable performance standard in any contract that may be awarded for this RFP.

- i. To receive credit for being a Small Disadvantaged Business or a Socially Disadvantaged Business, or for entering into a joint venture agreement with a Small Disadvantaged Business or for subcontracting with a Small Disadvantaged Business (including purchasing supplies and/or services through a purchase agreement), an Offeror must include proof of Disadvantaged Business qualification in the Disadvantaged Business Submittal of the proposal, as indicated below:
 - 1) Small Disadvantaged Businesses certified by BMWBO as a MBE/WBE must provide a photocopy of their BMWBO certificate.
 - 2) Small Disadvantaged Businesses certified by the U.S. Small Business Administration pursuant to Section 8(a) of the *Small Business Act* (15 U.S.C. §636(a)) as an 8(a) or small disadvantaged business must submit proof of U.S. Small Business Administration certification. The owners of such businesses must also submit proof of United States citizenship.
 - 3) All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must attest to the fact that the business has one hundred (100) or fewer employees.
 - 4) All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must submit proof that their gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax or audited financial statement.
- ii. All businesses claiming status as a Socially Disadvantaged Business must include in the Disadvantaged Business Submittal of the proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person's color, ethnic origin or gender. The submitted evidence of prejudice or bias must:
 - 1) Be rooted in treatment, which the businessperson has experienced in American society, not in other countries.

- 2) Show prejudice or bias that is chronic and substantial, not fleeting or insignificant.
- 3) Indicate that the businessperson's experience with the racial or ethnic prejudice or cultural bias has negatively impacted on his or her entry into and/or advancement in the business world.

BMWBO shall determine whether the Offeror has established that a business is socially disadvantaged by clear and convincing evidence.

- iii. In addition to these verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:
 - 1) The name and telephone number of the Offeror's project (contact) person for the Small Disadvantaged Business.
 - 2) The business name, address, name and telephone number of the prime contact person for each Small Disadvantaged Business included in the proposal. The Offeror must specify each Small Disadvantaged Business to which it is making commitments. The Offeror will not receive credit for stating that it will find a Small Disadvantaged Business after the contract is awarded or for listing several companies and stating that one will be selected later.
 - 3) The specific work, goods, or services the Small Disadvantaged Business will perform or provide.
 - 4) The estimated dollar value of the contract to each Small Disadvantaged Business.
 - 5) Of the estimated dollar value of the contract to each Small Disadvantaged Business, the percent of the total value of services or products purchased or subcontracted that will be provided by the Small Disadvantaged Business directly.
 - 6) The location where each Small Disadvantaged Business will perform these services.
 - 7) The timeframe for the Small Disadvantaged Business to provide or deliver the goods or services.
 - 8) The amount of capital, if any, each Small Disadvantaged Business will be expected to provide.
 - 9) The form and amount of compensation each Small Disadvantaged Business will receive.

- 10) In the case of a joint venture agreement, a copy of the agreement, signed by all parties.
 - 11) For a subcontract a signed subcontract or letter of intent.
- iv. The Offeror is required to submit only **one** (1) original and one (1) copy of its Disadvantaged Business Submittal. The submittal shall be clearly identified as Disadvantaged Business information and sealed in its own envelope separate from the remainder of the proposal.
 - v. The Offeror must include the dollar value of the commitment to each Small Disadvantaged Business in the same sealed envelope with its Disadvantaged Business Submittal. The following will become a contractual obligation once the contract is fully executed:
 - 1) The amount of the selected Offeror's Disadvantaged Business commitment.
 - 2) The name of each Small Disadvantaged Business; and
 - 3) The services each Small Disadvantaged Business will provide, including the timeframe for performing services.
 - vi. A Small Disadvantaged Business can be included as a subcontractor with as many prime contractors as it chooses in separate proposals.
 - vii. An Offeror that qualifies as a Small Disadvantaged Business and submits a proposal as a prime contractor is not prohibited from being included as a subcontractor in separate proposals submitted by other Offerors

I. TAB 9 ENTERPRISE ZONE SMALL BUSINESS PARTICIPATION

- i. To receive credit for being an enterprise zone small business or entering into a joint venture agreement with an enterprise zone small business or subcontracting with an enterprise zone small business, an Offeror must include the following information in the Disadvantaged Business Submittal of the proposal:
 - 1) Proof of the location of the business' headquarters (such as a lease or deed or Department of State corporate registration), including a description of the activities that occur at the site to support the other business in the enterprise zone.
 - 2) Confirmation of the enterprise zone in which it is located (obtained from the local enterprise zone office).

- 3) Proof of United States citizenship of the owners of the business.
 - 4) Certification that the business employs one hundred (100) or fewer employees.
 - 5) Proof that the business' gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax or audited financial statement.
 - 6) Documentation of business organization, if applicable, such as articles of incorporation, partnership agreement or other documents of organization
- ii. In addition to the above verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:
- 1) The name and telephone number of the Offeror's project (contact) person for the Enterprise Zone Small Business.
 - 2) The business name, address, name and telephone number of the primary contact person for each Enterprise Zone Small Business included in the proposal. The Offeror must specify each Enterprise Zone Small Business to which it is making commitments. The Offeror will not receive credit for stating that it will find an Enterprise Zone Small Business after the contract is awarded or for listing several businesses and stating that one will be selected later.
 - 3) The specific work, goods, or services each Enterprise Zone Small Business will perform or provide.
 - 4) The estimated dollar value for the contract to each Enterprise Zone Small Business.
 - 5) Of the estimated dollar value of the contract to each Enterprise Zone Small Business, the percent of the total value of services or products purchased or subcontracted that each Enterprise Zone Small Business will provide.
 - 6) The location for each Enterprise Zone Small Business will perform these services.
 - 7) The timeframe for each Enterprise Zone Small Business to provide or deliver the goods or services.

- 8) The amount of capital, if any, each Enterprise Zone Small Business will be expected to provide.
 - 9) The form and amount of compensation each Enterprise Zone Small Business will receive.
 - 10) For a joint venture agreement, a copy of the agreement, signed by all parties.
 - 11) For a subcontract, a signed subcontract or letter of intent.
- iii. The dollar value of the commitment to each Enterprise Zone Small Business must be included in the same sealed envelope with the Disadvantaged Business Submittal of the proposal. The following will become a contractual obligation once the contract is fully executed:
- 1) The amount of the Offeror's Enterprise Zone Small Business commitment;
 - 2) The name of each Enterprise Zone Small Business; and
 - 3) The services each Enterprise Zone Small Business will provide including the timeframe for performing services.

II-3 Cost Submittal

J. TAB 10 COST SUBMITTAL

1. **Background** The information requested in this section II-3 and the associated **Appendix U: Cost Submittal Templates** (which includes directions at **Tab 1** of the worksheet) where Offerors must complete pricing and cost verification worksheets shall constitute the Cost Submittal. **Offerors must complete all "tabs" and worksheets in Appendix U and the failure to complete all "tabs" and worksheets in Appendix U in their entirety may result in automatic disqualification of the proposal.** The Cost Submittal shall be placed in a separate sealed envelope within the sealed proposal, separated from the technical submittal. Failure to meet this requirement may result in disqualification of the proposal. All electronic and hard copy submittals must be **exact** duplicates. If they are not, the hard copy will take precedence with the Commonwealth. The total cost proposed must be completed in a Microsoft Excel format and broken down into the components listed in **Appendix U. For pricing purposes, assume that Audit Clause "D" will apply.**

Offerors should not include any assumptions in their cost submittals. Offerors should direct in writing to the RFP Project Officer pursuant to **Part**

- I, Section I-9** of this RFP any questions about whether a cost or other component is included or applies. All Offerors will then have the benefit of the Department's written answer so that all proposals are submitted on the same basis.
2. **Pricing Proposal Components** For a contract that may be issued as a result of this RFP, the Department intends to enter into a firm fixed priced deliverables based agreement. Offerors must propose pricing within their cost submittals for the following components:
- a. **Project Deliverables** Offerors must identify and propose project deliverables, due dates, and pricing for the following major tasks and services as identified in the Work Statement, at Section IV of this RFP:
- i. All Knowledge Transition/Receipt Services
 - ii. All Project Management Services
 - iii. All Application Support Services
 - iv. All Turnover Services/Knowledge Transfer Services

All proposed deliverables should be presented in an organized format along with proposed due dates and an attachment should be provided giving a brief description of each deliverable. All deliverables that specify a due date within this document must be accepted by the due date specified unless the Offeror proposes for negotiation alternative due dates that the Commonwealth agrees to through negotiations.

Costs for facilities (and any occupancy costs), materials, supplies, equipment, and audit (assume Audit Clause D will apply) must be itemized and priced separately from all specific deliverables proposed, but will be priced **on Tab 2 of Appendix U, titled "Project Deliverables"**.

- b. **Project Application Maintenance and Modifications** Offerors must provide the Department with pricing for Application Maintenance and Application Modification tasks as defined within the Work Statement, in Section IV of this RFP. The DPW has provided Offerors with an estimated number of hours for each of these two (2) tasks within the Work Statement as well as on **Appendix U, Tab 3**, where Offerors must propose pricing for these tasks. Based upon generally recognized industry standards, the Department anticipates that approximately seventy-five percent (75%) of the total estimated hours will be consumed by application maintenance tasks and twenty-five (25%) by application modification tasks. Offerors must price these services by proposing an hourly rate for each personnel classification/title performing this work. Offerors may allocate total hours for each service amongst personnel classifications/titles, but

total hours cannot exceed the limit established by the Department. Offerors must understand that during the term of any contract, these tasks will be subject to a change control process that will enable both parties to establish and agree on firm fixed price deliverables.

- c. Rate Card** Offerors must also complete the rate card sheet located in **Tab 4 of Appendix U** for each potential contract year (including the option years). These rates will represent the firm fixed hourly rates Offerors are proposing for proposed staffing necessary to complete work during the contract period. These rates will then be used in conjunction with the annual scoping sessions, which help define work needed for the next contract year to determine contract costs. Offerors must list all possible position titles that the Offeror may use during the contract to perform the work. Offerors must also include a list, for each job position offered, that defines the job position and the types and years of experience that is required for that job position.
 - d. Cost Verification** Offerors must complete **Tab 5, “Cost Verification” of Appendix U**. The information requested in this section is required to support the reasonableness of Offeror’s total year-one (1) pricing and is for internal use only. Unless required by law or court of competent jurisdiction, this information will not be disclosed to competing Offerors. The total amount proposed on **Tab 5** must equal proposed costs from both **Tab 2** (Project Deliverables) and **Tab 3** (Application Maintenance and Modifications). Offerors must provide full disclosure of itemized direct costs included within personnel classification hourly rates, (wages, labor overhead, etc.) as well as indirect costs (general overhead costs, etc.).
- 3. General Information** The purpose of cost information is to determine the underlying cost factors of the Offeror’s proposal and to assess its feasibility.

For all pricing “tabs” within **Appendix U**, Offerors should indicate “no cost” or \$0, rather than leaving an item blank.

Additional details on the actual requirements for the PACSES Project can be found in the Work Statement, located within Section IV of this RFP.

The Department will reimburse the selected Offeror for work satisfactorily performed after execution of a written contract and the start of the contract term, in accordance with contract requirements, and only after the Department has issued a notice to proceed.

II-4 Domestic Workforce Utilization Certification

K. TAB 11 DOMESTIC WORKFORCE UTILIZATION CERTIFICATION

Complete and sign the Domestic Workforce Utilization Certification contained in **Appendix I** of this RFP. Offerors who seek consideration for this criterion must submit in hardcopy the signed Domestic Workforce Utilization Certification Form in the same sealed envelope with the Cost Submittal.

II-5 Contractor Partnership Program (CPP)

L. TAB 11 CONTRACTOR PARTNERSHIP PROGRAM (CPP) To receive credit for a response to the Contractor Partnership Program, Offerors must include the following information in the Contractor Partnership Submittal of their proposal:

- Company's name, telephone number, and address.
- Address of the company's headquarters. If located in Pennsylvania, identify the county..
- The name, title, telephone number, address, and email of the project (contact) person for the Contractor Partnership Program.
- Address of all offices located within Pennsylvania. Identify the county where the office is located.
- Name, address, and telephone number of subcontractors, if applicable.
- If subcontractors are the primary service delivery providers, list the address of all their offices located within Pennsylvania, including the county where the offices are located.
- Type of services being provided.
- Anticipated number of employees assigned to this project.
- Anticipated number of welfare recipients that will be hired for this project.
- Type of positions needed for this project. (Specify management versus non management positions)
- Type of business entity. (i.e., not for profit, government entity, public corporation, university)

In addition to the basic information requested above, each Offeror must answer the following questions as they relate to hiring and retaining individuals receiving welfare:

- Describe the recruitment strategies that will be utilized by the Offeror to obtain qualified welfare clients.
- How will the Offeror ensure the retention of applicants hired through the CPP and maintain its performance goals throughout the existence of the contract?
- What steps will the Offeror take to ensure professional development opportunities are available to new hires to advance beyond entry level positions?

- Describe the methods that will be implemented to recruit, hire, and retain welfare recipients.

Offerors are only required to submit one (1) original and one (1) copy of its CPP Submittal. This Submittal must be clearly identified as CPP information and sealed in its own envelope, separate from the remainder of the proposal.

PART III

CRITERIA FOR SELECTION

III-1 Mandatory Responsiveness Requirements To be eligible for selection, a proposal must be

- (a) timely received; and
- (b) properly signed by the Offeror.

III-2 Technical Nonconforming Proposals Except for those Mandatory Responsiveness Requirements listed in Section III-1, the Department, in its sole discretion, may waive nonconformities in an Offeror's proposal.

III-3 Evaluation DPW has selected a committee of qualified personnel to review and evaluate timely submitted proposals. Independent of the committee, BMWBO will evaluate the Disadvantaged Business Submittal and DPW's CPP will evaluate the CPP Submittal and provide DPW with ratings for these components of each proposal. The Department will then notify in writing of its selection for negotiation the responsible Offeror whose proposal is determined to be the most advantageous to the Commonwealth as determined by the Department after taking into consideration all of the evaluation factors. The Department will award a contract only to an Offeror determined to be responsible in accordance with the most current Commonwealth Management Directive 215.9, ***Contractor Responsibility Program***.

III-4 Criteria for Selection The following criteria will be used in evaluating each proposal:

A. Technical Evaluation Criteria

1. **Commitment to Perform:** The evaluation committee will evaluate the degree to which the Offeror's proposed solution, organizational policies, methodologies, and work processes will meet DPW's needs. Evaluators will also consider if the Offeror's response indicates an in-depth understanding of the complexities of this project, the need to integrate PACSES into DPW's existing business processes, and the unique requirements of this project.
2. **Ability to Perform:** The evaluation committee will evaluate the knowledge, number, skills, and experience of the resources and organizational structures proposed by the Offeror to ensure quality performance of the activities described in the RFP. Evaluators will also consider if key personnel meet or exceed the minimum qualifications included in the task-level descriptions of the Work Statement.

3. **Measurement and Analysis:** The evaluation committee will evaluate the project management plan of the Offeror's proposal. Evaluators will also review the work plan to ensure it identifies all the tasks and resources required to support the ongoing maintenance of PACSES and that the project timeline proposed by the Offeror meets DPW requirements. The project management plan will also be evaluated to determine how the Offeror will manage project reporting; status meetings; change management; deliverable reviews, defined in **Appendix S: DPW Deliverables Review Process Guideline**; issue tracking; quality assurance; and the like.
 4. **Verification of Performance:** The evaluation committee will evaluate and determine if the Offeror's solution encompasses an adequate number of reviews, audits by management, and software quality assurance tasks to ensure the quality of all of the activities performed and the outputs they produce.
- B. Cost** The evaluation committee will evaluate the Offeror's Cost Submittal in relation to those submitted by other Offerors. The Cost Proposal shall detail the total fixed price for each activity during the contract period. If a contract is awarded, the Commonwealth will not pay or be liable for any other additional costs.
- C. Disadvantaged Business Participation/Enterprise Zone Small Business Participation**
1. **Disadvantaged Business Participation**
Evaluation will be based upon the following in order of priority:
 - i) **Priority Rank 1** Proposals submitted by Small Disadvantaged Businesses.
 - ii) **Priority Rank 2** Proposals submitted from a joint venture with a Small Disadvantaged Business as a joint venture partner.
 - iii) **Priority Rank 3** Proposals submitted with subcontracting commitments to Small Disadvantaged Businesses.
 - iv) **Priority Rank 4** Proposals submitted by Socially Disadvantaged Businesses.

Each proposal will be rated for its approach to enhancing the utilization of Small Disadvantaged Businesses and/or Socially Disadvantaged Businesses. Each approach will be evaluated, with Priority Rank 1 receiving the highest score and the succeeding options receiving scores in accordance with the above-listed priority ranking.

To the extent that a proposal is submitted by a Small Disadvantaged Business or a Socially Disadvantaged Business, the Small Disadvantaged Business or Socially Disadvantaged Business cannot enter into subcontract arrangements for more than forty percent (40%) of the total estimated dollar amount of the contract. If a Small Disadvantaged Business or a Socially Disadvantaged Business subcontracts more than forty percent (40%) of the total estimated dollar amount of the contract to other contractors, the Disadvantaged Business Participation scoring shall be proportionally lower for that proposal.

2. **Enterprise Zone Small Business Participation** The following options will be considered as part of the final criteria for selection.
- i) **Priority Rank 1** Proposals submitted by an Enterprise Zone Small Business will receive the highest score.
 - ii) **Priority Rank 2** Proposals submitted by a joint venture with an Enterprise Zone Small Business as a joint venture partner will receive the next highest score for this criterion.
 - iii) **Priority Rank 3** Proposals submitted with a subcontracting commitment to an Enterprise Zone Small Business will receive the lowest score for this criterion.
 - iv) **Priority Rank 4** Proposals with no Enterprise Zone Small Business Utilization shall receive no points under this criterion.

To the extent that an Offeror is an Enterprise Zone Small Business, the Offeror cannot enter into contract or subcontract arrangements for more than 40% of the total estimated dollar amount of the contract in order to qualify as an Enterprise Zone Small Business for the purposes of this RFP.

- D. **Domestic Workforce Utilization** Each proposal will be scored for its commitment to use domestic workforce in the fulfillment of the contract. Maximum consideration will be given to those Offerors who will perform the contracted direct labor exclusively within the geographical boundaries of the United States. Those who propose to perform a portion of the direct labor outside of the United States will receive a correspondingly smaller score for this criterion. Offerors who seek consideration for this criterion must submit in hardcopy the signed Domestic Workforce Utilization Certification Form in the same sealed envelope with the Cost Submittal. The certification will be included as a contractual obligation when the contract is executed.

- E. **Contractor Partnership Program (CPP)** Each proposal will be rated based on the responses to questions in Section II of this RFP and the commitment to hiring from the Welfare-to-Work population.

PART IV

WORK STATEMENT

IV-1 Work Statement / Service Specifications The Offeror will be responsible for the management, application maintenance, modification, and operational support tasks in support of the Pennsylvania Child Support Enforcement System (PACSES). All work performed and products produced in support of PACSES must adhere to the DPW Business and Technical Standards and Guidelines and the Commonwealth's Office for Information Technology (OIT) standards, refer to www.oit.state.pa.us.

This section of this RFP defines the major tasks and services that are to be completed by the Offeror to maintain and operate PACSES during the contract period. These services are divided into the following groups:

- **Knowledge Transition** – The Offeror will be responsible for knowledge transfer and must assume responsibility for activities currently being handled by the incumbent vendor.
- **Project Management** – The Offeror will be responsible for identifying, establishing, coordinating, monitoring, and providing project management for all services, activities, and resources necessary for the successful completion of the tasks related to PACSES as identified in this RFP.
- **Application Maintenance** – The Offeror will be responsible for the maintenance of the production system to ensure that all present PACSES functionality is maintained and the system is operating efficiently and effectively to serve its ever-growing user and customer community.
- **Application Modification** – The Offeror will be responsible to assist in the planning and prioritization of modifications and to complete all approved modifications based on DPW's System Development Methodology (SDM).
- **Application Support Services** – The Offeror will be responsible for performing and maintaining the following operational items for PACSES:
 - Implementation Support
 - System Reporting
 - Help Desk Operations
- **Turnover Services** – The Offeror will be responsible for providing a turnover plan that identifies the critical tasks that need to occur to provide a smooth and orderly turnover of functions between the outgoing vendor and the new Offeror and/or State Staff with minimal disruption to the operation.

IV-2 GENERAL INFORMATION PACSES is an operationally stable system that meets federal certification requirements, federal and state laws and regulations, and the general business needs of the county Domestic Relations Section users. The system has minimal down time (greater than 99.9% availability) and consistently provides sub-second response time. The nightly, weekly, and monthly batch processes run within the off-hour time limitations (average daily batch time is seven (7) hours). The number of outstanding incidents (system bugs) has been reduced significantly and many major functionality improvements have been completed since PRWORA certification in 2001. Some Federal law mandates specified in Federal Deficit Reduction Act of 2005 legislation will be completed in the current legacy system before this contract is effective. The remaining federal law mandates will be completed by the selected Offeror during this contract period as further defined in this Work Statement.

For this RFP, the selected Offeror must continue to maintain and operate current PACSES and provide application support services. Current PACSES includes the core mainframe system and ancillary systems that are integral to child support operations. These ancillary systems include a data warehouse, a customer service web site, case and data management systems, a medical provider data management system, an intranet, and an electronic reports repository system. Maintenance includes the sustaining of the system components to meet federal and state mandates and operational efficiencies.

During the term of the contract resulting from this RFP, the selected Offeror will be expected to:

- i) Operate and maintain the PACSES mainframe application and ancillary server-based systems.
- ii) Provide application support services.
- iii) Meet or exceed current system performance standards for response time, system availability, and batch completion timeframes.
- iv) Provide the services and tasks as specified in this RFP with the Commonwealth of Pennsylvania project staff serving in an oversight, contract monitoring, and deliverable review capacity.

IV-3 ORGANIZATION OF PENNSYLVANIA'S CHILD SUPPORT PROGRAM

- A. **Child Support Program Operations** The Pennsylvania child support program is state-administered, court-based, and county-operated. DPW is the agency responsible for the administration of the Title IV-D Child Support Program. The delivery of child support services in Pennsylvania occurs as a result of a Cooperative Agreement between the DPW and the sixty-seven (67) county governments.

The county Domestic Relations Sections (DRSs) operate the child support program in accordance with the provisions of the Cooperative Agreement, State and Federal laws, and the administrative rules and regulations

governing child support enforcement. The DRSs provide the following services to the public: establish paternity on behalf of children; establish legal orders obligating parents to pay child support, including health insurance coverage for their children; locate parents for the purpose of establishing paternity and/or support; collect, distribute and disburse child support monies; and enforce court order compliance through all available administrative and legal remedies.

The DRSs have been utilizing the current PACSES since 1998 to assist in conducting the daily child support business which includes developing and maintaining case data for all members, compiling court order information, and recording activities relating to the management of each client's case.

The Office of Income Maintenance (OIM), Bureau of Child Support Enforcement (BCSE) within DPW administers the Title IV-D Child Support Enforcement Program under the Social Security Act as amended. BCSE consists of four (4) divisions; however, within the scope of this RFP the Division of Automated Child Support Enforcement Systems (DACSES) is responsible for the day-to-day operation and maintenance of current PACSES; and, the Division of Program Development and Evaluation (DPDE) that is responsible for the following services:

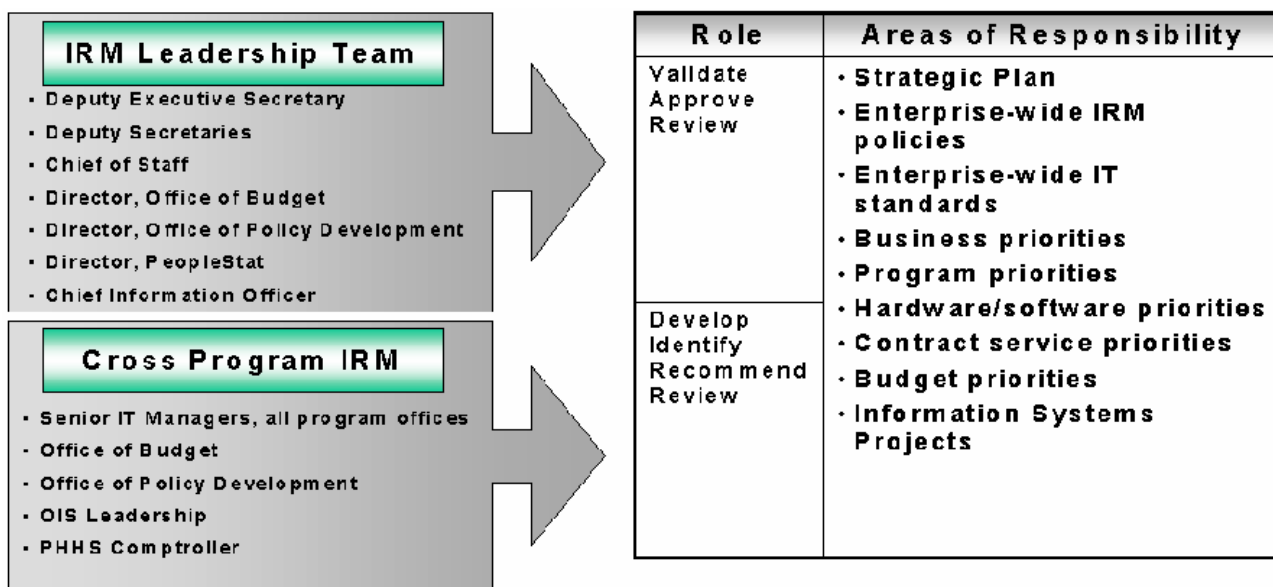
1. Provides policy interpretation, information and operational assistance to DRSs, and issues directives.
2. Publishes procedural manuals, develops and disseminates public informational child support materials and brochures.
3. Provides all child support program reports to the Federal government required by federal regulations.
4. Coordinates federal audits of the child support program and, when necessary, implements statewide corrective action plans.
5. Conducts performance audits of the operation of the child support program within individual county offices.
6. Sponsors and evaluates pilot projects designed to improve child support programs and operations.
7. Reviews and approves systems development, maintenance, and enhancement activities.

Appendix L: BCSE Organization Chart provides the structure of BCSE and DACSES.

The Office of Administration, Bureau of Information Systems (BIS) within the Department of Public Welfare plans, develops, implements, and manages a comprehensive Information Resource Management (IRM) program for the DPW. The purpose of the IRM program is to ensure the coordinated, effective, and efficient employment of information resources in support of DPW business goals and objectives.

Information Resource Management is based on the premise that information should be treated as a resource of strategic value to organizations. Organizations must recognize that data is a resource – as indispensable to success as raw materials, facilities, cash reserves, and employees. The IRM team looks for ways in which the management of information and the management of Information Technology are interrelated and fosters that interrelationship and organizational integration. The focus is on information rather than technology as the key enterprise asset – a subtle, yet important, difference between IRM and IT.

BIS provides Department-wide direction and coordination of IT plans, research, engineering, standards, policy, applications development, infrastructure management, customer support, program and project management, technical training, and information resource management. The Cross Program IRM team and their responsibilities are depicted in the following diagram. A functional description for the BIS is provided as Appendix K.



B. Child Support Systems Management DACSES is responsible for the day-to-day oversight and management of the entire set of PACSES applications. Currently this includes the PACSES mainframe application, the ancillary systems, the State Collections and Disbursement Unit, and the network infrastructure. DACSES oversees two primary contracts to accomplish its child support systems management responsibilities.

Twenty (20) Commonwealth staff members are assigned to DACSES and provide day-to-day project management, coordination, and control activities. These staff provide day-to-day direction to the contracted resources, monitor

vendor performance, review and approve deliverables, and participate in design, develop, testing, and implementation planning. This state staff also oversees current system maintenance and support service responsibilities. The Department does not anticipate any significant increases in this staff at this time.

The following is a description of the key roles and responsibilities of the PACSES Project Manager role and each of the DACSES managers:

1. **DACSES Division Chief** Manages the Commonwealth staff assigned to the division and oversees the day-to-day operation and maintenance of PACSES.
2. **Application Services Manager** Manages and supervises the application design and development efforts associated with the Intake, Enforcement, Locate, Scheduling, Interstate, Interfaces, History, Security, and Reference Tables subsystems. The Application Services Manager provides day-to-day direction to the Commonwealth-designated subsystem functional leads for each of these subsystems and contracted resources with functional responsibilities in these areas. The Application Services Manager manages the change controls, incidents, and production support issues for these functional areas of the application and provides related direction and leadership of the system.
3. **Financial Programs Manager** Manages and supervises the application design and development efforts associated with the Aging, Billing, Support Order Establishment, Collections, Distribution, Disbursement, and Financial Accounting subsystems. The Financial Programs Manager provides day-to-day direction to the Commonwealth-designated subsystem functional leads for each of these subsystems and contracted resources with functional responsibilities in these areas. In addition to the financial subsystems outlined above, this person also manages the Statewide Collections and Disbursement Unit (SCDU). The Financial Programs Manager manages all issues and incidents associated with financial-related change controls and enhancements as well as for production support issues, and will provide related direction and leadership of the system.
4. **User Services Manager** Manages and supervises the applications and services that impact PACSES users to include the following subsystems/functional areas: Child Support Web Site, Data Warehouse, Reports, Integrated Voice Response, and Data Management/Data Integrity. Additionally, this manager has oversight responsibilities for coordinating conference planning, coordination with Pennsylvania Child Support Enforcement Training Institute (PACSETI), the Content Delivery Network/PACSES TV (CDN), the PACSES Home Page (PHP-Intranet), and network operations. Federal audits and reporting as related to system tasks are within this area of responsibility.

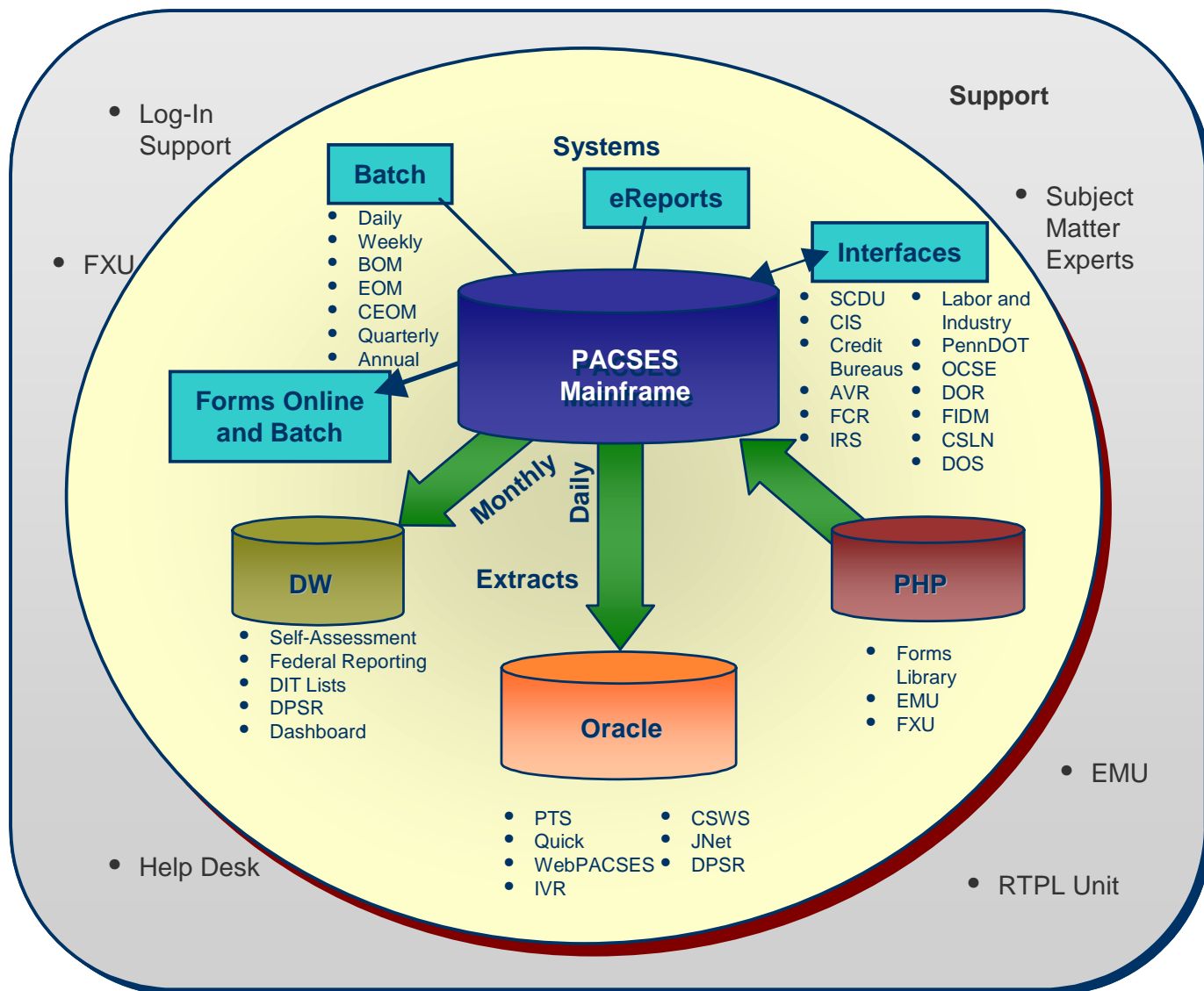
IV-4 OVERVIEW OF THE CURRENT PACSES TECHNICAL ENVIRONMENT

IV-4.1 General Information PACSES is a member-based on-line and batch system that provides automation of the Commonwealth's Child Support Enforcement (CSE) program. The original design was based on a transfer of the New England Child Support Enforcement System which was built in the late 1980s utilizing hierarchical data base structures and centralized mainframe technology. This design has been enhanced to meet federal, state, and user requirements. Enhancements to the mainframe design and the addition of several ancillary systems using Oracle on a server platform during the past five (5) years has produced a system that generally meets the business requirements of the user community. Significant performance enhancements have occurred during the past ten (10) years to allow online and batch performance on the mainframe system to remain within acceptable levels.

Currently, PACSES serves over four thousand (4000) registered users at seventy-three (73) separate locations including the sixty-seven (67) county judicial offices and the Commonwealth's central and four (4) regional offices. The system network includes approximately thirty-three hundred (3,300) workstations statewide. The PACSES mainframe system supports a caseload of approximately seven hundred thousand (700,000) cases.

PACSES in a Picture:

The diagram shown on the next page provides a pictorial overview of the current PACSES technical environment.



IV-4.2 Technical Architecture

A. Technical Environments PACSES operates in two technical environments; a Unisys ClearPath mainframe system and a Unisys ES7000 server system.

- 1. Mainframe System** PACSES operates on a Unisys IX6800 ClearPath mainframe system with a DMS 1100 hierarchical database and an RDMS relational database via a TCP/IP WAN. The production system includes eleven hundred (1,100) dynamically linked application programs, containing approximately three million (3,000,000) total lines of executable code with data stored and accessed on more than six hundred (600) database tables. Of these programs, thirty percent (30%) execute on-line

processing and seventy percent (70%) perform batch processing. Source code is written in Unisys COBOL – 8R1. The on-line transaction volume is approximately 2 million to 2.5 million per day.

System deliverables and software have been developed on local PCs using DPW's structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction for batch and on-line modules is accomplished on the mainframe. Numerous other system tools are being utilized for development and maintenance including Case Tools, Testing Tools, Louis II, and Unisys IQU.

The PACSES application utilizes Jet Forms software (third party product) for the production of all forms. PACSES includes over three hundred (300) unique form templates with a monthly production volume of one million form outputs. The vast majority of the forms are printed locally at the user's site online (75%) or as a result of the nightly batch (25%). About a quarter of the online forms require additional data be inserted in the form by the user before delivery to the client. The "filler" forms are delivered via the email system to the users' desktop where the additional data elements are added. Forms are available for reprint for a limited time period (ten days) and a very small portion is archived.

PACSES was developed using a middleware technology called the PACSES Support Layer (PSL). Its function is to provide an application programming environment that is isolated from the programming interfaces provided by the underlying operating system. The terms 'layer' and 'middleware' relate to the common practice of viewing a computing system in terms of abstraction layers. In this view, a middleware product like PSL is an additional layer inserted between the application programs and the operating system.

Direct usage of operating system interfaces by application programs is not allowed, except to the extent those interfaces are part of standard COBOL. The support layer's interface to the application programs is well defined and strictly separate from the support layer's internal documentation.

To the extent feasible, application programs are carefully isolated from the operating system. For example, with a few exceptions all DMS database input/output (I/O) is done by calling support layer code. This allows many characteristics of the database management software to be hidden from application programs. In particular, PSL hides the underlying data model, providing a much simpler and more abstract notion of database I/O. This

greatly simplifies PACSES application programs. All RDMS database I/O is done by SQL coding located within the respective application program module.

Each application program is required to conform to one of the program models defined in the PSL Programmer's Reference. Each model defines the structure of a COBOL application program. The models are a transaction driven program, a batch program, and a report program.

Application software is promoted through five environments: Development, System Test, Test for Production, Training, and Production. System software is migrated and tracked through all environments to mainframe production versions via custom-build databases. PACSES has a daily, weekly, end of month (last weekend of month), calendar end of month, and beginning of month batch cycle processes.

Access to PACSES online system is required Monday through Friday 7:30 AM to 5:30 PM; Wednesday evening till 9:00 PM and Saturday morning from 8:00 AM to 12:00 PM. The PACSES Holiday schedule for 2007 is provided in **Appendix R**. This further defines the system support and batch execution time requirements. The Offerors should assume similar time frame requirements for 2008 and 2009.

2. **Server System** DPW and the Data Power House (DPH) vendor, hereafter referred to as DPHV, collectively manage the hosting environment for all DPW server-based applications. The following PACSES applications utilize the DPW Oracle database environment:
 - Child Support Web Site (CSWS)
 - Data Warehouse (DW)
 - Web PACSES (financial and diary archive)
 - Interactive Voice Response system (IVR)
 - Intranet (PACSES Home Page)
 - CSWS Co-Browsing
 - Voluntary Acknowledgement of Paternity Tracking System (PTS)
 - DRS-at-a-Glance
 - DRS Directors' Dashboard
 - Login Support Administration Module
 - Justice Network (JNET)
 - Employer Maintenance Application (EMU)
 - Financial Exceptions Request (FXR)

B. Child Support Web Site The Child Support Web Site application server operates on a three (3) node cluster of 4 CPU ES7000 servers in a load balanced configuration. The database server currently runs Oracle 10g on a Windows 2003, 4 CPU ES7000/420 servers configuration running Oracle 10g. The Production application consists of five (5) modules and one (1) administrative module; and two hundred-forty-five (245) stored procedures that represent four hundred-fifty-thousand (450,000) lines of code. The Production database is comprised of eighty-seven (87) tables, containing two hundred-fifty-million (250,000,000) rows of data and consuming approximately 45GB of storage space. There are thirty-seven (37) batch programs that run nightly that update the CSWS database with updated mainframe information for that current business day. The code is comprised of COM+, ASP.NET, PL/SQL, and SQL Loader components. There are approximately two hundred thousand (200,000) hits on the CSWS daily and eight thousand-five hundred (8,500) unique visitors per day.

System deliverables and software have been developed on local PCs using DPW's structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction for batch and on-line modules is accomplished in the Development environment. From there, the software is migrated through the environments (Integration, System Acceptance Test, Test for Production), and ultimately to Production.

Templates have been developed for each program type and developers are required to integrate these as a basis for any new development effort. These templates have been defined and described in several project control documents that outline the standard programming practices to be employed for that development. Templates will be provided in the PACSES Library, **Appendix T: PACSES Library (Documentation Listing)**

C. Web PACSES The Web PACSES application operates on an 8 CPU ES7000 server as the application/web server. The database server currently runs on a Windows 2003, dual 8 CPU ES7000 server configuration running Oracle 10g. The Production application includes twenty-five (25) programs, fifty-seven (57) stored procedures that represent three hundred thousand (300,000) lines of code. The Production database is comprised of twenty-four (24) tables, containing seven hundred-fifty million (750,000,000) rows of data, and consuming approximately 197GB of storage space. There are four (4) batch programs that run nightly that update the CSWS database with updated mainframe security information for that current business day. The code is comprised of ASP.NET, PL/SQL, SQL Loader, and SQL Server Reporting Services components. There are approximately twenty thousand (20,000) hits on Web PACSES daily and three hundred (300) unique visitors per day.

System deliverables and software have been developed on local PCs using a structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction for batch and on-line modules is accomplished on the development environment at the Willow Oak building of the DGS Annex Complex. From there, the software is migrated through the environments (Integration, System Acceptance Test, Test for Production), and ultimately to Production.

- D. Data Warehouse** The PACSES Data Warehouse operational configuration includes a 4 CPU ES7000 COGNOS application server, a 4 CPU ES7000 Informatica server. The database server runs on a Windows 2003, dual 8 CPU ES7000 server configuration running Oracle 10g. The PACSES Data Warehouse is comprised of forty-five (45) cubes (MDC files), three hundred-fifty (350) queries, and consumes 400GB of disc space. The source data for the PACSES Data Warehouse is forty-five (45) flat files that are created by the mainframe during calendar end of month processing. These source files are loaded into the PACSES Data Warehouse Oracle tables using one hundred-sixty-three (163) Informatica mappings. The PACSES Data Warehouse is comprised of twenty-nine (29) fact tables that are loaded each month with data and forty-six (46) static dimension tables. After the data is loaded to Oracle, Cognos Impromptu queries are run in a batch by BIS to refresh the cubes with the latest data. The cubes are then migrated to Production and accessed by the end users through the Cognos Series 7 Upfront. There are approximately twelve thousand (12,000) hits on the Data Warehouse each month and about one hundred-twenty-two (122) unique visitors per month.

System deliverables and software have been developed on local PCs using a structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction of the Cognos Impromptu queries and Informatica mappings is done on local PCs and migrated to the development environments at the Willow Oak building of the DGS Annex Complex. From there, the software is tested and migrated to Production.

IV-4.3 Functional Design PACSES consists of a mainframe application and server based applications.

- A. **Mainframe System** PACSES consists of seventeen (17) subsystems. These subsystems perform the following functions:

Case Intake	Automates the client intake and interactive application process.
Client Scheduling	Creates worker schedules and schedules client appointments.
Establishment	Provides automated processes for the following business activities: (1) paternity establishment; (2) establishment of new orders; (3) modification of existing orders; (3) termination of existing orders; (4) suspension and reinstatement of existing orders; and (5) guideline calculation of orders.
Enforcement	Identifies delinquency or non-compliance with support orders. Monitors compliance with financial and non-financial support order obligations, suggests appropriate remedies, and tracks the processing of those remedies.
Locate	Supports the process of locating missing case and member-level data regarding custodial and non-custodial parents
Interstate	Responsible for requests for child support functions to be performed in other states on behalf of Pennsylvania and allows Pennsylvania to respond to requests for assistance from other states.
Aging	Accrues a defendant's obligation(s) according to the terms of the support order. Monitors an account for payment and detects delinquency.
Billing	Summarizes the obligation(s) and produces a monthly billing file for payors and employers.
Support Order	Enables three key features: (1) entering the financial obligations of a support order and creating the basic structure through which the obligations will be charged, collected, distributed, and disbursed automatically through the Aging, Billing, Distribution, and Disbursement subsystems; (2) enter non-financial obligations of a support order and create the basic structure through which these obligations will be automatically charged and tracked; and (3) enter fees that must be paid defendant

PA Department of Public Welfare
PACSES Application Maintenance and Operational Support Services

Collections	Provides the receipt processing function of PACSES. Posts payments received from different sources and interfaces with the SCDU. Information about unidentified receipts is maintained by the collections subsystem.
Distribution	Facilitates the process of allocating collections for disbursement in accordance with the Commonwealth's established distribution hierarchy.
Disbursement	Directs payments to the appropriate payee and/or disbursement recipients. Performs the payment production and disbursement at the Commonwealth's Statewide Collections and Disbursements Unit (SCDU).
Integrated Centralized System (ICS)	Interfaces with the Pennsylvania Department of Treasury to facilitate money transfers for assigned child support collections.
Reference Tables	Creates, maintains, and displays code values commonly needed by workers using PACSES and by the PACSES programs.
History Maintenance	Maintains on-line and archived historical data from the PACSES system.
Security Maintenance	Controls internal authorization for read-write access to subsystems and functions within PACSES.
IV-A / IV-D Interface	Processes Child Support referral and payment data between PACSES and the Department's TANF system, known as CIS – Client Information System.

Within these subsystems there are active interfaces with other agencies. These interfaces exchange data on standard daily, weekly, and monthly schedules. The following table provides summary-level information regarding current interfaces.

System / Agency	Frequency	# Outgoing files / # Incoming files
Automated Voice Response (AVR)	Daily	68 Outgoing
Client Information System (CIS)	Daily	1 Outgoing 4 Incoming
Code 1 (Address Normalization)	Daily	3 Outgoing
Comptroller	Daily	9 Outgoing
Child Support Enforcement Network (CSENet)	Daily	1 Outgoing 2 Incoming
Child Support Lien Network (CSLN)	Daily	1 Incoming
Child Support WebSite (CSWS)	Daily	19 Outgoing 5 Incoming
Federal Case Registry (FCR)	Daily	2 Incoming

PA Department of Public Welfare
PACSES Application Maintenance and Operational Support Services

Justice Network (JNET)	Daily	1 Outgoing
Labor and Industry (L&I)	Daily	1 Outgoing 3 Incoming
PennDOT	Daily	1 Outgoing 5 Incoming
State Collections and Disbursement Unit (SCDU)	Daily	14 Outgoing 3 + Incoming
Treasury	Daily	1 Outgoing
CIS	Weekly	1 Incoming
Comptroller	Weekly	1 Outgoing
CSWS	Weekly	2 Outgoing
Department of Revenue	Weekly	1 Incoming
Federal Case Registry (FCR)	Weekly	1 Outgoing
Financial Institution Data Match (FIDM)	Weekly	1 Incoming
Internal Revenue Service (IRS)	Weekly	1 Outgoing 1 Incoming
JNET	Weekly	1 Outgoing
L&I	Weekly	2 Outgoing 2 Incoming
PennDOT	Weekly	2 Outgoing 1 Incoming
SCDU	Weekly	2 Outgoing 1 Incoming
IRS	Bi-Weekly	2 Incoming
CSENet	Semi-Monthly	1 Incoming
Bureau of Child Support Enforcement (BCSE)	Monthly	1 Outgoing
Bureau of Information Systems (BIS)	Monthly	1 Outgoing 2 Incoming
CIS	Monthly	2 Outgoing
Child Support Lien Network	Monthly	1 Outgoing
Credit Bureaus (4 separate)	Monthly	4 Outgoing
Data Warehouse	Monthly	32 Outgoing
Department of Revenue	Monthly	1 Outgoing 1 Incoming
Department of State	Monthly	1 Incoming
Financial Institution Data Match (FIDM)	Monthly	1 Outgoing
SCDU	Monthly	3 Outgoing
IRS	Quarterly	1 Incoming
Social Security Administration – Interstate Case Reconciliation (SSA – ICR)	Ad Hoc	1 Outgoing 1 Incoming

TOTALS		178 Outgoing 42 + Incoming
---------------	--	---------------------------------------

Detailed documentation on the PACSES application is available in the PACSES library, reference **Appendix T**. A subsystem overview contains explanations of the functions and processes within the subsystems, inputs to and outputs from the subsystem, and interface requirements.

B. Server Systems

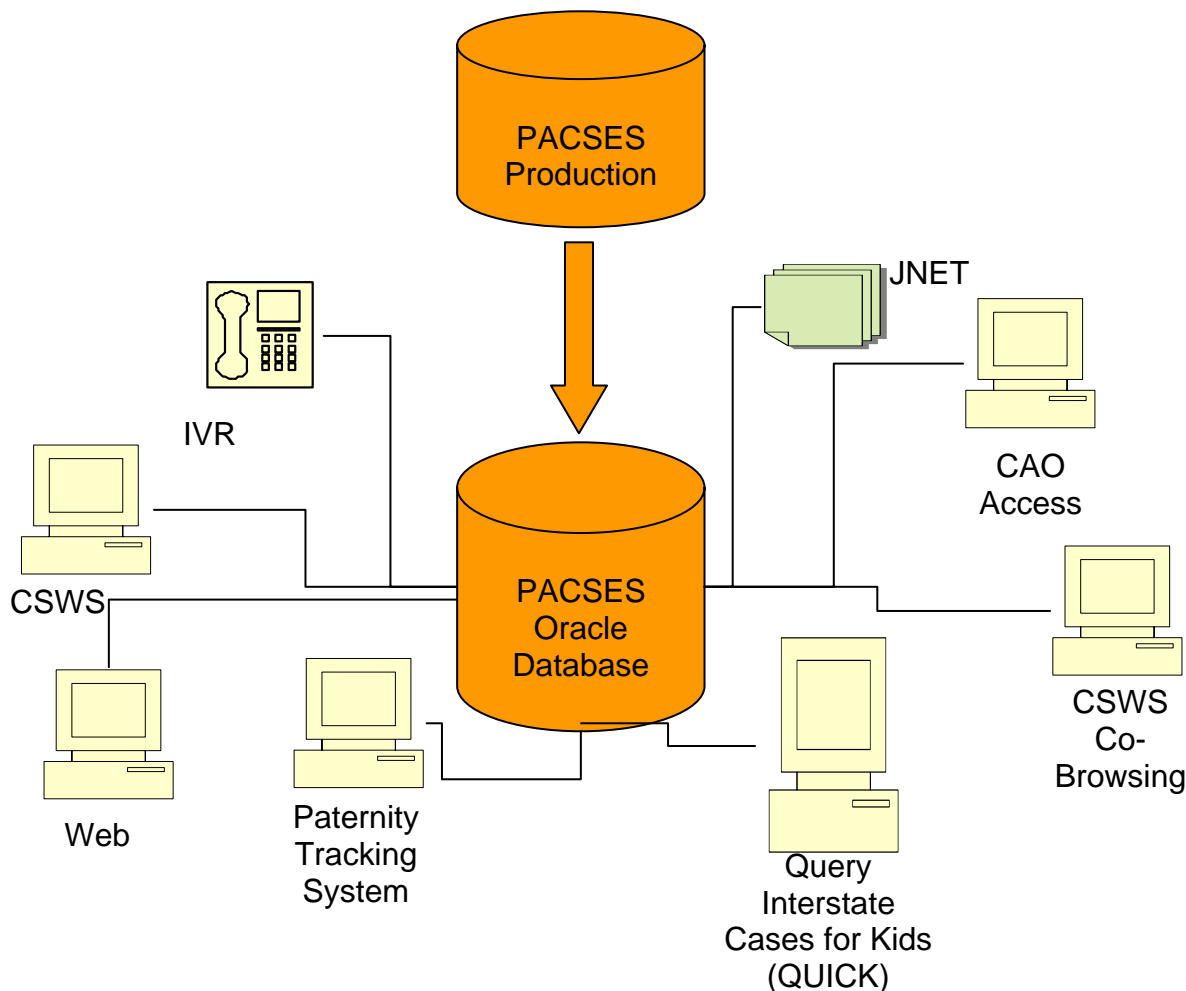
1. **Web PACSES** Financial and case activity records that are more than two (2) years old are archived to the Oracle database environment on an annual basis. PACSES users are provided access to this data via a web-based Intranet application. Users performing account audits and other research will continue to get current financial information from the on-line PACSES system; if the information they need is more than two (2) years old, users must navigate to the Archive database to perform their research.

Most of the archived records, after they are successfully archived to the new database, are purged from the mainframe PACSES database. After records are purged the PACSES mainframe database is reorganized to optimize storage and enhance performance.

2. **Child Support Web Site** The PACSES Child Support Website (CSWS) is an interactive web-based application which provides a variety of services to individuals involved in the PA Child Support Program. The following services are provided:
 - a. Secure access to case and financial information; future scheduled events and docket information; provide employer tips for payor, etc.
 - b. Secure access to wage attachment and employee information for employers of individuals involved in the child support program.
 - c. Secure access to publicly available docket and lien information to attorneys, financial institutions, credit bureaus, and the general public
 - d. Secure self-service capabilities to payors, payees, and employers, which include but not limited to:
 - i) Update demographic information
 - ii) Register to receive email notification of Electronic Funds Transfers (EFT) and stored value card disbursements, and scheduled events
 - iii) Maintain employee wage attachment information
 - e. General program information, child support program services, policy/legal information, child support terms, frequently asked questions, county contact information, etc.
 - f. Refresh Tuesday through Saturday the server systems from the mainframe primary data source.

In addition to the public-facing website, the following ancillary applications are also supported as part of the overall CSWS systems:

- i) Co-Browsing – allows county and state staff who have access to the PACSES Home Page to view child support case and financial information
- ii) Login Support Administration module – provides maintenance tools for customer support unit and program office by issuing surveys, broadcast messages, enabling/disabling accounts, password resets, etc.
- iii) Interactive Voice Response System – the financial module accesses the Oracle DB to provide client specific information
- iv) Paternity Tracking System – Database of information collected through the voluntary Paternity Acknowledgement form
- v) DRS-at-a-Glance – Table of county DRS demographic and contact information which enables county staff to directly update information presented through the Child Support Web Site
- vi) JNET – method of providing information on Child support Obligor through the Justice Network
- vii) EMU – data base of employer data used to send forms
- viii) FXR – method of exchanging specified financial case information between county DRS and a central processing unit



3. **PACSES Home Page** The PACSES Home Page (PHP) is a system of hardware and software components which reside on the PACSES network. The PHP is a secure Intranet available to state, county, and local government staff. There are a number of applications which are processed through the PHP:

- a. Employer Maintenance (EMU)
- b. Financial Exceptions Request (FXR)
- c. Medical Operations Maintenance (MOM)
- d. Request Third Party Liability (RTPL)
- e. Data Integrity Tasks (DIT)
- f. Data Services Processing Requests (DPSR)
- g. CSWS Co-Browsing
- h. CSWS Administration Module
- i. IRS Survey
- j. DRS-at-a-Glance
- k. Forms Library
- l. PACSES Intranet Website

4. **Support Magic** PACSES utilizes Support Magic software to manage change requests, track software defects, project activities, and inventory management. Support Magic is a proprietary web-based COTS product which is supported by an Oracle database.

C. Data Management

1. **Data Integrity** Data Integrity Tasks (DIT) lists are a set of case and member listings that are delivered via an interactive web-application residing on the PHP. All DIT lists can be downloaded to Excel for further analysis. DIT lists have been organized into five (5) general categories:
 - a. Affects performance measures - Reducing these cases will improve the State's overall performance.
 - b. Affects interfaces - Reducing these cases will improve interfaces with other agencies.
 - c. Affects data integrity in general - identifies data integrity issues that must be corrected to ensure data reliability.
 - d. Systematic updates - Provides a history of systematic correction of data in PACSES existing data for the implementation of new software.
 - e. Historic DIT lists - Provides a history of DIT lists that have been manually corrected.
2. **Data Warehouse** PACSES includes a data warehouse component that is part of the Department of Public Welfare's enterprise Data Warehouse application. The application is hosted and operated by the Bureau of Information Systems (BIS). The PACSES Data Warehouse (DW) is designed to provide monthly snapshots of data regarding the Title IV-D Child Support Enforcement (CSE) Program for the Commonwealth of Pennsylvania. The main source of data for the DW is the Pennsylvania Child Support Enforcement System (PACSES) application. Data is extracted from PACSES twice each month and loaded into the DW for CSE staff across the state to use for reporting Title IV-D CSE Program information. During the End of Month (EOM) batch processing – the last business day of the month – all data for the month (except disbursements to DPW) are extracted. During Beginning of the Month (BOM) batch processing – the first Friday of the month all Department of Public Welfare (DPW) disbursements for the prior month are extracted. The extracted information is loaded to the DW and the reports are refreshed the following week.

After the data is loaded into the DW, CSE staff can view and create reports using the Cognos user interface. Cognos is a software tool that provides a web-based interface allowing a user to view and manipulate reports. Currently, there are twenty-eight (28) child support-related “cubes” in the warehouse, as follows:

- a. Attachments
 - b. Cases
 - c. Collections
 - d. Disbursements
 - e. Distributions
 - f. Member Roles
 - g. Members
 - h. Non-distributed collections
 - i. Obligations
 - j. Support Orders
 - k. OCSE 34a (and 1 pre-run report)
 - l. 7 - OCSE 157 cubes
 - m. 8 - Self Assessment cubes
 - n. Driver's License Suspension
 - o. New Hire Collections
3. **eReports** PACSES production reports (non-IRS) are generated at the end of daily, weekly, monthly, end of calendar month, beginning of calendar month, quarterly, and annual batch cycle periods.

These reports are sent to the PHP web server and can be accessed by the DRS workers. DRS workers are able to view the county reports, both for their county and other counties, if needed. Additionally, workers can choose which reports to print. DRS workers do not have access to state level or SCDU reports.

Federal Tax Information (FTI) reports are similar to e-Reports, but fall under special IRS regulations for data security. The FTI Report server is required to maintain six (6) years of FTI reports. On the FTI Report server all reports for the years 2001, 2002, 2003, and 2004 are collapsed into processing year folders (example: '2002-PY') and these folders can be expanded to view the years' worth of preformatted reports.

FTI and e-Reports provide the ability for users to customize the reports by creating sorts on multiple columns, creating filters, and selecting the data elements that they want to appear on the report. Users are able to save their custom settings for each report, so that the custom settings are applied whenever the user opens that report. Both FTI and e-Reports provide auditing to track the usage of each report. FTI provides additional auditing features so the state can perform audits of the IRS data usage, as required by the IRS.

4. **Director's Dashboard** The DRS Directors' Dashboard is an intranet application that was built to support the following needs of DRS Directors:

- a. Provides a simple, consolidated interface for DRS Directors to obtain a quick snapshot of key indicators for their county (e.g., Performance Incentive Ratios, Caseload Information, Collections, and Disbursements).
- b. Provides assistance to Directors in identifying reports which may help to improve performance incentive ratio.
- c. Provides Directors with visibility into how their county is using these reports

The information in the Dashboard is refreshed monthly, after all source data is available (following PACSES BOM processing). The Dashboard is accessible via the PACSES Home Page (PHP). After the refresh each month, an email is sent to the authorized users containing a link to the Dashboard. Only DRS Directors and their authorized representatives have access to this tool.

5. **FXR** The Financial Exceptions Request application is an ancillary system accessed via the PACSES Home Page. DRS staff, BCSE staff, and SCDU staff are required to enter requests for modification and correction of PACSES financial records into the FXR database. The FXR application provides secure request tracking and audit capabilities which are used by the Financial Exceptions Unit to identify and track adjustments, receipt reversals, collection and distribution holds, and misapplied payment corrections for PACSES cases. Access to the FXR application is limited to authorized users at BCSE, the DRSSs, and SCDU. The selected Offeror must provide support/maintenance to the Financial Exceptions Request application, as well as maintenance of the FXR database.
6. **DPSR** In response to the increasing demand for ad-hoc data delivery by the DRS users, BCSE, and other external stakeholders, the Data Processing Service Request (DPSR) process was developed. The DPSR application is used to receive, evaluate, process, and deliver ad-hoc data requests. Stakeholders submit DPSRs to obtain specific data that can assist with the following tasks:
 - a. Evaluation of County performance,
 - b. Evaluation of Statewide program initiatives, such as the outcomes and effectiveness of Enforcement remedies,
 - c. Data clean-up activities (through generating case listings where data may be missing or incorrect),
 - d. Reorganization of local offices for better management and delivery of services, and
 - e. Prioritization of daily activities.

The DPSR process provides a uniform mechanism for submitting requests and enables the PACSES team to effectively obtain/modify the information requested, assign requests to the appropriate person and track the requests through completion. All DPSRs are submitted electronically via

the DPSR on-line request form on the PACSES Home Page (PHP), and are stored in a tracking database (MS Access).

D. Central Data Operations Several data management functions are centralized for improved control and accuracy. Contracted staff currently perform these functions with oversight by DACSES.

1. **Employer Maintenance** The Employer Maintenance application interfaces with the Child Support Website and generates a list of changes to employers. The Employer Maintenance Unit (EMU) verifies this information before updating it on the PACSES mainframe. Counties can also submit and query change requests, through a server-based tracking and control application (developed in Microsoft Access). Offeror must provide support/maintenance to the Employer Maintenance application and the Financial Exceptions Request application.

2. **Medical Operations Maintenance** Medical maintenance functions are currently being defined as a result of new interfaces between PACSES and the Third Party Liability Unit. PACSES data files are being matched with Health Insurance Providers to identify coverage for children. Some of this information is loaded automatically to the PACSES medical information record. Information that cannot be automatically loaded needs further research by contacting health insurance providers, employers, and clients. This unit provides research activities to determine valid information to load to PACSES.

E. Network Management The PACSES Network is administered by Lockheed Martin Services Inc. through a contract with the DPW. The selected Offeror must work with this vendor in planning network infrastructure impacts of current system maintenance activities and new systems development and implementation activities. The following information describes the network and the general responsibilities of the network infrastructure vendor.

The PACSES infrastructure is comprised of approximately seventy-three (73) county sites, the PACSES Project Site, the Bureau of Child Support Enforcement and its field offices, the PACSES Mainframe Operation, and other system interfaces such as the State Collection and Disbursement Unit (SCDU), Departments of Labor and Industry, Transportation, Revenue, and Electronic Parent Locator Network. Approximately three thousand-three hundred (3,300) desktop PCs (presently the vast majority are IBM Pentium 4. 2.26 GHz), two hundred (200) + servers, and seven hundred-fifty (750) printers are in use. The daily management of PACSES requires support of all network devices in the network except for the Frame Relay connections provided by the Commonwealth of Pennsylvania through its contract with Verizon. The list of devices includes: desktop PCs; Windows 2000 and Windows 2003 servers; Cisco 2600 series routers; and Ethernet hubs and

switches, as well as, the PACSES dedicated cabling plant in each county. The servers have been upgraded to Windows 2003. The Ethernet hubs and switches are being upgraded to a model 3500 Cisco switch. The Offeror support team is the only entity to have the Administrator passwords and administers the boxes using Remote Control (a Computer Associates Product) and Terminal Services. PACSES is a high availability system with a standard of 99.5% network availability.

The vendor supports all email and Web access and monitoring. The vendor maintains the Internet firewall system. Internet access is provided at the PACSES Project Site through Steel City Broadband. The Project Site houses a computer room for all the Internet servers and routers; and also includes a PACSES internal centralized Microsoft Exchange server farm that services PACSES users. The server farm also interfaces with the Department of Public Welfare/Commonwealth mail system (CWOPA). The PACSES email system provides routine email services and also serves as the mechanism for delivering certain types of the PACSES forms using Adobe JetForms software. Approximately three hundred (300) varying types of forms are delivered in this manner to Domestic Relations Offices, which translates to approximately one million (1,000,000) forms per month.

The network vendor provides Levels II and III Help Desk support for the approximately four thousand (4000) user group. The vendor handles an average of thirty (30) – fifty (50) calls a week from this user group. The Offeror for this RFP will provide Level I helpdesk support and passes Level II and III calls to the network vendor's support team. Level II and III helpdesk support includes: tracking calls, resolving problems that are within the scope of the Network Contract, and referring calls to the statewide hardware maintenance vendor when necessary. The Offeror will monitor all open calls to insure that the hardware maintenance vendor is complying with the contractual time frames for service and resolution, and works with this vendor to insure resolution. This includes preparing reports and attending meetings with the hardware maintenance vendor.

The vendor supports County PACSES LAN interfaces to local county data processing networks in about one-half of the seventy-three (73) DRs via the PACSES provided on-site Cisco 2600 router. The vendor maintains the existing network virus and software releases and monitors new technology to recommend and implement changes to the PACSES network when a return on investment warrants.

IV-4.4 Requirements

A. Application Maintenance Services

1. Provide ongoing operational support for the PACSES mainframe and server applications. These activities must be provided in conjunction with the Commonwealth's Data Powerhouse Contract with Unisys Corporation

and under the direction of DPW's BIS. Reference **Appendix V: PACSES Mainframe Operations Responsibilities Matrices**.

2. Provide application maintenance services for the mainframe and server applications to enable efficient system performance.
3. Provide application maintenance service for the mainframe and server applications to correct system errors, aborts or incorrect data results.
4. Provide application maintenance services to the mainframe and server applications to correct problems that impede efficient work processes and affects users across multiple counties.

B. Application Modification Services

1. Provide application modifications to the mainframe and server applications that improve the performance of the child support program in Pennsylvania.
2. Provide application modifications to the mainframe and server applications resulting from Federal law mandates, State law mandates, or Court rule mandates.
3. Utilize the change control process to complete application modifications during the contract period. The selected Offeror will be responsible for the design, development, testing, and implementation of the change controls and application maintenance fixes.

C. Application Support Services

1. Provide ongoing data management services. These services include the ongoing completion of Data Processing Service Requests (DPSR), Data Integrity Task (DIT) lists, eReports that are currently defined and operational; and the loading and daily maintenance activities associated with the Data Warehouse. Approximately, seventy (70) DPSRs need to be run per month (existing programs run against new data extracts), thirty (30) DIT lists need to be maintained monthly (reports refreshed against new data extracts) along with the routine monthly maintenance (refreshed data) of the eReport system and Data Warehouse.
2. Provide Subject Matter Expert (SME) services to support the daily operational needs of the DRSs and Child Support central operations. SME services handle help desk level II calls from DRSs, act as a liaison with a county DRS systems coordinator, review and update user documentation, analyze business/system process issues, and participate in troubleshooting maintenance and operational support service issues. Current operations employ seven (7) SMEs.
3. Provide Help Desk Level I services which log, document respond, resolve, or refer DRS user issues with the PACSES system. Referrals are made to SME support level II or network support level II. Nine hundred (900) calls per month are projected. Current operations employ three (3) advanced clerical level positions for this purpose.
4. Provide medical operational maintenance services. The selected Offeror will be required to operate a Medical Operations Maintenance Unit (MOM)

that will perform the tasks listed below. Current operations employ three (3) advanced clerical level positions for this purpose.

- a. Review the results of data matching activities; and based on specific guidelines, research the validity of medical support information.
- b. Based on results and specific criteria, this staff will determine if the information will be added to PACSES.
- c. Add medical information to PACSES through direct input or by creating lists to be added.

IV-4.5 PACSES Task Requirements The Offeror must complete the following major tasks. The tasks must be developed in accordance with applicable federal child support certification requirements, state laws and regulations, court rules, and subject to Commonwealth technology and business standards.

- a. Task 1 – Knowledge Transition
- b. Task 2 – Project Management
- c. Task 3 – Application Maintenance and Modification Services
- d. Task 4 – Application Support Services
- e. Task 5 – Turnover Services

A. **Task Overview** The Offeror must describe how each task and service is to be accomplished. Emphasis must be given to the procedures proposed to accomplish the scope of work under the contract. For all tasks described in this Section, the Offeror is required to provide the following items:

1. Provide a detailed description as to how the Offeror proposes to complete the tasks required and the methodology planned to support the successful accomplishment of the requirements specified.
2. Propose a detailed schedule of deliverables recommended to support the solution and methodology proposed above. Offeror must propose deliverables that are part of the Offeror's overall approach and methodology for each of the areas outlined in this part of the RFP. All deliverables produced by the Offeror pursuant to this RFP shall become and remain the property of the DPW, which shall exercise sole authority over the use and distribution of said materials.
3. Provide a high level Work Plan detailing the activities and timeframes required to complete each of the tasks. The Offeror must fully describe the approach, methods, and specific work steps for doing the work on this Project and producing the Deliverables.
4. Propose Service Level Agreements (SLA) and Service Level Objectives (SLO), following the format provided in **Section II-1, Tab 5 Contract Standards**, that ensures the tasks required in this RFP are successfully completed.
5. The selected Offeror will measure and report progress in meeting performance standards, with the specific timeframe and frequency will be determined through contract negotiations. These reports must allow the

Department to assess performance against all approved standards for the current reporting period and historically throughout the contract period.

6. An organizational chart illustrating how the Offeror proposes to administer, manage, and oversee all aspects of the specified tasks. Include reporting relationships and the responsibilities of each position. Include the names, classifications, and qualifications of the proposed staffing by prime, state, or subcontractor resources.

B. Knowledge Transition The selected Offeror will be responsible for knowledge transfer to assume maintenance and application support activities currently being handled by the incumbent vendor. The contract will provide a ninety (90) day transition period from the incumbent vendor to the selected Offeror. The transition period is critical and necessary in order to effectuate knowledge transfer to the incoming Offeror's staff. A continuation of the services provided by the PACSES application and a smooth transition is imperative to Pennsylvania citizens who are dependent on the child support services. This knowledge transition is crucial to understanding how to continue the smooth operation of the system and readily fix operational problems if they occur.

1. Knowledge Transition Task Responsibilities

- a. The selected Offeror must provide a well-planned and executed transition of the operation and maintenance activities currently being executed by the incumbent vendor associated with the PACSES system and functions included in the scope of this RFP.
- b. The selected Offeror must ensure that knowledge transfer occurs in such a manner so that it is able to independently operate and maintain the current system.
- c. The selected Offeror must receive the turnover of the operation and management of all business functions no later than the end of the transition period. This turnover must be planned and managed in an orderly fashion so that no disruption of service to users and/or clients takes place.

2. Knowledge Transition Task Required Items

- a. The Offeror must provide a detailed transition work plan describing how the Offeror proposes to use the transition period.
- b. The Offeror must provide the procedures and criteria for ensuring the quality of transferred system activities including, but not limited to the following items:
 - i. Work materials such as software, system documentation and development support tools;
 - ii. Institutional knowledge including crucial design tradeoffs made to meet performance goals and methods used to isolate operational problems; and
 - iii. Responsibilities for managing the system lifecycle.

- C. **Project Management** The Offeror will be responsible for identifying, establishing, coordinating, monitoring, and providing project management of all services, activities, and resources necessary for the successful completion of the tasks related to PACSES as identified in this RFP.

The Department's Project Governance provides a foundation for the organized and consistent planning and execution of projects. More specifically, it defines the roles and responsibilities project teams perform during a project. In the Department of Public Welfare (DPW), a six (6) team structure is used. These six (6) teams consist of the Steering Team, Project Management Team, Development Team, Testing Team, User Education Team, and Logistics Team. High level goals for each team are as follows:

- Steering Team - Satisfied customers and strategic alignment.
- Project Management Team - Deliver projects within project constraints.
- Development Team - Design and build to project specifications.
- Testing Team - Release after addressing all issues.
- User Education Team - Enhance user performance.
- Logistics Team - Smooth deployment and ongoing management.

While the Department's Project Governance structure, defined in **Appendix J: DPW Project Governance Teams: Detailed Roles and Responsibilities** and **Appendix N: Business Review Board and Architectural Review Board Guidelines**, is the management framework for individual projects, the Department's Program Management Methodology is the framework used to manage overall IT project development to assure that new projects meet business and technical standards. As new components to existing systems are proposed, portions of this process apply to those components. The Management Methodology is described in **Appendix O: DPE System Development Methodology (SDM)**.

1. **Project Management Task Offeror Responsibilities** The selected Offeror's responsibilities include, but are not limited to:
- a. Organize and manage the individuals proposed on the project. This involves utilization and integration of the Offeror and Commonwealth staff.
 - b. Provide Program and IT integration – Assure that the child support enforcement program operation is appropriately represented within the DPW system environment.
 - c. Integrate individual aspects of system maintenance and project coordination.
 - d. Provide overall system Quality Assurance – ensuring alignment with established standards and policies.
 - e. Manage contract compliance and timely completion of deliverables, work products, and operational work products.

- f. Provide Project Resource management – Create Resource Management Plan and use this to manage and utilize resources for overall project delivery.
- g. Develop and implement a Communications Management Plan.
- h. Facilitate project/stakeholder communications through execution of the Communication Management Plan.
- i. Develop and implement a Risk Management Plan.
- j. Provide continuous Risk Management identification and mitigation
- k. Manage project issues and risks and escalate as appropriate to senior management.
- l. Provide Timesheets and Invoicing - Manage timely completion of timesheets and overall project invoicing.
- m. Manage project schedule and ensure timely completion of established tasks.
- n. Manage system compliance with technical and federal certification requirements.
- o. Coordinate all aspects of the PACSES system maintenance process based on the DPW SDM.
- p. Leverage and bring application development best practices and processes to DPW.
- q. Manage quality assurance of PACSES application initiatives – including architecture, design, and components.
- r. Manage system compliance with DRS and BCSE business requirements.
- s. Manage compliance with project schedules and escalate, as appropriate, to senior management.
- t. Provide accurate level of effort and resource estimates.
- u. Manage application change control and execute established change priorities.
- v. Provide technical support and guidance to the application team.
- w. Provide Child Support program and functional insights during design and development to BCSE.
- x. Address and deliver staff training and knowledge transfer throughout the contract period, as appropriate.
- y. Coordinate and present weekly and monthly status reports representing project status to DPW management.
- z. Serve as a single point of contact for all PACSES technology related tasks. This includes architectural designs and strategies; operational tasks like load testing and batch scheduling; configuration management activities including: software migration, server configurations/upgrades and deployment planning; security architecture/configurations; and relevant data tasks such as modeling, database management and metadata collection.
- aa. Serve as liaison between project team and BIS; represent project teams at various cross project logistics and planning meetings; design and manage technical requirements from application team; and work to

determine technical direction via the interaction with BIS and third-party software vendor.

2. Project Management Task Required Items

- a. DPW requires that a single Offeror employee (not a subcontractor) be identified as the Offeror's Project Manager to oversee the operation of the project, including the performance of all Offeror and subcontractor personnel. The selected Offeror may not reassign the Project Manager without the prior written consent of the DPW's Contract Administrator. This individual must function as the Offeror's authorized point of contact with the PACSES Project Director and must be available to respond promptly and fully to all issues and concerns.
- b. The selected Offeror must comply to DPW Business and Technical Standards in its approach to management of the project throughout all the stages of the project including the following items:
 - i. Project Management Procedures
 - ii. Project Work Plans and Scheduling
 - iii. Project Management Tools
 - iv. Systems Development Life Cycle Methodology
 - v. Project Status Reporting
 - vi. Issue Resolution and Control Procedures
 - vii. Quality Assurance Procedures
 - viii. Risk Management
 - ix. Adherence to Project Standards
- c. Include the number, and where possible, names of executive and professional personnel, analysts, auditors, researchers, programmers, consultants, etc. who will be engaged in the work. Where appropriate, identify your project manager and first level managers as key personnel, in accordance with **Part I, Section I-26 Key Staff Diversions or Replacements**. Show where these personnel will be physically located during the time they are engaged in the Project. Include, through resume or similar document, the Project personnel's education and experience. Indicate the responsibilities each individual will have in this project and how long each has been with your company.
- d. The Offeror must provide a concise description of the proposed approach to meeting requirements of managing individual tasks and coordinating overall activities under this procurement.
- e. Offeror must ensure that a staffing plan for the project is developed. The plan should provide a methodology for personnel requirements estimation and address both the acquisition and retention of experience project personnel. The Offeror must provide an organization chart identifying key staff assigned to essential tasks.
- f. The selected Offeror must provide a Communication Management Plan to successfully perform stakeholder communication to ensure commitment.

- g. The selected Offeror must supply support and technical staff dedicated to this project. Staff assigned to this project must be able to work cooperatively with Commonwealth staff and contracted staff performing work on behalf of the Commonwealth during all phases of the project. The Offeror's staff must be able to coordinate with designated DPW staff during all phases of this project. The selected Offeror's staff must be able to deliver work that is not in conflict with the priorities and hardware/software choices and limitations as established by the Commonwealth or the DPW.
- h. For purposes of this proposal, the Offeror must demonstrate the ability to meet the following requirements:
 - i. Provide a Project Manager experienced in Information Technology Project Management, preferably in the area of Child Support Enforcement.
 - ii. Demonstrate experience and understanding of the Federal and state child support requirements.
 - iii. Provide resumes of key staff that have demonstrated experience in the development and/or maintenance of systems developed in the following software:
 - Windows 2000
 - Oracle
 - Oracle Fine Grained Access
 - XML, HTML
 - Visual Studio
 - .ASP
 - .Net
 - PL/SQL
 - Golden 3.2
 - Visual Source Safe
 - Microsoft Office Suite
 - Automated tracking software
 - FileNet
 - ReportNet
 - CAI Siteminder
 - Web Methods
 - OpCon Scheduler
 - Cognos
 - Crystal Reports
 - Adobe
 - UNISYS ES 7000 Knowledge and skills
 - Windows 2000 Data Center knowledge and skills
 - Support Magic software
 - COBOL
- i. The Offeror may acquire specialized expertise through the use of subcontract agreements. The Offeror, however, is required to have

staff that have, or will obtain prior to performing work on the project, training and/or certification in the recommended software solution products. Subcontracts must be identified in the proposal.

3. **Project Management Reporting Responsibilities** The selected Offeror must provide regular and frequent communication with the DPW Contract Administrator regarding staff resources, management approach for new tasks, adherence to schedules, problems, or issues that may affect successful outcomes of work under the contract and to PACSES as a whole. The following describes the minimum level of required reports. The Offeror may propose additional reports as deemed necessary.
 - a. The selected Offeror is required to provide a monthly production maintenance report on the status of all work in this work statement, the specific timeframe will be determined during contract negotiations. It must highlight problems or special activities in application maintenance, user support, implementation, support, and database administration. Measurable components would include: project schedule and progress; resource distribution in relation to the current activity schedule; current system functional performance; current system technical performance; current system architecture effectiveness, etc.
 - b. The selected Offeror is responsible to provide a bi-weekly report. This report must describe the status, progress, and/or problems related to systems maintenance and enhancement work that is in process.
 - c. The selected Offeror is responsible to provide a weekly personnel report, a quarterly performance report, and a weekly status report. Through the personnel report, the Offeror must provide summary descriptions of the tasks accomplished by each of its staff. It must identify any staffing problems, potential staff changes, and the vacation and off site work plans of all selected key Offeror or subcontractor staff for the next month, training activities, issues, and plans for the subsequent month.
 - d. The selected Offeror is responsible to provide a monthly training report. This report must describe any training activities that are being undertaken with the selected Offeror and Commonwealth staff to keep them technologically and programmatically up to date.
 - e. The selected Offeror is required to provide a weekly manager level report that tracks key project issues and proposes next steps and solutions. The specific timeframe and frequency will be determined during contract negotiations.
4. **Project Management Reporting Required Items**
 - a. Offeror must describe the process for producing the reports discussed in **Section 3 Project Management Reporting Responsibilities**.

- b. Offeror must describe the quality control procedures in place to assure accuracy and timeliness of reports.
- c. Offeror must provide samples of the reports described in **Section 3 Project Management Reporting Responsibilities**.
- d. Offeror must provide samples of any other reports that it proposes to produce to enable the Commonwealth to analyze and evaluate the effectiveness of the requirements included in this RFP.

D. Application Maintenance and Modification Services The selected Offeror is responsible for the operation and maintenance of current PACSES as defined by the following tasks and in accordance with the requirements of this RFP.

- 1. Mainframe Operations** The selected Offeror will have specific responsibilities for the daily operation of the current mainframe system. The PACSES Mainframe is located at the Willow Oak Building of the DGS Annex Complex. The PACSES Mainframe is a UNISYS ClearPath IX 6800. The primary operation of the mainframe is provided by Unisys Corporation and occurs under the Commonwealth's Data Powerhouse contract (DPHC). Specific responsibilities associated with mainframe operations that are part of the DPHC are not to be provided by the Offeror. The Offeror and DPHC have a shared responsibility to keep PACSES operating efficiently, effectively, and within standards.

Appendix V: PACSES Mainframe Operations Responsibility Matrices delineates the responsibilities of the Mainframe Operations Vendor, referred to as the Data Power House Vendor (DPHV), Application Maintenance and Operational Support (AMOS) vendor, the Network Management Vendor (NMV), and the Commonwealth; and defines the coordination of responsibilities that must occur between each of the entities.

- a. Systems Operations**
 - i. Maintain and update all PACSES batch and online data and software libraries, the specific timeframe and frequency will be determined during contract negotiations.
 - ii. Provide necessary detailed input to the Commonwealth for conducting a scheduled daily production status meeting with the project team and Commonwealth each work day morning between 8:00 and 8:30 AM.
 - iii. Analyze system fatal and abends in the production and test environments and the software problems causing such problems. Work with application development team to develop corrective actions in a timely and accurate manner.
 - iv. Maintain all PACSES operating environments (production, test, and training) to ensure that changes are made to PACSES that are

required as a result of upgrades to mainframe software and platform technology (e.g. implementation of a new release of the mainframe operating system).

- v. Provide support to system testing and test for production (TFP) testing by ensuring that special requests for running batch cycles in the test environment or other non-production environments are met without delay.
- vi. Support “on request jobs” for the production environment within available time in the batch window.
- vii. Work with the application maintenance team in finalizing which jobs will be scheduled and in which order for production, training, and acceptance environments. Assist in developing Job Documentation standards and Batch scheduling ‘best practices’.
- viii. Schedule PACSES batch cycles including configuration management, migrations, and daily/weekly reporting of migrations.
- ix. Schedule database maintenance batch cycles including loads/unloads, migrations, and weekly database maintenance.
- x. Assist DPW’s database administrator with maintenance of the PACSES meta-data dictionary.
- xi. Participate with system performance analysis and tuning and implement identified enhancements in a timely and accurate manner.
- xii. Participate with the disaster recovery operations planning, testing, and documentation.
- xiii. Provide a detailed description and impact analysis of operational problems that result in inaccuracy, data corruption, and delay/interruption in PACSES online availability. Work with the application maintenance team to develop a corrective action plan.
- xiv. Provide on call support for PACSES operations including Commonwealth holidays, snow days, etc.
- xv. Participate in documenting PACSES mainframe operations procedures that is not limited to the following – batch operations, scheduling, data storage – disk and tape management, backup, recovery, and security.

b. Operations Management

- i. Act as the primary PACSES liaison with the DPHV and ensure PACSES operations and service levels are not compromised, apprising of issues as necessary.
- ii. Act as the PACSES liaison with Unisys Technical Support for troubleshooting any Unisys system related technical problems that may be encountered in any of the PACSES environments.
- iii. Act as the primary PACSES liaison with the Bureau of Information Systems (BIS) operations and support teams to help ensure PACSES operations in the server environment are not comprised.

- iv. Act as the PACSES liaison with Microsoft and Oracle for troubleshooting any system related technical problems that may be encountered in any of the PACSES server environments.
 - v. Provide the Commonwealth an ongoing risk assessment of changes/enhancements to PACSES technical operating environment – mainframe and server-based processor upgrades, disk upgrades, and installation of new enterprise tools/software by DPHV and BIS.
 - vi. Responsible for PACSES Disaster recovery planning and testing and coordination with DPHV and BIS as appropriate. Maintain the PACSES disaster recovery plan documentation.
 - vii. Responsible for documenting PACSES mainframe operations procedures for database administration and mainframe operations.
 - viii. Review PACSES compliance with DPW standards and report to the Project Manager potential issues, if any.
 - ix. Oversee the development of the quarterly capacity plan updates and annual project plan for the mainframe and server environments and make sure that such are provided by the Offeror's Project Manager and delivered on time to the Department.
 - x. Participate with trouble shooting critical system related problems.
 - xi. Participate in developing batch job documentation standards and batch scheduling 'best practices' and communicate to application development team.
 - xii. Act at the primary implementation liaison between PACSES and BIS for new technology deployments.
 - xiii. Oversee the DPHV operations and compliance to **Appendix V – PACSES Mainframe Operations Responsibility Matrices**, to ensure DPHV is providing sufficient mainframe power to operate PACSES online and batch programs within the ranges of the Service Level Agreements (SLA) which are part of the Data Power House Contract.
 - xiv. Oversee PACSES performance tuning activities to improve the overall response time experiences by users, and to reduce other operational costs for PACSES. Analyze high usage transaction or batch program that requires an excessive execution time and analysis indicates redesign is cost effective. Develop recommendations, cost/benefit plan, and estimated implementation timelines and present to the PACSES Project Manager for review.
- c. **Database Administration**
- i. Function as point of contact for all database-related activities for both PACSES and the Child Support web site.
 - ii. Perform data fixes and other activities as necessary, upon approval of the PACSES Project Manager, and in a timely manner.
 - iii. Manage daily database backup process to ensure that PACSES database recoveries are executed efficiently.

- iv. Work with the DPHV to provide PACSES requirements and necessary steps for backup, recovery, and restoration of the database to its prior state following an application or system malfunction, or human error.
- v. Participate in application technical design sessions to provide programmer/analysts guidance and necessary standards framework to ensure that database designs are optimized and database access by the application is done as efficiently as possible by taking into account performance considerations during the design.
- vi. Update and maintain PACSES meta-data dictionary. Review DPW data naming standards and address PACSES compliance requirements for new tables added to the database.
- vii. Establish, maintain, and communicate standards and procedures for requesting database changes and informing the application development team when database changes have been implemented.
- viii. Perform necessary database maintenance to ensure that there is no deterioration in database performance.
- ix. Implement database design changes in all test environments and production. Work with the Commonwealth and DPHV to determine the best use of storage and other computer resources to ensure that there is no deterioration in database performance while keeping costs at a minimum.
- x. Test and Migrate databases to new releases of RDMS or related software, as and when upgrades and enhancements are made to system and application software.
- xi. Develop, maintain, and document database utilities and procedures for automating routine database administration tasks.
- xii. Ensure data integrity by performing necessary processing to restore or correct data that has been corrupted or otherwise damaged due to any processing problems and by adding Check Point restart logic to batch programs, where needed.
- xiii. Develop job documentation for PACSES jobs that have checkpoint restart logic so that operations staff will have specific instructions for restarting the job when the abort has been fixed.
- xiv. Assist in documenting PACSES mainframe operations procedures, reference **Appendix V, PACSES Mainframe Operations Responsibility Matrices** that is not limited to the following – database operations, scheduling, data storage – disk and tape management, backup, recovery, and security.
- xv. Provide on-call support in production and test regions for all PACSES database related activities.
- xvi. Work with the DPHV to ensure PACSES database administration tasks are planned, scheduled, and carried out without interruption to PACSES operations.

- d. **Support Layer Maintenance**
- i. Maintain and enhance PACSES Support Layer. Document PSL complexes. Communicate changes to PSL to the application maintenance team. Cross train Support Specialists in all PSL complexes.
 - ii. Maintain and communicate standards for naming and organizing PACSES batch and online data and software libraries.
 - iii. Analyze critical system fatal and abends in the production that are hard to reproduce or suspected to be Unisys system related rather than application related. Pursue with Unisys as required to help resolve these system issues.
 - iv. Establish standards and procedures for streamlining maintenance of different PACSES development regions - Development, Retest, Support Layer, RDMS, Conversion, System Test, and Acceptance Test.
 - v. Establish Job Documentation standards and Batch scheduling 'best practices' and communicate to application maintenance team.
 - vi. Participate with the research/analysis and prototyping of solutions using new middleware technologies for the PACSES application – Open/TI.
 - vii. Participate with system performance analysis and tuning and implement identified enhancements in a timely and accurate manner. Provide recommendations for developing a work plan of performance enhancements that may include – database and data structure enhancements, and PSL enhancements.
 - viii. Participate with establishing a PACSES disaster recovery operations plan that includes a testing strategy.
 - ix. Participate in maintaining PACSES mainframe operations procedures that is limited to the following – batch operations, scheduling, data storage – disk and tape management, backup, recovery, security.
- e. **Disaster Recovery** PACSES is a critical benefits delivery system that requires a high degree of disaster recovery availability. Establishing and executing disaster recovery plans for the mainframe operation is the primary responsibility of the DPHV. The Network Maintenance Vendor is primarily responsible for establishing and executing the LAN/WAN disaster recovery plan. The selected Offeror is responsible for assuring database and program libraries are properly maintained and available for backup and recovery activities. The selected Offeror will be required to participate in meetings involving the planning and execution of disaster recovery activities.
- f. **Security** The selected Offeror must provide security provisions that ensure the privacy and confidentiality of all PACSES data. The privacy

and confidentiality of all data maintained and processed by PACSES must be ensured through the use of passwords and other measures designed to limit access to authorized individuals. The selected Offeror must take all necessary steps to safeguard data from unauthorized access, accidental destruction, or other hazards that may occur. The PACSES Project Manager or designee must approve all requests for access to the mainframe, PACSES data files, and PACSES database and libraries of source code.

All Offeror and subcontractor staff will be required to sign a Confidentiality Statement. The selected Offeror is responsible for background checks on its and subcontractor staff. The selected Offeror must ensure the complete confidentiality of all passwords and IDs used by its employees and subcontractors. The selected Offeror's employees will not be permitted to share passwords or IDs among themselves. The selected Offeror must provide security training to staff on this policy.

The selected Offeror must notify the Commonwealth PACSES security officer prior to any staff leaving the project. All reports, notices, letters that are printed at the Offeror's site that contain client information and are not forwarded to DPW must be properly destroyed.

- g. **Performance Tuning** The DPHV is primarily responsible for providing sufficient mainframe power to operate PACSES online and batch programs within the ranges of the Service Level Agreements (SLA) which are part of the Data PowerHouse Contract. Within this framework, the Commonwealth requires that that the Offeror develop, design, and implement efficient programs.

This selected Offeror will be required to conduct performance-tuning activities to improve the overall response time experienced by users, and to reduce other operational costs for PACSES. The selected Offeror on any high usage transaction must initiate performance tuning or batch program that requires an excessive execution time and analysis indicates redesign is cost effective. The selected Offeror will gather input and work with the DPHV to determine the cost effectiveness of application redesign versus hardware upgrades. Note: it is anticipated that minimal performance tuning will be necessary during the contract period.

2. **Server Operations** The selected Offeror is responsible for providing technical assistance in maintaining the PACSES intranet and continuing the maintenance activities associated with the PACSES CSWS which provides child support information and customer-specific information to clients, employers and business partners. Currently, PACSES provides

information to the DRS users through an Intranet application that operates on a server on the PACSES network.

The selected Offeror will be required to maintain the CSWS application that includes emergency incident fixes and the completion of two (2) major software releases per year.

a. CWDS Operations:

- i. Perform database and application maintenance
- ii. Provide application and database performance improvements
- iii. Provide operational reporting for the CSWS application
- iv. Provide input to BIS for software, hardware, and infrastructure maintenance activities
- v. Provide DPW/BIS reporting and communication
- vi. Perform application Unit testing and document results
- vii. Support development and communication of data fixes as required by this RFP
- viii. Establish, maintain, and conform to PACSES-project technical standards
- ix. Establish, maintain, and conform to all documented project management controls and procedures
- x. Work with BIS and its technology and infrastructure support services vendor to complete migrations of software from environment to environment
- xi. Work with BIS to prepare installation and configuration documentation associated with application software and third-party products
- xii. Work with BIS to help debug 'system' related issues associated with deployed application code or application specific third-party products
- xiii. Work with BIS and its technology and infrastructure support services vendor to add/change/delete batch processes in OPCON
- xiv. Add/change/delete application batch documentation that conforms to DPW standards
- xv. Provide 24x7 batch support via pager and cell phone contact
- xvi. Add/change/delete application software so that it conforms to DPW and OIT standards
- xvii. Prepare and participate in the completion of the Application Review Board (ARB) and Change Management Board (CMB) reviews/presentations
- xviii. Complete BIS load testing requirements for application components for software releases and present results at the Cross project logistics meeting
- xix. Prepare and publish capacity plans as required by BIS

- xx. Act as liaison between BIS and the PACSES Commonwealth team to help explain technical issues and requirements associated with that environment
 - xxi. Perform prototype activities at the request of the PACSES Project Manager
 - xxii. Perform regression testing of PACSES software due to changes in the software and hardware infrastructure
 - xxiii. Provide technical, infrastructure, design, industry best practices, and programmatic advice and perspective to the PACSES Project Manager
 - xxiv. Add/change/delete Integration and SAT testing scenarios
 - xxv. Perform Integration and SAT testing
 - xxvi. Report results of Integration and SAT testing to the PACSES Project Manager
 - xxvii. Coordinate migration activities with the application team and configuration management personnel
 - xxviii. Prepare client outreach presentations for upcoming software releases
 - xxix. Provide project management oversight on all project related activities associated with this application
 - xxx. Finalize and document requirements with various PACSES and BIS teams
 - xxxi. Create release plan and communicate details to BIS to ensure proper migration management
 - xxxii. Coordinate necessary approvals and sign-offs from various stakeholders including: DACSE, BCSE, BIS, etc.
 - xxxiii. Design and maintain database architecture and security framework such as: partitioning strategies, indexing strategies, user grants, roles and privileges, object level privileges, etc.
 - xxxiv. Monitor performance logs to maximize the application performance, availability, and maintainability
- b. **Data Management Operations** The Performance and Incentives Act of 1998 changed the method by which the State and Counties receive incentives under the Title IV-D Program. Incentives are no longer solely based on the amount of child support collections, but on eight (8) specific performance measures that may have a potential impact on the Commonwealth of Pennsylvania's child support enforcement program. To maximize the incentives, it becomes very important to not only improve caseload management activities but also improve the accuracy of the data in the system. The Commonwealth established a Data Integrity Team composed of BCSE and current vendor staff. This team has been very successful in identifying key data requiring county clean-up and validation. The Commonwealth expects these tasks to continue through this contract period. Some data clean-up and archive

purge activities will be necessary to maintain the operational integrity of the systems.

The selected Offeror will be required to perform the following data management operation activities:

- i. Support the Data Integrity Tasks (DIT) by operating the DIT process and assisting in the identification and resolution of data integrity issues, coordinate and monitor overall data integrity activities, and maintain data integrity reports on the intranet.
- ii. Establish guidelines for data clean-up tasks for DIT and data archive purge purposes.
- iii. Identify on-going preventive maintenance measures.
- iv. Provide "custom views" of information to the Commonwealth for executive/strategic management information purposes.
- v. Receive, manage, and prioritize data processing service requests (DPSRs) around information delivery to counties, program office officials, and legislators.
- vi. Maintain operations of the data warehouse and Director's Dashboard.
- vii. Manage the ongoing operation of the PACSES eReports system.
- viii. Perform data extracts from PACSES for the purposes of supporting the data managements systems.

- 3. Application Maintenance** The selected Offeror will be required to complete application modification and application maintenance activities that affect the mainframe and ancillary server applications during the contract period. Application modification is a significant change to system functionality requiring execution of the systems development methodology (SDM). Application maintenance is corrections to the current system which is typically identified by users after the program has been implemented in production, or is related to an incorrect or revised interpretation of program policy. Application maintenance could be the result of an incorrect design, coding issue or program policy interpretations. Application maintenance follows an expedited SDM process which includes design modification, program specifications, coding, testing, and implementation.

Application maintenance activity requests, defined in PACSES terms as a PACSES Service Request (PSR), must be logged, prioritized, and tracked. Given the long term stability of the system it is anticipated that the number and complexity of application maintenance PSRs will be minimal. Please reference the PSR Table which follows within this section.

Application modifications will follow a structured Change Control process. They must be completed if related to a mandated federal law, state law, or court rule or provides significant program performance improvements as determined by a cost benefit analysis.

Emergency software changes must be migrated to Production as quickly as possible (weekly). All other software changes should be migrated based on a quarterly release process. The Offeror should plan on four (4) major software migrations per year during the contract period.

The Offeror should plan on completing ten (10) change controls per year. The total projected yearly hour level for these change control tasks is twenty-four thousand (24,000). This represents twenty-five percent (25%) of the total hours (96,000) projected per year for this contract. These change control hours reflect level of effort from completion of functional design through implementation. The DPW Contract Administrator will establish prioritization standards to determine the change controls and PSRs to be completed within these volume levels.

The following guidelines and examples will be used to define a change control and a PSR for current mainframe PACSES and the ancillary server systems.

Change Controls

- **Mandate** – Federal, state or court rule mandate, Program Revision Request (PRR) with no option to defer or significant performance and budgetary penalties.
- **Program Management** – A cost effective modification of the system that improves the program performance measures or improves work efficiencies.
- **Technology Update** – Change driven by the need to upgrade software or hardware.

The following chart provides a list of potential change controls which may be completed during the contract period

Change Control Title	Brief Description
Pre-Assistance Arrears	Modification of PACSES financials to accommodate DEFRA 2005 requirements
Distribution to former TANF	Modification of PACSES financials to accommodate DEFRA 2005 requirements
Paternity Tracking Hospitals	Develop on-line application used by hospitals for entering voluntary paternity acknowledgements

Automated National Medical Support Notice	Automate the generation of the NMSN based on case specific criteria
FTROP Expansion of Eligibility	DEFRA mandated expansion of age limits for FTROP
Automated FIDM Processing	Modify FIDM process to prioritize cases meeting specific account/case criteria
Mail Alert Delivery	Mitigate “death by alerts” through consolidation and prioritization
Centralized Income Withholding Orders	Comply with DFAS requirement to provide income withholding order information electronically
Adobe-JetForm Upgrade	Technology upgrade necessary because JetForms is no longer a support product line.
Cell Phone Interface	Interface with cell phone companies to locate defendants
Alerts on Closed Cases	Review and modification of the rules for issuing alerts on closed cases
Guideline Calculation Changes	Modify PACSES guideline calculation application to comply with changes defined by Rules Committee of the Supreme Court.

PSRs – Application Maintenance

- Fix – Global problem to existing application, critical process fails, cannot complete predefined task, and no effective work around
- Mandate – minor modification to program due to federal or state policy requirement
- Operations – ongoing activities necessary to keep system functioning efficiently and effectively
- Program Management– minor modification to application to improve child support program performance/management and is cost effective
- Customer Service – modification to application to improve the delivery of child support services to our customers/business partners

- Examples – program error, server software update, mainframe batch monitoring, revised interface file format, revised policy interpretation, data analysis, form template change, report format change, web text change. Note: detailed lists of open and closed PSRs are available in the PACSES Library for Offeror review
- These Application PSRs are prioritized daily with a proposed future release plan.

Support Services PSRs

Support Services PSRs are typically initiated by the county DRSs, processed through the Help Desk and tracked in Support Magic. The types of Support Services PSRS are:

- Data Modification – tightly controlled central process to change specific data elements
- Password Reset – request to reset user passwords
- Table Update – change table information
- Network Problem – issue with network
- Hardware/Software Problem – issue with PC, servers, printers, office software, PC image
- These PSRs are completed within two (2) days of receipt.

Table of PSR Information

PSRType	Monthly Volume Estimates	PSR Group
Fix	10-15	Application Maintenance
Mandate	1-5	Application Maintenance
Operations	70 (ongoing tasks)	Application Maintenance
Program Management	5-10	Application Maintenance
Data	150-200	Support Services
Password Reset	300-400	Support Services
Table updates	30-50	Support Services
Network	30-40	Referral to Network vendor only
Hardware-Software	120-160	Referral to Network vendor only

4. Application Maintenance Task Responsibilities

- Execute all necessary application code software migrations through the various non-production environments. This includes all relevant database objects, application components, security objects, and server configuration changes.
- Test in accordance with SDM standards. Submit test plans and conduct systems and test for production level testing and promote through DPW’s test environments. Support software migration activities. Submit test plan results to DPW.
- Work with the project teams to analyze the results of the tests, coordinate necessary changes, and communicate results.

- d. Work with BIS to coordinate execution of required load tests. These include configuring the test scenarios and coordinating database activities, security parameters, and server configurations.
- e. Develop a yearly Master Implementation Plan for PACSES and execute that plan following Commonwealth approval. Define how the following components of the Master Implementation Plan will be handled.
 - i. Archive – moving application data that must be kept and must be accessible but does not require similar level of immediacy.
 - ii. Purge – moving and deleting data from the mainframe application that does not need to be kept.
 - iii. Documentation to include user procedures and help systems.
- f. Coordinate implementation logistics meetings for quarterly release deployments. The document provides a detailed series of planned steps which comprise the complete set of activities prior to, during, and after a major implementation.
- g. Develop and update Quarterly Capacity Plans which define ongoing system hardware requirements based on system design and program activity projections. Create, maintain, and submit capacity plans per the BIS Standard addressing server, data, GIS, Knowledge Management (image/content services), and architectural capacity needs. Work with database, architecture, and operations domain to collect, report, and publish business transaction information that can be utilized in the BIS capacity plan.
- h. Proactively identify performance gaining opportunities within the database, server, operations, and security domains. This result would be suggestions to the project team and/or BIS to realize a performance/capacity gain.
- i. Develop and implement a Quality Assurance Plan. Verify that application code reflects industry best practices, DPW standards, and leverages lessons learned. Additionally, work with BIS to proactively verify the technical infrastructure supports planned application releases and business initiatives.
- j. Provide assistance in adhering to DPW system management and control processes to include the Business Review Board, Application Review Board, Data Base Design standards, and Technical Application Development standards. Work with project team to enforce necessary BIS standard technologies and industry best practices.
- k. Attend and document regularly scheduled management status meetings specifically for the purpose of overseeing the application modification tasks. Coordinate issue escalation and resolution with project management team.
- l. Provide a maintenance and warranty plan that recognizes and prioritizes software maintenance fixes and responds to critical issues. Adhere to the maintenance and warranty plan. Create, document, and

communicate vision for enterprise technical solutions in future releases; drive solution determination and progression.

- m. Provide post implementation support through help desk services level I and level II services and through the SME structure.
- n. Perform work assignments in accordance with priorities set by the Commonwealth and the requirements of this contract.

5. Application Maintenance Task Required Items

- a. Mainframe Operations Plan - The Offeror must provide a detailed plan which includes a description of how the Offeror will operate and maintain the Mainframe Application. The plan should describe the resources responsible for completion of these task responsibilities which includes a description of the work skills to be provided.
- b. Server Operations Plan - The Offeror must provide a detailed plan that includes a description of how the Offeror will operate and maintain the Server Applications. The plan should describe the resources responsible for completion of these task responsibilities that includes a description of the work skills to be provided.
- c. Application Maintenance Plan – The Offeror must provide a detailed plan that includes a description of how the systems development methodology (SDM) will be used to maintain and refine applications residing on the mainframe and servers. This plan must recognize the minimal volume of change controls and maintenance fixes (PSRs) that are expected during this period. The plan should describe the resources responsible for completion of these task responsibilities which includes a description of the work skills to be provided and provide a methodology for prioritizing, controlling and monitoring this work.
- d. Application Maintenance Management Reports – The Offeror must describe the management reports that will be produced for oversight and monitoring of the application maintenance responsibilities and provide samples. This section should include descriptions of regular meetings being proposed for purposes of managing application maintenance task responsibilities.
- e. Application Maintenance Deliverables – The Offeror must propose a cost effective deliverable structure for the ongoing completion of Application Maintenance Task Responsibilities during the contract period. Since considerable documentation exists on the operation and maintenance of this system (Management Control Procedures), these procedural preparation tasks do not need to be redone.

- E. Application Support Services** The selected Offeror must provide several different types of application support services that will directly support the system and program operations as it is being utilized by its four thousand (4,000) plus users. The Application Support Services required are defined in this task and specified in **Section IV-3 C. Application Support Services**.

1. Application Support Services Offeror Responsibilities

- a. **Subject Matter Expert Services** The selected Offeror must provide a team of subject matter experts (SME). The SMEs primary responsibility will be to assist county users in the use of PACSES and to communicate the impact of change controls and maintenance fixes. This assistance is provided via phone, email, and incident resolution responses. In essence, this team serves as the second level of help desk support. Other responsibilities of the SMEs are:
- Provide assessment of the impact of maintenance fixes, change control requests and legislative proposals on system users.
 - Provide user input into system designs.
 - Review application maintenance fixes (PSRs) prior to assignment to application team.
 - Participate with the Commonwealth with reconciling system data problems through data cleanup initiatives.
 - Participate in developing workshop sessions to DRS users.
 - Participate in providing updates for training course content changes when PACSES changes require course revisions.
 - Currently, seven (7) SMEs are performing the defined tasks with backlogs and new work being anticipated.
- b. **Help Desk Services** The selected Offeror must operate a User Help Desk. The Help Desk must be available during regular business hours (Monday through Friday, 7:45 AM to 5:00 PM) to respond to PACSES issues and questions from counties and other PACSES users. The Offeror should present appropriate staffing and an operating methodology for a Help Desk operation that efficiently and effectively handles contacts related to application and hardware problems. The Offeror may propose a help desk methodology that routes problem reports to other staff with appropriate expertise.

Currently, county offices designate a PACSES Coordinator to manage the flow of questions and answers at the county level. The local coordinators communicate with the Help Desk by phone, facsimile, or email and also have access to the Support Magic (Help Desk ticket tracking system) to query the status of previously reported problems or questions.

The selected Offeror must work to continuously enhance the knowledge of the Help Desk staff regarding the PACSES system in order to improve their capacity to deliver high quality assistance to local agencies. The selected Offeror will also seek to improve the

accuracy and specificity of problem reports generated by the Help Desk and must facilitate communication and understanding of problems and their resolution between the system analysts and the Help Desk staff.

Currently, there are three (3) staff providing Level I Help Desk Services with no backlogs or issues. Approximately, eight hundred (800) calls are received per month.

- c. **Medical Operations Maintenance** The selected Offeror must provide staff to review the results of data matching activities, and based on specific guidelines, research the validity of medical support information. Based on results and specific criteria, these staff will determine if this information will be added to PACSES.

2. Application Support Services Task Required Items

- a. **Application Support Services Delivery Plan** - The Offeror must provide a detailed plan that includes a description of how the Offeror will operate and maintain the Application Support Services Task Responsibilities. The plan should describe the resources responsible for completion of these task responsibilities that includes a description of the work skills to be provided.
 - b. **Application Support Services Management Reports** – The Offeror must describe the management reports that will be produced for oversight and monitoring of the application support services responsibilities and provide samples. This section should include descriptions of regular meetings being proposed for purposes of managing application support services task responsibilities.
 - c. **Application Support Services Deliverables** – The Offeror should propose a cost effective deliverable structure for the ongoing completion of Application Support Services Task Responsibilities during the contract period. Since considerable documentation exists on the operation and maintenance of this system (Management Control Procedures), these procedural preparation tasks do not need to be redone but must be maintained and updated.
- F. **Turnover Services** The Offeror must address the approach and methodology to ensure a smooth and orderly transition of functions, programs, responsibilities, services, and systems to the Commonwealth or its agent upon the expiration or termination of the contract.

1. Turnover Services Offeror Responsibilities

- a. The selected Offeror will prepare and submit a Turnover Plan. The Turnover Plan will incorporate the activities necessary to turnover the application functions in an orderly manner. The plan will address specialized technical transition of applications and operations. The plan must address the resources required for the turnover including those from the Department and the Offeror, if any. Additionally, the plan will identify the system turnover objectives and work plan activities on a Gantt chart and document activity time frames and responsibilities. The Turnover Plan will be submitted to DPW for final review and approval.
- b. Upon approval of the Turnover Plan, the selected Offeror will begin transitioning the business applications and provide the updated versions of system documentation. DPW will prioritize the turnover tasks along with the activities needed to maintain and operate the systems.
- c. At the end of the turnover phase, the selected Offeror will prepare the Turnover Results Report. This will document the completion of turnover activities, and will provide status of each high level task and activity that took place during the transition period. The report will highlight how each of the objectives stated in the Turnover Plan have been achieved and the resolution of issues identified and prioritized during the turnover process.

2. Turnover Services Task Required Items The Offeror must submit the methodology to support a solution for turnover that includes at a minimum the items listed below:

- a. Proposed approach to the turnover with risk assessment and mitigation strategies
- b. High-level tasks required for transition of the system
- c. Estimated turnover schedule
- d. All source code with a detailed inventory document
- e. All Management Control Procedures, system documentation and operations manuals, user documentation, and training manuals
- f. Final user and system documentation listing, available for access by DPW or agent
- g. Reference to operational instructions
- h. Procedures for updating computer programs, data and reference files, ECL, and other documentation
- i. Current Project plans and test plans
- j. Other information that is currently in use to support application processing.

The Offeror must submit the methodology to be used in determining the results documented and how they will be measured in the Turnover Results Report.

The Offeror must identify staffing resources to provide the services and develop the Turnover Plan.

IV-5 CONTRACT REQUIREMENTS—DISADVANTAGED BUSINESS PARTICIPATION AND ENTERPRISE ZONE SMALL BUSINESS PARTICIPATION

All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must also include a provision requiring the selected contractor to meet and maintain those commitments made to Disadvantaged Businesses and/or Enterprise Zone Small Businesses at the time of proposal submittal or contract negotiation, unless a change in the commitment is approved by the BMWBO. All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must include a provision requiring Small Disadvantaged Business subcontractors, Enterprise Zone Small Business subcontractors and Small Disadvantaged Businesses or Enterprise Zone Small Businesses in a joint venture to perform at least fifty percent (**50%**) of the subcontract or Small Disadvantaged Business/Enterprise Zone Small Business participation portion of the joint venture.

The selected contractor's commitments to Disadvantaged Businesses and/or Enterprise Zone Small Businesses made at the time of proposal submittal or contract negotiation shall be maintained throughout the term of the contract. Any proposed change must be submitted to BMWBO, which will make a recommendation to the Contracting Officer regarding a course of action.

If a contract is assigned to another contractor, the new contractor must maintain the Disadvantaged Business participation and/or Enterprise Zone Small Business participation of the original contract.

The selected contractor shall complete the Prime Contractor's Quarterly Utilization Report (or similar type document containing the same information) and submit it to the contracting officer of the Issuing Office and BMWBO within **ten (10)** workdays at the end of each quarter the contract is in force. This information will be used to determine the actual dollar amount paid to Small Disadvantaged Business and/or Enterprise Zone Small Business subcontractors and suppliers, and Small Disadvantaged Business and/or Enterprise Zone Small Business participants involved in joint ventures. Also, this information will serve as a record of fulfillment of the commitment the selected contractor made and for which it received Disadvantaged Business and Enterprise Zone Small Business points. If there was no activity during the quarter then the form must be completed by stating "No activity in this quarter."

NOTE: EQUAL EMPLOYMENT OPPORTUNITY AND CONTRACT COMPLIANCE STATEMENTS REFERRING TO COMPANY EQUAL EMPLOYMENT OPPORTUNITY POLICIES OR PAST CONTRACT COMPLIANCE PRACTICES DO NOT CONSTITUTE PROOF OF DISADVANTAGED BUSINESSES STATUS OR

ENTITLE AN OFFEROR TO RECEIVE CREDIT FOR DISADVANTAGED
BUSINESSES UTILIZATION.

RFP # 39 - 06

Appendix A

CONTRACT TERMS AND CONDITIONS

1. DEFINITIONS

- a. Contracting Officer. The person authorized to administer this Contract for DPW and to make written determinations with respect to the Contract.
- b. Days. Unless specifically indicated otherwise, days mean Commonwealth business days.
- c. Developed Materials. All documents, sketches, drawings, designs, works, papers, files, reports, computer programs, computer documentation, data, records, software, samples or any other tangible material authored or prepared by Contractor as the work product covered in the scope of work for the Project, without limitation.
- d. Documentation. A term used to refer to all materials required to support and convey information about the services required by this Contract. It includes, but is not necessarily restricted to, written reports and analyses, diagrams, maps, logical and physical designs, system designs, computer programs, flow charts, disks, and/or other machine-readable storage media.
- f. Services. All Contractor activity necessary to satisfy the contract.

2. TERM OF CONTRACT

- a. The term of the Contract shall commence on the Effective Date (as defined below) and shall end on the Expiration Date identified in the Contract, subject to other provisions of this Contract. The Effective Date shall be: a) the date the Contract has been fully executed by the Contractor and by the Commonwealth and all approvals required by Commonwealth contracting principles have been obtained or b) the date referenced in the Contract, whichever is later. The Contract shall not be a legally binding contract until after the Effective Date is affixed and the fully executed contract has been sent to the Contractor. The Issuing Office shall issue a written Notice to Proceed to the Contractor directing the Contractor to start performance on a date which is on or after the Effective Date.
- b. The Contractor may not start performance of any work prior to the date set forth in the Notice to Proceed. The Commonwealth shall not be liable to pay the Contractor for any supply furnished or work performed or expenses incurred before the Effective Date or before the the date set forth in the Notice to Proceed. No Commonwealth employee has the authority to verbally direct the commencement of

any work or delivery of any supply under this Contract prior to the Effective Date.

- c. The Commonwealth may, upon notice to the Contractor, extend the term of the Contract for up to three (3) months upon the same terms and conditions. This will be utilized to prevent a lapse in Contract coverage and only for the time necessary, up to three (3) months, to enter into a new contract.

3. **CONTRACT SCOPE**

- a. The Contractor will furnish the requested services to the Commonwealth as such services are defined in this Contract, the RFP and the Contractor's Proposal.
- b. If the Contractor must perform work outside of the daily operational hours set forth by the Commonwealth, it must make arrangements with the Commonwealth to assure access to the facility and equipment has been arranged. No additional payment will be made on the basis of lack of access, unless the Commonwealth fails to provide access as set out in the RFP.
- c. Except as set out in this contract, the Contractor shall not offer for sale or provide Commonwealth agencies with any hardware or software (i.e., personal computers, file servers, laptops, personal computer packaged software, etc.). Contractor may recommend the use of tools such as hardware and software, without requiring agencies to purchase those tools. Software tools that are NOT on statewide contract will be acquired through purchase agreements, and the Contractor shall not be considered for award of such agreements.
- d. The Contractor shall review the accessibility standards set out in IT Bulletin E.4, Pennsylvania's Accessibility Standards. The Contractor shall ensure that Services procured under this Contract comply with the applicable standards. In the event such standards change during Contractor's performance, and the Commonwealth requests that Contractor comply with the changed standard, then any incremental costs incurred by Contractor to comply with such changes shall be paid for pursuant to a change order to the Contract.

4. **CONTRACT INTEGRATION**

- a. All representations, understandings, promises, and agreements pertaining to the subject matter of the Contract made prior to or at the time this Contract is executed are superseded by this Contract.
- b. There are no conditions precedent to the performance of this Contract except as expressly set forth herein.
- c. No contract terms or conditions are applicable to this Contract except as they are expressly set forth herein.

5. PERIOD OF PERFORMANCE

The Contractor, for the life of this Contract, shall complete all services as specified under the terms of this Contract. In no event shall the Commonwealth be responsible or liable to pay for any services provided by the Contractor prior to the Effective Date, and the Contractor hereby waives any claim or cause of action for any such services.

6. SPECIAL REQUIREMENTS

The Commonwealth reserves the right to purchase services covered under this Contract through other procurement methods whenever the Commonwealth deems it to be in its best interest.

7. SUBCONTRACTS

The Contractor may subcontract any portion of the services described in this Contract to third parties selected by Contractor and approved in writing by the Commonwealth, whose approval shall not be unreasonably withheld. Notwithstanding the above, if Contractor has disclosed the identity of Subcontractor(s) together with the scope of work to be subcontracted in its proposal, award of the Contract is deemed approval of all named Subcontractors and a separate approval is not required. The existence of any subcontract shall not change the obligations of Contractor to the Commonwealth under this Contract. Upon request of the Commonwealth, the Contractor must provide the Commonwealth with a copy of the subcontract agreement between the Contractor and the subcontractor. The Commonwealth may, for good cause, to require that the Contractor remove a subcontractor from the project. The Commonwealth will not be responsible for any costs incurred by the Contractor in replacing the subcontractor if good cause exists.

8. OTHER CONTRACTORS

The Commonwealth may undertake or award other contracts for additional or related work, and the Contractor shall fully cooperate with other Contractors and Commonwealth employees, and coordinate its work with such additional work as may be required. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other Contractor or by Commonwealth employees. This paragraph shall be included in the Contracts of all Contractors with which this Contractor will be required to cooperate. The Commonwealth shall equitably enforce this paragraph as to all Contractors to prevent the imposition of unreasonable burdens on any Contractor. Contractor's failure to cooperate with other Contractors as determined by the Commonwealth will constitute an event of default under section 14 and may result in the termination of this contract for cause.

9. PRIME CONTRACTOR RESPONSIBILITIES

The Contractor will be responsible for all services in this Contract whether or not Contractor provides them directly. Further the Contractor is the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from the Contract.

10. COMPENSATION

- a. The Contractor shall perform at the price(s) quoted in the Contract. All items shall be performed in the time period(s) specified in the Contract. The Contractor will only be compensated for services supplied and performed to the satisfaction of the Commonwealth. The Contractor will not be allowed or paid travel or per diem except as specifically set forth in the contract.
- b. The Commonwealth will make deliverables-based payments based on and made after the Commonwealth's formal written acceptance of the finalized deliverables.
- c. No Additional Consideration. The Contractor is not entitled to any additional consideration, compensation, salary, wages, or any other type of remuneration for Services rendered other than that provided for in the Contract. This includes but is not limited to compensation for overtime, severance pay, employee bonuses, health insurance benefits, retirement benefits, disability retirement benefits, sick leave, vacation time, paid holidays, or other paid leaves of absence.

11. PAYMENT

- a. The Commonwealth shall put forth reasonable efforts to make payment by the payment date. The payment date is:
 - (1) the date on which payment is due under the terms of the Contract;
 - (2) thirty (30) days after a proper invoice actually is received at the "Bill To" address if a date on which payment is due is not specified in the Contract (a "proper" invoice is not received until the Commonwealth accepts the service as satisfactorily performed); or
 - (3) the payment date specified on the invoice if later than the dates established by (1) and (2) above.
- b. Payment may be delayed if the payment amount on an invoice is not based upon the price(s) as stated in the Contract, If any payment is not made within fifteen (15) days after the required payment date, the Commonwealth may pay interest as determined by the Secretary of Budget in accordance with Act No. 266 of 1982 and regulations promulgated pursuant thereto. Payment should not be construed by the Contractor as acceptance of the service performed by the Contractor. The Commonwealth may conduct further testing and inspection after payment and reject the service if

- such past payment testing or inspection discloses a defect or a failure to meet specifications.
- d. Upon written acceptance of deliverables from the DPW Contract Administrator, the Contractor must submit an invoice, a copy of the written acceptance of the deliverable and any required documentation to the DPW Contract Administrator. For each deliverable invoiced, the Contractor will provide documentation, minimally disclosing the job position title and name of the individual(s) who performed the work for the invoiced amount, and actual hours worked and rate per hour and other documentation that will allow the reviewing officer to draw sufficient conclusion on acceptability of the invoice. Upon acceptance of the Contractor's invoice and confirmation of work performed, the Commonwealth will make payment in accordance with the agreed upon payment methodology.
 - e. Any deliverables that are worked on during the life of the contract will be reviewed and prioritized using DPW's methodology process. Any deliverables that exceed 10% of the estimated hours must be approved through DPW's methodology process before work can continue. Any deliverable that is less than the estimated hours must be billed for using the actual hours worked.

12. **ASSIGNABILITY**

- a. Subject to the terms and conditions of this Section, the Contract is binding upon the parties and their respective successors and assigns.
- b. The Contractor may not assign, in whole or in part, the Contract or its rights, duties, obligations, or responsibilities hereunder without the prior written consent of the Commonwealth, which consent may be withheld at the sole and absolute discretion of the Commonwealth.
- c. Notwithstanding the foregoing, the Contractor may, without the consent of the Commonwealth, assign its rights to payment to be received under the Contract, provided that the Contractor provides written notice of such assignment to the Commonwealth together with a written acknowledgement from the assignee that any such payments are subject to all of the terms and conditions of the Contract.
- d. For the purposes of the Contract, the term "assign" shall include, but shall not be limited to, the sale, gift, assignment, pledge, or other transfer of any ownership interest in the Contractor provided, however, that the term shall not apply to the sale or other transfer of stock of a publicly traded company.
- e. Any assignment consented to by the Commonwealth shall be evidenced by a written assignment agreement executed by the Contractor and its assignee in which the assignee agrees to be legally bound by all of the terms and conditions of the Contract and

to assume the duties, obligations, and responsibilities being assigned.

- f. A change of name by the Contractor, following which the Contractor's federal identification number remains unchanged, is not considered to be an assignment. The Contractor shall give the Commonwealth written notice of any such change of name.

13. **INSPECTION AND ACCEPTANCE**

- a. Walkthroughs: The Contractor must provide structured walkthroughs in accordance with DPW's Bureau of Information Systems System Development Methodology (SDM) processes and those associated with application release work packages. The DPW Contract Administrator may waive this requirement on a deliverable-by-deliverable basis. At the written request of the DPW Contract Administrator, the Contractor must provide a structured walkthrough of work completed to that point in time, including copies of supporting documentation and any visual aids normally used for this purpose. The Contractor will conduct each walkthrough presentation in a time and place convenient to DPW.
- b. Acceptance of Developed Materials will occur in accordance with the Deliverable Approval Plan submitted by the Contractor and approved by the Commonwealth, and upon approval of the plan, the Deliverable Approval Plan becomes part of this Contract. If software or a developed system is the deliverable, the Deliverable Approval Plan must include an Acceptance Test Plan. The Acceptance Test Plan will provide for a Final Acceptance Test and may provide for Interim Milestone Acceptance Tests. Each Acceptance Test will be designed to demonstrate that the Developed Materials conform with the functional specifications for the Developed Materials, if any, and/or the requirements of this Contract. Contractor shall notify the Contract Administrator when the deliverable is completed and ready for acceptance testing. The Commonwealth will not unreasonably delay commencement of acceptance testing.
- c. Contractor will certify, in writing, when a particular milestone, interim or final, is completed and ready for acceptance (hereinafter Acceptance). Unless a written request for an extension of time is made, the Contract Administrator will review and provide written acceptance or non-acceptance within ten (10) days. On or before the tenth day following receipt of Contractor's certification of completion, DPW will either (1) provide the Contractor with its written conditional acceptance of the Developed Material in the completed milestone, subject to final acceptance or (2) identify to the Contractor the failure of the Developed Materials to comply with the specifications, listing all such errors and omissions with reasonable detail.

- d. If the Commonwealth fails to notify the Contractor in writing of any failures in the Developed Materials or to request and extension of time for its review, the Developed Materials shall be deemed accepted.
- e. If the Developed Materials do not meet an accessibility standard set out in section 3.d., the Contractor must provide written justification for its failure to meet the standard. The justification must provide specific details as to why the standard has not been met. The Commonwealth may either waive the requirement as not applicable to its business requirements or require that the Contractor provide an acceptable alternative. Any waiver of the requirement must be in writing.
- f. Upon Contractor's receipt of the Commonwealth's written notice of rejection, which must identify the reasons for the failure of the Developed Materials to comply with the specifications, the Contractor shall have five (5) days, or such other time as the Commonwealth and the Contractor may approve as reasonable, within which to correct all such failures and resubmit the corrected Developed Material, certifying to the Contract Administrator, in writing that any failures have been corrected, and that the Developed Materials have been brought in compliance with the specifications. Upon receipt of such corrected Developed Materials and certification, the Commonwealth shall have thirty (30) days to test the corrected Developed Materials to confirm that they are in compliance with the specifications. If the corrected Developed Materials are in compliance with the specifications, then the Contract Administrator shall provide the Contractor with its conditional acceptance of the Developed Materials.
- g. If in the opinion of the Contract Administrator, the corrected Developed Materials still contain material failures, the Commonwealth may either:
 - (1) repeat the procedure set forth above; or
 - (2) terminate the contract.
- h. By submitting a deliverable, the Contractor represents that, to the best of its knowledge, it has performed the associated tasks in a manner that will, in concert with other tasks, meet the contract specifications and objectives. By giving acceptance for a deliverable, the Commonwealth represents only that it has reviewed the deliverable and detected no deficiencies of sufficient gravity to defeat or substantially threaten the attainment of the objectives and to warrant the withholding of acceptance. The Commonwealth's acceptance of a deliverable does not discharge the Contractor's responsibilities for comprehensiveness, functionality, effectiveness or validity of the deliverable except in cases where written notice is provided advising of a specific exception and the exception is formally acknowledged and agreed to by the Contract Administrator in

his or her sole discretion. If the Commonwealth accepts a deliverable under this contract, and the Commonwealth subsequently determines, at any point in time, that the comprehensiveness, functionality, effectiveness or validity is impaired in any way, the determination of which will be solely determined by the Commonwealth, then the Contractor must repair the deficiency at no expense to the Commonwealth.

14. **DEFAULT**

- a. The Commonwealth may, subject to the provisions of Section 15 (NOTICE OF DELAY), and in addition to its other rights under the Contract, declare the Contractor in default by written notice thereof to the Contractor, and terminate the whole or any part of this Contract for any of the following reasons:
 - (1) Failure to begin work within the time specified in the Contract or as otherwise specified;
 - (2) Failure to perform the work with sufficient labor, equipment, or material to insure the completion of the specified work in accordance with the Contract terms;
 - (3) Unsatisfactory performance of the work;
 - (4) Failure or refusal to remove material, or remove and replace any work rejected as defective or unsatisfactory;
 - (5) Discontinuance of work without approval;
 - (6) Failure to resume work, which has been discontinued, within a reasonable time after notice to do so;
 - (7) Insolvency or bankruptcy;
 - (8) Assignment made for the benefit of creditors;
 - (9) Failure or refusal within 10 days after written notice by the Contracting Officer, of the Contractor to make payment or show cause why payment should not be made, of any amounts due for materials furnished, labor supplied or performed, for equipment rentals, or for utility services rendered;
 - (10) Failure to protect, to repair, or to make good any damage or injury to property;
 - (11) Fraud, abuse, malfeasance, misfeasance, or nonfeasance under the contract; or
 - (12) Breach of any provision of this Contract.
- b. In the event that the Commonwealth terminates this Contract in whole or in part as provided in subsection a, the Commonwealth may procure, upon such terms and in such manner as it determines, services similar or identical to those so terminated, and the Contractor shall be liable to the Commonwealth for any reasonable excess costs for such similar or identical services included within the terminated part of the Contract.
- c. If the Contract is terminated as provided in subsection a, the

Commonwealth, in addition to any other rights provided in this Section, will require the Contractor to transfer title and deliver immediately to the Commonwealth in the manner and to the extent directed by the Commonwealth, such partially completed work, including, where applicable, reports, working papers and other documentation, as the Contractor has specifically produced or specifically acquired for the performance of such part of the Contract as has been terminated. Payment for completed work accepted by the Commonwealth shall be at the Contract price. The Commonwealth may withhold from amounts, otherwise due the Contractor for such completed works, such sum as the Contract Administrator determines necessary to protect the Commonwealth.

- d. The rights and remedies of the Commonwealth provided in this Section shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.
- e. The Commonwealth's failure to exercise any rights or remedies provided in this Section shall not be construed to be a waiver by the Commonwealth of its rights and remedies in regard to the event of default or any succeeding event of default.
- f. Following exhaustion of the Contractor's administrative remedies as set forth in Section 20 (CONTRACT CONTROVERSIES), the Contractor's exclusive remedy shall be to seek damages in the Board of Claims.

15. NOTICE OF DELAYS

Contractor is to complete, deliver and gain acceptance of each deliverable by the deliverable due date, unless otherwise agreed to by the DPW Contract Administrator.

Whenever the Contractor encounters any difficulty that delays or threatens to delay the timely performance of this Contract (including actual or potential labor disputes), the Contractor shall immediately give notice thereof in writing to the Commonwealth stating all relevant information with respect thereto. Such notice shall not in any way constitute a basis for an extension of the delivery schedule or be construed as a waiver by the Commonwealth of any rights or remedies to which it is entitled by law or pursuant to provisions of this Contract. Failure to give such notice, however, may be grounds for denial of any request for an extension of the delivery schedule because of such delay. If an extension of the delivery schedule is granted, it will be done consistent with Section 17 (CHANGES).

16. CONDUCT OF SERVICES

- a. Following the Effective Date the Contract, Contractor shall proceed diligently with all services and shall perform such services with

- qualified personnel, in accordance with the completion criteria set forth in the Contract.
- b. In determining whether or not the Contractor has performed with due diligence hereunder, it is agreed and understood that the Commonwealth may measure the amount and quality of the Contractor's effort against the representations made in the Contractor proposal. The Contractor's services hereunder shall be monitored by the Commonwealth and the Commonwealth's designated representatives. If the Commonwealth reasonably determines that the Contractor has not performed with due diligence, the Commonwealth and the Contractor will attempt to reach agreement with respect to such matter. Failure of the Commonwealth or the Contractor to arrive at such mutual determinations shall be a dispute concerning a question of fact within the meaning of Section 20 (CONTRACT CONTROVERSIES) of this Contract.

17. **CHANGES**

- a. At any time during the performance of the Contract, the Commonwealth or the Contractor may request a change to the Contract. Contractor will make reasonable efforts to investigate the impact of the change request on the price, timetable, specifications, and other terms and conditions of the Contract. If the Commonwealth is the requestor of the change, the Contractor will inform the Commonwealth if there will be any charges for the Contractor's services in investigating the change request prior to incurring such charges. If the Commonwealth and the Contractor agree on the results of the investigation and any necessary amendments to the Contract, the Contract will be modified to take into account the agreed changes and the change will be implemented. If the parties cannot agree upon the results of the investigation or the necessary amendments to the Contract, the contracting officer may unilaterally order the work to be done, and the matter will be handled in accordance with Section 20 (CONTRACT CONTROVERSIES) of this Contract. The change request will be evidenced by an Order issued by the Commonwealth. No work may begin on the change request until the Contractor has received the Order.
- b. Changes outside the scope of this Contract shall be accomplished through the Commonwealth's normal procurement procedures, and may result in an amended Contract or a new contract. No payment will be made for services outside of the scope of the Contract for which no amendment has been executed, prior to the provision of the services.

18. TERMINATION

a. For Convenience

- (1) The Commonwealth may terminate this Contract without cause by giving Contractor thirty (30) calendar days prior written notice (Notice of Termination) whenever the Commonwealth shall determine that such termination is in the best interest of the Commonwealth (Termination for Convenience). Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance under this Contract is terminated either in whole or in part and the date on which such termination becomes effective.

In the event of termination hereunder, Contractor shall receive payment for the following:

- a. all services performed consistent with the terms of the Contract prior to the effective date of termination;
- b. all actual and reasonable costs incurred by Contractor as a result of the termination of the Contract.

In no event shall the Contractor be paid for any loss of anticipated profit (by the Contractor or any Subcontractor), loss of use of money, or administrative or overhead costs.

Failure to agree on any termination costs shall be a dispute handled in accordance with Section 20 (CONTRACT CONTROVERSIES) of this Contract.

- (2) The Contractor shall cease work as of the date set forth in the Notice of Termination, and shall be paid only for such services as have already been satisfactorily rendered up to and including the cease work date set forth in said notice, or as may be otherwise provided for in said Notice of Termination, and for such services performed thereafter in the thirty (30) calendar day period of termination, if such services are requested by the Commonwealth, for the collection, assembling, and transmitting to the Commonwealth of at least all materials, manuals, magnetic media, studies, drawings, computations, maps, supplies, and survey notes including field books, which were obtained, prepared, or developed as part of the work required under this Contract.
- (3) The above shall not be deemed to limit the Commonwealth's right to terminate this Contract for any reason as permitted by the other provisions of this Contract, or under applicable law.

b. Non-Appropriation

Any payment obligation or portion thereof of the Commonwealth created by this Contract is conditioned upon the availability and appropriation of funds. When funds (state or federal) are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal year period, the Commonwealth shall have the right to terminate the Contract. The Contractor shall be reimbursed in the same manner as that described in this section related to Termination for Convenience to the extent that appropriated funds are available.

c. Default

The Commonwealth may, in addition to any other of its rights under this contract, terminate this contract, in whole or part by providing written notice of default if the Contractor fails to perform its obligations or breaches any representations or warranties under the contract, and does not cure such failure within 10 business days after written Notice of the default is given to the Contractor, or if a cure within such period is not practical, commence a good faith effort to cure such failure within the specified period (or such longer period as the Department may specify in writing).

If a plan for cure is presented to the Commonwealth within 10 business days after Notice is given to the Contractor, the Commonwealth shall review the plan for cure and, jointly, the parties will discuss the plan and its viability. The Commonwealth may then accept the plan for cure unless the plan will not result in the failure to perform being cured within a period of time that is reasonable in the Commonwealth's judgment. If the plan for cure is accepted by the Commonwealth, then the Contractor shall have 10 additional business days, or such other period as is set forth in the plan, to cure the default. If the Commonwealth does not accept the plan for cure, the Commonwealth may proceed in terminating the Contract by providing the Contractor with written Notice of said termination. In the event of such termination, the Contractor will refund amounts paid for the impacted Deliverables that the Commonwealth returns to the Contractor.

- (1) In the event the Commonwealth terminates this Contract in whole or part as provided in this section c, the Commonwealth may procure services similar to those so terminated, and the Contractor, in addition to liability for any liquidated damages shall be liable to the Commonwealth, as the Commonwealth's sole remedy for such default, for the difference between the Contract price for the terminated portion of services and the actual cost (but in no event greater than fair market value) of producing substitute

- equivalent services for the terminated services, provided that the Contractor shall continue the performance of this Contract to the extent not terminated.
- (2) Except with respect to defaults of Subcontractors, the Contractor shall not be liable for any excess costs if the failure to perform the Contract arises out of causes beyond the control of the Contractor. Such causes may include, but are not limited to acts of God or public enemy, fires, floods, epidemics, quarantine restrictions, strikes, work stoppages, freight embargoes, acts of terrorism, and unusually severe weather. The Contractor shall notify the Contract Administrator immediately of its inability to perform because of causes beyond the control of the Contractor.
 - (3) Nothing in this section c shall abridge the Commonwealth's right to suspend, debar, or take other administrative actions against the Contractor.
 - (4) If it is later determined that the Commonwealth erred in terminating the Contract for default, then the Contract shall be deemed to have been terminated for convenience under subsection a.
 - (5) If this Contract is terminated as provided by this section c, the Commonwealth may, in addition to any other rights provided in this section c, and subject to section 32 (OWNERSHIP RIGHTS), require Contract to deliver to the Commonwealth in the manner and to the extent directed by the Contract Administrator, such reports and other documentation as the Contractor has specifically produced or specifically acquired for the performance of such part of the Contract as has been terminated. Payment for such reports and documentation will be made consistent with the Contract.

19. **BACKGROUND CHECKS**

- a. The Contractor must, at its expense, arrange for a background check for each of its employees, as well as the employees of any of its subcontractors, who will have access to Commonwealth IT facilities, either through on-site access or through remote access. Background checks are to be conducted via the Request for Criminal Record Check form and procedure found at <http://www.psp.state.pa.us/psplib/psp/sp4-164.pdf>. The background check must be conducted prior to initial access and on an annual basis thereafter.
- b. Before the Commonwealth will permit access to the Contractor, the Contractor must provide written confirmation that the background checks have been conducted. If, at any time, it is discovered that a Contractor employee has a criminal record that includes a felony or misdemeanor involving terroristic behavior, violence, use of a lethal

weapon, or breach of trust/fiduciary responsibility or which raises concerns about building, system or personal security or is otherwise job-related, the Contractor shall not assign that employee to any Commonwealth facilities, shall remove any access privileges already given to the employee and shall not permit that employee remote access unless the Commonwealth consents to the access, in writing, prior to the access. The Commonwealth may withhold its consent in its complete discretion. Failure of the Contractor to comply with the terms of this Section on more than one occasion or Contractor's failure to appropriately address any single failure to the satisfaction of the Commonwealth may result in default of the Contractor under its Contract.

- d. The Commonwealth may conduct background checks over and above that described herein.

20. **CONTRACT CONTROVERSIES**

- a. In the event of a controversy or claim arising from the Contract, the Contractor must, within six months after the cause of action accrues, file a written claim with the contracting officer for a determination. The claim shall state all grounds upon which the Contractor asserts a controversy exists. If the Contractor fails to file a claim or files an untimely claim, the Contractor is deemed to have waived its right to assert a claim in any forum.
- b. The contracting officer shall review timely-filed claims and issue a final determination, in writing, regarding the claim. The final determination shall be issued within 120 days of the receipt of the claim, unless extended by consent of the contracting officer and the Contractor. The contracting officer shall send his/her written determination to the Contractor. If the contracting officer fails to issue a final determination within the 120 days (unless extended by consent of the parties), the claim shall be deemed denied. The contracting officer's determination shall be the final order of the purchasing agency.
- c. Within fifteen (15) days of the mailing date of the determination denying a claim or within 135 days of filing a claim if, no extension is agreed to by the parties, whichever occurs first, the Contractor may file a statement of claim with the Commonwealth Board of Claims. Pending a final judicial resolution of a controversy or claim, the Contractor shall proceed diligently with the performance of the Contract in a manner consistent with the determination of the contracting officer and the Commonwealth shall compensate the Contractor pursuant to the terms of the Contract.

21. CONFIDENTIALITY

- a. The Contractor agrees to guard the confidentiality of the Commonwealth with the same diligence with which it guards its own proprietary information. If the Contractor needs to disclose all or part of project materials to third parties to assist in the work or service performed for the Commonwealth, it may do so only if such third parties sign agreements containing substantially the same provisions as contained in this Section. The Commonwealth agrees to protect the confidentiality of Contractor's confidential information. In order for information to be deemed to be confidential, the party claiming confidentiality must designate the information as "confidential" in such a way as to give notice to the other party. The parties agree that such confidential information shall not be copied, in whole or in part, except when essential for authorized use under this Contract. Each copy of such confidential information shall be marked by the party making the copy with all notices appearing in the original. Upon termination or cancellation of this Contract or any license granted hereunder, the receiving party will return to the disclosing party all copies of the confidential information in the receiving party's possession, other than one copy, which may be maintained for archival purposes only. Both parties agree that a material breach of these requirements may, after failure to cure within the time frame specified in this Contract, and at the discretion of the non-breaching party, result in termination for default pursuant to Section 18c. (Termination for default).
- b. The obligations stated in this Section do not apply to information:
 - (1) already known to the recipient at the time of disclosure other than through the contractual relationship;
 - (2) independently generated by the recipient and not derived from the information supplied by the disclosing party;
 - (3) known or available to the public, except where such knowledge or availability is the result of unauthorized disclosure by the recipient of the proprietary information;
 - (4) disclosed to the recipient without a similar restriction by a third party who has the right to make such disclosure; or
 - (5) required to be disclosed by the recipient by law, regulation, court order, or other legal process.
- c. There shall be no restriction with respect to the use or disclosure of any ideas, concepts, know-how, or data processing techniques developed alone or jointly with the Commonwealth in connection with services provided to the Commonwealth under this Contract.

22. INSURANCE

- a. The Contractor shall procure and maintain at its expense and/or require its subcontractors to procure and maintain, as appropriate, the following types of insurance, issued by companies acceptable to the Commonwealth and authorized to conduct such business under the laws of the Commonwealth of Pennsylvania:
 - (1) Worker's Compensation Insurance for all of the Contractor's employees and those of any Subcontractor engaged in performing Services in accordance with the *Worker's Compensation Act of 1915* and any supplements or amendments thereof.
 - (2) Public liability and property damage insurance to protect the Commonwealth, the Contractor, and any and all Subcontractors from claims for damages for personal injury (including bodily injury), sickness or disease, accidental death, and damage to property, including loss of use resulting from any property damage which may arise from its operations under this Contract, whether such operation be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by either. The limits of such insurance shall be in an amount not less than \$500,000 each person and \$2,000,000 each occurrence, personal injury and property damage combined. Such policies shall be occurrence rather than claims-made policies and shall name the Commonwealth of Pennsylvania as an additional insured. The insurance shall not contain any endorsements or any other form designed to limit and restrict any action by the Commonwealth as an additional insured against the insurance coverages in regard to the work performed for the Commonwealth.
- b. Prior to commencing work under the Contract, the Contractor shall provide the Commonwealth with a copy of each current certificate of insurance. These certificates shall contain a provision that coverages afforded under the policies will not be canceled or changed in such a way to cause the coverage to fail to comply with the requirements of this Paragraph until at least thirty (30) days prior written notice has been given to the Commonwealth.
- c. The Contractor agrees to maintain such insurance for the life of the Contract.
- d. Contractor's self-insurance of the types and amounts of insurance set for above shall satisfy the requirements of this Section.

23. **CONTRACTOR RESPONSIBILITY PROGRAM**

- a. The Contractor certifies, for itself and all its subcontractors, that as of the date of its execution of this Bid/Contract that neither the Contractor, nor any subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the

- Contractor cannot so certify, then it agrees to submit, along with its Bid, a written explanation of why such certification cannot be made.
- b. The Contractor also certifies, that as of the date of its execution of this Bid/Contract, it has no tax liabilities or other Commonwealth obligations.
 - c. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.
 - d. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.
 - e. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth, which results in the suspension or debarment of the Contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.
 - f. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the internet at <http://www.dgs.state.pa.us> or contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No. (717) 783-6472
FAX No. (717) 787-9138

24. OFFSET PROVISION FOR COMMONWEALTH CONTRACTS

The Contractor agrees that the Commonwealth may set off the amount of any state tax liability or other obligation of the Contractor or its subsidiaries to the Commonwealth against any payments due the Contractor under any contract with the Commonwealth.

25. TAXES-FEDERAL, STATE, AND LOCAL

The Commonwealth is exempt from all excise taxes imposed by the Internal Revenue Service and has accordingly registered with the Internal Revenue Service to make tax-free purchases under registration No. 23-23740001-K. With the exception of purchases of the following items, no exemption certificates are required and none will be issued: undyed diesel fuel, tires, trucks, gas-guzzler emergency vehicles, and sports fishing equipment. The Commonwealth is also exempt from Pennsylvania sales tax, local sales tax, public transportation assistance taxes, and fees and vehicle rental tax. The Department of Revenue regulations provide that exemption certificates are not required for sales made to governmental entities and none will be issued. Nothing in this Section is meant to exempt a construction contractor from the payment of any of these taxes or fees which are required to be paid with respect to the purchase, use, rental or lease of tangible personal property or taxable services used or transferred in connection with the performance of a construction contract.

26. LIMITATION OF LIABILITY

- a. Except to the extent that the required Contractor insurance coverage under Section 22 (INSURANCE) exceeds the Contract value, the Contractor's liability to the Commonwealth under this Contract shall be limited to the value of this Contract. This limitation will apply, except as otherwise stated in this Section, regardless of the form of action, whether in contract or in tort, including negligence. This limitation does not, however, apply to damages for:
 - (1) bodily injury;
 - (2) death;
 - (3) intentional injury;
 - (4) damage to real property or tangible personal property for which the Contractor is legally liable; or
 - (5) the Contractor's indemnity of the Commonwealth for patent, copyright, trade secret, or trademark protection.
- b. In no event will the Contractor be liable for lost profits, lost revenue or lost savings. Except as set out in Section 28 (VIRUS, MALICIOUS, MISCHIEVOUS OR DESTRUCTIVE PROGRAMMING) the Contractor will not be liable for damages due to lost records or data, unless otherwise specified in the RFP. Notwithstanding the foregoing, the Contractor shall provide reasonable assistance to the Commonwealth in restoring such lost records or data to their most recent backup copy.

27. COMMONWEALTH HELD HARMLESS

- a. The Contractor shall hold the Commonwealth harmless from and indemnify the Commonwealth against any and all third party claims,

demands and actions based upon or arising out of any activities performed by the Contractor and its employees and agents under this Contract, provided the Commonwealth gives Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act 71 P.S. § 732-101, et seq., the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under such terms as it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits.

- b. Notwithstanding the above, neither party shall enter into any settlement without the other party's written consent, which shall not be unreasonably withheld. The Commonwealth may, in its sole discretion, allow the Contractor to control the defense and any related settlement negotiations.

28. VIRUS, MALICIOUS, MISCHIEVOUS OR DESTRUCTIVE PROGRAMMING

- a. Notwithstanding any other provision in this Contract to the contrary, the Contractor shall be liable for any damage to any data and/or software owned or licensed by the Commonwealth if the Contractor or any of its employees, subcontractors or consultants introduces a virus or malicious, mischievous or destructive programming into the Commonwealth's software or computer networks and has failed to comply with the Commonwealth software security standards. The Commonwealth must demonstrate that the Contractor or any of its employees, subcontractors or consultants introduced the virus or malicious, mischievous or destructive programming. The Contractor's liability shall cease if the Commonwealth has not fully complied with its own software security standards.
- b. The Contractor shall be liable for any damages incurred by the Commonwealth including, but not limited to, the expenditure of Commonwealth funds to eliminate or remove a computer virus or malicious, mischievous or destructive programming that result from the Contractor's failure to take proactive measures to keep virus or malicious, mischievous or destructive programming from originating from the Contractor or any of its employees, subcontractors or consultants through appropriate firewalls and maintenance of anti-virus software and software security updates (such as operating systems security patches, etc.).
- c. In the event of destruction or modification of software, the Contractor shall eliminate the virus, malicious, mischievous or destructive programming, restore the Commonwealth's software, and be liable to the Commonwealth for any resulting damages.

- d. The Contractor shall be responsible for reviewing Commonwealth software security standards and complying with those standards.
- e. The Commonwealth may, at any time, audit, by a means deemed appropriate by the Commonwealth, any computing devices being used by representatives of the Contractor to provide services to the Commonwealth for the sole purpose of determining whether those devices have anti-virus software with current virus signature files and the current minimum operating system patches or workarounds have been installed. Devices found to be out of compliance will immediately be disconnected and will not be permitted to connect or reconnect to the Commonwealth network until the proper installations have been made.
- f. The Contractor may use the anti-virus software used by the Commonwealth to protect Contractor's computing devices used in the course of providing services to the Commonwealth. It is understood that the Contractor may not install the software on any computing device not being used to provide services to the Commonwealth, and that all copies of the software will be removed from all devices upon termination of this Contractor.
- g. The Commonwealth will not be responsible for any damages to the Contractor's computers, data, software, etc. caused as a result of the installation of the Commonwealth's anti-virus software or monitoring software on the Contractor's computers.

29. **PATENT, COPYRIGHT, TRADEMARK, AND TRADE SECRET PROTECTION**

- a. The Contractor shall hold the Commonwealth harmless for any suit or proceeding which may be brought by a third party against the Commonwealth, its departments, officers or employees for the alleged infringement of any United States or foreign patents, copyrights, or trademarks, or for a misappropriation of trade secrets arising out of performance of this Contract, including all work, services, materials, reports, studies, and computer programs provided by the Contractor, and in any such suit or proceeding will satisfy any final award for such infringement, including costs. The Commonwealth agrees to give Contractor prompt notice of any such claim of which it learns. Pursuant to the Commonwealth Attorneys Act 71 P.S. § 732-101, et seq., the Office of Attorney General (OAG) has the sole authority to represent the Commonwealth in actions brought against the Commonwealth. The OAG may, however, in its sole discretion and under the terms it deems appropriate, delegate its right of defense. If OAG delegates the defense to the Contractor, the Commonwealth will cooperate with all reasonable requests of Contractor made in the defense of such suits. No settlement which prevents the Commonwealth from continuing to use the Developed Materials as provided herein shall be made without the Commonwealth's prior written consent. In all events, the Commonwealth shall have the

right to participate in the defense of any such suit or proceeding through counsel of its own choosing. It is expressly agreed by the Contractor that, in the event it requests that the Commonwealth to provide support to the Contractor in defending any such claim, the Contractor shall reimburse the Commonwealth for all expenses (including attorneys' fees, if such are made necessary by the Contractor's request) incurred by the Commonwealth for such support. If OAG does not delegate the defense of the matter, the Contractor's obligation to indemnify ceases. The Contractor will, at its expense, provide whatever cooperation OAG requests in the defense of the suit.

- b. The Contractor agrees to exercise reasonable due diligence to prevent claims of infringement on the rights of third parties. The Contractor certifies that, in all respects applicable to this Contract, it has exercised and will continue to exercise due diligence to ensure that all works produced under this Contract do not infringe on the patents, copyrights, trademarks, trade secrets or other proprietary interests of any kind which may be held by third parties. The Contractor also agrees to certify that work produced for the Commonwealth under this contract shall be free and clear from all claims of any nature.
- c. If the defense of the suit is delegated to the Contractor, the Contractor shall pay all damages and costs awarded therein against the Commonwealth. If information and assistance are furnished by the Commonwealth at the Contractor's written request, it shall be at the Contractor's expense, but the responsibility for such expense shall be only that within the Contractor's written authorization.
- d. If, in the Contractor's opinion, the products, materials, reports, studies, or computer programs furnished hereunder are likely to or do become subject to a claim of infringement of a United States patent, copyright, or trademark, or for a misappropriation of trade secret, then without diminishing the Contractor's obligation to satisfy any final award, the Contractor may, at its option, substitute functional equivalents for the alleged infringing products, materials, reports, studies, or computer programs or, at the Contractor's option and expense, obtain the rights for the Commonwealth to continue the use of such products, materials, reports, studies, or computer programs.
- e. If any of the products, materials, reports, studies, or computer programs provided by the Contractor are in such suit or proceeding held to constitute infringement and the use or publication thereof is enjoined, the Contractor shall, at its own expense and at its option, either procure the right to publish or continue use of such infringing products, materials, reports, studies, or computer programs, replace them with non-infringing items, or modify them so that they are no longer infringing.

- f. If the Contractor is unable to do any of the preceding, the Contractor agrees to pay the Commonwealth:
 - (1). any amounts paid by the Commonwealth less a reasonable amount based on the acceptance and use of the deliverable;
 - (2). any license fee less an amount for the period of usage of any software; and
 - (3). the prorated portion of any service fees representing the time remaining in any period of service for which payment was made.
- g. The obligations of the Contractor under this Section continue without time limit and survive the termination of this contract.
- h. Notwithstanding the above, the Contractor shall have no obligation for:
 - (1). modification of any product, service, or deliverable provided by the Commonwealth;
 - (2). any material provided by the Commonwealth to the Contractor and incorporated into, or used to prepare, a product, service, or deliverable;
 - (3). use of the product, service, or deliverable in other than its specified operating environment;
 - (4). the combination, operation, or use of the product, service, or deliverable with other products, services, or deliverables not provided by the Contractor as a system or the combination, operation, or use of the product, service, or deliverable, with any products, data, or apparatus that the Contractor did not provide;
 - (5). infringement of a non-Contractor product alone;
 - (6). the Commonwealth's distribution, marketing or use beyond the scope contemplated by the Contract; or
 - (7). the Commonwealth's failure to use corrections or enhancements made available to the Commonwealth by the Contractor at no charge.
- i. The obligation to indemnify the Commonwealth, under the terms of this Section, shall be the Contractor's sole and exclusive obligation for the infringement or misappropriation of intellectual property.

30. SENSITIVE INFORMATION

- a. The Contractor shall not publish or otherwise disclose, except to the Commonwealth and except matters of public record, any information or data obtained hereunder from private individuals, organizations, or public agencies, in a publication whereby the information or data furnished by or about any particular person or establishment can be identified, except with the consent of such person or establishment.
- b. The parties shall not use or disclose any information about a recipient receiving services from, or otherwise enrolled in, a

Commonwealth program affected by or benefiting from services under this Contract for any purpose not connected with the parties' Contract responsibilities except with the written consent of such recipient, recipient's attorney, or recipient's parent or guardian pursuant to applicable state and federal law and regulations.

- c. Contractor will comply with all federal or state laws related to the use of information that constitutes personal health information (PHI) as defined by the Health Insurance Portability and Accountability Act (HIPAA). Further, in order to address the provision of PHI to the Contract, by signing this Contract, the Contractor agrees to the terms of the Business Associates Agreement, which is incorporated into this Contract as Appendix A.

31. CONTRACT CONSTRUCTION

The provisions of this Contract shall be construed in accordance with the provisions of all applicable laws and regulations of the Commonwealth of Pennsylvania. However, by executing this Contract, the Contractor agrees that it has and will continue to abide by the intellectual property laws of the United States of America.

32. OWNERSHIP RIGHTS

a. Ownership of Properties

- (1) All documents, data, records, software, samples or other literary works or works of original authorship created by Contractor in carrying out its performance and service obligations under this Contract (collectively, "Developed Works"), without limitation shall be owned according to the following provisions:
- (2) All software owned by the Commonwealth or its licensors ("Commonwealth Software") as of the Effective Date, shall be and shall remain the exclusive property of the Commonwealth or its licensors, and Contractor shall acquire no rights or interests in the Commonwealth Software or Tools or that of its licensors except as described in this Section or in another provision set forth in this Contract. The Contractor shall not use any Commonwealth Software, Commonwealth Tools or software or tools of its licensors for any purpose other than for completion of work to be performed under this Contract.

b. Definitions

- (1) **Software:** For purposes of this Contract, Software is defined as a collection of one or more programs, databases or microprograms fixed in any tangible medium of expression that comprises a sequence of instructions (source code) to carry out a process in, or convertible into, a form executable by an electronic computer (object code).

- (2) Data - The term "data" as used in this Contract means any recorded information, regardless of form, the media on which it may be recorded, or the method of recording.
- (3) Technical data - The term "technical data" is defined as any specific information necessary for the development, production or use of the Commonwealth Software.

c. Commonwealth Property – Non-Exclusive, License Grant and Restrictions

During the term of this Contract, Commonwealth grants to Contractor for the limited purpose of providing the Services covered under this Contract, a limited, nonexclusive, nontransferable, royalty-free right (subject to the terms of any third party agreement to which the Commonwealth is a party) to do the following:

- (1) Obtain access to and use of the Commonwealth Software in accordance with the terms of this Contract.
- (2) Reproduce the Commonwealth Software for archival purposes or for other purposes expressly provided for under this Contract.
- (3) Modify the Commonwealth Software consistent with the terms and conditions of this Contract provided that Contractor agrees to assign to the Commonwealth, its rights, if any, in any derivative works resulting from Contractor's modification of the Commonwealth Software. Contractor agrees to execute any documents required to evidence this assignment and to waive any moral rights and rights of attribution provided for in Section 106A of Title 17 of the United States Code, the Copyright Act of 1976.
- (4) Allow the Contractor's subcontractors approved by the Commonwealth to obtain access to the Commonwealth Software for the purposes of complying with the terms and conditions of this Contract; provided, however, that neither Contractor nor any of its subcontractors may decompile or reverse engineer, or attempt to decompile or reverse engineer, any of the Commonwealth Software. Commonwealth hereby represents that it has the authority to provide the license grant and rights set forth in this Section.
- (6) To the extent that Contractor uses Commonwealth Software, Commonwealth Tools or software or tools of its licensor, Contractor agrees to protect the confidentiality of these works and maintain these proprietary works with the strictest confidence.

d. Impact of Third Party Agreements

Subject to the terms of any third party agreement to which the Commonwealth is a party, (i) the Commonwealth shall, at no cost to Contractor, provide Contractor with access to the Commonwealth Software in the form in use by Commonwealth as of the Effective Date of this Contract and, (ii) Contractor, as part of the Services to be rendered under this Contract, shall compile and, as changes are made, update a list of all of the Commonwealth Software then in use by Contractor or any of its subcontractors in connection with Contractor's performance of the Services required by this Contract.

e. Reservation of Rights

All rights, not expressly granted here to Contractor on a nonexclusive basis, including the right to grant non-exclusive licenses and other rights are reserved by the Commonwealth.

f. Termination of Commonwealth License Grant

Upon the expiration or termination for any reason of Contractor's obligation to provide the Services under this Contract, all rights granted to Contractor in this Section 32 (OWNERSHIP RIGHTS) shall immediately cease.

Contractor shall, at no cost to Commonwealth, deliver to Commonwealth all of the Commonwealth Software and Tools (including any related source code then in Contractor's possession or under its control) in the form in use as of the Effective Date of such expiration or termination. Within fifteen (15) calendar days after termination, Contractor shall provide the Commonwealth with a current copy of the list of Commonwealth Software in use as of the date of such expiration or termination. Concurrently therewith, Contractor shall destroy or erase all other copies of any of the Commonwealth Software then in Contractor's possession or under its control unless otherwise instructed by Commonwealth, in writing; provided, however, that Contractor may retain one archival copy of such Commonwealth Software and Tools, until final resolution of any actively asserted pending disputes between the Parties, such retention being for the sole purpose of resolving such disputes.

g. Effect of License Grant Termination

Consistent with the provisions of this Section, Contractor shall refrain from manufacturing, copying, marketing, distributing, or use of any Commonwealth Software or any other work which incorporates the Commonwealth Software. The obligations of this Section 32 (OWNERSHIP RIGHTS) shall survive any termination of this Contract.

h. Use of Contractor-Owned Software

All software owned by Contractor (Contractor Software) and tools owned by Contractor (Contractor Tools) prior to the Effective Date of this Contract shall be and shall remain the exclusive property of Contractor. The Commonwealth shall acquire no rights or interests in the Contractor Software or the Contractor Tools by virtue of this Contract except as set forth in this Section.

i. Definition of Contractor Tools

Contractor Tools is defined as any tools, both in object code and source code form, which Contractor has previously developed, or which Contractor independently develops or licenses from a third party, excluding any tools that Contractor creates pursuant to this Contract. Contractor Tools includes but is not limited to, methodologies, information, concepts, toolbars for maneuvering between pages, search engines, JAVA applets, and ActiveX controls.

j. Required Reports, Records and Inventory of Contractor Tools and Contractor Software

(1) Contractor must provide a list of all Contractor Tools and Contractor Software to be delivered in connection with the deliverables or Developed Materials prior to commencing any work under the Contract. Contractor must also provide a list of all other Contractor Tools and Contractor Software intended to be used by Contractor to provide the services under this Contract but will not become part of or necessary for the use of the Developed Materials. All Contractor Tools and Contractor Software necessary to use deliverables or Developed Materials shall be delivered to the Commonwealth along with the license set forth in Section 32(f). Contractor may amend these lists from time to time while the Contract is being carried out or upon its completion. Any Contractor Tools or Contractor Software not included on the lists will be deemed to have been created under this Contract.

(2) During the term of this Contract, Contractor shall maintain at its principal office books of account and records showing its actions under this Contract. Upon reasonable notice by Commonwealth, Contractor shall allow Commonwealth to inspect these records and accounts for purposes of verifying the accuracy of such accounts and records.

(3) In the event that Contractor fails to list a Contractor Tool or Contractor Software, but is able to demonstrate that such tool or software was independently developed by Contractor prior to the Effective Date of this Contract, Contractor shall retain complete ownership of such Contractor Tool or Contractor Software that is necessary to use the deliverables or Developed Works, provided that notice is given to the Commonwealth prior to use on the Contract.

k. Expiration or Termination NonExclusive License Grant – Non-Commercial Contractor Tools and Software

Upon the expiration or termination for any reason of Contractor's obligation to provide the Services under this Contract, and at the request of Commonwealth, Contractor shall (i) grant to Commonwealth a paid-up,

nonexclusive, nontransferable license to use, modify, prepare derivative works and unless Commonwealth terminates this Contract without cause, grant to third parties engaged by Commonwealth the right to use, modify, and prepare derivative works based upon all or any portion of the non-commercially available Contractor Software and the non-commercially available Contractor Tools owned by Contractor and used by Contractor in connection with the Services, the foregoing rights being granted to the extent reasonably necessary to facilitate Commonwealth's or such third party's completion of and maintenance of the Services to be provided by Contractor under this Contract immediately prior to such expiration or termination and (ii) deliver to Commonwealth the object code version of such non-commercially available Contractor Software and such non-commercially available Contractor Tools in the form used by Contractor in connection with the Services immediately prior to such expiration or termination to allow the Commonwealth to complete and maintain such work. If Commonwealth enters into a contract through a mechanism other than this Contract that allows for the use of the Contractor Software or Contractor Tools for which a license is granted under this Section 32 (OWNERSHIP RIGHTS), the Commonwealth will include a provision in that contract that limits the use of the Contractor Software or Contractor Tools as delineated in this Section.

I. Rules of Usage for Developed Works

- (1) If Developed Works modify, improve, or enhance application software programs or other materials generally licensed by the Contractor, then such Developed Materials shall be the property of the Contractor, and Contractor hereby grants Commonwealth an irrevocable, nonexclusive, worldwide, fully paid-up license to use, modify, execute, reproduce, display, perform, prepare derivative works from and distribute, within the Commonwealth, copies of such Developed Works. For purposes of distribution under the license grant created by this section, Commonwealth includes any government agency, department, instrumentality, division, unit or other office that is part of the Commonwealth of Pennsylvania, together with the State System of Higher Education (including any of its universities), any county, borough, commonwealth, city, municipality, town, township special purpose district, or other similar type of governmental instrumentality located within the geographical boundaries of the Commonwealth of Pennsylvania. If federal funds are used in creation of the Developed Works, the Commonwealth also includes any other state government as well as the federal government.
- (2) If Developed Works modify, improve, or enhance application software or other materials not licensed to the Commonwealth by the Contractor, then such modifications, improvements and enhancements shall be the property of the Commonwealth or its licensor. To the extent Commonwealth owns the software or other

materials, it hereby grants to Contractor an irrevocable, nonexclusive, worldwide, fully paid-up license to use, modify, execute, reproduce, display, perform, prepare derivative works from, and distribute copies of such Developed Works. To the extent Commonwealth has a license to the software or other materials, and to the extent that it, in its sole discretion determines it is able to do so the Commonwealth will grant to Contractor an irrevocable, nonexclusive, worldwide, fully paid-up license to use, modify, execute, reproduce, display, perform and distribute copies of such Developed Works.

- (3) If Developed Works have been funded by Commonwealth, to any extent, with either Commonwealth or federal funds, and the Developed Works do not include pre-existing materials generally licensed by the Contractor, then the Commonwealth shall have all right, title, and interest (including ownership of copyright and trademark) to such Developed Works and the Commonwealth hereby grants to Contractor an irrevocable, nonexclusive, worldwide, fully paid-up license to use, modify, execute, reproduce, display, perform, prepare derivative works from, and distribute copies of such Developed Works.

m. Copyright Ownership – Works Developed as Part of the Scope of Work for the Project

Documents, sketches, drawings, designs, papers, files, reports, computer programs, data, computer documentation and other tangible, physical works materials authored and prepared by the Contractor as the work product covered in the scope of work for the Project (collectively the “Developed Works”) including Developed Works developed by subcontractors are the sole and exclusive property of the Commonwealth and shall be considered “works made for hire” under the United States Copyright Act of 1976, as amended, 17 United States Code. In the event that the Developed Works do not fall within the specifically enumerated works that constitute works made for hire under the United States copyright laws, Contractor agrees to assign and, upon their authorship or creation, expressly and automatically assigns all copyright interests, proprietary rights, trade secrets, and other right, title, and interest in and to such Developed Works to Commonwealth. Commonwealth shall have all rights accorded an owner of copyright under the United States copyright laws including, but not limited to, the exclusive right to reproduce the Developed Works in multiple copies, the right to distribute, copies by sales or other transfers, the right to register all copyrights in its own name as author in the United States and in foreign countries, the right to prepare derivative works based upon the Creative Works and the right to display the Developed Works. Upon completion or termination of this Contract, all working papers, files and other documentation shall immediately be delivered by Contractor to the Commonwealth. Contractor warrants that the Developed Works are original and do not infringe any copyright,

patent, trademark, or other intellectual property right of any third party and are in conformance with the intellectual property laws of the United States.

n. Patent Ownership

- (1) Contractor and its subcontractors shall retain ownership to patentable items, patents, processes, inventions or discoveries (collectively, the Patentable Items) made by the Contractor during the performance of this Contract. Notwithstanding the foregoing, the Commonwealth shall be granted a nonexclusive, nontransferable, royalty free license to use or practice the Patentable Items. Commonwealth may disclose to third parties any such Patentable Items made by Contractor or any of its subcontractors under the scope of work for the Project that have been previously publicly disclosed. Commonwealth understands and agrees that any third party disclosure will not confer any license to such Patentable Items.
- (2) Contractor shall not use any computer program, code, or any works developed by or for Contractor independently of this Contract ("Pre-Existing Materials") in the performance of the Services under this Contract, without the express written consent of the Commonwealth. Any pre-existing materials used by Contractor for performance of Services under this Contract without Commonwealth consent shall be deemed to be Developed Works as that term is used in this Section. In the event that Commonwealth provides such consent, Contractor shall retain any and all rights in such Pre-existing Materials.

o. Federal Government Interests

It is understood that certain funding under this Contract is provided by the federal government. Accordingly, the rights to Developed Works or Patentable Items of Contractors or subcontractors hereunder will be further subject to government rights as set forth in 37 C.F.R. Section 401, and other applicable statutes.

p. Usage Rights for Know-How and Technical Information

Either Party, in the ordinary course of conducting business, may use any ideas, concepts, know-how, methodologies, processes, components, technologies, algorithms, designs, modules or techniques not otherwise covered by this Section relating to the Services which Contractor or Commonwealth (alone or jointly with the Commonwealth) develops or learns in connection with Contractor's provision of Services to Commonwealth under this Contract.

q. Commonwealth Intellectual Property Protection

Contractor acknowledges Commonwealth's exclusive right, title and interest, including without limitation copyright and trademark rights, in and to Commonwealth Software, Commonwealth Tools and the Developed Works developed under the provisions of this Section, shall not in any way, at any time, directly or indirectly, do or cause to be done any act or thing contesting or in any way impairing or tending to impair any part of said right, title, and interest, and shall not use or disclose the Commonwealth Software, Commonwealth Tools, or the Developed Works without Commonwealth's written consent, which consent may be withheld by the Commonwealth for any reason. Further, Contractor shall not in any manner represent that Contractor has any ownership interest in the Commonwealth Software, Commonwealth Tools, or the Developed Works. This provision is a material part of this Section.

r. Contractor Intellectual Property Protection

Commonwealth acknowledges that it has no ownership rights in the Contractor Software or Contractor Tools other than those set forth in this Contract, or as may be otherwise granted in writing.

s. Source Code and Escrow Items Obligations

Simultaneously with delivery of the Developed Works to Commonwealth, Contractor shall deliver a true, accurate and complete copy of all source codes relating to the Developed Works. To the extent that the Developed Works include application software or other materials generally licensed by the Contractor, then the source code shall be placed in escrow, subject to the terms and conditions of an Escrow Agreement to be executed by the Parties and an Escrow Agent that is acceptable to the Commonwealth.

t. Contractor's Copyright Notice Obligations

Contractor will affix the following Copyright Notice to the Developed Works developed under this Section and all accompanying documentation: "Copyright © [year] by the Commonwealth of Pennsylvania. All Rights Reserved." This notice shall appear on all tangible versions of the Developed Works delivered under this Contract and any associated documentation. It shall also be programmed into any all Developed Works delivered hereunder so that it appears at the beginning of all visual displays of such Developed Works.

33. PUBLICATION RIGHTS AND/OR COPYRIGHTS

- a. Except as otherwise provided in Section 32 (OWNERSHIP RIGHTS), the Contractor shall not publish any of the results of the work without the written permission of the Commonwealth. The publication shall include the following statement: "The opinions, findings, and conclusions expressed in this publication are those of the author and not necessarily those of the Commonwealth of Pennsylvania." The Contractor shall not include in the documentation any copyrighted matter, unless the Contractor provides the Commonwealth with written permission of the copyright owner.
- b. Except as otherwise provided in Section 32 (OWNERSHIP RIGHTS) and the confidentiality provisions of Section 21 (CONFIDENTIALITY), the Commonwealth shall have unrestricted authority to reproduce, distribute, and use any submitted report or data designed or developed and delivered to the Commonwealth as part of the performance of the Contract.
- c. Rights and obligations of the parties under this Section survive the termination of this Contract.

34. CHANGE OF OWNERSHIP OR INSOLVENCY

In the event that the Contractor should change ownership for any reason whatsoever, the Commonwealth shall have the exclusive option of continuing under the terms and conditions of this Contract with the Contractor or its successors or assigns for the full remaining term of this Contract, or continuing under the terms and conditions of this Contract with the Contractor or its successors or assigns for such period of time as is necessary to replace the products, materials, reports, studies, or computer programs, or immediately terminating this Contract. Nothing in this section limits the Commonwealth's exercise of any rights that the Commonwealth may have under Section 18.

35. OFFICIALS NOT TO BENEFIT

No official or employee of the Commonwealth and no member of its General Assembly who exercises any functions or responsibilities under this Contract shall participate in any decision relating to this Contract which affects their personal interest or the interest of any corporation, partnership, or association in which they are, directly or indirectly, interested; nor shall any such official or employee of the Commonwealth or member of its General Assembly have any interest, direct or indirect, in this Contract or the proceeds thereof.

36. INDEPENDENT CAPACITY OF CONTRACTOR

- a. The parties to this Contract agree that the services performed by the Contractor under the terms of this Contract are performed as an independent Contractor. The services performed by the Contractor are performed neither as an employee of the Commonwealth of Pennsylvania nor as a partnership or joint venture between the Commonwealth and the Contractor.
- b. Except as otherwise provided by the terms of this Contract, the Commonwealth shall have no control over the manner in which the contractual services are performed by the Contractor, or any subcontractor. Any job specifications or standards of work attached to or incorporated into this Contract or any subcontracting restrictions contained in this Contract shall not be construed as the Commonwealth's direction or control over the manner of the performance of services provided by the Contractor.

37. COMPLIANCE WITH LAWS

The Contractor shall comply with all federal, state, and local laws applicable to its work, including, but not limited to, all statutes, regulations and rules that are in effect as of the Effective Date of the Contract and shall procure at its expense all licenses and all permits necessary for the fulfillment of its obligation.

If any existing law, regulation or policy is changed or if any new law, regulation or policy is enacted that affects the services provided under this Contract, the parties to the Contract shall modify this Contract to the extent reasonably necessary to (i) ensure that such services will be in full compliance with such laws, regulations and/or policies; (ii) modify the rates applicable to such services, and (iii) address any schedule impacts.

38. THE AMERICANS WITH DISABILITIES ACT

During the term of this Contract, the Contractor agrees as follows:

- a. Pursuant to federal regulations promulgated under the authority of *The Americans With Disabilities Act*, 28 C.F.R. § 35.101, *et seq.*, the Contractor understands and agrees that no individual with a disability shall, on the basis of the disability, be excluded from participation in this Contract or from activities provided for under this Contract. As a condition of accepting and executing this Contract, the Contractor agrees to comply with the *General Prohibitions Against Discrimination*, 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of *The Americans With Disabilities Act* which are applicable to the benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through Contracts with outside Contractors.

- b. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from losses, damages, expenses claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of subsection a. above.

39. EXAMINATION OF RECORDS

- a. The Contractor agrees to maintain, using its standard procedures, and in accordance with Generally Accepted Accounting Principles, books, records, documents, and other evidence pertaining to the charges under this Contract to the extent and in such detail as will properly reflect all charges for which reimbursement is claimed under the provisions of this Contract.
- b. The Contractor agrees to make available at the office of the Contractor at all reasonable times, and upon reasonable written notice, during the term of this Contract and the period set forth in Section 39.c. below, any of the records for inspection, audit, or reproduction by any authorized Commonwealth representative. To the extent allowed by law, the Commonwealth agrees to maintain any documents so provided in accordance with the confidentiality provisions in Section 21 (CONFIDENTIALITY).
- c. The Contractor shall preserve and make available its records for a period of five (5) years from the date of final payment under this Contract:
 - (1) If this Contract is completely or partially terminated, the records relating to the work terminated shall be preserved and made available for a period of five (5) years from the date of any resulting final settlement.
 - (2) Non-privileged records which relate to litigation or the settlement of claims arising out of the performance of this Contract, or charges under this Contract as to which exception has been taken by the auditors, shall be retained by the Contractor until such litigation, claims, or exceptions have been finally resolved.
- d. Except for documentary evidence retained pursuant to Section 39.c(2) above, the Contractor may in fulfillment of its obligation to retain its records as required by this Section substitute photographs, microphotographs, or other authentic reproductions of such records, after the expiration of two (2) years following the last day of the month of reimbursement to the Contractor of the invoice or voucher to which such records relate, unless a shorter period is authorized by the Commonwealth with the concurrence of its auditors.
- e. The provisions of this Section shall be applicable to and included in each subcontract hereunder. The term "subcontract" as used in this contract only, excludes purchase orders not exceeding \$1,000 and

subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

40. **ENVIRONMENTAL PROTECTION**

In carrying out this Contract, the Contractor shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations, including the *Clean Streams Law*, Act of June 22, 1937 (P.L. 1987, No. ___), as amended; the *Pennsylvania Solid Waste Management Act*, Act of July 7, 1980 (P.L. 380, No. 97), as amended; and the *Dam Safety and Encroachment Act*, Act of November 26, 1978 (P.L. 1375, No. 325), as amended.

41. **NONDISCRIMINATION CLAUSE/SEXUAL HARASSMENT CLAUSE**

During The term of the contract, the Contractor agrees:

- a. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the contractor, subcontractor, or any person acting on behalf of the contractor or subcontractor shall not, by reason of gender, race, creed, or color, discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- b. Neither the contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract on account of gender, race, creed, or color.
- c. Contractors and subcontractors shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.
- d. Contractors shall not discriminate by reason of gender, race, creed, or color against any subcontractor or supplier who is qualified to perform the work to which the contracts relates.
- e. The contractor and each subcontractor shall furnish all necessary employment documents and records to and permit access to their books, records, and accounts by the contracting agency and the Bureau of Contract Administration and Business Development, for purposes of investigation, to ascertain compliance with provisions of this Nondiscrimination/Sexual Harassment Clause. If the contractor or any subcontractor does not possess documents or records reflecting the necessary information requested, the contractor or subcontractor shall furnish such information on reporting forms supplied by the contracting agency or the Bureau of Contract Administration and Business Development.

- f. The contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.
- g. The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the contractor in the Contractor Responsibility File.

42. **CONTRACTOR INTEGRITY PROVISIONS**

- a. Definitions.
 - (1) Confidential information means information that is not public knowledge, or available to the public on request, disclosure of which would give an unfair, unethical, or illegal advantage to another desiring to contract with the Commonwealth.
 - (2) Consent means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this Contract.
 - (3) Contractor means the individual or entity that has entered into this Contract with the Commonwealth, including directors, officers, partners, managers, key employees, and owners of more than a five percent (5%) interest.
 - (4) Financial Interest means:
 - (a) ownership of more than a 5% interest in any business; or
 - (b) holding a position as an officer, director, trustee, partner, employee, or the like, or holding any position of management.
 - (5) Gratuity means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind.
- b. The Contractor shall maintain the highest standards of integrity in the performance of this Contract and shall take no action in violation of state or federal laws, regulations, or other requirements that govern contracting with the Commonwealth.
- c. The Contractor shall not disclose to others any confidential information gained by virtue of this Contract.
- d. The Contractor shall not, in connection with this or any other Contract with the Commonwealth, directly or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as

- consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any officer or employee of the Commonwealth.
- e. The Contractor shall not, in connection with this or any other Contract with the Commonwealth, directly or indirectly, offer, give, or agree or promise to give to anyone any gratuity for the benefit of or at the direction or request of any officer or employee of the Commonwealth.
 - f. Except with the consent of the Commonwealth, neither the Contractor nor anyone in privity with him or her shall accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of work under this Contract except as provided therein.
 - g. Except with the consent of the Commonwealth, the Contractor shall not have a financial interest in any other Contractor, subcontractor, or supplier providing services, labor, or material on this project.
 - h. The Contractor, upon being informed that any violation of these provisions has occurred or may occur, shall immediately notify the Commonwealth in writing.
 - i. The Contractor, by execution of this Contract and by the submission of any bills or invoices for payment pursuant thereto, certifies and represents that he or she has not violated any of these provisions.
 - j. The Contractor, upon the inquiry or request of the Inspector General of the Commonwealth or any of that official's agents or representatives, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to the Contractor's integrity or responsibility, as those terms are defined by the Commonwealth's statutes, regulations, or management directives. Such information may include, but shall not be limited to, the Contractor's business or financial records, documents, or files of any type or form which refer to or concern this contract. Such information shall be retained by the Contractor for a period of three (3) years beyond the termination of the Contract unless otherwise provided by law.
 - k. For violation of any of the above provisions, the Commonwealth may terminate this and any other Contract with the Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all expenses incurred in obtaining another Contractor to complete performance hereunder, and debar and suspend the Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or nonuse of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation or otherwise.

43. **ASSIGNMENT OF RIGHTS UNDER THE ANTITRUST LAWS**

The Contractor and the Commonwealth recognize that in actual economic practice, overcharges by Contractor's suppliers resulting from violations of state and federal antitrust laws are in fact borne by the Commonwealth. As part of the consideration for the award of this Contract, and intending to be legally bound, the Contractor assigns to the Commonwealth all rights, title, and interest in and to any claims Contractor now has or may hereafter acquire under state and federal antitrust laws relating to the goods and services which are subject to this Contract.

44. **WARRANTIES**

All contracted services performed will be subject to a warranty period of three months from date of final acceptance. These services include corrections to deficiencies in the system(s) at no additional cost to the Commonwealth. The Contractor warrants that the Services, the Delivered Materials and the entire system(s) conform in all material respects of the most recently approved specifications and all other Contract requirements.

- a. The Contractor hereby represents and warrants to the Commonwealth that the Contractor will not cause, or take any action that may directly or indirectly cause a disruption of the Commonwealth's operations.
- b. In the event of any nonconformity with the warranties, the Commonwealth will provide written notification of such nonconformity to the Contractor and the Contractor, at no cost to the Commonwealth, shall within a time specified by the Commonwealth in the written notification or as agreed to otherwise, commence work to remedy the nonconformity and shall work diligently, at no charge to the Commonwealth, until such time as the deliverable conforms, in all material respects, to the functional specifications of the Developed materials set forth in this Contract.
- c. Contractor warrants that it has the necessary legal rights, including licenses to third party products, tools or materials, to perform the Services and deliver the Developed Materials under this Contract.
- d. The foregoing express warranties are the contractor's sole and exclusive warranties and no other warranties, express or implied, shall apply, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.
- e. All warranties shall survive final acceptance.
- f. In the event of an action or complaint by Commonwealth against Contractor pertaining to these warranties, Contractor may raise any defenses that it may have.
- g. Quality of Services. The Contractor warrants that all Services will be performed with high quality in a professional manner and in accordance with industry and Commonwealth standards and contractual requirements.

The Contractor further warrants that:

- The Contractor shall perform the Services as described in the Contract and all applicable Specifications and requirements.
 - Time is of the essence in connection with completion of the Deliverables
 - Contractor shall give priority as defined by the Contract Administrator to the performance of the Services under this contract.
- h. System(s) Warranty. The contractor warrants that the System(s), and enhancements, if any, in whole and in part, shall operate in accordance with the most recently approved Specifications and shall not adversely affect the operations of this or other systems. The Contractor will promptly repair or replace any part of the System(s) not in compliance with this warranty at no charge to the Commonwealth.
- i. Manufacturers' Warranties. The Contractor assigns to the Commonwealth all of the manufacturers' warranties and indemnities relating to all products, including without limitation Third Party Software to the extent the Contractor is permitted by the manufacturers to make such assignments to the Commonwealth. Such assignment is subject to all of the terms and conditions imposed by the manufacturers with respect thereto.
- j. Compatibility. If the System(s), in whole or part, is replaced, changed or upgraded by the Contractor with replacement, changed or upgraded System(s) components provided by the Contractor to correct Deficiencies or as an Enhancement, the Contractor warrants that the System(s) as upgraded, changed or repaired shall operate without loss of functionality, and shall not adversely affect this or other system operations, as provided in the most recently approved Specifications.

If it is determined that there has been a breach of this warranty, then the Contractor will correct such Deficiency at no cost to the Commonwealth within a reasonable period of time, not to exceed 10 business days. If the Contractor does not correct or is unable to correct a breach of this warranty within 10 business days (or such longer period or time as may be approved by the Contract Administrator), the Commonwealth shall have the right to terminate the Contract and either:

- Keep the affected Custom Software Deliverable and reach agreement with the Contractor on a reasonable reduction in the amounts payable to the Contractor; or
- Return the Custom Software Deliverable and all related materials, receive a refund of amounts paid for the Custom Software Deliverable, and pursue recovery of its damages.

45. SUSPENSION DUE TO BREACH

In the event the Commonwealth determines that a default as defined by section 14 has occurred or if the Commonwealth has reason to believe that fraud, abuse, malfeasance, misfeasance or nonfeasance has occurred on the part of the Contractor, and the situation is deemed by the Commonwealth to merit corrective action, the following sequential suspension procedure may be implemented:

The Commonwealth will notify the Contractor in writing describing the Commonwealth's concerns;

- The Contractor will respond to the Commonwealth's concerns by letter describing proposed corrective actions and proposing completion dates for bringing the Contract into compliance. Such response will be sent and delivered to the Commonwealth within 10 calendar Days of the date of receipt of the Commonwealth's letter;
- The Commonwealth will notify the Contractor in writing as to the Commonwealth's final disposition; and
- The Commonwealth may suspend all, or part of, the Contract, and withhold further payments, or prohibit the Contractor from incurring additional obligations of funds during investigation of the alleged default, Contractor's pending corrective action, if necessary, or a decision by the Commonwealth to terminate this contract.

46. RECYCLED MATERIALS

Except as specifically waived by the Department of General Services in writing, any products which are provided to the Commonwealth as a part of the performance of the Contract must meet the minimum percentage levels for total recycled content as specified in Exhibit A-3.

EXHIBIT A-3
PAPER PRODUCTS
RECYCLED CONTENT

(A) REQUIREMENT

All paper offered by the bidder, or included in the final product offered by the bidder, and sold to the Commonwealth **must** contain the minimum percentage of post-consumer content as shown below for the applicable products:

Content Item	Notes	Post-Consumer (%)
Printing and Writing Papers		
Reprographic	Business papers such as bond, electrostatic, copy, mimeo, duplicator and reproduction	30
Offset	Used for book publishing, commercial printing, direct mail, technical documents, and manuals	30
Tablet	Office paper such as note pads and notebooks	30
Forms bond	Bond type papers used for business forms such as continuous, cash register, sales book, unit sets, and computer printout, excluding carbonless	30
Envelope	Wove	30
	Kraft, white and colored (including manila)	10
	Kraft, unbleached Excludes custom envelopes	10
Cotton fiber	High-quality papers used for stationery, invitations, currency, ledgers, maps, and other specialty items	30
Text and cover	Premium papers used for cover stock, books, and stationery and matching envelopes	30
Supercalendered	Groundwood paper used for advertising and mail order inserts, catalogs, and some magazines	10
Machine finished Groundwood	Groundwood paper used in magazines and catalogs	10
Papeteries	Used for invitations and greeting cards	30
Check safety	Used in the manufacture of commercial and government checks	10
Coated	Used for annual reports, posters, brochures, and magazines. Have gloss, dull, or matte finishes	10
Carbonless	Used for multiple-impact copy forms	30
File folders	Manila or colored	30
Dyed filing products	Used for multicolored hanging folders and wallet files	20
Index and card stock	Used for index cards and postcards	20
Pressboard	High-strength paperboard used in binders and report covers	20

Tags and tickets	Used for toll and lottery tickets, licenses, and identification and tabulating cards	20
------------------	--	----

Newsprint

Newsprint	Groundwood paper used in newspapers	20
-----------	-------------------------------------	----

Commercial Sanitary Tissue Products

Bathroom tissue	Used in rolls or sheets	20
Paper towels	Used in rolls or sheets	40
Paper napkin	Used in food service applications	30
Facial tissue	Used for personal care	10
General-purpose Industrial wipers	Used in cleaning and wiping applications	40

Paperboard and Packaging Products

Corrugated Containers	Used for packaging and shipping a variety Of goods (<300 psi) (300 psi)	25
Solid fiber boxes	Used for specialized packaging needs such as dynamite packaging and army ration boxes	40
Folding cartons	Used to package a wide variety of foods, household products, cosmetics, pharmaceuticals, detergent, and hardware	40
Industrial Paperboard	Used to create tubes, cores, cans and drums	45
Miscellaneous	Includes "chipboard" pad backings, book covers, covered binders, mailing tubes, game boards, and puzzles	75
Padded mailers	Made from kraft paper that is usually brown but can be bleached white	5
Carrierboard	A type of folding carton designed for multipack beverage cartons	10
Brown papers	Used for bags and wrapping paper	5

Miscellaneous Paper Products

Tray liners	Used to line food service trays. Often contain printed information.	50
-------------	---	----

"Post-consumer" content is "material or finished product that has served its intended use and has been diverted or recovered from waste destined for disposal, having completed its life as a consumer item. Post-consumer content is part of the broader category of recovered material."

The Commonwealth of Pennsylvania recognizes that paper products are universally made with scrap material

recovered from the manufacturing process; use of such materials is a standard practice, both efficient and economical for the paper maker; therefore, bidders of paper products need not certify that their products are made with “pre-consumer,” “recovered.” or “secondary” paper fiber.

(B) BIDDER’S CERTIFICATION

Bidder certifies that the paper product(s) which the bidder is offering contains the required minimum percentage of post-consumer content as shown above for the product.

(C) MANUFACTURER/MILL CERTIFICATION

In addition to the Bidders Certification in Subsection (B), a mill certification must be completed and signed by the mill before payment will be made to the successful bidder for the delivered items. The enclosed ***Manufacturer/Mill*** Certification form must be used. Bidders are not required to submit the completed and signed ***Manufacturer/Mill*** Certification form with their bids. **THE COMMONWEALTH SHALL HAVE NO OBLIGATION TO PAY FOR THE ITEM(S) UNTIL A PROPERLY COMPLETED AND SIGNED MANUFACTURER/MILL CERTIFICATION IS SUBMITTED FOR THE DELIVERED ITEM.**

(D) ENFORCEMENT

Awarded bidders may be required, after delivery of the paper product(s), to provide the Commonwealth with documentary evidence that the paper product(s) were in fact produced with the required minimum percentage of post-consumer content.

RFP # 39 - 06

Appendix B

**DEPARTMENT OF PUBLIC WELFARE ADDENDUM TO
STANDARD CONTRACT TERMS AND CONDITIONS**

A APPLICABILITY

This Addendum is intended to supplement the Standard Terms and Conditions. To the extent any of the terms contained herein conflict with terms contained in the Standard Contract Terms and Conditions, the terms in the Standard Contract Terms and Conditions shall take precedence. Further, it is recognized that certain terms contained herein may not be applicable to all the services which may be provided through Department contracts.

B CONFIDENTIALITY

The parties shall not use or disclose any information about a recipient of the services to be provided under this contract for any purpose not connected with the parties' contract responsibilities except with written consent of such recipient, recipient's attorney, or recipient's parent or legal guardian.

C. INFORMATION

During the period of this contract, all information obtained by the Contractor through work on the project will be made available to the Department immediately upon demand. If requested, the Contractor shall deliver to the Department background material prepared or obtained by the Contractor incident to the performance of this agreement. Background material is defined as original work, papers, notes and drafts prepared by the Contractor to support the data and conclusions in final reports, and includes completed questionnaires, materials in electronic data processing form, computer programs, other printed materials, pamphlets, maps, drawings and all data directly related to the services being rendered.

D CERTIFICATION AND LICENSING

Contractor agrees to obtain all licenses, certifications and permits from Federal, State and Local authorities permitting it to carry on its activities under this contract

E. PROGRAM SERVICES

Definitions of service, eligibility of recipients of service and other limitations in this contract are subject to modification by amendments to Federal, State and Local laws, regulations and program requirements without further notice to the Contractor hereunder.

F. CHILD PROTECTIVE SERVICE LAWS

In the event that the contract calls for services to minors, the contractor shall comply with the provisions of the Child Protective Services Law (Act of November 26, 1975, P.L. 438, No. 124; 23 P.S. §§ 6301-6384, as amended by Act of July 1, 1985, P.L. 124, No. 33) and all regulations promulgated thereunder (55Pa. Code, chapter 3490)

G PRO-CHILDREN ACT OF 1994

The Contractor agrees to comply with the requirements of the Pro-Children Act of 1994; Public Law 103-277, Part C-Environment Tobacco Smoke (also known as the Pro-Children Act of 1994) requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted by an entity and used routinely or regularly for the provision of health care services, day care and education to children under the age of 18, if the services are funded by Federal programs whether directly or through State and Local governments. Federal programs include grants, cooperative agreements, loans or loan guarantees and contracts. The law does not apply to children's services provided in private residences, facilities funded solely by Medicare or Medicaid funds, and portions of facilities used for inpatient drug and alcohol treatment.

H. MEDICARE/MEDICAID REIMBURSEMENT

1. To the extent that services are furnished by contractors, subcontractors, or organizations related to the contractor/subcontractor and such services may in whole or in part be claimed by the

Commonwealth for Medicare/Medicaid reimbursements, contractor/subcontractor agrees to comply with 42 C.F.R., Part 420, including:

- a. Preservation of books, documents and records until the expiration of four (4) years after the services are furnished under the contract.
 - b. Full and free access to (i) the Commonwealth, (ii) the U.S. Comptroller General, (iii) the U.S. Department of Health and Human Services, and their authorized representatives
2. Your signature on the proposal certifies under penalty of law that you have not been suspended/terminated from the Medicare/Medicaid Program and will notify the contracting DPW Facility or DPW Program Office immediately should a suspension/termination occur during the contract period.

I. TRAVEL AND PER DIEM EXPENSES

Contractor shall not be allowed or paid travel or per diem expenses except as provided for in Contractor's Budget and included in the contract amount. Any reimbursement to the Contractor for travel, lodging or meals under this contract shall be at or below state rates as provided in Rider R, Commonwealth Travel Rates, attached hereto and incorporated herein, unless the Contractor has higher rates which have been established by its offices/officials, and published prior to entering into this contract. Higher rates must be supported by a copy of the minutes or other official documents, and submitted to the Department. Documentation in support of travel and per diem expenses will be the same as required of state employees.

J. INSURANCE

1. The contractor shall accept full responsibility for the payment of premiums for Workers' Compensation, Unemployment Compensation, Social Security, and all income tax deductions required by law for its employees who are performing services under this contract. As required by law, an independent contractor is responsible for Malpractice Insurance for health care personnel. Contractor shall provide insurance Policy Number and Provider's Name, or a copy of the policy with all renewals for the entire contract period.
2. The contractor shall, at its expense, procure and maintain during the term of the contract, the following types of insurance, issued by companies acceptable to the Department and authorized to conduct such business under the laws of the Commonwealth of Pennsylvania:
 - a. Worker's Compensation Insurance for all of the Contractor's employees and those of any subcontractor, engaged in work at the site of the project as required by law.
 - b. Public liability and property damage insurance to protect the Commonwealth, the Contractor, and any and all subcontractors from claim for damages for personal injury (including bodily injury), sickness or disease, accidental death and damage to property, including loss of use resulting from any property damage, which may arise from the activities performed under this contract or the failure to perform under this contract whether such performance or nonperformance be by the contractor, by any subcontractor, or by anyone directly or indirectly employed by either. The limits of such insurance shall be in an amount not less than \$500,000 each person and \$2,000,000 each occurrence, personal injury and property damage combined. Such policies shall be occurrence rather than claims-made policies and shall name the Commonwealth of Pennsylvania as an additional insured. The insurance shall not contain any endorsements or any other form designated to limit or restrict any action by the Commonwealth, as an additional insured, against the insurance coverage in regard to work performed for the Commonwealth.

Prior to commencement of the work under the contract and during the term of the contract, the Contractor shall provide the Department with current certificates of insurance. These certificates shall contain a provision that the coverages afforded under the policies will not be cancelled or changed until at least thirty (30) days' written notice has been given to the Department.

K. PROPERTY AND SUPPLIES

- 1 Contractor agrees to obtain all supplies and equipment for use in the performance of this contract at the lowest practicable cost and to purchase by means of competitive bidding whenever required by law
- 2 Title to all property furnished in-kind by the Department shall remain with the Department.
- 3 Contractor has title to all personal property acquired by the contractor, including purchase by lease/purchase agreement, for which the contractor is to be reimbursed under this contract. Upon cancellation or termination of this contract, disposition of such purchased personal property which has a remaining useful life shall be made in accordance with the following provisions.
 - a. The contractor and the Department may agree to transfer any item of such purchased property to another contractor designated by the Department. Cost of transportation shall be born by the contractor receiving the property and will be reimbursed by the Department. Title to all transferred property shall vest in the designated contractor. The Department will reimburse the Contractor for its share, if any, of the value of the remaining life of the property in the same manner as provided under subclause b of this paragraph
 - b. If the contractor wishes to retain any items of such purchased property, depreciation tables shall be used to ascertain the value of the remaining useful life of the property. The contractor shall reimburse the Department in the amount determined from the tables.
 - c. When authorized by the Department in writing, the contractor may sell the property and reimburse the Department for its share. The Department reserves the right to fix the minimum sale price it will accept
- 4 All property furnished by the Department or personal property acquired by the contractor, including purchase by lease-purchase contract, for which the contractor is to be reimbursed under this contract shall be deemed "Department Property" for the purposes of subsection 5, 6 and 7 of this section.
- 5 Contractor shall maintain and administer in accordance with sound business practice a program for the maintenance, repair, protection, preservation and insurance of Department Property so as to assure its full availability and usefulness.
- 6 Department property shall, unless otherwise approved in writing by the Department, be used only for the performance of this contract
7. In the event that the contractor is indemnified, reimbursed or otherwise compensated for any loss, destruction or damage to Department Property, it shall use the proceeds to replace, repair or renovate the property involved, or shall credit such proceeds against the cost of the work covered by the contract, or shall reimburse the Department, at the Department's direction

L. DISASTERS

If, during the terms of this contract, the Commonwealth's premises are so damaged by flood, fire or other Acts of God as to render them unfit for use; then the Agency shall be under no liability or obligation to the contractor hereunder during the period of time there is no need for the services provided by the contractor except to render compensation which the contractor was entitled to under this agreement prior to such damage.

M. SUSPENSION OR DEBARMENT

In the event of suspension or debarment, 4 Pa Code Chapter 60.1 through 60.7, as it may be amended, shall apply.

N. COVENANT AGAINST CONTINGENT FEES

The contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee (excepting bona fide employees or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business) For breach or violation of this warranty, the Department shall have the right to annul this contract without liability or, in its discretion, to deduct from

the consideration otherwise due under the contract, or otherwise recover, the full amount of such commission, percentage, and brokerage or contingent fee

O. CONTRACTOR'S CONFLICT OF INTEREST

The contractor hereby assures that it presently has not interest and will not acquired any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The contractor further assures that in the performance of this contract, it will not knowingly employ any person having such interest. Contractor hereby certifies that no member of the Board of the contractor or any of its officers or directors has such an adverse interest.

P. INTEREST OF THE COMMONWEALTH AND OTHERS

No officer, member or employee of the Commonwealth and no member of its General Assembly, who exercises any functions or responsibilities under this contract, shall participate in any decision relating to this contract which affects his personal interest or the interest of any corporation, partnership or association in which he is, directly or indirectly, interested; nor shall any such officer, member or employee of the Commonwealth or member of its General Assembly have interest, direct or indirect, in this contract or the proceeds thereof

Q. CONTRACTOR RESPONSIBILITY TO EMPLOY WELFARE CLIENTS

(Applicable to contracts \$25,000 or more)

1. The successful contractor, within 10 days of receiving the notice to proceed, shall contact the Employment Unit Coordinator in the County Assistance Office in the county where the contractor delivers the service to present, for review and approval, contractor's plan for recruiting and hiring of public assistance recipients for employment under this contract. Contractors which provide services through the contract to more than one county shall present their plan for review and approval to the Central Office of Employment and Training. Such plan shall be submitted on Form PA 778. A copy of the contractor's approved plan shall be returned with 30 days of notice to proceed to the initiating office/facility
2. Pursuant to the approved plan, the contractor shall make a good faith effort to fill at least 25% of the new or vacant jobs created under this contract with qualified recipients referred by the County Assistance Office Employment Unit Coordinator.
3. Hiring under the approved plan shall be verified by Quarterly Contract Reports on Form PA 1540 to the Employment Unit Coordinator or to the Central Office of Employment and Training for plans covering more than one county. Such reports shall be made in the format approved by the Department.
4. The Department may cancel this contract upon thirty (30) days written notice in the event of contractor's failure to implement or abide by an approved plan.

R. TUBERCULOSIS CONTROL

As recommended by the Centers for Disease Control and the Occupational Safety and Health Administration, effective August 9, 1996, in all State Mental Health and Mental Retardation Facilities, all full-time and part-time employees (temporary and permanent), including contract service providers, having direct patient contact or providing service in patient care areas, are to be tested serially with PPD by Mantoux skin tests. PPD testing will be provided free of charge from the state MH/MR facility. If the contract service provider has written proof of a PPD by Mantoux method within the last six months, the MH/MR facility will accept this documentation in lieu of administration of a repeat test. In addition, documented results of a PPD by Mantoux method will be accepted by the MH/MR facility. In the event that a contractor is unwilling to submit to the test due to previous positive reading, allergy to PPD material or refusal, the risk assessment questionnaire must be completed. If a contractor refuses to be tested in accordance with this new policy, the facility will not be able to contract with this provider and will need to procure the services from another source.

S. ACT 13 APPLICATION TO CONTRACTOR

Contractor shall be required to submit with their bid information obtained within the preceding one-year period for any personnel who will have or may have direct contact with residents from the facility or unsupervised access to their personal living quarters in accordance with the following:

1. Pursuant to 18 Pa C.S. Ch. 91 (relating to criminal history record information) a report of criminal history information from the Pennsylvania State Police or a statement from the State Police that their central repository contains no such information relating to that person. The criminal history record information shall be limited to that which is disseminated pursuant to 18 Pa.C.S. 9121(b)(2) (relating to general regulations).
2. Where the applicant is not, and for the two years immediately preceding the date of application has not been a resident of this Commonwealth, the Department shall require the applicant to submit with the application a report of Federal criminal history record information pursuant to the Federal Bureau of Investigation's under Department of State, Justice, and Commerce, the Judiciary, and Related Agencies Appropriation Act, 1973 (Public Law 92-544, 86 Stat. 1109). For the purpose of this paragraph, the applicant shall submit a full set of fingerprints to the State Police, which shall forward them to the Federal Bureau of Investigation for a national criminal history check. The information obtained from the criminal record check shall be used by the Department to determine the applicant's eligibility. The Department shall insure confidentiality of the information.
3. The Pennsylvania State Police may charge the applicant a fee of not more than \$10 to conduct the criminal record check required under subsection 1. The State Police may charge a fee of not more than the established charge by the Federal Bureau of Investigation for the criminal history record check required under subsection 2.

The Contractor shall apply for clearance using the State Police Background Check (SP4164) at their own expense. The forms are available from any State Police Substation. When the State Police Criminal History Background Report is received, it must be forwarded to the Department. State Police Criminal History Background Reports not received within sixty (60) days may result in cancellation of the contract.

T. LOBBYING CERTIFICATION AND DISCLOSURE
(applicable to contracts \$100,000 or more)

Commonwealth agencies will not contract with outside firms or individuals to perform lobbying services, regardless of the source of funds. With respect to an award of a federal contract, grant, or cooperative agreement exceeding \$100,000 or an award of a federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000 all recipients must certify that they will not use federal funds for lobbying and must disclose the use of non-federal funds for lobbying by filing required documentation. The contractor will be required to complete and return a "Lobbying Certification Form" and a "Disclosure of Lobbying Activities form" with their signed contract, which forms will be made attachments to the contract.

U. AUDIT CLAUSE
(applicable to contracts \$100,000 or more)

This contract is subject to audit in accordance with the Audit Clause attached hereto and incorporated herein.

RFP # 39 - 06

Appendix C

AUDIT CLAUSE C – VENDOR Service Organizations

The Commonwealth of Pennsylvania, Department of Public Welfare (DPW), distributes federal and state funds to local governments, nonprofit, and for-profit organizations. Federal expenditures are subject to federal audit requirements, and federal funding and state funding passed through DPW are subject to DPW audit requirements. If any federal statute specifically prescribes policies or specific requirements that differ from the standards provided herein, the provisions of the subsequent statute shall govern.

Vendor means a dealer, distributor, merchant, or other seller providing goods or services to an auditee that are required for the **administrative support** of a program. These goods or services may be for an organization's own use or for the use of beneficiaries of the federal program. The vendor's responsibility is to meet the requirements of the procurement contract.

Department of Public Welfare Audit Requirements

If in connection with the agreement, an entity **expends \$300,000 or more in combined state and federal funds** during the program year, the entity shall ensure that, for the term of the contract, an independent auditor conducts annual examinations of its compliance with the terms and conditions of this contract. These examinations shall be conducted in accordance with the American Institute of Certified Public Accountants' Statements on Standards for Attestation Engagements (SSAE), Section 601, *Compliance Attestation*, and shall be of a scope acceptable to the DPW. The contractor shall also ensure that an independent auditor performs an audit of its policies and procedures applicable to the processing of transactions. These audits shall be performed in accordance with the Statement on Auditing Standards 70 (SAS 70), *Reports on the Processing of Transactions by Service Organizations*. The initial SAS 70 audit shall be completed for the official annual reporting period of this agreement and conducted annually thereafter. The independent auditor shall issue reports on its compliance examination, as defined in the SSAE, Section 601, and on the policies and procedures placed in operation and the tests of operating effectiveness, as defined in SAS 70.

The Commonwealth reserves the right for state and federal agencies, or their authorized representatives, to perform financial and performance audits if deemed necessary. If it is decided that an audit of this contract will be performed, the contractor will be given advance notice. The contractor shall maintain books, records, and documents that support the services provided, that the fees earned are in accordance with the contract, and that the contractor has complied with contract terms and conditions. The contractor agrees to make available, upon reasonable notice, at the office of the contractor, during normal business hours, for the term of this contract and the retention period set forth in this Audit Clause, any of the books, records, and documents for inspection, audit, or reproduction by any state or federal agency or its authorized representative.

The contractor shall preserve all books, records, and documents related to this contract for a period of time that is the greater of five years from the contract expiration date, until all questioned costs or activities have been resolved to the satisfaction of the Commonwealth, or as required by applicable federal laws and regulations, whichever is longer. If this contract is completely or partially terminated, the records relating to the work terminated shall be preserved and made available for a period of five years from the date of any resulting final settlement.

AUDIT CLAUSE C – VENDOR Service Organizations

Records that relate to litigation or the settlement of claims arising out of performance or expenditures under this contract to which exception has been taken by the auditors, shall be retained by the contractor or provided to the Commonwealth at the DPW's option until such litigation, claim, or exceptions have reached final disposition.

Except for documentary evidence delivered pursuant to litigation or the settlement of claims arising out of the performance of this contract, the contractor may, in fulfillment of his obligation to retain records as required by this Audit Clause, substitute photographs, microphotographs, or other authentic reproductions of such records, after the expiration of two years following the last day of the month of reimbursement to the contractor of the invoice or voucher to which such records relate, unless a shorter period is authorized by the Commonwealth.

DPW Required Audit Report Submission

The contractor shall submit the SSAE, Section 601, and SAS 70 audit reports to the DPW within 90 days after the required period of audit has ended. When either the SSAE, Section 601, or SAS 70 audit reports are other than unqualified, the contractor shall submit to the DPW, in addition to the audit reports, a plan describing what actions the contractor will implement to correct the situation that caused the auditor to issue a qualified report, a timetable for implementing the planned corrective actions, and a process for monitoring compliance with the timetable and the contact person who is responsible for resolution.

Submit **two copies** of the DPW required audit report package.

1. Independent Accountant's Report – on the Attestation of an entity's compliance with specific requirements during a period of time in accordance with the contract and the appropriate schedule, as required.
2. Submit the audit report directly to the program office.

REMEDIES FOR NONCOMPLIANCE

The provider's failure to provide an acceptable audit, in accordance with the requirements of the Audit Clause Requirements, may result in the DPW's not accepting the report and initiating sanctions against the contractor that may include the following:

- Disallowing the cost of the audit.
- Withholding a percentage of the contract funding pending compliance.
- Suspending subsequent contract funding pending compliance.

**AUDIT CLAUSE C – VENDOR
Service Organizations**

TECHNICAL ASSISTANCE

Technical assistance on the DPW's audit requirements, will be provided by:

Department of Public Welfare
Bureau of Financial Operations
Division of Financial Policy and Operations
Audit Resolution Section
3rd Floor, Bertolino Building
P.O. Box 2675
Harrisburg, Pennsylvania 17105-2675
Phone: (717) 787-8890 FAX: (717) 772-2522

AUDIT CLAUSE D – VENDOR

The Commonwealth of Pennsylvania, Department of Public Welfare (DPW), distributes federal and state funds to local governments, nonprofit, and for-profit organizations. Federal expenditures are subject to federal audit requirements, and federal funding and state funding passed through DPW are subject to DPW audit requirements. If any federal statute specifically prescribes policies or specific requirements that differ from the standards provided herein, the provisions of the subsequent statute shall govern.

Vendor means a dealer, distributor, merchant, or other seller providing goods or services to an auditee that are required for the **administrative support** of a program. These goods or services may be for an organization's own use or for the use of beneficiaries of the federal program. The vendor's responsibility is to meet the requirements of the procurement contract.

Department of Public Welfare Audit Requirement

If in connection with the agreement, an entity **expends \$300,000 or more in combined state and federal funds** during the program year, the entity shall ensure that, for the term of the contract, an independent auditor conducts annual examinations of its compliance with the terms and conditions of this contract. These examinations shall be conducted in accordance with the American Institute of Certified Public Accountants' Statements on Standards for Attestation Engagements (SSAE), examinations, Section 601, *Compliance Attestation*, and shall be of a scope acceptable to the DPW. The initial SSAE, Section 601, compliance examination shall be completed for the official annual reporting period of this agreement and conducted annually thereafter. The independent auditor shall issue a report on its compliance examination, as defined in the SSAE, Section 601.

The Commonwealth reserves the right for state and federal agencies, or their authorized representatives, to perform financial and performance audits if deemed necessary. If it is decided that an audit of this contract will be performed, the contractor will be given advance notice. The contractor shall maintain books, records, and documents that support the services provided, that the fees earned are in accordance with the contract, and that the contractor has complied with contract terms and conditions. The contractor agrees to make available, upon reasonable notice, at the office of the contractor, during normal business hours, for the term of this contract and the retention period set forth in this Audit Clause, any of the books, records, and documents for inspection, audit, or reproduction by any state or federal agency or its authorized representative.

The contractor shall preserve all books, records, and documents related to this contract for a period of time that is the greater of five years from the contract expiration date, until all questioned costs or activities have been resolved to the satisfaction of the Commonwealth, or as required by applicable federal laws and regulations, whichever is longer. If this contract is completely or partially terminated, the records relating to the work terminated shall be preserved and made available for a period of five years from the date of any resulting final settlement.

Records that relate to litigation or the settlement of claims arising out of performance or expenditures under this contract to which exception has been taken by the auditors, shall be retained by the contractor or provided to the Commonwealth at the DPW's option until such litigation, claim, or exceptions have reached final disposition.

AUDIT CLAUSE D – VENDOR

Except for documentary evidence delivered pursuant to litigation or the settlement of claims arising out of the performance of this contract, the contractor may, in fulfillment of his obligation to retain records as required by this Audit Clause, substitute photographs, microphotographs, or other authentic reproductions of such records, after the expiration of two years following the last day of the month of reimbursement to the contractor of the invoice or voucher to which such records relate, unless a shorter period is authorized by the Commonwealth

DPW Required Audit Report Submission

The contractor shall submit the SSAE, Section 601 audit report to the DPW within 90 days after the required period of audit has ended. When the SSAE, Section 601, audit report is other than unqualified, the contractor shall submit to the DPW, in addition to the audit reports, a plan describing what actions the contractor will implement to correct the situation that caused the auditor to issue a qualified report, a timetable for implementing the planned corrective actions, and a process for monitoring compliance with the timetable.

Submit **two copies** of the DPW required audit report package.

2. Independent Accountant's Report – on the Attestation of an entity's compliance with specific requirements during a period of time in accordance with the contract and the appropriate schedule, as required.

2. Submit the audit report directly to the program office.

REMEDIES FOR NONCOMPLIANCE

The provider's failure to provide an acceptable audit, in accordance with the requirements of the Audit Clause Requirements, may result in the DPW's not accepting the report and initiating sanctions against the contractor that may include the following:

- Disallowing the cost of the audit.
- Withholding a percentage of the contract funding pending compliance.
- Suspending subsequent contract funding pending compliance.

TECHNICAL ASSISTANCE

Technical assistance on the DPW's audit requirements, will be provided by:

Department of Public Welfare
Bureau of Financial Operations
Division of Financial Policy and Operations
Audit Resolution Section
3rd Floor, Bertolino Building
P.O. Box 2675
Harrisburg, Pennsylvania 17105-2675
Phone: (717) 787-8890 FAX: (717) 772-2522

**AUDIT CLAUSE D – VENDOR
ENCLOSURE I**

The Department of Public Welfare (DPW) requires an Independent Accountant's Report on the Attestation to be in the format described by the American Institute of Certified Public Accountants (AICPA). The following is the form of report an Independent Accountant should use when expressing an opinion on an entity's compliance with specified requirements during a period of time. For further guidance, refer to the AICPA guidelines.

Independent Accountant's Report

[Introductory Paragraph]

We have examined *[name of entity]*'s compliance with *[list specific compliance requirement]* during the *[period]* ended *[date]*. Management is responsible for *[name of entity]*'s compliance with those requirements. Our responsibility is to express an opinion on *[name of entity]*'s compliance based on our examination.

[Scope Paragraph]

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included examining, on a test basis, evidence about *[name of entity]*'s compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our examination provides a reasonable basis for our opinion. Our examination does not provide a legal determination on *[name of entity]*'s compliance with specified requirements.

[Opinion Paragraph]

In our opinion, *[name of entity]* complied, in all material respects, with the aforementioned requirements for the year ended December 31, 20XX.

[DATE]

[SIGNATURE]

RFP # 39 - 06

Appendix D

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> : Congressional District, if known:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, <i>if applicable</i> : _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i>	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i>	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only:		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

LOBBYING CERTIFICATION FORM

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, Disclosure of Lobbying Activities, in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed under *Section 1352, Title 31, U. S. Code*. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than **\$100,000** for such failure.

SIGNATURE: _____

TITLE: _____

DATE: _____

RFP # 39 - 06

Appendix E

**COMMONWEALTH OF PENNSYLVANIA
BUSINESS ASSOCIATE APPENDIX LANGUAGE**

Health Insurance Portability and Accountability Act (HIPAA) Compliance

WHEREAS, [name of program and department] (hereinafter the “Covered Entity”) will make available and/or transfer to **Contractor (hereinafter the “Business Associate”)** certain Protected Health Information (PHI), in conjunction with goods or services that are being provided by Business Associate to or on behalf of [name of program and department], that is confidential and must be afforded special treatment and protection in accordance with the Health Insurance Portability and Accountability Act (“HIPAA”) Privacy Regulations at 45 CFR Part.160-164.

WHEREAS, Business Associate will have access to and/or receive from Covered Entity, PHI that can be used or disclosed only in accordance with this Appendix and the HIPAA Privacy Regulations at 45 CFR Part 160-164.

NOW, THEREFORE, Covered Entity and Business Associate agree as follows:

- 1. Definitions.**
 - a. “Business Associate” shall have the meaning given to such term under the HIPAA Regulations, including but not limited to, 45 CFR §160.103.
 - b. “Covered Entity” shall have the meaning given to such term under HIPAA and the HIPAA Privacy Regulations, including, but not limited to, 45 CFR §160.103.
 - c. “Protected Health Information” or “PHI” means any information, whether oral or recorded in any form or medium; (i) that relates to the past, present or future physical or mental condition of an individual; the provision of health care to an individual; or the past, present or future payment for the provision of health care to an individual, and (ii) that identifies the individual or with respect to which there is a reasonable basis to believe the information can be used to identify the individual, and shall have the meaning given to such term under HIPAA and the HIPAA Privacy Regulations, including, but not limited to 45 CFR §164.501.
 - d. In accordance with 45 CFR Parts 160-164, **[name of program and department]** is the **Covered Entity** and _____ is the **Business Associate**.

e. Terms used, but not otherwise defined, in this Agreement shall have the same meaning as those terms in 45 CFR Parts 160-164.

2. Limits On Use And Disclosure Established By Terms Of Appendix. Business Associate hereby agrees that it shall be prohibited from using or disclosing the PHI provided or made available by Covered Entity for any purpose other than as expressly permitted or required by this Appendix, in accordance with 45 CFR §164.504(e)(2)(i).

3. Stated Purposes For Which Business Associate May Use Or Disclose PHI. The Parties hereby agree that Business Associate shall be permitted to use and/or disclose PHI provided or made available from Covered Entity for the following stated purposes:

***PROGRAM MUST** Include a general statement describing the stated purposes that Business Associate may use or disclose the PHI. These uses and disclosures must be within the scope of the Appendix. 45 CFR §164.504(e)(2)(i).*

4. Additional Purposes For Which Business Associate May Use Or Disclose Information. In addition to the Stated Purposes, Business Associate may use or disclose PHI provided or made available from Covered Entity for the following additional purposes(s) (optional section):

a) Use Of Information For Management, Administration And Legal Responsibilities. Business Associate is permitted to use PHI if necessary for the proper management and administration of Business Associate or to carry out legal responsibilities of the Business Associate. 45 CFR §164.504(e)(4)(ii).

b) Disclosure Of Information For Management, Administration And Legal Responsibilities. Business Associate is permitted to disclose PHI received from Covered Entity for the proper management and administration of Business Associate or to carry out legal responsibilities of Business Associate, provided:

- i) The disclosure is required by law: or
- ii) The Business Associate obtains reasonable assurances in writing from the person to whom the information is disclosed that it will be held confidentially and used or further disclosed only as required by law or for the purposes for which it was disclosed to the person, the person will use appropriate safeguards to prevent use of disclosure of the information, and the person immediately notifies the Business Associate of any instance of which

it is aware in which the confidentiality of the information has been breached. 45 CFR §164.504(e)(4)(ii).

- c) **Data Aggregation Services.** Business Associate is also permitted to use or disclose PHI to provide data aggregation services, as that term is defined by 45 CFR §164.501, relating to the health care operations of Covered Entity. 45 CFR §164.504(e)(2)(i)(B).

5. BUSINESS ASSOCIATE OBLIGATIONS:

- a) **Limits On Use And Further Disclosure Established By Appendix And Law.** Business Associate hereby agrees that the PHI provided or made available by Covered Entity shall not be further used or disclosed other than as permitted or required by the Appendix or as required by law. 45 CFR §165.404(e)(2)(ii)(A).
- b) **Appropriate Safeguards.** Business Associate will establish and maintain appropriate safeguards to prevent any use or disclosure of PHI other than as provided for by this Appendix. 45 CFR §164.504(e)(2)(ii)(B).
- c) **Reports Of Improper Use Or Disclosure.** Business Associate hereby agrees that it shall report to [name of Agreement officer for program and Department] within two (2) days of discovery any use or disclosure of PHI not provided for or allowed by this Appendix. 45 CFR §164.504(e)(2)(ii)(C).
- d) **Subcontractors And Agents.** Business Associate hereby agrees that anytime PHI is provided or made available to any subcontractors or agents, Business Associate shall provide only the minimum necessary PHI for the purpose of the covered transaction and must enter into a subcontract or contract with the subcontractor or agent that contains the same terms, conditions and restrictions on the use and disclosure of PHI as contained in this Appendix. 45 CFR §164.504(e)(2)(ii)(D).
- e) **Right Of Access To PHI.** Business Associate hereby agrees to make available to an individual who is the subject of the PHI the right to access and copy that individual's PHI, at the request of the individual or of the Covered Entity, in the time and manner designated by the Covered Entity. This right of access shall conform with and meet all of the requirements of 45 CFR §164.524 and 45 CFR §164.504(e)(2)(ii)(E).
- f) **Amendment And Incorporation Of Amendments.** Business Associate agrees to make any amendments to PHI that have been agreed to by the Covered Entity, at the request of Covered Entity or

of the individual, in the time and manner designated by Covered Entity, in accordance with 45 CFR 164.526 and 45 CFR §164.504(e)(2)(ii)(F).

- g) Provide Accounting.** Business Associate agrees to document and make available to Covered Entity or to the individual, any information necessary to provide an accounting of disclosures in accordance with 45 CFR §164.528 and 45 CFR §164.504 (e)(2)(ii)(G), within 30 days of receipt of a request for an accounting, in the manner designated by the Covered Entity.
- h) Access To Books And Records.** Business Associate hereby agrees to make its internal practices, books, and records relating to the use or disclosure of PHI received from, or created or received by Business Associate on behalf of the Covered Entity, available to the Secretary of Health and Human Services or designee for purposes of determining compliance with the HIPAA Privacy Regulations. 45 CFR §164.504(e)(2)(ii)(H).
- i) Return Or Destruction Of PHI.** At termination of this Appendix, Business Associate hereby agrees to return or destroy all PHI received from, or created or received by Business Associate on behalf of Covered Entity. Business Associate agrees not to retain any copies of the PHI after termination of this Appendix. If return or destruction of the PHI is not feasible, Business Associate agrees to extend the protections of this Appendix to limit any further use or disclosure until such time as the PHI may be returned or destroyed. If Business Associate elects to destroy the PHI, it shall certify to Covered Entity that the PHI has been destroyed. 45 CFR §164.504(e)(2)(ii)(I).
- j) Mitigation Procedures.** Business Associate agrees to establish and to provide to the Program and Department upon request, procedures for mitigating, to the maximum extent practicable, any harmful effect from the use or disclosure of PHI in a manner contrary to this Appendix or the HIPAA Privacy Regulations. 45 CFR §164.530(f). Business Associate further agrees to mitigate any harmful effect that is known to Business Associate of a use or disclosure of PHI by Business Associate in violation of this Appendix.
- k) Sanction Procedures.** Business Associate agrees that it must develop and implement a system of sanctions for any employee, subcontractor or agent who violates this Appendix or the HIPAA Privacy Regulations. 45 CFR §164.530(e)(1).

- l) **Property Rights.** The PHI shall be and remain the property of Covered Entity. Business Associate agrees that it acquires no title or rights to the PHI, including any de-identified information, as a result of its relationship with the program or department.
- m) **Grounds For Breach.** Any non-compliance by Business Associate with this Appendix or the HIPAA Privacy Regulations will automatically be considered to be grounds for breach pursuant to the underlying agreement, if Business Associate knew or reasonably should have known of such non-compliance and failed to immediately take reasonable steps to cure the non-compliance.
- n) **Termination by Commonwealth.** Business Associate authorizes termination of the underlying contract by the Commonwealth if the Commonwealth determines, in its sole discretion, that the Business Associate has violated a material term of this Appendix.
- o) **Privacy Practices.** The Program or Department shall provide and Business Associate shall immediately begin using, any form, including but not limited to, any for used for Consent, Notice of Privacy Practices, Accounting for Disclosures, or Authorization, designated as effective by the Program or Department at any given time. The Program and Department retain the right to change the applicable privacy practices and documents. The Business Associate must implement changes as soon as practicable, but not later than 45 days from the date of notice of the change.

6) **OBLIGATIONS OF COVERED ENTITY:**

- a) **Provision of Notice of Privacy Practices.** Covered Entity shall provide Business Associate with the notice of privacy practices that the Covered Entity produces in accordance with 45 CFR §164.520, as well as changes to such notice.
- b) **Permissions.** Covered Entity shall provide Business Associate with any changes in, or revocation of, permission by individual to use or disclose PHI, if such change affect Business Associate's permitted or required uses and disclosures.
- c) **Restrictions.** Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that the Covered Entity has agreed to in accordance with 45 CFR §164.522.

RFP #39 - 06

Appendix F

Company Name

INVOICE

INVOICE #[100]

Customer Account #: _____

Sales Order #: _____

Quote #: _____

Invoice Date: January 8, 2007

Supplier Corporate Address: Company Name Street Address City, State, Zip Phone: (123) 456-7890 Fax: (234) 567-8901 SAP Vendor #: 125435-123	Supplier Remit Address: Company Name Street Address City, State, Zip Phone: (123) 456-7890 Fax: (234) 567-8901 SAP Vendor #: 125435-123 <i>Make all checks payable to "Company Name"</i>
Bill To Address: Agency/Department Name and Facility/Institution Commonwealth of Pennsylvania PO Box City, PA, Zip Tel #:	Ship To Address: Agency/Department Name and Facility/Institution Commonwealth of Pennsylvania PO Box City, PA, Zip Tel #:
Comments or special instructions: 	

SAP P.O. Number	Procurement Contact	Shipped via	F.O.B. Point	Terms
				Net xx days Date of invoice receipt

SAP P.O. Line Item #	SAP Material #	Description	Quantity Shipped	Unit of Measure	Unit Price	Total Price
TOTAL DUE						

If you have any questions concerning this invoice, contact:	
Name:	Email:
Tel:	Fax:

Notes:

SAP is our enterprise software system. To find out your SAP vendor numbers, please contact your procurement representative.
 If applicable, shipping and handling must be a line item on the **purchase order and invoice**.
 If applicable, additional documentation will be attached to this invoice as required.
 If applicable, provide service dates within the comments and special instructions.

RFP # 39 - 06

Appendix G

RFP Protest Procedure

- a. **Who May File the Protest.** Any actual or prospective offeror who is aggrieved in connection with the solicitation or award of the contract may file a protest, in writing, with the Issuing Office.
- b. **Time and Place for Filing.**
 - (1) A protest by a party not submitting a proposal must be filed within seven (7) days after the protesting party knew or should have known of the facts giving rise to the protest, no later than the proposal submission deadline specified in the cover letter to the RFP. Offerors who submit a proposal may file a protest within seven (7) days after the protesting offeror knew or should have known of the facts giving rise to the protest, but in no event may a protest be filed later than seven (7) days after the date of the notice of selection. The date of filing is the date of receipt of the protest.
 - (2) A protest must be in writing and filed with the Issuing Office.
- c. **Contents of Protest.** A protest shall state all grounds upon which the protesting party asserts the RFP or selection was improper. The protesting party may submit with the protest any documents or information it deems relevant.
- d. **Notice of Protest.** The Issuing Office shall notify the selected offeror of the protest if selection has been made. If the protest is received before selection and substantial issues are raised by the protest, all offerors who appear to have a substantial and reasonable prospect of selection shall be notified and may file their agreement/disagreement with the Issuing Office within five (5) days after receipt of notice of protest.
- e. **Stay of Procurement.** The head of the purchasing agency or designee will immediately decide upon receipt of a timely protest whether or not the award of a contract shall be delayed, or if the protest is timely received after the award, whether the performance of the contract should be suspended. The Issuing Office shall not proceed further with the solicitations or with the award of the contract and shall suspend performance under the contract, if awarded, unless: the head of the purchasing agency or designee makes a written determination that the protest is clearly without merit or that award of the contract without delay is necessary to protect the substantial interest of the Commonwealth.
- f. **Response and Reply.** Within 15 days of receipt of the protest, the Project Officer may submit to the head of the purchasing agency or designee and to the protesting party a response to the protest. The protesting party may file a reply to the response within 10 days of the date of the response.

- g. Procedures. The head of the purchasing agency or designee shall review the protest and any response or reply and may decide the merits of the protest on the written, submitted documentation; request and review any additional documents or information deemed necessary to render a determination; or, in her sole discretion, conduct a hearing.
- h. Determination. The head of the purchasing agency or designee shall promptly, but in no event later than 60 days from the filing of the protest, issue a written determination. The determination shall:
 - (1) State the reason for the decision.
 - (2) Inform the protesting offeror of its right to file an action in Commonwealth Court within fifteen (15) days of the mailing date of the decision.

The Issuing Office shall send a copy of the determination to the protesting party and any other person determined by the Issuing Office to be affected by the decision.

RFP # 39 - 06

Appendix H

M-WBE Computer-related Businesses

<i>Code</i>	<i>Class</i>	<i>County</i>	<i>Business Name</i>	<i>City State</i>	<i>Phone No.</i>	<i>Contact Person</i>	<i>Status</i>
92007							
	<i>Applications Software for Microcomputer</i>						
			Technology Management & Marketing Consulting Inc				
		Allegheny	Business Info Systems Inc	Verona PA	4127932472	Jesse Williams	MBE
		Allegheny	Rhea Engineers & Consultants Inc	Gibsonia PA	7244434111	Marcella J Gallick	WBE
		Bucks	Acclaim Systems Inc	Feasterville PA	2153541420	Julia O'Donnell	MBE
		Chester	Rockey & Associates Inc	Malvern PA	6106404880	Pam Miller	WBE
		Delaware	Hitech Services Inc	Upper Darby PA	6102847380	Kesava R Gundala	MBE
		Lancaster	Banh Inc	Lancaster PA	7178921430	Loi Banh	MBE
		Lancaster	Computer Integration Group Inc	Lancaster PA	7172910155	Christine V Gorecki	WBE
		Montgomery	Life Cycle Software Inc	Ambler PA	2157939225	Jane McLaughlin	WBE
		non-PA	Creative Data Solutions Inc	Lake Mary FL	4073334770	Lisa L Morris	WBE
		non-PA	Redsalsa Technologies Inc	Dallas TX	9725034200	Shiva Kumar	MBE
		non-PA	Victory Global Solutions Inc	Columbia MD	4108849310	Angela Brown	MWBE
		Philadelphia	Tranxecute Inc	Philadelphia PA	2159221088	Leonard Chang	MBE
		Washington	SK Computer Solutions Inc	Donora PA	7242551636	Sylvester Kaunda	MBE
92013							
	<i>CADD (Computer Aided Design & Drafting)</i>						
		Adams	LD Design Srvs Inc	Littlestown PA	8885162325	Lisa Conklin	WBE
		Allegheny	Carlos F Peterson Technical Art	Pittsburgh PA	4127329697	Carlos F Peterson	MBE
		Allegheny	Controls Link Inc	Sewickley PA	4127491199	Im Sook Reinhart	MBE
		Allegheny	JMS Design Consulting Inc	Pittsburgh PA	4123893033	June Marcum	WBE
		Allegheny	Multimedia Unlimited Inc	Pittsburgh PA	4127877333	Rose Ann Cochran	WBE

Monday, June 27, 2005

[First](#) [Previous](#) [Next](#) [Last](#)

Page 1 of 4

<i>Code</i>	<i>Class</i>	<i>County</i>	<i>Business Name</i>	<i>City State</i>	<i>Phone No.</i>	<i>Contact Person</i>	<i>Status</i>
		Allegheny	NYH Architects Inc	Pittsburgh PA	4122412775	Norman Y Harai	MBE
		Allegheny	Virtuality Inc	Imperial PA	7246955649	Gary Jackson	MBE
		Blair	Boyer Partnership Inc	Altoona PA	8149461241	Lenka N Boyer	WBE
		Butler	Mary E Lewis PE	Mars PA	7247726002	Mary E Lewis	WBE
		Cambria	Advanced Blueprinting & Computer Drafting Srvs Inc	Johnstown PA	8142668280	Susan M Lapinsky	WBE
		Chester	Enviro Ace	Allentown PA	6104370701	Mary Rooney	WBE
		Cumberland	Net World Technology Corporation	Carlisle PA	7172497232	Rkia Hall	WBE
		Dauphin	Raudenbush Engineering Inc	Middletown PA	7179440883	Jodi A Raudenbush	WBE
		Delaware	Trec Group Inc	Springfield PA	6103286465	Barbara Tulske	WBE
		Fayette	Timothy Engineering	Uniontown PA	7244386858	Ronald S Timothy	MBE
		Indiana	Infinite Line Incorporated	Clarksburg PA	7246399788	Denise M Corbin	WBE
		Lancaster	Advanced Technology Solutions Inc	Lancaster PA	7173997007	Ashis B Pal	MBE
		Lehigh	USI Int'l Company	Allentown PA	6104392122	Raman K Malhotra	MBE
		Montgomery non-PA	Images Technology Group LLC	North Wales PA	2154129989	Sharon E Vargas	MWBE
		non-PA	Armand Corporation	Cherry Hill NJ	8564898200	Barbara Armand	MWBE
		Philadelphia	Valdva Consultants Inc	Wilmington MA	9786577121	Surenda R Vaidya	MBE
		Philadelphia	Alexander Perry Inc	Philadelphia PA	2156364420	Pat Sanford	MWBE
		Philadelphia	Dharma Graphics	Philadelphia PA	2159222697	Donald E Coles	MBE
		Schuylkill	John E Levkulic PE	Pottsville PA	5706282887	John E Levkulic	MBE
		York	Aguirre Design Network Inc	York PA	7177790950	Julian C Aguirre	MBE
		York	Kushner Associates	York PA	7172520238	Adrienne C Kushner	WBE

92014*Applications Software (for minicomputer)*

		Allegheny	Sigma Resources LLC	Pittsburgh PA	4127121030	Sandeepa Kaleida	MWBE
		Cumberland	Imagetech Systems Inc	Camp Hill PA	71776145900	Lori E Oommen	WBE
		Lackawanna	Infinity Technology Group Inc	Chinchilla PA	5703783734	Luis A Coronel	MBE

Monday, June 27, 2005[First](#) [Previous](#) [Next](#) [Last](#)*Page 2 of 4*

<i>Code</i>	<i>Class</i>	<i>County</i>	<i>Business Name</i>	<i>City State</i>	<i>Phone No.</i>	<i>Contact Person</i>	<i>Status</i>
	92018						
	<i>Computer Software Developer</i>						
		Allegheny	Abator Info Srvs Inc	Pittsburgh PA	4122715922	Joanne E Peterson	WBE
		Allegheny	Atlas Software Technoloties Inc	Pittsburgh PA	4122471132	Pradeep Walia	MBE
		Allegheny	Concept2 Solutions	Caraopolis PA	4126040236	Linda J Franz	WBE
		Allegheny	ECT Con Inc	Imperial PA	7246958042	Terrie Baranek	WBE
		Allegheny	Kit Solutions Inc	Pittsburgh PA	4123667188	Xiaoyah Zhang	MBE
		Allegheny	Plan4 Demand Solutions Inc	Pittsburgh PA	4127335000	Eric Brown	WBE
		Allegheny	Primetech Systems Inc	Bridgeville PA	4122217600	Vijay Shah	MWBE
		Chester	Enterprise Messaging Srvs Inc	Malvern PA	6107017002	Sharada Singh	MWBE
		Chester	LAD Enterprizes Inc	West Chester PA	6104293122	Laura Dallas Burford	WBE
		Chester	THK Consulting Inc	Glenmoore PA	6105245657	Satyendernath Kasturi	MBE
		Cumberland	Domino Technologies Inc	Mechanicsburg PA	7177306265	Swami Nathan Balagopal	MBE
		Cumberland	Momentum Inc	Camp Hill PA	7172148000	Lori Daniels	WBE
		Cumberland	S3 Inc	Camp Hill PA	7177372664	Alfred Sacoman	MBE
		Cumberland	Techcircle.Com Inc	Enola PA	8774472395	Usha L Rao	MWBE
		Cumberland	Technical Srvc Assocs	Mechanicsburg PA	7176915691	Jesus R Ramos	MBE
		Dauphin	Computer Srvs Vision 2000 Inc	Harrisburg PA	7172366988	Eddie L Wright	MBE
		Dauphin	Ibusiness Solution LLC	Harrisburg PA	7175401209	Pramod Srivastava	MWBE
		Dauphin	Infotech Solutions Inc	Middletown PA	7175460020	Donna Snyder	WBE
		Delaware	Annance Consulting Inc	Wayne PA	6109648545	Janet maki	WBE
		Mercer	McFarland Technology Inc	Wilmington PA	7249469492	Barbara McFarland	WBE
		Montgomery	3 Tech Partner Inc	Plymouth Meeting PA	6102795978	Shiehlie Wang	MBE
		Montgomery	Adept Consulting Srvs Inc	Lansdale PA	2158553610	Kirit D Mehta	MBE
		Montgomery	Informant Technologies Inc	Lansdale PA	2154129165	Emile Gabbadon	MBE
		Montgomery	Iverson Associates Inc	Bala Cynwyd PA	6106684190	Susan H Hufnagel	WBE
		Montgomery	Object C Talk Inc	King Of Prussia PA	6102651278	Kay Gupta	MWBE

Monday, June 27, 2005

[First](#) [Previous](#) [Next](#) [Last](#)

Page 3 of 4

<i>Code</i>	<i>Class</i>	<i>County</i>	<i>Business Name</i>	<i>City State</i>	<i>Phone No.</i>	<i>Contact Person</i>	<i>Status</i>
		Montgomery	Ohm Systems Inc	Horsham PA	2156752766	Praful J Patel	MBE
		non-PA	ACS Int'l Resources Inc	Newark DE	3024563867	Milan S Patel	MBE
		non-PA	Bith Group Inc	Columbia MD	4107300077	Robert L Wallace	MBE
		non-PA	Danucom Corportation	Tinton Falls NJ	7329339990	Ramesh Balakrishnan	MBE
		non-PA	Digitek Software Inc	Dublin OH	6147648875	Bharat Gandhi	MBE
		non-PA	Diverse Technologies Corporation	Upper Marlboro MD	3016691000	David Kalman	MBE
		non-PA	Enterprise Engineering Inc	Springfield VA	7039710747	Janice L M Buxbaum	WBE
		non-PA	eTransitions Inc	Lebanon NJ	8002369414	Ulka Rodgers	MWBE
		non-PA	Horizon Companies Inc	Edison NJ	7326500052	Shirish R Nadkarni	MBE
		non-PA	Information Gateways Inc	Bingham Farms MI	2482900190	Veeraswami Chennamsetty	MBE
		non-PA	Integrated Technology Solutions Inc	Columbia MD	4107723900	Debra Shapiro	WBE
		non-PA	Protech Solutions Inc	Little Rock AR	5016872309	Shiva Duvvuru	MWBE
		non-PA	Svam Int'l Inc	Great Neck NY	5164666655	Sanjiv Kohli	MBE
		non-PA	Wise Web Connections	Dover NJ	9737831000	Cheryl D Hall	MWBE
		Philadelphia	Connexus Technology LLC	Philadelphia PA	8662375542	Lawrence A James	MBE
		Philadelphia	Zios Corporation	Philadelphia PA	2159880858	Eileen Chu Hing	MWBE
		Westmoreland	IO Inc	Murrysville PA	7243273441	Barbara Van Kirk	WBE
		Westmoreland	System Applications	Latrobe PA	7245201284	Linda Sacca	MBE

93921*Computers, Data Processing Equipment And*

		Allegheny	Litek Inc	Monroeville PA	4128561655	Shirley Li	MBE
		Cambria	Cambria Business Machines Inc	Johnstown PA	8145365356	Donald F Felix	MBE
		Montour	Jedo Inc	Whitehall PA	6102612600	Eduardo Eichenwald	MBE

98522*Computers, Data Processing Equipment An*

		Huntingdon	JRK Engerprises Inc	Alexandria PA	8146691910	Judith Brown	WBE
--	--	------------	---------------------	---------------	------------	--------------	-----

Monday, June 27, 2005[First](#) [Previous](#) [Next](#) [Last](#)*Page 4 of 4*

RFP # 39 - 06

Appendix I

DOMESTIC WORKFORCE UTILIZATION CERTIFICATION

Each proposal will be scored for its commitment to use the domestic workforce in the fulfillment of the contract. Maximum consideration will be given to those offerors who will perform the contracted direct labor exclusively within the geographical boundaries of the United States. Those who propose to perform a portion of the direct labor outside of the United States will receive a correspondingly smaller score for this criterion.

In order to be eligible for any consideration for this criterion, offerors must complete and sign the following certification. This certification will be included as a contractual obligation when the contract is executed. Failure to complete and sign this certification will result in no consideration being given to the offeror for this criterion.

I, _____ [title] of _____ [name of Contractor] a _____ [place of incorporation] corporation or other legal entity, ("Contractor") located at _____ [address], having a Social Security or Federal Identification Number of _____, do hereby certify and represent to the Commonwealth of Pennsylvania ("Commonwealth") (Check **one** of the boxes below):

All of the direct labor performed within the scope of services under the contract will be performed exclusively within the geographical boundaries of the United States.

OR

_____ percent (____%) [Contractor must specify the percentage] of the direct labor performed within the scope of services under the contract will be performed within the geographical boundaries of the United States. Please identify the direct labor performed under the contract that will be performed outside the United States: _____

[Use additional sheets if necessary]

The Department of General Services [or other purchasing agency] shall treat any misstatement as fraudulent concealment of the true facts punishable under Section 4904 of the *Pennsylvania Crimes Code*, Title 18, of Pa. Consolidated Statutes.

Attest or Witness:

Corporate or Legal Entity's Name

Signature/Date

Signature/Date

Printed Name/Title

Printed Name/Title

RFP # 39 - 06

Appendix J

Pennsylvania
Department of Public Welfare

Bureau of Information Systems

**Project Governance Teams: Detailed Roles and
Responsibilities**

Version 1.5

October 6, 2003

Table of Contents

Introduction	5
Purpose	5
View of the DPW Project Governance Structure	5
Steering Team	7
Strategic Planning and Alignment.....	8
Initiative Justification	8
Funding	8
Support Guidance to Other Teams	8
Communication and Status Reporting	9
Executive Sponsorship, Support, and Roadblock Elimination	9
Customer Satisfaction.....	9
Business Results	9
Mandate Interpretation.....	9
Stakeholder Management.....	10
Steering Team References, Tools, Guidelines and Templates.....	10
Project Team	10
Scope Management and Configuration Management.....	12
Requirements Definition.....	12
General System Design (GSD).....	13
Work Planning and Scheduling.....	13
Resource Coordination and Procurement Management.....	14
Risk Management	14
Status Updates	15
Standards and Procedures Conformance.....	15
Cost and Financial Management	16
Quality Management.....	16
Project Management Team References, Tools, Guidelines and Templates.....	17
Development Team	18
Detailed System Design (DSD).....	19
Build Quality Products.....	19
Programming	19
Tool Sets.....	19
Software Development Methodologies	20
Interfaces and Exchanges	20
Unit Testing.....	20
Integration Testing	20
Conversion	21

Development Team References, Tools, Guidelines and Templates.....	21
Testing Team.....	21
Validate Quality.....	22
Test Planning.....	22
Regression Testing.....	23
Resolve and Communicate Issues.....	23
Performance Testing.....	23
Acceptance Testing.....	24
Testing Team References, Tools, Guidelines and Templates.....	24
User Education Team.....	24
Job and Process Impacts.....	25
Policy and Procedure Identification.....	25
Conducting Outreach and Education.....	25
Implementation Support.....	25
User Education Team References, Tools, Guidelines and Templates.....	26
Logistics Team.....	26
Configuration Management.....	27
Security.....	27
Technical Architecture.....	28
Network Management.....	28
Application Installation.....	28
Maintenance and Operation.....	28
Customer Support.....	28
Logistics Team References, Tools, Guidelines and Templates.....	28
Additional References.....	29
Document Change Log.....	29

Project Governance Teams: Detailed Roles and Responsibilities

Introduction

There are three primary documents developed to explain the Project Governance Teams. These three documents include:

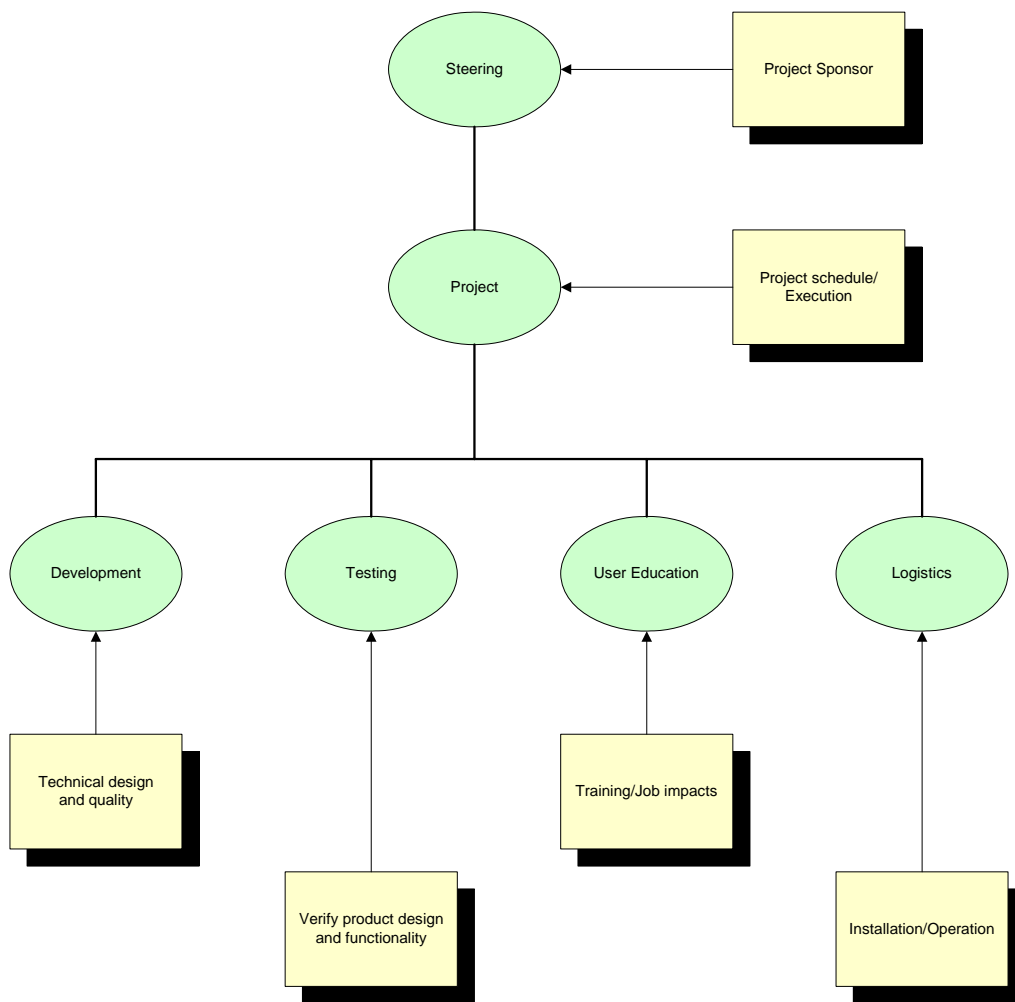
- Project Governance Teams Overview – This high-level document explains the Project Governance Structure's overall purpose, benefits, and its location in the DPW organization.
- Project Governance Teams: Detailed Roles and Responsibilities – This detailed reference document explains each team's specific roles and responsibilities.
- Project Governance Team RACI (Responsible, Accountable, Consulted, and Informed) Matrix – A comprehensive RACI matrix outlines and clarifies which teams are responsible, accountable, consulted, or informed on specific tasks and activities.

Purpose

This guideline defines the overall parameters for successful project governance. It also provides a foundation for the organized and consistent planning and execution of projects. More specifically, this document's goal is to describe each team's actual work that is performed during a project.

View of the DPW Project Governance Structure

A critical component of understanding the Project Governance Teams' organization and reporting structure is seeing how they are arranged graphically. The chart on the following page visually shows the governance teams' hierarchy.



Steering Team

The Steering Team's goal is customer satisfaction. The Steering Team articulates a vision for the product or service, acquires and quantifies high-level customer requirements, develops and maintains the business case, and manages customer expectations. Its role is to ensure that business expectations are clearly articulated and understood by all stakeholders and the other project governance teams and that the functional specification responds to business priorities. The Steering Team must also facilitate the rapid resolution of issues and decisions that cannot be agreed upon or resolved among the other project governance teams. The Steering Team is responsible for ensuring that the project follows DPW's technical, policy and quality standards and procedures. The Steering Team is comprised of **staff from the Bureau of Information Systems (BIS), Office of Policy Development (OPD), and other Program Offices**. Specific responsibilities and activities of the Steering Team include:

- Strategic Planning and Alignment
- Initiative Justification
- Funding
- Support Guidance to Other Teams
- Communications and Status Reporting
- Executive Sponsorship, Support, and Roadblock Elimination
- Customer Satisfaction
- Business Process Re-engineering
- Business Results
- Mandate Interpretation
- Stakeholder Management
-

The Steering Team has the following roles and responsibilities on a project:

- Ensure project alignment with overall Department objectives
- Maintain knowledge of project status to apply to executive decisions across business areas
- Develop, maintain and carryout the business case (concept paper) for the initiative
- Provide advice and guidance to the other project governance teams
- Support the Project Management team with resource acquisition
- Establish overall project requirements and priorities
 - Communicate user needs, define the business problem, identify expected benefits, and manage expectations
 - Outreach to the user community and stakeholders
 - Articulate a project vision (What it is and what it isn't)
- Ensure project scope and execution activity is in line with customer requirements and solutions that solve the business problems
- At a minimum, the Steering Team is accountable for the following project deliverables:

- Creation of justification documents and funding to show why the initiative should be carried out or continued
- A plan for customer and stakeholder management
- Formal verification that all policy and mandate requirements have been addressed
- Development and execution of a formal project communication plan

A detailed description of each Steering Team high-level activity is described below:

Strategic Planning and Alignment

Strategic planning and alignment is the process that integrates Department strategy, IT investment, project management, and functional capability to optimize cross-program coordination of all project activities. To accomplish this, the Steering Team must provide input to and obtain in-depth knowledge of DPW's IRM Strategic Plan. The objective of this activity is to ensure that the project initiative and related activity is coordinated and integrated with this plan and the overall Department business and IT strategy.

Initiative Justification

The Steering Team comprehends and explains an initiative's business requirements and programmatic application. A project's justification will include the strategic alignment, funding requirements, executive sponsorship, and expected business results.

Funding

The Steering Team identifies, justifies and plans for the project's funding through its completion. The Steering Team keeps the project within the budget for each of its budgeted years.

Support Guidance to Other Teams

Being the top team within a specific project, the Steering Team resolves any **conflicts** that were escalated from the lower teams or where the teams asked for the Steering Team's assistance. For example, they could render a decision on a request that has reached a stalemate in discussions among the Project Team members. They could determine which team or sub team will answer a user or **stakeholder** question the most efficiently, too. In sum, the Steering Team represents the police officer or judge to ensure the conflicts do not deter from the project's progress.

Communication and Status Reporting

The Steering Team is responsible for communications external to the project and to the key stakeholders that have a vested interest in the project. Steering Team communications are primarily targeted at governance teams and/or DPW operational units that are **dependent on or impacting a specific initiative**. The Steering Team also maintains an awareness of the status of the project effort to ensure appropriate coordination of project activity by DPW management.

Executive Sponsorship, Support, and Roadblock Elimination

Throughout the planning and execution of a project, the project may experience limited acceptance due to variations in functional priorities, cultural boundaries, or the political environment. It is the Steering Team's responsibility to positively promote the initiative's benefits. This team also removes any organizational roadblocks that may cause the project to fail or fall short of the customer's expectations.

Customer Satisfaction

The Steering Team monitors the project to ensure it meets the customer's goals. The Team also works with the other project governance teams to act on any approved stakeholder or user change requests to the product's original specifications. In summary, the Steering Team ensures the customers and stakeholders are satisfied with the product during its project phases.

Business Results

The main purpose of defining business results is to justify the commitment of resources to a project. On strategic IT projects, a concept paper and Program Revision Request (PRR) are typically used to define and determine the high-level business results expected. The concept paper and Program Revision Request define the business aspect of a project, including impact level, the project justification, need/demand, expected productivity increase, program measures, funding requirements methods, technical analysis, and the action or business plan proposed. Business Results activities ensure that proposed program benefits are captured and tracked throughout the project lifecycle. These activities involve the process of identifying **key** outcomes of the initiative followed by planning, managing, delivering, and measuring the program benefits and business value.

Mandate Interpretation

Mandate Interpretation involves identifying and clarifying federal and state mandates to ensure that the project deliverables are in line with requirements. If existing mandates change or new mandates are issued during a project lifecycle, it is the responsibility of the Steering Team to bring those requirements to the attention of the project team and to determine the impact to scope and related activity.

For new initiatives, the Steering Team should incorporate any appropriate mandate requirements and associated penalties of non-conformance in the Program Office Initiative (POI) definition and Project Prioritization Workbook (PPW).

Stakeholder Management

Stakeholders are the people who have a vested interest in the outcome of the project. Stakeholders include customers, employees, providers, sub-contractors, or field representatives who will be affected by a resultant change from a project.

As the customer advocate to the project, the Steering Team is responsible for understanding customer requirements, creating the business case, establishing the shared project vision, and ensuring that any solution that is developed meets the documented and agreed to needs of the customer by solving their particular business problem.

The Steering Team is also responsible for keeping other stakeholders of the project informed about the project, its direct impact on their areas of responsibility, and what will be required of them throughout the project lifecycle and upon product release.

Steering Team References, Tools, Guidelines and Templates

- 1.
2. Concept Paper Template
- 3.
4. and
- 5.
6. Meeting Management – and s
7. Integrated Planning Guideline and Status Reports
8. .

Project Team

The Project Team drives the critical decisions necessary to release the right product, according to the Steering Team's direction, at the right time and within the project's established resource constraints. The Project Team clarifies the business case, identifies the detailed project requirements, and integrates the efforts of each functional team described below. Specific responsibilities and activities of the Project Team include:

- Scope Management and Change Management
- Quality Management

- Requirements Definition
- General Systems Design (GSD)
- Work Planning and Scheduling
- Resource Coordination and Procurement Management
- Cost and Financial Management
- Risk Management
- Standards and Procedure Conformance
- Status Updates

The Project Team has the following project roles and responsibilities:

- Owns and drives the project schedule, business requirements, application functionality, and budget
- Drives core project level decisions requiring integration across the other project governance teams
- Submits final deliverables to customer and obtains acceptance sign-off
- Manages the project scope and specifications to meet the Steering Team's requirements
- Identifies tradeoffs between cost, schedule, and deliverable product
- Integrates detailed work plans into one overall project plan
- Develops and executes project quality and configuration management plan
- Manages all subordinate teams' resources and roles
- Coordinates resources, facilities, and team communication
- Tracks project status against project plans
- Communicates with the Steering Team and the other project governance teams
- Escalates unresolved issues to the Steering Team
- Prepares and distributes status reports
- The Project Team is accountable for the following project documents and concepts:
 - Detailed project work plan and schedule that integrates all project work activity
 - Risk mitigation plan
 - Change Management
 - General System Design (GSD) document
 - Quality Assurance plan
 - Status reports
 - Documentation of changes to baselined control items
 - Requirements Definition
 - Scope Management

A detailed description of each Project Team high-level activity is described below:

Scope Management and Configuration Management

Scope Management is the process for defining the project's initial scope and handling the inevitable changes to scope that arise during the project's execution.

The Scope Management processes ensure that the project considers all the work required, and only the work required completing the project successfully. It is primarily concerned with defining and controlling what is, or is not, included in the project.

Organizations employ Scope Management to describe the project's boundaries. It defines what the project will deliver and what it will not deliver. For larger projects, Scope Management can include the organizations and transactions affected the data types included, and so on.

During project execution, the Project Team must manage scope by ensuring that all in scope work products are delivered as promised. If the deliverables change during the project, and the customer and the Steering Team agree to the change, then the cost, time, and resource estimates may no longer be valid. If these stakeholders agree to include new work or remove previously agreed to deliverables, then the Project Team has the right to expect that the project scope may be modified to reflect these new expectations. These new scope elements now become the approved target or baseline. If changes occur within the project, a change management process must be followed, which will analyze a proposed change's impact on the scope, schedule, resources and cost of a project. All approved changes must be incorporated into the scope documentation and communicated with the other project governance teams.

Requirements Definition

A requirement is a condition or capability that a system owner and user need to solve a problem or achieve an objective. A condition or capability is something that must be met or possessed in a project to satisfy a contract, standard, specification, or other project objective.

A requirements definition is a work product deliverable that employs non-technical language that the system owner and users understand to specify the manual and automated processes that to a software product will support. It details the functional capabilities that the product's release will deliver.

Requirements definition involves identifying and documenting the in scope and out of scope business requirements, business rules, project assumptions, and functionality. Requirements definition also identifies the governance teams and users' necessary operating environment, conversion, installation, interface, performance, and education needs. At a minimum, the requirements definition represents the contract between the customer or project sponsor and the project governance teams. Requirements definition completely and unambiguously describes the necessary attributes (functional performance requirements) for the intended product and details steps to verify the attributes' achievement (i.e. through testing).

General System Design (GSD)

The General System Design (GSD) is the set of project activities where the functional designs for architecture, software components, interfaces, and data are created, documented, and verified to satisfy the requirements definition. This phase determines 'how' the new system will satisfy the requirements definition. The General System Design is typically more user-oriented. Security considerations, user education, and installation strategies are addressed in this phase.

In the GSD, the software product's overall structure is defined from a functional viewpoint. The functional design describes the software's logical system flow, data organization, system inputs and outputs, processing rules, and operational characteristics from the user's standpoint. It is not concerned with the software or hardware that will support the product's operation. Neither, is it concerned with the physical organization of the data or the programs that will accept the input data, execute the processing rules, and produce the required output.

The system owner and users must be able to understand the GSD. One objective is to define and document the functions of the software product to the extent necessary to obtain approval. The GSD or functional design must also include enough detail to permit the subsequent development the Detailed System Design (DSD).

The Requirements Definition and General System Design, once complete and approved, represent the project requirements and functional specification from which all remaining work is based.

The Project Team is responsible for ensuring that the requirements and GSD are baselined before any development activity commences on the project.

Once the customer approves the requirements and GSD, the Project Team must manage these baselines. Requirements management is the process of developing the baseline requirements and GSD for a project, evaluating and approving any proposed changes to the requirements, and managing the various work products to ensure the successful delivery of the requirements.

Work Planning and Scheduling

Work planning and scheduling is the identification of the specific tasks that must be performed to accomplish the project, determination of how they will be done, assignment of the tasks to the appropriate staff, estimation of how long they will take, and the planned dates for meeting milestones.

Work planning and scheduling must be based directly on project scope and high-level functional requirements. Using these as inputs, the Project Team develops the detailed work plan and task schedule required to achieve the project's objectives. Key dependencies are identified as well as significant milestone events. The work plan is the day-to-day guideline for performing project tasks in the sequence required to deliver the project results within defined constraints.

Another key element of work planning and scheduling is ensuring that the plan is followed and regular status information and approved changes are updated in the plan to reflect any needed adjustments in upcoming efforts.

Resource Coordination and Procurement Management

Resource coordination includes the processes required to maximize the people, vendors, equipment, and tools on the project. It involves:

- Determining the category and quantity of resources (people, equipment, and materials) needed to perform the project's activities.
- Establishing the appropriate project governance teams and sub-teams that possess the skills required to perform the work (labor resources), as well as scheduling the tools, equipment, and processes (non-labor resources) that enable the staff to complete the project.
- Managing the resources and the project interdependencies required to deliver a quality project on time and within budget.
- Successfully executing a project within its defined resource constraints.
- Managing any procured resources that are external to the organization.

Risk Management

A risk is an uncertain event or condition that may have an effect on a project's objectives or successful completion. By recognizing a risk, the Project Team can attempt to avoid or minimize a future problem or maximize a benefit through the proper actions.

Risk management is the process of identifying project risks and developing strategies that either significantly reduces them or take steps to avoid them all together, while representing the project's best interests. Risk management also includes maximizing the probability and results of positive events. While risk management is conducted throughout the project lifecycle, the Project Team should identify risks at the project's onset and reevaluate them throughout each project phase.

When risks are mismanaged, these significant consequences represent what can occur on a project:

- Excessive resources can be expended to correct problems
- Decisions will be made without considering all alternatives and related impacts
- The probability of a project's successful completion may be reduced
- The project will be in a constant crisis state

Status Updates

Status updating and reporting includes project progress tracking and reporting at varying levels (individual, team, and overall project) to project stakeholders. In general, project status can be summarized as follows:

- On-Target: Project meeting all planned timelines and deliverables
- Behind: Project deliverables are behind the originally planned timeline
- Critical Behind: Project deliverables are behind the originally planned timeline and at a high risk of not meeting the client's expectations
- Complete: Project is complete, all close-out criteria have been satisfied
- Planning: Project is in the initial planning stages
- On-hold: Project is on stand-by

Several examples of more detailed status update information that are important for project tracking and reporting include:

- Are there any issues that are becoming evident and should be addressed now?
- What activities are on the critical path?
- Which tasks are taking more time than estimated? Less time?
- If a task is late, what is the effect on subsequent tasks and other projects that depend on this task completing on time?
- What is the next deliverable to be produced and when is it scheduled to be complete?
- How much effort has been expended so far and how much is remaining?
- Are any of the project resources over-allocated or under-allocated?
- How much of the allocated time has been expended to date and what is the time required to complete the project?
- How much of the allocated budget has been expended to date and what funds are required to complete the project?

The above status questions cannot be answered without a clearly defined project scope and detailed work plan. When performing a status update, a comparison must be made between planned project activity and actual progress to date. The Project Team must use the detailed work plan for directing project efforts as well as collecting project status information.

Standards and Procedures Conformance

The Project Team is responsible for ensuring that project activity and deliverables are in alignment with DPW's IT standards and procedures. These standards, including technical and business standards, are available on the OIS web site.

Cost and Financial Management

Each project at DPW has an authorized budget. The Project Team is responsible for knowing the funds budgeted to the project and managing the project within those constraints.

The Project Team must know the extent of their budget oriented decision making authority. The Steering Team should discuss and agree to these authority parameters before launching a project initiative. Often, the Project Team and DPW's fiscal and contract personnel must work closely together to track and control costs. These relationships must be established early in the project.

Part of the Project Team's job is to ensure that the project is completed within the allocated and approved budget. A project's major costs typically include labor (both internal and external), equipment, facilities, software, telecommunications, education, travel, materials, and supplies. As actual task durations are tracked carefully against estimates, actual costs must be tracked against the approved project budget.

Changes to the project's scope most often will have a direct impact on the budget. As scope changes need to be controlled and managed, so do changes to the project budget.

It is the Project Team's responsibility to closely monitor the project's financial performance and address any arising cost-related issues. In addition, the Project Team should always be aware of how the project decisions affect the project's total cost, both before and after the product or service's implementation.

Quality Management

Quality Management is the creation and oversight of supporting processes that ensure clients and end-users receive quality products.

Quality Management's purpose is to address not only the **product's** quality, but also the quality of the system's development process and the degree to which the project follows the defined process. The underlying concept of this process area is that high-quality systems can only be consistently produced on a continuous basis if a process exists to continuously measure and improve quality. In addition, this process must be adhered to rigorously and throughout the project lifecycle. Key aspects of the process required to develop high-quality systems are measurement, analysis, and corrective action description.

This process may address the following quality variances technical content, such as the particular values of derived or allocated requirements, and form issues, such as whether the customer prefers instructions on product use to be in paper or electronic form. Cost and schedule variances can also be considered defects and would be dealt with along with other defects. Adherence to project management process could also be assessed and evaluated.

It is the Project Team's responsibility to develop a Quality Plan and ensure that the project adheres to DPW's Quality Management policies. Depending on the factors that must be considered for each project, the Quality Management Plan should address the following areas.

- Determining when and who should conduct independent assessments and project reviews

- Monitoring for adherence and applicability to published standards and procedures
- Devising a process for corrective action and resolution of discrepancies
- Planning to ensure the deliverables/work products meet the **project's requirements** (validation)
- Planning to ensure that the product **works in line with the product's specifications** (verification)
- Identifying project testing processes that will be implemented during development and before the product's delivery

Performing quality reviews assures that established system development and project management processes and procedures are being followed effectively – and that exposures and risks to the current project plan are identified and addressed.

These quality reviews facilitate early problem detection that could affect the product's reliability, maintainability, usability, availability, or security. Four typical quality review categories are:

1. Peer Reviews
2. Structured Walkthroughs
3. In-Phase Assessments (IPA)
4. Phase Exits

The review to be used depends on the work product being reviewed, the point of time within the stage, and the role of the person conducting the review.

Other areas to consider in the Quality Management activities of a project include:

- Plans for conducting design reviews
- Code reviews
- Reviews of test scripts
- Reviews of test results
- Operational support transition quality checkpoints
- Milestone checklists
- Documentation of continuous improvement opportunities.

Project Management Team References, Tools, Guidelines and Templates

1. IRM Strategic Plan
2. Program Office Initiative (POI) Template and Guideline
3. Project Prioritization Work book Template and Guideline
4. Project Communication Plan Guideline

5. Meeting Management – Calendar and Guidelines
6. Project Work Plan standard Template and Guideline
- 7.
8. Phase Milestone Checklist
9. Integrated Planning Guideline and Status Reports
10. Stage Exit Process Guide
11. Guide to Conducting Structured Walk Throughs
12. Requirements Checklist
13. Software Requirements Specification Template
14. Requirements Traceability Matrix Template
15. General Systems Design Checklist
16. Software QA Plan Template
17. Project Scope Change Control Template and Guideline
18. Issue Management Guideline

Development Team

The Development Team designs and implements a quality product or service that meets the specification and customer expectations. Development should focus on coding to the functional specification and on meeting customer expectations.

- Detailed System Design (DSD)
- Build Quality Products
- Programming
- Tool Sets
- Application development methodologies
- Interfaces and Exchanges
- Unit Testing
- Integration Testing
- Conversion
-

The Development Team has the following roles and responsibilities on a project:

- Design and build product to requirements specification
- Validate potential solutions through input to design, technology evaluations and proof-of-concept prototypes
- Estimate time and effort to complete the design and product build
- Develop, configure and customize the product
- Serve as technical consultants
- Support the product installation and deployment

- At a minimum, the Development Team is accountable for the following project deliverables:
 - Detailed System Design (DSD)
 - Production code
 - Interface and exchange capabilities, utilities and tool sets
 - Converted data from the system that is being replaced, where required

A detailed description of each Development Team high-level activity is described below:

Detailed System Design (DSD)

The Detailed System Design (DSD) translates the functional design requirements specified in the General System Design (GSD) into a detailed set of system requirements. This includes detailed system flows and program and database specifications that are required to construct the application.

The DSD project phase refines and expands the designs for the system architecture, software components, interfaces, and data to be sufficiently complete for development. Plans and materials for the project's tests are prepared, too.

Build Quality Products

The Development Team builds quality products by documenting their work and establishing procedures to back up the team's work. Documenting the work can include writing the steps the team took to complete a task for the first time or making copious comments next to a program module's code and employing the coding standards that are listed in the Software Development Methodology. Some examples of backing up work include placing a code module in Visual Source Safe when it is finished or creating a secondary server to mirror data that is on a primary server. Backing up the work enables a person to quickly reclaim a system or data after a problem develops that corrupts the primary material.

Programming

Programming builds a system's components based on the previously created design specifications. Programming activities are founded on the documented and approved Programming Standards, Requirements Definition, General System Design, and Detailed System Design. Utilizing these documents, the programming activities construct modules and objects that meet the business requirements.

Tool Sets

The Development Team evaluates, defines and deploys industry-based or custom tool-sets, which support Requirements Definition, General Systems Design, Detailed System Design, Programming, Conversion, and Testing activities.

Software Development Methodologies

The Development Team ensures consistency, re-usability, and quality for a project's design and development activities with their processes, policies, procedures, templates, and tools. The Software Development Methodology guides the Development Team from point A to point B during the course of a project. It is a collection of best practices and repeatable processes that have been tested repeatedly on real development situations and proven effective.

Interfaces and Exchanges

The Development Team defines the processes that create efficient interfacing and exchanging of information within DPW and between DPW and the external entities including county, business partners, other states, and federal agencies. More specifically, the Development Team designs and develops system components that enable two independent systems to meet and communicate with each other. In computer technology, there are several types of interfaces.

- User interface - the keyboard, mouse, and a computer system's menus, which allow the user to communicate with the operating system.
- Software interface - the languages and codes that the applications use to communicate with each other and with the hardware.
- Hardware interface - the wires, plugs, and sockets that hardware devices use to communicate with each other.

Unit Testing

Unit Testing creates a strategy to examine individual modules within a project's developed components and objects. It applies this strategy to examine the actual modules and individual hardware or software units or groups of related units. Unit Testing also isolates and tests each unit's flow path of code. The flow path's testing should identify the expected output, which will help compare the planned output to the actual output. If any problems are identified, the problem should be evaluated through a peer review. Corrections to the code are generated and unit testing is performed again. Once the code and unit testing is completed successfully, the change is placed under Software Configuration Management and is documented. The Development Team then provides documentation and **changes effected** to the Testing Team.

Integration Testing

Integration Testing is conducted on a complete, integrated software product or system to evaluate compliance with its specified requirements. It typically involves an orderly progression of testing where software components or units are combined and tested to evaluate the interaction between them. The software component tests also ensure that the system is ready to be moved into production.

During software integration, the Development Team's self made software components, the off-the-shelf software, and commonly reused code or modules are assembled into one integrated

product. Each integrated product undergoes systematic testing that is consistent with the Integration Test Plan. An incremental approach to integration enables verification that the product is working properly before new components are added. It also allows for easier problem isolation and resolution.

Both the Development and Testing Teams perform Integration Testing, however the Development Team is accountable for its successful completion. Integration Testing combines and tests software (and possibly hardware) elements in an orderly progression to evaluate their interaction. Integration Testing is a formal procedure that is carefully planned and coordinated with the unit-tested modules' completion dates.

It verifies that the functionally related modules interface properly and perform the way they were designed. Testing may examine the source code's processing logic to see if it meets the design requirements and see if the application satisfies an explicit functional requirement. Integration testing also verifies that integrated hardware and software operations meet specified requirements and operate successfully.

Conversion

Converting data transitions or changes it to a different format or system. When a new system is operational, the conversion plan describes how the historical data will be moved from the previously used system(s) to the new system. Some data conversion also may be required for testing purposes. Other more complete sets of data typically need conversion and validation prior to declaring the new system "production ready" and transitioning it to the Operational Support phase.

Development Team References, Tools, Guidelines and Templates

1. Detailed System Design Checklist
2. Detailed System Design Template
3. Conversion Plan Template
4. Programming Checklist
5. System Integration Testing Checklist

Testing Team

The Testing Team ensures all issues are known before the product or service's release. This role must be independent of development to be truly effective. Testing provides independent product quality verification and validation in relation to baseline specifications. The Testing Team's specific responsibilities and activities include:

- Validate Quality
- Test planning
- Regression testing
- Resolve and Communicate Issues
- Performance testing
- Acceptance testing

The Testing Team evaluates and integrates the IT product and deliverables and determines whether project requirements have been satisfied.

The Testing Team has the following roles and responsibilities on a project:

- Early involvement to gain a clear understanding of users needs and how the product will meet the needs
- **Review and validate the project deliverables' quality**
- **Ensure the product conforms to the project's specifications**
- Technical performance and reliability
- Participate in the design phase
- Develop test strategies, plans, and scripts
- Conduct tests
- At a minimum, the Testing Team is accountable for the following project deliverables:
 - Detailed test plan
 - Test scripts
 - Test report confirming project is ready to be moved into production

A detailed description of each Testing Team high-level activity is described below:

Validate Quality

The Testing Team validates that all of the Department's quality control procedures have been adhered to during the project. They could ensure the code was written according to the Software Development Methodology, contained copious comments, and stored in Virtual Source Safe. The Testing Team also could make sure the hardware meets the system's minimum specifications and safely handles the stresses from the system's normal operating conditions.

Test Planning

Test Planning defines all required test activities to assure that the software product will perform satisfactorily for all users.

The Test Plan is a narrative and tabular description of the project's planned test activities. The Test Plan employs systematic testing to ensure the project meets all requirements and the deliverables conform to existing standards. At a minimum, the plan should include activities for

unit testing, integration testing, system testing, performance testing, and acceptance testing. The Test Plan includes the necessary resources, team responsibilities, and management techniques to plan, develop, and implement the project's testing activities. The plan also includes any external test team's roles and responsibilities during product testing.

A completed Project Test Plan should contain the following.

- A description of the test phases' occurrence and timing and the entrance and exit criteria for each test phase
- A specification of each test phase's products, including a description of the types of testing activities to be performed
- A mapping of which requirements were verified in what test phase
- Criteria for evaluating the test results of each test phase
- An initial estimate of the resources necessary to accomplish the testing
- Identification of the appropriate person or team to conduct each type of testing activity
- An outline of the test environment (hardware, software, test tools, and data) needed to conduct the test
- A preliminary schedule for executing the test activities

Regression Testing

The Testing Team defines the strategy and conducts regression testing for the entire system. This activity ensures that existing functions continue to operate as expected during the 'system changes' implementation. Regression Testing reexamines dependent components that have already completed the testing process or are in operational status. This process ensures that the new component's integration and the previously released programs work together and satisfy the project's requirements.

Resolve and Communicate Issues

The Testing Team coordinates the project's governance teams, the stakeholders, and the end users' efforts to resolve any problems with the product. For example, the end users find a flaw with the product and alert the Testing Team. The Testing Team also communicates any updates with the users while the end product is getting prepared for its release.

Performance Testing

Performance Testing evaluates a system or component for compliance with specified performance requirements. System Performance Testing is traditionally performed in both a stand-alone environment and an enterprise-oriented environment that simulates the system as it will be deployed. Enterprise Performance Testing considers issues such as multiple software applications residing on a single piece of equipment or several users accessing multiple

applications through the same communication network. The components of Performance Testing may also include stress testing and volume test activities.

Acceptance Testing

Users may perform Acceptance Testing with direction from the Testing Team. Acceptance Testing determines if a software product and its related documentation satisfy the acceptance criteria. Testing includes all intra-system interfaces, documentation, procedures, and controls. The system owners' organization may accept or reject the product based on test results.

Acceptance Testing must be thoroughly documented with requirements traceability and the system owner's acceptance criteria.

Testing Team References, Tools, Guidelines and Templates

1. Test Plan Template
2. Acceptance Test Template

User Education Team

The User Education Team enables users to maximize the product or service through performance solutions such as job aides, FAQs, online help and education systems. Specific responsibilities and activities of the User Education Team are:

- Job and Process Impacts
- Policy and Procedure Identification
- Conducting Outreach and Training
- Implementation Support

The User Education Team has the following roles and responsibilities on a project:

- Acts as the advocate for the User of the product
- Participate in designing the features to ensure that the product is usable and useful
- Participate in defining user requirements
- Design and develop user support materials
- Participate in product prototyping
- Perform usability testing
- Ensure that changes in the product are reflected in the support materials
- At a minimum, the User Education Team is accountable for the following project deliverables:
 - Documented process impacts and change requirements

- Employee transition plan
- Training plan and materials including outreach presentations, online help, user manuals, training content, FAQs and job aides
- Updates to policy and procedures
- Training delivery

A detailed description of each User Education Team high-level activity is described below:

Job and Process Impacts

The User Education Team evaluates any impact to existing jobs or new jobs to adequately describe the job responsibilities after the system's implementation. This team also is responsible for developing and implementing the knowledge transfer, transition, educational, and training plans to move from the existing structure to the new structure.

Policy and Procedure Identification

This effort defines and recommends policy and procedure changes to reflect new business requirements. The User Education Team coordinates the policy and procedure definitions that impact the business operations. This activity focuses on program objectives, outcomes and impact tracking due to the policy's implementation.

Conducting Outreach and Education

Outreach is the strategy that proactively informs the stakeholders about the new system and its business rules.

Education involves developing and delivering training curricula, which productively applies the system's functionality. It also involves coordinating DPW's instruction needs to minimize or eliminate any competency gaps identified in the Job and Process Impact analysis and the Transition Management activities. Education efforts must address training requirements for application administrators and system users.

Implementation Support

The User Education Team coordinates the stakeholder related activities for rolling out the system to production. From a technical perspective, they make certain that IT support is available during and post implementation. From the Program Office perspective, the User Education Team works with the affected Program Office (s) to develop implementation plans and identify implementation and post-implementation assistance resources.

User Education Team References, Tools, Guidelines and Templates

1. Education Plan Template

Logistics Team

The Logistics Team ensures a product or service rolls out, installs, and implements smoothly during the Operations Support Phase. Specific responsibilities and activities of the Logistics Team include:

- Technical Infrastructure
- Configuration Management
- Network management
- Application Installation
- Maintenance and Operation
- Security
- Customer Support

The Logistics Team has the following roles and responsibilities on a project:

- Serves as advocate for operations, product support, help desk, and product delivery channels
- Participates in design phase
- Supports the product through beta testing
- Ensures that product will be deployable and maintainable
- Ensures product installation sites have the appropriate IT infrastructure
- Provides education to the operations and help desk personnel.
- At a minimum, the Logistics Team is accountable for the following project deliverables:
 - Project configuration management plan
 - Security plan
 - Disaster recovery plan
 - Capacity plan
 - Acquisition and configuration of technical environments for development, testing, training and production
 - Installation plan
 - Maintenance and on-going operation strategy

A detailed description of each Logistics Team high-level activity is described below:

Configuration Management

Configuration is the technical environment needed to build, test, accept, operate, install, maintain, and support a system. Configuration Management is the process of:

- Defining the configuration items in a system
- Controlling the release and change of those items throughout the project
- Recording and reporting the status of configuration items and verifying the completeness and compliance of configuration items with specific requirements
 - a. Application Software - Software developed as part of the project initiative.
 - Source Code
 - Database Objects
 - Program Objects
 - b. Documentation
 - Program Office Initiative Definition
 - System Architecture Model
 - General System Design Documents
 - Detailed System Design Documents
 - c. Production Data Files - Production data that is actively managed by the project. Production data includes source data and processed data residing in the database central to the specific project or system.

The Logistics Team coordinates all of the configuration management activities that ensure the hardware, software, communications, and change management processes are in place to secure the system's reliable operation.

At a minimum, configuration management must include a process for identification, control, status accounting, and auditing the designated items to be monitored on the project. Areas to be considered include release planning, baselining, archiving, backup and recovery, software and document control and storage, naming conventions, incident tracking, data control, security, and application of DPW's change control process.

Security

The Logistics Team is accountable for defining and implementing DPW-wide policies and procedures that are related to security and privacy both during and post-implementation of a project initiative. They must ensure that security components are defined, configured, and maintained. In working with the Program Offices, this team must identify and implement access and data security requirements. Application and process security must also be identified and implemented.

Technical Architecture

Ensure the technical infrastructure is operational for the development, test, education, and production environments required for the project initiative. Infrastructure includes local area networks (LAN's), wide areas networks (WAN's), telecommunications technologies, backbones, and global computing environments

Network Management

The Logistics Team coordinates the system's network infrastructure installation and support, which is required for the system's development and deployment. This involves ensuring that all the hardware and software components defined in the project requirements are installed and operational.

Application Installation

The Logistics Team coordinates the application or system's installation, including coordination among the Development, Testing, and User Education Teams. This involves:

- Ensuring that the hardware and software components are installed for the test, **training**, and production environments
- Verifying user acceptance and successful migration of system from test to production environment
- Validating successful access to user functionality
- Ensuring support personnel have access to system and knowledge base
- Ensuring that all security requirements and business rules are in place

Maintenance and Operation

This effort manages the tasks associated with maintaining the application once it has been moved into the production environment. It including business rule changes, equipment and software upgrades, patch and bug fix installations, and reported incident troubleshooting.

Customer Support

The Logistics Team provides technical, system, business, and programmatic support to the users and clients during and after the product's implementation.

Logistics Team References, Tools, Guidelines and Templates

1. Installation Plan Template
2. Software Configuration Management Template

3. Transition Plan Template for Migrating to Production
4. Software Maintenance Checklist

Additional References

An Overview of the Project Governance Teams and Team Responsibility Matrix (RACI) are outlined separately and should be reviewed by each Project Governance Team. These documents include:

- Project Governance Team RACI (Responsible, Accountable, Consulted, and Informed) Matrix – A comprehensive RACI matrix outlines specific project tasks and activities and clarifies which teams are responsible, accountable, consulted, or informed. Each governance team can use this document for a “quick reference/checklist” throughout the project lifecycle.
- Project Governance Teams Overview – This high-level document explains the Project Governance Structure’s overall purpose and benefits and how it fits into the DPW organization.

Document Change Log

Change Date	Version	CR #	Change Description	Author and Organization
02/03/03	1.0		Initial creation.	PMO
03/17/03	1.0		Edited for grammar	DCSS
9/15/03	1.1		Aligned the document to the executive presentation on the subject	DCSS
9/22/03	1.2		Proofread first half for clarity	DCSS
9/29/03	1.3		Proofread second half for clarity	DCSS
10/6/03	1.4		Add descriptions for the new categories from the document realignment	DCSS

RFP # 39 - 06

Appendix K

Pennsylvania
Department of Public Welfare

Office of Information Systems

Functional Description
Office of Information Systems



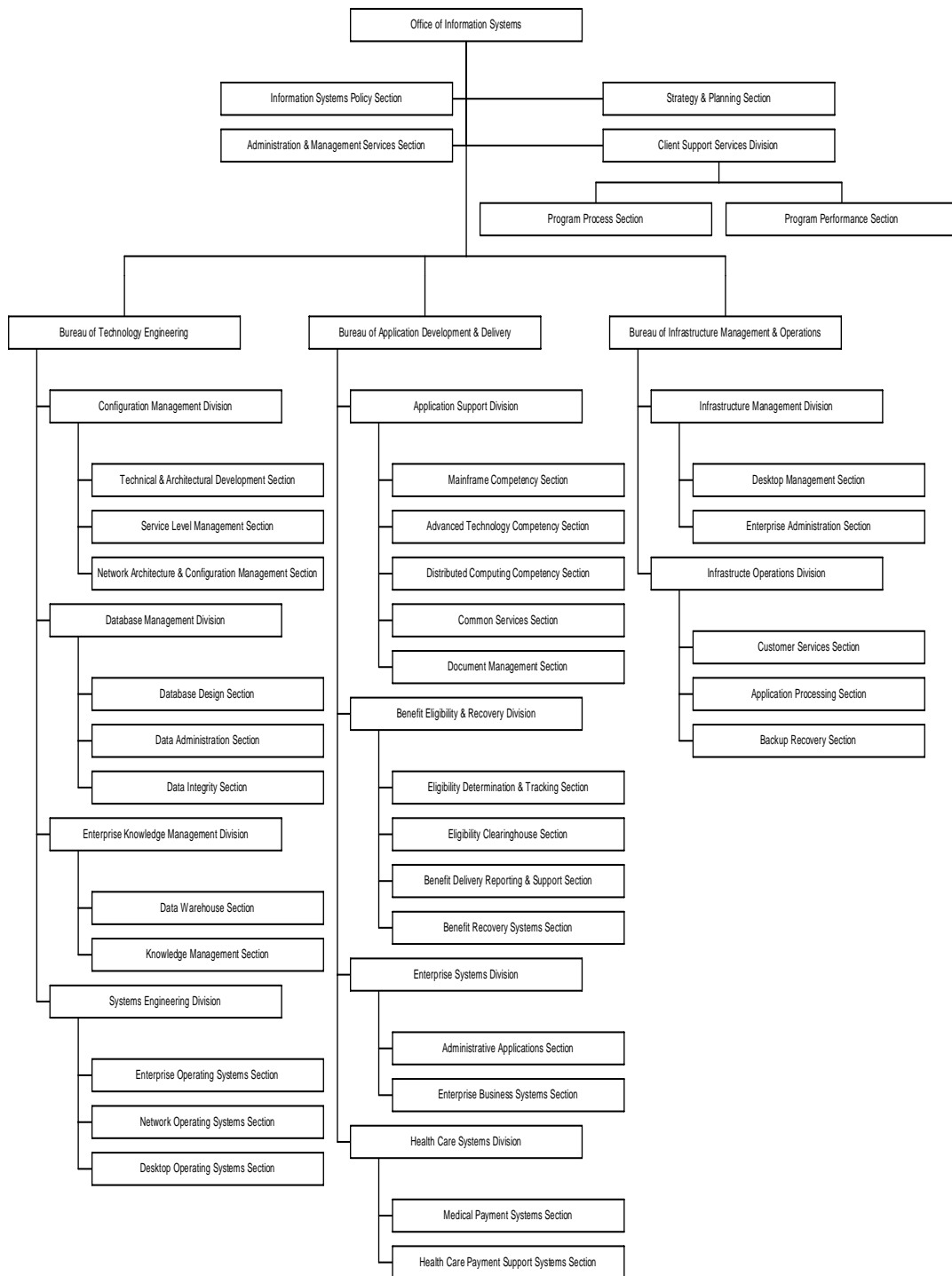
Revised
July 11, 2002

TABLE OF CONTENTS

OIS OGRANIZATIONAL CHART	5
OFFICE OF INFORMATION SYSTEMS	6
I. STRATEGY AND PLANNING SECTION	7
II. CLIENT SUPPORT SERVICES DIVISION	8
<i>A. PROGRAM PROCESS SECTION</i>	8
<i>B. PROGRAM PERFORMANCE SECTION</i>	8
III. INFORMATION SYSTEMS POLICY SECTION	9
IV. ADMINISTRATIVE AND MANAGEMENT SERVICES SECTION	10
<i>A. PERSONNEL AND PAYROLL SERVICES SECTION</i>	10
<i>B. ADMINISTRATIVE SERVICES UNIT</i>	10
<i>C. PROCUREMENT AND CONTRACT SERVICES UNIT</i>	10
V. BUREAU OF TECHNOLOGY ENGINEERING	11
<i>A. CONFIGURATION MANAGEMENT DIVISION</i>	11
1. <i>TECHNICAL AND ARCHITECTURAL DEVELOPMENT SECTION</i>	11
2. <i>SERVICE LEVEL MANAGEMENT SECTION</i>	11
3. <i>NETWORK ARCHITECTURE CONFIGURATION MANAGEMENT SECTION</i>	12
<i>B. SYSTEMS ENGINEERING DIVISION</i>	12
1. <i>ENTERPRISE OPERATING SYSTEMS SECTION</i>	12
2. <i>NETWORK OPERATING SYSTEMS SECTION</i>	12
3. <i>DESKTOP OPERATING SYSTEMS SECTION</i>	12
<i>C. DATABASE MANAGEMENT DIVISION</i>	13
1. <i>DATABASE DESIGN SECTION</i>	13
2. <i>DATA ADMINISTRATION SECTION</i>	13
3. <i>DATA INTEGRITY SECTION</i>	14
<i>D. ENTERPRISE KNOWLEDGE MANAGEMENT DIVISION</i>	14
1. <i>DATA WAREHOUSE SECTION</i>	14
2. <i>KNOWLEDGE MANAGEMENT SECTION</i>	15
VI. BUREAU OF APPLICATIONS DEVELOPMENT AND DELIVERY	16
<i>A. BENEFIT ELIGIBILITY AND RECOVERY DIVISION</i>	16
1. <i>ELIGIBILITY DETERMINATION AND TRACKING SECTION</i>	16
2. <i>ELIGIBILITY CLEARINGHOUSE SECTION</i>	17

3. BENEFIT DELIVERY REPORTING & SUPPORT SECTION.....	17
4. BENEFIT RECOVERY SYSTEMS SECTION	17
B. HEALTH CARE SYSTEMS DIVISION.....	18
1. MEDICAL PAYMENT SYSTEMS SECTION	18
2. HEALTH CARE PAYMENT SUPPORT SYSTEMS SECTION.....	18
C. ENTERPRISE SYSTEMS DIVISION.....	19
1. ADMINISTRATIVE APPLICATIONS SECTION	19
2. ENTERPRISE BUSINESS SYSTEMS SECTION	19
D. APPLICATION SUPPORT DIVISION.....	20
1. MAINFRAME COMPETENCY SECTION.....	20
2. ADVANCED TECHNOLOGY COMPETENCY SECTION	20
3. DISTRIBUTED COMPUTING COMPETENCY SECTION	21
4. COMMON SERVICES SECTION.....	21
5. DOCUMENT MANAGEMENT SECTION	22
VII. BUREAU OF INFRASTRUCTURE MANAGEMENT AND OPERATIONS	23
A. INFRASTRUCTURE OPERATIONS DIVISION.....	23
1. CUSTOMER SERVICES SECTION.....	23
2. APPLICATION PROCESSING SECTION.....	23
3. BACKUP RECOVERY SECTION.....	24
B. INFRASTRUCTURE MANAGEMENT DIVISION.....	24
1. DESKTOP MANAGEMENT SECTION.....	24
2. ENTERPRISE ADMINISTRATIVE SECTION.....	25

OIS OGRANIZATIONAL CHART



OFFICE OF INFORMATION SYSTEMS

The Office of Information Systems (OIS) plans, develops, implements, and manages a comprehensive Information Resource Management (IRM) program for the Department of Public Welfare (DPW). The purpose of the IRM program is to ensure the coordinated, effective, and efficient employment of information resources in support of DPW business goals and objectives. The Office is organized into four staff offices and three bureaus to perform the following business functions:

- IRM strategy and planning
- Information Technology (IT) research and engineering
- Information Systems (IS) development and delivery
- IT infrastructure management and operation
- IT program and project management
- IS performance management and security
- Internal administrative and management services

The Office provides Department-wide direction and coordination of IT plans, research, engineering, standards, policy, applications development, infrastructure management, customer support, program and project management, technical training, and information resource management. OIS personnel plan, analyze, design, implement, maintain, and operate large, complex, integrated information and office systems in support of all DPW offices. OIS supports all DPW facilities, including all central headquarters sites, County Assistance Offices, Mental Hospitals, Mental Retardation Centers, remote administrative centers, and a Commonwealth-wide network connecting DPW and business partners.

I. STRATEGY AND PLANNING SECTION

The Strategy and Planning Section coordinates the planning, development, and documentation of the strategic and tactical information technology plans for DPW. The IT plans support the Department's IRM Program and apply to all information technology within DPW.

The Section manages and coordinates the development, implementation, and maintenance of Department-wide IT planning processes. The Section provides consulting services and guidance to all DPW offices in the development and approval of management plans for Department initiatives and projects involving the use or acquisition of IT equipment, services, or systems. The Section ensures that all IT project plans comply with DPW, Commonwealth, and federal rules, regulations, and requirements. IT plans are coordinated with DPW, Commonwealth, and federal offices, as necessary, to build and maintain strategic business partnerships. All plans must comply with programmatic, technical, and financial management rules as they relate to human service programs, including prior approval thresholds, funding sources, and reimbursement rates. The Section also coordinates and monitors OIS and program office budgets to ensure funding availability for planned IT projects.

II. CLIENT SUPPORT SERVICES DIVISION

The Client Support Services Division operates and manages the Department's IT Program Management Office (PMO). The PMO monitors, coordinates, and ensures successful completion of the Department's entire portfolio of IT projects. The PMO maximizes the probability of success of Department IT projects by conducting due diligence and coordination across projects. The PMO develops and implements standard, efficient project management processes, procedures, tools, and metrics for all Department IT projects. The PMO tracks and monitors ongoing IT initiatives and ensures problems are detected in time to bring the appropriate resources to bear to protect Department investments in IT.

A. PROGRAM PROCESS SECTION

The Program Process Section identifies, documents, and maintains processes, methodologies and standards that provide the controls necessary for sound project and technical management. The Section identifies metrics that will provide insight into the health of a project to create early warning indications of problems and to provide the diagnostic information necessary for prescriptive decision-making.

The Section identifies, analyzes, recommends, and implements tools that will help automate project management processes and facilitate the capturing, analysis, and sharing of project information and metrics across the Department's portfolio of IT projects. The Section establishes appropriate project management training curricula and coordinates with project team leaders to ensure all team members receive adequate training on the Department's project management tools and processes.

The Section also develops a centralized IT procurement and RFP development and evaluation process for the Department's IT projects.

B. PROGRAM PERFORMANCE SECTION

The Program Performance Section coordinates cross-project activities and information, ensures Department processes and standards are followed, monitors project performance metrics, and makes recommendations to increase the probability of successful IT strategy implementation and project completion.

The Section performs organizational trend analysis to chart the Department's program management maturity progress and ensure continuous process improvements. The Section also analyzes enterprise IT resource management, utilization, and capacity to ensure there are adequate resources available to satisfy the Department's planned portfolio of projects.

The Program Performance Section monitors all IT projects, mitigates or escalates project risks and issues, and ensures intra- and inter-project team communication and collaboration processes are effective.

III. INFORMATION SYSTEMS POLICY SECTION

The Information Systems Policy Section researches, develops, implements, and monitors compliance with Department-wide policies and procedures related to information systems security, performance management and measurement, and quality assurance. The Section provides support to all DPW IT organizations in developing and documenting information system policies and procedures.

The Section establishes and collates benchmarks and coordinates collection and reporting of performance metrics to measure required performance levels in application systems and service contracts. The Section also reviews applications for adherence to standards, monitors changes to existing applications, and maintains information systems documentation.

The Section establishes Department-wide information system security standards by researching and implementing industry, federal, and Commonwealth standards that affect IS operations. The security administration and controls include IS hardware and software policies, Internet access policies and procedures, remote telecommunication access, telecommunication firewalls and authentication servers, physical access, data security on all hardware platforms used within the Department, and data retention policies. The Section also manages an IS Security Awareness Program and coordinates all OIS IT audits.

IV. ADMINISTRATIVE AND MANAGEMENT SERVICES SECTION

The Administrative and Management Services Section contains three units that provide comprehensive, centralized personnel, payroll, labor relations, office services, purchasing, and contract administration services for all areas of OIS.

A. PERSONNEL AND PAYROLL SERVICES UNIT

The Personnel and Payroll Services Unit provides centralized support in all areas of personnel and payroll administration, including recruitment, classification, employee orientation, leave administration, transaction processing, benefit counseling, timekeeping, and payroll services.

B. ADMINISTRATIVE SERVICES UNIT

The Administrative Services Unit provides centralized administrative support in all areas of office support services, including fixed asset inventory, furniture inventory, supplies acquisition, ICS coordination, organizational charts, space allocation, office moves, temporary clerical pool services, facility management, voice telecommunications, parking allocation, surplus, and other related functions.

C. PROCUREMENT AND CONTRACT SERVICES UNIT

The Procurement and Contract Services Unit provides centralized administrative support in all areas of procurement and contract administration, including contract administration, development and monitoring of contract encumbrances, administration of staffing contracts, development of contract specifications, preparation of purchasing documents, receipt and verification of shipments, and other related functions.

V. BUREAU OF TECHNOLOGY ENGINEERING

The Bureau of Technology Engineering performs IT research and engineering for the Department and establishes Department standards for hardware and software platforms, telecommunications systems and networks, databases, and knowledge management systems. The Bureau researches and analyzes new technologies for applicability within the Department; engineers technology solutions that meet the Department's performance, capacity, and reliability requirements; establishes Department technology standards; and ensures that all hardware and software used within the Department are in conformance with Department, Commonwealth, and federal standards.

A. CONFIGURATION MANAGEMENT DIVISION

The Configuration Management Division performs technology research, IT architectural development, capacity planning, service level management, network design, and configuration management for all hardware and telecommunications systems used by the Department. The Division sets operational expectations and required service levels for all IT services provided by vendors and internal IT providers to ensure that all Department users, including internal employees, Departmental service suppliers, local governments, and welfare recipients can communicate and inter-operate effectively to provide fast and efficient delivery of services

1. TECHNICAL AND ARCHITECTURAL DEVELOPMENT SECTION

The Technical and Architectural Development Section researches and recommends IT solutions and methods for the enterprise. In conjunction with senior IT managers and governance teams, the Section analyzes technology trends across industries and business functions, recommends strategic IT infrastructure and architecture standards, and determines optimal solutions for major IT initiatives or projects.

2. SERVICE LEVEL MANAGEMENT SECTION

The Service Level Management Section ensures that all major IT services projects and initiatives are within contracted levels of support. The Section oversees the internal economies of IT resources and ensures that variations from allocated resources and strategic direction are identified, reported, and resolved. The Section provides client consultation services for IT outsource contracts, major projects, and technology planning. The Section also establishes performance guidelines for the enterprise IT platforms, methodologies, and networks and participates in the technology planning and configuration management processes.

3. NETWORK ARCHITECTURE CONFIGURATION MANAGEMENT SECTION

The Network Architecture and Configuration Management Section engineers the enterprise network, the interfaces with business partner networks, and the network infrastructure needed to enable electronic commerce systems. The Section provides network-specific metrics and methods for architectural planning, performance management, and service level agreements. The Section provides IT consulting services to internal and external customers and business partners on all aspects of networking and telecommunications.

B. SYSTEMS ENGINEERING DIVISION

The Systems Engineering Division engineers all operating systems in use by the Department, including all server systems, network operating systems, security systems, desktop operating systems, and office products that are required to provide a complete and integrated operating environment. The Division evaluates, tests, prototypes, configures, develops deployment plans, provides Tier 2 technical support, and manages support contracts for all operating systems used by DPW.

1. ENTERPRISE OPERATING SYSTEMS SECTION

The Enterprise Operating Systems Section provides engineering support for the Department's central and distributed Unisys 2200 and Unix servers including: testing, debugging, prototyping, and deployment planning for new and upgraded products; developing scripts for installation and creation of initial operating environments; developing procedures and troubleshooting routines; and packaging basic systems administration tasks for use by operational staff.

2. NETWORK OPERATING SYSTEMS SECTION

The Network Operating Systems Section provides engineering support for the Department's central and distributed NT and NetWare servers including: testing, debugging, prototyping, and deployment planning for new and upgraded products; developing scripts for installation and creation of initial operating environments; developing procedures and troubleshooting routines; and packaging basic systems administration tasks for use by operational staff.

3. DESKTOP OPERATING SYSTEMS SECTION

The Desktop Operating Systems Section provides engineering support for the Department's distributed base of networked personal computers, laptop and notebook computers, and other personal digital productivity computers. This

encompasses: testing, debugging, prototyping, and deployment planning for new and upgraded products; developing scripts for installation and creation of initial operating environments; developing procedures and troubleshooting routines; and packaging basic systems administration tasks for use by operational staff. The Section also provides Tier 2 support services to the Bureau of Infrastructure Management & Operations, the Help Desk, and the user community, and manages Tier 3 support service contracts.

C. DATABASE MANAGEMENT DIVISION

The Database Management Division designs, develops, and manages database systems for storing and retrieving the Department's corporate data assets. The Division designs, develops, maintains, and implements efficient and effective databases across many different centralized and distributed hardware platforms using a variety of database products and utilities. The Division also designs, develops, and maintains a Department-wide data dictionary that promotes the effective use of data across the Department's various database platforms and systems. The Division ensures that data integrity is maintained and that recovery processes are implemented to provide data reliability and to maximize the availability of information throughout the Department.

1. DATABASE DESIGN SECTION

The Database Design Section provides the Department with analytical and technical database design support. This Section designs, develops, maintains, and implements efficient and effective enterprise-wide databases that reside on a variety of centralized and distributed hardware platforms. The Section evaluates and uses appropriate software to develop hierarchical and relational databases and performs database design and maintenance for a variety of database systems, including Oracle, DMS, RDMS, and Microsoft SQL Server. The Section ensures standardization of database designs across hardware and software platforms to minimize data redundancy and to facilitate exchange of data between applications. The Section plans, designs, develops, and implements database enhancements and conversions for all centrally managed production databases and works closely with application developers to ensure that all proposed database changes are properly designed, tested, and implemented within required timeframes.

2. DATA ADMINISTRATION SECTION

The Data Administration Section provides analytical and technical data administration support. The Section plans, develops, implements, and maintains a comprehensive Department-wide data dictionary encompassing hierarchical and relational databases that reside on a variety of centralized and distributed hardware platforms and use many different database systems, including Oracle, DMS, RDMS, and Microsoft SQL Server. The Section enforces standardization of data elements

and codes across databases to facilitate application design and accurate sharing of data between applications. This Section also analyzes business processes, procedures, and problems in order to engineer and implement data solutions that meet the Department's business needs.

3. DATA INTEGRITY SECTION

The Data Integrity Section provides analytical and technical support to ensure the integrity and recoverability of the Department's databases. The Section assists in database expansions, reorganizations, and conversions by planning and implementing the backup and recovery procedures needed to perform these activities reliably, without loss of critical data. The Section also develops, implements, and continually refines efficient and effective backup and recovery procedures for all Department databases to safeguard corporate information resources while maximizing availability of information throughout the Department. The Section develops procedures to ensure database integrity and reliability of the data. This includes checking for compliance with database constraints; checking for consistency of internal and external relationships between data elements, tables, views, and schemas; and gathering statistics on the efficiency of database access by online and batch systems.

D. ENTERPRISE KNOWLEDGE MANAGEMENT DIVISION

The Enterprise Knowledge Management Division plans, develops, implements, and manages knowledge management systems and facilities for the Department. The Division analyzes user needs; creates data models; develops data transformation logic, programs, and catalogs; performs information extracts from operational systems; and consults with users on knowledge management concepts and systems. The Division evaluates and sets standards for system and end-user tools for data warehousing, decision support, expert systems, and other knowledge management technologies.

1. DATA WAREHOUSE SECTION

The Data Warehouse Section engineers and maintains the Department's Data Warehouse as well as the Department's Business Model and meta-data. The Department of Public Welfare's Data Warehouse contains data elements from all of the Department's operational systems. These elements are defined by the various program offices and are the elements that are needed to analyze, monitor, and make policy decisions regarding the various programs supported by the Department. The information is also used for budget projections and to monitor costs and savings. The Department's Data Warehouse is a critical, strategic business tool used to support business analysis and provide input to policy decisions.

2. KNOWLEDGE MANAGEMENT SECTION

The Knowledge Management Section develops and maintains the Department's knowledge management systems. The Section researches, analyzes, and develops knowledge management portals, knowledge repositories, and knowledge management delivery systems. The Section implements technologies and systems that facilitate and promote knowledge sharing and decision-making within the Department and with business partners. The Section evaluates and implements expert systems, content management systems, Executive Information Systems, statistical research systems, Geographical Information Systems, meta-data systems, and other technologies that facilitate the codification, retrieval, and presentation of the Department's business knowledge for analysis, research and decision-making.

VI. BUREAU OF APPLICATIONS DEVELOPMENT AND DELIVERY

The Bureau of Applications Development and Delivery provides information system development support to the Department's executive, administrative, and program offices. The Bureau provides planning, analysis, and programming support for the development, implementation, and maintenance of the Department's information systems, and consulting and project management services for the Department's IT initiatives. Technical support is provided for the development of applications for desktop, client/server, and mainframe platforms. The Bureau consists of four divisions to provide direct support to the Department's program, administrative, and other functional areas.

A. BENEFIT ELIGIBILITY AND RECOVERY DIVISION

The Benefit Eligibility and Recovery Division provides planning, analysis, programming, consulting, and project management support for the development, implementation, and maintenance of the Department's information systems for the administration of benefit programs. This includes determining eligibility for cash, medical assistance, and food stamps; delivering cash and food stamp benefits; and recovering cash, medical, and food stamp benefits. The Division supports child support collections, interfaces, and fraud investigation. The Division also maintains information systems for verifying and tracking conditions of eligibility, histories of benefits issued, individual income, employment, and wages. The Division performs the federal reporting on benefit eligibility and benefit delivery. This Division provides the core resources necessary to support information systems initiatives for the Office of Income Maintenance and the Governor's Office of the Inspector General.

1. ELIGIBILITY DETERMINATION AND TRACKING SECTION

The Eligibility Determination and Tracking Section provides IT support of the development, implementation, and maintenance of the information systems that determine eligibility and issue benefits for the cash, medical, food stamp, Low Income Home Energy Assistance Program, child care, managed care coverage, EPSDT, and Family Care Network programs. These information systems perform on-line collection and verification of client eligibility and benefit computation data at the 67 county assistance offices located throughout the Commonwealth. Data is collected via the automated Application Entry/Case Maintenance and Application Processing systems. Additional data is collected regarding income, resources, and non-financial information needed for the Eligibility Determination/Benefit Computation system. Eligibility is determined and budget authorizations for cash and food stamp benefits are produced immediately, in real-time. These systems generate the appropriate client notices and trigger caseworker alerts. The Section supports state and federal reporting for TANF and applications for eligibility determination, such as ETP, AIMS, IEVS, and FCR.

2. ELIGIBILITY CLEARINGHOUSE SECTION

The Eligibility Clearinghouse Section plans, analyzes, programs, consults, and manages projects in support of the design, development and maintenance of the Department's information systems that collect, maintain, and exchange client information pertaining to eligibility for cash, food stamps and medical assistance benefits. The Section develops information systems that interface with federal agencies, other states' agencies, and other Commonwealth agencies to exchange information affecting client eligibility and benefits. This information includes wage income, and employment data. The Section tracks recipient eligibility data via automated systems that collect and maintain data for the Department's Monthly Reporting requirements; such as Cash and Food Stamps, employment and training tracking, and the tracking of child care expenses. This information is used to assist in the determination of eligibility and the generation of benefits. In addition, the Section collects, maintains, and exchanges criminal justice information. The automated interfaces include the use of state of the art electronic data transfer technology, as well as physical file exchanges.

3. BENEFIT DELIVERY REPORTING & SUPPORT SECTION

The Benefit Delivery Reporting & Support Section provides IT support for the development, implementation, and maintenance of applications for issuing, tracking, and reporting cash and food stamp benefits, issuing medical assistance identification cards, and generating GA vouchers. The Section develops and maintains applications that exchange Client Information System (CIS) recipient data with the Department's business partners, federal government agencies, and other Commonwealth agencies for issuing benefits and determining eligibility. The reporting systems include required federal and state reporting, operational and management reporting, and financial reporting. The Section develops and maintains systems for implementing Mass Grant Changes and Cost of Living Allowance processes. The Section also develops and maintains the Department's interface with the Department of Insurance for the Child Health Insurance Program.

4. BENEFIT RECOVERY SYSTEMS SECTION

The Benefit Recovery Systems Section provides IT support for the development, implementation and maintenance of applications for the recovery of cash and medical and food stamp benefits inappropriately received by clients. These applications compute and track overpayment claims, send client notices, recoup overpayments by reducing clients' benefits, refer overpayments to collection agencies, and intercept federal tax refunds. In addition, the Section develops and maintains applications that support recovery of benefits that are reimbursable to the Commonwealth, and applications involving child support enforcement including

support collections, tracking of support orders, interfaces, and Support Pass-Through issuance. The Section also develops and maintains applications that identify recipients who have been disqualified from receiving further welfare benefits and the CIS history system that is the primary system used to recover benefits and compute child support enforcement Statements of Account.

B. HEALTH CARE SYSTEMS DIVISION

The Health Care Systems Division provides planning, analysis, programming, consulting, and project management support for the development, implementation, and maintenance of the information systems for the administration of medical assistance programs. This includes support to the Office of Medical Assistance Programs for the payment of providers who provide medical services to clients eligible for medical assistance. The applications support both the fee-for-service and managed care payment programs of the Department. The Division also develops and maintains information systems supporting the Office of Mental Health and Substance Abuse Services, Office of Mental Retardation, and Bureau of Financial Management that bill for administrative services, provide patient information, and perform client tracking.

1. MEDICAL PAYMENT SYSTEMS SECTION

The Medical Payment Systems Section develops, implements, and maintains information systems that provide day-to-day operational support for the administration of the State Medicaid program, including both fee-for-service and managed care medical insurance options. The systems supported determine client eligibility for services, determine provider eligibility to perform services, pre-certify client eligibility for specific services, verify claims for payment, and authorize payments to medical providers for services rendered to eligible clients. This Section also develops, implements, and maintains applications that determine Third Party Liability by collecting information from various federal, State, and private agencies pertaining to other insurance coverage on recipients.

2. HEALTH CARE PAYMENT SUPPORT SYSTEMS SECTION

The Health Care Payment Support Systems Section develops, implements, and maintains information systems that manage the databases supporting the medical assistance program and that create management reports and data sets needed by DPW program managers and business partners. The Section creates and maintains the databases of medical service providers and medical assistance clients that are used to validate State Medicaid coverage for both fee-for-service and managed care insurance options. The Section develops applications for creating accounting and management information reports or data files used by federal, State, and private agencies in monitoring and accounting for the State Medicaid program. The Section also maintains the information systems that ensure recovery of monies from

providers where third party resources should have been billed. The Section maintains the information systems that select, track, and account for the Department's Health Insurance Premium Payment (HIPP) population and create the HIPP Cost Effectiveness matrix.

C. ENTERPRISE SYSTEMS DIVISION

The Enterprise Systems Division provides planning, analysis, programming, consulting, and project management support for the development, implementation, and maintenance of information systems for the executive, administrative, and smaller program offices within the Department of Public Welfare. This Division also provides technical support for any program offices for initiatives that require the use of commercial off-the-shelf software.

1. ADMINISTRATIVE APPLICATIONS SECTION

The Administrative Applications Section provides IT support for the development, implementation, and maintenance of information systems for the Secretary of the Department of Public Welfare and the executive administrative offices. These include the Offices of Legal Counsel, Policy Development, and Legislative Affairs; Office of the Budget, Bureau of Administrative Services; Bureau of Equal Opportunity; Bureau of Administrative Services; Bureau of Personnel; Bureau of Facilities Management; and Governor's Office of the Comptroller. This support provides a dedicated, core competency and knowledge base for the information systems for these organizations within the Department. This Section also provides support when generalized solutions to application problems are indicated, including the deployment of specialized or off-the-shelf software. It also develops and maintains OIS administrative systems, including the Data Processing Service Request System, the Automated Time Reporting System, and the Project Management System.

2. ENTERPRISE BUSINESS SYSTEMS SECTION

The Enterprise Business Systems Section provides IT support for the development, implementation and maintenance of information systems for the smaller program offices and the administrative offices within the Department of Public Welfare, including the Office of Children, Youth, and Families, Bureau of Hearings and Appeals, Office of Social Programs, Bureau of Financial Operations, Office of Mental Health and Substance Abuse Services, and Office of Mental Retardation. The Section provides support for the information systems that support the child abuse system in the Office of Children, Youth, and Families and the blind and visually impaired systems in the Office of Social Programs. This Section develops and maintains integrated information systems providing patient demographic, billing, and accounting systems for the Mental Hospitals and State Centers. The Section

develops and maintains several highly advanced applications, both mainframe-based and distributed-based systems, in support of the Bureau of Financial Operations.

D. APPLICATION SUPPORT DIVISION

The Application Support Division provides specialized planning, analysis, programming, consulting, and project management support for the development, implementation, and maintenance of the Department's information systems. The Division provides both analytical and programming support to the other divisions within the Bureau when specialized skills or competencies are required, and when the core resources within those divisions are insufficient to meet assigned workloads. Resources are provided in the form of technical teams to provide specialized planning, analysis, programming, consulting, and project management support until the project is completed. Resources are then assigned to support other projects based upon project priorities. The teams are specialized application development resources that provide the technical skills required to expedite the development process and to deploy the Department's information systems more rapidly.

1. MAINFRAME COMPETENCY SECTION

The Mainframe Competency Section provides planning, analysis, programming, consulting, and project management support for the design, development and maintenance of the Department's information systems. The Section provides specialized technical resources and expertise, both analytical and programming, to all organizational entities within OIS. The Section participates with the Bureau of Technology Engineering in researching and engineering new technologies for applications development and delivery for mainframe platforms. The teams receive intensive training in new technologies to be adopted as Department or OIS standards. This expertise is used primarily to support the other application development divisions with the introduction of new technologies into the Department's legacy systems. The Section completes projects that involve the development and maintenance of applications using COBOL, DMS, DPS, and RDMS as the essential tool sets for mainframe platforms.

2. ADVANCED TECHNOLOGY COMPETENCY SECTION

The Advanced Technology Competency Section provides planning, analysis, programming, consulting, and project management support for the design, development and maintenance of the Department's information systems. The Section provides specialized technical resources and expertise, both analytical and programming, to all organizational entities within OIS. The Section participates with the Bureau of Technology Engineering in researching and engineering advanced technologies for applications development and delivery. The teams receive intensive training in new technologies to be adopted as Department or OIS standards. This

expertise is used primarily to support the other application development divisions with the introduction of new technologies into the Department's legacy systems. The Section completes projects involving the development and maintenance of applications using middleware products such as UniAccess, Web TS, and Open OLTP to integrate mainframe and client/server systems.

3. DISTRIBUTED COMPUTING COMPETENCY SECTION

The Distributed Computing Competency Section provides planning, analysis, programming, consulting, and project management support for the design, development and maintenance of the Department's information systems. The Section provides specialized technical resources and expertise, both analytical and programming, to all organizational entities within OIS. The Section participates with the Bureau of Technology Engineering in researching and engineering new technologies for distributed systems development and delivery. The teams receive intensive training in new technologies to be adopted as Department or OIS standards. This expertise is used primarily to support the other application development divisions with the introduction of new technologies into the Department's legacy systems. The Section completes projects involving the development and maintenance of applications using web-based technology, Visual Basic, Access, SQL Server, and ORACLE as the essential tool sets for client/server and PC platforms.

4. COMMON SERVICES SECTION

The Common Services Section provides technical support, both analytical and programming, for development and maintenance of applications, projects, and special requests that have common or standard technical characteristics. These include special ad hoc requests, reports, mailings, extracts, and client notices. In addition, this Section provides independent verification and validation testing services for the Office of Information Systems. This consists of planning, coordination, and execution of the testing activities associated with the development and implementation of information systems. The Section establishes testing standards for the Department's desktop, client/server and mainframe applications. It coordinates the establishment of testing teams including program office, end user staff, and OIS technical staff. Test teams coordinate the design of test environments, data, and procedures and use automated testing tools to facilitate regression testing. The Section provides independent teams that verify and validate the functional and performance requirements of applications, and certifies their readiness to be migrated to a production environment.

5. DOCUMENT MANAGEMENT SECTION

The Document Management Section provides planning, analysis, programming, consulting, and project management support for the design, development and maintenance of forms, notices, reports, and screens. The Section also designs any forms required for an application development project. The Section develops fonts and graphics for the Department's enterprise-wide, high-speed printers and provides user support for printers, electronic publishing, and report distribution. The Section also provides consulting services on CD-ROM conversion, document storage and retrieval, and Web page and Internet publishing.

VII. BUREAU OF INFRASTRUCTURE MANAGEMENT AND OPERATIONS

The Bureau of Infrastructure Management and Operations provides the management and support environment for the Department of Public Welfare's mission critical business processing systems and infrastructure. The Bureau ensures the Department's computing infrastructure is maintained in a state of high reliability, availability, and serviceability twenty-four hours a day, seven days a week. The Bureau provides continuous processing services and support to customers and users throughout the Department; manages changes to hardware, software, and systems to ensure continuity and reliability of services; and maintains and updates mission critical business processing systems as business and information needs change.

A. INFRASTRUCTURE OPERATIONS DIVISION

The Infrastructure Operations Division operates and maintains all centralized computing platforms and systems used within the Department, including mainframes, servers, telecommunications systems, printers, and mass storage systems. Services provided include job scheduling, execution, coordination of production applications, tape library management, document processing, enterprise-wide performance monitoring, backup and recovery, hardware and software interface functions, and file transfer between the various platforms. Services are provided twenty-four hours a day, seven days a week.

1. CUSTOMER SERVICES SECTION

The Customer Services Section plans, directs, evaluates, and controls the operation of large enterprise servers and peripherals during the first shift of a 24-hour, 7-day per week operation. The Section schedules all work, schedules and performs all centralized printing, processes and distributes all output within the enterprise-wide environment, performs enterprise-wide systems monitoring, and completes system recovery procedures when failures or interruptions occur. The Section interfaces with OIS staff on a daily basis to schedule special production requests, adjust processing workload for optimum system performance, and resolve any outstanding production or development program errors. The Section also establishes the framework for the workflow to the other sections by ensuring appropriate instructions are provided prior to the start of each production cycle. In addition, the Section maintains hardware and software interfaces, supports third party software, and prints and distributes all generated documents, forms, and reports.

2. APPLICATION PROCESSING SECTION

The Application Processing Section operates large enterprise servers and peripherals during the second shift of a 24-hour, 7-day per week operation. The Section schedules all work, schedules and performs all centralized printing,

processes and distributes all output within the enterprise-wide environment, performs enterprise-wide systems monitoring, and completes system recovery procedures when failures or interruptions occur. The Section audits, schedules, executes, and coordinates production applications and special processing requirements for the enterprise server environment. Printing and mailing of all printed documents, forms, and reports are initiated during the course of the scheduled processing cycle. The Section identifies and resolves all production application program errors with application developers and makes modifications to production systems as required.

3. BACKUP RECOVERY SECTION

The Backup Recovery Section operates large enterprise servers and peripherals during the third shift of a 24-hour, 7-day per week operation. The Section performs enterprise-wide backup and recovery, schedules all work, schedules and performs all centralized printing, processes and distributes all output within the enterprise-wide environment, performs enterprise-wide systems monitoring, and completes system recovery procedures when failures or interruptions occur. The Section identifies and resolves all production application program errors with application developers and makes modifications to production systems as required. In addition, the Section maintains hardware and software interfaces, supports third party software, and prints and distributes all generated documents, forms, and reports.

B. INFRASTRUCTURE MANAGEMENT DIVISION

The Infrastructure Management Division provides installation, configuration, setup, management, and administration support for all centralized computing platforms, systems, and networks within the Department. The Division performs hardware and software configuration and installation, security and account administration, client configuration; global directory synchronization, business continuity (disaster recovery) planning, site planning and preparation, and asset management for all mainframe, server, remote communications, local and remote networks, and network firewall environments. The Division provides configuration, setup, installation, and end-user support services for desktop computers, operating systems, and applications software. The Division also manages the Department's computer training facilities, schedules OIS meeting and training rooms, and manages Tier 1 support services and the Help Desk for Department-standard operating environments.

1. DESKTOP MANAGEMENT SECTION

The Desktop Management Section provides technical support for the Department's desktop environment, including management, administration, and operation of the desktop environment; operating system support; installation; maintenance; configuration; troubleshooting and Tier 1 technical support; and support for e-mail, office suite, and personal productivity products. The Section deploys and supports

all resources required to provide a stable, reliable, standard desktop infrastructure throughout the Department. The Section manages the enterprise-wide help desk, including contract management and coordination, call monitoring, and follow-up on calls received. The base technologies supported are workstation hardware, operating systems, Department standard applications software, and network connectivity. The Section also manages the Department's computer training facilities and schedules OIS meeting and training rooms.

2. ENTERPRISE ADMINISTRATIVE SECTION

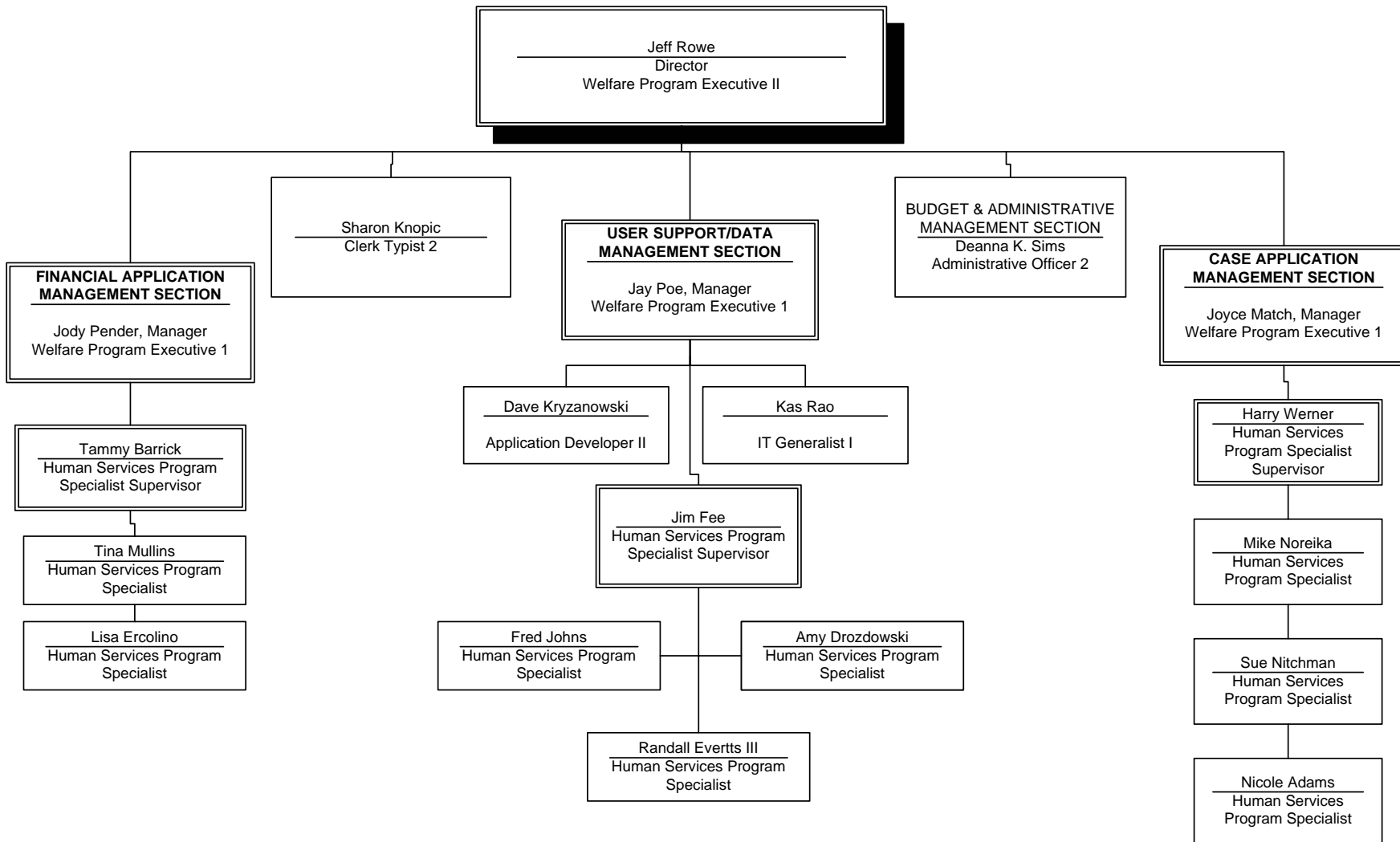
The Enterprise Administration Section administers and provides technical support for the Department's distributed base of Novell NetWare, Microsoft NT, and Unix servers. The Section manages the server environment, including server installation, configuration, and administration; client installation and configuration; shared printer installation, configuration, and administration; global directory synchronization; dial-up and Internet access; telecommunications management support; and Tier 1 technical support and troubleshooting. The Section also performs security and account administration, business continuity planning, site planning and preparation, and asset management for all computer and communications environments.

RFP # 39 - 06

Appendix L

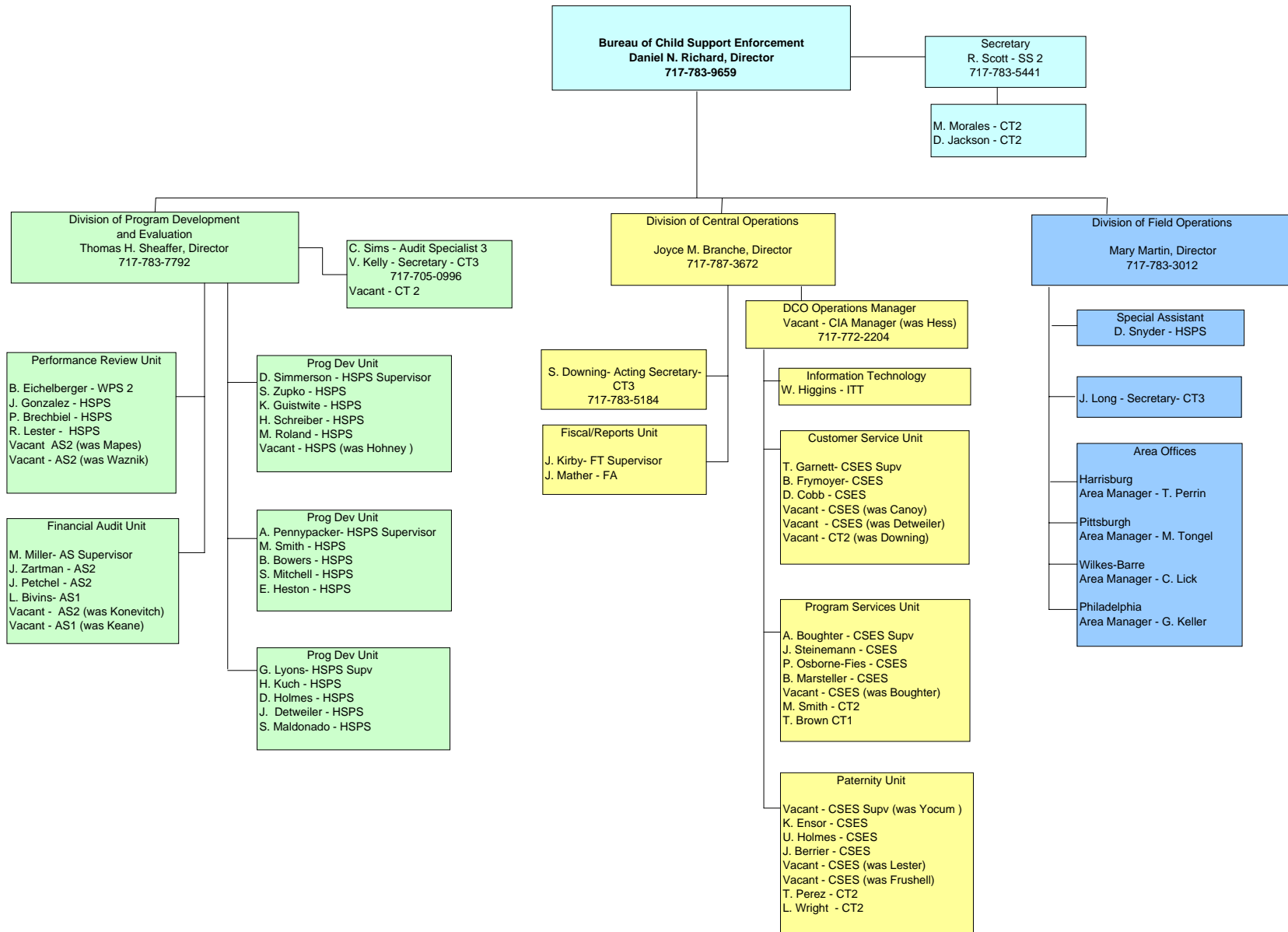
BUREAU OF CHILD SUPPORT ENFORCEMENT
DIVISION OF AUTOMATED CHILD SUPPORT ENFORCEMENT SYSTEMS
PENNSYLVANIA CHILD SUPPORT ENFORCEMENT SYSTEMS (PACSES)

ORGANIZATION CODE: 1109



Revised on 11/9/2006
 TOTAL # of Staff: 19

Bureau of Child Support Enforcement
Current Organization Chart



Bureau of Child Support Enforcement
Harrisburg Area Office
Thomas Perrin, Area Manager

V. Frederick- CSES Supervisor
C. Peterson - CSES
R. Fickes - CSES
B. Tanner - CSES
K. Bost - CSES
J. Fetterolf - CSES
J. Blosser - CSES
K. Sayenga - CSES

Bureau of Child Support Enforcement
Philadelphia Area Office
Gail Keller, Area Manager

Vacant (was Flancer)
CIA Manager 1

Joel M. Brown
CIA Manager 1

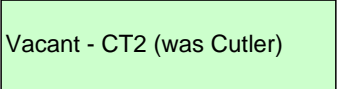
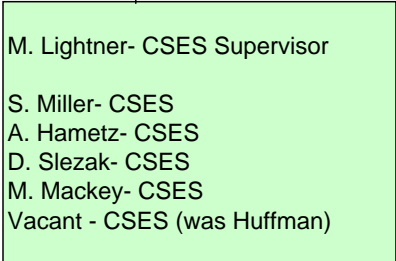
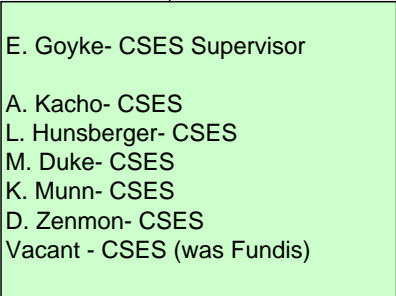
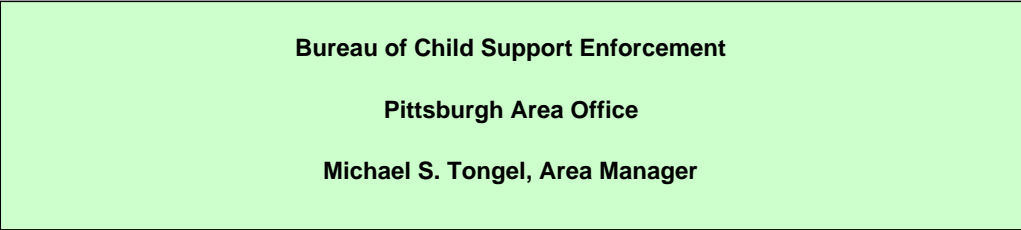
G. Newman-Mills- CT2
R. Frisby- CS1
S. Westray- CT2
N. Sumner- CT2

C. Lovelace- CSES Supv
V. Cantey - CSES
B. Jones - CSES
C. Morgan- CSES
C. Bangura- CSES
K. Koukoski - CSES Vacant 11/29/05

A. Morris - CSES Supv
L. Cothran- CSES
B. Hill- CSES
J. Kelly- CSES
R. Macool- CSES
R. Sheppard- CSES

Z. Sanchez-Getty - CSES Supv
S. Gill- CSES
R. Mosley - CSES
G. Williams - CSES
F. Love - CSES
Vacant - CSES (was Johnson)
Vacant - CSES (was McClean)

Vacant - CSES Supv-(was Brown)
Vacant- CSES (was Reedy)
Vacant- CSES (was Humphrey)
Vacant- CSES (was Rosa)



Bureau of Child Support Enforcement
Wilkes-Barre Area Office
Cathy J. Lick, Area Manager

D. Shifflett- CSES Supervisor
J. Gozick - CSES
H. Breckley - CSES
N. Pappas -CSES
C. Falatko - CSES
Vacant- CSES (was Sorber)
Vacant - CSES (was Konetski)

Vacant - CT2 (was Ginter)

RFP # 39 – 06

Appendix M

Department of Public Welfare

Business and Technical Standards

Table of Contents

1. SECURITY DOMAIN

- Management Practices
 - Organizational Structure
 - Security Awareness
 - OA/OIT Security Policies
- Operations Security
 - Operator/System Administrator Privileges
 - Audit Trails and Logging
- Cryptography
- Telecommunications and Network Security
 - Firewalls and Proxies
 - Dial-up Security
 - VPN Security
 - Wireless Security
- Applications and Systems Security
 - Data Classification
 - Enterprise Platform
 - Desktop
 - Web
 - Virus Protection
- Physical Security
 - Administrative Facilities
 - Data Center
 - County Assistance Offices
- Unified Security
 - Unified Security Architecture
 - Unified Security Management Model
- HIPAA
- Security Forms

2. NETWORK DOMAIN

- Wide, Metropolitan, and Local Area Networks
 - DPW
 - Business Partners
 - Protocols
- Dial-up Connectivity
 - Dial-up Remote Access Server
 - Internet Connectivity
- Dedicated Line Connectivity
 - Internet Connectivity
 - Data Transfers
 - VPN/PKI
- Wireless Connectivity

- DPW
 - Office
 - Mobile
- Business Partners
- Interagency
- Protocols
- Media
- Video Conferencing
 - DPW
 - Business Partners
 - Interagency
 - Hardware
 - Software
- Physical Media and Mechanisms
 - Cabling
 - 10BaseT
 - Fiber Optics
 - Hardware
 - Switches
 - Routers
 - High-Speed Modems
- Network Design
- Administrative Procedures
 - Business Partner Procedures
 - Client Registration
 - General Registration Procedures
 - Digital Signature

3. KNOWLEDGE MANAGEMENT DOMAIN

- Data Warehouse
 - Metadata
 - Information Delivery
 - Online Analytical Processing
 - Query and Reporting
- Enterprise Content Management
 - Content Lifecycle Framework
 - Imaging
 - Workflow Processes
 - Web Publishing
- Geographic Information System Mapping
 - Maps
 - Geocoding

4. PLATFORM DOMAIN

- Enterprise Platforms
 - Unisys Mainframe Platform
 - Solaris Platform
 - ES 7000 Platform
 - Capacity Planning for Web Applications
- Network Platforms
 - Hardware Architecture
 - Operating Systems
- Client Platforms
 - Desktop
 - Laptop
 - Handheld Devices
- Enterprise Storage
 - Disk Storage
 - Tape Storage
- Systems Management
 - Systems Management Server
- Performance Monitoring
- Enterprise Scheduling
- Product Selection Guide
- Load Testing

5. INTEGRATION AND MIDDLEWARE DOMAIN

- Data Exchange
- Asynchronous Message Queuing
 - MQSeries
- Message Routing
 - MS Queue Manager
 - MS Agent
- Integration Tools
 - UniAccess
 - Open TI
 - OSI-TP
 - Simple Object Access Protocol (SOAP)
 - Enterprise Asynchronous Report Processing
- File Transfer
 - FTP
 - Connect Direct
- Integration Infrastructure Architecture
- Integration Governance Model
- Information Architecture

6. DATA DOMAIN

- Database Backup Strategies
- Database Forms
- Database Modeling
- Database Support Procedures
- DMS Physical Implementation
- Enterprise Database Coding
- Enterprise Physical Implementation
- Enterprise XML Standards
- Microsoft SQL Coding
- Oracle Physical Implementation
- RDMS Physical Implementation
- SQL Server Physical Implementation

7. OPERATIONS AND SUPPORT DOMAIN

- Service Levels
 - Objectives and Agreements
 - Performance Management
 - Network and Application Performance Monitoring
 - Configuration and Change Management
- Recovery Planning
 - Backup and Restoration Procedures
 - Disaster Recovery Procedures
 - General Operations Procedures
- Capacity Planning

8. GROUPWARE DOMAIN

- Office Automation Tools
 - E-Mail
 - Microsoft Office Products

9. APPLICATION DOMAIN

- Coding Standards
 - Mainframe
 - MAPPER
 - COBOL
 - Server
 - ASP
 - COM
 - JavaScript
 - HTML
 - Visual Basic
 - VB Script
 - Visual FoxPro
- DPW Web Development
- Testing
- Database Programming
- DPW Quality Assurance

10. COMPONENTWARE DOMAIN

- ITASCA
- Microsoft Solutions Framework
- Open TI Components
- Enterprise XML Standards

11. BUSINESS DOMAIN

DPW IT Project Calendar Guideline

Project Strategy

- Community of Practice (CoP)
 - Community of Practice (CoP) Guideline
 - Community of Practice (CoP) Template

- Content Management
 - Project Folder
 - Project File Structure
 - Project Folder Administration Manual
 - Project Folder End User Manual
 - Project Folder Orientation
 - Project Folder Quick Tips Brochure

Project Initiation

- Risk Management
 - Risk Management Guideline
 - Risk Management Process Map
- Work Planning & Scheduling
 - Work Plan Standard
 - Work Plan Standard Guideline
 - Work Plan Standard
 - Guidelines
 - Templates
 - Checklists
 - Sub-Work Plan Templates
- Change Management
 - Project Change Management
 - Project Change Management Guideline
 - Project Change Management Process Map
- Communications Management
 - Communications Management Guideline
 - Communications Management Template
 - Stakeholder Chart

Project Planning

Software Release Numbering

- Software Release Numbering Guideline

Project Execution & Control

System Development Methodology (SDM)

- System Development Methodology
- Guidelines
- Templates
- Check Lists

Project Closeout

12. PROCEDURES DOMAIN

- COSS Desktop Procedures
- COSS Laptop Procedures
- DMS Desktop Procedures
- FAS Enterprise Procedures
- DIMO IMD Logistics Checklist
- DIMO Server Application Procedures

13.0 PRIVACY DOMAIN

- Spam E-mail Instructions
- Health Insurance Portability and Accountability Act (HIPAA)

14. ACCESS DOMAIN

- Web Publishing

RFP # 39 - 06

Appendix N

Pennsylvania
Department of Public Welfare

Bureau of Information Systems

**Architecture Review Board Standards
Compliance Guideline**

Version 2.1

November 30, 2005

Table of Contents

1.0 Introduction	2
2.0 Process	3
3.0 Definitions	4
4.0 Roles and Responsibilities	5
4.1 Detailed Roles and Responsibilities of Individuals or Teams.....	5
4.2 Individuals and Team Members	7
4.3 ARB Meeting Action Items	8
5.0 Technical Standards Compliance Checklist Process	9
5.1 Process Overview	9
5.2 Compliance Checklist Details	11

Architecture Review Board Standards Compliance Guideline

1.0 Introduction

The Department of Public Welfare (DPW) has established technical standards to improve its ability to serve customers, use assets efficiently, and promote best practices. This guideline document will provide process details around the tools used to manage DPW's technical standards in the context of the DPW Architecture Review Board (ARB).

The Application Team must have approval from the Business Review Board (BRB) for new applications and major revisions to existing applications (per the Software Release Numbering Standard under the Business domain) before making an ARB presentation.

The ARB reviews the architectural direction proposed for any new application or major release to an existing application. The Board verifies technical standards compliance and makes sure existing solutions are used and that the proposed technical solution is understood. To assist in managing and assessing standards compliance, the ARB provides the Department an application compliance checklist to assess the degree which applications comply with technical standards.

The purpose of this document is to provide a guideline and reference relative to standards compliance and management within the context of DPW's Architecture Review Board (ARB) Process. The objectives of the ARB Standards Application Compliance Checklist are:

- to raise awareness and understanding of the technical standards
- to help ensure accurate collection of application standards compliance information
- to assist in planning and resource projections for new and existing applications
- to help identify opportunities to re-use business functions or technical components
- to ensure application design and development is complying with established technical standards and best practices.

2.0 Process

The application team will develop a presentation package consisting of an application overview (to include a system flowchart and time line), an application compliance checklist, a capacity plan and a COTS questionnaire (if COTS software is utilized). The Application Team will make two ARB presentations.

First ARB Presentation:

The first presentation will be made prior to starting application development.

The application project manager will submit the presentation package to the ARB chairperson one week prior to the scheduled ARB meeting. The ARB chairperson will distribute the presentation package to the ARB Team for review.

The application project manager will be responsible for having a Program Office Sponsor attend the ARB presentation as well as obtaining their signature on the Application Compliance Checklist.

The application team will make its presentation during the first ½ hour of the ARB meeting.

The ARB team will then discuss the application during the second ½ hour and make a determination for approval or rejection (ARB Use Only section of the Application Compliance Checklist) of the application.

If the ARB unconditionally approves, development can begin.

If the ARB conditionally approves, development can begin but the ARB changes must be incorporated into the design and the project manager has agreed to incorporate the changes.

If the ARB rejects due to the design, the application team must re-examine and return to the ARB with a revised design.

Second ARB Presentation:

The second presentation will be made when development has been substantially completed but before the application has entered Test for Production (TFP) testing.

The application team must provide any updates (if applicable) to the documentation provided at the first presentation.

The ARB Team will make a determination for approval or rejection (ARB Use Only section of the Application Compliance Checklist) for implementing the application.

If the ARB approves the application for implementation, the application team will present the Application Compliance Checklist to the Change Control Board.

If the ARB rejects the application for implementation, the application team will make the recommended changes and re-present to the ARB for implementation approval.

3.0 Definitions

Architecture Review Board

The purpose of the Architecture Review Board (ARB) is to review and approve proposed changes to the technical architecture of any of the Department's major IT applications once requirements for the application have been finalized and prior to starting construction of the proposed design.

Architecture Review Board Documentation

The Department's ARB documentation; ARB Standards Compliance Guideline, Calendar, Application Compliance Checklist, Overview, ARB sample presentations, COTS questionnaire, and a capacity plan can be found on the BIS website at <http://bis/pgm/doc/arb/arbto.asp>.

DPW - IRM Standards

The Department's technical standards embody the guidelines, best practices and tools that define the DPW infrastructure. The standards can be found in their entirety on the BIS website at <http://bis.dpw.state.pa.us>. The introduction to the standards can be found at <http://bis.dpw.state.pa.us/pgm/h-net%20standards/introduction/introduction.asp>.

The standards are organized into 13 domains, and include: Business, Privacy, Security, Network, Access, Knowledge Management, Integration & Middleware, Platform, Application, Data, Componentware, Groupware, Operations & Support. Examples of standards are identified in Figure 3.1. A list of the Domain Lead Names can be found at: <http://bis/pgm/h-net%20standards/introduction/DPWTechStd.asp>

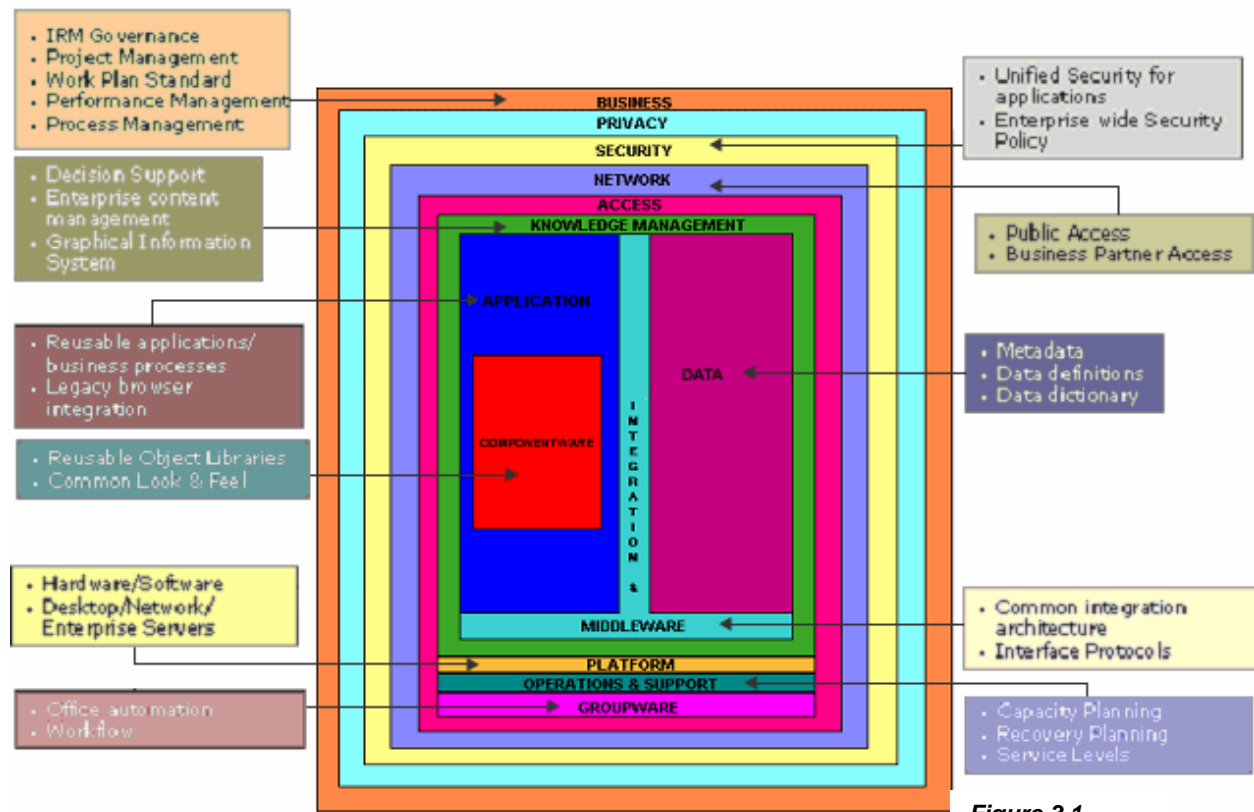


Figure 3.1

4.0 Roles and Responsibilities

This section will provide the detailed roles and responsibilities of the individuals or teams relative to the standards compliance processes. This is not meant to encompass all of the responsibilities for these entities, only those that relate to the compliance standards processes. In addition to the R/R listed below, each team and individual will be responsible for responding to all action items assigned at the ARB meetings. See Section 4.3 for additional information.

4.1 Detailed Roles and Responsibilities of Individuals or Teams

Individual or Team	Compliance Document and/or Process	Role/Responsibilities	Time Frame/ Forum
Architecture Review Board Chair Team	Technical Standards Application Compliance Checklist	Provide Application Compliance Checklist for Application Team to complete upon scheduling of the ARB meeting	Prior to each ARB Meeting
	Presentation Package	Distribute Completed Presentation Package to Domain Leads and ARB team for review prior to the ARB	
		Facilitate Presentation Package review	ARB Meeting
		Publish Presentation Package to the appropriate ARB folder	After ARB Meeting
Architecture Review Board Members	Presentation Package	Review Presentation Package prepared by the application teams	Prior to ARB Meeting
		Attend ARB meetings and discuss any issues regarding the application	ARB Meeting
Domain Leads - DPW Bureau of Information Systems	Presentation Package	Attend ARB meetings and discuss any issues regarding the application	ARB Meeting
		Keep Domain Technical Standards current	As Needed
Application/Project Managers	Presentation Package	Prepare Presentation Package and send to ARB Chair Team one week prior to the ARB meeting	Prior to ARB Meeting
		Discuss presentation package with ARB and Domain Leads	ARB Meeting
Program Office Sponsor	Application Compliance Checklist	Sign Application Compliance Checklist	Prior to ARB Meeting
		Attend all scheduled ARB meetings with the application team	ARB Meetings

4.2 Individuals and Team Members

ARB Chair Team	Mike Light, Deb Bixler
ARB Team:	<p>BIS: Linda Bingamon, William French, Arlene Dimarco, Dave Frye, Lonnie Gelnett, Pat Gildner, Tom Judge, Mike Light, Shirley Monroe, Sandy Moore, Don Pidich, Wayne Mumau, Gerry Petronko, Fred Robinson, Dean Schutte, Dave Shevenock, Terry Shuchart, Carla Solomon, Christine Witmer, John Carlin, Kevin Gray, Frank Potemra, Matthew Messinger, Mark McClain, Jim Weaver, John Miknich</p> <p>Deloitte Consulting: Joe Berkstresser, Srimi Subramanian</p>
BIS Leadership	Terry Shuchart – CIO for Bureau of Information Systems
	William French – Division of Application Development and Delivery
	Jim Weaver – Division of Technology Engineering
	Fred Robinson – Division of Infrastructure Management and Operations
Business Review Board Representative	Sandy Moore
Program Management Office Director	Linda Bingamon
Technical Domain Leads :	
Security	John Miknich, Jr.
Network	Lonnie Gelnett
Knowledge Management	Arlene Dimarco
Platform Client	Ron Dotson
Platform Server	John Foy
Integration and Middleware	Carla Solomon
Data	Dave Frye
Operations (Service Levels)	Pamela Skelton
Operations (Procedures)	Wayne Mumau
Groupware	Roy Bockelkamp
Applications	John Carlin
Componentware	Carla Solomon
Business	Vince Chandler
Procedure	Richard Sage
Privacy	Frank Potemra
Access	Kevin Gray

4.3 ARB Meeting Action Items

The ARB Chair Team will maintain a log of action items that are assigned during an ARB Meeting. The information collected for the Action Item Log will include the following: Date, ARB Topic, Action Item, Assigned To, Due Date, Response and Date Response sent to ARB Team and Domain Leads.

The individual responsible for an action item must provide a response to the ARB Chair Team by the assigned due date. The ARB Chair Team will distribute the action item response to the ARB Team and Domain Leads

The application team must resolve all issues/action items prior to ARB's approval for implementation.

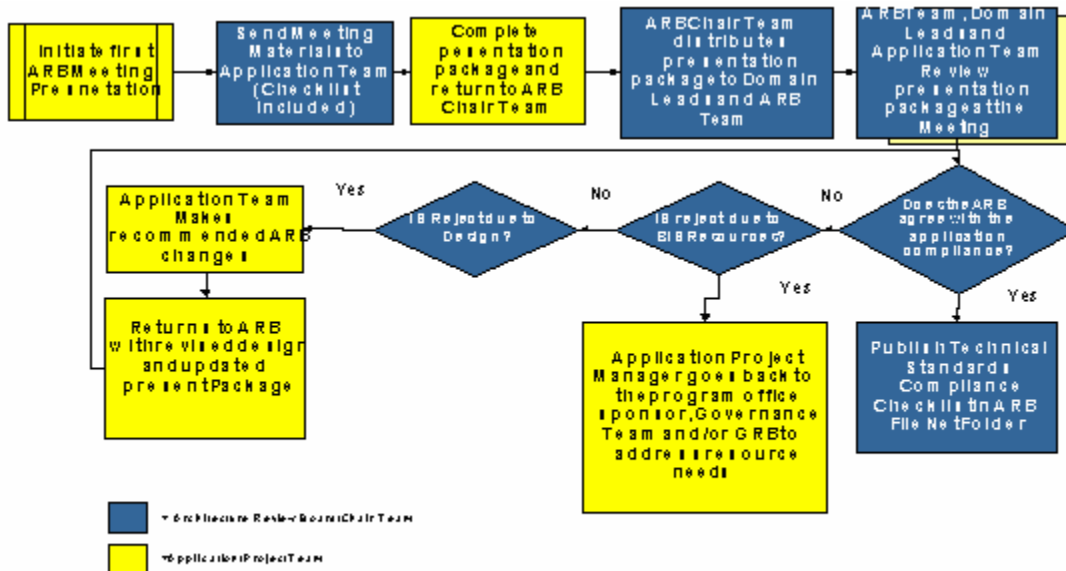
.

5.0 Technical Standards Compliance Checklist Process

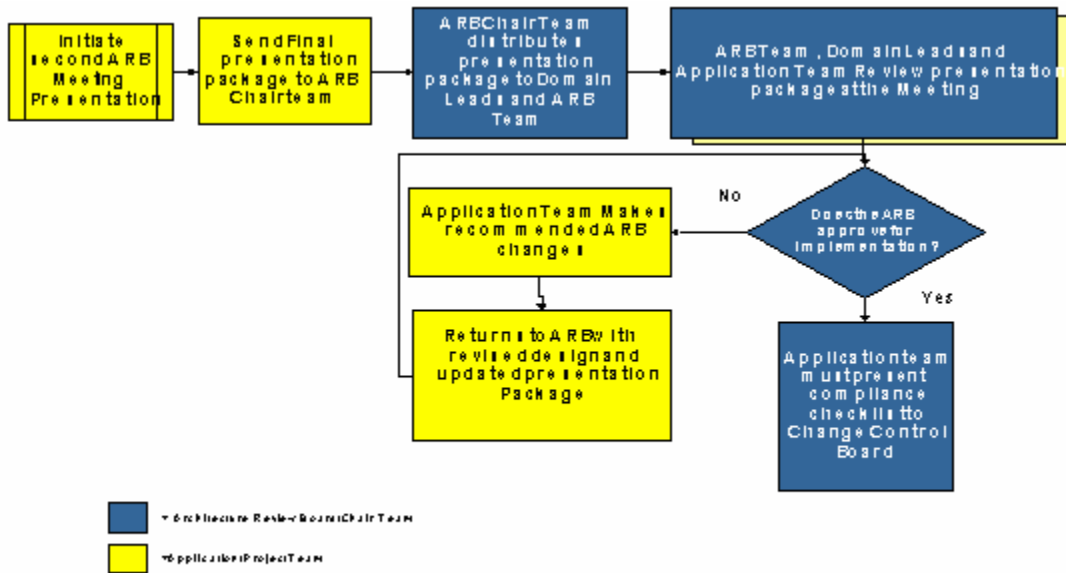
5.1 Process Overview

The purpose of the Technical Standards Application Compliance Checklist is to provide details around standards compliance. Its design enables the Department to identify the standards and provide additional information around application compliance. This process occurs at the commencement of the First Architecture Review Board (ARB) presentation. The ARB Chair Team sends the application team the information and materials it will need to prepare in advance of their first ARB meeting. Relative to the Application Compliance Checklist, the application team will provide an initial checklist, and the ARB Team will discuss the checklist at the designated ARB meeting. All compliance indicators will become final at the meeting; with the application team continuing to communicate its progress to the domain lead should any particular area require attention.

First ARB Presentation:



Second ARB Presentation:



5.2 Compliance Checklist Details

The application team will provide a compliance indicator for each compliance standard prior to their scheduled ARB meeting on the ARB Technical Standards Compliance Checklist (see sample below).

Architecture Review Board Application Compliance Checklist

Application Name: _____

BRB Approval Date: _____ Indicate when the Business Review Board approved this project.

1st ARB Presentation Date: _____ 2nd ARB Presentation Date: _____

1st ARB Meeting – Indicate the proposed system compliance for deployment for this release under the compliance ARB 1 column utilizing the compliance indicators below. Do not complete any item under the ARB 2 column.

2nd ARB Meeting – Indicate the actual system deployment compliance for this release under the Compliance ARB 2 column utilizing the compliance indicators below. Do not change any responses in the ARB 1 column.

Compliance Indicators	
N/A	Not Applicable – Must provide detailed explanation in Comments column
Y	Fully Compliant
N	Not Fully Compliant – Must provide detailed explanation in comments column

Domain	Standard	Guiding Standard	Compliance		Comments
			ARB 1	ARB2	
Security	Unified Security Integration	System Integration with Unified Security.			
	Electronic Commerce Security Assessment	Approval by OIT for System Security utilizing the ECSA Process.			
Middleware/ Messaging	Inter-system Communication	Utilization of the approved Middleware Solution (Open TI, WebMethods).			
	Business Partner Data Sharing	Utilization of the e-gov exchange process for business to business middleware solution.			

The Domain Leads and ARB team will review the presentation package as completed by the Application Team one week prior to the ARB meeting. Each Domain Lead, as well as the ARB team, will be responsible for reviewing the application compliance checklist and identify any issues or problems that need to be discussed at the Application Team's ARB presentation.

DPW Technical Standards Document

Document Change Log

Change Date	Version	CR #	Change Description	Author and Organization
04/19/04	1.0		Initial creation.	BIS
05/19/04	1.1		Revised scorecard process and definitions	BIS
6/15/2004	1.2		Revised based on ARB Chair and Chair Team input	BIS
6/22/2004	1.3		Revised based on ARB Chair and Chair Team input	BIS
6/28/2004	1.4		Revisions	BIS
7/13/2004	1.5		Technical Standards Only	BIS
6/15/2005	2.0		Revised based on ARB Team recommended changes	BIS
11/30/2005	2.1		Revised application checklist template and changed the guiding questions to compliance standards	BIS

Pennsylvania
Department of Public Welfare

Bureau of Information Systems

Business Review Board (BRB) Guideline

Version 2.0

November 2, 2005

Table of Contents

Introduction	3
Purpose.....	4
3.0 Business Review Board Process and Documentation.....	4
3.1 Process Flow	4
3.2 Documentation Requirements and Descriptions.....	5
4.0 Roles and Responsibilities	7
4.1 Roles and Responsibilities of Individuals or Teams.....	7
Document Change Log.....	8

Business Review Board (BRB) Guideline

Introduction

The Department of Public Welfare (DPW) has established business process and technical standards to improve its ability to serve customers, use assets efficiently, and promote best practices. In 2000, DPW embarked on an effort to identify business processes or business functions that are common across program areas. This effort resulted in the identification of four primary areas of business functionality: Client Management, Provider Management, Financial Management, and Information Management. Within these areas, the Department defined common processes and identified areas for coordination and integration. From there, the Department has achieved success in implementing processes and systems to help provide a more seamless approach to human service delivery. Examples include the Master Client Index, which provides an enterprise repository of client data for clearance and tracking, as well as the Master Provider Index, which performs similar functions for providers. In addition, the Department's web front for social services, COMPASS, provides intake functionality for energy assistance and home and community-based services. While these are only a few examples, the Department's Business Review Board (BRB) will help to identify additional opportunities for reusing business functionality and better coordination of services for clients.

This guideline document will provide details around the formal BRB processes to support DPW's goals and objectives. The mission statement of the BRB is as follows:

“The mission of the Business Review Board is to review the business and program requirements in order to verify that the business value of a proposed initiative is understood and that existing business solutions are leveraged.”

The BRB process:

- Creates a forum for decision-makers to truly understand the stakeholders, business value, and program needs associated with a proposed project
- Provides initiative sponsors with the opportunity to map their business needs against existing business solutions to see if DPW can reuse the approved solutions already in place
- Helps initiative sponsors to understand the business value of integration with existing enterprise applications (*e.g. monitoring clients/providers across programs, improving customer service by using a single point of contact, reducing redundant processes*)

Purpose

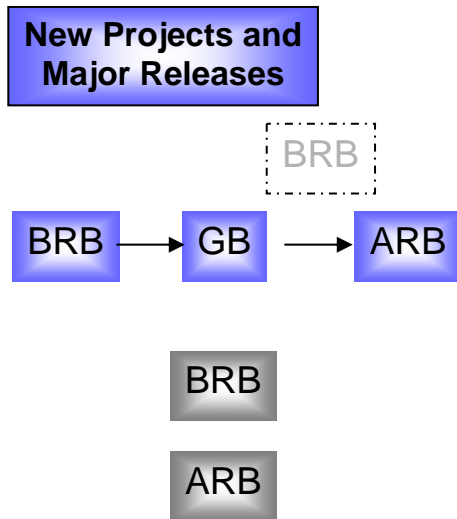
The purpose of this document is to provide a guideline and reference for initiative sponsors around the processes and documentation associated with the Business Review Board (BRB). It will provide a process flow, timeframe, roles and responsibilities, and documentation descriptions and locations to help sponsors prepare for the meeting.

3.0 Business Review Board Process and Documentation

3.1 Process Flow

Initiative sponsors would request a BRB meeting when:

- A project is in its proposed phase and must present to the Governance Board for approval.
- Information is needed to assist the team in developing a business approach and to review existing functions/enterprise applications
- A new system or additional functionality to a DPW system is required to meet a program need and/or will impact other program areas or systems (both processes and data)



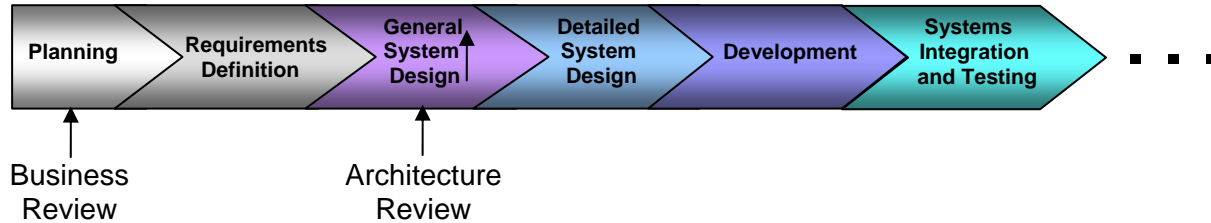
The Business Review Board is a required step for proposed projects and major releases for existing projects. This will help the project sponsor to prepare for the Governance Board, which will be responsible for approving projects. Once approved, the team will have the option of returning to the BRB or moving straight to the ARB process.

The BRB will also serve as a review forum for changes in business functionality at the discretion of project teams.

The ARB will continue to provide a review forum for a project's technical solution.

Both the BRB and the ARB can be utilized as a resource for program offices/project sponsors for assistance in preparing their business or technical approach.

Project Lifecycle View



3.2 Documentation Requirements and Descriptions

The following table describes what documentation initiative sponsors should prepare and then present at the BRB meeting. In addition, DPW will provide additional documentation to help sponsors prepare the contents of the required document. Links are provided when applicable.

Required Documentation		
Document	Description and Key Elements to Include	Directions
BRB Presentation	<p>This is the formal presentation to the BRB. This presentation should provide the following information:</p> <ul style="list-style-type: none"> • How will this help DPW to achieve its goals? • Who are the stakeholders? Have they been or will they be included throughout the requirements process? • What are the program and business needs? • What is the best way to meet these business needs? • Do we have processes and systems in place that perform the functions needed? • Will this impact other systems, processes, or data in other program areas? • Does the business need dictate the need to integrate or utilize enterprise applications or tools (e.g. MCI, MPI, Data Warehouse, GIS)? 	<p>Format is at the initiative sponsor's discretion. Please include the initiative name and date of the presentation on the title page.</p>

<p>Business Function Matrix</p>	<p>The DPW Business Function Matrix provides sponsors with a listing of the common business functions currently used and supported by an existing program and system. The shared or enterprise solution is provided for each function when applicable, and sponsors can map their business needs to these functions. This helps to identify opportunities to leverage existing solutions instead of building a new component or system.</p>	<p>Sponsors will place an “X” next to all of the business functions that apply to their functionality needs. The sponsor will also provide a listing of additional business functions required for their initiative. This document will be reviewed at the meeting with business function experts to determine if an existing solution can potentially address the sponsor’s business needs.</p>
--	---	--

This documentation and tools are available to initiative sponsors to assist them in preparing the required documentation.

Supporting Documentation

<p>Document or Tool</p>	<p>Description</p>
<p>DPW Business Function Glossary</p>	<p>This document provides detailed definitions for each of the business functions listed in the Business Function Matrix. This will help sponsors identify existing functions that may meet the business or program needs of the new initiative.</p>
<p>DPW Value Map</p>	<p>This tool provides examples of ways that DPW’s systems can support the DPW goals. This can be used to generate ideas around additional ways a new initiative can support DPW as well as to demonstrate support for the business goals of DPW.</p>

4.0 Roles and Responsibilities

This section will provide the detailed roles and responsibilities of the individuals or teams relative to the Business Review Board (BRB) process.

4.1 Roles and Responsibilities of Individuals or Teams

Individual or Team	Role/Responsibilities	Timeframe
BRB Chairperson	<ul style="list-style-type: none"> Receives BRB request and determines when or if a meeting occurs Sends invitations to initiative sponsor and BRB team 	Prior to meeting
	<ul style="list-style-type: none"> Facilitates meeting discussion and maintains the team's focus on BRB objectives Determines if additional meetings are required based on meeting outcome 	During meeting
BRB Coordinator	<ul style="list-style-type: none"> Assists initiative sponsor with documentation requirements and questions 	Prior to meeting
	<ul style="list-style-type: none"> Records meeting minutes and action items 	During meeting
	<ul style="list-style-type: none"> Follows up with individuals assigned action items to monitor progress Maintains meeting documentation in FileNET Changes BRB Guideline, Overview, and supporting documents as required in FileNET 	Following each meeting and as needed
BRB Team	<ul style="list-style-type: none"> Provides input relating to the business functions and business approach used for the initiative 	During meeting
	<ul style="list-style-type: none"> Completes action items and participates in follow-up meetings as needed 	Following each meeting
Initiative Sponsor	<ul style="list-style-type: none"> Contacts Chairperson to schedule a BRB meeting Prepares documentation and works with coordinator to resolve questions/issues 	Prior to meeting
	<ul style="list-style-type: none"> Presents required documentation and participates in discussion 	During meeting
	<ul style="list-style-type: none"> Completes action items and participates in follow-up meetings as needed 	Following the meeting

Document Change Log

Change Date	Version	CR #	Change Description	Author and Organization
10/12/04	1.0		Initial creation.	BIS
11/10/2004	1.1		Added supporting documentation descriptions; added process changes	BIS
2/4/2005	1.2		Revised based on BIS feedback	BIS
10/24/2005	2.0		Reformatted and placed in Business Domain	PMO-DCSS

DRAFT

RFP # 39 – 06
Appendix O

Pennsylvania
Department of Public Welfare

Bureau of Information Systems

System Development Methodology (SDM)

Version 2.6

September 01, 2005

Table of Contents

1.0 Introduction	20
Systems Development Methodology (SDM).....	20
Purpose, Scope, and Applicability	20
SDM Objectives	21
Key Principles	21
1.1 Methodology Utilization.....	24
Description.....	24
Questions	24
1.2 Submitting Change Requests.....	24
2.0 System Development Lifecycle (SDLC).....	25
Purpose.....	25
Scope.....	25
Applicability	25
Introduction to SDLC	25
Documentation.....	27
2.1 Development Techniques	29
Applicability.....	29
Description.....	29
Segmented Development	29
Spiral Development.....	30
Rapid Prototyping.....	30
Iterative Technique.....	31
Rapid Application Development.....	31
Joint Application Development.....	31
Object-Oriented Development	31
2.2 Commercial-Off-The-Shelf (COTS) Products Based Projects.....	33
Applicability.....	33
Description.....	33
COTS and Open Systems.....	33
COTS Planning Considerations	34
Skills Considerations	34
Types of COTS Solutions	34
COTS Impact on the Project Lifecycle	35
Requirements Definition.....	35
Adaptation / Integration	35
Testing	36
Maintenance.....	36
Adapting the SDM for COTS Projects.....	36
Documenting Deviations	36
2.3 Quality Reviews	38
Applicability.....	38
Description.....	38
Review Processes:.....	38

- Peer Review 38
- Structured Walkthrough 38
- In-Phase Assessment 39
- Phase Exit 39
- 2.4 Gathering Metrics 40
 - Applicability..... 40
 - Description..... 40
- 3.0 Planning Phase 41**
 - Applicability..... 41
 - Description..... 41
 - Inputs..... 41
 - Outputs 42
- 4.0 Requirements Definition Phase..... 43**
 - Applicability..... 43
 - Description..... 43
 - Inputs..... 43
 - High-Level Activities 44
 - Outputs 44
 - Review Process..... 44
 - Reference/Resource 45
 - Checklist 45
- 4.1 Manage Requirements 46
 - Responsibility 46
 - Applicability..... 46
 - Description..... 46
 - Outputs 46
 - Review Process..... 46
 - Template..... 47
 - Tasks 47
 - 4.1.1 Develop a Requirements Traceability Matrix 48
 - Responsibility 48
 - Applicability 48
 - Description 48
 - Outputs..... 48
 - Review Process..... 49
 - Sample Traceability Matrix..... 49
 - Template 49
 - 4.1.2 Manage Project Change 50
 - Responsibility 50
 - Applicability 50
 - Description 50
 - Outputs..... 50
 - Review Process..... 50
 - Reference/Resource 50
- 4.2 Select Requirements Analysis Technique 51
 - Responsibility 51
 - Applicability..... 51
 - Description..... 51
 - Outputs 51
 - Review Process..... 52
- 4.3 Define Project Requirements..... 53

- Responsibility 53
- Applicability..... 53
- Description..... 53
- Attributes 53
- Identification System 54
- Changes 54
- Outputs..... 54
- Review Process..... 54
- Template..... 54
- Tasks 55
 - 4.3.1 Define Process Model Narrative 56
 - Responsibility 56
 - Applicability 56
 - Description 56
 - Outputs 56
 - Review Process..... 56
 - 4.3.2 Define Security Requirements 57
 - Responsibility 57
 - Applicability 57
 - Description 57
 - Sample Access Control Questions..... 57
 - Outputs..... 57
 - Review Process..... 58
 - Example 58
 - 4.3.3 Define Batch Job Requirements 59
 - Responsibility 59
 - Applicability 59
 - Description 59
 - Outputs..... 59
 - Review Process..... 59
 - Example 59
 - 4.3.4 Define Workflow Requirements 60
 - Responsibility 60
 - Applicability 60
 - Description 60
 - Outputs..... 60
 - Review Process..... 60
 - Example 60
 - 4.3.5 Define External Interface Requirements 61
 - Responsibility 61
 - Applicability 61
 - Description 61
 - Outputs..... 61
 - Review Process..... 61
 - Example 62
 - 4.3.6 Define Printing Requirements 63
 - Responsibility 63
 - Applicability 63
 - Description 63
 - Outputs..... 63
 - Review Process..... 63

Example	63
4.3.7 Define Imaging Requirements	64
Responsibility	64
Applicability	64
Description	64
Outputs	64
Review Process.....	64
Example	64
4.3.8 Define Reporting Requirements.....	65
Responsibility	65
Applicability	65
Description	65
Outputs.....	65
Review Process.....	65
Example	65
4.3.9 Define Business Rule Requirements	66
Responsibility	66
Applicability	66
Description	66
Outputs.....	66
Review Process.....	66
Example	66
4.3.10 Define System Availability Requirements	67
Responsibility	67
Applicability	67
Description	67
Outputs.....	67
Review Process.....	67
Example	67
4.3.11 Define Performance and Capacity Requirements	68
Responsibility	68
Applicability	68
Description	68
Outputs.....	68
Review Process.....	68
Example	68
4.3.12 Define Conversion Requirements	69
Responsibility	69
Applicability	69
Description	69
Outputs.....	69
Review Process.....	69
Example	69
4.4 Define Data Backup/Restore and Disaster Recovery Requirements	70
Responsibility	70
Applicability.....	70
Description.....	70
Outputs	70
Review Process.....	70
Template.....	70
Checklist.....	70

Reference/Resource 70

4.5 Define Data Requirements 71

 Responsibility 71

 Applicability..... 71

 Description..... 71

 Outputs 71

 Review Process..... 71

 Reference/Resource 71

4.6 Create Initial Logical Data Model..... 72

 Responsibility 72

 Applicability..... 72

 Description..... 72

 Outputs 72

 Review Process..... 72

 References/Resources 73

4.7 Compile and Develop Requirements Definition Document (RDD) 74

 Responsibility 74

 Applicability..... 74

 Description..... 74

 Outputs 74

 Review Process..... 75

 Reference/Resource 75

 Template..... 75

4.8 Develop Test Plan 76

 Responsibility 76

 Applicability..... 76

 Description..... 76

 Inputs..... 76

 Outputs 76

 Review Process..... 77

 Template..... 77

 Tasks 77

 4.8.1 Identify Test Techniques..... 78

 Responsibility 78

 Applicability 78

 Description 78

 Outputs..... 79

 Review Process..... 79

 4.8.2 Identify Test Phases 80

 Responsibility 80

 Applicability 80

 Description 80

 Inputs..... 81

 Outputs..... 81

 Review Process..... 81

 4.8.3 Identify Test Environment Requirements..... 82

 Responsibility 82

 Applicability 82

 Description 82

 Inputs..... 82

 Outputs..... 83

Review Process.....	83
4.8.4 Develop User Acceptance Test Plan	84
Responsibility	84
Applicability	84
Description	84
Inputs.....	84
Outputs.....	84
Review Process.....	85
4.9 Conduct Phase Review	86
4.9.1 Conduct Peer Reviews	86
4.9.2 Conduct Structured Walkthroughs.....	86
4.9.3 Conduct In-Phase Assessments (IPA).....	86
4.9.4 Conduct Phase Exit.....	86
5.0 General System Design (GSD) Phase.....	87
Applicability.....	87
Description.....	87
Inputs.....	88
High-Level Activities	88
Outputs.....	89
Review Process.....	89
Reference/Resource	89
Checklist.....	89
5.1 Select Design Technique.....	91
Responsibility	91
Applicability.....	91
Description.....	91
Sample Design Methods	92
Inputs.....	92
Outputs.....	92
Review Process.....	92
5.2 Determine Software Structure	93
Responsibility	93
Applicability.....	93
Description.....	93
A. Hierarchical Design.....	94
Identify Design Entities.....	94
Identify Design Dependencies	95
B. Object-Oriented (O.O.) Design	95
Outputs.....	96
Review Process.....	96
5.3 Develop General System Design (GSD)	97
Responsibility	97
Applicability.....	97
Description.....	97
Outputs.....	97
Review Process.....	97
Reference/Resource	97
Tasks	97
5.3.1 Develop General System Design (GSD) Document.....	98
Responsibility	98
Applicability	98

- Description 98
- Outputs 98
- Review Process 98
- Template 98
- 5.3.2 Conduct General System Design (GSD) Review 99
 - Responsibility 99
 - Applicability 99
 - Description 99
 - Review Items 99
 - Outputs 100
 - Review Process 101
- 5.4 Design the User Interface 102
 - Responsibility 102
 - Applicability 102
 - Description 102
 - Outputs 102
 - Review Process 102
 - Reference/Resource 102
- 5.5 Create Data Model 103
 - Responsibility 103
 - Applicability 103
 - Description 103
 - Outputs 103
 - Sample Attributes 104
 - Review Process 104
 - Reference/Resource 104
- 5.6 Create Logical Data Model 105
 - Responsibility 105
 - Applicability 105
 - Description 105
 - Outputs 105
 - Review Process 105
 - Reference/Resource 105
- 5.7 Manage Requirements 106
 - Responsibility 106
 - Applicability 106
 - Description 106
 - Outputs 106
 - Review Process 106
 - Reference/Resource 106
- 5.8 Design System Architecture 107
 - Responsibility 107
 - Applicability 107
 - Description 107
 - Outputs 107
 - Review Process 107
 - Reference/Resource 107
 - Tasks 107
 - 5.8.1 Design System Interfaces 108
 - Responsibility 108
 - Applicability 108

Description	108
Sample Issues	108
Outputs	108
Review Process.....	109
5.8.2 Design System Security Controls	110
Responsibility	110
Applicability	110
Description	110
Outputs	110
Review Process.....	110
Reference/Resource	110
5.8.3 Evaluate System Architecture Alternatives	111
Responsibility	111
Applicability	111
Description	111
Outputs	112
Review Process.....	112
5.8.4 Recommend System Architecture	113
Responsibility	113
Applicability	113
Description	113
Outputs	113
Review Process.....	114
Template	114
5.9 Develop Capacity Plan	115
Responsibility	115
Applicability.....	115
Description.....	115
Outputs	115
Review Process.....	115
Template.....	115
5.10 Initiate Procurement of Hardware and Software.....	116
Responsibility	116
Applicability.....	116
Description.....	116
Outputs	116
Review Process.....	117
5.11 Develop Training Plan	118
Responsibility	118
Applicability.....	118
Description.....	118
Outputs	118
Review Process.....	119
Template.....	119
5.12 Develop Conversion Plan	120
Responsibility	120
Applicability.....	120
Description.....	120
Outputs	120
Review Process.....	121
Template.....	121

- 5.13 Develop Architecture Review Board (ARB) Document 122
 - Responsibility 122
 - Applicability..... 122
 - Description..... 122
 - Outputs 122
 - Review Process..... 122
 - Template..... 122
- 5.14 Conduct Phase Review 123
 - 5.14.1 Conduct Peer Reviews 123
 - 5.14.2 Conduct Structured Walkthroughs 123
 - 5.14.3 Conduct In-Phase Assessments (IPA) 123
 - 5.14.4 Conduct Phase Exit 123
- 6.0 Detailed System Design (DSD) Phase..... 124**
 - Applicability..... 124
 - Description..... 124
 - Inputs..... 124
 - High Level Activities 124
 - Outputs 126
 - Review Process..... 126
 - Reference/Resource 127
 - Checklist 127
- 6.1 Select System Architecture..... 128
 - Responsibility 128
 - Applicability..... 128
 - Description..... 128
 - Outputs 128
 - Reference/Resource 129
 - Tasks 129
 - 6.1.1 Evaluate System Architecture Alternatives 130
 - Responsibility 130
 - Applicability 130
 - Description 130
 - Outputs 131
 - Review Process..... 132
 - 6.1.2 Recommend System Architecture..... 133
 - Responsibility 133
 - Applicability 133
 - Description 133
 - Outputs 134
 - Review Process..... 134
- 6.2 Develop Detailed System Design (DSD) 135
 - Responsibility 135
 - Applicability..... 135
 - Description..... 135
 - Outputs 135
 - Review Process..... 136
 - Tasks 136
 - 6.2.1 Develop Detailed System Design (DSD) Document..... 137
 - Responsibility 137
 - Applicability 137
 - Description 137

Outputs 137

Review Process 137

Reference/Resource 137

Template 137

6.2.2 Conduct Critical Design Review 138

 Responsibility 138

 Applicability 138

 Description 138

 Outputs 139

6.2.3 Develop Program Specifications 140

 Responsibility 140

 Applicability 140

 Description 140

 Outputs 140

 Sample Attributes 140

 Review Process 141

 Reference/Resource 142

6.3 Refine Data Requirements 143

 Responsibility 143

 Applicability 143

 Description 143

 Outputs 143

 Review Process 143

 Reference/Resource 143

6.4 Design Physical Data Model 144

 Responsibility 144

 Applicability 144

 Description 144

 Outputs 144

 Review Process 144

 Reference/Resource 145

6.5 Manage Requirements 146

 Responsibility 146

 Applicability 146

 Description 146

 Outputs 146

 Review Process 146

 Reference/Resource 146

6.6 Select Programming Standards 147

 Responsibility 147

 Applicability 147

 Description 147

 Outputs 149

 Review Process 149

 Reference/Resource 149

6.7 Refine Test Plan 150

 Responsibility 150

 Applicability 150

 Description 150

 Integration Testing 151

 System Testing 152

Acceptance Testing.....	153
Outputs.....	153
Review Process.....	153
6.8 Develop Proof of Concept/Prototype.....	154
Responsibility.....	154
Applicability.....	154
Description.....	154
Types of Prototypes.....	154
Outputs.....	154
Review Process.....	154
6.9 Refine Conversion Plan.....	155
Responsibility.....	155
Applicability.....	155
Description.....	155
Outputs.....	155
Review Process.....	155
6.10 Develop Electronic Commerce Security Assessment (ECSA).....	156
Responsibility.....	156
Applicability.....	156
Description.....	156
Outputs.....	156
Review Process.....	157
Reference/Resource.....	157
6.11 Conduct Phase Review.....	158
6.11.1 Conduct Peer Reviews.....	158
6.11.2 Conduct Structured Walkthroughs.....	158
6.11.3 Conduct In-Phase Assessments (IPA).....	158
6.11.4 Conduct Phase Exit.....	158
7.0 Development Phase.....	159
Applicability.....	159
Description.....	159
Inputs.....	159
High-Level Activities.....	159
Outputs.....	160
Review Process.....	161
Reference/Resource.....	161
Checklist.....	161
7.1 Develop Acquisition Plan.....	163
Responsibility.....	163
Applicability.....	163
Description.....	163
Outputs.....	163
Review Process.....	163
7.2 Establish Programming Environment.....	164
Responsibility.....	164
Applicability.....	164
Description.....	164
Outputs.....	164
Review Process.....	164
7.3 Write Programs.....	165
Responsibility.....	165

Applicability..... 165
 Description..... 165
 Coding Practices 166
 Outputs 166
 Review Process..... 166
 7.4 Conduct Unit Testing 168
 Responsibility 168
 Applicability..... 168
 Description..... 168
 Outputs 168
 Review Process..... 169
 Template..... 169
 7.5 Establish Allocated Baseline..... 170
 Responsibility 170
 Applicability..... 170
 Description..... 170
 Outputs 170
 Review Process..... 171
 7.6 Manage Requirements 172
 Responsibility 172
 Applicability..... 172
 Description..... 172
 Outputs 172
 Review Process..... 172
 7.7 Develop Test Scenarios..... 173
 Responsibility 173
 Applicability..... 173
 Description..... 173
 Outputs 173
 Review Process..... 173
 Template..... 174
 Reference/Resource 174
 7.8 Plan Transition to Operational Status..... 175
 Responsibility 175
 Applicability..... 175
 Description..... 175
 Outputs 175
 Review Process..... 176
 Template..... 176
 7.9 Generate Operating Documentation..... 177
 Responsibility 177
 Applicability..... 177
 Description..... 177
 Procedure 177
 Outputs 178
 Review Process..... 178
 Templates..... 178
 7.10 Refine Training Plan 179
 Responsibility 179
 Applicability..... 179
 Description..... 179

Outputs	179
Review Process	180
Template	180
7.11 Finalize Capacity Plan	181
Responsibility	181
Applicability	181
Description	181
Outputs	181
Review Process	181
7.12 Establish Integration Test Environment	182
Responsibility	182
Applicability	182
Description	182
Outputs	182
Review Process	182
7.13 Develop Batch Operations	183
Responsibility	183
Applicability	183
Description	183
Outputs	183
Review Process	183
Template	184
Tasks	184
7.13.1 Develop Batch Operations Services Request	185
Responsibility	185
Applicability	185
Description	185
Outputs	185
Review Process	185
Template	185
7.14 Conduct Phase Review	186
7.14.1 Conduct Peer Reviews	186
7.14.2 Conduct Structured Walkthroughs	186
7.14.3 Conduct In-Phase Assessments (IPA)	186
7.14.4 Conduct Phase Exit	186
8.0 Software Integration and Testing	187
Applicability	187
Description	187
Inputs	187
High-Level Activities	187
Outputs	188
Review Process	188
Reference/Resource	188
Checklist	188
8.1 Conduct Integration and System Testing	190
Responsibility	190
Applicability	190
Description	190
Integration and Integration Testing	190
Bottom-up	190
Top-down	191

System Testing	191
Outputs	191
Review Process	191
Template	191
8.2 Conduct Load Testing	192
Responsibility	192
Applicability	192
Description	192
Outputs	192
Review Process	192
8.3 Conduct Regression Testing	193
Responsibility	193
Applicability	193
Description	193
Outputs	193
Review Process	193
Reference/Resource	194
8.4 Establish Acceptance Test Environment	195
Responsibility	195
Applicability	195
Description	195
Outputs	195
8.5 Conduct User Acceptance Test	196
Responsibility	196
Applicability	196
Description	196
Outputs	196
Review Process	196
8.6 Manage Requirements	198
Responsibility	198
Applicability	198
Description	198
Outputs	198
Review Process	198
8.7 Refine Operating Documentation	199
Responsibility	199
Applicability	199
Description	199
Outputs	199
Review Process	199
8.8 Finalize Training Plan	200
Responsibility	200
Applicability	200
Description	200
Outputs	200
Review Process	200
Template	200
8.9 Conduct Phase Review	201
8.9.1 Conduct Peer Reviews	201
8.9.2 Conduct Structured Walkthroughs	201
8.9.3 Conduct In-Phase Assessments (IPA)	201

8.9.4 Conduct Phase Exit..... 201

9.0 Acceptance and Installation Phase..... 202

 Applicability..... 202

 Description..... 202

 Inputs..... 202

 High-Level Activities 202

 Outputs..... 203

 Review Process..... 203

 Reference/Resource 203

 Checklist..... 203

9.1 Establish Test for Production Environment 205

 Responsibility 205

 Applicability..... 205

 Description..... 205

 Outputs..... 205

 Review Process..... 205

9.2 Perform Test for Production Activities 206

 Responsibility 206

 Applicability..... 206

 Description..... 206

 Outputs..... 206

 Review Process..... 206

9.3 Perform Installation Activities..... 207

 Responsibility 207

 Applicability..... 207

 Description..... 207

 Procedure..... 207

 Outputs..... 208

 Review Process..... 208

 Template..... 208

9.4 Conduct Installation Tests 209

 Responsibility 209

 Applicability..... 209

 Description..... 209

 Outputs..... 209

 Review Process..... 209

9.5 Establish Training Environment..... 210

 Responsibility 210

 Applicable..... 210

 Description..... 210

 Outputs..... 210

 Review Process..... 210

9.6 Conduct User Training..... 211

 Responsibility 211

 Applicability..... 211

 Description..... 211

 Outputs..... 211

 Review Process..... 211

9.7 Transition to Operational Status 212

 Responsibility 212

 Applicability..... 212

Description..... 212

Outputs 213

Review Process..... 213

9.8 Conduct Phase Review 214

 9.8.1 Conduct Peer Reviews 214

 9.8.2 Conduct Structured Walkthroughs 214

 9.8.3 Conduct In-Phase Assessments (IPA)..... 214

 9.8.4 Conduct Phase Exit..... 214

10.0 Operational Support Phase..... 215

 Applicability..... 215

 Description..... 215

 Inputs..... 215

 Phases..... 216

 Outputs 216

 Identify Systems Operations 216

 Maintain Data / Software Administration 217

 Project Management 217

 Review Process..... 218

 Reference/Resource 218

 Checklist 218

10.1 Problem/Modification Identification Phase..... 220

 Responsibility 220

 Applicability..... 220

 Description..... 220

 Inputs..... 221

 Process..... 221

 Control..... 221

 Outputs 222

 Review Process..... 222

10.2 Analysis Phase 223

 Responsibility 223

 Applicability..... 223

 Description..... 223

 Inputs..... 223

 Process..... 224

 Control 224

 Outputs 225

 Review Process..... 225

10.3 Design Phase 226

 Responsibility 226

 Applicability..... 226

 Description..... 226

 Input..... 226

 Process..... 226

 Control 227

 Outputs 227

 Review Process..... 227

10.4 Development Phase 228

 Responsibility 228

 Applicability..... 228

 Description..... 228

Inputs.....	228
Process.....	228
Coding and Unit Testing.....	228
Integration.....	228
Risk Analysis and Review.....	228
Test Readiness Review.....	229
Control.....	229
Outputs.....	229
Review Process.....	229
10.5 System Test Phase.....	230
Responsibility.....	230
Applicability.....	230
Description.....	230
Inputs.....	230
Process.....	230
Control.....	231
Outputs.....	231
Review Process.....	231
10.6 Acceptance Phase.....	232
Responsibility.....	232
Applicability.....	232
Description.....	232
Inputs.....	232
Process.....	232
Control.....	233
Outputs.....	233
Review Process.....	233
10.7 Delivery Phase.....	234
Responsibility.....	234
Applicability.....	234
Description.....	234
Inputs.....	234
Process.....	234
Control.....	234
Outputs.....	234
Review Process.....	235
Reference/Resource.....	235
Tasks.....	235
Document Change Log.....	236

System Development Methodology (SDM)

1.0 Introduction

Systems Development Methodology (SDM)

Systems Development Methodology (SDM) emphasizes decision processes influencing system cost and usefulness. These decisions must be based on full consideration of business processes, functional requirements, and economic and technical feasibility in order to produce an effective system. The primary objectives of the SDM are to deliver quality systems that:

- Meet or exceed customer expectations when promised and within cost estimates
- Work effectively and efficiently within the current and planned information technology (IT) infrastructure
- Are inexpensive to maintain and cost-effective to enhance.

This SDM establishes a logical order of events for conducting system development that is controlled, measured, documented, and ultimately improved.

One methodology does not fit all sizes and types of system development efforts. Therefore, the Department of Public Welfare (DPW) SDM methodology provides for a full sequential SDLC work pattern and for alternative SDM work patterns. Components involved in smaller projects could use an alternative SDM work pattern, where the documentation is shortened and even combined. It also provides a work pattern to accommodate the acquisition and implementation of commercial-off-the-shelf (COTS) products.

Purpose, Scope, and Applicability

The SDM serves as the mechanism to ensure the systems under development meets the established requirements and supports DPW's mission functions. It provides a structured approach to managing IT projects beginning with establishing the justification for initiating a systems development or maintenance effort and concluding with system disposition.

The primary audiences for this methodology are the application developers, IT project managers, and project sponsors/users responsible for defining and delivering the DPW systems, their staff, and their support contractors. Specific roles and responsibilities are described throughout each phase.

SDM Objectives

This guide was developed to disseminate proven practices to application developers, project managers, and project sponsors/users throughout the DPW. The specific objectives expected include:

- To reduce the risk of project failure
- To consider system and data requirements throughout the entire life of the system
- To identify technical and management issues early
- To disclose all life cycle costs to guide business decisions
- To foster realistic expectations of what the systems will and will not provide
- To provide information to better balance programmatic, technical, management, and cost aspects of proposed system development or modification
- To encourage periodic evaluations to identify systems that are no longer effective
- To measure progress and status for effective corrective action
- To support effective resource management and budget planning
- To consider meeting current and future business requirements

Key Principles

The methodology refines traditional information system life cycle management approaches to reflect the principles outlined in the following subsections. These are the foundations for life cycle management.

- **Life Cycle Management**

Life cycle management is used to ensure a structured approach to information systems development, maintenance, and operation. The SDM describes an overall structured approach to information management. Primary emphasis is placed on the information and systems decisions to be made and the proper timing of decisions. It provides a flexible framework for approaching a variety of systems projects. The framework enables application developers, project managers, and project sponsors/users to combine activities, processes, and products, as appropriate, and to select the tools best suited to the unique needs of each project.

- **Support the use of a Project Management Team**

The establishment of a Project Management Team can aid in the success of a project. A Project Management Team is a multidisciplinary group of people who support the Project Manager in the planning, execution, delivery and implementation of life cycle decisions for the project. The Project Management Team is composed of qualified empowered individuals from all appropriate functional disciplines that have a stake in the success of the project. Working together in a proactive, open communication, team

oriented environment can aid in building a successful project and providing decision makers with the necessary information to make the right decisions at the right time.

- **Each System Project must have a Project Sponsor**

To help ensure effective planning, management, and commitment to information systems, each project must have a clearly identified program sponsor. The project sponsor serves in a leadership role, providing guidance to the project team and securing, from senior management, the required reviews and approvals at specific points in the life cycle. Senior management approval authority may be varied based on dollar value, visibility level, congressional interests or a combination of these. The project sponsor is responsible for identifying who will be responsible for formally accepting the delivered system at the end of the Acceptance and Installation Phase.

- **A Single Project Manager must be selected for Each System Project**

The Project Manager has responsibility for the success of the project and works through a project team and other supporting organization structures, such as working groups or user groups, to accomplish the objectives of the project. Regardless of organizational affiliation, the Project Manager is accountable and responsible for ensuring the project activities and decisions consider the needs of all organizations affected by the system.

- **A Comprehensive Project Plan is required for Each System Project**

The project plan is a pivotal element in the successful solution of an information management requirement. The project plan must describe how each phase will be accomplished to suit the specific characteristics of the project. The project plan is a vehicle for documenting the project scope, tasks, schedule, allocated resources, and interrelationships with other projects. The plan is used to provide direction to the many activities of the life cycle and must be refined and expanded throughout the life cycle.

- **Specific Individuals must be Assigned to Perform Key Roles throughout the Life Cycle**

Certain roles are considered vital to a successful system project and at least one individual must be designated as responsible for each key role. Assignments may be made on a full- or part-time basis as appropriate. Key roles include program/functional management, quality assurance, security, telecommunications management, data administration, database administration, logistics, financial, systems engineering, test and evaluation, contracts management, and configuration management. For most projects, more than one individual should represent the actual or potential users of the system (that is, program staff) and be designated by the Project Manager of the program and organization.

- **Obtaining the Participation of Skilled Individuals is Vital to the Success of the System Project**

The skills of the individuals participating in a system project are the single most significant factor for ensuring the success of the project. The SDM is not intended as a substitute for information management skills or experience. While many of the skills required for a system project are discussed in later sections, the required skill

combination will vary according to the project. All individuals participating in a system development project are encouraged to obtain assistance from experienced information management professionals.

- **Documentation of Activity Results and Decisions for Each Phase of the Life Cycle are Essential**

Effective communication and coordination of activities throughout the life cycle depend on the complete and accurate documentation of decisions and the events leading up to them. Undocumented or poorly documented events and decisions can cause significant confusion or wasted efforts and can intensify the effect of turnover of project management staff. Activities are not to be considered complete, nor decisions made, until there is tangible documentation of the activity or decision. For some large projects, advancement to the next phase cannot commence until the required reviews are completed and approved by senior management.

- **Data Management is required throughout the Life Cycle**

The DPW considers the data processed by systems to be an extremely valuable resource. Accurate data is critical to support organizational missions. The large volumes of data handled by the DPW (and its components) systems, as well as the increasing trend toward interfacing and sharing data across systems and programs, underscores the importance of data quality. Systems life cycle activities stress the need for clear definition of data, the design and the implementation of automated and manual processes to ensure effective data management.

- **Each System Project Must Undergo Formal Acceptance**

The project sponsor identifies the representative who will be responsible for formally accepting the delivered system at the end of the Acceptance and Installation Phase.

- **A System Project may not Proceed until Resource Availability is Assured**

Beginning with the approval of the project, the continuation of a system is contingent on a clear commitment from the project sponsor. This commitment is embodied in the assurance that the necessary resources will be available, not only for the next activity, but as required for the remainder of the life cycle.

- **Each System Project Should Comply with the DPW Enterprise Architecture (EA)**

The DPW EA provides a common conceptual framework and Information Resource Management (IRM) standards all DPW organizations use to coordinate the acquisition, development, and support of information systems. These standards and architectural objectives advance DPW's ability to implement systems that are more interoperable and maintainable.

1.1 Methodology Utilization

Description

The DPW methodology integrates software development, project management, and quality assurance (QA) practices into a flexible, yet orderly approach. It can be adapted to accommodate the specific needs of any DPW project. All computing platforms used in the department, including web, mainframe and client/server machines, may be incorporated.

The methodology presented here does not supersede, replace, or override more stringent requirements applied to specific projects, such as those receiving federal funding.

Questions

Questions concerning the interpretation or application of the methodology are resolved by the project management team during the project reviews which are built into the lifecycle phases. The project sponsor, users, and other project stakeholders must concur with any adaptations made. When the project management team cannot answer questions about interpretation or application of the guidance to a specific project, the issue is submitted to the Program Management Office.

The Program Management Office will analyze questions and issues, and issue a response in one of the following ways:

- An immediate solution is determined and provided to the project management team.
- The issue will be submitted to personnel who are considered experts in the area in question. Once a solution is reached, it will be provided to the project management team.

1.2 Submitting Change Requests

DPW's information systems environment is continuously changing as emerging technologies are integrated into projects, user requirements are expanded, and organizational needs evolve. The DPW SDM will be expanded and revised, as needed, to reflect changes in the environment; also, improvements suggested through user feedback and the maturation of software engineering capabilities will prompt future modifications.

Users of the methodology are encouraged to submit suggestions for improving its content and to report any practices difficult to understand or which cause an implementation problem.

2.0 System Development Lifecycle (SDLC)

Purpose

The SDLC model establishes procedures, practices, and guidelines governing the planning, requirements definition, general system design (GSD), detailed system design (DSD), development, software integration and testing, acceptance and installation, and operations of information systems (IS) within the DPW SDM.

Scope

This model is to be used for all the DPW information systems and applications. It is applicable across all information technology (IT) environments (e.g., mainframe, client, and server) and applies to contractually developed as well as in-house developed applications. The specific participants in the life cycle process, and the necessary reviews and approvals, vary from project to project. The guidance provided, should be tailored to the individual project based on cost, complexity, and criticality to the agency's mission.

Applicability

This model can be applied to all DPW Offices responsible for information systems development. All project managers and development teams involved in system development projects represent the primary audience for the DPW SDLC.

Introduction to SDLC

This model partitions the software development lifecycle into eight major phases, as shown in [Exhibit 2.0-1, Software Lifecycle Phases and Deliverables](#). Each phase is divided into activities and tasks, and has a measurable end (Phase Exit).

Note: The identification of lifecycle phases is not meant to imply a waterfall approach to software development. On the contrary, the methodology encourages the use of iterative and incremental development techniques where possible.

The execution of all eight phases is based on the premise the quality and success of the software depends on:

- a feasible concept
- comprehensive and participatory project planning
- commitments to resources and schedules
- complete and accurate requirements

- a sound design
- consistent and maintainable programming techniques
- a comprehensive testing program.

Intermediate outputs and deliverables are produced during the performance of the activities and tasks in each phase. The outputs and deliverables are inspected and can be used to assess software integrity, quality, and project status. As a result, adequacy of requirements, correctness of designs, and quality of the software become known early in the effort.

A Structured Walkthrough is an organized procedure for reviewing and discussing the technical aspects of software development outputs (including documentation). For large projects, the project management team is required to perform at least one Structured Walkthrough for each lifecycle phase. The walkthrough is typically conducted by a group of peers; however, it usually includes reviewers outside of the developer's immediate peer group.

Depending upon organizational responsibilities or external audits, In-Phase Assessments (IPA) may also be performed. These assessments are independent reviews of outputs and deliverables developed (or revised) during each lifecycle phase.

Phase exits provide a way to review the outputs of each phase and determine whether all required artifacts are present. For large or highly critical projects, a phase exit takes place for each lifecycle phase.

The approval of the project sponsor and other project stakeholders at each phase exit enables both the project sponsor and project management team to remain in control of the project. It also prevents the project from proceeding beyond authorized milestones. The end results of the lifecycle are:

- the software
- data managed by the software
- associated documentation
- user training and support

The products and services are maintained throughout the project's lifecycle in accordance with documented configuration management procedures.

The SDLC provides a method for performing the individual activities and tasks within an overall project framework. The phases and activities are designed to follow each other in an integrated fashion, regardless of whether the development phases are accomplished sequentially, concurrently, or cyclically.

Project teams, working with management, have the flexibility to adapt the SDLC to accommodate a particular development methodology (e.g., spiral development), software engineering technique (e.g., rapid application development), or other project constraints (e.g., federal mandates).

Note: Projects receiving federal or state funds must ensure all project plans and methodology deviations fall within the stipulations of legal and contractual obligations.

Documentation

Some documentation remains unchanged throughout the systems life cycle while others evolve continuously during the life cycle. Other documents are revised to reflect the results of analyses performed in later phases. Each of the documents produced are collected and stored in a project folder. Care should be taken, however, when processes are automated. Specifically, components are encouraged to incorporate a long-term retention and access policy for electronic processes. Be aware of legal concerns that implicate effectiveness of or impose restrictions on electronic data or records.

The amount of documentation required throughout the lifecycle depends on the size and complexity of the project, as well as any stipulations tied to government funding. System documentation needs to be at a level allowing for full system operability, usability, and maintainability. Typically, projects requiring at least one work year of effort will have a full complement of documentation – smaller projects require less.

Note: Project security and quality assurance criteria may require the performance of other tasks along with the generation of additional documentation.

The following tasks provide additional information about the lifecycle model:

- 2.1 Development Techniques
- 2.2 Commercial-Off-The-Shelf (COTS) Products Based Projects
- 2.3 Quality Reviews
- 2.4 Gathering Metrics

Exhibit 2.0-1 Software Lifecycle Phases and Deliverables

<p>Planning</p>	<p>Requirements Definition Requirements Traceability Matrix (<i>initial</i>) Change Request Form Change Control Log Requirements Definition Document(RDD) Disaster Recovery Plan Description of Analysis Technique Test Plan (<i>initial</i>) All Phase Reviews</p>
<p>General System Design Description of Design Technique General System Design (GSD) Document Requirements Traceability Matrix (<i>expanded</i>) System Architecture Document (<i>initial</i>) Capacity Plan (<i>initial</i>) Acquisition and Installation Plan Training Plan (<i>initial</i>) Conversion Plan (<i>initial</i>) Architecture Review Board Document All Phase Reviews</p>	<p>Detailed System Design Detailed System Design (DSD) Document Requirements Traceability Matrix (<i>expanded</i>) System Architecture Document (<i>revised</i>) Conversion Plan (<i>revised</i>) Electronic Commerce Security Assessment (ECSA) Document Test Plan (<i>revised</i>) All Phase Reviews</p>
<p>Development Application Code Unit Test Scenario Checklist Requirements Traceability Matrix (<i>expanded</i>) Test Scenarios Operating Documentation Transition Plan (<i>initial</i>) Training Plan (<i>revised</i>) Capacity Plan (<i>final</i>) Batch Operations Manual Batch Operations Services Requests Test Plan (<i>final</i>) All Phase Reviews</p>	<p>Software Integration and Testing Test Report (System & Integration Test) Test Report (Load Test) Test Report (Regression Test) Test Report (Acceptance Test) Requirements Traceability Matrix (<i>final</i>) Operating Documentation (<i>revised</i>) Training Plan (<i>final</i>) All Phase Reviews</p>
<p>Acceptance and Installation Deployment Playbook Installation Test Materials Training Materials Operating Documentation (<i>final</i>) All Phase Reviews</p>	<p>Operational Support Phase Transition Plan (<i>revised</i>) All Phase Reviews</p>

Note: A project may require deliverables in addition to those listed in this table.

2.1 Development Techniques

Applicability

The development team may pursue any one of a number of software development techniques as long as it allows for:

- adherence to applicable federal and state regulations
- meeting Advance Planning Document (APD)
- retention of fundamental software engineering objectives
- quality that has not been compromised

At times, an APD will already determine the development technique to be used on the project. In those situations, it is incumbent upon the project management team to work within the confines of the pre-determined development approach. When this is not the case, the project management team is free to explore viable alternatives.

Description

This section offers examples of development techniques compatible with the DPW methodology. The examples include high-level instructions on how to adapt the lifecycle phases to accommodate the development technique, but are not intended to be a comprehensive list of possible techniques.

Segmented Development

Large development projects may use a segmented development approach, which divides the requirements into functional segments. Each segment becomes a separate sub-project and provides a useful subset of the total capabilities of the full product.

This segmentation serves two purposes:

- The segments are more manageable, allowing project management and control tasks to be performed easier.
- Intermediate outputs become the building blocks for the complete product.

Methodology processes and activities are applied to each segment. The overall system and software objectives are defined, the system architecture is selected for the overall project, and a project plan for development of the first segment is written and approved by the project sponsor.

The development teams deliver segments to the project sponsor for evaluation or actual operation. Then they use the results to refine the content of the next segment, which provides additional capabilities. This process is repeated until the entire product has been developed. If significant problems are encountered with a segment, the developers may reexamine and revise the project objectives, modify the system architecture, update the overall schedule, or change how the segments are divided.

Two major advantages of this approach are:

- The project management team can demonstrate preliminary evidence the final product will work as specified
- Users will have access to, and use of, segments or functions prior to the delivery of the entire product

Spiral Development

Spiral development repeats the planning, requirements definition, and General System Design (GSD) phases in a succession of cycles. This allows the developers to clarify the project's objectives, define alternatives, identify risks and constraints, and construct a prototype. The prototype is evaluated and the next cycle is planned. Based on the evaluation, the developers refine project objectives, alternatives, constraints, and risks.

At that point, they may construct an improved prototype and repeat the process of refinement and prototyping as many times as necessary to provide a firm foundation on which to proceed with the project. The lifecycle activities for the Planning, Requirements Definition, and (GSD) Phases are repeated in each cycle. Once the design is firm, the development team follows the lifecycle phases for Detailed System Design (DSD), Development, and Software Integration and Testing to produce the final product.

Rapid Prototyping

Rapid prototyping can be applied to almost any software development technique. Software development projects using new technology or evolutionary requirements are likely candidates for rapid prototyping.

With a rapid prototyping technique, project members use current knowledge and experience to define the most important requirements. A quick design addressing those requirements is prepared, and a prototype is coded and tested. The purpose of the prototype is to gain preliminary information about the total requirements and confidence in the correctness of the design approach. Characteristics needed in the final product, such as efficiency, maintainability, capacity, and adaptability might be ignored in the prototype.

Users participate in an evaluation of the prototype, in order to refine the initial requirements and design. After confidence in the requirements and design approach is achieved, the final software is developed. The prototype might be discarded, or a portion of it may be used to develop the final product.

The normal, software engineering documentation requirements are usually postponed due to prototyping efforts. Typically, the development team, project stakeholders, and project sponsor agree the prototype will be replaced with the actual software and required support documentation after proof of the model. The software replacing the prototype is developed using the lifecycle processes and activities.

Iterative Technique

The iterative technique is normally used to develop software piece by piece. Once the system architecture and GSD are defined and approved, system functionality can be divided into logically related pieces called “drivers.” This technique enables progress to be visible earlier, and problems to be contained to a smaller scale.

The project management team iteratively performs DSD, code, unit test, and integration test activities for each driver, thereby delivering a working function of the product. These working functions or pieces of the software fit together as they are developed. This technique allows functions to be delivered incrementally for testing so they can work in parallel with the project management team. It also enables other functional areas, such as documentation and training, to begin performing their activities earlier and in parallel.

Rapid Application Development

Rapid Application Development (RAD) is a method for developing systems incrementally and delivering working pieces in short periods of time, rather than waiting until the entire product is constructed. RAD projects seek to avoid a common problem caused by long development intervals: the business has changed by the time the product is delivered.

RAD employs a variety of automated design and development tools, including Computer-Aided Software Engineering (CASE), fourth-generation languages (4GLs), visual programming, and graphical user interface (GUI) builders. RAD projects focus on personnel management and user involvement as much as on technology.

Joint Application Development

Joint Application Development (JAD) is a RAD concept involving cooperation between the designers of a computer system and the end users to develop a system to accurately meet the user’s needs. It complements other system analysis and design techniques by emphasizing participative development among the project sponsors, users, designers, and builders. During DSD sessions, the system designer will take on the role of facilitator for meetings intended to address different design and deliverables issues.

Object-Oriented Development

Object-oriented (O.O.) development focuses on the design of software components that mimic the real world. An O.O. component that adequately mimics the real world is more likely to be reused, which is recognized as one of its more important advantages. Reused code has already been tested, and in the end, generally translates into cost savings. O.O. development may make code reuse much easier but, the amount of actual reuse still depends on the use of adequate repository tools and the motivation of the development staff.

Code reuse can also lead to faster software development. O.O. software is easier to maintain because its structure is inherently decoupled. This usually leads to fewer side effects when changes have to be made. In addition, O.O. systems may be easier to adapt and scale (i.e., large systems can be created by assembling reusable subsystems).

An O.O. project often follows an evolutionary spiral starting with customer communication, where the problem is defined. The technical work associated with the process follows the iterative path of analysis, design, programming, and testing. The fundamental core concepts in O.O. design involve the elements of classes, objects, and attributes. Understanding the definition and relationships of these elements is crucial in the application of O.O. technologies.

Issues needing to be understood before undertaking an O.O. project include:

- What are the basic concepts and principles applicable to O.O. thinking?
- How should O.O. software projects be planned and managed?
- What is O.O. analysis and how do its various models enable a software engineer to understand classes, relationships, and behavior?
- What is a 'use case' and how can it be applied to analyze the requirements of a system?
- How do conventional and O.O. approaches differ?
- What are the components of an O.O. design model?
- How are 'patterns' used in the creation of an O.O. design?
- What are the basic concepts and principles applicable for testing of O.O. software?
- How do testing strategies and test case design methods change when O.O. software is considered?
- What technical metrics are available for assessing the quality of O.O. software?

2.2 Commercial-Off-The-Shelf (COTS) Products Based Projects

Applicability

Many large-scale COTS integration projects will involve an Advance Planning Document (APD) including the rationale for using an off the shelf product.

Description

The trend in systems development is to make greater use of Commercial-Off-The-Shelf (COTS) products. This entails the purchase (and possible customization) of ready-made systems rather than in-house development “from scratch”. This carries with it a sense of getting a system that can do the job, at a reasonable cost, and getting new functionality in subsequent releases over time.

This practice is often encouraged, and sometimes mandated by government agencies. There can be many benefits in using COTS products including improved quality and performance, speedier delivery of solutions, more cost-effective maintenance, and standardization across an organization. Additional benefits of a COTS solution may include:

- a proven track record of reliability
- known capabilities
- mitigated risk when feasibility testing can be arranged
- little or no custom programming, required for implementation

COTS and Open Systems

Many initiatives are under way in both private industry and government agencies to promote the use of an open systems approach, thereby anticipating even greater benefits than can be obtained from the use of COTS products alone. These initiatives are occurring because COTS products are not necessarily open and do not always conform to any recognized interface standards. Therefore, it is possible that using a COTS product commits the department to proprietary interfaces and solutions not common with any other product or system.

If the sole objective is the ability to capture new technology more cheaply, then the use of COTS products that are not “open” may satisfy requirements. However, considering the average COTS component is upgraded every 6 to 12 months, and new technology appears on the scene about every 18 to 24 months, money saved by procuring a COTS product with proprietary interfaces may quickly be lost in maintenance as products and interfaces change.

In the midst of all this, interface standards provide a source of stability. Without such standards, any change in the marketplace can impose an unanticipated change to systems using commonly found products.

COTS Planning Considerations

A COTS solution requires new and different investments including market research on available and emerging products and technologies, as well as COTS product evaluation and selection. The key to determining the best solution is to weigh the risks of straying from the following basic criteria:

- “Is it fully-defined?”
- “Is it available to the public?”
- “Is it maintained according to group consensus?”

Attention needs to be given to the following issues early in a project’s lifecycle:

- Market surveys to determine the availability of standards
- Selection of appropriate applicable standards
- Selection of standards-compliant implementations

Addressing these issues is necessary foundation for creating systems that serve current needs and yet can grow as technology advances and the marketplace changes. It is important for project teams to stay informed in this area, on an ongoing basis, with particular focus on:

- Upcoming revisions to specific standards
- Proposed changes in the new revision
- When ballots on the revisions are going to occur
- Where the implementations are headed

Skills Considerations

The depth of understanding, along with technical and management skills required on a project management team, is not necessarily diminished because of the use of COTS products. Arguably, the skills and understanding needed actually increase because of the following issues:

- Potential complexity of integration issues
- Consideration of long term system evolution as part of initial development
- The need to make informed decisions regarding products and standards

Types of COTS Solutions

COTS products can be applied to a full spectrum of system solutions, including (but not limited to) the following:

- Neatly packaged solutions such as Microsoft Office that require no integration with other components.

- COTS products that support the information management (e.g., Oracle or Sybase.) These systems typically consist of both COTS and customized components, with some “glue” code to enable them to work cooperatively.
- Systems comprised of both COTS and custom built products that provide large-scale functionality that are otherwise not available. These systems often require larger amounts of integration “glue” code.

COTS Impact on the Project Lifecycle

All software development projects include planning, requirements definition, GSD, DSD, development, test, and software integration activities. The use of COTS products has an impact on project lifecycle activities. The most fundamental change is the system is composed from building blocks that may or may not work cooperatively right out of the box. The project management team will require skilled engineering expertise to determine how to make a set of components work cooperatively – and at what cost.

This fundamental shift from development to composition causes numerous technical, organizational, management, and business changes. Some of these changes are obvious, whereas others are quite subtle.

Requirements Definition

The specified requirements for a COTS-based system must be sufficiently flexible to accommodate a variety of available commercial products and their associated fluctuations over time. The author of the requirements document needs to be sufficiently familiar with the commercial marketplace to describe functional features for which actual commercial products exist.

There is a critical relationship between technology and product selection, requirement specification, and architecture definition. Pragmatically, three essential elements: requirements, architecture, and product selection must be worked in parallel.

Adaptation / Integration

Assembling COTS products presents new challenges. Although software COTS products are attempting to simulate the “plug and play” capability of the hardware world, in reality, they seldom plug into anything easily. Most products require some amount of adaptation and integration to work harmoniously with other system components. The typical solution is to adapt each software COTS product through the use of “wrappers,” “bridges,” or other “glueware.”

Adaptation does not imply modification of the COTS product. Adaptation can be a complex activity requiring technical expertise at the detailed system and specific COTS component levels. Adaptation and integration must take into account the possible interactions among custom components, COTS products, non-developmental item components, legacy code, and the architecture including infrastructure and middleware elements.

Testing

As the testing of COTS-based systems is considered, there must be a determination of required testing levels. A COTS product usually functions as a “black box” and therefore changes the nature of testing. A system may use only a partial set of features of a given COTS product. Consequently, project designers must determine the number of COTS features to be tested. In other words, should a feature be tested if there are no plans to use the feature?

Maintenance

Maintenance activities are vastly different in COTS-based systems development. The activities are not solely concerned with fixing existing behavior or incorporating new mission needs. Vendors update their COTS products on their schedules and at differing intervals. In addition, a vendor may elect to eliminate, change, add, or combine features for a subsequent release. Updates to one COTS product, such as new file formats or naming convention changes, can have unforeseen consequences for other COTS products in the system. To further complicate maintenance, all COTS products will require continual attention to license expirations and changes. All of these events routinely occur and may start before an organization installs the system or a major upgrade. The distinction between development and maintenance becomes less defined.

Adapting the SDM for COTS Projects

The SDM lifecycle can be used for COTS-based projects as well as conventional “in house” software development. The key to using the SDM effectively for COTS projects lies in adapting the lifecycle phases and deliverables to best suit the individual needs and characteristics of the project.

An example lifecycle adaptation is offered in [Exhibit 2.2-1, Example of SDM Adapted for COTS Projects](#). A project designer may combine multiple phases if the project will have a relatively small scope or short duration, and will use known technology. On the other hand, the traditional number of phases may be appropriate for large projects, with new technology, and long duration.

Documenting Deviations

Deviations from prescribed project deliverables must be documented with an explanation, and a statement which describes how project risk is not affected if a prescribed deliverable will not be produced.

Note: In some cases, especially with Express Projects, there may be an acknowledgement of increased risk due to tight schedules or the elimination of certain outputs. These risks must be documented and approved by DPW management.

Exhibit 2.2-1 Example of SDM Adapted for COTS Projects

SDM Phases	SDM / COTS Project Phases	Deliverables/Outputs	
		SDM / COTS Project Planned Deliverables	Adaptation vs. SDM Deliverables
Planning	Planning	Project Plan (includes WBS)	Prototype instead of Feasibility Statement
Requirements Definition	Requirements Definition	Requirements Definition Document Requirements Traceability Matrix Disaster Recovery Products to be Evaluated	The System and User Acceptance Test Plans will be developed in the Evaluation and Selection Phase Products to be evaluated included
General System Design Detailed System Design	Evaluation and Selection	COTS Solution / Recommendation Acquisition Plan System Architecture Document System / User Acceptance Test Plan Capacity Plan Conversion Plan Training Plan Architecture Review Board Document Electronic Security Assessment Document	General and Detailed System Design phases are combined System Architecture document replaces General and Detailed System Design document Logical Data Model, Physical Data Model, Programming Specifications, Programming Standards not applicable COTS recommendation deliverable added
Development Software Integration and Testing	Customization, Integration and Testing	Application Code Operating Documentation Unit Test Scenario Checklist Test Scenarios Test Report	The Development and System Integration and Testing phases are combined Batch Run Book, Batch Requests not required
Acceptance and Installation	Installation and Acceptance	Deployment Playbook Transition Plan	No Deviations

2.3 Quality Reviews

Applicability

The System Development Methodology (SDM) does not dictate department procedures, but provides the framework for their adherence.

Description

Quality reviews are performed to ensure the established system development and project management processes and procedures are being followed effectively – and exposures and risks to the current project plan are identified and addressed.

Quality reviews facilitate the early detection of problems affecting the reliability, maintainability, usability, availability, or security of the software. The four types of quality reviews are:

1. Peer Reviews
2. Structured Walkthroughs
3. In-Phase Assessments (IPA)
4. Phase Exits

The review to be used depends on the output being reviewed, the point of time within the phase, and the role of the person conducting the review.

Review Processes:

Peer Review

A peer review is an informal review of outputs (including documentation) conducted at any time, at the discretion of the developer. The developer's peers, which are typically other developers on the same project, attend these reviews.

Peer reviews can be held with relatively little preparation and follow-up activity. Review comments are informally collected, after which the product developer determines which comments require future action. The reviews, which focus on the specific content of a product, are designed to help the developer improve the product.

Some of the outputs prepared are considered interim, as they feed into a major deliverable or into another phase. Interim outputs are especially well suited to the peer review process, although all outputs are viable candidates. As always, the particular factors of each project help determine when peer reviews are conducted. Larger deliverables may go through multiple peer reviews to ensure it is free of defects.

Structured Walkthrough

The structured walkthrough is an organized procedure for reviewing and discussing the technical aspects of deliverables, including documentation. Like peer reviews, they are used to detect errors early in the development process, but are more formal in nature.

Various organizations have successfully used structured walkthroughs to identify errors in analysis, design, and requirements definition. In addition, walkthroughs have proven useful when validating the accuracy and completeness of deliverables.

Structured walkthroughs are conducted during all phases of the project lifecycle, after deliverables have been completed. They need to be scheduled in the Work Plan that was developed for the project plan and can be referred to as code reviews, design reviews, or inspections.

Structured walkthroughs can also be scheduled to review small, meaningful pieces of work, much like a peer review. The rate of progress each lifecycle phase determines the frequency of the walkthroughs. However, they may be conducted more than once on deliverables to ensure it is defect free.

In-Phase Assessment

The In-Phase Assessment (IPA) is a quality review usually conducted by an independent reviewer. The reviewer assesses the adherence to established standards and approved work plans. Also, software development and project management practices are reviewed to ensure sound development practices. This is particularly important when multiple deliverables are developed in a single lifecycle phase.

The reviewer assesses the deliverable and prepares an IPA report based on the content of the deliverable. An IPA does not require meetings among the involved parties to discuss the deliverable. However, the reviewer and the developer may meet after the IPA report is completed in order to review the findings. Subject matter experts (SME), such as documentation editors, may be used in addition to the assessor, to improve the quality of deliverables.

An IPA can be conducted anytime during a lifecycle phase when a deliverable is stable enough, or near the end of a phase to prepare for phase exit. A separate IPA can be conducted for each of the outputs, or one IPA for multiple outputs. The decision depends on the size of the outputs and their availability for review.

Phase Exit

The phase exit is conducted by the project management team with the project stakeholders, possibly consisting of:

- project sponsor
- user representative
- quality assurance personnel
- security point personnel
- architecture and standards representative
- development management

The phase exit is used to ensure the project meets DPW standards and an approved project plan. It is a high-level evaluation of all outputs developed in a lifecycle phase.

The goal of the phase exit is to secure the concurrence of designated key individuals to continue with the project. This concurrence is a sign-off of the deliverables for the current phase of development including the updated project plan. It indicates all qualifications (issues and concerns) have been closed or have an acceptable plan for resolution.

At a phase exit meeting, the project management team communicates the following to the stakeholders and interested meeting participants:

- the positions of the key personnel
- any qualifications raised during the phase exit process
- issues remaining open from the IPA
- an action plan for resolution

The phase exit meeting is documented in summary form. Only one phase exit for each phase is necessary to obtain approval assuming all deliverables have been accepted as identified in the project plan

2.4 Gathering Metrics

Applicability

DPW has adopted a standard for service level objectives. Although not addressed during the initial development of the SDM, this important area needs to be considered during project planning.

Description

A Service Level Objective (SLO) is contractual agreement for information technology services between the Department of Public Welfare (DPW) and a bureau, section, or/and division of DPW.

The SLO for gathering metrics compares metrics gathered on performance of on-line business, with established performance standards, for compliance with those standards. For additional information refer to [Service Level Objective \(SLO\) for Gathering Metrics](#).

3.0 Planning Phase

Applicability

The planning phase of the SDM is critical to ensuring the project proceeds as approved during the Strategy phase of the Project Management Methodology. During this phase, a baseline assessment is done to verify the work statement for the project or the upcoming release aligns with the approved Community of Practice (CoP) template, Benefit Cost Analysis (BCA) template, Advance Planning Document (APD), and Program Revision Request (PRR). Any variances in the approved planning documents (CoP, BCA, APD, and PRR) must be identified and addressed prior to commencing systems development. These documents are all “living” documents and are subject to change throughout the life of the project. Because of this, the submittal of updated or revised document(s) may likely be required to request confirmed approval of a project in its current state.

Description

In the most general of terms, the purpose of the SDM Planning Phase is to verify the project is being developed only as approved. Referring back to the output documents from the Project Management Methodology planning processes serves the additional purpose of ensuring those processes were followed and the project is indeed funded and approved by the necessary State and Federal entities before moving forward. If these processes were required and not followed early in the project life cycle, project activity will be delayed until the project is formally approved and funded.

In this first phase of software development, the following activities are executed, as appropriate:

- The approved CoP is referenced and compared to the project's scope
- The approved BCA is referenced and compared to the project's budget
- The approved APD is referenced and compared to the current project status relative to project schedule, cost, and concept
- The approved PRR is referenced and validated
- The approved budget is compared to the project budget to ensure it does not exceed the funded amount

If the above-mentioned planning documents require revisions, these are made and the documents are resubmitted to the appropriate entity(ies)

Inputs

The following items provide input to this phase (as applicable):

- Approved Community of Practice Template
- Approved Benefit Cost Analysis Template
- Approved Advance Planning Document

- Approved Program Revision Request
- Approved Budget

Outputs

The following outputs to this phase include (as applicable):

- Revised Community of Practice Template
- Revised Benefit Cost Analysis Template
- Advance Planning Document Update
- Revised Program Revision Request

4.0 Requirements Definition Phase

Applicability

The relevance of this phase for Department of Public Welfare (DPW) development is similar to the previous phase. For many medium and large projects DPW development teams undertake, the Information Resource Management (IRM) Cross-Program Team coordinates the requirements definition activities.

At times, the IRM Cross-Program team may request input from DPW application developers. In those cases, the activities are subject to processes defined by the coordinating offices. Therefore, the activities specified in this phase apply to projects where the DPW development teams coordinate all requirements tasks – or when externally defined requirements are supplemented.

Description

The primary goal of this phase is to develop mutual understanding among the project sponsor, the users, and the project management team as to what the project requirements are. The requirements are then documented. These requirements result in an approved and complete Requirements Definition Document (RDD). The RDD becomes the initial baseline for design and a reference for determining whether the completed project meets approved requirements.

The Requirements Definition Phase includes:

- Analysis of the users' business processes and needs
- Translation of processes and needs into formal requirements
- Planning of the testing activities to validate the performance of the product

Note: The testing activities of all projects, regardless of size, always need to be based upon the requirements agreed upon in this phase.

Inputs

Inputs include the:

- Scope
- Charter
- All output from the planning phase (this includes, but, is not limited to the documented goals and objectives for the project, copies of management directives, legislative guidelines, and any use case scenarios already established)
- The Project Plan
- Data Processing Service Request (DPSR) and all associated attachments

High-Level Activities

This phase is divided into high-level activities performed during the phase. These activities represent the minimum requirements for a large software development effort. Notes are provided to assist customizing the lifecycle phase requirements to accommodate project scalability. High-level activities for the Requirements Definition Phase consist of:

- 4.1 Manage Requirements
- 4.2 Select Requirements Analysis Technique
- 4.3 Define Project Requirements
- 4.4 Define Data Backup/Restore and Disaster Recovery Requirements
- 4.5 Define Data Requirements
- 4.6 Create Initial Logical Data Model
- 4.7 Compile and Document Project Requirements
- 4.8 Develop Test Plan
- 4.9 Conduct Phase Review

Outputs

Deviations in content and delivery are dependent upon the size and complexity of a project. The outputs of a typical large software project consist of:

- Requirements Traceability Matrix
- Change Request Form
- Change Control Log
- Requirements Definition Document (RDD)
- Disaster Recovery Plan
- Description of Analysis Technique
- Test Plan

A matrix showing the outputs associated with each high-level activity is provided in [Exhibit 4.0-1, Requirements Definition High Level Activities and Outputs](#).

Review Process

It is important to perform quality reviews to validate the outputs. The activities appropriate for quality reviews are identified in this phase and [2.3 Quality Reviews](#). The time and resources needed to conduct the quality reviews must be consistent with the project resources, schedule, and Work Plan Standard.

Reference/Resource

Section [2.3 Quality Reviews](#), provides an overview of the types of reviews to be conducted within a project.

[Structured Walkthrough Process Guide](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[Requirements Definition Phase Checklist](#)

Exhibit 4.0-1 Requirements Definition High Level Activities and Outputs

High Level Activities		Outputs	Deliverable
4.1	Manage Requirements	Requirements Traceability Matrix (<i>initial</i>) Project Change Request (PCR) Form	Y N
4.2	Select Requirements Analysis Technique	Description of Analysis Technique	N
4.3	Define Project Requirements	Requirements Definition Document (Process Model Narratives)	Y
4.4	Define Data Backup/Restore and Disaster Recovery Requirements	Data Backup/Restore Requirements Disaster Recovery Plan	Y Y
4.5	Define Data Requirements	Requirements Definition Document (Data Dictionary)	Y
4.6	Create Initial Logical Data Model	Requirements Definition Document (Logical Data Model)	Y
4.7	Compile and Document Project Requirements	Requirements Definition Document	Y
4.8	Develop Test Plan	Test Plan (<i>initial</i>)	Y
4.9	Conduct Phase Review	Documentation from Peer Review, Structured Walkthrough, and In-Phase Assessment	Y

A deliverable is an output identified in the Project Plan and formally delivered to the project sponsor and other project stakeholders for review and approval.

4.1 Manage Requirements

Responsibility

Project Management Team

Applicability

Team members gather, organize, prioritize, and document project requirements. Also, verification of all requirements is captured and any changes are tracked to the initial requirements.

Description

Team members gather, organize, verify, prioritize, and document project requirements. Any changes are tracked to the initial requirements.

Requirements Management is the process of developing initial requirements for a project, evaluating and approving any proposed changes, and managing the various outputs affected by changes to the requirements. Team members document the needs and expectations, reach an agreement about which requirements to address for the current project, and which to defer or eliminate.

Identify all requirements in the Requirements Definition Document (RDD) as specified in activity [4.3 Define Project Requirements](#). As the project progresses, identify and manage additional requirements through the change control process. Larger projects are required to use a Requirements Traceability Matrix, which uniquely identifies each requirement in the RDD. The matrix is a tool ensuring requirements are traced and verified through the various lifecycle phases.

Trace the requirements from external sources, such as the user, through the derived system-level requirements, all the way to specific hardware/software project requirements. All requirements must be cross-traceable to design, implementation, and test artifacts ensuring requirements are satisfied.

Establish how changes to the original project scope will be handled by following the Project Change Management process located in task [4.1.2 Manage Project Change](#).

Outputs

Develop the Requirements Traceability Matrix to verify requirements are met and the project remains within scope. Additional tasks contain information on additional outputs. Maintain the documentation in the Project Folder.

Review Process

Review the outputs for accuracy and completeness and maintain the document in the Project Folder.

Template**Requirements Traceability Matrix*****Tasks***

The following tasks are involved in requirements management:

- 4.1.1 Develop a Requirements Traceability Matrix
- 4.1.2 Manage Project Change

4.1.1 Develop a Requirements Traceability Matrix

Responsibility

Project Management Team

Applicability

The Requirements Traceability is used to track requirements throughout the lifecycle of the project.

Description

A Requirements Traceability Matrix is a tool constructed to ensure all confirmed requirements are accounted for in the statement of work, in the solicitation, in the vendor response, in the contract, and in the deliverables themselves.

All outputs developed in subsequent lifecycle phases are traceable back to the project requirements described in the Requirements Definition Document (RDD), just as every project requirement must be traceable to a specific project objective described in the Project Plan. This traceability ensures the project will satisfy all the requirements and remain within scope, with no inappropriate or extraneous functionality.

It is also important to know the source of each requirement, so the requirement can be verified as necessary, accurate, and complete. Meeting minutes, user survey responses, and business documents are typical sources for project requirements.

Outputs

A matrix is developed to trace requirements back to the project objectives identified in the Project Plan. It is updated throughout the lifecycle of the project and maintained in the Project Folder. The matrix contains the following fields:

- A unique identification number containing the general category of the requirement (e.g. SYSADM) and a number assigned in ascending order (e.g. 1.0; 1.1; 1.2)
- The requirement name
- Requirements Definition ID number containing the requirement
- General System Design (GSD) ID number containing the requirement
- Detailed System Design (DSD) ID number containing the requirement
- Program Module/Application Object containing the requirement
- Test Script containing the requirement test
- Test Result ID number(s) where requirement was tested

- Modification field. If the requirement was changed, eliminated, or replaced, indicate disposition and authority for this modification
- Comments

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix to ensure all the requirements have been accurately captured.

Sample Traceability Matrix

One method for tracing requirements is a threading matrix, grouping requirements by project objectives. Under each project objective, the source of the requirement, the unique requirement identification number, and the lifecycle activities are listed in columns along the top and the project requirements in rows along the left side. As the project progresses through the lifecycle phases, a reference to each requirement is entered in the cell corresponding to the appropriate lifecycle activity.

Template

Requirements Traceability Matrix

4.1.2 Manage Project Change

Responsibility

Project Management Team

Applicability

Effective project management requires disciplined control of changes to project scope. Even seemingly simple changes can have subtle yet very serious consequences if not managed correctly. It is intended for use by DPW project leads, members of the Change Control Board, the Project Management Team, the project's Steering Team, DPW's financial community members, and project stakeholders.

Description

Project Change Management is the formal process for making changes to the project's original scope. A project begins with a well-documented project scope agreed to by both the Project Management Team and the end-user. It generally involves redefining existing objectives and deliverables or specifying new project objectives and deliverables. Having a standardized, disciplined project change procedure ensures changes affecting a project's baseline are accepted and implemented only after a thorough assessment is made of the impact.

Outputs

Maintain the Project Change Request (PCR) form in the Project Folder.

Review Process

Conduct a peer review or structured walkthrough on the PCR when a significant change is requested.

Reference/Resource

[Project Change Management Guideline](#)

[Project Change Management Process Map](#)

4.2 Select Requirements Analysis Technique

Responsibility

Project Management Team

Applicability

The Department of Public Welfare (DPW) Development team is free to choose an analysis technique fitting both the technical and cultural aspects of the project providing it adheres to all relevant standards. The System Development Methodology (SDM) does not mandate any single technique, but recommends the decision be based on industry best practice, experience of the team members, and department guidelines.

Description

A requirements analysis technique is a set of data collection and analysis technique (e.g. user interviews and rapid prototyping) combined with the lifecycle requirements used to identify the software requirements.

The selected requirements analysis technique needs to be congruous with the:

- Type, size, and scope of the project
- Number, location, and technical expertise of the users
- Anticipated level of involvement of the users in the data collection and analysis processes

The requirements analysis technique ensures the functionality, the performance expectations, and the constraints of the project are accurately identified from the users' perspective. In addition, the analysis of requirements mitigate the potential impact on existing operations and business practices, future maintenance activities, and the ability to support the project sponsor's long-range information resource management plans.

The technique is repeatable (for similar projects), therefore, allowing the project management team and users to become familiar and comfortable with the selected approach. Discuss the analysis technique with the project sponsor and users to make sure the process being used, their role and responsibilities, and the format of the output (i.e., how the requirements will be organized and described) are understood.

Outputs

A description of the analysis technique is distributed to members of the development team, project sponsor, and users involved in the requirements definition process. Maintain the document in the Project Folder.

Review Process

Conduct a structured walkthrough of the analysis technique to verify appropriateness for the project. A walkthrough is not required if the technique has been used successfully on similar projects, with the same development group.

4.3 Define Project Requirements

Responsibility

Project Management Team

Applicability

Requirements drive the development process from the initial steps to the final solution.

Description

The team uses the project scope, objectives, and high-level requirements as the basis for defining the project requirements. Questions used to define the project objectives are helpful in developing the requirements.

The goal is to identify *“what functions are to be performed on what data, to produce what results, at what location, and for whom.”*

Avoid incorporating design issues and specifications in the requirements. One of the most difficult tasks is determining the difference between *“what”* is required and *“how to”* accomplish what is required. Generally, a requirement specifies an externally visible function or attribute of a system – *“what”*. A design describes a particular instance of how the visible function or attribute can be achieved – *“how to”*.

Requirements must support the project sponsor’s business needs and long-range plans, as well as those of the Department of Public Welfare (DPW) and the Commonwealth. Specify and document requirements as completely and thoroughly as possible. Requirements not documented are not considered to be approved.

Attributes

Prior to the delivery of the Requirements Definition Document (RDD), review each of the requirements to ensure the following attributes:

- *Necessary* – Absolute requirements verified are indicated by “must” or “shall”. Goals or intended functionality are indicated by “will”.
- *Correct* – Each requirement is an accurate description of a feature or process of the project.
- *Unambiguous* – The statement of each requirement denotes only one interpretation.
- *Complete* – Each requirement describes one result to be achieved by the product. The requirement does not describe the means of obtaining the result.
- *Consistent* – Individual requirements are not in conflict with other requirements.
- *Verifiable* (testable) – Each requirement is stated in concrete terms and measurable quantities. A process needs to be in place to validate the satisfaction of the set of requirements.

- *Modifiable* – Any necessary changes to the structure and style of the requirements are complete, consistent, and as simple as possible.
- *Traceable* – The origin of each requirement is clear and tracked in future development activities and tests.

Identification System

Use a standard identification system for all requirements to facilitate configuration control, requirements traceability, and testing activities. Select an identification system fitting the requirements' analysis technique and the project scope.

The identification system must provide a unique designator for each requirement. For example, the identification system can classify the requirements by type (e.g. functional, input, or computer security). Within each type classification, the requirements are assigned a sequential number.

Changes

As the project proceeds, the requirements may change or expand to reflect modifications in the users' business plans, design considerations and constraints, advances in technology, and increased insight into user business processes. Use a formal change control process to identify, control, track, and report proposed and approved changes. For additional information, refer to task [4.1.2 Manage Project Change](#).

Incorporate approved changes in the RDD to provide an accurate and complete audit trail of the changes.

Outputs

Requirements Definition Document

Review Process

Conduct a peer review or structured walkthrough on the RDD.

Template

Requirements Definition Document

Tasks

Defining project requirements includes the following tasks:

- 4.3.1 Define Process Model Narrative
- 4.3.2 Define Security Requirements
- 4.3.3 Define Batch Job Requirements
- 4.3.4 Define Workflow Requirements
- 4.3.5 Define External Interface Requirements
- 4.3.6 Define Printing Requirements
- 4.3.7 Define Imaging Requirements
- 4.3.8 Define Reporting Requirements
- 4.3.9 Define Business Rule Requirements
- 4.3.10 Define System Availability Requirements
- 4.3.11 Define Performance and Capacity Requirements
- 4.3.12 Define Conversion Requirements

4.3.1 Define Process Model Narrative

Responsibility

Project Management Team

Applicability

Requirements drive the development process from the initial steps to the final solution. The process model narrative includes a completed description of what the process is attempting to accomplish and any relevant background information.

Description

Requirements for all functions (automated or manual) must be identified, including a description of automated and manual inputs, processing, outputs, and conditions for all functions. These requirements become the process model narrative and are broken down into activities for the functionality to be successful.

Outputs

A record of the process model narrative is maintained in the Project Folder and incorporated into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the functional requirements.

4.3.2 Define Security Requirements

Responsibility

Project Management Team

Applicability

The [Governor's Office of Administration/Office for Information Technology \(OA/OIT\) Security Policies](#) has security standards and procedures in place for all Commonwealth agencies. In addition, verify any federal restrictions.

Description

Develop the security requirements in conjunction with any Commonwealth standards. This early involvement determines the classification and the level of access required for the software. Establish appropriate safeguards to protect sensitive information from accidental disclosure.

Implement applicable security procedures to ensure data integrity and protection from unauthorized disclosure during development efforts. The organization owning the data defines the data classification. The project management team must be aware of all data types and any classified or proprietary algorithms used in the software.

Sample Access Control Questions

A list of sample questions to help define the access controls for the software includes:

- What access restrictions are placed on the users by the Commonwealth or program office?
- What are the audit and other checking needs for the software?
- What separation of duties, supervisory functions related to control, operating environment requirements, or other functions impact the software?
- What measures are used to monitor and maintain the integrity of the software and the data from the user's viewpoint?

Outputs

The security and access requirements are defined in the Security Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the computer security and access requirements.

Example

Security Requirement Example
The application must maintain a record of all user access attempts sorted by authorized and unauthorized users.

4.3.3 Define Batch Job Requirements

Responsibility

Project Management Team

Applicability

If the system generates any batch jobs, they must be documented within this task.

Description

Capture the batch job requirements for each process. If there are no batch job requirements for a particular process or for the whole application, this task can be omitted. A batch job is a set of programs executed by the operating system as a single unit. During the batch job, the user does not interact with the system. In interactive processing, the user communicates with the computer while the program is running, perhaps giving instructions for each item.

Outputs

The batch job requirements are defined in the Batch Job section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Batch Job Requirement Example
The application will reconcile all paid accounts for the day and will be run daily on weekdays.

4.3.4 Define Workflow Requirements

Responsibility

Project Management Team

Applicability

If the system generates a workflow, it must be documented within this task.

Description

Workflow refers to the path an object takes during a review/approval process. It is literally the flow of work through a process. If there are no workflow requirements for a particular process or for the whole application, this task can be omitted.

Outputs

The workflow requirements are defined in the Workflow Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Workflow Requirement Example
Upon submittal of the personnel account information, the item will be placed in the workflow queue for the department manager to review. If the manager clears the item, the personnel account information will finish processing.

4.3.5 Define External Interface Requirements

Responsibility

Project Management Team

Applicability

The hardware and software interface requirements must specify the interfaces required in supporting the development, operation, and maintenance of the software.

Description

The hardware and software interface requirements must specify the interfaces required in supporting the development, operation, and maintenance of the software. When defining the system interface requirements, consider the:

- Project sponsor's and users' computing environment
- Existing or planned software providing or accepting data from the software
- Other organizations or users having or needing access to the software
- Purpose or mission of interfacing software
- Common users, data elements, reports, and sources for forms/events/outputs
- Timing considerations influencing the sharing of data, direction of data exchange, and security constraints
- Development constraints such as the operating system, database management system, language compiler, tools, utilities, and network protocol drivers
- Standardized system architecture defined by hardware and software configurations for the affected organizations, program offices, sites, or telecommunications programs

If there are no external interface requirements for a particular process or for the whole application, this task can be omitted.

Outputs

The external interface requirements are defined in the External Interface Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the system interface requirements.

Example

External Interface Requirement Example
The application must maintain a record of all user access attempts sorted by authorized and unauthorized users.

4.3.6 Define Printing Requirements

Responsibility

Project Management Team

Applicability

If the system is to produce printed output it must be documented within this task.

Description

Printing requirements involve the formatting and printing of anything generated from the screen. This includes reports, receipts, or anything else requiring a hard copy. If there are no printing requirements for a particular process or for the whole application, this task can be omitted.

Outputs

The printing requirements are defined in the Printing Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Printing Requirement Example
The application will allow the account information to be printed by the user with all of the information except their SSN.

4.3.7 Define Imaging Requirements

Responsibility

Project Management Team

Applicability

If the system is to incorporate any scanning or imaging technologies, it must be documented within this task.

Description

Imaging is capturing any document, file, or physical item stored in the system. If there are no imaging requirements for a particular process or for the whole application, this task can be omitted.

Outputs

The imaging requirements are defined in the Imaging Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Imaging Requirement Example
The application will allow users' voided checks to be uploaded into the system to store as part of their user profiles.

4.3.8 Define Reporting Requirements

Responsibility

Project Management Team

Applicability

If the system is to produce reports they must be documented within this task.

Description

Reporting is the generation of reports based on data or statistics from past processes or events of the system. If there are no reporting requirements for a particular process or for the whole application, this task can be omitted.

Outputs

The reporting requirements are defined in the Reporting Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Reporting Requirement Example
All of the payments processed in one day will be used to populate a daily report summary consisting of the payment ID, payment amount, payee, and check number.

4.3.9 Define Business Rule Requirements

Responsibility

Project Management Team

Applicability

If there is business rule software used for the application, it must be documented within this task.

Business rules will be required for the Physical Data Model in the Detailed System Design (DSD) phase.

Description

A business rule defines or constrains one aspect of the business intended to assert business structure or influence the behavior of the business. In essence, it is a business functionality conforming to an “if-then” statement. A good business rule is cohesive: in other words, it describes one, and only one, concept. By ensuring business rules are cohesive, they are easier to define and increase the likelihood they will be reused (every time one of the artifacts refers to a business rule, even other business rules, it is effectively being reused). The business rule differs from normal business functions by being captured for use in the external Business Rules Engine software. If there is no business rule software to be used for this application, this task can be omitted.

Outputs

The business rule requirements are defined in the Business Rule Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Business Rule Requirement Example
If the user’s account information matches the reconciliation criteria, then the user’s account will be marked as “reconciled”.

4.3.10 Define System Availability Requirements

Responsibility

Project Management Team

Applicability

The availability of the system needs to be mentioned in this section (for example 24/7/365, or during normal business hours (8am-5pm)).

Description

System availability requirements define when certain parts of the application need to be available for operation usage. The information gathered in defining the project objectives can translate into very specific availability requirements (e.g. if work performed for an organization is mission critical to the Department, the hours of operation and throughput will be critical to meeting the mission). In addition, federal, state, or department policy can dictate specific availability times.

Outputs

The system availability requirements are defined in the System Availability Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

System Availability Requirement Example
The application must be able to handle personnel account data entry from 9am to 5pm Monday through Friday.

4.3.11 Define Performance and Capacity Requirements

Responsibility

Project Management Team

Applicability

Identify all performance requirements the system is expected to meet. Include performance-related characteristics, such as online response time, batch turnaround time, capacity limits, accuracy and validity requirements, input and output effects on performance, and failure contingencies.

Description

Performance and capacity requirements define how the software must function (e.g. response times and throughput under various load conditions). The information gathered in defining the project objectives can translate into very specific performance requirements (e.g. if work performed for an organization is mission critical to the Department, the performance and process transactions will be critical to meeting the mission). In addition, federal, state, or department policy can dictate specific response times.

Outputs

The performance and capacity requirements are defined in the Performance and Capacity Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Structured walkthroughs are conducted, as deemed necessary, to ensure the necessity, testability, accuracy, and completeness of the performance requirements.

Example

Performance Requirement Example
The application must be able to handle 10,000 data entry transactions per day.

4.3.12 Define Conversion Requirements

Responsibility

Project Management Team

Applicability

If the new system being developed is replacing an existing system, the requirements or converting the data into the new format must be defined.

Description

Describe the data to be converted from existing sources being used by the application.

Outputs

The conversion requirements are defined in the Conversion Requirements section of the Process Model Narrative. Incorporate these requirements into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the input and output requirements.

Example

Conversion Requirement Example
The existing account codes from the HRIS system and relevant columns need to be converted into this application.

4.4 Define Data Backup/Restore and Disaster Recovery Requirements

Responsibility

Project Management Team

Applicability

All critical systems must have a Data Backup/Restore and a Disaster Recovery plan developed to ensure continuous service to the customer. Small or express projects creating non-critical products need to have backup procedures defined to ensure recovery should the need arise.

Description

Generate requirements for data backup and restore recovery. If the system is defined as mission critical, provide a Disaster Recovery Plan for operational startup in conjunction with the site authority in the event of a declared emergency.

Outputs

The Data Backup and Restore Requirement's Checklist is required for all applications.

The Disaster Recovery Plan includes all mission critical systems. Provide a Continuity of Operations (COOP) Statement for systems not mission critical.

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the disaster recovery requirements.

Template

[Disaster Recovery Plan](#)

Checklist

[Data Backup and Restore Requirement's Checklist](#)

Reference/Resource

[OIT Continuity of Government \(CoG\)](#)

4.5 Define Data Requirements

Responsibility

Project Management Team

Applicability

All data elements serving as inputs and/or outputs must be defined and documented in the data dictionary.

Description

Identify the data elements to be accessed, stored, and processed by the application. This process begins during the Requirements Definition Phase and is expanded in subsequent phases.

Data requirements may include the need for data purification, either as a conversion effort or as an ongoing activity, and additional issues such as data archival and purging. Identify the initial conversion efforts in the Process Model Narrative and update in subsequent phases.

Outputs

The major output of the data requirements identification task is a Data Dictionary. A data dictionary provides an ordered set of definitions about inputs, outputs, and data storage. In the Requirements Definition Phase, the data dictionary contains a minimum amount of information about the data elements. This includes the definitions of the entities, how the data is stored, and how the data flows to or from other applications. The Data Dictionary is refined during the design phases as the data elements are documented in more detail, and the logical groupings of data elements are formed into interrelated tables or record descriptions.

Maintain the data dictionary in the Project Folder. The data dictionary is used as input into the Requirements Definition Document (RDD).

Review Process

Conduct structured walkthroughs, as needed, to ensure the necessity, testability, accuracy, and completeness of the data requirements.

Reference/Resource

[Instructions for Completing the Data Dictionary Excel Spreadsheet](#)

4.6 Create Initial Logical Data Model

Responsibility

Project Management Team

Applicability

This activity is typically performed by projects incorporating structured (i.e., functional decomposition) methods. Object-based projects include an analysis model, but do not develop conventional data flow diagrams.

Description

The logical data model defines the flow of data through the software system and determines a logically consistent structure for the software. Each module defining a function is identified, interfaces between modules are established, and design constraints and limitations are described. The logical data model focuses on the real world problem to be solved.

The characteristics of a logical data model are:

- To describe the final sources and destinations of data and control flows crossing the system boundary (as opposed to intermediate handlers of the flows)
- To describe the net transfer of data across the system boundary rather than the details of the data transfer
- To provide for data stores only when required by an externally imposed time delay

When creating a logical data model, the organization of the model must follow the natural organization of the subject matter. The names given to the components of the model must be specific. The connections among the components of the model need to be as simple as possible.

Outputs

The logical data model is documented in user terminology and contains sufficient detail to obtain the project sponsor's and users' approval. Use the data flow diagrams to show the level of detail needed to reach a clear, complete picture of processes, data flow, and data stores.

Maintain the logical data model and data flow diagrams in the Project Folder and include them in the Requirements Definition Document (RDD). They will be modified throughout the length of the project in the subsequent General System Design (GSD) and Detailed System Design (DSD) Phases.

Review Process

Conduct a structured walkthrough to verify the logical data model is correct, logical, and complete.

References/Resources

[ITB-INF003 Data Modeling Standards](#)

4.7 Compile and Develop Requirements Definition Document (RDD)

Responsibility

Project Management Team

Applicability

All projects must include a requirements definition except express projects and small projects where the initial request details adequately the requirements.

Description

Compile the requirements gathered during the requirements analysis process in preparation for development of the initial Requirements Definition Document (RDD). Requirements compilation includes:

- Specify the logical requirements and data requirements without dictating a physical design or technical solutions
- Write the requirements in non-technical language understandable by the project sponsor and users
- Organize the requirements into meaningful groupings as structured in the RDD template
- Develop a numbering scheme for the unique identification of each requirement
- Select a method for:
 - Tracing the requirements back to the sources of information (Requirements Traceability Matrix)
 - Threading requirements through all subsequent lifecycle activities

The RDD contains the business functionality requirements captured in a specific format. Emphasis is placed on specifying functionality without describing how the functions are provided. The “*how*” of the implementation will be specified in the design phase.

Note: A project describes a particular sequence of activities and associated resources defining a process to produce the software. Project information is not to be included in the RDD. However, certain information may be considered a requirement in one project but design or implementation details in another project.

Outputs

The RDD integrates and documents the requirements gathered during the Requirements Definition Phase, such as the Process Model Narrative, Data Dictionary, and Logical Data Model.

Review Process

Conduct structured walkthroughs, as needed, to ensure the RDD is accurate, complete, and expresses the requirements in a manner understood by the project sponsor.

The completion of the initial RDD is an appropriate time to schedule an In-Phase Assessment (IPA).

Reference/Resource

[In-Phase Assessment Process Guide](#)

Template

[Requirements Definition Document](#)

4.8 Develop Test Plan

Responsibility

Project Management Team

Applicability

For small and express development projects, a formal Test Plan may not be necessary. In those cases, a statement of the test approach is sufficient. Acceptance testing (task [4.8.4 Develop User Acceptance Test Plan](#)) is discussed separately in more detail.

Note: Planned testing is required for all projects, regardless of size and complexity.

Description

The Test Plan is a narrative and tabular description of the test activities planned for the project. The Test Plan establishes the systematic testing necessary to ensure the project meets all requirements and the deliverables are in accordance with existing standards.

The test plan includes the resources, team responsibilities, and management techniques needed for planning, developing, and implementing the testing activities occurring throughout the lifecycle. The plan includes the roles and responsibilities of any external test groups participating in the testing. The project management team is responsible for the coordination with external groups.

At a high level, the plan focuses on identifying the testing techniques and phases. The plan includes detailed information about testing (i.e., test plans, procedures, and reports) as the project progresses.

The project sponsor must review and approve the Project Test Plan prior to conducting any tests.

Inputs

Inputs include:

- The Project Plan
- The Requirements Definition Document (RDD)
- The statement of goals and objective for the project

Outputs

The test plan must include as much detail as possible. However, some details may not be fully specified until the Detailed System Design (DSD) is complete. A completed Test Plan includes:

- A description of the occurrence and timing of the test phases in the lifecycle along with entrance and exit criteria for each test phase
- A specification of the test products at each test phase, including a description of the types of testing activities to be performed
- A mapping of what requirements are verified in what test phase
- Criteria for evaluating the test results of each test phase including the users involved
- An initial estimate of the resources necessary to accomplish the testing
- Identification of the appropriate person or group to conduct each type of testing activity
- An outline of the test environment (hardware, software, test tools, and data) needed to conduct the tests
- A preliminary schedule for executing the test activities

Review Process

Conduct a structured walkthrough to ensure the Project Test Plan adequately describes all testing activities, test schedules, test products, test responsibilities, the testing methodology, and the required resources. Include the project sponsor, primary users, and other relevant stakeholders.

Template

Project Test Plan

Tasks

Preparation of the Project Test Plan involves the following tasks:

- 4.8.1 Identify Test Techniques
- 4.8.2 Identify Test Phases
- 4.8.3 Identify Test Environment Requirements
- 4.8.4 Develop User Acceptance Test Plan

4.8.1 Identify Test Techniques

Responsibility

Project Management Team

Applicability

This task is to be followed for:

- All new and large projects
- Where the project teams are not experienced with the software, platform, or business domains involved
- Where there are more than two or three development teams

For smaller projects where the development is considered routine and generally is known to follow best practices this task can be omitted.

Description

The use of a standard testing methodology or automated tool may affect or dictate the selection of test techniques to be applied. The testing may be performed by an independent test group. In this situation, the technique to be used might be specified in the contract, otherwise, the contractor supplies documentation to adequately describe the techniques to be used so they are repeatable and understood. If there is not an independent group, then the development team is required to use any appropriate Commonwealth standards currently in place.

Any exceptions to the standards must be specified in the Test Plan.

If no testing standards are in place, the team selects an appropriate technique.

The Test Plan specifies the testing techniques planned for the project, including the types of tests required, test documents, test methods, and test data collection. Specify each test (from unit testing through acceptance testing) in terms of entrance and exit criteria and the expected level of involvement (from the project management team, test group, and other functional areas).

Develop unit and integration scenarios to exercise and validate all specified application requirements, functions, and objectives. Plan the system and the acceptance tests to finalize the validity of the requirements.

An integrated load test combines scripts from the application to place a normal user load on the enterprise server infrastructure simulating production conditions on an average day. The number and types of users are estimated by the application teams consistent with the expected sustained load of the system.

Use controlled data with each type of test as specified in the test plan. Prepare the test data to include:

- Verifying the values of the functional capabilities of the software test component
- Identifying limitations and possible deficiencies
- Exercising its capabilities
- Verifying the component performs its intended function.

The Test Plan needs to indicate if pilot testing or a phased implementation is required for the project. In the case of phased software releases, include the requirements for regression testing as new elements are introduced.

Compare actual and expected results for each test. Identify discrepancies along with problem resolution. Retesting is required to verify the solution eliminates the problem and has not introduced new errors. Include a completed test report with the final test results. In addition, include the Error Log with signoffs by the testing personnel.

Outputs

Maintain the updated test plan in the project folder.

Review Process

The project team reviews any work performed by an independent testing group.

4.8.2 Identify Test Phases

Responsibility

Project Management Team

Applicability

Regardless of the testing techniques in use, the project will usually incorporate four test phases, as indicated below. Document any deviations from this basic strategy in the Test Plan.

Description

The software is tested in four sequential phases: unit, integration, system, and acceptance. Some projects may require additional types of tests. For example, prototype testing is required in some special situations. The four standard test phases, along with prototype testing, are described below:

- **Unit Test Phase**

This phase is performed by the developer creating the module and involves testing the individual software “units” or groups of related units. A unit is a component not subdivided into other components. It is a logically separable part of a computer program. Evaluate the subject module to determine how well it meets the functional and performance requirements. Timing, memory, accuracy, and logical results are to be considered. Input data required for validating program logic, syntax, and performance requirements is prepared.

- **Integration and System Test Phase**

The project management team may perform system testing, or an independent test group may perform the testing with support from the project management team. This phase tests the completely integrated hardware and software to verify the product meets specified requirements and operates successfully.

Integration testing is performed by the development team and constitutes an orderly progression in which software (and possibly hardware) elements are combined and tested to evaluate their interaction. Integration testing verifies the groups of functionally related modules interface properly and performs according to the requirements. Testing may include static testing which is the examination of source code to ensure the processing logic meets the requirements of the design and the application satisfies any explicit functional requirements.

Integration and System testing are necessary to validate proper initialization, decision branching, and all functions specified in the Requirements Definition Document (RDD). Test the required outputs and interfaces to ensure proper interaction with other specified systems, along with transaction response times, machine resource allocation, and utilization.

- **Load Test Phase**

Load testing observes production hardware and software configuration performance under a predetermined set of test scenarios to confirm the system, as built and deployed, can maintain adequate throughput, satisfactory response, and timely operation under different stress and volume conditions.

The purpose of Load Testing is to determine whether, or at what point, extreme conditions are likely to cause system failure.

- **User Acceptance Test Phase**

Users may perform acceptance testing with assistance from the development team. However, team members may perform the testing with assistance from a designated user. Acceptance testing focuses on determining whether the software and related documentation satisfies the acceptance criteria. Testing includes all intra-system interfaces, documentation, procedures, and controls. The project sponsor may accept or reject the product based on test results.

Inputs

Inputs include:

- The statement of test techniques to be applied
- The statement of goals and objectives supplied from the planning phase.
- Any supplied use case scenarios

Outputs

Outputs include:

- The updated project plan including the specified test phases
- The updated test plan

Review Process

The updated project plan and test plan are reviewed by the project management team, the project sponsor, and users as appropriate.

4.8.3 Identify Test Environment Requirements

Responsibility

Project Management Team

Applicability

Specify a test environment for any project demanding a testing environment not already existing or for an existing environment likely to become stressed or taxed.

Description

Test environment requirements identify what is needed to perform testing activities throughout the project lifecycle, including: human resources, hardware, software, physical space, and other environmental requirements. Testing is to be performed on equipment similar to the production system. In some instances, this information is not known until the Detailed System Design (DSD) Phase.

Considerations during investigation of test environment requirements include:

- Evaluating automated testing tools for the:
 - Generation of test scripts
 - Creation of result and error repositories
 - Consideration of each tool's benefits and costs
 - Use of simulators
- Determining local area network, wide area network, and metropolitan area network testing environments, as needed
- Determining test lab, data generation, and error correction support
- Identifying Beta test sites

The Project Plan must be updated by the project management team to indicate hardware, software, and times to setup the environment(s).

Inputs

Inputs include:

- The Project Plan
- The statement of goals and objectives
- The statement of test techniques to be used.

Outputs

Outputs include:

- A detailed plan specifying the test environment becomes part of the test plan.
- The updated Project Plan

Review Process

Outputs are reviewed by the project management team, procurement staff, the project sponsor; staff supports specialists, and the architecture review board as appropriate.

4.8.4 Develop User Acceptance Test Plan

Responsibility

Project Management Team and Project Sponsor/primary user

Applicability

Any project, where user, project sponsor or other stakeholder review is considered necessary for approval, will require a user acceptance test plan. Exceptions would be small projects where the user requirements are clearly understood and where an expanded prototyping methodology is used where constant end user involvement ensures and guarantees a deliverable product when system testing is complete. In the later case a user acceptance test plan would be moot.

Description

The Acceptance Test describes the test activities planned for project acceptance. The plan specifies the tests necessary to validate the project requirements have been met and the deliverables are in accordance with existing standards. In addition, the fully developed plan ensures a systematic approach to acceptance testing is established and the testing is adequate to verify functionality.

The complete set of system requirements and acceptance criteria form the basis of acceptance testing. Testing may be affected by features of the installation site and development. Special arrangements may be necessary when the software cannot be completely installed and executed in a live environment.

Note: Multiple configurations may require distribution to several installation sites.

Inputs

Inputs include:

- The Project Plan
- The detailed plan specifying the test environment from task [4.8.3 Identify Test Environment Requirements](#)
- The project sponsor's statement of goals and objectives.

Outputs

Acceptance testing must be thoroughly documented with requirements traceability and acceptance criteria as authorized by the project sponsor. The completed User Acceptance Test Plan located in the Test Plan addresses the following requirements:

- Identification of the human resources involved in the acceptance test process with a description of their responsibilities, including the roles and responsibilities of any external test teams.

- Traceability of test designs and cases to software requirements
- Objectives and constraints for each test
- Complete test cases and test procedures, including inputs and expected outputs for each test case
- Descriptions of problem reporting, analysis, and resolution
- Locations where testing and tester training will take place
- Acquisition of any testing tools
- Estimation of resources and costs to accomplish testing

Maintain the initial Acceptance Test Plan in the Project Folder. This copy is refined during later phases as the project progresses. Review the initial plan during the Software Integration and Testing Phase and deliver as a final document.

The project management team updates the project plan to include the user acceptance test plan.

Review Process

Conduct structured walkthroughs as appropriate to ensure the initial User Acceptance Test Plan adequately describes all testing activities, test schedules, test products, test responsibilities, testing methodology, and required resources.

4.9 Conduct Phase Review

4.9.1 Conduct Peer Reviews

Peer reviews are conducted within the project management team to review each of the Requirements Definition Phase deliverables. This is not a formal process but rather a review to ensure team members at the same level agree to the deliverables produced and to leverage the knowledge and experience of others.

4.9.2 Conduct Structured Walkthroughs

Structured walkthroughs are appropriate for reviewing the technical accuracy and completeness of outputs and deliverables. The walkthroughs are scheduled to review small, meaningful pieces of work. The progress made in each lifecycle stage determines the frequency of the walkthroughs.

Walkthroughs can be conducted in various formats, with various levels of formality, and with different types of participants. In some cases, it may be beneficial to include software users in walkthroughs. Management representatives do not participate in structured walkthroughs. Regardless of the variations in format and participants, the basic activity (peer review) and the major objectives (find errors and improve quality) of the structured walkthroughs remain the same. For further information, refer to the [Structured Walkthrough Process Guide](#).

4.9.3 Conduct In-Phase Assessments (IPA)

If an IPA is required for this project, the work will be performed by an independent reviewer. The reviewer delivers the IPA report to the project management team which maintains the document in the Project Folder. For further information, refer to the [In-Phase Assessment Process Guide](#).

4.9.4 Conduct Phase Exit

A Phase Exit is conducted at the end of each phase of development or maintenance. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates all known issues have an acceptable plan for resolution. The project management team maintains the document in the Project Folder. For further information, refer to the [Phase Exit Process Guide](#).

5.0 General System Design (GSD) Phase

Applicability

The System Development Methodology (SDM) allows the use of different design and construction techniques. [4.2 Select Requirements Analysis Technique](#) addresses the issue of matching the analysis technique with the project at hand. Similarly, the software design technique is based upon the unique aspects of the project, along with project and organizational constraints.

[2.0 System Development Lifecycle \(SDLC\)](#) provides examples of how various projects may be designed. The methodology allows for combining and eliminating tasks when appropriate. For example, a rapid prototyping project may combine the Requirements Definition and General System Design (GSD) phases, resulting in a combined phase. The combination of phases may be performed multiple times as part of an iterative development effort.

Today's enterprise development organizations are seeking to reuse analysis, design, code, and executables, in compliance with the Information Resource Management (IRM) Strategic Plan for modularity, interoperability, and reusability.

Software developed with Visual C++, Java, Visual Basic, or ActiveX components benefit from newer analysis and design techniques. The methodology encourages the use of Object-Oriented (O.O.) and object-based methods, but does not dictate which, if any, to use. This decision must be based on many factors relating to the project at hand. Various factors may affect the selection of analysis and design techniques, just as the techniques affect the project tasks and deliverables.

The tasks may be modified or omitted as appropriate. Deviations are permitted, provide customer requirements are satisfied and have received management approval.

Description

The General System Design document maps the “*what to do*” of the Requirements Definition Document (RDD) to the “*how to do it*” of the design specifications. During this phase, the overall structure of the software is defined from a functional viewpoint. The GSD describes the logical system flow, data organization, system inputs and outputs, processing rules, and operational characteristics of the software from the user's point of view. It is not concerned with the software or hardware supporting the operation. Neither is it concerned with the physical organization of the data or the programs that accept the input data, execute the processing rules, and produce the required output.

The focus in this phase is on the functions and structure of the software. The project sponsor and users must be able to understand the design. One objective is to define and document the functions of the software to the extent necessary to obtain approval. The GSD must also include enough detail for the Detailed System Design (DSD) to be developed.

Prototyping the system functions is helpful in communicating the design to the project sponsor and users. By demonstrating the appearance of screens and limited navigation and

functionality the project sponsors are often able to grasp exactly what it is the IT staff has in mind based upon the requirements. This method can often be invaluable in clearing up and identifying miscommunications early in the project. Prototypes are used to simulate one function, a module, or the entire software, and are useful in the transition from the GSD to the DSD.

Inputs

Inputs include the:

- Work Plan
- Requirements Traceability Matrix
- Requirements Definition Document (RDD)
- Description of Analysis Technique
- Test Plan

High-Level Activities

This section is divided into sub-sections describing the high-level activities performed during this phase. The activities represent the minimum requirements for a large software development project. Notes are provided to assist in customizing the lifecycle phase requirements to accommodate project scalability. The high-level activities for the GSD Phase consist of:

- 5.1 Select Design Technique
- 5.2 Determine Software Structure
- 5.3 Develop General System Design (GSD)
- 5.4 Design the User Interface
- 5.5 Create Data Model
- 5.6 Create Logical Data Model
- 5.7 Manage Requirements
- 5.8 Design System Architecture
- 5.9 Develop Capacity Plan
- 5.10 Initiate Procurement of Hardware and Software
- 5.11 Develop Training Plan
- 5.12 Develop Conversion Plan
- 5.13 Develop Architecture Review Board (ARB) Document
- 5.14 Conduct Phase Review

Outputs

The content and packaging of the outputs may vary depending on project size and complexity. Typical requirements for a large software project include:

- Description of Design Technique
- General System Design (GSD) Document
- Requirements Traceability Matrix (*expanded*)
- System Architecture Document
- Capacity Plan (*initial*)
- Acquisition and Installation Plan (*initial*)
- Training Plan (*initial*)
- Conversion Plan (*initial*)
- Architecture Review Board Document
- Test Plan (*revised*)

A matrix showing the outputs associated with each high-level activity is provided in [Exhibit 5.0-1, General System Design High Level Activities and Outputs](#).

Review Process

Quality reviews are necessary during this phase to validate the various outputs. The activities appropriate for quality reviews are identified in this phase and [2.3 Quality Reviews](#). This review is an important milestone in the design process. The time and resources needed to conduct the Architecture Review Board (ARB) and GSD Review are reflected in the project resources, schedule, and work plan.

Reference/Resource

[2.3 Quality Reviews](#), provides an overview of the types of reviews to be conducted within a project.

[Conducting Structured Walkthroughs](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[General System Design Phase Checklist](#)

Exhibit 5.0-1 General System Design High Level Activities and Outputs

High Level Activities		Outputs	Deliverable
5.1	Select Design Technique	Description of Design Technique	N
5.2	Determine Software Structure	Design Entities and Dependencies	Y
5.3	Develop General System Design	General System Design Document	Y
5.4	Design the User Interface	General System Design Document (User Interface)	Y
5.5	Create Data Model	General System Design Document (Data Dictionary)	Y
5.6	Create Logical Data Model	General System Design Document (Logical Data Model)	Y
5.7	Manage Requirements	Requirements Traceability Matrix (<i>expanded</i>)	Y
5.8	Design System Architecture	System Architecture Document (<i>initial</i>)	Y
5.9	Develop Capacity Plan	Capacity Plan (<i>initial</i>)	Y
5.10	Initiate Procurement of Hardware and Software	Acquisition & Installation Plans	N
5.11	Develop Training Plan	Training Plan (<i>initial</i>)	Y
5.12	Develop Conversion Plan	Conversion Plan (<i>initial</i>)	Y
5.13	Develop Architecture Review Board Document	Architecture Review Board Document	Y
5.14	Conduct Phase Review	Documentation from Peer Review, Structured Walkthrough, and In-Phase Assessment	Y

A deliverable is output identified in the Project Plan and formally delivered to the project sponsor and other project stakeholders for review and approval.

5.1 Select Design Technique

Responsibility

Project Management Team

Applicability

The project management team selects a design technique to coordinate with the Department of Public Welfare (DPW) architectural and design standards. At times, the selection may be influenced by funding stipulations. This work can often be done during the requirements phase when the experience and skills exist within the team members involved, but it is logically considered part of the general design phase.

Description

A systematic approach to building the General System Design (GSD) and Detailed System Design (DSD) simplifies the process and fosters a reliable, maintainable, and testable system. A complete design technique includes:

- A description of the method or methods used in creating and refining the design
- Compatibility with the requirements analysis technique and the automated tools used by the project management team
- Straightforward rules relating information obtained during requirements analysis to a distinct software structure
- Design standards complying with the site's current software development practices, the project sponsor organization's standards, and the constraints imposed by the software tools and hardware platform
- A practical approach to design is amenable to a wide variety of software
- The development of small, intermediate design products can be used to measure quality and progress
- Tools to be used in the design process
- Well-defined measures to assess the quality of the design
- Guidance on how to create a design to make minimal the required maintenance and to make maximum the usability of the applications components.

The value of a design technique can be significantly enhanced by automated tools directly supporting the technique. Automated tools provide assistance in generating, maintaining, and analyzing design diagrams and data dictionaries. The use of such tools typically results in a design easier to maintain, higher in quality, and more complete than designs produced without automated tools. The increased quality leads to significant productivity gains during software programming and testing.

Sample Design Methods

Examples of some common design techniques are:

- Function-oriented design methods model the applications software by dividing into components, identifying the inputs required by those components, and identifying the outputs produced. Function-oriented design methods include structured analysis and structured design. The major models or design representations used by this method are data flow diagrams, data dictionaries, structure charts, and process specifications.
- Data-oriented design methods use program structures derived from the data structures. Tree diagrams are typically used to represent both the data and the program structures.
- Object-oriented design methods produce a software architecture based on the objects manipulated by systems or subsystems rather than by functions. An Object Oriented (O.O.) design closely resembles a model of reality since it presents an abstraction of the real-world objects and the operations performed on or by them. The design structure tends to be layers of abstraction where each layer represents a collection of objects with limited visibility to other adjacent layers.

Inputs

- The Requirements Definition Document (RDD).
- The Project Plan
- The tools used in the development of the requirements

Outputs

Maintain a description of the design technique in the Project Folder and distribute to the project management team, project sponsor, and involved users.

Review Process

Conduct a structured walkthrough to verify that the design technique is appropriate for the scope and objectives of the project. A structured walkthrough is not required when the choice is obvious or when it has been used successfully on similar projects.

5.2 Determine Software Structure

Responsibility

Project Management Team

Applicability

Although some newer software development techniques [e.g., Object-Oriented (O.O.)] discourage the use of top-down design, the approach is still used by various structured methods. Project management may find team participants are more comfortable with a top-down approach to software structuring. As in any project, human, as well as technical factors must be considered.

Although there are good arguments for developing systems using one of the newer techniques, the developers' experience and abilities must be considered. Management may find developers with new skill sets have already used, or are able to use, newer design techniques.

Note: Technical considerations are important. Some smaller projects may be better served with a top-down approach. Ensure the selected development techniques are congruent with the development tools.

Description

Determining the Software Structure is important at the design stage of development to eliminate unforeseen costs. The software methodology can be structured as being comprised of the software design process component and the software design representation or diagrammatic component. The process component is based on the basic principles established in the methodology while the representation component is the blueprint from which the code for the software will be built.

Note: In practice, the design methodology is often constrained by existing hardware configuration, the implementation language, the existing file and data structures and the existing organization practices, all of which would limit the solution space available to develop the software.

The design team needs to meticulously record or diagram the software design including the basis for the choices made. This is important for the purposes of walkthroughs and maintenance.

Various methods exist to determine the software structure. Some of these methods are Top Down/Bottom-Up Design, Stepwise Refinement Design, Structured Design, and Object-Oriented Design. However, the two most distinguish approaches are broadly identified as the Hierarchical Design and Object-Oriented Design.

A. Hierarchical Design

A hierarchical approach is useful for determining the structure and components of the software. Software system decomposition is a type of hierarchical approach dividing the software system into different levels of abstraction. Decomposition, an iterative process, continues until single purpose components (i.e., design entities or objects) can be identified. Decomposition is useful for understanding the structure of the software along with the purpose and function of each entity.

The goal of decomposition is to create a highly cohesive, loosely coupled, and readily adapted design. A design exhibits a high degree of cohesion if each design entity in the program unit is essential for the unit to achieve its purpose. A loosely coupled design is composed of independent or almost independent program units.

There are several reliable methods for performing system decomposition. Select a method to enable the design of simple, independent entities.

Identify Design Entities

Design entities result from a decomposition of the software requirements. A design entity is an element (or object) of a design structurally and functionally distinct from other elements, and is uniquely named and referenced. The number and type of entities required to partition a design are dependent on a number of factors, such as the complexity of the software, the design method used, and the programming environment. The objective of this process is to divide the software into separate components to be coded, implemented, tested, and changed with minimal affect on other entities.

A design entity *attribute* is a characteristic or property of a design entity. It provides a statement of fact about an entity. The list below may prove helpful in assigning common attributes, but is not meant to supersede any part of a packaged technique or design methodology:

- Assign a unique name to each entity.
- Classify each entity into a specific type. The type may describe the nature of the entity, such as a subprogram or module, or a class of entities dealing with a particular type of information.
- Describe the purpose or rationale for each entity. Include the specific functional and performance requirements for which the entity was created.
- Describe the function to be performed by each entity. Include the transformation applied to inputs by the entity to produce the desired deliverables.
- Identify all of the external resources needed by an entity to perform its function.

- Specify the processing rules each entity will follow to achieve its function. Include the algorithm used by the entity to perform a specific task and contingency actions in case expected processing events do not occur.
- Describe the data elements internal to each entity. Include information such as the method of representation, format, and the initial and acceptable values of internal data. This description may be provided in the data dictionary.

Identify Design Dependencies

Design dependencies describe the relationships or interactions between design entities at the module, process, and data levels. The interactions may involve the initiation, order of execution, data sharing, creation, duplication, use, storage, or destruction of entities.

Identify the dependent entities of the software Detailed System Design (DSD), describe the coupling, and identify the resources required for the entities to perform the function. In addition, define the strategies for interactions among design entities and provide the information needed to perceive *how, why, where, and at what level* actions occur.

Dependency descriptions provide an overall picture of how the software will work. Data flow diagrams, structure charts, and transaction diagrams are useful for showing the relationships among design entities. The dependency descriptions may be useful in producing the System Integration Plan by identifying entities along with the required order for the development. Dependency descriptions can also be used to aid in the production of integration test cases.

B. Object-Oriented (O.O.) Design

For O.O. and object-based designs, the General System Design (GSD) centers on the idea objects can be designed to exist on a virtual machine. Limitations based on computing technology and the determinations of the location of objects (i.e., client or server) are not considered at this point.

Algorithmic properties of classes, based on the O.O. analysis, are presented in the GSD.

Some important issues to be considered if an O.O. or object-based design method is to be employed include:

- What technique was used to perform the analysis?

If a functional approach was used in the analysis phase, then functional limitations such as extendibility, explicit reference, reusability, and maintenance difficulty shall be taken into consideration to pursue an object-oriented O.O. design and implementation.

- Which design methods are being considered?

Not all O.O. methods are the same. Depending on the method used, some of the functional and physical design tasks may be combined.

- Are short iterative cycles being incorporated in the lifecycle?

Rapid design/build cycles may not fit well with a separately developed functional model for each iteration.

Note: Project tasks, deliverables, and design methods must be aligned and consistent.

Outputs

Record the design entities, integrate them into the GSD Document, and maintain the document in the Project Folder.

Review Process

Conduct structured walkthroughs, as needed, to verify the design entities and dependencies are correct, complete, and possess the required attributes.

5.3 Develop General System Design (GSD)

Responsibility

Project Management Team

Applicability

The design is used for communicating software design information to facilitate planning, designing, and constructing decisions. The GSD is widely use for quality assurance purposes.

Description

The GSD is a model describing how the software will be structured to satisfy the requirements identified in the Requirements Definition Document (RDD). It presents a partitioning of the software system into design entities and describes the important properties and relationships between the entities.

Organize and present the entities within the GSD in a way the project sponsor and users understand them. The goal is to compile the entities and the attributes in a manner facilitating the access of the design information from various viewpoints (e.g., project management, configuration management, quality assurance, and testing).

Outputs

Each requirement identified in the GSD Document must be traceable to one or more design entities. This traceability ensures the software will satisfy the requirements and will not include inappropriate or extraneous functionality. The Requirements Traceability Matrix developed in the Requirements Definition Phase is expanded to relate the GSD to the requirements. The expanded matrix is maintained in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix to ensure all required functionality is included.

Reference/Resource

Expanded Requirements Traceability Matrix developed in the Requirements Definition Phase

Tasks

The tasks for developing the GSD consist of:

- 5.3.1 Develop General System Design (GSD) Document
- 5.3.2 Conduct General System Design (GSD) Review

5.3.1 Develop General System Design (GSD) Document

Responsibility

Project Management Team

Applicability

The purpose of this document is to explain 'how' the requirements will be satisfied by the new system.

Description

The GSD Document is developed describing system functions in user terms. Although, there is a great amount of flexibility, the GSD approach must be consistent with the analysis approach selected in [4.2 Select Requirements Analysis Technique](#). The document is written from the system users' perspective and provides the project sponsor and users with an opportunity to review and offer input in this early design phase.

Outputs

The GSD Document is prepared using the organizational tools available. The format may vary somewhat depending upon the analysis and design techniques employed but should stay fairly close to the document template found in the Department of Public Welfare (DPW) Standards Business Domain. Once approved, the document serves as authorization to use the GSD as a basis for the Detailed System Design (DSD).

Review Process

Conduct a structured assessment to ensure the GSD Document is accurate, complete, and describes the GSD in a manner understood by the project sponsor and users.

Submit the draft document to the project sponsor and users for review and approval. After making any necessary changes, the approved GSD Document becomes an official agreement and basis for DSD.

The completion of the GSD Document is an appropriate time to schedule an In-Phase Assessment (IPA).

Template

General System Design (GSD) Document

5.3.2 Conduct General System Design (GSD) Review

Responsibility

Project Management Team

Applicability

A review of the GSD is needed following an existing project, new project, or COTS-based project. This step should always be applicable whenever a GSD is created.

Description

The GSD Review is a formal technical review of the basic design approach. The primary goal of the review is to demonstrate the ability of the software design to satisfy the project requirements. The review typically consists of a series of presentations by the project management team to the project sponsor, users, functional area points-of-contact, and quality assurance representative. Vendors may be invited to participate when a Commercial Off the Shelf (COTS) product is being considered for the system architecture.

The GSD Review verification process includes:

- Evaluate the progress, technical adequacy, and risk resolution of the selected design approach. Determine whether the project management team is following the approved design approach.
- Establish the existence and compatibility of the physical and functional interfaces.
- Determine whether the GSD embodies all of the requirements.
- Verify the design represents software meeting the functional, data, and interface requirements.
- Review the planned user interfaces to the software.
- Identify potential high-risk areas in the design and any requirement changes to reduce risk.
- Consideration has been given to optimizing the maintainability and maintenance aspects.

Review Items

Items to be considered for review and evaluation during the GSD review include:

- **Functional flows** – Indicate how the computer software functional flows map the software and interface requirements to the individual high-level components of the software product.
- **Storage allocation data** – Describe how available storage is allocated to individual software components. Timing, sequencing requirements, and

relevant equipment constraints are used in determining if the allocation needs to be included.

- **Control functions** – Describe the executive control and start/recovery features of the software.
- **Security** – Identify the security requirements and provide a description of the techniques used for implementing and maintaining security within the software product.
- **Software development facilities** – Describe the availability, adequacy, and planned utilization of the software development facilities including both Government-provided and commercially available facilities.
- **Software development facility vs. the operational system** – Describe any unique design features existing in the GSD in order to allow use within the software development facility not existing in the operational software. Provide the information generated on the design of support programs not explicitly required for the operational system to assist in the development of the software.
- **Development tools** – Describe any special tools (e.g., simulation, data reduction, or utility tools) planned for use during software development. (Do not include deliverables.)
- **Commercial resources** – Describe commercially available computer resources, including any optional capabilities (e.g., special features, interface units, special instructions, controls, formats). Identify any limitations of commercially available equipment (e.g., failure to meet user interface, safety, and maintainability requirements) and identify any deficiencies.
- **Existing documentation** – Maintain a file and have available for review any existing documentation supporting the use of commercially available computer resources.
- **Support resources** – Describe the resources necessary to support the software during engineering, installation, and operational state (e.g., operational and support hardware and software personnel, special skills, human factors, configuration management, testing support, documentation, and facilities/space management).
- **Standards** – Describe any standards or guidelines to be followed.

Outputs

A file note is produced from each meeting and distributed to the attendees and project stakeholders. The notes consist of significant questions and answers, action items, individual/group responsibilities, deviations, conclusions, and recommended courses of action resulting from presentations or discussions.

Recommendations not accepted need to be recorded along with the reason for non-acceptance. Distribute the file notes to the project sponsor and users. The options for the review performance are:

- *Approval* – indicates the GSD is satisfactorily completed.
- *Contingent Approval* – indicates the GSD is not considered complete until the satisfactory completion of resultant action items.
- *Disapproval* – indicates the GSD is inadequate. Another GSD Review is required.

Review Process

Checklist of Items to be Reviewed

Description	Yes	No	Comments
Functional Flows			
Storage Allocated Data			
Control Flows			
Securities			
Software Development			
Software Development Facilities			
Software Development Facilities vs. Operational Systems			
Development Tools			
Commercial Resources			
Existing Documentation			
Support Resources			
Standards			
Approval / Contingent / Disapproval Signature			

5.4 Design the User Interface

Responsibility

Project Management Team

Applicability

This section presents steps to take during user interface design along with generally accepted design principles. The sub-sections are used in conjunction with any relevant standards, or as a substitute if none exists. If no user interface exists or is involved in this project, this step can be skipped.

Description

Design the user interface appropriate for the users, content, and operating environment of software. Include a specification of interface levels for all categories of users. For interactive user environments, user interface prototypes may be developed and reviewed with user representatives. Prototypes have been successfully used to uncover problems early in the development process and to gain user acceptance.

A common problem from a user's perception is a prototype can become a working product with "just a few fixes." Take extra care to manage expectations by explaining the use of prototypes and the unfitness for production environment.

Review the standard every time new software is planned to verify the user interface is compatible with the selected system architecture. For example, a Microsoft Windows® user interface standard is not appropriate for a web-based application.

Outputs

The user interface design documentation which include the Interface Flow Diagram, if created.

Review Process

Project Management Team reviews the User Interface Design and ensures it is in compliance with DPW standards.

Reference/Resource

[Web Application Development Guide](#)

5.5 Create Data Model

Responsibility

Project Management Team and a Database Analyst

Applicability

A member of the Database Design section, working as a project management team member, performs this activity. The procedures for the section are to be followed in coordination with system development. The information is provided as a reference and is not meant to supersede any established procedures in the department. This step should always be performed when data elements are going to be added, modified or deleted in any significant way. This is necessary to ensure adherence to good design practices and to any database properly scalable.

Description

A data model is a representation of a collection of data objects and the relationships between the objects. The functions of the data model are to:

- Transform the business entities into data entities
- Transform the business rules into data relationships
- Resolve the many-to-many relationships as intersecting data entities
- Determine a unique identifier (key) for each data entity
- Add the attributes (facts) for each data entity
- Document the integrity rules required in the model
- Determine the data accesses (navigation) of the model

Outputs

The data dictionary first developed in the Requirements Definition Phase is now expanded to catalog every known data element to be used. Detailed information about the data elements include attributes, known constraints, input sources, output destinations, and known formats.

Although it might prove too technical for some users, there are cases when the data dictionary serves as a central repository of information for both application developers and end users. The dictionary includes business rules, processing statistics, and cross-referencing information for multiple vendor environments.

To expand the data dictionary, the steps used to define, analyze, and complete the data definitions include:

- Identify data needs associated with various system features
- Match (verify) data needs with the data dictionary

- Match the data dictionary with specific data structures
- Create data record layouts
- Ensure all data can be maintained through add, change, or delete functions

The data dictionary will be further refined in the Detailed System Design (DSD) Phase to complete the information on data elements, entities, files, physical characteristics, and data conversion requirements.

Sample Attributes

The attributes (information) to include for data dictionary elements are:

- Add/Change/Delete
- Table Name
- Description
- English Name
- Business Rules
- Is Application a Reference Table

Review Process

Conduct a structured walkthrough to verify the data dictionary is correct and complete. Validate the data model against any department or site specific data models.

Reference/Resource

[Examples of Schema Diagrams](#)

[Instructions for Completing the Data Dictionary Excel Spreadsheet](#)

5.6 Create Logical Data Model

Responsibility

Project Management Team

Applicability

This activity is typically performed by projects incorporating structured (i.e., functional decomposition) methods where data are normalized into logical data model.

Description

The logical data model defines the flow of data through the software system and determines a logically consistent structure for the software. Each module defining a function is identified, interfaces between modules are established, and design constraints and limitations are described. The logical data model focuses on the real world problem to be solved.

A logical data model is used to explore the domain concepts and the relationships. Logical Data Models depict the logical entity types, typically referred to as entity types, the attributes describing the entities, and the relationships between the entities.

When creating a logical data model, the organization of the model follows the natural organization of the software subject matter. The names given to the components of the model must be specific. The connections between the components of the model need to be as simple as possible.

Outputs

The logical data model is documented in user terminology and contains sufficient detail to obtain the project sponsor's and users' approval. Use data flow diagrams to show the level of detail needed to reach a clear, complete picture of processes, data flow, and data stores.

Maintain up-to-date logical data model and data flow diagrams in the Project Folder and incorporate into the General System Design (GSD) Document. The logical data model and data flow diagrams will serve as a resource for planning enhancements during the Maintenance Phase.

Review Process

Conduct a structured walkthrough to verify the logical data model is correct, logical, and complete.

Reference/Resource

The use of Use Cases Diagrams or any Unified Modeling Language (UML) is practical in this area to determine the Logical Data Model, the External and the Data Dictionary.

[ITB-INF003 Data Modeling Standards](#)

5.7 Manage Requirements

Responsibility

Project Management Team

Applicability

At the completion of the General System Design (GSD) Document, review and cross-reference all the requirements in the GSD and the Requirements Traceability Matrix.

Description

The process of eliciting, documenting, organizing, and tracking changing requirements in this phase is communicated to the project management team to ensure the iterative and unanticipated changes are maintained throughout the project lifecycle. The focus of managing requirements is to aid the stakeholders and maintain a shared vision. This includes:

- Understanding the relationships among key stakeholders and involving them
- Identifying requirements change
- Managing the changes to requirements
- Identifying and tracking requirements attributes
- Tracing requirements

Outputs

Each requirement identified in the Requirements Definition Document (RDD) must be traceable to one or more design entities. This traceability ensures the software satisfies the requirements and does not include inappropriate or extraneous functionality. The Requirements Traceability Matrix developed in the Requirements Definition Phase is expanded to relate the GSD to the requirements. The expanded matrix is maintained in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix to ensure all required functionality is included.

Reference/Resource

- Elicitation Techniques such as Interviews, Scenarios, Prototypes, Facilitated meetings or observations
- Support tools such as spreadsheets and simple databases developed in house could be use to support the Manage Requirements activity

5.8 Design System Architecture

Responsibility

Project Management Team

Applicability

Designing system architecture is important in an effort to produce an efficient and cost effective application.

Description

The system architecture encompasses the technical and application architecture of the application. The application architecture provides the design and layout of the requirements specific to the system application as a whole (coding standards, application framework usage). The technical architecture provides the technical requirements (hardware, software, server configuration) for the system application to work.

Outputs

The system architecture document is designed and documented in accordance with the project design standards. Submit the designs to the project sponsor, users, and possibly the system administrator for review and approval. Incorporate the approved design into the General System Design (GSD) Document and maintain the document in the Project Folder.

Review Process

Conduct a structured walkthrough, as needed, to verify the System Architecture designs are correct and complete.

Reference/Resource

[Architecture Review Board](#)

Tasks

The tasks for designing the system architecture consist of:

- 5.8.1 Design System Interfaces
- 5.8.2 Design System Security Controls
- 5.8.3 Evaluate System Architecture Alternatives
- 5.8.4 Recommend System Architecture

5.8.1 Design System Interfaces

Responsibility

Project Management Team

Applicability

Design of Systems Interface is crucial to promote ease of use of the systems as well as increasing flexibility for changes and improvements of the systems. Some of the objectives of designing the systems interfaces earlier in the General System Design (GSD) phase are: to reduce the frequency of error handling and redesign in process flow.

Description

The system interfaces depict how the software will interface with other systems. The interfaces are based on the system interface requirements documented in the Requirements Definition Document (RDD).

Sample Issues

Issues to consider when designing the system interfaces include:

- System inputs and outputs
- Method of interface
- Volume and frequency of data
- Platform of interfacing system
- Format of data
- Automatic or manual initiation of interface
- Verification of data exchange
- Validation of data

Outputs

The Detailed System Design (DSD) interfaces are designed and documented in accordance with the project design standards. Submit the designs to the project sponsor, users, and possibly the system administrator for review and approval, for each system interfacing with the software.

Any incompatibilities with interfaces need to be identified early in the design process so corrective actions can be taken. Incorporate the approved design into the General System Design (GSD) Document and maintain the document in the Project Folder.

Review Process

Conduct a structured walkthrough, as needed, to verify the system interface designs are correct and complete.

5.8.2 Design System Security Controls

Responsibility

Project Management Team and Security Personnel

Applicability

This task is typically performed by projects when the system security is needed.

Description

The security and access requirements documented during the Requirements Definition phase are used to design the security controls for the software. Security controls must be designed in conjunction with any relevant security standards, as specified by the [Governor's Office of Administration/Office for Information Technology \(OA/OIT\) Security Policies](#) and the Department.

Outputs

System security controls are designed and documented in accordance with project design standards. Present the controls to the project sponsor and users for review and approval. Include the approved design in the General System Design (GSD) Document and maintain the document in the Project Folder.

Review Process

Conduct a structured walkthrough to verify the system security controls are correct and complete. A representative from the security group is required to attend the walkthrough.

Reference/Resource

The [Data Exchange](#) Guidelines are located under the IRM Standards, Business and Technical Standards, Integration and Middleware Domain.

5.8.3 Evaluate System Architecture Alternatives

Responsibility

Project Management Team

Applicability

System Architecture Alternatives are needed to balance the budgeting obligation; to accommodate the size of the project scope and resources; and to ensure platform compatibility.

Description

An evaluation of architectural alternatives must consider many factors, for example, the experience the project management team members have with each alternative and the availability of reusable components to facilitate the implementation. Issues to be considered when evaluating the alternatives include:

- Identification of which functions (or portions of functions) are to be automated (include an examination of *what* the portion(s) will encompass) and which will be manual.
- The technical solution for the objectives. The determinations of *how* the software is to be designed (e.g., online vs. batch, client-server vs. mainframe, Oracle vs. Sybase).
- The owner and users computing environment and needs created by the technical solution. Consider any hardware and software to be acquired, including system software and database management products.

One approach for evaluating the architecture alternatives (reasonable, alternative methods may be used) is to:

- Conduct a Cost Benefit Analysis to determine the most cost-effective alternative. On the benefits side, include the improvements over the current process used to support the business application. On the cost side, include any impact from current capabilities along with the rationale for allowing the impact.
- Generate and evaluate a data flow diagram for each alternative.
- Identify how users interact with the features associated with each alternative (such as the generation of queries and reports).
- List the risks associated with each alternative and develop a plan for mitigating each risk.
- Compare the performance capabilities of each alternative. For example, *“how fast will each alternative be able to process the users’ work given a particular hardware resource?”* Performance is usually expressed in terms of

throughput, run time, or response time. Five factors frequently affecting performance include:

- Number of intermediate files in a system
 - Number of times a given file is passed
 - Number of seeks against a disk file
 - Time spent in calling programs and other system overhead
 - Time taken to execute actual program
- Compare the security and access control features of each alternative, including the extent to which each alternative provides protection against human errors, machine malfunction, or deliberate mischief. Common controls include:
 - Check digits on predetermined numbers
 - Batch control totals
 - Creation of journals and audit trails
 - Limited access to files
 - Compare the ease with each alternative allows the system to be modified to meet changing requirements, such as:
 - Fixing errors
 - Changing user needs
 - Mandatory/statutory modifications
 - Enhancements

Outputs

Records for each alternative evaluated are maintained in the Project Folder and used to develop a summary of the system architecture alternatives. The summary will be integrated into the materials presented to the project sponsor when a system architecture recommendation is made.

If a Cost Benefit Analysis is conducted, prepare a report describing the process used for the analysis, a summary of the alternatives considered, the results obtained, and maintain the document in the Project Folder. The report will be integrated into the materials presented to the project sponsor when a system architecture recommendation is made.

Review Process

Structured walkthroughs are conducted to review the records of each alternative.

5.8.4 Recommend System Architecture

Responsibility

Project Management Team

Applicability

Based upon the conclusion of the architecture alternatives process, the recommended system architecture is rendered.

Description

Based on the results of the architecture alternatives evaluation, a recommendation is developed for a cost-effective system architecture satisfying the project requirements. Prepare a presentation for the project sponsor and users providing supporting information to:

- Review the limitations or problems with any current manual or automated process resolved by the software.
- Present the logical data model for the software. Highlight new functionality to be implemented.
- List each architecture alternative evaluated, including:
 - A description of the alternative
 - An overall data flow diagram showing how the alternative is implemented
 - The way the system looks to the users, in terms of hardware, user interface, reports, and query facilities
 - The estimated benefits of the alternative
 - The estimated cost and time to implement the alternative
 - A statement of the element of risk associated with the alternative
- Present the recommended alternative and explain why it was selected.

Before proceeding to the next phase of development, concurrence must be reached regarding the selection of the system architecture. This is done by either formally accepting the recommendation or by directing the team to use a different architecture. Any delay in making this decision results in a lengthening of the project schedule.

Outputs

The recommended system architecture and a summary of each alternative are documented in the System Architecture Document. The recommendation includes any background information relevant to the decision process, such as a Cost Benefit Analysis Report. The rationale for proposing the recommended architecture is

described along with an analysis of the impact on the users' organization. The impact analysis includes existing and planned systems.

The architecture recommendation is presented to the project sponsor and users, either as a presentation or a distributed document. The document is maintained in the Project Folder.

Review Process

A structured walkthrough is conducted to review the completeness and accuracy of the evaluations and recommendation.

Template

[System Architecture Document](#)

Reference/Resource

[5.13 Develop Architecture Review Board Document](#)

5.9 Develop Capacity Plan

Responsibility

Project Management Team

Applicability

The Capacity Plan is used to identify the capacity constraint of the project.

Description

The Capacity Plan includes estimates for the application usage, network bandwidth, disk storage capacity, demographic profile environment, load test environment, production environment, and batch/File Transfer Protocol (FTP) capacity. The plan is continually revised throughout the project to ensure the latest capacity requirements are captured and verified.

Outputs

The capacity plan is designed and documented in accordance with project design standards. Maintain the Capacity Plan in the Project Folder.

Review Process

Conduct a structured walkthrough to verify the capacity is correct and complete.

Template

Capacity Plan

5.10 Initiate Procurement of Hardware and Software

Responsibility

Project Management Team

Applicability

This activity is completed when information is needed for the requisition on organizational hardware and software requirements.

Description

The procurement of any hardware or software must be initiated well in advance of the planned need for the products. Of course, this can't begin until enough information is known about the ultimate design of the product. However, adequate time must be allotted in the Project Plan timeline for the selection, procurement, installation, testing, and training associated with each vendor product.

Careful consideration is given to purchasing off-the-shelf software before expending the time, resources, and costs associated with developing custom-built systems. Whenever possible, acquire off-the-shelf software to satisfy some or all of the project requirements. In addition, some projects require the acquisition of hardware or software to support designing, coding, and testing activities.

Attempt to acquire a demonstration package of any proprietary software before completing the design specifications. The software may prove inadequate or inappropriate once it has been evaluated through hands-on use. Develop a pilot of the software to exercise the most important functions provided by the proprietary software. This will provide definite performance indications.

When the expected operating platform for the product requires extensive procurement of hardware and software, it is recommended the procurement needs to be addressed as early in the lifecycle as possible. If hardware and software acquisition requirements are known, the Acquisition and Installation Plans may be developed for all operating sites. The Acquisition and Installation Plans are reviewed, and revised if necessary, at the beginning of the Development Phase.

Note: Requirements for the Acquisition and Installation Plans are provided in the, Development Phase.

For additional information on developing an acquisition plan, refer to [7.1 Develop Acquisition Plan](#).

Outputs

Acquisition and Installation Plans, along with all software and hardware procurement records, are maintained in the Project Folder.

Review Process

Not required; however, a peer review of software and hardware procurement records can be beneficial to ensure the correct order is placed.

5.11 Develop Training Plan

Responsibility

User Education Team and Project Management Team

Applicability

A Training Plan is needed for post implementation education.

Description

A Training Plan defines the training needed to successfully implement, operate the software, and address the training provided to the project sponsor, users, and maintenance staff.

Training must address both the knowledge and the skills required to use the system effectively. The objectives of the training program are to:

- Provide trainees with the specific knowledge and skills necessary to perform the work.
- Prepare training materials to “sell” the software as well as instruct the trainees. The training program’s goal is ensure the trainees become familiar with the new software.
- Account for the knowledge and skills the trainees possess and use this information as a transition to learning new material.
- Anticipate the needs for follow-on training after the software is fully operational, including the possibility of refresher courses, advanced training, and repeats of basic courses for new personnel.
- Build in the capability to easily update the training as the software evolves.
- Address the need for extra training if new hardware or software is introduced.

Include the project sponsor and user representatives in the planning activities to determine the training needs for all categories of users (managers, users, and maintenance staff).

Outputs

At a minimum, the initial Training Plan addresses:

- Identification of personnel to be trained. Verify the list with the project sponsor and users.
- A definition of the overall approach to training along with required courses.
- Delineation of the scope of the training needed for users, management, operations, and maintenance personnel.
- Explanation of how and when training will be conducted, including instructor qualifications, learning objectives, and mastery or certification requirements (if applicable).

- Identification of any skill areas for which certification is necessary or desirable.
- Establishment of a preliminary schedule for the training courses. The schedule must reflect training requirements and constraints outside of the project. It may also include the identification of critical paths in the training schedule such as the period for the software's installation and conversion to production status.
- Definition of the required courses, including an outline of content and sequence.

In addition, it may include:

- Reference to the organization's training policy for meeting training needs
- Steps to ensure software managers have received orientation on the training program
- Ensure training courses prepared at the organization level are developed and maintained according to organizational standards
- A waiver procedure for required training for individuals who already possess the knowledge and skills required to perform their designated role
- Measurements to be used for evaluating the effectiveness of the training
- Ensure training records are properly maintained

The initial Training Plan is maintained in the Project Folder. The plan will be reviewed and updated during the Software Integration and Testing Phase.

Review Process

Conduct a structured walkthrough to ensure the initial Training Plan is accurate and complete.

Template

Training Plan

5.12 Develop Conversion Plan

Responsibility

Project Management Team

Applicability

The Conversion Plan is created when there is a need for software replacement.

Description

If the software replaces an existing automated system, a Conversion Plan is generated. The major elements of this plan are conversion procedures, outline of the installation of new and converted data stores, conversion programming and implementation planning.

File conversion includes a confirmation of file integrity, as well as a determination of the output of the new system compared with the current system. The objective of file conversion is for new files to be complete, accurate, and ready to use.

Many factors influence data conversion, including the design of the current and new system, and processes for data input, storage, and output. Understanding the data's function in the current system and the new system is very important. The structure of the data to be converted can limit the development of the system and affect the choice of software.

Outputs

The Conversion Plan identifies what conversions are needed and how the conversion(s) will be implemented. Factors to be considered include:

- Portions of the conversion process may be performed manually.
- Parallel runs of the old and new systems may be necessary during the conversion process.
- The function of the data in the current and new systems must be understood. This will not always be the same.
- The order the data is processed in the two systems may influence the conversion process.
- Volume considerations, such as the size of the database and the amount of data to be converted, influence how the data will be converted.
- User work and delivery schedules, timeframes for reports and end-of-year procedures, and the criticality of the data help determine when data conversion is scheduled.
- A determination of data availability during the conversion process to determine data access limitation.
- Data purification tasks are performed.

- Plan for the disposition of obsolete or unused data not converted.

Review Process

Structured walkthroughs are conducted, as needed, to ensure the Conversion Plan is accurate and complete.

Template

Conversion Plan

5.13 Develop Architecture Review Board (ARB) Document

Responsibility

Project Management Team

Applicability

The ARB is a review tool.

Description

The mission of the ARB is to review the architectural solutions proposed for major application changes to verify the Department of Public Welfare (DPW) strategic vision is maintained, existing solutions are leveraged, lessons learned are communicated and the proposed technical solution is supported and understood by all of DPW.

The Objectives of the ARB are:

- To review and approve proposed changes to the technical architecture of a project
- To ensure existing reusable components/solutions are used
- To take advantage of Information Technology (IT) investments
- To confirm adherence to IT standards/best practices

Outputs

The ARB is documented in accordance with project design standards. Maintain the ARB in the Project Folder.

Review Process

Conduct a structured walkthrough to verify the conversion requirements are correct and complete. A representative from the security group is required to attend the walkthrough.

Template

Architecture Review Board (ARB) Document

5.14 Conduct Phase Review

5.14.1 Conduct Peer Reviews

Peer reviews are conducted within the project management team to review each of the Requirements Definition Phase deliverables. This is not a formal process but rather a review to ensure team members at the same level agree to the deliverables produced and to leverage the knowledge and experience of others.

5.14.2 Conduct Structured Walkthroughs

Structured walkthroughs are appropriate for reviewing the technical accuracy and completeness of outputs and deliverables. The walkthroughs are scheduled to review small, meaningful pieces of work. The progress made in each lifecycle stage determines the frequency of the walkthroughs.

Walkthroughs can be conducted in various formats, with various levels of formality, and with different types of participants. In some cases, it may be beneficial to include software users in walkthroughs. Management representatives do not participate in structured walkthroughs. Regardless of the variations in format and participants, the basic activity (peer review) and the major objectives (find errors and improve quality) of the structured walkthroughs remain the same. For further information, refer to the [Structured Walkthrough Process Guide](#).

5.14.3 Conduct In-Phase Assessments (IPA)

If an IPA is required for this project, the work will be performed by an independent reviewer. The reviewer delivers the IPA report to the project management team which maintains the document in the Project Folder. For further information, refer to the [In-Phase Assessment Process Guide](#).

5.14.4 Conduct Phase Exit

A Phase Exit is conducted at the end of each phase of development or maintenance. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates all known issues have an acceptable plan for resolution. The project management team maintains the document in the Project Folder. For further information, refer to the [Phase Exit Process Guide](#).

6.0 Detailed System Design (DSD) Phase

Applicability

In the DSD it is important to fill in detail and to incorporate technical information that is required and necessary to automate the business process using data communications, hardware and software. Use this section for all but the simplest express projects.

Description

The user-oriented General System Design (GSD) is now translated into a technical, computer-oriented DSD. Data structures and processing is designed to the level of detail necessary to begin coding. General module specifications define what the modules are to accomplish. Effort focuses on specifying individual routines and data structures while holding constant the software structure and interfaces developed during the GSD. When structural problems are found in the general design, the deficiencies must be addressed that document before proceeding.

Note: Each module and data structure will be considered individually during detailed design, with emphasis placed on the internal and procedural details.

The primary output of this phase is a DSD document providing a blueprint for the coding of individual modules and programs.

Inputs

Inputs include the:

- Requirements Traceability Matrix (*expanded*)
- General System Design (GSD) Document
- Acquisition and Installation Plans
- System Architecture Document
- Capacity Plan
- Training Plan
- Conversion Plan
- Test Plan

High Level Activities

This section is divided into sub-sections describing the high-level activities performed during this phase. The activities represent the minimum requirements for a large software development effort. Notes are provided to assist in customizing the lifecycle phase

requirements to accommodate project scalability. The high-level activities for the DSD Phase consist of:

- 6.1 Select System Architecture
- 6.2 Develop Detailed System Design (DSD)
- 6.3 Refine Data Requirements
- 6.4 Design Physical Data Model
- 6.5 Manage Requirements
- 6.6 Select Programming Standards
- 6.7 Refine Test Plan
- 6.8 Develop Proof of Concept/Prototype
- 6.9 Refine Conversion Plan
- 6.10 Develop Electronic Commerce Security Assessment (ECSA)
- 6.11 Conduct Phase Review

Outputs

Several outputs are produced during this phase. The outputs listed below are the minimum requirements for a large software project. The size and complexity of the project determine the extent that additional documentation will be required. Explanations of the outputs are provided under the applicable activities described below:

- Detailed System Design (DSD) Document
- Requirements Traceability Matrix (expanded)
- System Architecture Document (revised)
- Conversion Plan (revised)
- Electronic Commerce Security Assessment (ECSA) Document
- Test Plan (revised)

A matrix showing the outputs associated with each high-level activity is provided in [Exhibit 6 0-1, Detailed System Design High Level Activities and Outputs](#).

Review Process

Quality reviews are necessary during this phase to validate the various outputs. The activities appropriate for quality reviews are identified in this phase and [2.3 Quality Reviews](#). The reviews are an important milestone in the design process. The time and resources needed to conduct the walkthroughs and Critical Design Review are indicated in the project resources, schedule, and Work Plan Standard.

Reference/Resource

Section [2.3 Quality Reviews](#), provides an overview of the types of reviews to be conducted within a project.

[Conducting Structured Walkthroughs](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[Detailed System Design Phase Checklist](#)

Exhibit 6.0-1 Detailed System Design High Level Activities and Outputs

High Level Activities		Outputs	Deliverable
6.1	Select System Architecture	System architecture recommendation	N
6.2	Develop Detailed System Design	Detailed System Design Document	Y
6.3	Refine Data Requirements	Detailed System Design Document (Data Dictionary)	Y
6.4	Design Physical Data Model	Detailed System Design Document (Physical Data Model)	Y
6.5	Manage Requirements	Requirements Traceability Matrix (<i>expanded</i>)	Y
6.6	Select Programming Standards	Programming Standards	N
6.7	Refine Test Plan	Test Plan (<i>revised</i>)	Y
6.8	Develop Proof of Concept/Prototype	Proof of Concept	N
6.9	Refine Conversion Plan	Conversion Plan (<i>revised</i>)	Y
6.10	Develop Electronic Commerce Security Assessment (ECSA)	Electronic Commerce Security Assessment (ECSA) Document	Y
6.11	Conduct Phase Review	Documentation from Peer Review, Structured Walkthrough, and In-Phase Assessment	Y

A deliverable is an output identified in the Project Plan and formally delivered to the project sponsor and other project stakeholders for review and approval.

6.1 Select System Architecture

Responsibility

Project Management Team

Applicability

This section is applicable when a system architecture has not already been selected and one must be selected or the existing one in which this application will reside must be modified or updated.

Description

When the system architecture for the software has not been pre-determined by the existing computing environment or by the project sponsor and users, architectural alternatives are evaluated to determine the best, cost-effective solution to satisfy the project requirements.

Note: "Cost effective solution" does not mean the least expensive alternative. The best, cost effective solution is the alternative doing the best job of satisfying project requirements, ensuring the highest quality software, and providing an adequate return on investment in a timeframe acceptable to the project sponsor.

Base the selection of specific hardware, software, database management system, and communication facilities on:

- Departmental architecture guidelines or standards
- Hardware and software emphasizing simplicity, flexibility, ease of operation and maintenance
- Cost to procure and maintain potential environment
- Data backup/restore and disaster recovery procedures
- Selection of a distributed or centralized processing environment
- Communication requirements
- Data configuration
- Capacity requirements

Contact the functional support areas or domain experts to aid in the architecture evaluation process. Consultation and input from system and database administrators, local area network administrators, operations personnel, data security staff, developers, and communication experts are helpful.

Outputs

Any output here should be incorporated within the Detailed Design Document.

Reference/Resource

The Software Development Repository will contain links to any applicable architecture standards.

Tasks

The tasks for selecting the System Architecture consist of:

- 6.1.1 Evaluate System Architecture Alternatives
- 6.1.2 Recommend System Architecture

6.1.1 Evaluate System Architecture Alternatives

Responsibility

Project Management Team

Applicability

This section is applicable when the selection of a system architecture is undertaken by the project team.

Description

Factors to consider in an evaluation of architectural alternatives include:

- The experience that the project team members have with each alternative
- The availability of reusable components to facilitate the implementation
- The requirements
- Organizational standards
- The strategic plans for information systems
- The budget

Issues to be considered when evaluating the alternatives:

- Identification of functions to be automated and those that will be manual – including an examination of *what* the automated portion(s) will encompass
- The technical solution for the objectives. The determination of *how* the software is to be designed (e.g., online vs. batch, client-server vs. mainframe, object oriented vs. waterfall approach, web vs. desktop client, Oracle vs. Sybase)
- The project sponsor and users' computing environment and the needs created by the technical solution. Consider any hardware and software to be acquired, including system software and database management products.

One approach for evaluating architecture alternatives is:

- Conduct a Cost Benefit Analysis to determine the most cost-effective alternative. On the benefits side, include the improvements over the current process being used to support the business application. On the cost side, include any degradation from current capabilities and the rationale for allowing the degradation.
- Generate and evaluate a data flow diagram for each alternative.
- Identify how users would interact with the features associated with each alternative (such as the generation of queries and reports).

- List the risks associated with each alternative and develop a plan for mitigating each risk.
- Compare the performance capabilities of each alternative. For example, *“how fast will each alternative be able to process the user’s work given a particular hardware resource?”* Performance is usually expressed in terms of throughput, run time, or response time. Five factors frequently affecting performance include:
 - Number of intermediate files in a system
 - Number of times a given file is passed
 - Number of seeks against a disk file
 - Time spent in calling programs and other system overhead
 - Time taken to execute actual program
- Compare the security and access control features of each alternative, including the extent to which each alternative provides protection against human errors, machine malfunction, or deliberate mischief. Common controls include:
 - Check digits on predetermined numbers
 - Batch control totals
 - Creation of journals and audit trails
 - Limited access to files
- Compare the ease with which each alternative allows the system to be modified to meet changing requirements, such as:
 - Fixing errors
 - Changing user needs
 - Mandatory/statutory modifications
 - Enhancements

Outputs

Records for each alternative evaluated are maintained in the Project Folder and used to develop a summary of the system architecture alternatives. The summary will be integrated into the materials presented to the project sponsor when a system architecture recommendation is made.

If a Cost Benefit Analysis is conducted, prepare a report describing the process used for the analysis, a summary of the alternatives considered, and the results obtained and maintain the report in the Project Folder. The report will be integrated into the materials presented to the project sponsor when a system architecture recommendation is made.

Review Process

Structured walkthroughs are conducted to review the records for each alternative.

6.1.2 Recommend System Architecture

Responsibility

Project Management Team

Applicability

This task is necessary when additional resources are required, when deviations with organizational standards are required and when seeking buy-in from future project team members or stakeholders.

Description

Based on the results of the architecture alternatives evaluation, a recommendation is developed for a cost-effective system architecture satisfying the project requirements.

Prepare a presentation for the project sponsor and users providing the supporting information:

- The limitations or problems with any current manual or automated process to be resolved by the software.
- The logical model for the software. Highlight new functionality to be implemented.
- The information for each architecture alternative evaluated, to include:
 - A description of the alternative
 - An overall data flow diagram showing how the alternative would be implemented
 - The way the system would look to the users, in terms of hardware, user interface, reports, and query facilities
 - The estimated benefits of the alternative
 - The estimated cost and time to implement the alternative
 - A statement of the element of risk associated with the alternative
- The recommended alternative and explanation for the selection.

Concurrence must be reached from all stakeholders regarding the selection of the system architecture before proceeding to the next phase of development. Any delay in making this decision may result in missed deadlines established within the project schedule.

Outputs

Document the recommended system architecture and a summary for each alternative in the System Architecture Document. Include the recommendation of any background information relevant to the decision process, such as a Cost Benefit Analysis Report. Describe the rationale for proposing the recommended architecture along with an analysis of the impact on the users' organization. Include the impact analysis for existing and other planned systems.

Present the architecture recommendation to the project sponsor and users, either as a presentation or a distributed document. Maintain the document in the Project Folder.

Review Process

A structured walkthrough is conducted to review the completeness and accuracy of the evaluations and recommendation.

6.2 Develop Detailed System Design (DSD)

Responsibility

Project Management Team

Applicability

This DSD should be created for any substantial new system or significant modification to an existing one where the general design is inadequate in detail to proceed with system development.

Description

The DSD is the main deliverable from the DSD Phase. Before coding and testing begins, it translates the requirements into precise descriptions of the software components, interfaces, and data. The DSD is the blueprint for the Development Phase and is based on the software structure and data model established during the General System Design (GSD) Phase.

After the project sponsor's formal approval of the DSD Document, the system design is baselined. Once the DSD has been baselined, future changes must be managed under the change control procedures established in the [IRM Standards/Business and Technical Standards/Operations Support Domain/Configuration and Change Management](#). Records of all approved changes are incorporated into the DSD Document.

Note: It is important for the project sponsor and users to understand any changes to the baselined DSD. This may affect the project scope, cost, required resources, and the project schedule.

The Project Management Team is responsible for the identification of any requested changes resulting in a change to the project's scope. Evaluate the potential impact of any changes to the project cost, resources, or project schedule. Notify the project sponsor when revisions are required to accommodate the change requests.

Each requirement in the Requirements Definition Document (RDD) must be traceable to one or more design entities. This traceability ensures the software satisfies all the requirements and does not include inappropriate or extraneous functionality.

Expand the Requirements Traceability Matrix developed in the Requirements Definition Phase to relate the DSD to the requirements.

Outputs

Maintain the Detailed Design Document and the Expanded Requirements Traceability in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix.

Refer to task [6.2.2 Conduct Critical Design Review](#), for the DSD review process.

Tasks

The tasks for developing the DSD consist of:

- 6.2.1 Develop Detailed System Design (DSD) Document
- 6.2.2 Conduct Critical Design Review
- 6.2.3 Develop Program Specifications

6.2.1 Develop Detailed System Design (DSD) Document

Responsibility

Project Management Team

Applicability

This section is applicable whenever a detailed system design document is created. A DSD should be developed for all projects except express projects. See [6.2 Develop Detailed System Design \(DSD\) - Applicability](#).

Description

The DSD Document is a description of the software structures, components, interfaces, and data necessary to support the programming process. The design is based on the requirements found in the Requirements Definition Document (RDD) and must be consistent with and expand upon the framework provided in the general systems design (GSD) document.

The DSD Document is submitted to the project sponsor and users for review and approval. The approved design document is the official agreement and authorization for designing and building the software. Approval implies the design is understood, complete, accurate, and ready to be used as the basis for subsequent lifecycle phases.

The approved document specifies the baselined design. Subsequent changes or additions must receive stakeholder concurrence and establish a revised design. This document should be considered a “living” document throughout the remainder of the SDM, but subject to the change control management process.

Outputs

Maintain the approved DSD Document in the Project Folder.

Review Process

Conduct structured walkthroughs to ensure the DSD Document is accurate and complete.

After the completion of the DSD Document, schedule an In-Phase Assessment (IPA) if required.

Reference/Resource

The In Phase Assessment [\(IPA\) Process Guide](#) provides a description and instructions for conducting an IPA.

Template

[Detailed System Design \(DSD\) Document](#)

6.2.2 Conduct Critical Design Review

Responsibility

Project Management Team

Applicability

This step will always be performed whenever a formal DSD is created.

Description

The Critical Design Review is a formal technical review of the Detailed System Design (DSD). The purpose of the review is to show the document is consistent with the requirements document and the GSD and that it adequately addresses the informational needs required during the development process. The review must show that all features must be traceable back to the requirements document and that all requirements have been included. In addition, all design constraints (e.g., performance, interface, security, resource, and reliability requirements) are encompassed by the proposed design.

The level of technical detail presented in the review will depend on many factors, including the audience. The meetings are usually attended by the project sponsor, users, and on occasion, a technically oriented audience. At times, the validity of algorithms used to perform critical functions must be addressed.

Note: Several short Critical Design Reviews can replace one long review if the software components are not highly interdependent.

The Critical Design Review is conducted to determine whether or not the design specifications are capable of supporting the full functionality of the software. The review includes a determination of whether or not:

- The algorithms will perform the required functions
- The specification is complete, unambiguous, and well documented, including inputs, outputs, process description, interfaces, timing, sizing, and data storage allocations
- The specification is necessary, sufficient, and directly traceable to the requirements definition document (RDD)
- The specification is compatible with every other related specification, piece of equipment, facility, and item of system architecture, especially regarding information flow, control, and sequencing
- Each component specification is consistent with the abilities of current development and user personnel

In addition to verifying individual specifications, the Critical Design Review assesses other project outputs to ensure:

- The team is following the approved design approach
- Adequate measures are taken to reduce risk on a technical, cost, and schedule basis
- The performance characteristics of the design solution are acceptable
- Testing will be sufficient to ensure software correctness
- The resulting application will be maintainable
- Provisions for automatic, semi-automatic, and manual recovery from hardware/software failures and malfunctions are adequate and documented
- Diagnostic programs, support equipment, and commercial manuals comply with the system maintenance concept and specification requirements

Outputs

Official meeting minutes for each design review session are distributed to all participants. The minutes consist of significant questions and answers, action items of the individual/group responsible, deviations, conclusions, and recommended courses of action resulting from presentations or discussions. Recommendations not accepted must be documented indicating the reason for non-acceptance. The project sponsor (or user representative) determines review performance in one of three ways:

- *Approval* - The review was satisfactorily completed.
- *Contingent Approval* - The review is not finished until the satisfactory completion of resultant action items.
- *Disapproval* - The specification is inadequate. Another Critical Design Review will be required.

6.2.3 Develop Program Specifications

Responsibility

Development Team

Applicability

Specifications are required for all programs, modules and classes.

Description

Program Specifications are the written procedural descriptions of each software component. The Program Specifications provide precise and adequate information necessary for the application staff to develop the code. A consistent method of creating specifications should be adhered to for all components.

Many techniques are available for creating the program specifications, including the use of:

- Formal specification languages
- Program design languages – e.g., pseudocode or structured English
- Metacode, tabular tools – e.g., decision tables
- Graphical methods – e.g., flow charts or box diagrams

Teams on projects using object-based and Object-Oriented (OO) methods may use a different approach. Often modules and components are developed in small groups with specifications being prepared followed by coding without producing all of the specifications prior to proceeding with development. Development then proceeds in an iterative fashion. In many O.O. cases, the requirements specification, preliminary design constraints and dependencies, often results in detailed specifications formulated in the design language.

The team members may select one or more techniques in determining the suitability of the software, along with the requirements of the team members using the DSD.

Outputs

Software specifications may be produced as documents, graphic representations, formal design languages, records in a database management system, and the Computer Aided Software Engineering (CASE) tool dictionaries.

Sample Attributes

For each program to be constructed, the functional and technical attributes are documented. Typical attributes include:

- Program identification
- Program name

- Program purpose
- Program generic type
- Functional description
- Program hierarchical features diagram
- Development dependencies and schedule
- Operating environment
 - equipment
 - programming language and version
 - preprocessor
 - operating system
 - storage restrictions
 - security
- Frequency of use
- Data volumes
- Program termination messages
 - normal termination
 - abnormal termination
- Console/printer messages
- Recovery/restart procedures
- Program input/output diagram
- Data bank information
- Called and calling programs/modules with defined parameters
- Program logic diagrams
- Significant “how-to” instructions
- Telecommunications information
- Recommended coding techniques

Review Process

One or more structured walkthroughs are recommended to ensure Program Specifications are accurate and complete.

Reference/Resource

Program specifications within the DSD Document template

6.3 Refine Data Requirements

Responsibility

Development Team, Data Analyst, and Data Administration

Applicability

This section is applicable whenever the data dictionary will require updating beyond what has already been done for this project.

Description

The data dictionary is finalized in the Detailed System Design (DSD) Document to reflect changes noted in the DSD phase. The Data Dictionary was developed in the Requirements Definition and General System Design (GSD) phases.

Outputs

The data dictionary is reviewed and updated to complete the detailed information on data elements and their physical characteristics, data conversion requirements, and business information.

Review Process

Data Administration conducts a structured walkthrough to verify the data dictionary is correct and complete.

Reference/Resource

[Enterprise Data Dictionary](#)

6.4 Design Physical Data Model

Responsibility

Development Team and Data Analyst

Applicability

Whenever data storage structures for data movement structures will be added or modified.

Description

The physical data model is a description of the dynamics, data transformation, and data storage requirements of the software. To achieve a specific technical solution, the logical data model developed during the General System Design (GSD) phase is used to build a physical data model. Retain all the constructs inherent in the logical data model, with the exception of the naming constructs which must reflect the appropriate standards. If the physical data model is not consistent with the logical data model, the differences must be reconciled by updating the general design, the detailed design, or both before proceeding.

The physical data model typically differs from the logical data model in the:

- Key information – Primary and Foreign keys are not shown in the logical data model
- Constraints imposed by the database management system – The logical data model may have different implementations in the selected database management system.
- Performance – Data redundancies, indices, and data structure changes may have to be introduced into the physical data model to improve performance.
- Distributed processing – Possible network and multiple production hardware configurations may cause changes to the physical data model.

During database design, develop a description of the required implementation for the master and transaction files. The features of the designed database are to include:

- Report writer and file processing capabilities
- Online retrieval, updating, and storage of data
- Automated data dictionary systems
- Extensible Markup Language (XML) where applicable

Outputs

The physical data model is documented, maintained in the Project Folder, and incorporated into the Detailed System Design (DSD) Document.

Review Process

Structured walkthroughs are conducted to verify the physical data model is correct and complete.

Reference/Resource

[Instructions for Completing the Data Dictionary Excel Spreadsheet](#)

[ITB-INF003 Data Modeling Standards](#)

6.5 Manage Requirements

Responsibility

Project Management Team

Applicability

This is to be used in any development effort where scale warrants the coordination of resources including staff, budget, and procurement. Generally the more stakeholders involved the more essential this task becomes.

Description

At the completion of the Detailed System Design (DSD) Document, review and cross-reference all the requirements in the DSD and the Requirements Traceability Matrix.

Each requirement identified in the Requirements Definition Document (RDD) must be traceable to one or more design entities. This traceability ensures the software satisfies the requirements and does not include inappropriate or extraneous functionality. The Requirements Traceability Matrix developed in the Requirements Definition Phase and further updated during the General Design phase is expanded to relate this Detailed System Design (DSD) to the requirements.

Outputs

Maintain the expanded requirements traceability matrix in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix to ensure all required functionality is included.

Reference/Resource

[Requirements Traceability Matrix](#)

6.6 Select Programming Standards

Responsibility

Project Management Team and Development Team

Applicability

This step is applicable where there is not an official standard in place. The team should select a standard based upon best practices in government and industry. It is also recognized that standards can become obsolete in whole or in part, so it may be necessary and proper to request revisions to existing standards. Selection of standard usually will not be necessary.

Description

Programming standards are necessary to ensure custom-built software has acceptable design and structural properties. Departmental standards help with consistency between various projects throughout the organization.

When it is necessary to select a standard given that one does not exist, the team should select one based upon best practices in government and industry. This standard can be updated to address reoccurring or likely problems that occur within the Department. This standard or updates to it then must be submitted to the application domain and approved by them.

Any deviation from established standards must be approved and documented in the Project Plan. The selected standard and the development of a new standard needs to include:

Control Flow Constructs

- Sequence
- If-then-else
- Case statement
- Do-while (pretest loop)
- Do-until (post-test loop)

Module Size

- As a “rule-of-thumb” the number of executable lines of source code should average 100 lines per unit.
- As a “rule-of-thumb” the units should contain no more than 200 lines of executable source code.

Module Design

- Units do not share temporary storage locations for variables
- Units perform a single function
- Avoid self-modifying code
- Each unit is uniquely named
- Each unit has a standard format:
 - Prologue
 - Variable declarations
 - Executable statements/comments
- Use single entry/exit points except for error paths
- Set comments off from the source code in a uniform manner

Symbolic Parameters

- Use instead of specific numerics
- Use for constants, size of data structures, relative position in list

Naming Conventions

- Use uniform naming throughout each unit and module to be put under configuration control
- Use meaningful variable names
- Do not use keywords as identifiers

Mixed Mode Operations

- Avoid mixed mode expressions
- Add comments in code whenever used

Error and Diagnostic Messages

- Design messages to be self-explanatory and uniform
- Do not require user to perform table lookups

Style

- Use indentation, white space, and blank lines to enhance readability
- Align compound statements
- Avoid “goto” statements.
- Avoid compound, negative Boolean expressions
- Avoid nesting constructs beyond five levels deep
- Avoid deeply nested “if” statements.

- Use parentheses to avoid ambiguity
- Include only one executable statement per line
- Avoid slick programming tricks that may introduce defects and are difficult to maintain – the most direct solution is best.

Outputs

Identify and distribute the programming standard to the project management team members.

Review Process

Conduct a peer review to ensure the programming standards are complete and appropriate for the project's programming language and tools. When new standards are used, they should be recommended as standard revisions when appropriate.

Reference/Resource

[IRM Standards/Business and Technical Standards/Application Domain](#)

[ITB-APP001 Business Solutions Center of Excellence \(BSCoE\)](#)

6.7 Refine Test Plan

Responsibility

Project Testing Team

Applicability

The test plan should always be reviewed after or during the development of the Detailed System design (DSD). Whenever, the current test plan needs to be expanded upon to prove the validity of executable code, this step is applicable. For most any medium to large project this step will be necessary.

Description

This will include integration testing, system testing, user acceptance testing and all variations and forms of it. Testing of these types can take the form of parallel tests and pilot tests. Generally, test plan refinement is necessary to prove the validity of software and all of its functionality as it is specified in the DSD. Refinement of the test plan might require detailing generalized tests, updating any schedules and adding tests that were previously not included. Tests defined become more specific and when test case scenarios are used, they are likely to be expanded upon to validate the processes. Tests that are likely to be added or detailed include:

- Computations
- New functions
- Common components defined during the DSD
- Look and feel tests
- Navigational Tests
- Verification of Inputs and Outputs
- Verification of presentation and format
- Workflows
- Software component Interfaces

Refine the Test Plan to describe the testing effort, to provide the testing schedule, and to define the complete range of test cases to ensure the reliability of the software. Test cases must be complete and the desired outputs known before testing is started. The test plan addresses:

- A definition of, and the objectives for, each test case
- Definition of the test scenario(s) including the step-by-step procedure, the number of processing cycles to be tested or simulated, and the method and responsibility for loading test data into the system

- Specifications of the test environment including the hardware and software environments under which the testing are to be conducted. Identify and describe manual procedures, automated procedures, and test sites (real or simulated)
- Identification of test tools and special test support needs (e.g., hardware and software to simulate operational conditions or test data recordings of live data)
- Identification of responsibilities for conducting tests, reviewing, reporting, approving the results, and correcting error conditions
- A requirements verification matrix mapping individual tests to specific requirements, and a description of how each system requirement is to be validated
- A schedule for integrating and testing all components, including adequate time for re-testing

Integration Testing

Integration testing is used to verify the integrity of a module and interfaces with other modules within the software structure. The Integration Test Plan is developed to incorporate modules (successfully tested) into the overall software structure and to test each level of integration to isolate errors.

Except for the largest or most critical projects, the Integration Test Plan is part of the Project Test Plan.

The number of integration levels, the classes of tests to be performed, and the order of routines and builds are incorporated into the overall software structure and addressed in the Integration Test Plan. Questions to be considered when developing the plan:

- Will routines be integrated in a purely top-down manner or should builds be developed to test sub-functions first?
- In what order should the major software functions be incorporated?
- Is the scheduling of module coding and testing consistent with the order of integration?
- Is special hardware required to test certain routines?

Include Integration Testing to validate:

- Interfaces between the module and all other modules
- Each input message or command processed by the module
- Each external file or data record referenced by coding statements in the module
- Each message, display, or record generated by the module

An important consideration during integration test planning is determining the amount of test software development is required to perform adequate testing. For example:

- It may be cost-effective to delay testing of a communication function until hardware is available rather than generate test software to simulate communication links.
- Include certain completed modules within the software structure to avoid having to develop software drivers.

Base the decisions on the cost and risks.

System Testing

The goal of the System Test plan is to complete system tests on schedule and within project constraints. The purpose is to prove and validate overall system functionality. Perform system testing to ensure the software:

- Adequately satisfies the project requirements
- Functions in the computer operating environment
- Successfully interfaces between user procedures, operating procedures, and other systems
- Protects the software and data from security risks

As much as possible, test the system under the same daily conditions encountered during regular operations. Test the system timing, memory, performance, and security functions to verify they perform as specified. In addition, test for verification under normal and high-load conditions by the functional accuracy of logic and numerical calculations.

Test data, varied and extensive, is to enable the verification of the operational requirements. In the test plan include the expected output results in the form of calculated results, screen format, hardcopy output, predetermined procedural results, warnings, error messages, and recovery.

Detailed planning for system testing helps to ensure the system acceptance will be successfully completed on schedule. System testing includes:

- Performance tests measuring throughput, accuracy, responsiveness, and utilization under normal conditions and at the specified maximum workload
- Stress tests to determine the loads resulting in appropriate, non-recoverable, or awkward system behavior
- Interface tests to verify the system generates external outputs and responds to external inputs as directed by approved interface control documentation
- System recovery and reconfiguration tests
- Verification of the system can be properly used and operated in accordance with the user's guide and operating instructions
- Verification the system meets the requirements for reliability, maintainability, and availability, including fault tolerance and error recovery

- Verification of the effectiveness of error detection and analysis, and automated diagnostic tools
- Demonstrate the system complies with the serviceability requirements, such as accessibility, logistics, upgrades, diagnostics, and repair capabilities

Acceptance Testing

Acceptance Testing can be considered a special case of systems testing. However, the emphasis of acceptance testing is to include the actual system users and application owners. When this step is defined separately for system testing, this step will follow the systems test. The purpose is to prove functionality and acceptability to the end user. The goal is to gain user signoff and approval to proceed with implementation activities and planning.

Outputs

Maintain the refined test plan in the Project Folder.

Review Process

Conduct peer reviews or structured walkthroughs, as needed, to ensure each system test procedure is accurate, complete, and accomplishes the stated objectives. Review and revise the initial System Test Plan, as needed, during the Development Phase.

6.8 Develop Proof of Concept/Prototype

Responsibility

Project Management Team

Applicability

This section applies whenever a prototype is considered useful and practicable. A prototype/proof of concept can serve numerous purposes. One is most useful when it is difficult to get a clear description from the user/project sponsor of their expectations or requirements from an automation project. Prototypes are also quite useful in demonstrating what is or what is not possible. Finally this step is useful in validating what has been communicated, thus minimizing risks when proceeding with a costly development effort.

Description

Proof of Concept/prototype is developed to test and demonstrate the architecture. There are different types of prototypes prepared. One or more prototypes may be chosen within the project. Reviews are conducted, if prototypes are built. The type of prototype or the creating of a proof of concept/prototype is dependent on the project to demonstrate feasibility of the whole, parts, or certain unique aspects of the application. A prototype helps close the communications gap between the end user, project sponsor, and the development team. In addition, a prototype can facilitate the essential participation of the end user in the project. It mitigates the likelihood of project failure of the delivered application not meeting the end users expectations.

Types of Prototypes

- **Behavioral prototype** - focuses on exploring specific behavior of the system
- **Structural prototype** - explores some architectural or technological concerns
- **Exploratory prototype** - thrown away when done, also called a throwaway prototype
- **Evolutionary prototype** - gradually evolves to become the real system

Refer to the guidelines for developing the proof of concept in [7.3 Write Programs](#).

Outputs

The outputs for the Proof of Concept/Prototype is the completed units and modules of code based on the type of prototype developed.

Review Process

Conduct a structured walkthrough of the Proof of Concept/Prototype to ensure that it is consistent with user requirements and that the intended purpose of the prototype is met.

6.9 Refine Conversion Plan

Responsibility

Project Management and Development Teams

Applicability

This section is applicable only if a pre-existing system's database is being converted or the new database will be constructed from other data sources.

Description

The Conversion Plan created in the General System Design (GSD) Phase is modified based on new information gathered in the Detailed System Design (DSD) Phase. If the software replaces an existing data store or populated through one, a conversion plan must be created.

When not already done, identify the conversions needed, how the conversions are to be implemented, how the conversion process is to be tested, the conversion schedule, and how the conversion is to be implemented in the Conversion Plan. When appropriate, add reports detailing the rejected data as a result of the data cleansing/purification procedure.

All data mappings, conversions, data cleansing procedures, computations, and derivations must be detailed. Manual processes must be described procedurally and conversion software components must have specifications. A test plan is important to validate the quality on the converted data and to provide feedback to the project sponsor. It can never be assumed a conversion will be run once. It may be necessary to run it during development, system testing for acceptance testing, and finally prior to final implementation. Therefore, a conversion schedule is important to be consistent with and coordinated with the project schedule. Include a conversion report or process summary for the project stakeholders and validate the conversion process results.

Outputs

Maintain the fully detailed conversion plan, complete with updated schedule, manual procedures, and program specifications in the Project Folder. The plan should be submitted to the project manager or management team for inclusion within the project schedule.

Review Process

Conduct structured walkthroughs, as needed, to ensure the Conversion Plan is accurate and complete. The project management team should review the conversion schedule against the existing project schedule.

6.10 Develop Electronic Commerce Security Assessment (ECSA)

Responsibility

Project Management Team

Applicability

This section is applicable whenever data movement occurs beyond the Departments firewall. This would include all internet applications and data file transfers between the department and any external entity.

Description

Prior to participating or initiating an electronic transaction, an executive agency shall complete and submit an Electronic Commerce Security Assessment (ECSA) to the Office of Administration/Office of Information Technology (OA/OIT). The ECSA evaluates the proposed use, transmission, or storage of the electronic record, and recommends the security procedures to be used based upon certain criteria (i.e., the intended use of the electronic record, type of information being transmitted, received or stored, degree of risk to the Commonwealth, and users of the system, and potential legal liability).

The purpose of the ECSA is to assist program managers, information technology professionals, and senior agency leadership in determining the appropriate level of security necessary for sending, receiving, and processing electronic transactions. It is designed to provide a structured and consistent method for making such determinations. In addition, it provides guidance regarding the level of security designed into e-government applications.

Beyond providing the Office of Administration/Office of Information Technology (OA/OIT) with the information it requires to comply with the [Electronic Transactions Act](#), the ECSA serves a more specific purpose to the Department of Public Welfare. The Assessments are a key decision driver in the Department's information security risk management activities. The Assessments drive budgetary, technical infrastructure, and resource allocation decisions throughout the Department. Therefore, program managers, information technology personnel, and agency executive staff need to approach the Assessments with the appropriate level of diligence.

Outputs

Submit the ECSA document via email to the Department Security Officer (currently Frank Morrow) for Department review and subsequent submission to OA/OIT. Maintain the ECSA in the Project Folder.

Review Process

Submit the ECSA for review and approval to the Configuration Management Section/Service Level Management Unit. Once the internal approval is granted, the document will be submitted on your behalf to the OA/OIT. Applications will not be allowed to go-live until an ECSA has been approved. The approximate time required for review and approval is five weeks once submitted to OA/OIT. For complete detailed instructions, refer to the OA/OIT site at [Electronic Commerce Security Assessment Application](#).

Reference/Resource

[IRM Standards/Business and Technical Standards/Security Domain/OA/OIT Security Policies](#)

6.11 Conduct Phase Review

6.11.1 Conduct Peer Reviews

Peer reviews are conducted within the project management team to review each of the Requirements Definition Phase deliverables. This is not a formal process but rather a review to ensure team members at the same level agree to the deliverables produced and to leverage the knowledge and experience of others.

6.11.2 Conduct Structured Walkthroughs

Structured walkthroughs are appropriate for reviewing the technical accuracy and completeness of outputs and deliverables. The walkthroughs are scheduled to review small, meaningful pieces of work. The progress made in each lifecycle stage determines the frequency of the walkthroughs.

Walkthroughs can be conducted in various formats, with various levels of formality, and with different types of participants. In some cases, it may be beneficial to include software users in walkthroughs. Management representatives do not participate in structured walkthroughs. Regardless of the variations in format and participants, the basic activity (peer review) and the major objectives (find errors and improve quality) of the structured walkthroughs remain the same. For further information, refer to the [Structured Walkthrough Process Guide](#).

6.11.3 Conduct In-Phase Assessments (IPA)

If an IPA is required for this project, the work will be performed by an independent reviewer. The reviewer delivers the IPA report to the project management team which maintains the document in the Project Folder. For further information, refer to the [In-Phase Assessment Process Guide](#).

6.11.4 Conduct Phase Exit

A Phase Exit is conducted at the end of each phase of development or maintenance. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates all known issues have an acceptable plan for resolution. The project management team maintains the document in the Project Folder. For further information, refer to the [Phase Exit Process Guide](#).

7.0 Development Phase

Applicability

The Development Phase, subsequent to all the documentation from the Detailed Design Phase being prepared, reviewed and approved; the detail designs are translated into executable software. The objectives are to ensure the systems function as expected and user requirements are satisfied.

Description

This phase focuses on the transformation of the Detailed System Design (DSD) into working software. Any hardware or software procured to support the programming effort is installed.

Generate the source code, including suitable comments, using the approved program specifications. Code the supporting modules, including any database utilities. Group the source code into process able units, and compile all high-level language units into object code. Perform unit testing to determine if the code satisfies the program specifications and is complete, logical, and error free.

In addition, produce the operating documentation required for installing, operating, and supporting the software through its lifecycle. Design a training program and a Training Plan describing the program. Develop plans for the acquisition and installation of the operating environment hardware and software.

Inputs

Inputs include the:

- Test Plan
- Requirements Traceability Matrix (*expanded*)
- Detailed System Design (DSD) Document
- Software Specifications
- Programming Standards
- Conversion Plan

High-Level Activities

This section is divided into sub-sections describing the high-level activities performed during this phase. The activities represent the minimum requirements for a large software development effort. Notes are provided to assist in customizing the lifecycle phase requirements to accommodate project scalability. The high-level activities for the Development Phase consist of:

- 7.1 Develop Acquisition Plan
- 7.2 Establish Programming Environment
- 7.3 Write Programs
- 7.4 Conduct Unit Testing
- 7.5 Establish Allocated Baseline
- 7.6 Manage Requirements
- 7.7 Develop Test Scenarios
- 7.8 Plan Transition to Operational Status
- 7.9 Generate Operating Documentation
- 7.10 Refine Training Plan
- 7.11 Finalize Capacity Plan
- 7.12 Establish Integration Test Environment
- 7.13 Develop Batch Operations
- 7.14 Conduct Phase Review

Outputs

The size and complexity of the project determine deviations in the content and delivery of the outputs. Explanations of the outputs are provided under the applicable activities described in the remainder of this section. Typical requirements of a large development project include:

- Application Code
- Unit Test Scenario Checklist
- Requirements Traceability Matrix (*expanded*)
- Test Scenarios
- Operating Documentation (*initial*)
- Transition Plan
- Training Plan (*revised*)
- Capacity Plan (*final*)
- Batch Operations Manual (BOM)
- Batch Operations Services Request
- Test Plan (*final*)

A matrix showing the outputs associated with each high-level activity is provided in [Exhibit 7.0-1, Development High Level Activities and Outputs](#).

Review Process

Quality reviews are necessary during this phase to validate the product and associated outputs. The activities appropriate for quality reviews are identified in this phase and [2.3 Quality Reviews](#). The time and resources needed to conduct the quality reviews should be reflected in the project resources, schedule, and Work Plan Standard.

Reference/Resource

Section [2.3 Quality Reviews](#), provides an overview of the types of reviews to be conducted within a project.

[Conducting Structured Walkthroughs](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[Development Phase Checklist](#)

Exhibit 7.0-1 Development High Level Activities and Outputs

High Level Activities		Outputs	Deliverable
7.1	Develop Acquisition Plan	Acquisition Plan	N
7.2	Establish Programming Environment	Physical Installation of Hardware and Software	Y
7.3	Write Programs	Application Code	Y
7.4	Conduct Unit Testing	Unit Test Scenario Checklist Test Plan (<i>final</i>) Systems Test Plan	N Y Y
7.5	Establish Allocated Baseline	Internal build test procedures and results	Y
7.6	Manage Requirements	Requirements Traceability Matrix (<i>expanded</i>)	Y
7.7	Develop Test Scenarios	Test Scenarios	Y
7.8	Plan Transition to Operational Status	Transition Plan	Y
7.9	Generate Operating Documentation	Operating Documentation	Y
7.10	Refine Training Plan	Training Plan (<i>revised</i>)	Y
7.11	Finalize Capacity Plan	Capacity Plan (<i>final</i>)	Y
7.12	Establish Integration Test Environment	Validated Output	Y
7.13	Develop Batch Operations	Batch Operations Manual Batch Operations Services Request	Y Y
7.14	Conduct Phase Review	Documentation from Peer Review, Structured Walkthrough, and In-Phase Assessment	Y

A deliverable is output identified in the Project Plan and formally delivered to the project sponsor and other project stakeholders for review and approval.

7.1 Develop Acquisition Plan

Responsibility

Project Management Team

Applicability

Developing an acquisition plan is essential to create the path for the entire acquisition. The process is structured along various time lines based upon the complexity of the requirements. These time lines are consumed for funding and the timing of contract awarded.

Description

An Acquisition Plan is developed for the required hardware, software, and communications equipment. This process includes the installation and operations requirements for all known user sites and addresses any special procurement necessary to accommodate the equipment at a particular site. Acquisition planning must include sufficient time to accomplish all procurement, delivery, testing, and installation processes.

It may be necessary to perform a risk analysis of the impact of certain resources not being available when needed. Develop a contingency plan for dealing with needed resources acquired later than expected.

Outputs

When an Acquisition Plan is developed, the project sponsor and user representatives ensure all site-specific hardware, software, and communications needs are addressed. Maintain the Acquisition Plan in the Project Folder.

Note: The Acquisition Plan may be combined with the Installation Plan for projects not requiring extensive procurement and installation of hardware and software.

Review Process

Conduct a structured walkthrough, as needed, to ensure the Acquisition Plan is accurate and complete.

7.2 Establish Programming Environment

Responsibility

Project Management Team

Applicability

This is the actual installation of the required software and hardware.

Description

This activity involves the assembling and installation of hardware, software, communications equipment, databases, and other items required to support the programming effort. Once the installation of the equipment or software is complete, testing is conducted to verify the operating characteristics and functionality of the hardware and software. If required, activate the security software and procedures when the installations are complete.

Note: The production environment is not to be used for development.

Prior to support of product development, test and verify the vendor products satisfaction of the:

- Product performs as advertised/specified
- Product's performance is acceptable and predictable in the target environment [e.g., testing for Local Area Network (LAN) certification]
- Product fully or partially satisfies the project requirements
- Product is compatible with other hardware and software tools

Time should be allotted for the project management team to become familiar with the new products. Ensure the project management team members using the hardware or software obtain proper training. This may involve training sessions conducted by the vendor or a consultant.

This is a good time to review programming standards selected during Detailed System Design (DSD).

Outputs

Physical installation of the required equipment and testing reports

Review Process

Follow up on the testing reports.

7.3 Write Programs

Responsibility

Development Team and Application Developer's Team

Applicability

Software construction in today's development projects goes beyond the old paradigm of only compiling and linking code into executables. The widespread use of interpreted languages [e.g., scripts and Structured Query Language (SQL) statements] and tagging languages [e.g., Hypertext Markup Language (HTML) and eXtensible Markup Language (XML)] have broadened the scope of this activity. The term "write programs" has been retained and still communicates the idea of "software construction," but, it goes beyond the old paradigm of compile/link/load.

Description

The activity involves generating source and object code, executables, and scripts for the software. Write the source code in accordance with the programming standards selected in the Detailed System Design (DSD) Phase. Regardless of the platform, code development is to adhere to a consistent set of programming techniques and error prevention procedures. This will promote reliable, maintainable code, developed in the most efficient and cost effective manner.

Identify and store the source code and executables in a way to facilitate the configuration control measures described in the [IRM Standards/Business and Technical Standards/Operations Support Domain/Configuration and Change Management](#).

The tasks for writing programs include:

- Using the Program Specifications developed in the DSD Phase as the basis for the coding effort
- Writing, preparing and generating source code, methods, objects, classes, and scripts
- Generating the physical files and database structure
- Generating video screens, report generation codes, and plotting instructions
- If conversion of an existing system or data is necessary, generating the programs described in the Conversion Plan
- Conducting preliminary testing of completed units. When the test output is correct, reviewing the program specification to ensure the unit or module conforms to the specification

Coding Practices

Coding practices recommendations are:

- Meet with the programming staff, as needed, to discuss problems encountered and to facilitate program integration and uniformity
- Use a standardized set of naming conventions for programs, data elements, variables, and files to achieve program uniformity
- Facilitate the development and maintenance of modules being shared by programs, to require the same functionality
- Include internal documentation for each program
- Back up all code on a daily basis and store in an offsite location to avoid catastrophic loss
- Determine a standard format for storing and reporting elements representing numeric data, dates, times, and information shared by programs
- Update the DSD Document to reflect any required deviations from the documented design

Outputs

The outputs produced include:

- Completed units and modules of code
- Test materials generated from preliminary testing

Each requirement identified in the Requirements Definition Document (RDD) must be traceable to the code. This traceability ensures the software will satisfy the requirements and will not include inappropriate or extraneous functionality. Expand the Requirements Traceability Matrix to relate the requirements to developed software. Maintain the matrix in the Project Folder.

Review Process

Informal reviews of each application developer's work are recommended in order to keep team members informed of progress and to facilitate the resolution of problems. The combined knowledge and skills of the team members helps build quality into the software and support the early detection of errors in design, logic, or code.

Conducted Structured Walkthroughs to review the expanded Requirements Traceability Matrix and complete the modules to ensure the code is accurate, complete, well documented, and satisfies project requirements. For large or complex projects, conduct code inspections at successive phases of code construction.

A code inspection is a static analysis technique relying on visual examination of code to detect errors, violations of development standards, and other problems. The inspections are particularly important when several application developers or different programming teams

are producing code. The inspection team may include experts from outside of the project. Ideal times for code inspections occur when code and unit tests are complete, and when the first integration tests are complete. Identify code inspections as milestones in the Project Plan.

7.4 Conduct Unit Testing

Responsibility

Development Team and Application Developer's Team

Applicability

Software can be developed faster and better with the assistance of an efficient unit testing. To conduct the unit testing earlier in the development phase could save time and trouble. Some of the factors to reduce the test cycle time are through strength, improved, streamlined, and active system testability.

Description

Unit testing is used to verify the input and output for each module. Successful testing indicates the validity of the function or sub-function performed by the module and shows traceability to the design. During unit testing, test each module individually and verify the module interface for consistency with the design specification. Test the important processing paths through the module for expected results. In addition, test the error handling paths.

Unit testing is driven by test cases and test data designed to verify the software requirements, and to exercise all program functions, edits, in-bound and out-of-bound values, and error conditions identified in the program specifications. If timing is an important characteristic of the module, generate tests to measure time critical paths for average and worst-case situations.

Plan and document the inputs and expected outputs for all test cases in advance of the tests. Log all test results. Analyze, correct, and retest errors using the scenarios defined in the test cases. Repeat this cycle until all errors have been corrected. While unit testing is generally considered the responsibility of the developer, the project management team must be made aware of the unit test results.

Outputs

Completion of unit testing for a software component signifies internal project delivery of a component for integration with other components. Place all components having completed unit testing under configuration control as described in the [IRM Standards/Business and Technical Standards/Operations Support Domain/Configuration and Change Management](#). These components form the allocated baseline. Configuration controls restrict changes to tested and approved software in the allocated baseline. Subsequent changes or additions to the software agreed upon in a Critical Design Review receiving stakeholder concurrence, supersede the former baseline and establish a new Product Baseline.

As needed, review and update the draft versions of the Integration and System Test Plans, developed during the Detailed System Design (DSD) Phase. Updates are to reflect any changes made to the software design. Deliver the final versions of the Integration and

System Test Plans to the project sponsor and user for review and approval. Maintain the approved plans in the Project Folder.

Maintain all test materials, including unit test inputs, outputs, results and error logs, in the Project Folder, generated in this lifecycle phase.

Review Process

Conduct peer reviews of the test materials. Perform structured walkthroughs on any updated plans.

Template

Unit Test Scenario Checklist

7.5 Establish Allocated Baseline

Responsibility

Development Team and Application Developer's Team

Applicability

To ensure all projects are fully unit tested.

Description

An allocated baseline is an approved "build" of the software. After the first build has been completed, tested, and approved by the project management team or the lead application developer, the initial allocated baseline is established. Obtain approval for subsequent versions of an allocated baseline. The approved allocated baseline for one build supersedes its predecessor.

Conduct internal tests consistently, including:

- **Regression tests** - to verify the capabilities of earlier builds continue to perform within subsequent builds. Regression tests can be performed either manually or automatically. The scope is similar to a functional test which allows a consistent, repeatable validation of each new release of a product.
- **Functional tests** - to verify where the build meets the functional and data requirements and to correctly generate each expected display and report. The process includes a series of tests using a wide range of normal and erroneous input data. Such tests can be validating the product's user interface, database management, security, installation, networking, etc.
- **Performance and reliability tests** - to identify the performance and reliability thresholds of each build. This test involves an automated test package through simulation of a variety of normal, peak, and exceptional load conditions.

Once the initial allocated baseline is established, any change to the baseline must be managed under the change control procedures described in the [IRM Standards/Business and Technical Standards/Operations Support Domain/Configuration and Change Management](#). Approved changes to a allocated baseline must be incorporated into the next build of the software and revisions made to the affected outputs [e.g., Requirements Definition Document (RDD), Detailed System Design (DSD) Document, and Program Specifications].

Outputs

Document and maintain the internal build test procedures and results in the Project Folder. Identify any errors along with a description of the corrective action to be taken. Maintain the configuration control logs and records in the Project Folder.

Expand the Requirements Traceability Matrix developed in the Requirements Definition Phase. All outputs developed during the coding, unit testing, and building processes must

be traced back to the project requirements and the DSD. This traceability ensures the software satisfies all the requirements and remains within the project scope. Maintain the expanded Requirements Traceability Matrix in the Project Folder.

Review Process

When the project management team deems necessary, conduct peer reviews, addressing the internal build test materials maintained in the Project Folder. As needed, conduct structured walkthroughs of any updated documents.

7.6 Manage Requirements

Responsibility

Project Management Team

Applicability

Ensure sufficient information on the documentation as well as on monitoring the status report.

Description

Review the components developed and cross-reference with those in the Requirements Traceability Matrix.

Outputs

Each requirement identified in the Requirements Definition Document (RDD) must be traceable to one or more design entities. The traceability ensures the software satisfies the requirements and does not include inappropriate or extraneous functionality. Expand the Requirements Traceability Matrix developed in the Requirements Definition Phase to relate the General System Design (GSD) to the requirements. Maintain the expanded matrix in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix to ensure the required functionality is included.

7.7 Develop Test Scenarios

Responsibility

Project Management Team

Applicability

Developing the test scenarios is an essential activity to validate the success functionality of a product. Usually, various scenarios are created based on the functional testing document. This will expose the functional specification document to critical interpretation from an entirely different perspective. The Project Management Team and Application Developer's Team will have a chance to re-evaluate the objective of the specifications.

Description

As with many terms, scenario means different things to different people. Test scenarios are used to control the test cases to be processed and how to process them. The file may contain one or more scenarios and be cross-referenced. Test scenarios are based on the requirements, the General System Design (GSD), and Detailed System Design (DSD) Documents. Create the scenarios to identify likely production situations. Document the test scenarios in the **Test Scenarios Template** or recorded within software test tools. However the scenarios are recorded, essential information to include are:

- Version
- Build number
- Retry
- Test Scenario Number
- Process Number
- Environment
- Test scenario description
- Objective
- Assumptions and constraints
- Test files/test data

Outputs

Complete a Test Scenarios for each process and/or requirement to be tested. Maintain the Test Scenarios in the Project Folder.

Review Process

Conduct reviews for the Test Scenarios to ensure the scenarios tested match those detailed in the GSD and DSD Documents.

Template

Test Scenarios Template

Reference/Resource

[IRM Standards/Business and Technical Standards/Application Domain/Testing](#)

7.8 Plan Transition to Operational Status

Responsibility

Project Management Team

Applicability

A transition plan is needed to ensure a smooth transition from development to implementation and to the operational status.

Description

A successful transition from acceptance testing to full operational use depends on planning long before the software is installed in its operational environment. During planning, operational needs associated with the software are quantified. Procedures to be used in performing the transition are described. Rely on experience and data gathered from previous, similar projects to define the needs.

Outputs

Develop a transition plan, describing the detailed plans, procedures, and schedules guiding the transition process. Coordinate the development of the plan with the operational and maintenance personnel. Items to be considered when preparing the transition plan include:

- Detailed operational scenarios, describing the functions to be performed by the operational staff, support staff, maintenance staff, and users.
- The number, the qualifications, the training requirements of personnel, and an indication when they must be in place.
- A documented release process. If development is incremental, a definition of the process, schedule, and acceptance criteria for each release.
- A description of data generation or migration, including the transfer or reconstruction of historic data. Allow ample time for the project sponsor and user to review the content of reconstructed or migrated data files. (This helps reduce the chance of errors.)
- Problem identification and resolution procedures for the operational software.
- Configuration management procedures to be used for the operational product. Ideally, configuration methods used during development can continue to be used for the operational product.
- Delineation of the scope and nature of support provided by the project management team during the transition period.
- Identification of the organizations and individuals responsible for each transition activity, ensuring responsibility for the software by the operations and maintenance personnel increases progressively.

- Identification of products and support services needed for day-to-day operations, or enhance operational effectiveness.

Review Process

Conduct a structured walkthrough to ensure the transition plan is logical, accurate, and complete. Involve the operational and maintenance personnel.

Template

Transition Plan

7.9 Generate Operating Documentation

Responsibility

Project Management Team /Technical Writer

Applicability

Various applications are suitable to generate the operating documentation. One of it is the Web-based front ends. For a smaller scale project, hardcopy documentation might be sufficient. Regardless of the format, care and planning is needed to produce helpful, coherent information.

Description

The Department of Public Welfare (DPW) standard for operating documentation pertains to managing, maintaining, and supporting the infrastructure resources of DPW. It outlines the guidelines and tools used at the operational level of the infrastructure. The standards allow DPW to provide clients with the greatest level of availability to resources, resulting in improved services. The infrastructure resources include the servers, routers, other agency assets, databases, applications, networks, and Internet components necessary to conduct the automated business functions of DPW.

The Operating Documentation consists of the [Service Level Objective \(SLO\) for Gathering Metrics](#) and [Application Health Check](#).

Procedure

Some of the issues to consider when obtaining electronic documentation include:

- **Compatibility** - all components are to be compatible, provide for standard configurations, and be managed centrally allowing for expeditious problem resolution.
- **Simpler configuration** - since components need to be interoperable, the configurations tend to be less complex. This may lead to selecting a smaller pre-qualified group of vendors to supply the components.
- **Use of Commercial-Off-The-Shelf (COTS)** - decreases compatibility issues, provides a larger customer base for support, and allows for concentration on DPW's business requirements rather than software installation and maintenance.
- **Use reputable vendors** - third party products from reputable vendors provide a greater level of stability to DPW. In addition, the vendors tend to conform to industry standards to further improve that stability.
- **Future growth** - the components need to provide for DPW's current and future demands.
- **Recoverability** - continued service to clients is a paramount issue needing a robust disaster recovery plan.

- **Total Cost of Ownership** - the components used will provide cost effective alternatives for ownership and replacement.
- **Project management tools** - effective methods for identifying, tracking, and resolving problems arising in a production environment are necessary.
- **Transparent technology** - the framework components do not hinder the definition and resolution of problems arising in DPW. In addition, the technology provides for maximum scalability and allows for a wider range of configurations.
- **Enterprise management tools** - provide adequate metrics and reports to support the management of the assets of DPW. Some areas monitored include system capacity, availability, and stability.
- **Problem routing** - the components having appropriate alert mechanisms route the definitions of problems to the appropriate resources.
- **Remote access and management** - provides the ability to remotely access and manage the assets of a particular system within DPW.
- **Limited customer view** - the customer focus only on their area of responsibility.
- **Asset management** - the maintenance of information on the DPW assets must be current. Tools help with the inventory activities.

Outputs

Complete the documentation for the SLO for gathering metrics and Application Health Check.

Review Process

Conduct a structured walkthrough to ensure the operating documentation is logical, accurate, and complete. Involve the operational and maintenance personnel.

Templates

[Service Level Objective \(SLO\) for Gathering Metrics](#)

[Application Health Check](#)

7.10 Refine Training Plan

Responsibility

User Education Team

Applicability

Improve and perfecting the Training Plan.

Description

The training plan outlines the training needed to successfully implement and operate the software, and addresses the training to be provided to the project sponsor, users, operational, and maintenance staff.

Training must address the knowledge and the skills required to use the system effectively. Training accomplishes:

- Provide trainees with the specific knowledge and skills necessary to perform the work.
- Prepare complete training materials to describe the software and instruct the trainees. Training is to leave the trainees with the enthusiasm and desire to use the new product.
- Account for the knowledge and skills the trainees bring with them, and use the information as a transition to learning new material.
- Anticipate the needs for follow-on training after the software is fully operational, including the possibility of refresher courses, advanced training, and for new personnel.
- Build in the capability to easily update the training as the software evolves.
- Address the need for extra training if new hardware or systems software is introduced.

The project sponsor and users are to be involved in the planning activities to determine the training needs for all categories of stakeholders (managers, users, operational, and maintenance staff).

Outputs

Issues addressed by the Training Plan include:

- Identification of personnel to be trained. A list of trainees is reviewed with the project sponsor and users to ensure all personnel to receive training are identified.
- A definition of the overall approach to training along with required courses and materials.

- Delineation of the scope of the training needed for managers, users, operational and maintenance staff.
- Explanation of how and when training is to be conducted, including instructor qualifications, learning objectives, and mastery or certification requirements (if applicable).
- Identification of any skill areas for certification, if required.
- Establishment of a preliminary schedule for the training courses. The schedule must reflect training requirements and constraints outside of the project. It may also include the identification of critical paths in the training schedule such as the period for the software installation and conversion to production status.
- The required courses are defined, including an outline of content and sequence.
- Reference to the organization's training policy for meeting training needs.
- Steps to ensure managers receive orientation on the training program.
- The training courses prepared at the organizational level are developed and maintained according to Commonwealth and organizational standards.
- A waiver procedure for training the individuals possessing the knowledge and skills required to perform their designated role.
- Methods used for evaluating the effectiveness of the training, such as questionnaires, surveys, and post training evaluations.
- Ensure training records are properly maintained.

Maintain the Training Plan in the Project Folder. Review and update the plan during the Software Integration and Testing Phase.

Review Process

Conduct a structured walkthrough to ensure the initial Training Plan is accurate and complete.

Template

Training Plan

7.11 Finalize Capacity Plan

Responsibility

Development Team and Project Team Analysts

Applicability

The capacity plan, if done correctly and proactively can help avoid downtime. The Capacity Plan should include prediction of when a given application might outgrow its existing server or when more users are added to accessing the application.

Description

The Capacity Plan estimates the capacity for the application by usage, network bandwidth, disk storage capacity, demographic profile environment, load test environment, production environment, and batch/FTP capacity. Continuously revise the plan throughout the project to ensure the latest capacity requirements are captured and verified.

Outputs

Design and document the finalized capacity plan in accordance with project design standards. Include the Capacity Plan and maintain it in the Project Folder.

Review Process

Conduct a structured walkthrough to verify the capacity requirements are correct and complete.

7.12 Establish Integration Test Environment

Responsibility

Project Management Team

Applicability

Establish various test teams and ensure to the test systems are ready.

Description

Based on the hardware and software specifications listed in the System Architecture document and the Acquisition and Installation Plan, the Integration and System Test Environment is setup and prepared. This step is necessary prior to the start of the testing phase. All requirements specified must be delivered and validated according to the specifications. Any changes to the original specifications are to be documented in the System Architecture document to ensure the new specifications are captured. Install and test the testing validation tools.

Outputs

All validated output shall be recorded and maintained in the Project Folder.

Review Process

Conduct walkthroughs of all the test systems in placed.

7.13 Develop Batch Operations

Responsibility

Project Management Team

Applicability

Batch operations may be needed to operate the application efficiently and effortlessly.

Description

The Batch Operations Manual (BOM) is structured to give a step-by-step overview of batch operations. The user can either peruse the whole document top-down or focus on key subsections of interest. The BOM contains the batch operations for the application and all the relevant information to successfully operate the batch jobs when the application is released. Information captured includes:

- Batch Job description
- Pre-event
- Post-event
- Frequency
- Start Time
- Run Days
- Expected Run Time
- Input File
- Output File
- Escalation Process
- Contact Person

The document is used as reference information to assist the Department of Public Welfare (DPW) Batch Operations with detailed information on an application's batch strategy and approach.

Outputs

Complete and maintain the Batch Operations Manual in the Project Folder.

Review Process

Conduct a structured walkthrough to verify the Batch Operations are correct and complete.

Template

Batch Operations Manual

Tasks

Along with completing the Batch Operations Manual, include the task, as needed:

7.13.1 Develop Batch Operations Services Request

7.13.1 Develop Batch Operations Services Request

Responsibility

Project Management Team

Applicability

A Batch Operations Service Request is more efficient than multiple calls made to single operation.

Description

The Batch Operations Services Request captures the information needed to add, change, or delete a batch operation service request. The document is completed and submitted to the appropriate parties and reviewed to validate the need to the batch request and to see if it may adversely affect the system or other batch job schedules.

Note: (DPW Mainframe specific) – A BOPWK11 traveler is used for batch requests. Contact your supervisor for more information.

Outputs

Complete the Batch Operations Services Request, as needed. Maintain the request in the Project Folder.

Review Process

Review the Batch Operations Services Request to ensure the information captured is accurate and complete.

Template

[Batch Operations Service Request](#)

7.14 Conduct Phase Review

7.14.1 Conduct Peer Reviews

Peer reviews are conducted within the project management team to review each of the Requirements Definition Phase deliverables. This is not a formal process but rather a review to ensure team members at the same level agree to the deliverables produced and to leverage the knowledge and experience of others.

7.14.2 Conduct Structured Walkthroughs

Structured walkthroughs are appropriate for reviewing the technical accuracy and completeness of outputs and deliverables. The walkthroughs are scheduled to review small, meaningful pieces of work. The progress made in each lifecycle stage determines the frequency of the walkthroughs.

Walkthroughs can be conducted in various formats, with various levels of formality, and with different types of participants. In some cases, it may be beneficial to include software users in walkthroughs. Management representatives do not participate in structured walkthroughs. Regardless of the variations in format and participants, the basic activity (peer review) and the major objectives (find errors and improve quality) of the structured walkthroughs remain the same. For further information, refer to the [Structured Walkthrough Process Guide](#).

7.14.3 Conduct In-Phase Assessments (IPA)

If an IPA is required for this project, the work will be performed by an independent reviewer. The reviewer delivers the IPA report to the project management team which maintains the document in the Project Folder. For further information, refer to the [In-Phase Assessment Process Guide](#).

7.14.4 Conduct Phase Exit

A Phase Exit is conducted at the end of each phase of development or maintenance. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates all known issues have an acceptable plan for resolution. The project management team maintains the document in the Project Folder. For further information, refer to the [Phase Exit Process Guide](#).

8.0 Software Integration and Testing

Applicability

This phase is for all systems where multiple components are developed or revised or where one component is likely to affect the functionality of other components either directly or indirectly. This phase is relevant to nearly all systems project efforts.

Description

Software integration and testing activities focus on interfaces between the components of the software. Items tested for include functional correctness, software compatibility, system stability, overall system operability, security, and performance. Software integration and testing performed incrementally provides feedback on quality, errors, and design weaknesses early in the integration process.

In this phase, software components are integrated and tested to determine whether the software meets predetermined functionality, performance, quality, interface, and security requirements. Once the software is fully integrated, system testing is conducted to validate that the software will operate in its intended environment, satisfy all user requirements, and is supported with complete and accurate operating documentation.

Inputs

Inputs to this phase include:

- Requirements Traceability Matrix (*expanded*)
- Test File
- Allocated baselines (Application Code)
- Operating Documentation
- Training Plan

High-Level Activities

This section is divided into sub-sections focusing upon the high-level activities performed during this phase. The activities represent the minimum requirements for a large software development effort. Notes are provided to assist in customizing the lifecycle phase requirements to accommodate project scalability. The high-level activities for the Software and Integration Phase consist of:

- 8.1 Conduct Integration and System Testing
- 8.2 Conduct Load Testing
- 8.3 Conduct Regression Testing
- 8.4 Establish Acceptance Test Environment
- 8.5 Conduct User Acceptance Test

- 8.6 Manage Requirements
- 8.7 Refine Operating Documentation
- 8.8 Finalize Training Plan
- 8.9 Conduct Phase Review

Outputs

The outputs listed are the minimum requirements for a large software project. The size and complexity of the project determine deviations in the content and delivery of the outputs. Explanations of the outputs are provided under the applicable activities described below:

- Test Report
- Requirements Traceability Matrix (final)
- Operating Documentation (*revised*)
- Training Plan (*final*)

A matrix showing the outputs associated with each high-level activity is provided in [Exhibit 8.0-1, Software Integration and Testing High Level Activities and Outputs](#).

Review Process

Quality reviews are necessary during this phase to validate the product and associated outputs. The activities appropriate for quality reviews are identified in this section and section [2.3 Quality Reviews](#) section. The time and resources needed to conduct the quality reviews are to be reflected in the project resources, schedule, and Work Plan Standard.

Reference/Resource

Section [2.3 Quality Reviews](#), provides an overview of project reviews.

[Operational Support Phase](#) explains the software maintenance process.

[Conducting Structured Walkthroughs](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[Software Integration & Testing Phase Checklist](#)

Exhibit 8.0-1 Software Integration and Testing High Level and Outputs

High Level Activities		Outputs	Deliverable
8.1	Conduct Integration and System Testing	Test Report (Integration and System Test)	Y
8.2	Conduct Load Testing	Test Report (Load Test)	Y
8.3	Conduct Regression Testing	Test Report (Regression Test)	Y
8.4	Establish Acceptance Test Environment	Documented attributes and constraints of the acceptance test environment	N
8.5	Conduct User Acceptance Test	Test Report (Acceptance Test)	Y
8.6	Manage Requirements	Requirements Traceability Matrix (<i>final</i>)	Y
8.7	Refine Operating Documentation	Operating Documentation (<i>revised</i>)	Y
8.8	Finalize Training Plan	Training Plan (<i>final</i>)	Y
8.9	Conduct Phase Review	Documentation from Peer Review, Structured Walkthrough, and In-Phase Assessment	N

A deliverable is output identified in the Project Plan and formally delivered to the project sponsor and other project stakeholders for review and approval.

8.1 Conduct Integration and System Testing

Responsibility

Project Management Team

Applicability

Integration and integrations testing is required when ever multiple modules are developed, particularly when multiple developers or development teams are involved. It is also required when a single component is developed that can adversely impact the performance of the entire system or any part of it and the interface must be proven to comply with specifications and requirements. System testing is always required except where the project is small enough that unit testing covers the system test requirements.

Description

Integration and Integration Testing

During software integration, the software components developed by the development team, along with off-the-shelf software, and reusable code or modules obtained from other sources are assembled into one integrated product. Each assembly is tested in a systematic manner in accordance with the Integration Test Plan. An incremental approach to integration enables verification that the product is working properly as additional components are integrated. It also allows for easier problem isolation and resolution.

Integration testing is a formal procedure carefully planned and coordinated with the completion dates of the unit-tested modules. Integration testing begins with a software structure where called sub-elements are simulated by stubs. A stub is a simplified program or dummy module designed to provide one or more responses provided by the real sub-element. A stub allows testing of calling program control and interface correctness. As testing proceeds, unit-tested modules replace the stubs. The process continues until the entire system has been integrated and tested.

Integration testing may be performed using “bottom up” or “top down” techniques. Most integration test plans make use of a combination of both bottom-up and top-down techniques. Scheduling constraints, and the need for parallel testing, may affect the testing approach.

Bottom-up

This approach incorporates one or more modules into a build; tests the build; and then integrates the build into the software structure. The build is normally comprised of a set of modules performing a major function of the new system. Initially, the function may be represented by a stub later replaced when the build is integrated.

Top-down

In this approach, individual stubs are replaced so the top-level control is tested first, followed by stub replacements moving downward in the software structure. All modules comprising a major function are integrated thereby allowing an operational function to be demonstrated before completion of the entire system.

System Testing

During system testing, the complete software is tested to ensure the product meets all requirements. System response timing, memory, performance, security, and the functional accuracy of logic and numerical calculations are verified under normal and high-load conditions. Query and report capabilities are exercised and validated. All operating documentation is verified for completeness and accuracy.

System testing is conducted on the system testbed, using the test cases and methodology described in the System Test Plan. The system testbed is to be as close as possible to the actual production system. The results of each test are recorded, and upon completion, included as part of the project test documentation.

When errors are discovered, the test team leader determines the severity of the error and the necessary subsequent action. If appropriate, minor problems can be corrected and regression tested by the development team within the time allotted for the system test.

Major problems may cause the suspension of system testing. System testing must be rescheduled to begin after all the problems are resolved. Regardless of the severity, all corrections or changes to the software must be controlled under the established configuration management mechanisms.

In some projects, user representatives are involved in the system test. In these cases, it is important to brief the participants concerning their role, responsibilities, and expectations. The briefing includes procedures for error correction, configuration management, and re-testing.

Outputs

Generate a final Integration Test Report at the completion of integration testing, specifying any unresolved difficulties requiring management attention. Maintain the Test Report in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix and final Test Report.

Template

Integration System Test Report

8.2 Conduct Load Testing

Responsibility

Project Management Team or Independent Test Team

Applicability

Whenever system changes or a new process is considered at risk in terms of process time constraints or data volume a system load test should be performed.

Description

Load test can use scripts, batch files and user testers to place a normal and exceptional user loads on the system infrastructure simulating production conditions. Load testing should test likely user loads on a normal day as well as exceptional loads. Exceptional loads might include the data volume after a holiday weekend or the anticipated maximum load that is anticipated over a two year period. The number of and types of users as well as data volumes are estimated by the development team.

The information tracked in the load test report includes the processes tested, data volume tested, data scenarios tested, the number of users simulated, and the types of user behaviors being simulated. Track the ramp up time, total load test time, and throttling occurring for each load test.

All discrepancies must be resolved before the software may be installed.

Outputs

The load test report becomes part of the overall test report. It documents the system testing and includes any discrepancies with specifications and the requirements.

Review Process

Conduct a structured walkthrough of the test report.

8.3 Conduct Regression Testing

Responsibility

Project Management Team or Independent Test Team

Applicability

Regression testing should always apply whenever any software change is likely to impact the overall operation of the system or subsystem. The more complex the software; the more imperative regression testing becomes. When a user's business process is at risk, regression testing is necessary.

Description

Regression testing (i.e. re-runs of previous tests) verifies when code changes have not adversely impacted existing functionality. It confirms no additional defects are introduced when repairing defects or adding new functionality to 'approved' code.

Manual regression testing must be completed by the responsible party in each test phase. Automated regression testing may be completed by a designated team.

Regression testing occurs in every test phase. When code changes are made, the logic must be retested in the unit test, the function/integration test, the system test, etc., until the fixed logic reaches the area where the defect occurred. Automated regression testing will typically be employed when the system test phase has been completed.

The decision to perform regression testing must be based on the risk introduced by the change, the size or impact of the change, or the criticality of the business functions impacted. Only those cycles affected by problems need to be re-tested.

When applicable the regression test plan should be revised for future use, so that subsequent releases of the software will be retested to account for the current revisions, updates or corrections. When a regression testing tool provides for saving of tests, these tests might need to be revised.

It is advisable to use a software product that can automate the testing process and that can save the battery of tests. This is recommended so as to eliminate human error, simplify management of testing and to reduce the labor intensive nature of regression testing.

Outputs

The regression test report is included within the overall **Integration System Test Report**. Maintain the Integration System Test Report in the Project Folder.

Review Process

Conduct a structured walkthrough of the Integrated System Test Report.

Reference/Resource

[IRM Standards/Business and Technical Standards/Application Domain](#)

[ITB-APP001 Business Solutions Center of Excellence \(BSCoE\)](#)

8.4 Establish Acceptance Test Environment

Responsibility

Project Management Team and Project Team Specialists

Applicability

Complete whenever the acceptance test environment is not already provided. It may also be required when the test plan makes necessary accommodations for the acceptance test that the current environments do not adequately provide.

Description

Based on the hardware and software specifications listed in the System Architecture document and the Acquisition and Installation Plan, the Acceptance Test Environment must be setup and prepared. Typically the acceptance test environment should be as much like the production environment as possible. This step is necessary prior to the start of the testing phase. Differences between the production environment and the acceptance test environment should be documented and presented to the system sponsor's and user test teams. All the requirements specified must be delivered and validated according to the specifications. Any changes to the original specifications need to be documented in the System Architecture document in the appropriate section to ensure the new specifications are captured.

Outputs

Documented attributes and constraints of the acceptance test environment.

Maintain the updated systems architecture document in the project folder.

8.5 Conduct User Acceptance Test

Responsibility

Acceptance Test Team

Applicability

Except where output from other system testing is considered adequate by the development team, users, project sponsor and application owner for determining acceptance, user acceptance testing is applicable.

Description

Acceptance of delivered software is the primary objective of a software development project. Acceptance testing is used to demonstrate the software's compliance with the project sponsor's requirements and acceptance criteria.

Acceptance testing may be performed by the project management team, the project sponsor and users with support from the project management team, or by an independent verification and validation team. Whenever possible, users participate in acceptance testing to ensure the software meets all established requirements.

Testing is complete when all tests have been executed correctly. If one or more tests fail, the problems are documented, corrected, and retested. If the failure is significant, the acceptance test process may be postponed until the problem is corrected.

With the involvement of new users in the process problems undetected can be discovered. When this happens not only might corrections or enhancements to the system become necessary, but also to the test plan itself.

The acceptance test report will summarize the test procedures executed, any problems detected and corrected, and the projected schedule for correcting any open problem reports.

Signoff by the project sponsor is generally their approval to proceed.

Outputs

The formal acceptance test report. Maintain this report as part of the Test Report in the Project Folder.

Review Process

If required, perform an Operational Readiness Review or Go/No-Go Assessment upon completion of acceptance testing. This review is a combined quality assurance and configuration management activity focusing on the results of the acceptance test and the readiness of the software going into production. Include in the review:

- The functional configuration audit to determine whether the test records demonstrate if the product meets the technical requirements

- The physical configuration audit to determine whether the technical documentation is complete

During the Operational Readiness Review, examine the acceptance test results with the project sponsor and user. Document any problems along with solutions and action plans. Once the problems are resolved, the software is ready for formal acceptance by the project sponsor.

A successful Operational Readiness Review establishes the operational baseline (i.e., the final baseline) for the software. A review consists of:

- The software and the technical documentation describing the operational software
- The current functional baseline
- The product baselines for the configuration items comprising the system
- Other system-level technical documentation generated during the lifecycle

Each new release must be preceded by an Operational Readiness Review if the operational product requires enhancements or changes to correct problems. Establish the updated system documentation as a new operational baseline.

8.6 Manage Requirements

Responsibility

Project Management Team

Applicability

Formal requirements management during testing is necessary for all complex projects where development and testing might have actually or is perceived to have expanded outside of the requirements or otherwise has exceeded or strayed from the defined scope of the systems project.

Description

Review the entire test plan (script) and test result items and cross-reference with those with the requirements using the Requirements Traceability Matrix.

Perform this by adding all test plan (script) and test result item ids to the Requirements Traceability Matrix that was started during the requirements definition phase. Each requirement identified in the test plan and the test results document must be traceable to one or more design entities. The traceability ensures the software will satisfy the requirements and will not include inappropriate or extraneous functionality.

Outputs

The Expanded Requirements Traceability Matrix created during the Requirements Definition Phase is the primary product of this step. Maintain the expanded matrix in the Project Folder.

Review Process

Conduct a structured walkthrough of the Requirements Traceability Matrix to ensure all required functionality is included.

8.7 Refine Operating Documentation

Responsibility

Project Management Team

Applicability

Complete whenever the process warrants instructions for operations or other support staff to manage, maintain, and support it.

Description

The Department of Public Welfare (DPW) standard for operating documentation provides standard guidelines and an organized method for providing guidelines and instructions for managing, maintaining, and supporting the infrastructure resources of DPW. It also outlines the guidelines and tools used at the operational level of the infrastructure. The standards allow DPW to provide its clients the greatest level of availability to those resources, resulting in improved service. The infrastructure resources include the servers, routers, other agency assets, databases, applications, networks, and Internet components necessary to conduct the automated business functions of DPW.

Revise the Operating documentation started in the Development Phase to make the instructions fully complete and accurate. Add any additional needs and revisions to the document based upon the Integration and System Testing Phase.

Outputs

Maintain the revised Operating Documentation in the Project Folder.

Review Process

Conduct structured walkthroughs for the Operating Documentation or set of user documents to ensure the documentation is complete, easy to use, and accurately reflects the software and functionality.

8.8 Finalize Training Plan

Responsibility

User Education Team

Applicability

To the extent that the training plan is not finished, functionality of the application has changed from previous phases, the timeline has changed or that aspects of the system become more evident to the user education team where they were not before, the training plan may have to be updated.

Description

A Training Program defines the training needed to successfully implement and operate the software and addresses the training to be provided to the project sponsor, users, operational, and maintenance staff.

The Training Plan is finalized during or immediately after the system testing is complete. This is done to ensure its readiness and usage for the Acceptance and Installation Phase.

Outputs

Maintain the Training Plan in the Project Folder

Review Process

Conduct a structured walkthrough to ensure the draft Training Plan is accurate and complete. This is important to ensure that necessary changes in the content and the schedule that otherwise might be let go.

Template

Training Plan

8.9 Conduct Phase Review

8.9.1 Conduct Peer Reviews

Peer reviews are conducted within the project management team to review each of the Requirements Definition Phase deliverables. This is not a formal process but rather a review to ensure team members at the same level agree to the deliverables produced and to leverage the knowledge and experience of others.

8.9.2 Conduct Structured Walkthroughs

Structured walkthroughs are appropriate for reviewing the technical accuracy and completeness of outputs and deliverables. The walkthroughs are scheduled to review small, meaningful pieces of work. The progress made in each lifecycle stage determines the frequency of the walkthroughs.

Walkthroughs can be conducted in various formats, with various levels of formality, and with different types of participants. In some cases, it may be beneficial to include software users in walkthroughs. Management representatives do not participate in structured walkthroughs. Regardless of the variations in format and participants, the basic activity (peer review) and the major objectives (find errors and improve quality) of the structured walkthroughs remain the same. For further information, refer to the [Structured Walkthrough Process Guide](#).

8.9.3 Conduct In-Phase Assessments (IPA)

If an IPA is required for this project, the work will be performed by an independent reviewer. The reviewer delivers the IPA report to the project management team which maintains the document in the Project Folder. For further information, refer to the [In-Phase Assessment Process Guide](#).

8.9.4 Conduct Phase Exit

A Phase Exit is conducted at the end of each phase of development or maintenance. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates all known issues have an acceptable plan for resolution. The project management team maintains the document in the Project Folder. For further information, refer to the [Phase Exit Process Guide](#).

9.0 Acceptance and Installation Phase

Applicability

This section is always applicable for all but the smallest projects. This is due to the fact that the Department of Public Welfare (DPW) procedures specify the formal acceptance process by the project sponsor must be completed before newly developed software is installed on a production system. Furthermore, the use of an installation plan is required for all but the most simple of system installations and installation must always follow Departmental procedures.

Description

Although many portions of the DPW methodology may be performed concurrently, some of the activities in the latter phases of the lifecycle are sequential. System testing must be complete before formal acceptance testing may begin. Likewise, the product must be formally accepted before installation can begin.

User acceptance activities for larger (and more critical) projects are more formal than those typically found in small and express projects. Regardless of the formality, the activities in this phase focus on product verification and acceptance by the project sponsor or designee with the subsequent installation activities.

The activities associated within this phase must be performed each time a major product release is implemented.

Inputs

Input to this phase includes:

- Operating Documentation
- Training Plan
- Conversion Plan

High-Level Activities

This phase is divided into high-level activities performed during the phase. These activities represent the minimum requirements for a large software development effort. Notes are provided to assist in customizing the lifecycle phase requirements to accommodate project scalability. The high level activities for the Acceptance and Installation Phase consist of:

- 9.1 Establish Test for Production Environment
- 9.2 Perform Test for Production Activities
- 9.3 Perform Installation Activities
- 9.4 Conduct Installation Tests
- 9.5 Establish Training Environment

- 9.6 Conduct User Training
- 9.7 Transition to Operational Status
- 9.8 Conduct Phase Review

Outputs

The size and complexity of the project determine the deviations in the content and delivery of the outputs. Explanations of the outputs are provided under the applicable activities. The minimum output requirements for a large software project include:

- Deployment Playbook
- Installation Test Materials
- Training Materials
- Operating Documentation (*final*)

A matrix showing the outputs associated with each high-level activity is provided in [Exhibit 9.0-1, Acceptance and Installation High Level Activities and Outputs](#).

Review Process

Quality reviews are necessary during this phase to validate the product and associated outputs. The activities appropriate for quality reviews are identified in this section and section [2.3 Quality Reviews](#). The time and resources needed to conduct the quality reviews must be reflected in the project resources, schedule, and Work Plan Standard.

Reference/Resource

Section [2.3 Quality Reviews](#), provides an overview of the types of reviews to be conducted within a project.

[Conducting Structured Walkthroughs](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[Acceptance & Installation Phase Checklist](#)

Exhibit 9.0 Acceptance and Installation High Level Activities and Outputs

High Level Activities		Outputs	Deliverable
9.1	Establish Test for Production Environment	Conform to System Architecture Review Board Document	Y
9.2	Perform Test for Production Activities	Conform to System Architecture Review Board Document	Y
9.3	Perform Installation Activities	Deployment Playbook	Y
9.4	Conduct Installation Tests	Installation Test Materials	Y
9.5	Establish Training Environment	Training Environment	Y
9.6	Conduct User Training	Training Materials	Y
9.7	Transition to Operational Status	Transition Plan (revised)	N
9.8	Conduct Phase Review	Documentation from Peer Review, Structured Walkthrough, and In-Phase Assessment	N

A deliverable is output identified in the Project Plan and formally delivered to the project sponsor and other project stakeholders for review and approval.

9.1 Establish Test for Production Environment

Responsibility

Project Management Team and Domain Area Specialists

Applicability

This step is applicable when a test for production (TFP) environment must be set up to validate and approve the application for the production environment. For many projects, particularly smaller ones where there is no new hardware or types of software, this step will not be necessary. This step is necessary if and when the Architecture Review Board (ARB) indicates so.

Description

Based on the hardware and software specifications listed in the System ARB document and the Acquisition and Installation Plan, the TFP Environment must be setup. This step is necessary prior to the start of the TFP activity. All the requirements specified must be delivered and validated according to the specifications. Any changes to the original specifications need to be documented in the System ARB document in the appropriate section to ensure the new specifications are captured.

Outputs

Conform to the System ARB document. Refer to 5.13 Develop Architecture Review Board (ARB) Document.

Review Process

Conduct structured walkthroughs to ensure test for production is properly established.

9.2 Perform Test for Production Activities

Responsibility

Project Management Team

Applicability

This section applies to the extent that test for production (TFP) activities are deemed necessary over and above systems testing by any of the domain specialists, *e.g.*, *database*, *network support*, or the project team.

Description

Perform the Test for Production prior to the installation activities. This activity is similar to the other installation activities, but, involves testing the final production environment, which is often of a different configuration than the systems used to develop and test the application. Therefore, time is spent to test production environment to ensure the installation and configuration is met.

Any gap or discrepancies found in this phase will be recorded, evaluated and fixed prior to acceptance and installation of the final product. Within each cycle, operate test scripts in succession and produce copies of any print outs and screen dumps of any screens. Attach these to the test script. Compare these against the expected results and log any discrepancies as they arise on a formal test incident form.

Outputs

Conform to the System Architecture Review Board specification document.

Review Process

For any discrepancies found from the test, system test fixes shall be performed.

9.3 Perform Installation Activities

Responsibility

Project Management Team, Project Team, and Domain Area Specialists

Applicability

This section applies anytime installation is required and after all approvals have been obtained from the project sponsor and/or the system owner.

Description

The installation process involves loading, copying, or migrating, any required software and data to the production platform. Also included, is the delivery of operating documentation and other support materials for each production site. The installation of firmware, hardware, and communications equipment may also be involved.

Capture the Installation Activities in the Deployment Playbook. This deliverable lists all the activities, roles, responsibilities, contacts, and duration times for the complete installation and deployment of the application. All installation activities need to be included in the "Deployment Playbook". This deliverable lists all the activities, roles, responsibilities, contacts, and duration times for the complete installation and deployment of the application.

If a current system exists, system and data conversions must be implemented in accordance with the procedures described in the Conversion Plan. Each data and file conversion includes a confirmation of data and file integrity. A comparison of data output from the current and the new system are compared and verified to be accurate.

At each installation site, the facility must be inspected to ensure the site preparation is complete and in accordance with the Installation Plan. Activities are initiated to complete any necessary preparations. An inventory must be conducted on all vendor-provided hardware, software, firmware, and communications equipment in accordance with the Acquisition Plan.

The procedure specified in the Installation Plan must be followed when installing the software, hardware, and other equipment. All installation activities, including those performed by vendors, must be monitored to ensure a correct and complete installation.

Procedure

The procedure (or a suitable substitute) to perform the installation activities includes:

- Coordinate the installation with the project sponsor, user representatives, operations staff, and other affected organizations.
- Ensure any necessary modifications to the physical installation environment are completed.

- Inventory and test the hardware supporting the software. This inventory must be performed in advance of the planned installation date to allow time for missing hardware to be obtained and malfunctioning equipment to be replaced or repaired.
- If the software requires an initial data load or data conversion, install and execute the tested programs to perform this process.
- Install the software onto the hardware platform.

Outputs

Maintain the Deployment Playbook in the Project Folder.

Review Process

Conduct structured walkthroughs to ensure the Deployment Playbook is accurate and complete.

Template

Deployment Playbook

9.4 Conduct Installation Tests

Responsibility

Project Management Team

Applicability

This section applies whenever testing of the installed system or any of its components is required to ensure its operational worthiness.

Description

The integrity and quality of the installed software is verified by executing the installation tests defined in the Installation Plan. If the software being installed is a modification to an existing system, all remaining functions and code affected by the new software must be tested. An integration test plan is designed to validate all functions of the software product and to specify a standard set of test results and tolerances.

Any problems must be documented along with the appropriate corrective action. The use of a diagnostic package is recommended to identify problems quickly and allow for timely corrections. All hardware and software must be retested after a repair, replacement, or modification of hardware.

Each software component is certified upon successful completion of installation and checkout. When installation is complete, either a portion or all of the system test must be re-run using the acceptance test procedures to verify correct operation of the software.

Conduct installation testing to verify:

- Security functions
- Integration with the current software
- Interfaces with other systems
- System functionality based on the requirements

Outputs

Maintain the installation test materials in the Project Folder.

Review Process

Conduct structured walkthroughs of the installation test materials as appropriate.

9.5 Establish Training Environment

Responsibility

Project Management Team

Applicable

Review this section when the systems architecture document and the training plan call for the establishment of a training environment.

Description

Based on the hardware and software specifications listed in the System Architecture document and the Acquisition and Installation Plan, the Training Environment must be setup and prepared. This step is necessary prior to the start of training. The requirements for training must be provided for within the training environment. Any changes to the original specifications need to be documented in the System Architecture document in the appropriate section to ensure the new specifications are captured.

Outputs

Training environment is set up for project manager, operation and maintenance staffs. The updated system architecture document should be restored to the project folder.

Review Process

Conduct structured walkthroughs of the training environment. Operation and maintenance manuals are complete and available for use during the training sessions.

9.6 Conduct User Training

Responsibility

User Educ Team, the Project Management Team, and any Project Team Support Staff

Applicability

This section applies if formal training is required. This will appear on the project schedule and a training plan will exist in the project folder given that this SDM is followed.

Description

User training is an important factor in the success of the product deployment. During training, most users will receive their first hands-on experience with the software. Operations and maintenance staff may also be trained to use, monitor, and maintain the product. The objective of the training is to provide the trainee with the basic skills needed to effectively use the software and to raise the user's confidence and satisfaction with the product.

The type of training will depend on the complexity of the software, along with the number and location of the users to be trained. Possible training formats include formal classroom training, one-on-one training, computer-based instruction, sophisticated help screens, and online documentation. Training is to be conducted according to the approved Training Plan.

Pilot testing of training materials need to be considered. Participants may include project management team members, project sponsor, and user representatives. Those receiving training during pilot testing, evaluate the content, instruction, and support materials. This feedback can be used to make improvements, as appropriate.

If consecutive training classes are conducted, feedback is requested from the participants and used to continuously improve the training approach, methods, and materials.

At the completion of the training, users must have a thorough understanding of the input requirements of each transaction, the processing taking place, and the types of output generated.

Outputs

Submit the training materials to the project sponsor and user representatives for review and approval. Maintain the approved training materials in the Project Folder.

Training materials are subject to the same change control procedures as the other operating documents and need to remain current with changes to the software.

Review Process

Conduct structured walkthroughs of the training materials. The pilot test of the training session helps ensure delivery of a quality-training program.

9.7 Transition to Operational Status

Responsibility

Project Management Team, the Project Team, the Maintenance Staff, and the User Education Team

Applicability

This step applies after all prior steps have been validated, reviewed and approved.

Description

After the project sponsor or user representative has formally accepted the product, the transition to operational status begins. The procedures identified in the Transition Plan are used to implement the transition process. Stress tests, or other operational tests, may be necessary to confirm a sound installation. The product may require checking to determine tolerances to adverse conditions, failure modes, recovery methods, and specification margins. Training and certification activities are completed, as needed. Any support to be provided by contracted services is checked to ensure the support starts on time.

The project team usually provides operational and technical support during the transition. Project team members who have a comprehensive understanding of the product need to be identified as potential support personnel. These individuals may be helpful in providing assistance in the areas of software installation and maintenance, test, and documentation of changes. Technical support may involve the analysis of problems in software components and operational procedures, the analysis of potential enhancements, and vendor supplied upgrades to software components.

Transition to full operational status is an event-oriented process not completed until all transition activities have been successfully performed. Support provided by project team personnel is typically withdrawn in a gradual sequence. This aids in the smooth operation of the product and supports user confidence in the product. A formal transfer of all responsibility to the maintenance staff is planned at the conclusion of the transition process.

Access to all Project Folder materials, operating documents, identification of any planned enhancements, and other pertinent records are turned over to the maintenance staff. The software access rules must be modified to provide access to the maintenance staff and to remove access from the project team and other temporary users. Programs, files, and other support software must be in the production library and deleted from the test library, where appropriate.

For major systems involving multiple organizations or interfaces with other systems, a formal announcement of the transition to production is recommended. The announcement must be distributed to all affected groups, along with names, telephone numbers, and e-mail addresses of the maintenance staff.

Outputs

Transition the system into operational status. Release the Project Folder materials, transition plan, operating documents, and other pertinent records to the maintenance staff.

Review Process

Complete all reviews related to the functionality before the system is placed into operational status.

9.8 Conduct Phase Review

9.8.1 Conduct Peer Reviews

Peer reviews are conducted within the project management team to review each of the Requirements Definition Phase deliverables. This is not a formal process but rather a review to ensure team members at the same level agree to the deliverables produced and to leverage the knowledge and experience of others.

9.8.2 Conduct Structured Walkthroughs

Structured walkthroughs are appropriate for reviewing the technical accuracy and completeness of outputs and deliverables. The walkthroughs are scheduled to review small, meaningful pieces of work. The progress made in each lifecycle stage determines the frequency of the walkthroughs.

Walkthroughs can be conducted in various formats, with various levels of formality, and with different types of participants. In some cases, it may be beneficial to include software users in walkthroughs. Management representatives do not participate in structured walkthroughs. Regardless of the variations in format and participants, the basic activity (peer review) and the major objectives (find errors and improve quality) of the structured walkthroughs remain the same. For further information, refer to the [Structured Walkthrough Process Guide](#).

9.8.3 Conduct In-Phase Assessments (IPA)

If an IPA is required for this project, the work will be performed by an independent reviewer. The reviewer delivers the IPA report to the project management team which maintains the document in the Project Folder. For further information, refer to the [In-Phase Assessment Process Guide](#).

9.8.4 Conduct Phase Exit

A Phase Exit is conducted at the end of each phase of development or maintenance. The process ends with the receipt of concurrence from the designated approvers to proceed to the next phase. Concurrence indicates all known issues have an acceptable plan for resolution. The project management team maintains the document in the Project Folder. For further information, refer to the [Phase Exit Process Guide](#).

10.0 Operational Support Phase

Applicability

More than half of the life cycle costs are attributed to the operations and maintenance of systems. In this phase, it is essential all areas of operations and maintenance are understood and addressed. The system is being used and scrutinized to ensure it meets the needs initially stated in the planning phase. Problems are detected and new needs arise. This may require modification to existing code, new code to be developed and/or hardware configuration changes. Providing user support is an ongoing activity. New users will require training and others will require training as well. The emphasis of this phase will be to ensure the users' needs are met and the system continues to perform as specified in the operational environment. Additionally, as operations and maintenance personnel monitor the current system they may become aware of better ways to improve the system and therefore make recommendations. Changes will be required to fix problems, possibly add features and make improvements to the system. This phase will remain in effect for as long as the system is in use.

Description

This section describes an iterative process for conducting operational support activities. The process includes a minimal set of criteria necessary for project management and quality assurance processes, control and management of the planning, execution, and documentation of software maintenance activities. The use of automated tools to facilitate requirements definition, design, coding, and system documentation is encouraged. The selection and implementation of tools may vary from one project to another.

The basic maintenance process model includes input, process, output, and control for software maintenance. It is based on the same software development principles and practices to lower risk and to improve quality during the planning and development phases of the lifecycle. The concept of the maintenance process model is based on planned software changes be grouped into scheduled releases and managed as projects. This proven approach allows the individuals who are given the maintenance task, the tools to plan, optimally use resources, leverage economies of scale, and control outcome in terms of both schedule and product quality.

Each organization performing software maintenance activities must have a local documented procedure for handling emergency changes not implemented as part of a scheduled release. Generally, the changes include fixes to correct defects and updates to meet unscheduled business or legal requirements. Emergency changes must be integrated into the next release for full regression testing and documentation updates.

Inputs

Batch Operations Manual (BOM) (final)

Operating Documentation (final)

Training Materials (final)

Phases

The activities to be performed during software maintenance are grouped into logically related segments of work called “phases.” The phases are similar to those referenced in the planning and development phases of the software lifecycle. The phases consist of:

- 10.1 Problem/Modification Identification Phase
- 10.2 Analysis Phase
- 10.3 Design Phase
- 10.4 Development Phase
- 10.5 System Test Phase
- 10.6 Acceptance Phase
- 10.7 Delivery Phase

Note: The maintenance process model does not presume the use of any particular system development methodology (e.g., waterfall, or spiral). The process is valid regardless of size, complexity, criticality, software application, or software usage.

The software maintenance phases can be tailored as appropriate. Phases and outputs may be combined to effectively manage the project. Concurrence by the designated approvers must be reached during the Analysis Phase regarding decisions to combine subsequent phases. An example of tailoring exists when an emergency production fix is required – in such a case, only Problem Identification (10.1), Analysis (10.2), Development (10.4) and Delivery Phase (10.7) might be completed.

Outputs

A matrix showing the outputs associated with each phase is provided in [Exhibit 10.0-1 Operational Support Phases and Outputs](#).

Identify Systems Operations

Operations support is an integral part of the day to day operations of a system. The BOM is developed in previous SDLC phases. This documented the activities, tasks, and responsible parties and will need to be updated as changes occur. Systems operations activities and tasks need to be scheduled, on a recurring basis, to ensure the production environment is fully functional and is performing as specified. Systems operations key tasks and activities include:

- Ensuring the systems and networks are running and available during the defined hours of Operations
- Implementing non-emergency requests during scheduled outages, as prescribed in the BOM and automated, are documented in the operating procedures. These processes should comply with the system documentation

- Performing backups (day-to-day protection, contingency)
- Performing the physical security functions
- Ensuring contingency planning for disaster recovery is current and tested
- Ensuring users are trained on current processes and new processes
- Ensuring that service level objectives are kept accurate and are monitored
- Maintaining performance measurements, statistics, and system logs. Examples of performance measures include volume and frequency of data to be processed in each mode, order and type of operations
- Monitoring the performance statistics, reporting the results and escalating problems when they occur

Maintain Data / Software Administration

Data / Software Administration is needed to ensure the input data and output data and data bases are correct and continually checked for accuracy and completeness. This includes ensuring that any regularly scheduled jobs are submitted and completed correctly. Software and data bases are to be maintained at (or near) the current maintenance level. Data / Software Administration tasks and activities include:

- Performing a periodic Verification / Validation of data, correct data related problems;
- Performing production control and quality control functions (Job submission, checking and corrections);
- Interfacing with other functional areas for day-to-day checking / corrections;
- Installing, configuring, upgrading and maintaining data base(s). This includes updating processes, data flows, and objects (usually shown in diagrams);
- Developing and performing data / data base backup and recovery routines for data integrity and recoverability. Ensure documented properly in the BOM
- Developing and maintaining a performance plan for online process and data bases
- Performing configuration/design audits to ensure software, system, parameter configuration are correct

Project Management

As much as possible, all software maintenance activity must be managed as a project in order to gain the benefits of project management and to enable tracking of activities and costs. The extent of project management activity will vary, and must be tailored according to the size, complexity, and impact of the change or enhancement.

Review Process

In each phase, conduct one or more structured walkthroughs to validate the outputs, In-Phase Assessments (IPA), and a Phase Exit as needed.

Reference/Resource

[Conducting Structured Walkthroughs](#)

[In-Phase Assessment Process Guide](#)

[Phase Exit Process Guide](#)

Checklist

[Operational Support Phase Checklist](#)

Exhibit 10.0-1 Operational Support Phases and Outputs

High Level Activities		Outputs	Deliverable
10.1	Problem/Modification Identification Phase	Validated Modification Requests	Y
10.2	Analysis Phase	Detailed Analysis Report Test Plan Project Plan	Y Y Y
10.3	Design Phase	Revised Modification List Updated design baseline Test Plan (revised) Detailed Analysis Report (revised) Verified Requirements Project Plan (<i>updated</i>) Documented Constraints and Risks	Y Y Y Y Y Y Y
10.4	Development Phase	Updated Design Documentation Updated User Documentation Updated Training Plan Statement of risk and impact to users Test Readiness Report	Y Y Y Y Y
10.5	System Test Phase	Test Report Test Readiness Report Project Plan (<i>updated</i>)	Y Y Y
10.6	Acceptance Phase	Product Baseline Functional Configuration Audit Report Project Plan (<i>updated</i>) Modification Request Log (<i>updated</i>)	Y Y Y Y
10.7	Delivery Phase	Physical Configuration Audit Report Version Description Document (VDD)	Y Y

10.1 Problem/Modification Identification Phase

Responsibility

Maintenance Team

Applicability

The Department of Public Welfare (DPW) [Project Change Management](#) process facilitates consistent change control techniques to ensure project scope management throughout the lifecycle of DPW Information Technology (IT) projects. It protects the integrity of a current, approved Community of Practice (CoP) and associated system requirements, design documents, and baselined software functionality components.

The process is used to track changes identified after planning is finalized and the scope is baselined. Then it follows through baselines developed from the General System Design (GSD), Detailed System Design (DSD), and Development phases. By the time a project is nearing completion of the Development phase, changes to scope are to be discouraged until the product is implemented and maintenance changes arise.

Because the definition of project scope includes agreed-upon time, cost and resource parameters, a Project Change Request (PCR) must be generated for any project change impacting the project's resources, cost, or duration. Bug fixes and incidents discovered during testing do not represent changes to scope and are therefore not covered by this procedure.

Description

In this phase, software changes are identified, categorized, and assigned an initial priority ranking. Each software change request is evaluated to determine its classification and handling priority. The classification types of maintenance are:

- **Corrective** – Change to the software after delivery to correct defects. The changes may be reported by the "Hot Lines" from the user community.
- **Adaptive** – Change to the software after delivery to keep it functioning properly in a changing environment. These changes may be initiated and tracked via the Data Processing Service Request (DPSR) system.
- **Emergency** – Unscheduled corrective maintenance required to keep a system operational.
- **Scheduled** – Change to the software after delivery on a routine basis to improve performance or maintainability. The changes may be initiated by the users and tracked by the DPSR system.
- **Perfective** – Change to the software after delivery to improve performance or maintainability. The changes may be initiated by the user and tracked by the DPSR system.

Any number of factors can drive the need for software modifications, including:

- Report of system malfunction
- Mandatory changes required by new or changed federal or state law
- New requirements to support business needs
- Minor enhancement or redesign to improve functionality or replace an obsolete system component
- Operational system upgrades and new versions of resident software.

These factors must be considered when assigning a priority to the modification request.

Inputs

Input to the Problem/Modification Identification Phase of software maintenance is one or more Modification Requests.

Process

If a modification to the software is required, activities to occur within the maintenance process include:

- Assign an identification number
- Categorize the type of maintenance
- Analyze the modification to determine whether to accept, reject or further evaluate
- Prioritize the modification according to:
 - Emergency (follow emergency change procedure and integrate into the next schedule release or block of modifications)
 - Mandatory (e.g., legal, safety, payroll)
 - Required (has associated benefits; e.g., productivity gains, new business drivers)
 - Nice to have (lower priority)

Control

Identify and maintain the Modification Requests and process determinations in the Project Folder.

Outputs

Maintain the validated Modification Requests and the process determinations in the Project Folder. They include:

- Statement of the problem or new requirement
- Problem or requirement evaluation
- Categorization of the type of maintenance required
- Initial priority
- Verification data (for corrective modifications)
- Initial estimate of resources required

Review Process

Conduct one or more structured walkthroughs to validate the outputs.

10.2 Analysis Phase

Responsibility

Project Management Team and Project Sponsor

Applicability

As needed, repeat the appropriate activities and tasks of the system development methodology (SDM).

Description

During the Analysis Phase, Modification Requests validated in the Problem/Modification Identification Phase, along with system documentation, are used to study the feasibility and scope of the modification. A preliminary Project Plan for design, test, and delivery is developed.

If documentation is unavailable or inadequate, and the source code is the only reliable representation of the software system, reverse engineering may be necessary to ensure the overall integrity of the system. Likewise, in cases where long-lived systems have overgrown the initial base system and are poorly documented, reverse engineering may be required.

For a smaller scope, or for local analysis on a unit level:

- Dissection of source code into formal units
- Semantic description of formal units and declaration of functional units
- Creation of input/output schematics of units

For a larger scope, or for global analysis on a system level:

- Declaration and semantic description of linear flows
- Declaration and semantic description of system applications (functions grouped)
- Creation of anatomy of the system (system architecture)

Modifications of a similar nature, (i.e., affecting the same programs) need to be grouped together whenever possible, and packaged into releases managed as projects. A release cycle must be established and published.

Inputs

Input to the Analysis Phase of software maintenance includes:

- Validate Modification Request
- Initial resource estimate and associated information
- Project and system documentation, if available

Process

Preliminary analysis activities include:

- Make a preliminary estimate of the modification size/magnitude
- Assess the impact of the modification
- Assign the Modification Request to a block of modifications scheduled for implementation
- Coordinate the modifications with other ongoing maintenance tasks

Once agreement has been reached regarding modifications, the analysis progresses and includes:

- Define firm requirements for the modification
- Identify elements of the modification
- Identify safety and security issues
- Devise a test and implementation strategy

When identifying the elements of the modification, all outputs affected must be examined. Identify each output including:

- A specification of the portion of the product to be modified
- The interfaces affected
- The user-noticeable changes expected
- The relative degree and kind of experience required to make changes
- The estimated time to complete the modification

The test strategy is based on input from the previous activity, which identifies the elements of modification. Define the requirements for at least three levels of testing: *unit tests*, *integration tests*, and *user-oriented functional tests*. In addition, identify the regression test requirements associated with the testing levels. Revalidate the test cases used to establish the test baseline.

Control

Control of the Analysis Phase activities includes:

- Retrieval of the relevant version of project and system documentation from the configuration control functions of the organization
- Review of the proposed changes and engineering analysis to assess technical and economic feasibility, and correctness
- Identification of safety and security issues
- Consideration of the integration of the proposed change within the existing software

- Verification of all appropriate analysis and project documentation is updated and properly controlled
- Verification the test functions of the organization is providing a strategy for testing the changes, and the schedule can support the proposed test strategy
- Review of resource estimates and schedules; verification of accuracy
- Technical review to select the problem reports and proposed enhancements to be implemented in the new release

Outputs

The output of the Analysis Phase includes:

- Detailed analysis report
- Updated requirements (including traceability list)
- Test strategy
- Project Plan

A project plan states how the design, implementation, testing, and delivery of the modification are to be accomplished with a minimal impact to current users.

Review Process

At the end of the Analysis Phase, perform a risk analysis. Using the output from the Analysis Phase, revise the preliminary resource estimate, and make a decision on whether to proceed to the Design Phase.

10.3 Design Phase

Responsibility

Project Management Team

Applicability

As needed, repeat the appropriate activities and tasks of the system development methodology (SDM).

Description

In the Design Phase, all current system and project documentation, existing software and databases, and the output of the Analysis Phase are used to design the modification to the system.

Input

Input to the Design Phase of software maintenance includes:

- Analysis Phase output, including:
 - Detailed analysis
 - Updated statement of requirements
 - Preliminary modification list (identification of affected elements)
 - Test strategy
 - Project Plan
- System and project documentation
- Existing source code, comments, and databases

Process

The process steps for the Design Phase include:

- Identify selected software modules
- Modify software module documentation (e.g., data and control flow diagrams, schematics)
- Create test cases for the new design, including safety and security issues
- Identify/create regression tests
- Identify documentation (system/user) update requirements
- Update modification list

- Document any known constraints influencing the design and identify risks. In addition, document planned or past actions mitigating risk.

Control

During the Design Phase of a modification, the control activities performed are:

- Conduct structured walkthrough(s) of the design
- Verify the new design/requirement is documented as an authorized change
- Verify the inclusion of new design material, including safety and security issues
- Verify the appropriate test documentation has been updated
- Complete the traceability of the requirements to the design

Outputs

The outputs of the Design Phase of software maintenance include:

- Revised modification list
- Updated design baseline
- Updated test plans
- Revised detailed analysis
- Verified requirements
- Updated Project Plan
- Documented constraints and risks

Review Process

Conduct structured walkthroughs, In-Phase Assessments (IPA), and a Phase Exit as needed.

10.4 Development Phase

Responsibility

Project Management Team

Applicability

As needed, repeat the appropriate activities and tasks of the system development methodology (SDM).

Description

The result of the Design Phase, current source code, and project and system documentation, is used to drive the programming effort.

Inputs

Input to the Development Phase of software maintenance includes:

- Results from the Design Phase
- Current source code, comments, and databases
- Project and system documentation

Process

The Development Phase tasks include:

Coding and Unit Testing

Implement the change into the code and perform unit testing. Other quality assurance and verification and validation processes may be required for safety- related code.

Integration

The modified software is integrated with the system, and integration, and regression tests are refined and performed, after the modifications are coded and unit tested, or at appropriate intervals during coding. All effects (e.g., functional, performance, usability, safety) of the modification on the existing system are assessed and noted. A return to the coding and unit testing tasks is made to remove any unacceptable impacts.

Risk Analysis and Review

Perform risk analysis and review periodically during the Development Phase rather than at the end, as in the Design and Analysis Phases. Use metrics/measurement data to quantify risk analysis.

Test Readiness Review

Conduct a Test Readiness Review to assess the team's preparedness to enter system testing. This is a self-assessment to determine if items including code, documentation, libraries, hardware, telecommunication lines, and schedules are ready for system test to begin on the scheduled date.

Control

Control of the Development Phase includes:

- Conduct structured walkthroughs of the code
- Ensure unit and integration testing are performed and documented in the Project Folder
- Ensure test documentation (e.g., test plans, test cases, and test procedures) are either updated or created
- Identify, document, and resolve any risks exposed during software and test readiness reviews
- Verify new software is placed under software configuration management control
- Verify training and technical documentation have been updated
- Verify the traceability of the design to the code

Outputs

The outputs of the Development Phase include:

- Updated software
- Updated design documentation
- Updated test documentation
- Updated user documentation
- Updated training material
- Statement of risk and impact to users
- Test Readiness Review report

Review Process

Conduct structured walkthroughs, In-Phase Assessments (IPA), and a Phase Exit as needed.

10.5 System Test Phase

Responsibility

Project Management Team or Independent Testers

Applicability

As needed, repeat the appropriate activities and tasks of the system development methodology (SDM).

Description

System testing is performed on the modified system. Regression testing is a part of system testing performed to validate the modified code does not introduce new problems (i.e., not present in a prior release).

Inputs

Input to the System Test Phase of software maintenance includes:

- Test Readiness Review report
- Documentation, which includes:
 - System test plans
 - System test cases
 - System test procedures
 - User manuals
 - Design
- Updated system
- Updated Project Plan

Process

System tests are conducted on a fully integrated system and include:

- System functional test
- Interface testing
- Regression testing
- Test readiness review to assess preparedness for acceptance testing

Results of tests conducted before the test readiness review must not be used as part of the system test report to substantiate requirements at the system level. This is necessary to ensure the test organization does not consider the testing units of the system, constitutes a “system test.”

Control

For maximum results, use an independent party to conduct system testing. The test function is responsible for reporting the status of the activities established in the test plan for satisfactory completion of system testing, before completing the system testing. Report the status to the appropriate reviewers before proceeding to acceptance testing.

Place the code listings, modification requests, and test documentation under Project Management Tools/Change Control in the Project Folder. The project sponsor is required to participate in the review to ensure the maintenance release is ready to begin acceptance testing.

Outputs

The outputs for the System Test Phase of software maintenance include:

- Tested and fully integrated system
- Test report
- Test Readiness Review report
- Updated Project Plan

Review Process

Conduct structured walkthroughs, In-Phase Assessments (IPA), and a Phase Exit as needed.

10.6 Acceptance Phase

Responsibility

Project Sponsor or designee

Applicability

As needed, repeat the appropriate activities and tasks of the system development methodology (SDM).

Description

Acceptance tests are conducted on a fully integrated system by the project sponsor, the user of the modification package, or a third party designated by the project sponsor. An acceptance test is conducted on the modified system, with software configuration management, in accordance with the application's [IRM Standards/Business and Technical Standards/Operations Support Domain/Configuration and Change Management](#)

Inputs

Input for the Acceptance Phase of software maintenance includes:

- Test Readiness Review report
- Fully integrated system
- User Acceptance Test Plan
- Acceptance test cases
- Acceptance test procedures

Process

The steps forming the process for acceptance testing are:

- Perform acceptance tests at the functional level
- Perform interoperability testing (to validate any input and output interfaces)
- Perform regression testing
- Conduct a Functional Configuration Audit (FCA)

The purpose of a FCA is to verify all specified requirements have been met. The audit compares the system's software elements with the requirements documented in the Requirements Definition Document (RDD), to ensure the modifications address all, and only, those requirements. The results of the FCA must be documented, identifying all discrepancies found, and the plans for the resolution.

Control

Control of acceptance tests includes:

- Results for the Functional Configuration Audit are reported to ensure all approved functionality is present in the system
- Confirmation is obtained from the change authority indicating the change has been successfully completed
- The new system baseline is established
- The acceptance test documentation is placed under software configuration management control

Outputs

The outputs of the Acceptance Phase include:

- New system baseline
- Functional Configuration Audit Report
- Acceptance Test Report
- Updated Project Plan
- Updated modification request log

Review Process

Conduct structured walkthroughs, In-Phase Assessments (IPA), and a Phase Exit as needed.

10.7 Delivery Phase

Responsibility

Project Management Team

Applicability

As needed, repeat the appropriate activities and tasks of the system development methodology (SDM).

Description

This phase describes the requirements for the delivery of a modified software system.

Inputs

Input to the software maintenance Delivery Phase is the fully tested version of the system as represented in the new baseline.

Process

The tasks for delivery of a modified system include:

- Notify the user community
- Develop an archival version of the system for backup
- Perform installation and training at the user facility

Control

Control for the Delivery Phase includes the following:

- Provide access to system materials for users, including replication and distribution
- Complete the version description document
- Place under software configuration management control

Outputs

The outputs of the Delivery Phase include:

- Physical Configuration Audit report
- Version Description Document (VDD)

The VDD contains information pertinent to the versioned release of the system being delivered. Information includes:

- System name
- Date delivered

- Version-number
- Release number
- Brief description of functionality delivered in the modification
- Prerequisite hardware and software with its associated version and release number

The current VDD is placed together with prior VDDs to form a complete chronology of the system from its initial implementation.

Review Process

Conduct structured walkthroughs, In-Phase Assessments (IPA), and a Phase Exit as needed.

Reference/Resource

Not Applicable

Tasks

Not Applicable

Document Change Log

Change Date	Version	CR #	Change Description	Author and Organization
03/01/99	1.0		Initial creation	Original SDM team
03/25/05	2.0 (Requirements Phase updated only)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS
04/28/05	2.1 (GSD Phase updated only)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS
05/17/05	2.2 (Intro and SDLC Phases updated only)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS
06/09/05	2.3 (Development Phases updated only)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS
07/15/05	2.4 (Planning Phase Updated)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS
07/25/05	2.5 (Acceptance & Installation Phase Updated)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS
09/01/05	2.6 (DSD Phase Updated)	Other phases to follow.	Change to DPW Business and Technical Standards format. Updated the document to incorporate departmental procedures, federal regulations, and best practices.	PMO-DCSS

RFP # 39 - 06

Appendix P

▶ XXXX Project Folder

- Initiative Definition and Planning
 - Governance Structure
 - Planning Documents
 - Do Not Publish
 - Work Plan

- Project Governance
 - Steering Team
 - Action Items
 - Agendas
 - Meeting Minutes
 - Other Team Specific Folders
 - Project Team
 - Action Items
 - Agendas
 - Meeting Minutes
 - Other Team Specific Folders
 - Development Team
 - Action Items
 - Agendas
 - Meeting Minutes
 - Other Team Specific Folders
 - Testing Team
 - Action Items
 - Agendas
 - Meeting Minutes
 - Other Team-Specific Folders
 - User Education Team
 - Action Items
 - Agendas
 - Meeting Minutes
 - Other Team Specific Folders
 - Logistics Team
 - Action Items
 - Agendas
 - Meeting Minutes
 - Other Team Specific Folders

- Communications
 - Communications Plan
 - Stakeholder Correspondence

- Contracts
 - Do Not Publish
 - RFQ/RFP
 - Vendor Proposal
 - Contract/Purchase Order

- Contractor Invoices
 - Contract Deliverables
 - Memorandum of Understanding (MOU)
 - Labor Relations Documentation
- Publish
 - RFQ/RFP
 - Contract/Purchase Order
 - Contract Deliverables
 - Memorandum of Understanding (MOU)
- Project Status
 - Weekly Status Reports
 - Monthly Status Reports
- Project Management Tools
 - Issue Management
 - Risk Management
 - Integration Plan
 - Problem Escalation Plan
 - Change Control
 - Defects
 - Estimating
 - Training Plan
- Systems Documentation
 - Requirements
 - Process Model Narrative Document
 - Traceability Matrix
 - General System Design
 - Logical Data Model
 - Screen Mockups
 - Report Mockups
 - Business Logic Diagrams
 - HW/SW Requirements
 - Test and Installation Strategy
 - Configuration Management Plan
 - Detailed System Design
 - Program Specifications
 - Application Architecture
 - Technical Architecture
 - Security Architecture Design
 - Reports Design
 - Physical Data Model
 - Interfaces Architecture
 - Batch Architecture
 - Conversion Plan
 - Security Assessment (ECSA – Electronic Commerce Security Assessment)

- Development
 - Unit Test Check List
- System Integration & Testing
 - Integration Test Scenarios
 - Integration Results
 - Acceptance Test Plan
 - Acceptance Results
 - WEB Accessibility Compliance
 - Regression Test Plan
 - Load Test Plan
 - Batch Results
 - Load Test Results
 - Capacity Plan
 - Training Manuals
- Acceptance & Implementation
 - Implementation Plan
 - Deployment Checklist
 - Closeout
- Operational Support
 - Monthly Maintenance Report
 - Transition Plan
- Production Support
 - Production Operation Documentation
 - Production Incidents Reports
 - Production Fixes
 - Batch Operations Manual
 - Data Exchange
 - Federal
 - State
 - County
 - Disaster Recovery Plan

➤ Reports

- Project Dashboard

Pennsylvania
Department of Public Welfare

Bureau of Information Systems

Project Folder Administration Manual

Version 1.3

March 01, 2005

Table of Contents

Introduction	3
Purpose	3
CWOPA Account	4
FileNET Software	4
FileNET Account	4
Obtaining FileNET Software and Accounts	5
Computer Information Source	7
Project Folder Structure	8
Project Folder Security Groups	9
Group Rights	9
Project Folder Security	10
Verifying Project Folder Access	10
Adding a Group to a Folder	11
Adding Document(s) to a Folder	13
Adding a User to a Group	13
FileNET Assistance	13
Roles and Responsibilities	14
Appendix A: Bulk Load Process	15
Preface	15
Configuring the user's computer for the Bulk Load Process	15
Bulk Load Process	16
Appendix B: Process Map	24
Document Change Log	25

Project Folder Administration Manual

Introduction

FileNET's document repository is a component of the Commonwealth's Enterprise Content Management (ECM) system. FileNET offers many benefits: version-control, security, backup, and availability to multiple users to name a few. It is, therefore, the logical choice to serve as the repository for all project-related documents: project plan, change history, project correspondence, and so on. As the repository, it includes the project's original documents as well as the various versions including current working copies.

The Program Management Office (PMO) has developed a standardized repository folder hierarchy called Project Folder. The Project Folder initiative creates a uniform folder structure encompassing all projects and prescribes document management policies. The standardized structure and policies of Project Folder facilitate new team member transitions and cross-program information sharing. Adoption of Project Folder symbolizes the Department's commitment to project management 'best practices'.

Purpose

Although this manual refers to *Project Folder Administration*, there may not be an actual Administrator position within the project team composition. This document is therefore intended to summarize Project Folder administrative functions – regardless of who actually performs these duties. Those duties include:

- Obtain FileNET software and user accounts for team members
- Add/Remove team member's FileNET user accounts
- Add/Remove Project Folder security groups
- Ensure that appropriate project documentation is placed in Project Folder

[Return to Table of Contents](#)

CWOPA Account

In order to use FileNET, an individual must have a Commonwealth of Pennsylvania (CWOPA) network user account. While most Commonwealth employees have a CWOPA account, not all consultant/contractor personnel have network accounts. Contractor personnel must obtain a network account before they can use FileNET. Network accounts for contractor personnel use the following username convention: c-jsmith for John Smith.

FileNET Software

Every computer intended to access FileNET must have FileNET software installed on the computer. With few exceptions, this software will be installed via Systems Management Server (SMS) action.

In some instances a Project Folder manager will have to manually install FileNET software. FileNET end users are not authorized to install the FileNET software. The following link/URL contains instructions for manually installing FileNET:

<http://pwishbgfnt11/idmws/doccontent.dll?library=ProductionDB^pwishbgfnt12&id=003689439>

If a user tries to access FileNET on a computer that does not have the FileNET software, the system will prompt the user to begin a manual installation. An end user is required to cancel the installation and contact the team member with Project Folder administrative responsibilities.

FileNET Account

A CWOPA (network user) account does not automatically provide access to FileNET. The user must also have a user account established within FileNET. Normally, the FileNET user accounts are created when the FileNET software is installed.



The easiest way to see if a CWOPA user has a FileNET account is to proceed as if you are adding a user to a document's access list (See Properties/Security tab).

1. Navigate to a folder within the Project Folder and click the radio button of a document.
2. Click the **Properties** icon; click the *Security* tab; and then click *Add...* button.
3. Deselect *Groups* checkbox.
4. Increase display quantity to 1000 and click *Get Next* button.

[Return to Table of Contents](#)

5. Use the Scroll bar (below the **Name:** box) as necessary to observe if the user's CWOPA name appears on the list. ***If the CWOPA name appears in the list, the user has a FileNET account. If the name does not appear, the user does not have a FileNET account. (Remember: The CWOPA naming convention is firstinitialLASTNAME.)***
6. Cancel Add Group/User and Properties windows.

3. Deselect Groups if looking for a user's name.

5. Look to see if user's CWOPA username appears in this section. Scrolling may be necessary. Use the scroll bar to view entire block of names.

4. Increase this value (the display quantity) to 1000 by clicking in the box and changing value to 1000. Click *Get Next* button.

When this window opens, the first block of names available for viewing contains only 100 user names (out of 729) and 100 group names (out of 205). Note: The total number of usernames and groups varies.

Obtaining FileNET Software and Accounts

FileNET software and accounts are acquired by submitting an ECM request. Use this URL http://pwishbgfnt11/idmws/ECM_Application/welcome.html to request ECM services such as:

- Obtaining a FileNET account and/or software
- Adding groups to the system
- Adding or deleting user(s) from group(s)
- Removing users or groups from the system

[Return to Table of Contents](#)

ECM applications are generally divided into two categories:

1. Software/accounts for less than thirty (30) users /computers.
2. Software/accounts for thirty (30) or more users/computers.

In both scenarios the person administering the Project Folder should prepare an Excel spreadsheet containing the following information: user’s first name, last name, CWOPA username, computer name, and IP address if possible. The Group(s) column should list all Project Folder security groups the individual should be a member of. (This must be added manually.) Table 1 illustrates the required information.

Table 1

First	Last	CWOPA	Groups	Computer	IP
John	Smith	josmith	Steering Security	PWISWOC55060	164.156.55.60
Maynard	Ferd	Mferd	Logistics	PWISWOC55123	164.156.55.123

[Computer Information Source](#) explains how to obtain some of the information listed above.

More than thirty software installs and/or accounts needed: The spreadsheet, along with a completed ECM request, should be forwarded to the ECM office. The ECM office will create an automated process (SMS) which will install the software. Additionally, the ECM office will compare the names on the spreadsheet with their list of authorized FileNET users. FileNET accounts will be created for all users.

Personnel administering Project Folder can view the list of authorized FileNET accounts by using the following link/URL:

<http://pwishbgfnt11/idmws/doccontent.dll?library=ProductionDB^PWISHBGFNT12&id=003681560>

Follow these steps to use this list to view all members of the group:

- Ignore everything below line 6 on the spreadsheet.
- Click on the down-arrow in Column A, line 6.
- To view the members of a particular group, select the group from the alphabetical list.
- If you suspect that the list of users displayed in Column B is incomplete, click on the down-arrow in Column B, line 6 and select All at the top of the drop-down list.

Note: The list of authorized FileNET accounts is provided as a courtesy by the ECM office. It is not maintained on a daily basis. Project Folder managers should contact the ECM office for up-to-date information.

Less than thirty software installs and/or accounts needed: Personnel administering Project Folder should manually complete the application for ECM services by transcribing the information on the spreadsheet into the application.

[Return to Table of Contents](#)

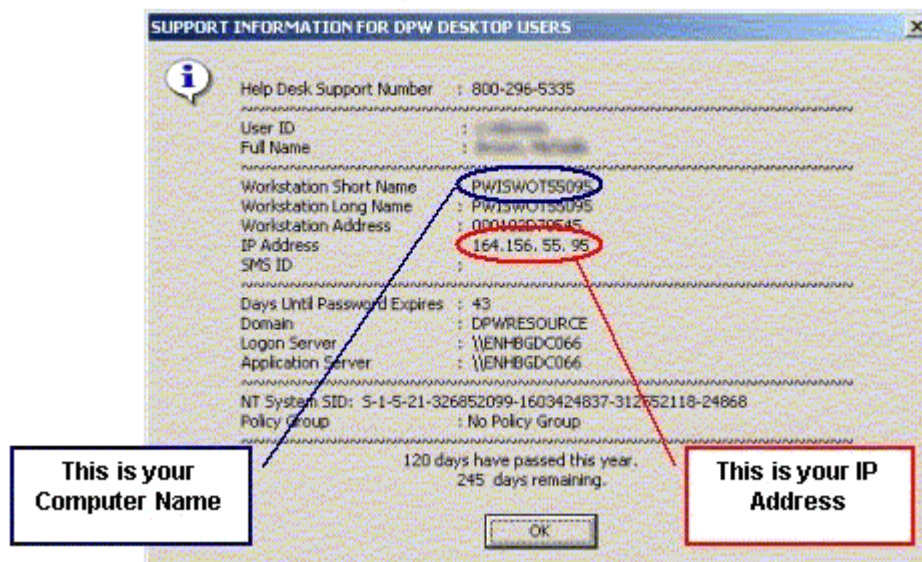
Computer Information Source

PCs using the standard Commonwealth PC configuration have an icon (typically titled Desktop Version x.x) on the desktop. The version number may vary.



Double-clicking this icon will open a window which lists the computer name, the IP address, the user's network username (logon name), and other information. A sample of this window follows.

Location of information needed for ECM request:



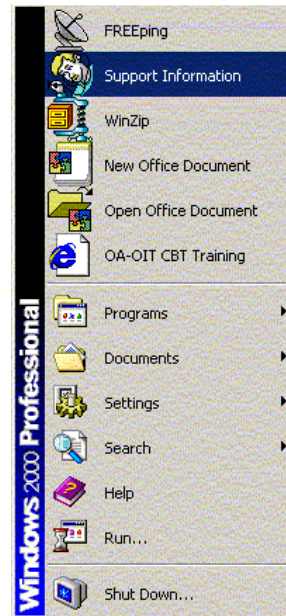
The User ID is the CWOPA username. (It is blurred in this example.)

Workstation Short Name is the computer name.

The computer's address on the network is shown as the IP address. The IP address is 164.156.55.95 in this example.

[Return to Table of Contents](#)

This information can also be accessed by clicking the *Start* button and the Support Information menu item. [See illustration on the right]



Project Folder Structure

DPW OIS has developed a [Taxonomy and Metadata](#) document. The purposes of this document are to:

- Prescribe a standard folder hierarchy within Project Folder.
- Outline standards for adding content to the Project Folder.
- Determine guidelines for where content should be placed.
- Define indexing values (Metadata) which have been configured for search and retrieval.

The top level folder of this hierarchy carries the project's name. The standard folder structure has been created in Project Folder for every strategic IT project. It is the responsibility of every Project Manager to ensure that all project-related documentation is placed in Project Folder. Although the Project Manager is ultimately responsible for ensuring that users have the appropriate level of access (that is, permissions), it is anticipated that this responsibility ordinarily will be delegated to a project team member.

[Return to Table of Contents](#)

Project Folder Security Groups

The naming convention for Project Folder security groups is PROJECT_Group. There are eight standard group names:

Security	Development
Content	Testing
Steering	User Education
Project	Logistics

Several of these names reflect the project's Governance Structure. Applying this model to COMPASS, for example, yields:

COMPASS_Content, COMPASS_Steering, COMPASS_Testing, and so on.

The standard eight groups have been created for every strategic IT project.

Group Rights

Project Folder includes an internal security system that exists outside of the Windows domain security environment. This security system has four (4) levels of access or rights. The four (4) levels are shown below in order of increasing permission level:

1. None - No access to the folder/file.
2. Viewer - Users can view the document or folder, and can make personal copies of the document or folder. They cannot modify or delete the document or folder (Similar to Windows 'read' permission).
3. Author - Users have Viewer access rights and the ability to check out, check in, and copy associated versions. They can also add annotations and modify property values for the document version (Similar to Windows read, write, and execute permission).
4. Owner - Users have Author access rights and the ability to delete documents, modify security, and modify most other properties (Similar to Windows Full Control permission).

[Return to Table of Contents](#)

Project Folder Security

Project Folder security is managed in the following manner.

1. Folders have been created within the Project Folder according to the Taxonomy and Metadata document.
2. The standard eight groups have been created for each project.
3. Users are placed in, or assigned to, one or more project-related security groups through ECM requests.
4. One or more groups are assigned to a folder or a document. (Anytime a group is assigned to a folder or a document, the group must be assigned a permission level, such as Author.)
5. When a document is added to a folder, one or more groups are assigned to the document. Each group is assigned a permission level, such as Viewer. All members of the group have access to the document based on the permission assigned to the group.

Unlike the Windows environment, documents placed in a folder within Project Folder do NOT inherit the permissions of the parent folder. Security must be configured for each document added to the repository.

Verifying Project Folder Access

The simplest and easiest method to determine if a user meets the two requirements for Project Folder access is to have the user attempt to login to Project Folder.

1. Verify CWOPA account – User should attempt to logon to the Commonwealth network. Users with valid CWOPA accounts will be able to logon to the network.
2. Confirm FileNET software and account. **These items are interdependent. Successful access to Project Folder requires both items.**
 - Type **ecm** in the address box of Internet Explorer and press <ENTER>. If FileNET software is installed, the user will not be prompted to begin a manual software installation.

If the software is not installed, the user will be prompted to do a manual installation. Users are required to cancel the manual installation. Team members with Project Folder administrative responsibilities are authorized to do a manual installation if they follow the [manual installation instructions](#).
 - If the user has a FileNET account, the FileNET home page will display. If the user does not have a FileNET user account, the system will return a FileNET Logon dialog box.

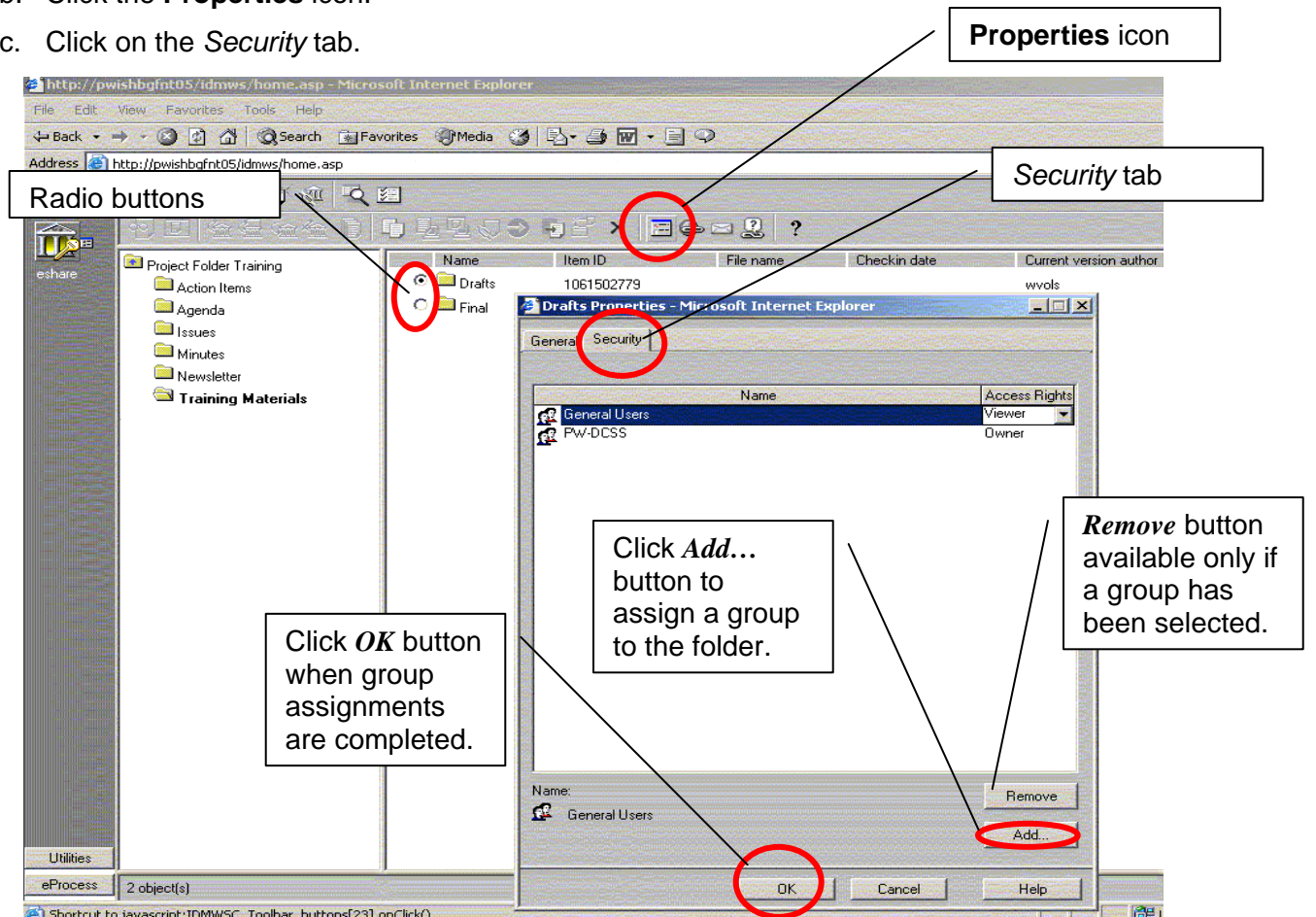
[Return to Table of Contents](#)

FileNET compares the CWOPA username with FileNET records. If a corresponding FileNET account does not exist, the user is presented with the FileNET logon prompt. Project Folder manager must submit an ECM Request to obtain a FileNET user account for a team member.

Adding a Group to a Folder

In order for a user to access a document within Project Folder, the user must be a member of a group which is assigned to the folder. Furthermore, the Group must be assigned at least Viewer rights. Project Folder managers can add/assign a group to a folder by using the following procedures:

- a. Start FileNET by typing *ecm* into the browser's Address Bar and press <ENTER>. Navigate to the specific Project Folder folder.
- b. Click the **Properties** icon.
- c. Click on the *Security* tab.



[Return to Table of Contents](#)

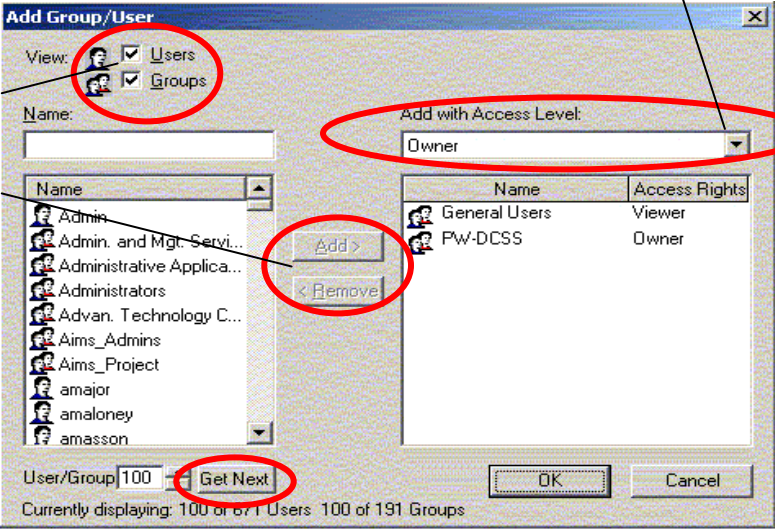
- d. Click the **Add...** button (bottom of window) to assign group(s) to folder. The **Add Groups/Users** window opens.

Note: It is possible to add a user directly to a folder and assign permission to the user. However, this is contrary to OIS policy. Only groups should be assigned to folders and documents.

Add with Access Level drop-down arrow (listbox).

Uncheck **Users**

These buttons are available only when a group has been selected. Selecting a group on the left side enables the **Add** button, while selecting a group on the right side enables the **Remove** button.



e. Uncheck the **Users** checkbox at top-left of window.

f. Click the **Get Next** button at bottom left of window.

g. Click the group in the list on the left to select it.

h. Click the **Add with Access Level** drop-down arrow to display and select the appropriate permission for the group.

i. Click **Add** button.



When adding multiple groups, organize and add the groups by permission level. By default, groups will be assigned the same rights as the previous group added. Therefore, the user can skip step h. until the next group with a different permission level.

- j. Click **OK** button to close the **Properties** windows.

[Return to Table of Contents](#)

Adding Document(s) to a Folder

There are two variations for adding documents into the Project Folder for existing projects: on-going (day-to-day) operations and the initial load. The steps necessary to add single documents to the Project Folder are covered in detail in the Project Folder End User Manual and will not be repeated here. These steps present the procedures used during normal day-to-day operations – where only one or two documents are added by a user at any given time.

The process of setting up/initializing a Project Folder is a more time-consuming task since this effort often requires the transfer of tens or hundreds of documents. The Office of Information Systems has developed a special process, referred to as the FileNET Bulk Load process, to assist with a large scale migration. The bulk load process is explained in detail in Appendix B.

Adding a User to a Group

To add a user to a group, the Project Folder manager must submit an ECM request.

FileNET Assistance

Program Offices experiencing difficulty implementing FileNET access should contact the Program Management Office at 772-7109 for assistance. Alternately, the Project Content Manager can obtain detailed FileNET information at [Repository Summary Training Guide](#). Alternately, send an email to ra-ecm@state.pa.us or call the help desk at 1-800-296-5335 to obtain a copy of the detailed manual.

[Return to Table of Contents](#)

Roles and Responsibilities

The following table lists Project Folder roles and responsibilities:

ROLE	RESPONSIBILITIES
Project Management Office	<ul style="list-style-type: none"> • Provide orientation and training on the Project Folder initiative • Serve as 2nd-tier support for Project Folder assistance
Project Manager	<ul style="list-style-type: none"> • Ensure project compliance with PMO initiatives • Assign personnel to administer Project Folder
Project Folder Manager (This refers to a role – not a position -- that may be filled by someone with other assigned duties.)	<ul style="list-style-type: none"> • Coordinate user/team member Project Folder training • Coordinate the project's migration to Project Folder • Provide first-level Project Folder-related user support to team members • Ensure that project documentation is placed in appropriate place • Monitor Project Folder for compliance to document naming conventions
Project Folder User	<ul style="list-style-type: none"> • Use the Project Folder • Abide by Project Folder guidelines

[Return to Table of Contents](#)

Appendix A: Bulk Load Process

Preface

The process described in this appendix will automatically use the document's file name as the document's title. For example, a file named "detailed design (v1.3).doc" will, upon transfer to Project Folder using this process, be titled "detailed design (v1.3).doc". Since the FileNET search function uses the document's title (not the document name) as a search criterion, it is imperative that project documentation be properly named before use of this bulk load process. Using the Project Folder naming convention to create or modify the Windows file names ensures that project documentation will be properly indexed in Project Folder.



Verify that all project documentation is named according to the Project Folder naming convention. Modify file names to bring the file names into compliance prior to implementing one or more bulk loads.

Configuring the user's computer for the Bulk Load Process

For the purposes of this document, a bulk load is defined as the simultaneous transfer of multiple files into Project Folder. Before the user can initiate a bulk load, the user's computer must be configured to meet process requirements. The process simply requires that a folder named *filenet upload* be created in the Temp folder on the C: drive.

The local path would be given as: C:\Temp\filenet upload\

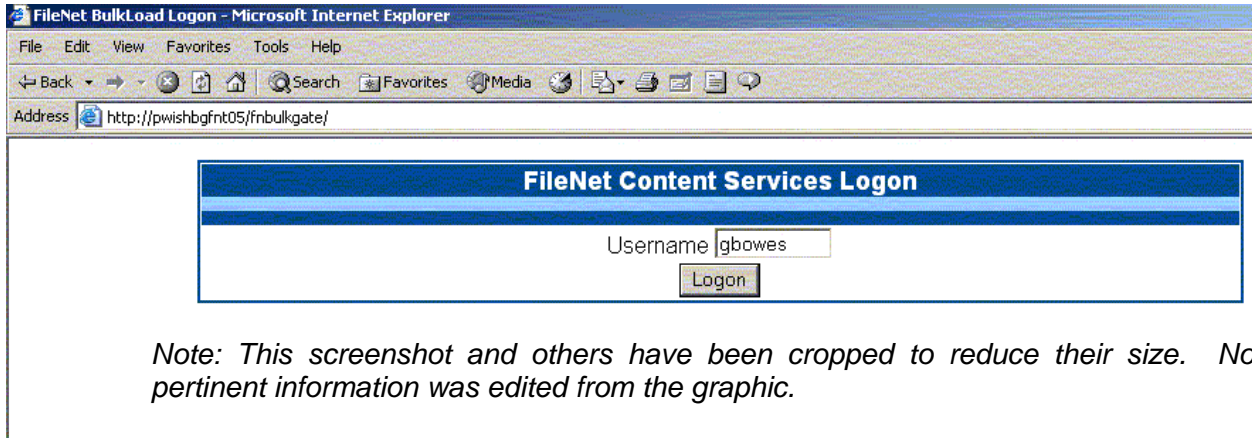
If you are unfamiliar with the steps to create this folder, contact the Program Management Office (772-7109) for assistance.

Copy – do NOT move – the files intended for upload to the *filenet upload* folder.

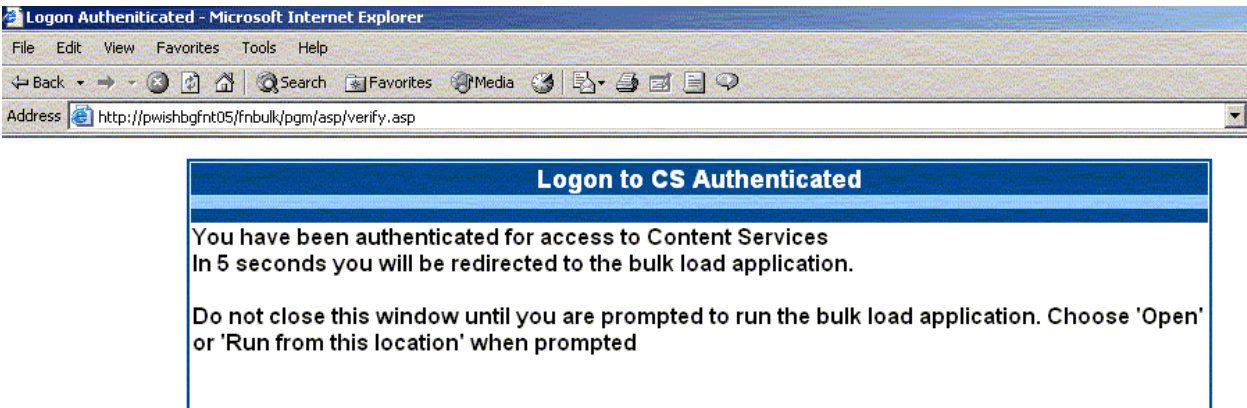
[Return to Table of Contents](#)

Bulk Load Process

1. Open Internet Explorer.
2. Type the following in the Address box: <http://pwishbgfnt11/fnbulk> and press <ENTER>.
3. The bulk application gateway page should be displayed and will display the name of the individual logged onto the computer. (If your CWOPA username does not appear in the Logon box, logoff CWOPA and logon with your credentials.)

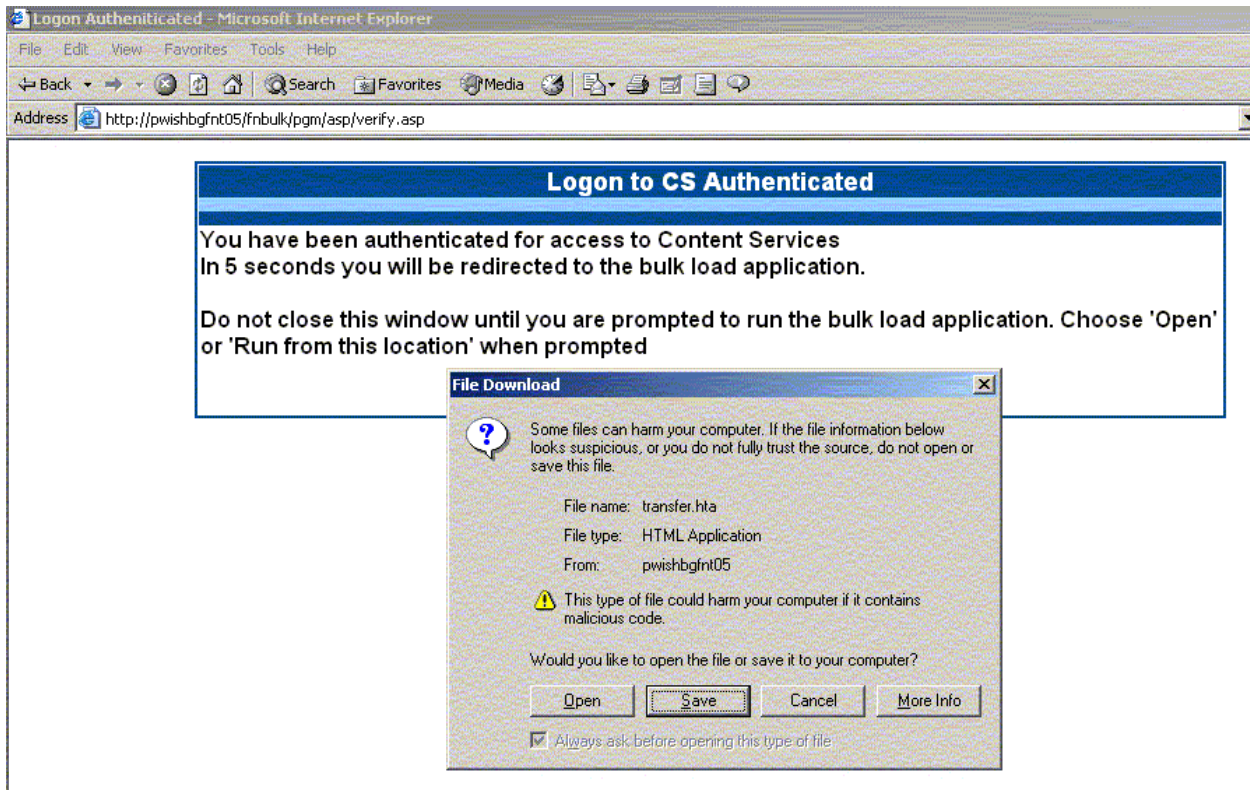


4. Click the *Logon* button.
5. A notice confirming logon to Content Services is displayed on the screen for five (5) seconds. You will then be automatically forwarded to the bulk load application.



[Return to Table of Contents](#)

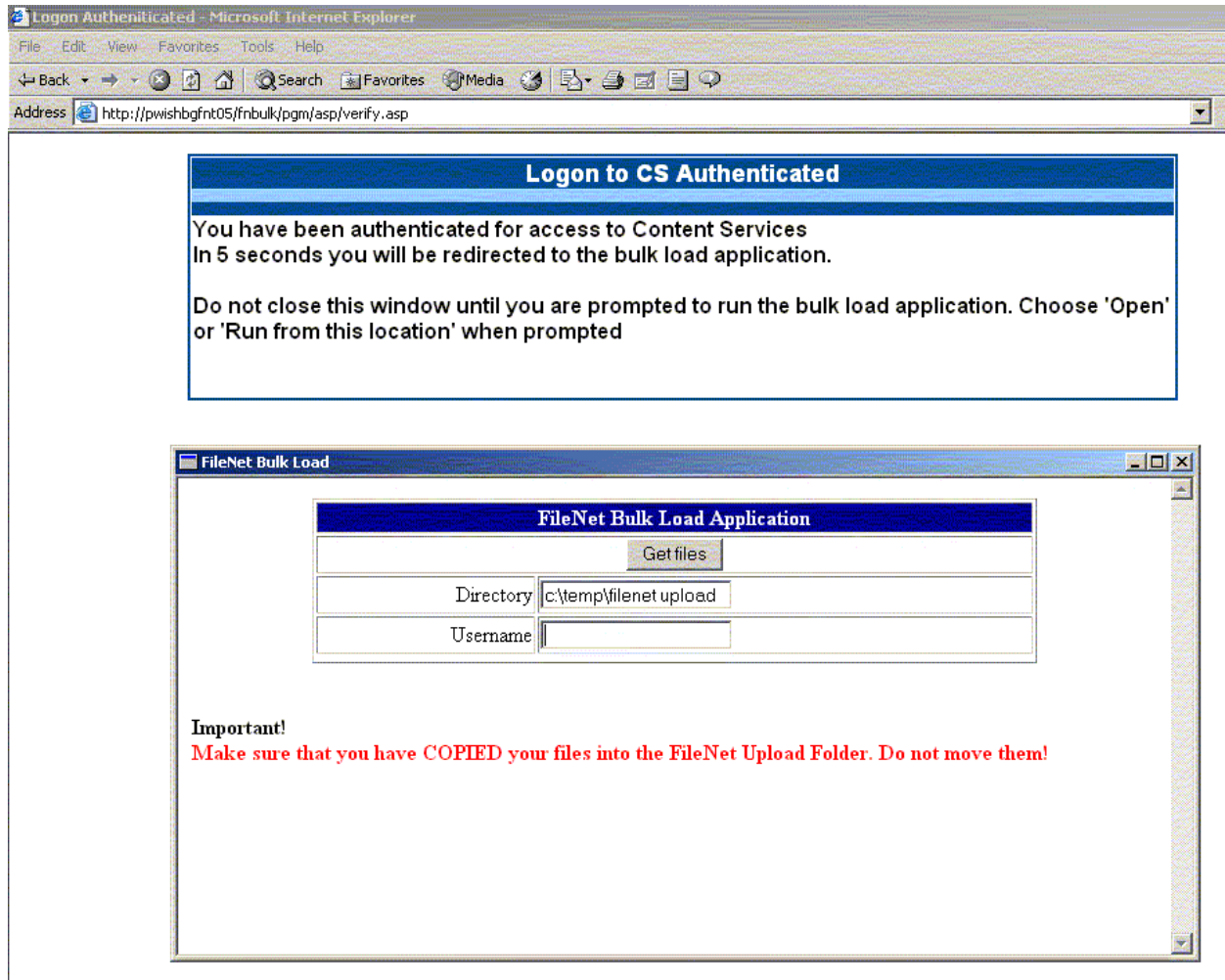
- When the File Download dialog box appears, choose Open or Run from this location. The menu choice depends on your version of Internet Explorer.



[Return to Table of Contents](#)

7. After choosing Open or Run, a new window will open.

Do not close this window until you have finished bulk loading your files!



8. The **FileNET Bulk Load Application** window (shown above) contains two text boxes. The Directory box is already completed. Confirm that the files you intend to transfer are in the **C:\Tempfilenet upload** folder. The Username box is used for logging purposes. Type your CWOPA username in this text box. Pay particular attention to the warning below the text boxes. **Make sure you did not move the original documents to the upload folder.**
9. When you have completed step 9, click the *Get Files* button.

[Return to Table of Contents](#)



The Bulk Load application will move a maximum of 25 files. If you have more than 25 files in the Upload folder, the first 25 will be moved and indexed. You must exit the application after it has completed the process and run it again to load additional files.



While the files are being moved, it may appear that your computer has frozen or locked up. The larger the size of the transfer, the longer the period of apparent inactivity. This part of the process may take several minutes. Ending the application prematurely may result in file errors.

Do not Restart, Exit the application, or Close any windows at this time.

- 10. As the graphic below shows, the files which will be indexed are itemized in the **Files** pane on the left. The listbox is used to select the Document Class. The FileNET folder structure is shown on the right.

The screenshot shows the FileNET BulkLoad application in a Microsoft Internet Explorer browser window. The application has a blue header bar with the title "FileNET BulkLoad". Below the header, there are three main panes: "Files" on the left, "Select Document Class:" in the center, and "Location" on the right. The "Files" pane contains a list of files, including "Copy (2) of Document1.txt" through "Copy (2) of Document8.txt" and "Copy of Document1.txt" through "Copy of Document7.txt". The "Select Document Class:" pane has a dropdown menu with the text "-Select Document Class-". The "Location" pane shows a folder structure under "eshare", including "Administration", "Bureau of Hearings and Appeals", "IT Standards", "OIS", "PeopleStat", "Planning", "Projects", "Recycle Bin", "Stored Searches", "Test Folder", "User and Group Info", and "Workflow Definitions". At the bottom of the application, there are "Submit" and "Reset" buttons. Three callout boxes with arrows point to the "Files" pane, the "Select Document Class:" dropdown, and the "Location" pane, providing explanations for each.

Files
 Select All
Copy (2) of Document1.txt
Copy (2) of Document2.txt
Copy (2) of Document3.txt
Copy (2) of Document4.txt
Copy (2) of Document5.txt
Copy (2) of Document6.txt
Copy (2) of Document7.txt
Copy (2) of Document8.txt
Copy of Document1.txt
Copy of Document2.txt
Copy of Document3.txt
Copy of Document4.txt
Copy of Document5.txt
Copy of Document6.txt
Copy of Document7.txt

Select Document Class:
-Select Document Class-

Location
eshare
Administration
Bureau of Hearings and Appeals
IT Standards
OIS
PeopleStat
Planning
Projects
Recycle Bin
Stored Searches
Test Folder
User and Group Info
Workflow Definitions

Submit Reset

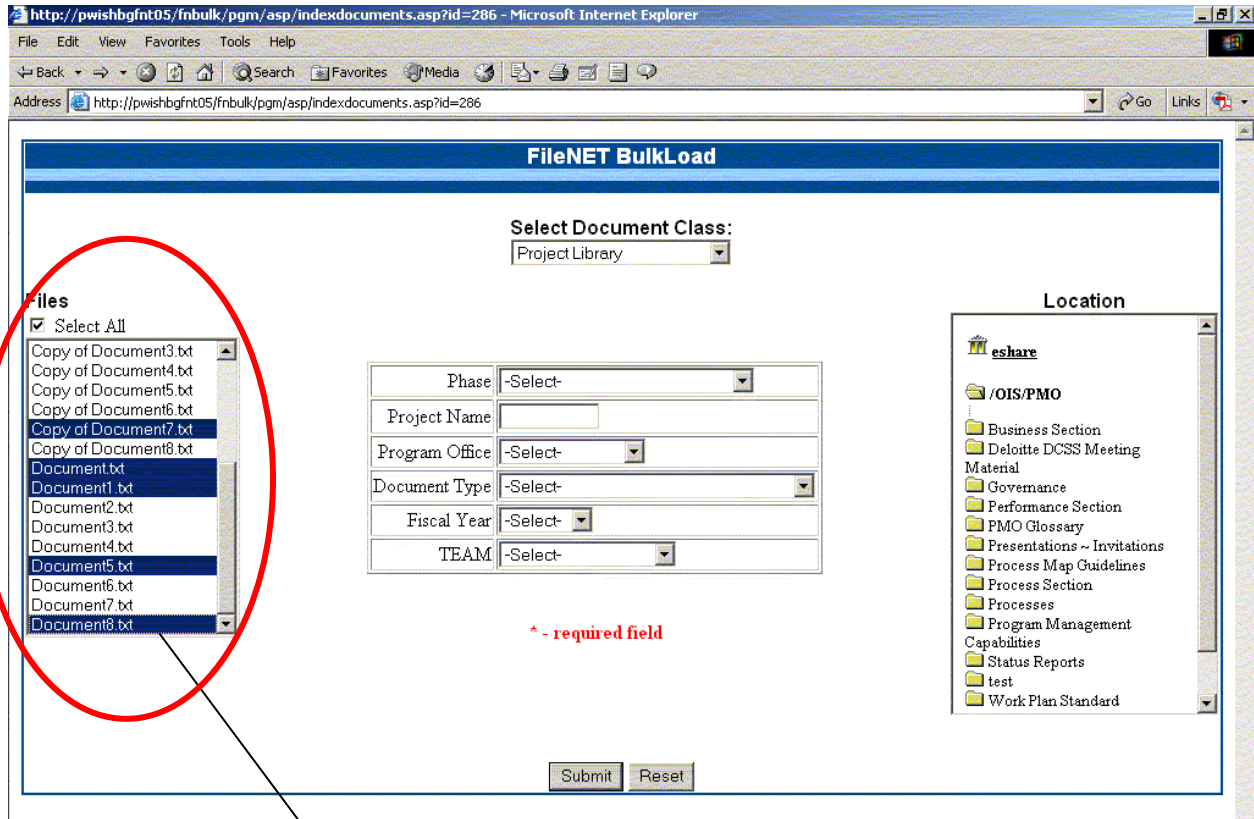
This listbox is used to select the Document Class.

The Files pane lists the files to be uploaded/indexed.

This pane displays the FileNET folder structure, which includes Project Folder.

[Return to Table of Contents](#)

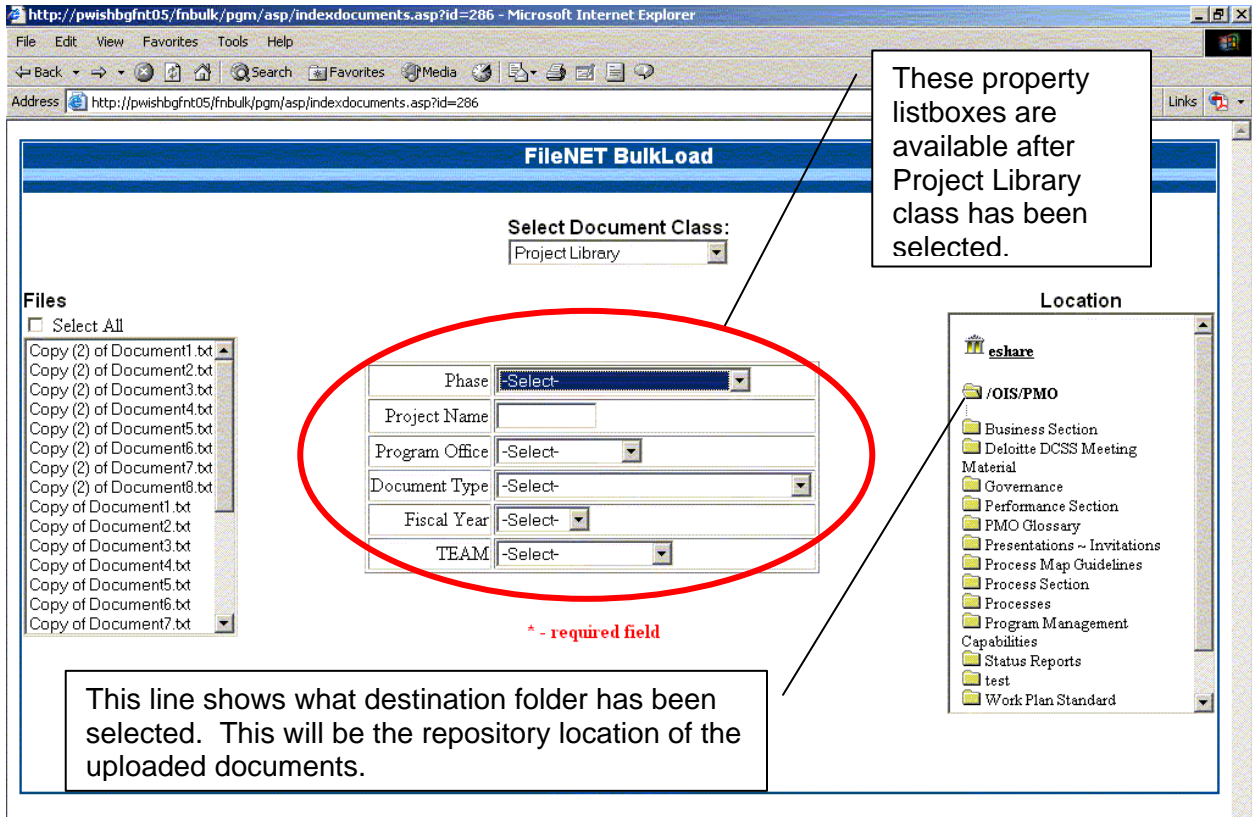
- In the **Files** pane, select the documents to be indexed. Select only documents that have the same properties. You can use Ctrl+Click to select multiple, non-contiguous documents. If all of the files have identical properties, click the **Select All** box. In this example, five documents have been selected.



You can use Shift+Click and Ctrl+Click to select multiple documents.

[Return to Table of Contents](#)

12. Click the drop-down arrow of the Select Document Class listbox. Select Project Library. Once you have selected Project Library, additional property/index listboxes are available. Use the listbox for each property to select the appropriate value. There is no listbox for Project Name; you must type in the project name.



13. Using normal browse technique, navigate to and select the destination folder. The folder selected is listed (in bold) below the eshare icon. Do not proceed with the transfer until the correct Project Folder path is listed.

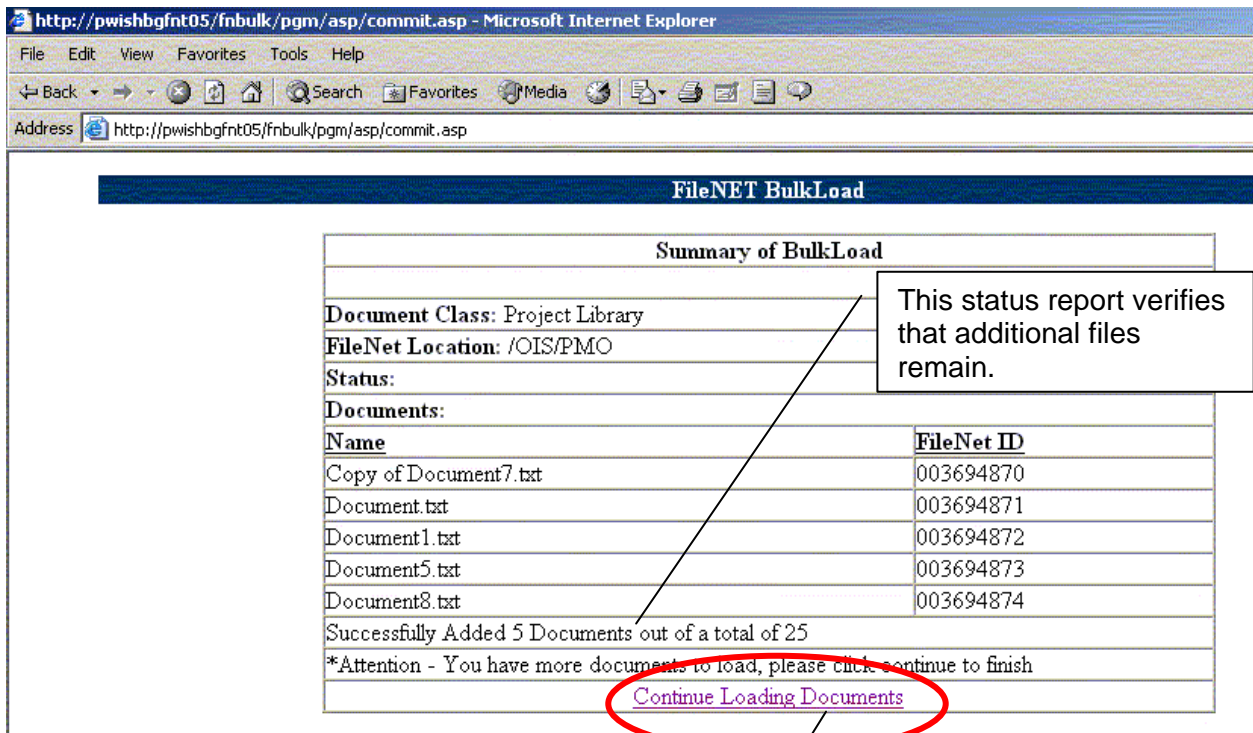
! While FileNET users have Viewer rights to a large majority of Content Services, adding a document to a folder requires Author or Owner permission. Before you attempt to add documents to a folder using the bulk load application, make sure you have adequate access to the destination folder. If you have insufficient permission, the application will return an error message warning that the files did not index properly.

[Return to Table of Contents](#)

- 14. Once you have selected the files, selected the document class, and selected the destination folder, click the **Submit** button.
- 15. While the files are being indexed, it may appear that your computer is freezing or crashing. The larger the size of the transfer, the longer the period of apparent inactivity. This part of the process may take several minutes. Ending the application prematurely may result in file errors.

! Do not Restart, Exit the application, or Close any windows during this time.

- 16. Once the application has finished the transfer and indexing, a summary page will be displayed. One of two Summary pages will be displayed. If you did not index all documents shown in the Files pane, the link at the bottom of the confirmation window allows you to load another group of folders.



This link is available only if additional files remain in the Files pane. Click the link to begin another indexing session.

[Return to Table of Contents](#)

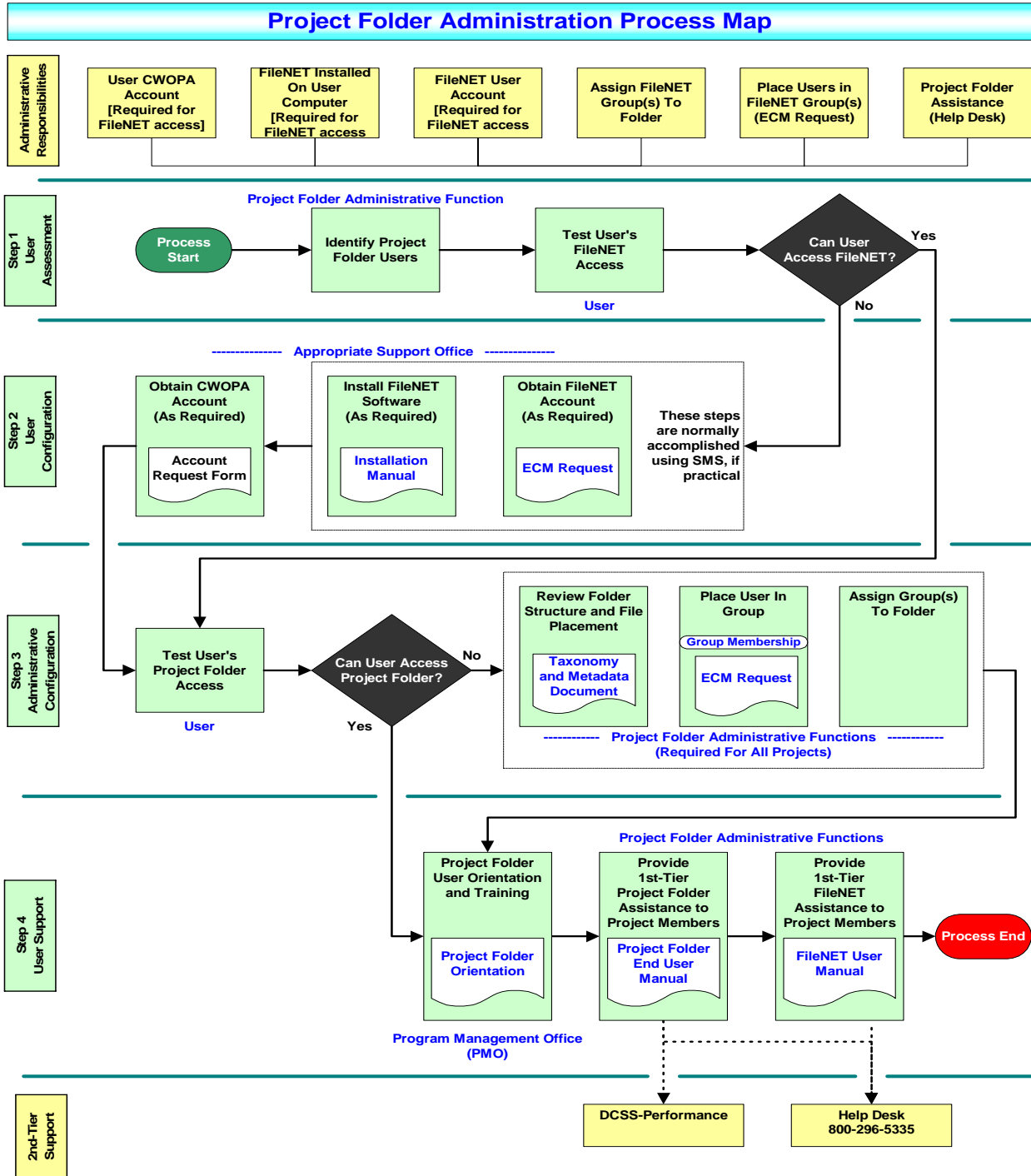
17. If you indexed all files in the Files pane, a different confirmation window is displayed. The application advises that all documents (in the Files pane) have been indexed and it is okay to close all windows to exit the application.

The screenshot shows a Microsoft Internet Explorer browser window displaying a web page titled "Summary of BulkLoad". The page contains a table with two columns: "Name" and "FileNet ID". The table lists various document names, including "Copy (2) of Document1.txt" through "Copy (2) of Document8.txt", and "Copy of Document1.txt" through "Copy of Document8.txt". The FileNet IDs range from 003694875 to 003694894. At the bottom of the table, the text "Successfully Added All Documents" and "OK To Close All Windows" is highlighted with a red oval. A callout box with a black border and white background contains the text: "You may now close all application-related windows. If you had more than 25 documents in the *filenet upload* folder, begin the application again to transfer/index the next 25 documents."

Summary of BulkLoad	
Document Class: Project Library	
FileNet Location: /OIS/PMO/test	
Status:	
Documents:	
Name	FileNet ID
Copy (2) of Document1.txt	003694875
Copy (2) of Document2.txt	003694876
Copy (2) of Document3.txt	003694877
Copy (2) of Document4.txt	003694878
Copy (2) of Document5.txt	
Copy (2) of Document6.txt	
Copy (2) of Document7.txt	
Copy (2) of Document8.txt	
Copy of Document1.txt	
Copy of Document2.txt	
Copy of Document3.txt	003694885
Copy of Document4.txt	003694886
Copy of Document5.txt	003694887
Copy of Document6.txt	003694888
Copy of Document8.txt	003694889
Document2.txt	003694890
Document3.txt	003694891
Document4.txt	003694892
Document6.txt	003694893
Document7.txt	003694894
Successfully Added All Documents	
OK To Close All Windows	

[Return to Table of Contents](#)

Appendix B: Process Map



[Return to Table of Contents](#)

Document Change Log

Change Date	Version	Change Description	Author and Organization
12/08/03	1.0	Initial creation.	PW-DCSS
09/07/04	1.1	Format & Remove Draft	PW-DCSS
11/04/04	1.2	Added links for FileNET Assistance	PW-DCSS
03/01/05	1.3	Changed to Bureau of Information Systems	PW-DCSS

Pennsylvania
Department of Public Welfare

Bureau of Information Systems

Project Folder End User Manual

Version 1.3

March 01, 2005

Table of Contents

Introduction	3
Purpose.....	3
Getting Started	3
Understanding the Folder Structure	3
Login	6
View a Document	7
Add a Document	7
Edit a Document.....	11
Checkout a Document	11
Checkin a Document	13
Determine Who Checked Out a Document.....	16
Copy a Document	17
Creating an Independent Copy.....	19
Document Versions	20
Delete a Document (Move Feature).....	20
Search for a Document.....	21
Logoff.....	21
Copy Local.....	21
Retrieve a Deleted Document	21
Checkout List	21
Open a Document	21
Open a Document (Alternate Method)	21
Cancel Checkout.....	21
Mail	21
Notes	21
Appendix A: Toolbar Icons	21
Appendix B: Using 'Wildcards' in a Search	21
Document Change Log.....	21

Project Folder End User Manual

Introduction

The Department of Public Welfare (DPW) utilizes FileNET's Content Services as its centralized document repository. The Bureau of Information Systems (BIS) has implemented a Project Folder initiative within FileNET to standardize the storage and use of all project-related documentation.

Purpose

This manual is intended to serve as a user guide for the Project Folder initiative and will provide an overview of key functionality contained within this tool. (Please note this is a summary guide aimed at providing users with quick information and is not intended to replace the FileNET user manual.) Cautionary notes and recommendations are provided where appropriate.

Detailed FileNET information can be found in the [Repository Summary Training Guide](#). Alternately, send an email to ra-ecm@state.pa.us or call the help desk at 1-800-296-5335 to obtain a copy of the detailed manual.

Getting Started

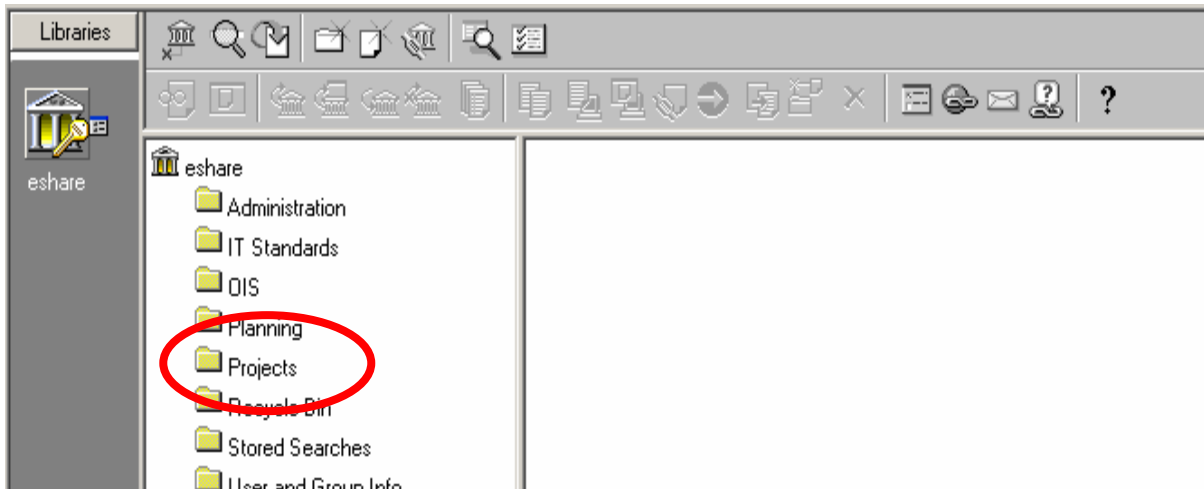
This manual assumes the FileNET software is installed and the user has a FileNET user account.

Understanding the Folder Structure

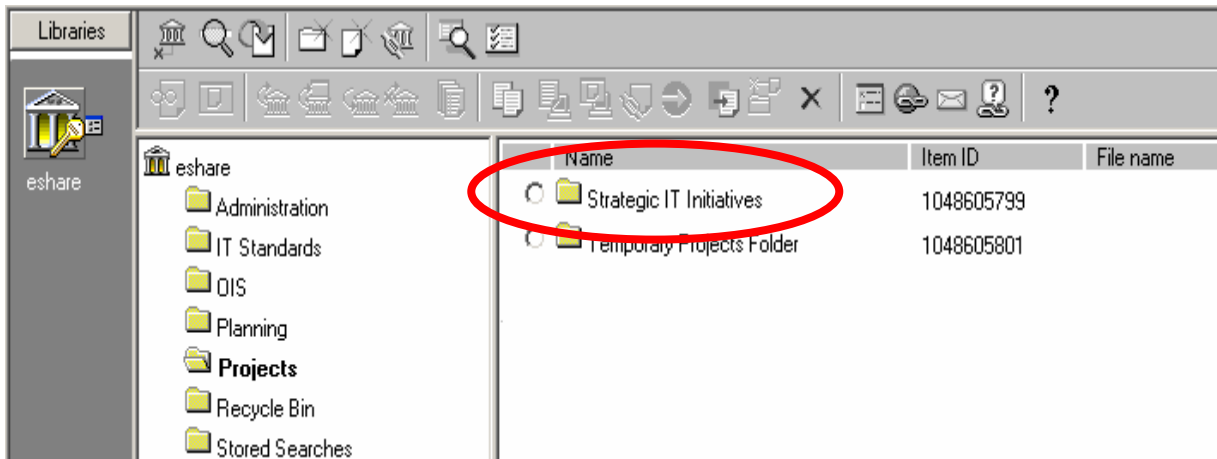
Since it is anticipated the Project Folder will be widely used, the BIS Division of Client Support Services has defined and created a standard folder structure for each strategic Information Technology (IT) project. All project documentation is to be stored in Project Folder and will use the following folder structure. In order to find a specific Project Folder, use the following instructions.

[Return to Table of Contents](#)

1. Select (click on) the **Projects** folder.

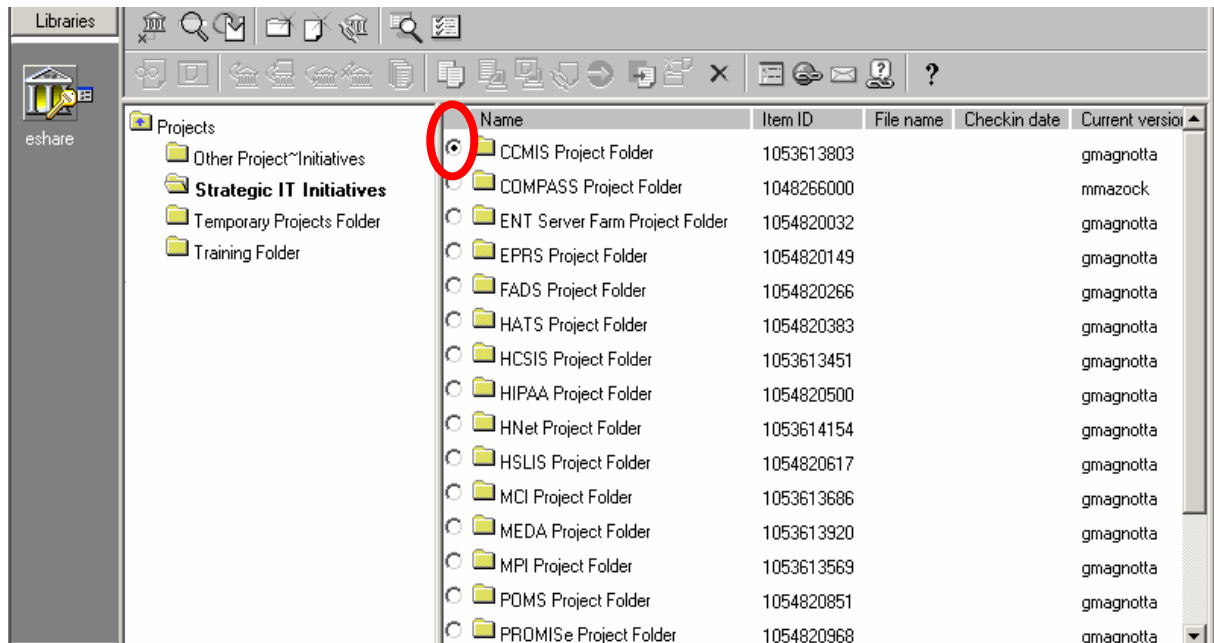



2. Select (click on) **Strategic IT Initiatives** folder on the right.



[Return to Table of Contents](#)

3. Click the radio button next to the desired project folder.



Use the **Bookmark** icon  to quickly access project documents in the future using the browser's Favorites feature. This icon creates a shortcut in the Favorites folder allowing the user to return to this location quickly and easily.

An example of the sub-folders a project will contain is shown below:

- 1.0 Initiative Definition and Planning
 - 1.1 Governance Structure
 - 1.2 Planning Documents
 - 1.3 Work Plan
- 2.0 Project Governance
 - 2.1 Steering Team
 - 2.1.1 Action Items
 - 2.1.2 Agendas
 - 2.1.3 Meeting Minutes
 - 2.1.4 Other
 - 2.2 Project Team
 - 2.2.1 Action Items
 - 2.2.2 Agendas
 - 2.2.3 Meeting Minutes
 - 2.2.4 Other

[Return to Table of Contents](#)

FOLDER	POSSIBLE DOCUMENTS
Initiative Definition and Planning	Due Diligence Template, Debriefing Document, Initiative Definition Support Documents, Feasibility Report
Governance Structure	Governance Structure, RACI Matrix
Planning Documents	APD; Feasibility Report, PPW; PRR; Communities of Practice; IRP; Concept Paper; APR
Work Plan	Work Plan, Work Plan Support Documents
Project Governance	Project Governance Support Documents

(Note: For a complete list of all project folders and associated documents, refer to the [Taxonomy and Metadata](#) document. This document is available on the BIS website. To view the Taxonomy and Metadata document use Ctrl + Click to follow the link above. A link that displays the path to this document is provided below:

<http://ois/pgm/h-net%20standards/3.0%20knowledge%20management/Taxonomy%20and%20Metadata.doc>

Login

The Project Folder is accessed through the DPW Intranet. The web address for the site is:

<http://ecm> .

1. Type **ecm** in the address bar of Internet Explorer browser and press <ENTER>.
2. Click the **Content_Services** icon to login



[Return to Table of Contents](#)


View a Document

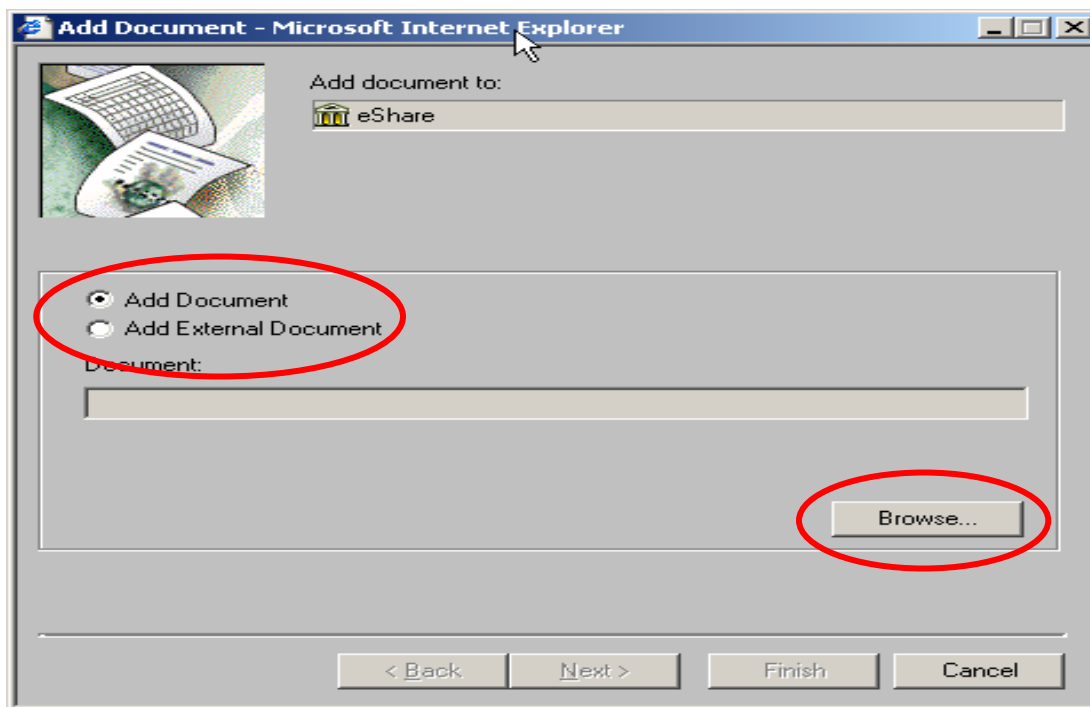
4. Locate the document to view.
5. Select the radio button to the left of the document name.



3. Click the **View** icon 

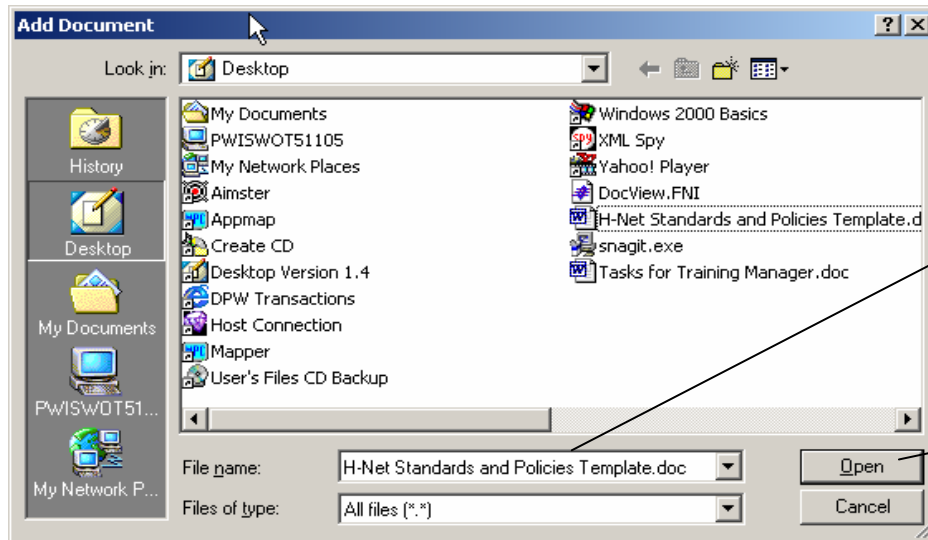
Add a Document

6. Navigate to the destination folder of the document to be added.
7. Click the **Add Document** icon 
8. The **Add Document** window will open and presents two add options – **Add Document** or **Add External Document**.



[Return to Table of Contents](#)

9. Click the **Add Document** radio button if not already selected; click the **Browse** button.
10. The **Add Document** window will open. Navigate to the directory where the file resides, click the document name to select the document, and click **Open**.



The document (file) name will appear here when it has been selected.

Click **Open** once the file has been selected.

11. Click **Next**.
12. Choose a document class from the drop-down list of available classes. For project documentation, select the **Project Library Class**.
13. The Index checkbox should be checked; the Keep Local Copy checkbox should be unchecked. (See graphic on next page.)
 - **Keep Local Copy** checkbox: By default this box is unchecked. Check this box if a copy of the document is desired on the local hard drive. It is recommended that this box remains unchecked to allow for version control and eliminate duplicate copies of a document. **If the box is unchecked, the local copy of the file will be removed.**
 - **Index** checkbox: Keep this box checked if users frequently access the document. Indexing a document stores its properties for subsequent searching and speeds the search process.

[Return to Table of Contents](#)

14. Specify the document's properties:

◆ -- This symbol indicates that a field is required.

- **Title:** Type in a unique name for the new document. Refer to Page 8 of the Taxonomy and Metadata document for information on DPW project document naming standards. (Page 6 of this manual contains a link to this document.)
- **Phase:** Use the drop-down box to select which phase the document is associated with.
- **Project Name:** Use the drop-down box to select the Project Name for the Project (HCSIS, MEDA, etc).

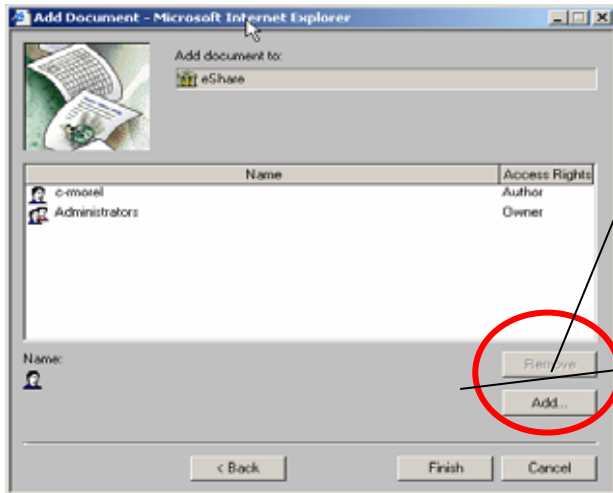
(Note: The user must use the vertical scroll bar of the Document Properties section to view or edit the following items.)

- **Program Office:** Use the drop-down box to select which program office the document is associated with.
- **Document Type:** Use the drop-down box to select what type of document is being added (Program Office Initiative, Project Change Request, Due Diligence Template, etc).
- **Fiscal Year:** Use the drop-down box to select the appropriate fiscal year.
- **Team:** Use the drop-down box to make the correct selection.

[Return to Table of Contents](#)

15. Click **Next** once the document's properties have been entered.

16. Add the appropriate group(s) to grant necessary access rights to the document.



Use the **Add** and **Remove** buttons to edit the list of user groups.
 (Note that the Remove button is dimmed until an existing group/user has been selected.)

Click **Finish** when necessary access rights have been

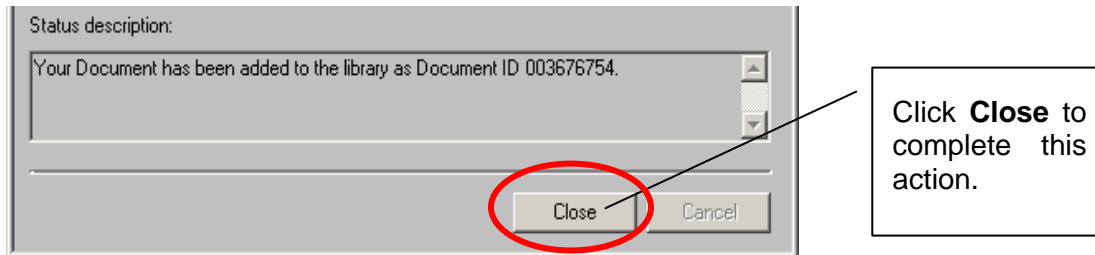
17. Ensure DCSS-Admin group also has Owner permission to all planning documentation.

ACCESS RIGHT	DEFINITION
None	Users have no view, read, or write access to a document or folder. The document cannot be retrieved through a search.
Viewer	Users can view any document or folder, and can make personal copies of the document or folder. They cannot modify or delete a document or folder.
Author	Users have Viewer access rights and the ability to check out, check in, and copy associated versions. They can also add annotations and modify property values for the document version.
Owner	Users have Author access rights and the ability to delete documents, modify security, and modify most other properties.

17. Click Finish when necessary access rights have been assigned.

[Return to Table of Contents](#)

18. If the file is added successfully, a message will be displayed at the bottom of the **Add Document** window. The Item ID number that has been assigned will also be displayed.




19. Click **Close** to complete this action.

Edit a Document

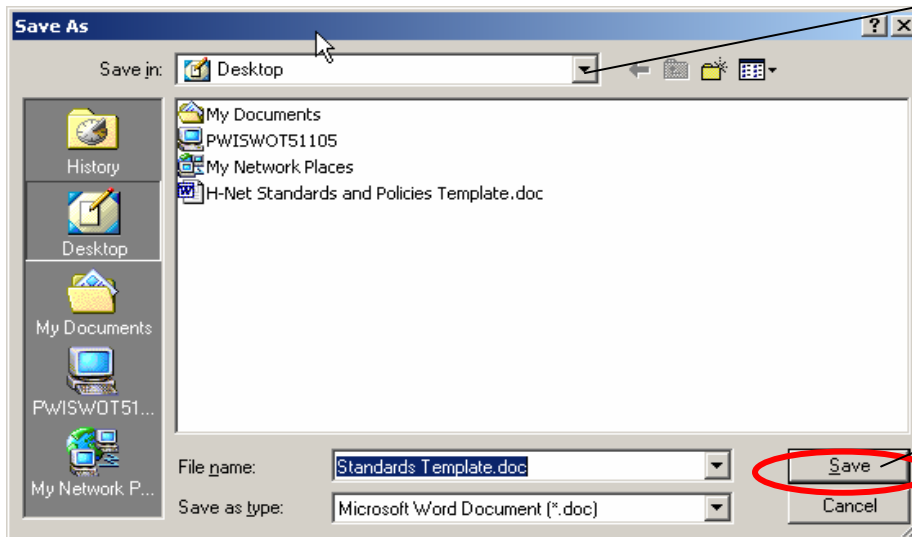
Documents to be edited must be checked out. The next three sections describe actions associated with editing a document: Checkout a Document, Checkin a Document, and Determine Who Checked Out a Document.

Checkout a Document

1. Identify the document to check out.
2. Select the radio button to the left of the document name.
3. Click the **Checkout** icon 

[Return to Table of Contents](#)

4. The user is prompted to save the document to the local hard drive. Specify a **Save In** location.



Use the drop-down arrow of the **Save In:** box to navigate to and select the destination folder. The file will be saved in the folder shown in this box.

Click **Save** when finished.

The document is now available at the location specified on the local hard drive.

5. When the checkout process is complete, the document will have a red check mark next to its name. The red check mark is visible to other Project Folder users and indicates that this document has been checked out. It cannot be edited or deleted by anyone else when it is checked out.



Substitute the **Checkout and Open** icon in the steps listed above to check out a document and automatically open it in its native software (e.g., Microsoft Word). This can be helpful if the user intends to edit the file as soon as he/she checks it out.


[Return to Table of Contents](#)

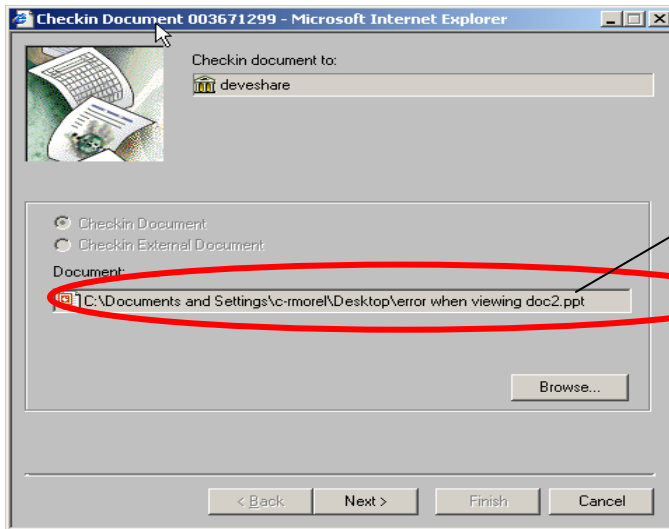
Checkin a Document

When the user has completed editing the document, it should be returned to its project folder. This makes the document available to others. When the user checks the document back in, a new version of the document (containing the changes) is created and becomes the current document available for check out.



When ready to check the document back in, be sure that the file itself is closed. If the user tries to check in an open file, a sharing violation error results.

1. Select the radio button next to the document to check back in.
2. Click the **Checkin** icon. 
3. The repository will remember where the user saved the document. If the document was moved to another location on the hard drive since it was checked out, the user will be prompted to specify the path of the document to be checked in. Click **Browse** to specify the file path.



If the file has been moved from the original checkout location, this box will be blank. Click the Browse button to navigate to and select the file.

4. Click **Next** to continue.

! DO NOT GIVE THE DOCUMENT A NEW NAME WHEN CHECKED BACK IN!! A NEW VERSION OF THE DOCUMENT IS CREATED AUTOMATICALLY SO THAT IT CAN BE DISTINGUISHED FROM THE DOCUMENT CHECKED OUT.

[Return to Table of Contents](#)

5. The **Checkin Document** window will open summarizing the document properties. Click **Next** to continue.

Checkin document to:
eshare

Class:
Project Library

Keep Local Copy
 Index

Document Properties	Value
Item ID	3673935
Title	System Specifications
Request ID	123456
Phase	Requirements Definition

Version Properties	Value
--------------------	-------

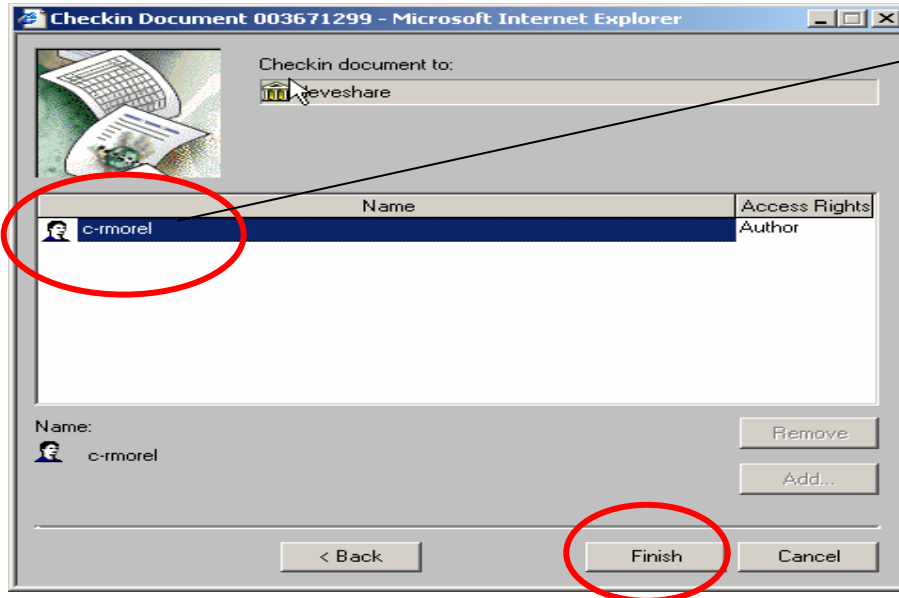
< Back Next > Finish Cancel

Be sure that the **Keep Local Copy** is not checked and the **Index** box is checked.

If the user has author or owner permission, the user is able to change any document property that was previously entered.

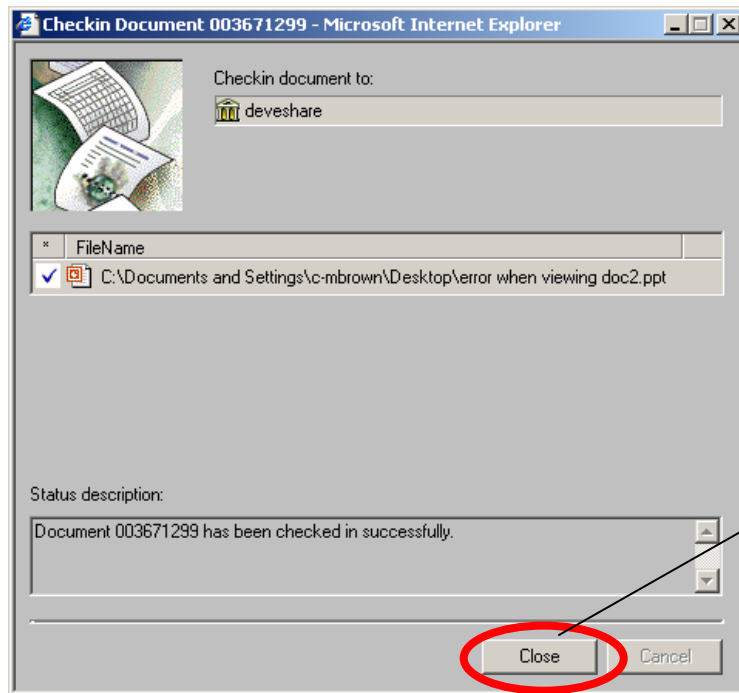
[Return to Table of Contents](#)

- Verify that the document has the correct groups assigned to it. If changes need to be made to the access rights, make those changes now. Otherwise, click **Finish** to continue.



A list of all groups assigned to the folder/document and the corresponding level of permission.

- If the document was checked in successfully, the following message will be displayed:



Click **Close** to complete this action.

[Return to Table of Contents](#)




Click the **Refresh** icon if the document has been checked back in, but the red check mark next to it has not disappeared. This icon updates the screen.

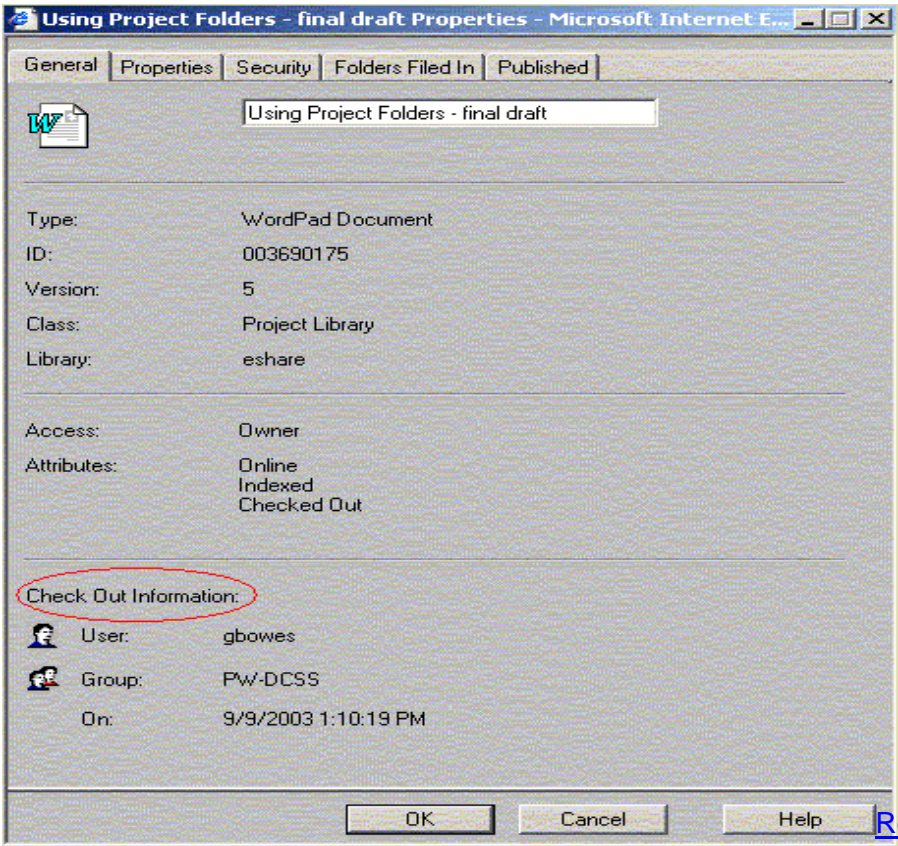
Determine Who Checked Out a Document

The user must checkout a document to edit or modify it. Since only one person can have a document checked out at any given time, a document that is checked out is unavailable for editing by another person. Users must, therefore, be able to determine who has the document checked out so that they are able to contact them and see how long they will have the file checked out. The procedure below uses the **Properties** icon and explains how to see who has a document checked out.

1. Select the radio button to the left of the document name.

2. Click the **Properties** icon.....

3. The **Properties** window will be displayed. The Check Out Information section at the bottom of the window identifies the person who checked out the document.



[Return to Table of Contents](#)



It is important that users and administrators do not check out documents unnecessarily. It is also important that documents are checked back in when the user is done with their editing tasks. Do not check a document out to simply read it. Documents that have been checked out are not available to other users for editing.

Copy a Document

The user can copy a document from one folder to another within the Project Folder.

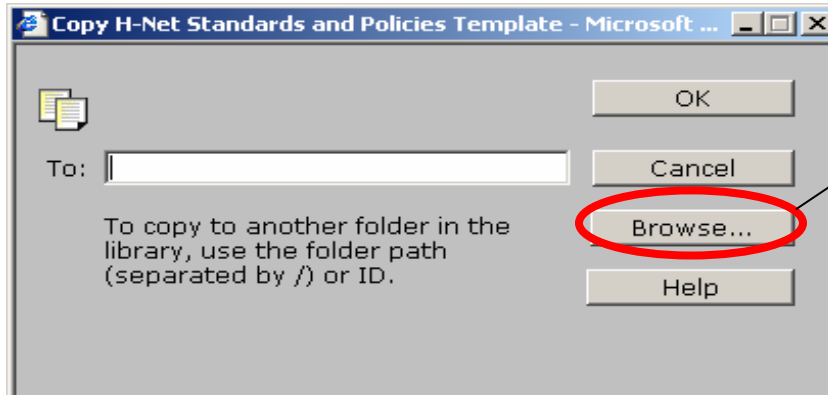
1. Locate the document to be copied to another folder.
2. Select the radio button to the left of the document name.



3. Click the **Copy** icon 

The **Copy** window will now open.

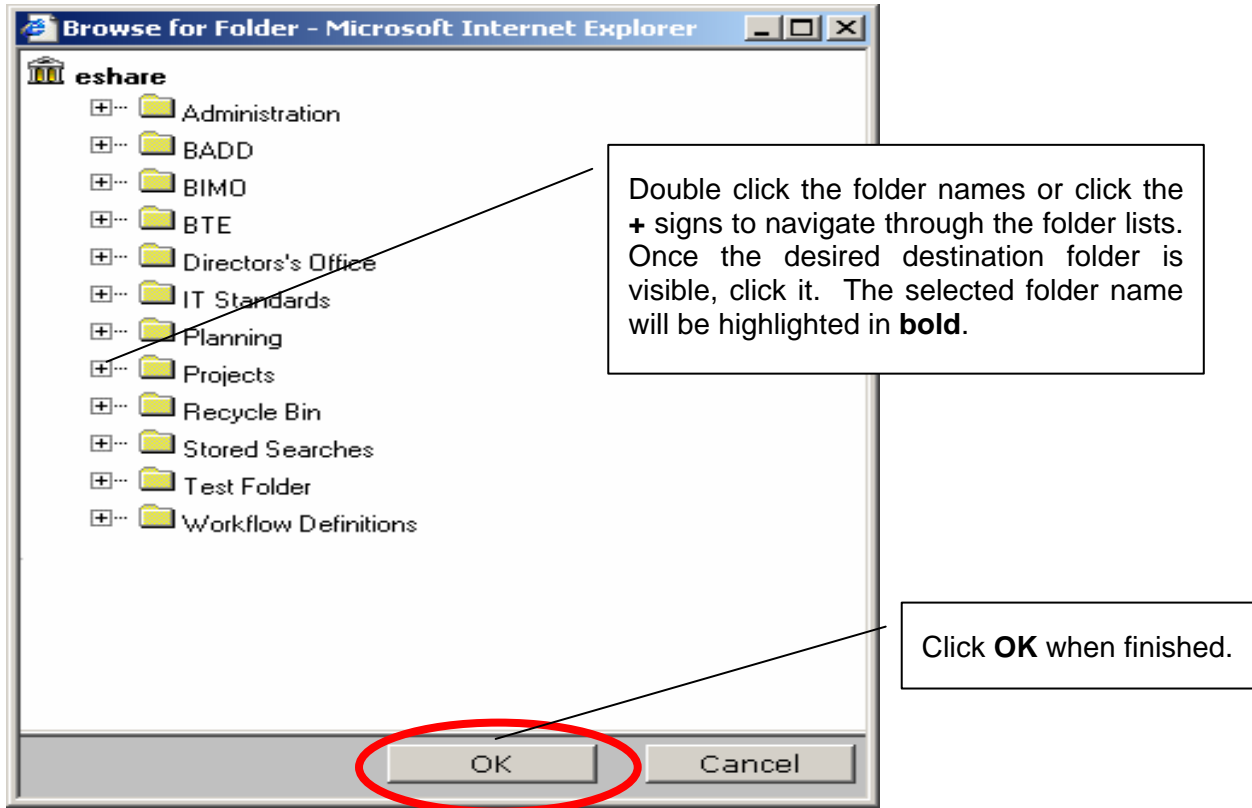
4. Click **Browse...** button to locate and select the destination folder.



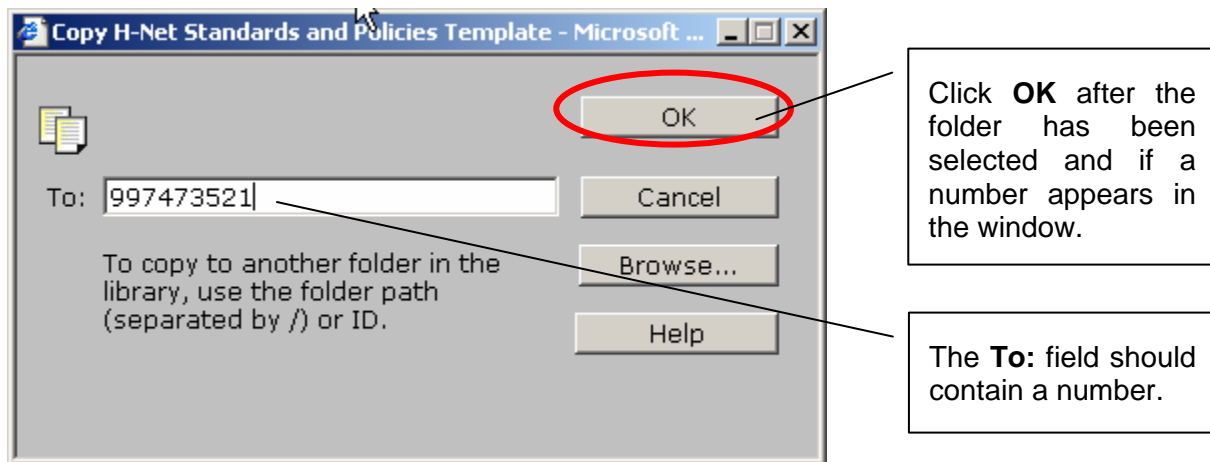
Click **Browse...** to specify the destination folder.

[Return to Table of Contents](#)

15. The **Browse for Folder** window will open, displaying all of the folders.



The user will be returned to the **Copy** window.



[Return to Table of Contents](#)

(Note: Folder numbers are used in lieu of folder names. Users should routinely use the **Browse** button to specify folders and/or files.)

16. Click **OK** to continue. The file will now be copied to the specified folder.



The user must have *Author* rights or higher for the destination folder.

WARNING!!!



A document copied using the FileNET Copy function is an exact duplicate of the original document. The copy is assigned the same Item ID number as the original. When a user specifies a file or folder for deletion, the Item ID number is used to refer to the object. All objects (files or folders) with that Item ID number are deleted. Deleting a copy of a document in FileNET will also delete the original document! This works differently than Microsoft products which treat a copy of a document as an individual file -- a document independent from the original.

Creating an Independent Copy

If the user needs to make an independent copy of a document, copy the document to the local hard drive (refer to instructions on the next page). Rename the document, if desired. Then use the **Add Document** icon to place the document in the Project Folder. A new Item ID number is assigned and the new document is a completely separate, independent document. Changes made to either document will not be reflected in the other document.

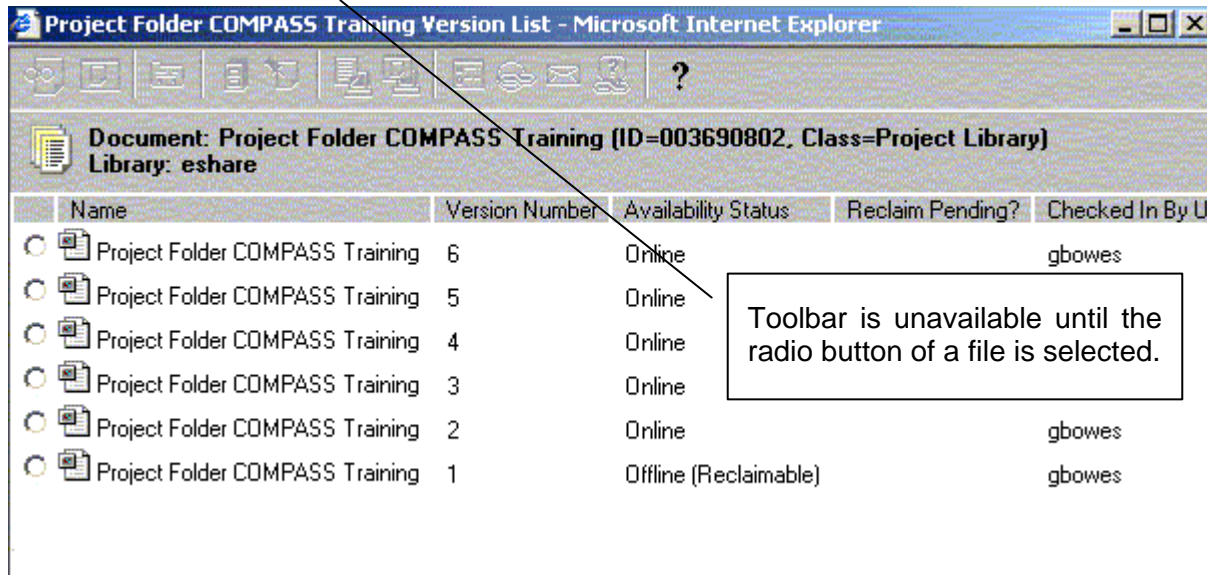
[Return to Table of Contents](#)

Document Versions

1. Select the radio button to the left of the document name.

2. Click the Version List icon 

The **Version List** window will open as displayed below.



When a document has been selected in the **Version List** window, the toolbar in the **Version List** window becomes available. The toolbar allows the user to **View**, **Open** or **Copy Local** any version of a document – as long as it is not currently checked out.


Delete a Document (Move Feature)

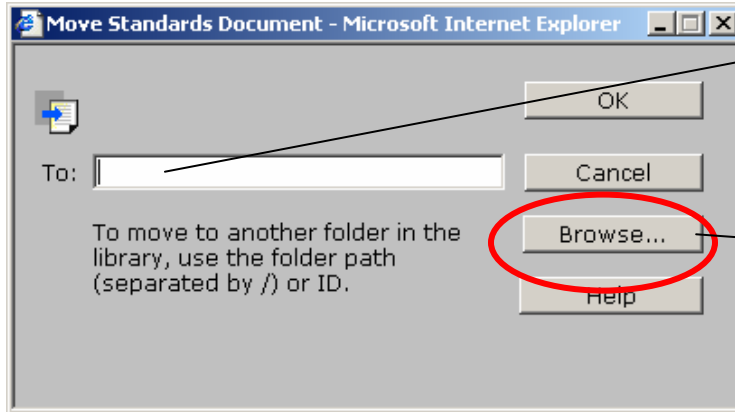
Since the **Delete** icon has been disabled, the user must employ the **Move** icon to purge or delete a Project Folder object. To delete an object, the user moves the folder or document to the **Recycle Bin**. When a document is moved into this folder, it is earmarked for deletion. After 30 days, it will be permanently deleted. The user has the option to retrieve the object for 30 days. This is similar to putting files into the Recycle Bin on the PC desktop– the files are no longer wanted, but can be retrieved if needed. The user must have Author rights or higher to delete a document from the Project Folder.

The **Move** icon can be used to transfer objects to folders other than the Recycle Bin.

1. Locate the folder that contains the document to be deleted.
2. Select the radio button to the left of the document name.

[Return to Table of Contents](#)

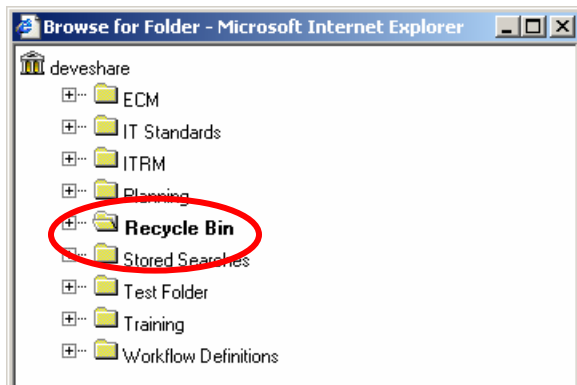
4. Click the **Move** icon 
5. The **Move** window will now open:



This will be the Item ID number of the destination folder.

Click the **Browse** button to find and select the destination folder.

5. The **Browse for Folder** window will open – Click **Recycle Bin**.



6. Click **OK** to close the **Browse for Folder** window.
7. The document has been moved to the Recycle Bin folder.

24 hours after a document is moved to the Recycle Bin, all document Owners will receive an email alert. The email advises the document Owner(s) that the document was moved to the Recycle Bin. (Even though users with Author rights can move a document to the Recycle Bin, they are not included in the alert notification.) Users with Author or Owner rights have the option to go into the Recycle Bin and move it to another folder. This option is available for 29 days after the document was initially moved to the Recycle Bin. The document will be permanently deleted in 30 days.

[Return to Table of Contents](#)

Search for a Document

The search feature allows the user to quickly locate a document in the Project Folder using the following search criteria:

- Title
- Document Type
- Item ID
- User who added the document




1. Click the **Search Mode** icon.



After the **Search** window opens, this icon changes to the **Browse Mode** icon. This button will allow the user to toggle between search mode and browse mode.

2. When the **Search** window appears, put the search criteria into the **Search** window field(s). Use the wildcard (asterisk) to broaden the search. [See Appendix B for instructions on the use of wildcards.]

Search window buttons

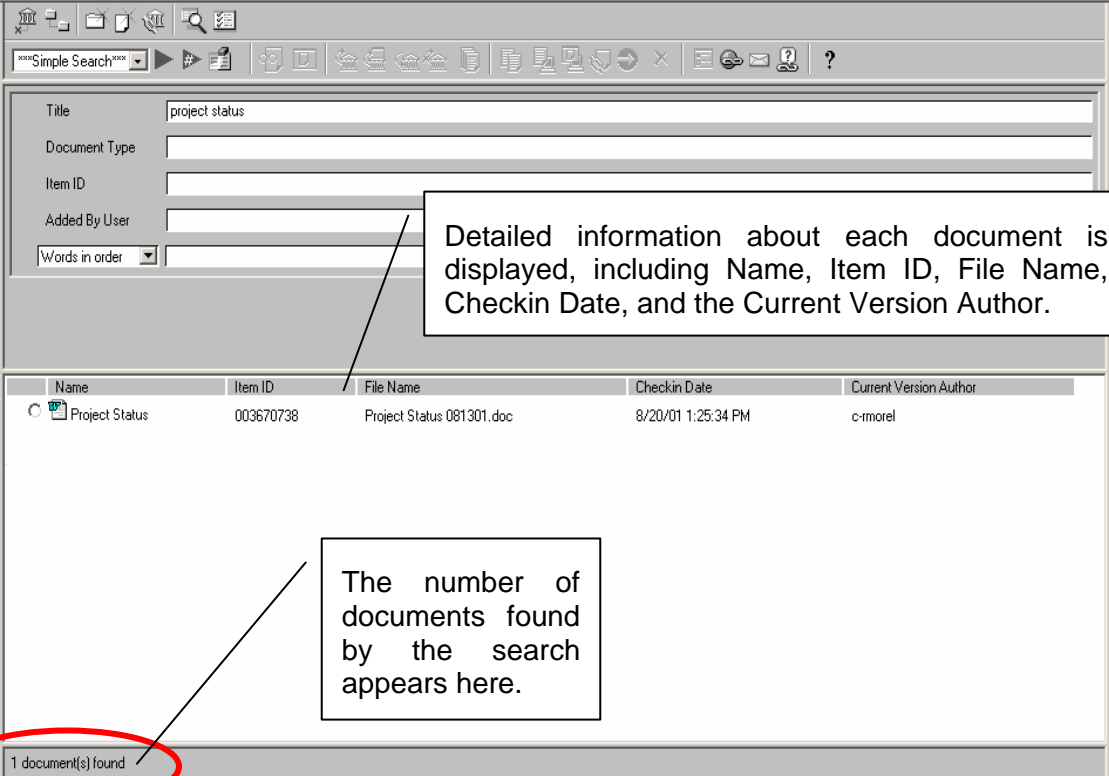
BUTTON	DESCRIPTION
	Search Now. Executes the document search.
	Search Count. Counts the number of documents retrieved.
	Clear. Clears the search criteria so that a new search can begin.

[Return to Table of Contents](#)

3. Click the **Search Now** icon 

The search results will appear in the lower window. The number of documents returned will be listed in the Status Bar at the very bottom of the screen.

The graphic below displays the search results for a query based on **Title** = "project status".



The screenshot shows a search window with the following fields and values:

- Title: project status
- Document Type: (empty)
- Item ID: (empty)
- Added By User: (empty)
- Words in order: (dropdown menu)

The search results are displayed in a table:

Name	Item ID	File Name	Checkin Date	Current Version Author
Project Status	003670738	Project Status 081301.doc	8/20/01 1:25:34 PM	c-morel

At the bottom of the window, the status bar displays "1 document(s) found".

Callout boxes provide additional information:

- "Detailed information about each document is displayed, including Name, Item ID, File Name, Checkin Date, and the Current Version Author." (points to the table headers)
- "The number of documents found by the search appears here." (points to the status bar)

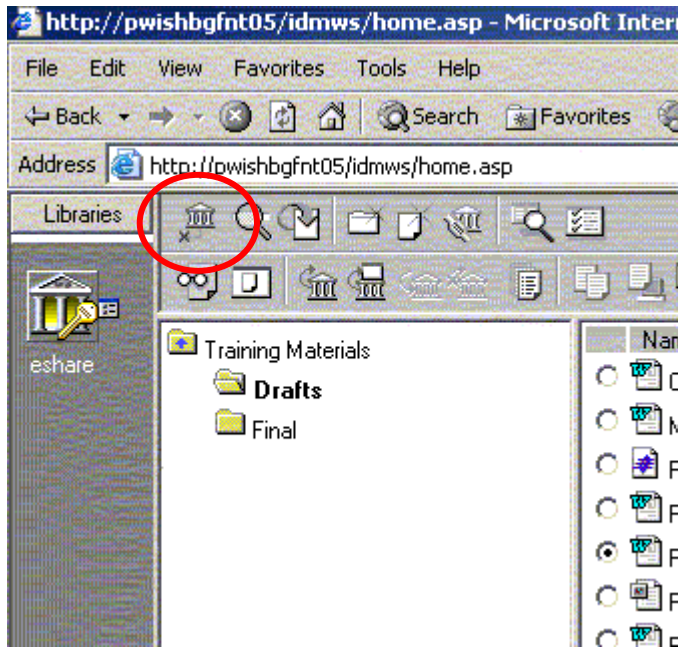


Click the **New Search Window** icon to open the search screen in a new window. The user will not have to switch back and forth between the browse mode and the search mode.

[Return to Table of Contents](#)

Logoff

When a user is done using the Project Folder, he/she should logoff. This is accomplished by clicking on the **Exit** icon. The circle below shows the position of the **Exit** icon.



The user will be returned to the logon screen. To re-enter the ECM system, click on the **Content_Services** icon.

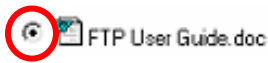
Several other document actions are available in Project Folder. These supplemental actions are listed in the following sections.

[Return to Table of Contents](#)

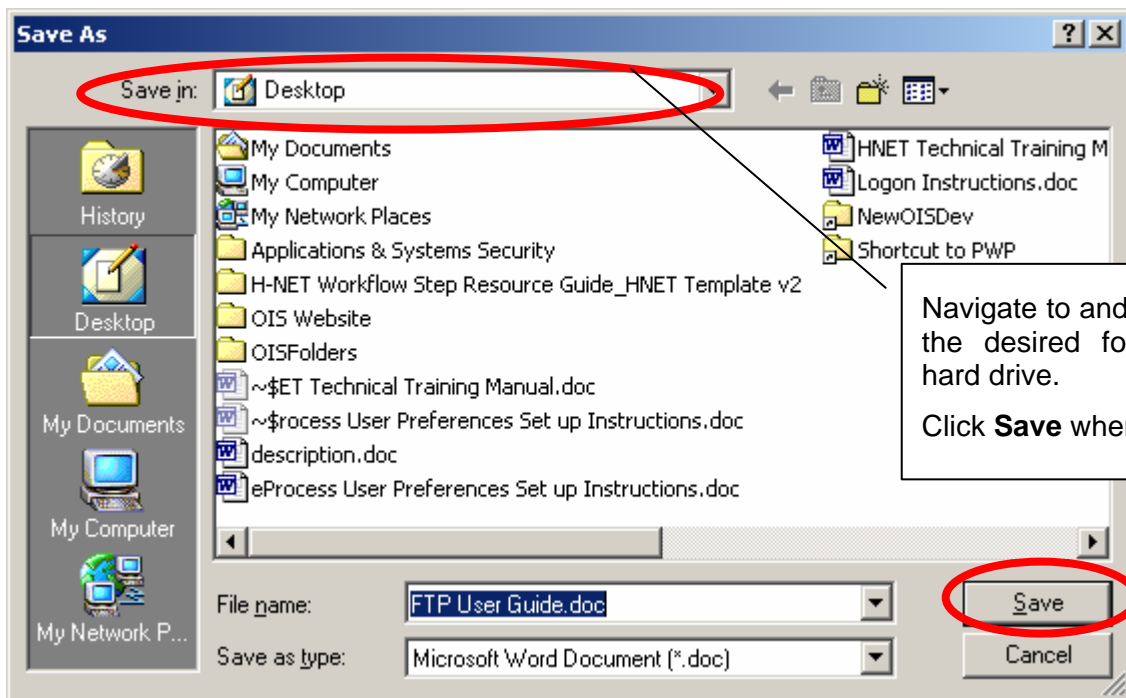
Copy Local

Any document stored in the Project Folder can be copied to a local computer hard drive (e.g., Desktop or My Documents folder) as long as the user has the appropriate permission.

1. Locate the document to copy.
2. Select the radio button to the left of the document name.



3. Click the **Copy Local** icon.....
4. The **Save As** window will now open:




5. A window will appear indicating that the copy process is in progress:
6. The user can confirm the copy function by navigating to the location where the file has been copied. A copy of the document in its original file format (e.g., Microsoft Word, Excel, etc.) is located there.



Click the **Copy Local and Open** icon to save a document to the local hard drive and automatically open it in its original file format.


[Return to Table of Contents](#)

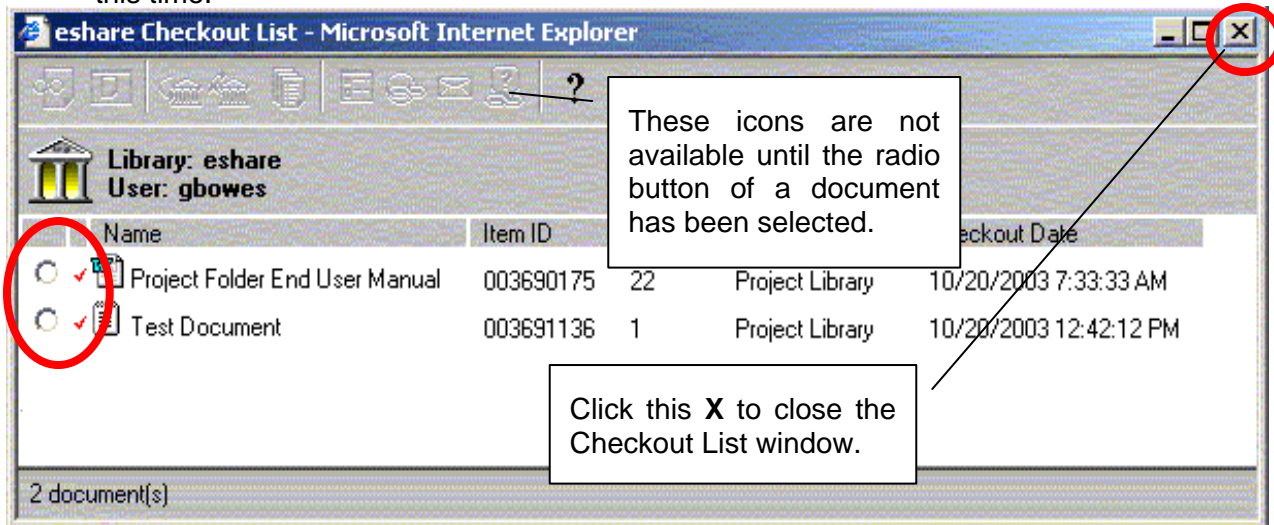
Retrieve a Deleted Document

1. Go to the Recycle Bin folder.
2. Select the radio button to the left of the document name to be retrieved.
3. Click the **Move** icon 
4. The **Move** window will now open – click the **Browse** button.
5. In the **Browse for Folder** window, click on the destination folder. Click **OK** when finished.
6. The document will now have been retrieved from the Recycle Bin.

Checkout List

When you are logged into Project Folder, you can view a list of all documents you currently have checked out. Note that you cannot use this feature to view a list of documents checked out by another user.

1. Click the **Checkout List** icon 
2. The **Checkout List** window opens displaying all documents the user has checked out at this time.



3. Close this window by clicking the **X** in the upper right-hand corner.

[Return to Table of Contents](#)

Open a Document

For the purposes of this manual the terms 'View' and 'Open' are used synonymously. However, there is a difference. Both the **View** and **Open** icons display the document in a new window labeled 'Microsoft Internet Explorer'. The user cannot modify the document in the View-based display. There is no option to save the document upon closing the new window.

The user can modify the document in the Open-based display window. When closing the Open-based window, the user is asked if he/she wants to save the changes. If the answer is 'Yes', the user is prompted to specify a location on the local hard drive. The document is then saved in the original file format... e.g., .doc for Microsoft Word, .xls for Microsoft Excel, and so on.

1. Locate the document to view.
2. Select the radio button to the left of the document name.

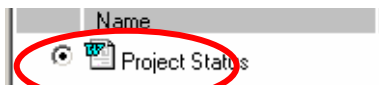


3. Click the **Open** icon



Open a Document (Alternate Method)

1. Browse the Project Folder to locate the document.
2. Click the document name.




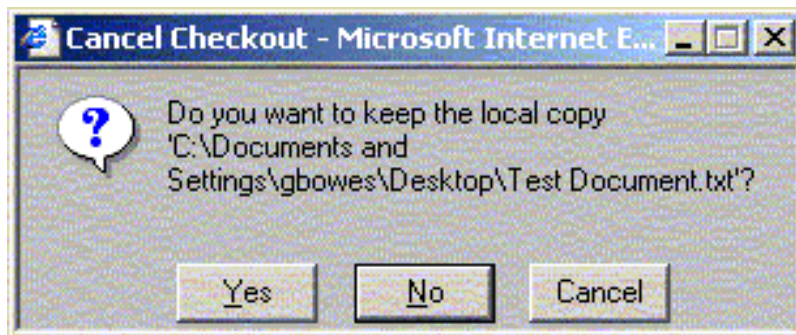
3. The document will be displayed in a new window.

[Return to Table of Contents](#)

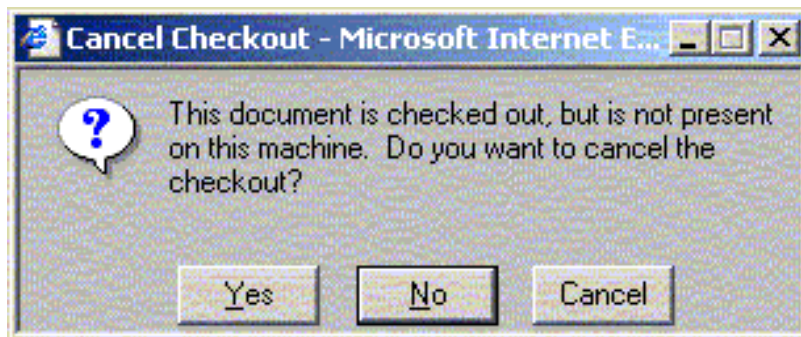
Cancel Checkout

Occasionally, it may be necessary to quickly return a document to the Project Folder. The user can return a checked out document using the **Cancel Checkout** icon. Documents returned in this manner will not retain any changes made to the document since checkout.

1. Click the **Cancel Checkout** icon 
2. If the document is in the location where it was originally checked out, the following window appears asking if the user wants to retain the local copy.



3. Click **Yes** to keep the local copy, **No** to delete the local copy, and **Cancel** to stop this action.
4. If the document is not in the original local location, the following window will appear:

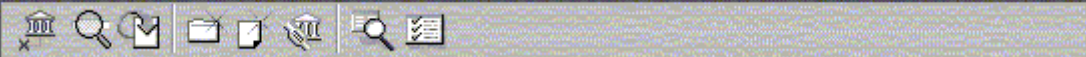










5. Click **Yes** to continue the Cancel Checkout function, **No** to stop the Cancel Checkout function, and **Cancel** to stop this action.












[Return to Table of Contents](#)

Appendix A: Toolbar Icons










The following buttons become available on the toolbar after the user selects the radio button next to a particular document name. **If no document is selected, some icons will appear dimmed and are disabled.**

BUTTON	DESCRIPTION	Page
Top Row of Icons		
		
	LOGOFF. Used to exit the Project Folder.	24
	SEARCH MODE. Use to search for a document within Project Folder.	22
	REFRESH. Updates the screen.	16
	NEW FOLDER. Not authorized for end user use.	NA
	ADD DOCUMENT. Adds a document to Project Folder.	7
	Workflow related. Not used. (Library Link Workflow)	NA
	NEW SEARCH WINDOW.	23
	CHECKOUT LIST. Displays a list of all documents currently checked out by the user.	26

[Return to Table of Contents](#)

Bottom Row of Icons		
		Includes Checkin
		Includes Checkout
	VIEW. Opens a selected document using a viewer.	7
	OPEN. Opens the selected document in Microsoft Internet Explorer.	27
	CHECKOUT. Checkouts a document. Available only when the selected document is not already checked out.	11
	CHECKOUT and OPEN. Checkouts a document and then opens the document in its native application (e.g., Microsoft Word, Visio, etc.).	12
	CHECKIN. Returns a checked out document to Project Folder. Icon/Function is unavailable until a checked out document is selected.	13
	CANCEL CHECKOUT. If the user checked out a document, this icon will return the document to the Project Folder.	28
	VERSION LIST. Displays detailed information about each version of a selected document.	20
	COPY. Copies a document to another folder.	17
	COPY LOCAL. Copies a document to the local hard drive.	25

[Return to Table of Contents](#)

BUTTON	DESCRIPTION	Page
Bottom Row of Icons (Continued)		
	COPY LOCAL and OPEN. Copies a document to the local hard drive and opens it in its native file format (e.g., Microsoft Word, Visio, etc.).	25
	Workflow related. Not used. (Link Workflow)	NA
	Workflow related. Not used. (Launch Workflow)	NA
	MOVE. Moves a document to another folder specified by the user.	20
	REMOVE FROM FOLDER. Not authorized for end user use.	NA
	DELETE. Not available or functional.	NA
	PROPERTIES. Opens a new window displaying the properties of the selected document.	16
	BOOKMARK. Creates a shortcut allowing the user to return to this location quickly and easily.	5
	MAIL. Used to send a link (to the selected file) to another person. The recipient will get an email containing a URL for the selected file. This action does not include the file as an attachment.	29

[Return to Table of Contents](#)

Appendix B: Using 'Wildcards' in a Search

Searches are 'criteria-specific'. This means that the search engine looks for exactly what the user enters in the search criteria. If the user searches by title, it looks for all objects with exactly the same title specified.

Wildcards can broaden the search. By using an asterisk (*) before or after the search word(s), the user is seeking all objects wherein the search criterion is preceded or followed by something.

Therefore, to achieve the broadest search results, use an asterisk before and after the search criterion. By prefixing and suffixing the search criterion with an asterisk, the user instructs the search to find all objects that include the search keyword.

Table 2 illustrates the use of wildcards in Project Folder searches. An X indicates that this document was found using the search criterion shown.

Table 2				
Document Name	Search Criterion			
	project	*project	*project*	*project*
Project	X			X
Project Cost			X	X
COMPASS Project		X		X
New COMPASS Project				X

NOTE:


Searching within Project Folder (FileNET) differs from searching within Windows. In Windows, search results will list all objects (files and folders) found within the currently-selected directory and all subordinate directories. A search within FileNET searches the entire FileNET repository and returns only documents – not folders.

[Return to Table of Contents](#)

Document Change Log

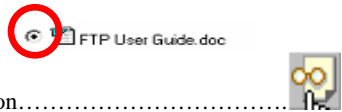
Change Date	Version	Change Description	Author and Organization
12/12/2003	1.0	Initial creation.	PW-DCSS-Performance
09/07/2004	1.1	Format & remove draft	PW-DCSS
11/04/2004	1.2	Added links for FileNET Assistance	PW-DCSS
03/01/2005	1.3	Changed to Bureau of Information Systems	PW-DCSS

LOGIN

Click the **eshare** icon to login.....


VIEW A DOCUMENT

Select document to view by clicking its radio button.



Alternately, click on the name of the file.

ADD A DOCUMENT

Click the **Add Document** icon.....

Add Document window will open. Click **Browse**.
Locate and select the file to add. Click **Open**.

Click **Next**. Select Project Library for Class property.

Specify the document's properties; click **Next**.

Assign Groups and Group rights. Click **Finish**.


Click **Close**.

EDIT A DOCUMENT

Documents to be edited must be checked out.

CHECKOUT A DOCUMENT

Select the document by clicking its radio button.


Click the **Checkout** icon.....

Specify a **Save in** (local hard drive) location.
Click **Save**. The document is now available at the
location you specified on your local hard drive.

CHECKIN A DOCUMENT

Click the **Checkout List** icon.....

Select the document by clicking its radio button.

Click the **Checkin** icon.....


If *Document:* box is empty, click **Browse**. [Find
and select document. Click **Open**.] Otherwise,
click **Next**.

Document Properties window will open. Modify
as necessary. Click **Next**.

Modify access rights, if necessary. Click **Finish**.

DETERMINE WHO CHECKED OUT A DOCUMENT

Select the document by clicking its radio button.

Click the **Properties** icon.....

The Properties window will open . The name of
the individual who has the document checked out
will appear at bottom of window under Check
Out Information.

COPY A DOCUMENT

(The Project Folder End User Manual contains
important information regarding copies of documents.)

Use the **Copy Local** icon to make a copy on the local
hard drive.

Click radio button of Project Folder destination folder.

Click the **Add Document** icon.


Click **Browse** and select the local copy created above.

Click **Open**.

Complete document properties and user access
windows. Do not check **Keep Local Copy**. Click
Finish.

DOCUMENT VERSIONS


Select the document by clicking its radio button.

Click **Version List** icon.....

Version List window displays Document name, Item
ID, version number, and so on. Selecting a version
enables toolbar for View, Open, and Copy functions.

DELETE A DOCUMENT

Select the document to purge by clicking its radio
button.

Click the **Move** icon.....


Click **Recycle Bin** in the **Browse For Folder** window.

Click **OK** to close Browse For Folder window.

SEARCH FOR A DOCUMENT

Click the **New Search Window** icon.....

Type a word into the Title area with an asterisk (*)
prior to and after the word. Example: *governance*.

Click the **Search Now** icon on the toolbar.....

Click the document's radio button.

You can **View**, **Open**, or **Copy** any document returned
by the search. You can **Edit** a document as long as it
is not already checked out.

LOGOFF

Logoff by clicking the **Exit** icon.....

FOLDER STRUCTURE

- ◆ INITIATIVE
DEFINITION AND
PLANNING
- ◆ PROJECT
GOVERNANCE
- ◆ COMMUNICATIONS
- ◆ CONTRACTS
- ◆ PROJECT STATUS
- ◆ PROJECT
MANAGEMENT TOOLS
- ◆ SYSTEMS
DOCUMENTATION
- ◆ REPORTS

For additional information:

Email Content Services:

ra-ecm@state.pa.us

or

<http://bis> – Look under
“What’s New” and select
Content Management

or

**Contact PMO
(717) 772-7698**

or

**Contact Help Desk
1-800-296-5335**

This flyer is courtesy of the
Program Management Office



BUREAU OF INFORMATION SYSTEMS

Program Management Office

Version 1.1 March 2005

.....

Project Folder Quick Tips

.....



RFP # 39 – 06
Appendix Q

Pennsylvania
Department of Public Welfare
Bureau of Information Systems

Project Change Management Guideline

Version 3.5

June 17, 2005

Table of Contents

Introduction.....	6
Executive Overview.....	6
Purpose.....	7
Overview of Project Change Process.....	8
Project Scope	8
Scope Change.....	8
Benefits	10
Before Beginning the Change Process.....	10
DPW Project Governance Structure	11
Baseline.....	11
Functional Baseline.....	12
Allocated Baseline	12
Product Baseline	12
Baseline Control Items.....	13
Functional Baseline.....	13
Allocated Baseline	14
Product Baseline	14
General Change Groupings.....	15
Fix	15
Enhancement.....	15
Assign Roles	15
Change Lead	15
Change Control Board (CCB).....	15
Change Sub Team.....	16
Quick Assessment Sub Team.....	16
Impact Analysis Sub Team	16
Steering Team	16
Project Management Team	17
Team Structure.....	17
Project Planning	18
Inputs to the Project Change Process.....	18
Where Do Changes Come From?	18
Project Change Request Triggers.....	19
Variance on Project Status/Performance Reports	19
Information and Reference Materials for Project Change Requests.....	19
Data Processing Service Request (DPSR)	20
Issues.....	20
Maintenance Requests	20

Wish List.....	20
Step 1 – Project Change Request (PCR) Evaluation	20
Yes, the PCR is Complete.....	21
No, the PCR is Incomplete.....	21
Step 2 – Project Change Request Quick Assessment	21
Perform the Architecture Control Board Review	22
Yes, the PCR Is In Scope.....	22
No, the PCR Alters the Scope.....	22
Step 3 – Impact Analysis	23
Step 4 – Change Control Board Decision	23
Step 5 – Final Review and Initiate the Project Change Request.....	24
Project Team Approval	24
Steering Team Approval	24
Initiate the Change Request	24
Schedule the Change Request.....	25
Step 6 – Appeals	25
Work Products	25
Re-Baseline Affected Control Items.....	25
Update Detailed Work Plan	25
Document Lessons Learned if Appropriate	26
Communicate Change to Stakeholders	26
Roles and Responsibilities	27
Appendix A: Decision Parameters.....	28
Appendix B: Quick Assessment	28
Inputs.....	30
Review the PCR’s Documentation	30
Perform the Requirements Analysis for the PCR	30
Level of Effort Study	30
Numerical Ranking	30
Organizational Review.....	31
Consider the PCR’s Magnitude and Alternatives	31
Consider the PCR’s Cross Project Impact	31
Is the PCR Within Scope?.....	31
Forward the Assessment Results to the Change Sub Team.....	32
Appendix C: Thresholds for In/Out of Scope	32
Appendix D: References	32
Appendix E: Glossary	33
Baseline.....	33
Allocated Baseline	33
Functional Baseline.....	34
Product Baseline	34
Project Change	34

Control Item 34
Cost-Benefit Analysis 35
Acronyms Used in This Document..... 35
Document Change Log 36

Project Change Management Guideline

Introduction

This documented Project Change Management guideline is another of the Division of Client Support Services' (DCSS) tools available to help project managers and program offices effectively manage projects. A project begins with a well-documented project scope that is agreed to by both the Project Team and the customer or end user. Changes to that scope during project execution are inevitable.

Having a standardized, disciplined project change procedure ensures that changes affecting project baselines are accepted and implemented only after a thorough assessment is made of their impact. This procedure provides a mechanism for systematically managing and supporting appropriate changes.

Executive Overview

Effective project management requires disciplined control of changes to project scope. Even seemingly simple changes can have subtle yet very serious consequences if not managed correctly.

This document outlines DPW's project change process. It begins with an overview of the project change process in which we define project scope and illustrate how project change works to control modifications to defined project scope. A flow chart illustrates the entire project change flow. The overview indicates who should be familiar with and using the process and specific benefits of the process.

Before implementing the project change process, a Change Control Board (CCB) must be established, and the DCSS, project governance teams, program offices, Cross-Program IRM and IRM Leadership Team educated as to their roles in the process. In addition, the Project Management Team should identify a change lead for the project and make some specific decisions as part of their project planning.

Inputs to the project change process include baseline control items, maintenance requests, wish lists, miscellaneous problems, project change requests, variances on reports, and reference material for the project change process.

During Step 1 of the process, the Project Change Request (PCR) is created, and the Change Sub Team determines whether the PCR is complete.

The Quick Assessment Sub Team conducts a quick assessment of an accepted PCR in Step 2, which the Change Sub Team uses to determine whether the PCR is in or out of scope. If it is out of scope, then a detailed impact analysis is requested.

Step 3 outlines the impact analysis, how it is conducted, and what happens with the results.

During Step 4, the Change Control Board (CCB) Sub Team reviews all PCRs. If a PCR is reviewed and the determination is made not to implement the project change request, the PCR is returned to the requester and archived. If the PCR has no cross project impact and is out of scope, the Project Management and Steering Teams must review and approve it. If the PCR has cross project impact, it undergoes an impact analysis from each project affected by the change and is decided on by the CCB, Project Management Team, or Steering Team for the project(s) or the Cross Program IRM. If the PCR is approved, it moves forward to Step 5 where the Steering Team must review and approve it. If the PCR is disapproved, it is returned to the requestor and archived without the possibility of an appeal.

After the Project Management and Steering Teams review and approve the PCR, the Change Sub Team initiates and schedules the project change request in Step 5.

Throughout the process, requesters and Project Management Team members will be kept apprised of the PCR's status, and a central repository will be created for the storage of both rejected and approved PCRs.

The outcome of the process is that rejected PCRs are stored in the repository and approved PCRs become configuration management orders, which may result in re-baselined control items, updated work plans, communication to affected stakeholders, documented lessons learned, and initiation of the approved project change.

The process is based on industry best practices in project change and project management.

Purpose

This guideline documents and explains DPW's accepted process for handling project change requests that arise during the General Systems Design (GSD), Detailed Systems Design (DSD), and Development phases and those projects that are in the Operations phase and do not have a maintenance change process currently in place. It is intended for use by DPW project leads, members of the Change Control Board, the Project Management Team, the project's Steering Team, DPW's financial community members, and project stakeholders.

Actual change requests are documented on the Project Change Request (PCR) form.

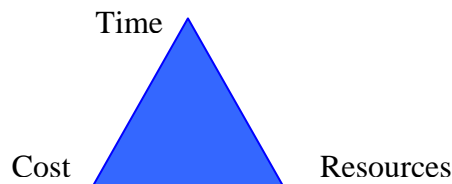
Overview of Project Change Process

Project Scope

The project scope includes:

- The product requirements—what the project's product needs to do to be acceptable to the customer
- The timeframe to complete the project—usually expressed in terms of an end date
- The expected cost to execute the project

The triple constraints of cost, resources, and time are typically shown as a triangle. When one constraint changes; the other two may be affected.



Scope Change

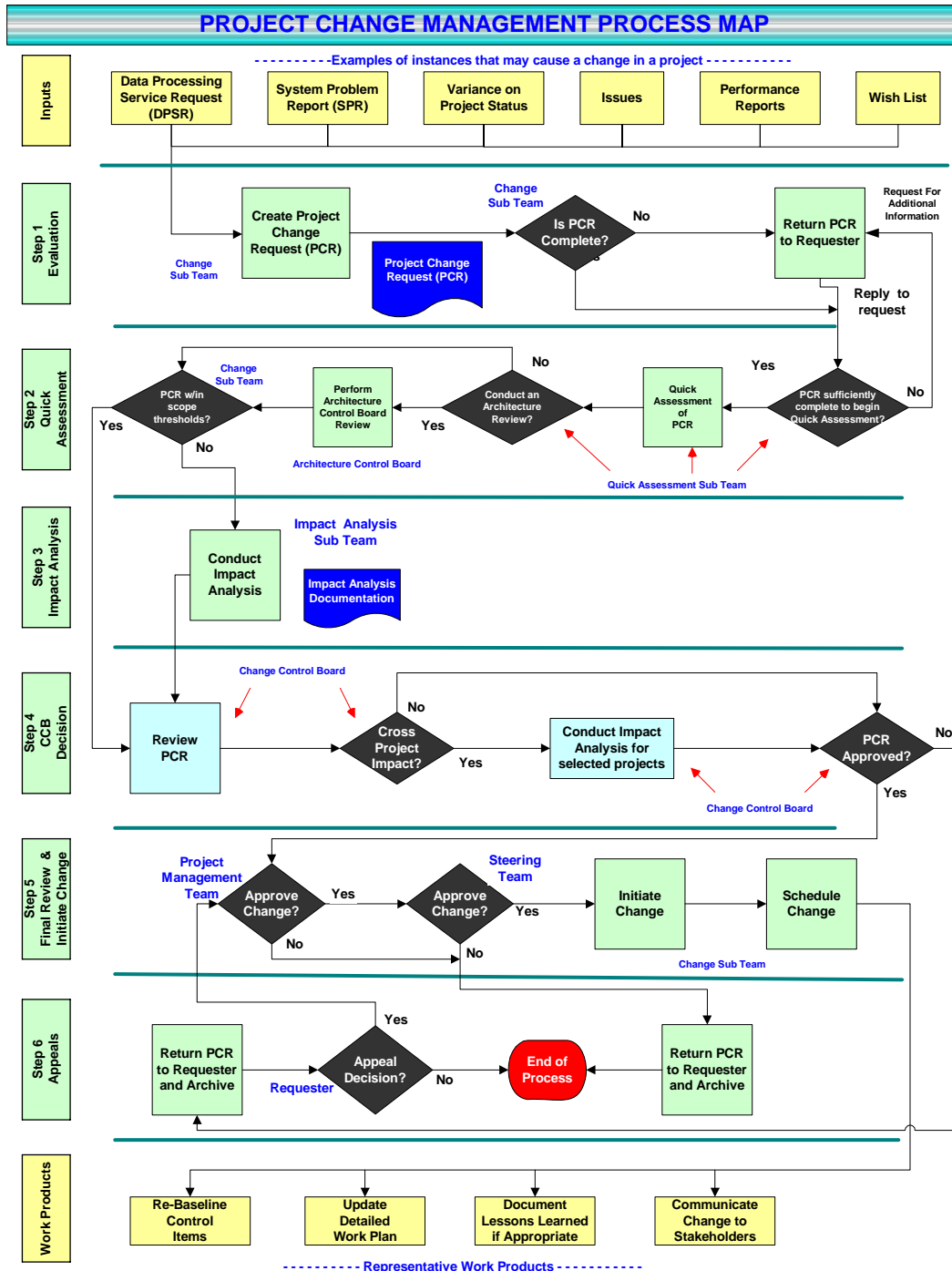
The DPW Project Change process facilitates consistent project change techniques to ensure project scope management throughout the DPW Information Technology (IT) projects' lifecycle. It protects the integrity of a current, approved Program Office Initiative (POI) definition and associated system requirements, design documents, and baselined software functionality components.

This process tracks changes that are identified after planning is finalized and the scope is baselined. Then it follows through baselines developed from the General System Design (GSD), Detailed System Design (DSD), and Development phases. By the time a project nears the Development phase's completion, scope changes should be discouraged until the product is implemented and maintenance changes arise.

Because the definition of project scope includes agreed-upon time, cost and resource parameters, a Project Change Request (PCR) should be generated for any project change that will impact the project's resources, cost, or duration. Bug fixes and incidents discovered during testing do not represent changes to scope and are therefore not covered by this procedure.

The complete process flow is shown on the following page. This guideline is divided into sections that follow the Inputs, Steps, and Work Products outlined in that process flow. Each section explains the activities that occur in each step and provides parameters and guidance where appropriate to help explain concepts.

Another point that should be noted is that as project milestones are achieved, the potential impacts of change requests on project work increases. Each change request must be analyzed against the body of completed work as well as against the agreed-upon project scope.



Benefits

A standardized project change process ensures that changes to project scope are managed and tracked. The impacts and risks of suggested change requests are identified and weighed before the change is put into effect. Only those change requests that are in the best interest of the project are approved.

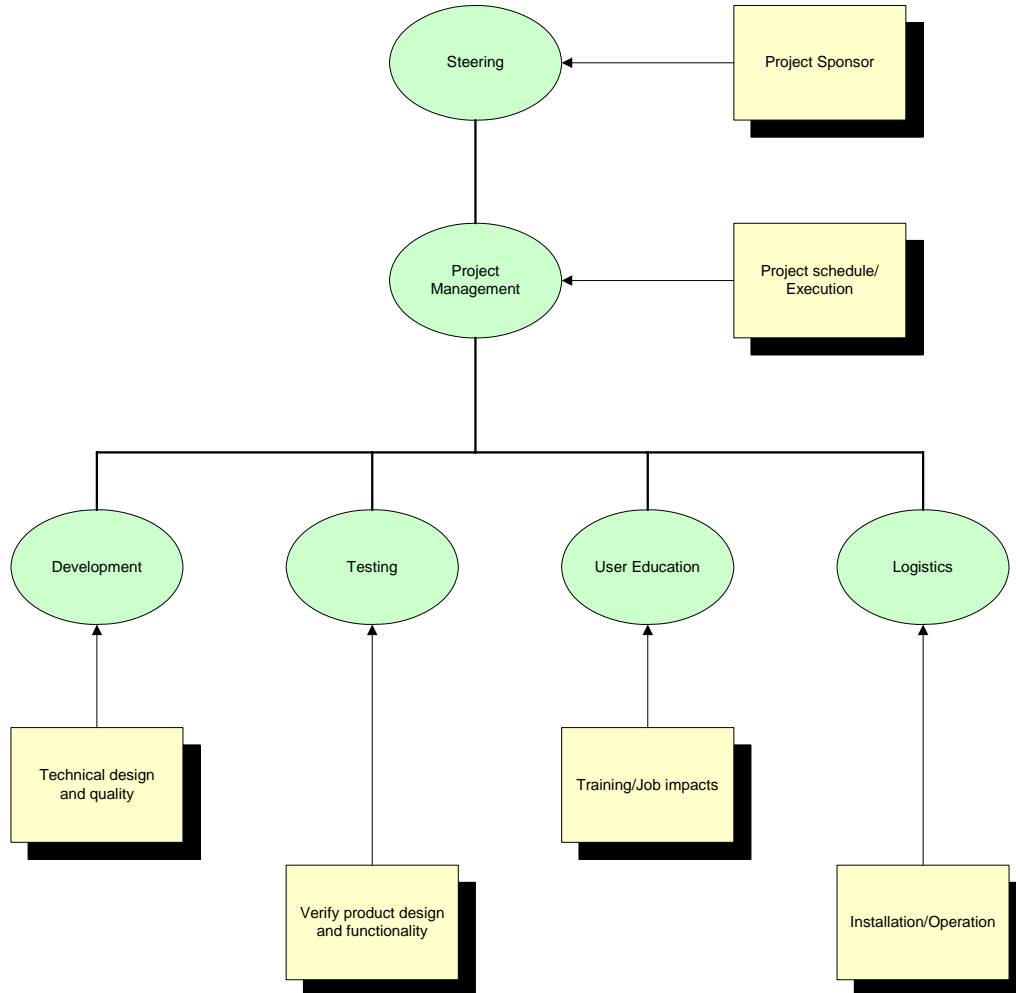
Following a disciplined change process gives project management teams control over project scope. A disciplined change results in better control over budget and resources and projects that are completed to customer specifications. A project change process provides improved change efficiency, because approved change requests are completed more quickly, and allows reuse of paperwork for the resubmission of earlier rejected requests.

Before Beginning the Change Process

Project change planning is part of the project planning process. The Project Management Team members should be familiar with this change process. In addition, the Project Management Team must ensure that certain things are in place during the new project's planning process.

DPW Project Governance Structure

The DPW Project Governance Structure is used to complete all facets of a project, one of which is the project change process.



Baseline

A baseline is a set of control terms that serve as the basis for further development in the project. The control items are a document or a set of such documents formally designated and fixed for a specific time during the project's lifecycle. The Project Management Team formally reviews and agrees upon a baseline and only changes it through formal project change procedures. Some examples of possible baselines are cost baseline, schedule baseline, performance measurement baseline [Source: *Project Management Institute Project Management Book of Knowledge*]. For this process, the pertinent baselines are functional baseline, allocated baseline, and product baseline, which are described in more detail on the next page.

Functional Baseline

The Functional Baseline is the point in a project when there is a clear definition of what the system to be developed should provide. This baseline will establish the measure that will be used in determining whether a proposed element is to be included in the new system. This baseline includes these descriptions: Project Summary, Project Objectives, Project Scope, Organizations Affected, Project Constraints, Project Assumptions, Project Risks and Mitigation Plans, Key Project Dates, High-Level Project Resource Plan, and Project Procurement Plan. At DPW, this baseline will be attained when these project materials are prepared and approved: Program Office Initiative Description, IRM Prioritization Workbook, IRM Strategic Plan, Program Revision Request (PRR) (including Concept Paper), ITRM Service Request, Investment Review Program (IRP) Registration, and the System Requirements Document. These documents are completed during the project's Initiative Definition, Planning, Requirements Definition, and General System Design (GSD) Phases. The Work Plan Standard states that the Project Team establishes the Functional Baseline usually near the end of GSD.

Allocated Baseline

The Allocated Baseline is that point in a project when all the resources required to develop and to install a system have been identified and obtained or allocated. This baseline is used on all future project activities in determining whether a proposed aspect of the system should be developed or installed. It is the baseline that allocates functional requirements to specified hardware and software items, too. The Work Plan Standard stipulates that the Project Team create this baseline near the end of the DSD by using the control items for the Functional Baseline and the documents completed and approved during the DSD. The DSD's documents include the following: the Signed Contract with the Vendor, the project's Physical Data Model, the project's Expanded Data Dictionary, the Proof of Concept, Test Plans, Conversion and Interface Plan, User Training Plan, the Outreach Plan, the project's Final Requirements Traceability Matrix, and the DSD Document.

Product Baseline

A product baseline is that point in a project when the entire system is developed. This baseline identifies the fact that the system is ready for the testing, implementation, and operations portions of a project. Subsequent to this point, an evaluation can be conducted to review the processes and tools that were used to develop the new system. These experiences can be captured, catalogued, and filed for use in future system development projects. Unfortunately, the Work Plan Standard does not explicitly say when the Product Baseline should be created. But, this baseline will be started near the beginning of the Development Phase and be finished when a working product is in production. The Work Plan Standard does say that the Functional and Allocated Baselines' control items and the Finalized Capacity and Performance (Load Capacity) Test Plan, the Produced Users Manual, the Produced Training Manual, the Computer Operational Procedures, the Help Center Documentation, the Impromptu Catalog the Documented Disaster Recovery Plan, the Developed User Training Program, the Policy, Procedures, and Job Responsibility

Change Materials, the Updated Detailed Project Work Plan, and Ongoing Performance Monitoring are the control items that form the Product Baseline.

Baseline Control Items

Control items are any project documents or components that are approved and considered part of a baseline. Control items form the reference points that ensure the Project Management Team delivers the product that meets the project sponsor and client's agreed upon expectations. They also form reference points for the Change Sub Team to determine if a request constitutes a change of scope. Baseline control items are potential inputs to the change process because they form the limit against which a change of scope is gauged.

The Work Plan Standard sets a functional baseline at the completion of the General System Design (GSD) document and an allocated baseline at the completion of the Detailed System Design (DSD) document. The product baseline is completed at the point when one has a working product in production. The outline below shows the control items that must be included for these baselines in each project phase, as defined in the Software Development Methodology (SDM) and the Work Plan Standard.

Functional Baseline

- Worked on during the Initiative Definition, Planning, Requirements Definition, and General System Design (GSD) Phases
- These are the types of control items that form the baseline
 - Security Architecture Design
 - Logical Data Model
 - Revised Data Dictionary
 - System Architecture Design
 - Testing and Installation Strategies
 - Software Change Plan
 - User Training Strategy
 - Outreach Strategy
 - Policy, Procedures, and Job Responsibility
 - GSD Document
 - Capacity Plan
- Created by the Project Team before the end of the GSD Phase

Allocated Baseline

- Worked on during the Detailed System Design (DSD) Phase
- All required documentation from the Functional Baseline become control items for the Allocated Baseline
- These are the types of control items that form the baseline
 - Signed Contract with the Vendor
 - Physical Data Model
 - Expanded Data Dictionary
 - Proof of Concept
 - Test Plans
 - Conversion and Interface Plan
 - User Training Plan
 - Outreach Plan
 - Final Requirements Traceability Matrix
 - DSD Document
- Created by the Project Team before the end of the DSD Phase

Product Baseline

- Worked on during the Development Phase until the product goes in to production
- All required documentation from the Functional and Allocated Baselines become control items for the Product Baseline
- These are the types of control items that form the baseline
 - Finalized Capacity and Performance (Load Capacity) Test Plan
 - Produced Users Manual
 - Produced Training Manual
 - Computer Operational Procedures
 - Help Center Documentation
 - Impromptu Catalog
 - Documented Disaster Recovery Plan
 - Developed User Training Program
 - Policy, Procedures, and Job Responsibility Change Materials

- Updated Detailed Project Work Plan
- Ongoing Performance Monitoring
- Created at the point when one has a working product in production

General Change Groupings

Fix

A fix is a change that's required when a program or system does not operate as specified in the functional baseline [General System Design (DSD)], allocated baseline [Detailed System Design (DSD)], or product baseline [Development].

Enhancement

An enhancement is an agreed upon change to a program or system which was not specified in the allocated or functional baseline. An enhancement that falls outside the specified baseline will be prioritized and a determination made regarding the impact to a project's schedule. Other changes or scheduled tasks may be removed or delayed.

Assign Roles

Change Lead

During the planning process, the Project Management Team must identify a change lead to manage project change requests. For short duration projects, the project lead may serve as the change lead. For a more complex project, a separate change lead should be identified.

The change lead is responsible for monitoring the progress of change requests through the process, participating in the quick assessments and impact analyses, and updating the project documentation (outputs on the flow chart) when change requests are approved.

Change Control Board (CCB)

Within DPW, the Program Management Office (PMO) and standing project Change Control Boards will review the Project Change Requests. The Change Control Board will facilitate and support PCR analysis of the impact on the project and guide the identification of options and recommendations for action to be taken.

It is recommended that the CCB be a standing team composed of the following members:

- Financial representative (s), on an as needed basis
- Functional / Technical expert(s) from the Department's Enterprise IT organization
- Policy / Quality Assurance representative(s)

- A Program Office representative(s) who can answer questions and present the business case
- Project / Change Lead – may make a formal presentation to CCB to support a change request

Even though the CCB is a standing entity, not all board members will review all requests.

If the PCR suggests a scope change to either the allocated baseline or the functional baseline, then a subset of the CCB consisting of policy director(s), BIS representatives, and financial representative(s) will review and approve or reject the PCR. If a PCR suggests a scope change to the allocated baseline, then a subgroup of the CCB consisting of technical representatives will review and approve or reject the PCR.

Regular CCB meetings should be scheduled to ensure that the approval body is available if needed. The PMO will monitor the outstanding PCRs' approval status.

If a project lead perceives the need for a meeting to be held outside of this schedule, it is the project lead's responsibility to schedule that meeting with the PMO's assistance.

Change Sub Team

The Change Sub Team is the first team in the project change process to review all submitted PCRs. The Change Sub Team initially reviews all PCRs for completeness. When the quick assessment is complete, the Change Sub Team reviews the recommendation for concurrence with the Quick Assessment Sub Team before the change request moves to the Change Control Board or the Impact Analysis **Sub Team**. If the Steering Team approves a PCR, the Change Sub Team will initiate and schedule the change request.

Quick Assessment Sub Team

The Quick Assessment Sub Team notes any requirements that may have been omitted from the initial PCR, suggests additional alternatives that may exist, and indicates possible impact on dependent projects. The team then makes an assessment of the magnitude of the change request and the time and resources required to support the change request.

Impact Analysis Sub Team

The Impact Analysis Sub Team addresses PCR impact to project scope, existing documentation, project quality, assigned resources, project cost, project schedule baselines, changes already in queue, and dependent projects. The Impact Analysis Sub Team also lists viable alternative solutions to the change request.

Steering Team

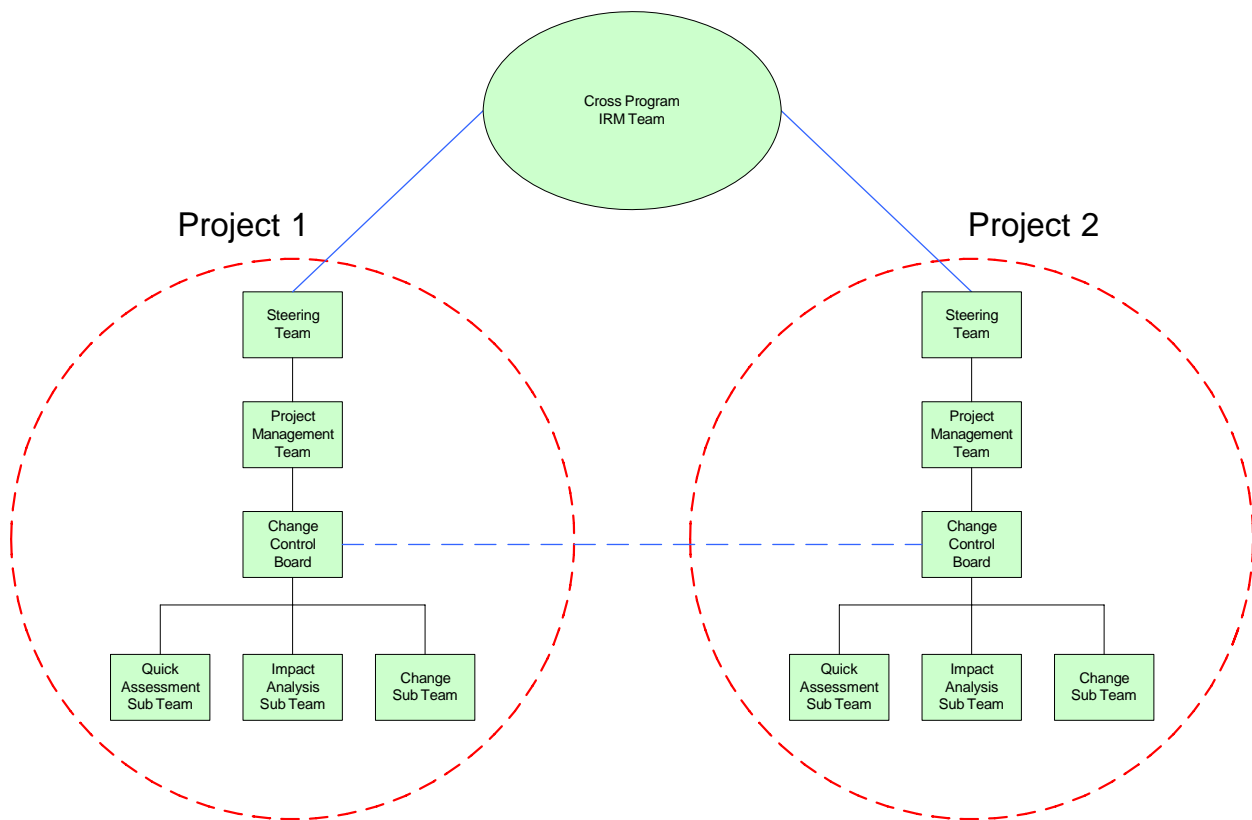
The Steering Team represents the supreme decision maker for PCRs. Being so, it oversees the Project Team's work, reviews and approves PCRs that have already gained the Project Team, CCB, and Cross Project CCB's approval. The Steering Team acts on behalf of the agency keeping in mind the business objectives and customer expectations when making its decisions. Finally, it prioritizes the scheduling and execution of approved PCRs.

Project Management Team

The Project Management Team fulfills several roles during the Project Change Process. First, it oversees the Change Sub Team's activities throughout the process. Second, the Project Management Team reviews and approves change requests that the CCB approved regardless of any cross project impact. Third, the Project Management Team hears and issues decisions on appeals that a requester submits. Beyond rendering decisions on PCR's, the Project Management Team defines the project scope within cost, time, and resource parameters. The Project Management Team uses the project's scope and Steering Team's directions when formulating the critical decisions necessary to release the right product to the customer, too.

Team Structure

The following organizational chart illustrates the reporting sequence for the Sub Teams that perform the responsibilities described in the prior section.



Project Planning

Because Project Change deals with change requests to the defined scope, the Project Management Team must determine how it will deal with changes to the project scope. Their responsibilities include:

- Identifying a change lead, as described above
- Determining the frequency with which newly submitted PCRs will be reviewed
- Deciding what vehicle will be used for those reviews, for example: regularly scheduled team meetings, ad hoc change meetings, or some combination of these. In addition, the Project Management Team must establish parameters to determine whether or not a PCR will be allowed to continue through the change process. Suggested decision parameters are listed in Appendix A.
- Build a recurring task in the work plan for team members to participate in project change activities. Then, the project change request analysis will not disrupt the project schedule.
- Determine how time spent on quick assessments and impact analyses will be tracked separately from project execution time.
- Determine project control items. These are the items from which the project baseline will be formed. Control items can be those deliverables listed in the Software Development Manual (SDM) and the Work Plan Standard. They are represented in an outline in the Baseline Control Items section above.

Inputs to the Project Change Process

Various types of items may serve as inputs to the project change process.

Where Do Changes Come From?

During the Initiative Definition, Planning, and Requirements Definition phases, many documents will be created. These documents may be some of the control items listed in the Baseline Control Items' section outline above. At the end of each of these phases, these documents will be finalized and agreed-upon. Similar documents will be established after the GSD and DSD Phases and whenever the product is in production, which create the project's baselines.

When issues occur in subsequent phases that will cause changes to baselined documents from previous phases (e.g. if a requirement comes to light during the DSD phase that necessitates a change to the requirements document from the functional baseline), then the project change process should be initiated.

Though this is not an all-inclusive list, the sample input categories can also prompt the creation of a PCR. The input categories and baseline discussion are described below.

Project Change Request Triggers

A trigger indicates that a change to the baselined scope may be necessary. Some, but not all, of the items that may trigger project change requests are listed below:

- A change in the project concept, functional or business needs, and/or General System Design (GSD)
- A cost allocation change between the DPW cost categories. For example, if a cost that was projected as a contracted development cost during initial baselining changes to an in-house development cost during final baselining, the reallocation of those costs would be subject to the project change process.
- A cost allocation change due to adding or deleting a participating Program Office
- A change in costs from one fiscal year to another
- A new or revised state or federal mandate that the Office of Policy has indicated should be applied to the project initiative at some point in the project lifecycle
- A change in the procurement method for a component of the project
- A change in a major project milestone that was presented in an Advance Planning Document (APD)
- A change in the current project end date from the baseline project end date
- An error or omission in defining a project's scope, (e.g. failure to include training in the project implementation)
- An error or omission in the original definition of the delivered product's scope (e.g., failure to include electronic funds transfer as a payment option)
- A value-adding change (e.g., use of high speed vs. dial-up for Internet access)
- Issues that identify the need for additional requirements, resources, and/or functionality
- A change in a requirement following the baselining of a control item
- Software Enhancements required prior to a release to production

Variance on Project Status/Performance Reports

Occasionally, projects steer off the course that their Work Plan has developed for them. These variance movements may be internal to the project, come from a dependent project, or arise from external sources. Some examples of variance include a dependent project that runs off schedule, unexpected personal issues for project members, and resources that do not arrive at their destination on time.

Information and Reference Materials for Project Change Requests

Many PCRs will require supporting documentation to validate their assertion that a change needs to occur to the Work Plan. Please see the Issues section below for a discussion of

material that should be submitted when the requester does not know where the change needs to occur within the project.

For assistance with completing the PCR Form, please consult the Project Change Request Instructions for Use document, this guideline, the project's lead, or a member of the Division of Client Support Services (DCSS). The DCSS will assist the requester, especially in situations where the project lead and the PCR help documentation have not generated an answer to the requester's question.

Data Processing Service Request (DPSR)

Data Processing Service Requests (DPSRs) represent one method that DPW employs to document, track, and complete changes to systems. DPSRs will be the documenting and tracking mechanism for Client Information System (CIS) changes only.

Issues

At times, the requester recognizes a problem with the project, but does not know the design area of impact. In these cases, the requester should complete as much of the PCR as possible and attach any written documentation that supports his or her request and is above and beyond what the PCR Form requires (e.g. memos, letters, reports, etc.). The Change Sub Team will evaluate this request in terms of the change process that is described in this document and determine where this change will impact the project.

Maintenance Requests

This process will be used only for production systems that do not have a maintenance change process currently in place. For those currently implemented projects and releases that require a maintenance oriented change and have a change process, please consult the maintenance change procedures for that project or release.

Wish List

A Wish List represents changes to the existing project's specifications that are not needed for the product to function properly. Some of the wish list changes may be incorporated into the project when the budget and schedule allow. The requester should have very strong reasoning when using a PCR for Wish List changes.

Step 1 – Project Change Request (PCR) Evaluation

This step initiates the project change process. Suggested changes are submitted to the Change Sub Team. The Change Lead, or a designated individual, enters the suggested change into the process by creating a Project Change Request (PCR).

The PCR's requester provides a description of the requested change, justification and any supporting documentation that may exist (e.g. a request from an external end-user), risks associated with both executing and not executing the change, cross-project risks, known

alternatives to the change, and an explanation of why the change is a better choice than the alternatives. Any supporting documentation that exists should be attached to the PCR or referenced in the form of a URL or a pathname. It is to the requester's benefit to document the suggested change as completely and accurately as possible. Good documentation will facilitate the remainder of the process.

After the PCR is created, the Change Sub Team evaluates the PCR for its completeness and determines whether to return the PCR to the requester.

Yes, the PCR is Complete

If the PCR is moved forward for quick assessment, the Change Sub Team forwards the request to the Quick Assessment Sub Team. Those participating in the quick assessment should have a good understanding of the baselined project scope and be able to quickly determine whether the change request is within or outside of that scope. This team may include:

- The project lead
- The change lead
- The functional owner or representative of the functional department
- A user/program office representative
- The change requester

The Project Team and/or appropriate functional owner(s), who may be impacted by the PCR, as well as the requester, will be notified that a quick assessment is underway.

No, the PCR is Incomplete

If it is determined that the PCR is incomplete and will not move forward, the PCR is returned to the requester. The reason for determining that the PCR is not complete is indicated on the PCR.

The decision to reject or move forward should be made within three (3) business days of initiating the project change request.

Step 2 – Project Change Request Quick Assessment

In Step 2, the earlier decision to allow the PCR to enter the system results in a quick assessment—a sort of mini-impact analysis. Before a PCR goes through a quick assessment, the Quick Assessment Sub Team provides a final review of it to make sure that there is sufficient material to proceed forward. If the Quick Assessment Sub Team does not find enough material to conduct a quick assessment, they will return the PCR to the requestor for him/her to complete the missing material and resubmit the PCR to the Quick Assessment Sub Team. If it is decided that there is sufficient information to conduct a quick assessment, then the Quick

Assessment Sub Team performs it now. The quick assessment notes any requirements that may have been omitted from the initial PCR, suggests additional alternatives that may exist, assesses the change's magnitude, and determines the resources that will be required to support the change. Finally, the Quick Assessment Sub Team indicates the PCR's impact on dependent projects. This appraisal will help determine whether it is worthwhile to proceed with more detailed analyses and further action upon the PCR. Please see Appendix B for a more thorough description of how to proceed through a quick assessment.

The Quick Assessment Sub Team's work will help the Change Sub Team make two decisions:

1. Is the PCR within project scope?
2. Should a more thorough impact analysis be conducted?

The quick assessment should be completed within seven (7) calendar days of receiving a project Change request. The Quick Assessment Sub Team gives its recommendations back to the Change Sub Team. Based on these recommendations, the Change Sub Team decides whether or not to concur with these recommendations.

Perform the Architecture Control Board Review

The Architecture Control Board will review and approve a proposed change request with respect to the Department's IT Technical Architecture and current IT projects. This board will make sure the request utilizes and maximizes the existing reusable components and adheres to the Department's IT standards. The goal is to decrease the design and development time for the project change request and reduce the support costs by using the existing solutions across multiple projects.

Yes, the PCR Is In Scope

The Change Sub Team agrees with the quick assessment's results and states this change request is within scope and can be accomplished with existing resources and within agreed-upon time and cost parameters. Appendix A lists the suggested parameters to guide this decision. If the quick assessment results in a "yes/in scope" decision, then the CCB reviews the PCR during Step 4 of this process.

No, the PCR Alters the Scope

If the Change Sub Team feels this change request alters the scope or cannot concur with the Quick Assessment Sub Team's recommendations, then an impact analysis is requested. Suggested Impact Analysis Sub Team members include:

- Project Lead
- Change Lead
- Representative(s) from Change Team (to provide input on cross-project as well as networking and communications infrastructure impact)

- Representative(s) from BIS
- Representative(s) from sponsoring program office

If the decision is made to conduct the impact analysis, an expected analysis completion date is given and the PCR moves to Step 3.

Step 3 – Impact Analysis

The impact analysis is conducted during Step 3. The PCR and quick assessment documentation from Step 2 is considered as the impact analysis gets underway. The impact analysis will provide the Change Control Board with the information they require to determine whether or not to approve a PCR that is outside a project's documented scope.

The first part of the impact analysis addresses the PCR's impact on the project's scope, existing documentation, quality, assigned resources, changes already in queue, and dependent projects. Also listed in the first part of the impact analysis are viable alternative solutions to the change.

The cost-benefit analysis portion starts with completing the PPW worksheets listed on the next page and attaching those pages to the PCR.

- Non-Recurring Costs
- Recurring Costs
- Summary Costs
- Intangible Benefits
- Tangible Benefits
- Summary Benefits

The impact analysis may take anywhere from one week to a month; the expected time frame and a date for required completion will be decided in the quick assessment.

Step 4 – Change Control Board Decision

The Change Control Board (CCB) receives all in scope PCRs and PCRs that completed their Impact Analyses. The CCB checks the PCR for completeness and cross-project impact.

- If the change is approved and there is no cross-project impact, the PCR moves to Step 5 for the Project and Steering Teams' approval and possible initiation.
- If the change is approved and there is cross project impact, the CCB is responsible to get the appropriated representation from all of the affected projects together to analyze the PMCR. These representatives must be able to take the material from a CCB meeting back to their CCB and coordinate the decision making process between the CCBs. For example, the CCB with the PMCR could invite the appropriate

representatives to attend the next CCB meeting if they are not on the CCB already or host a joint meeting with the other CCB(s). Based on the result of this impact analysis, a decision is made to approve or reject the PCR. If the CCB(s) cannot arrive at a decision on any cross project PCRs, they seek assistance from the Project Team for each project or from the Steering Team for each project if the Project Team(s) cannot render any decision. The final deciding body is the Cross Program IRM Team.

- **If the PCR is not approved, the PCR is returned to the requester and placed in the project's archives. The reason for non-approval will be listed on the PCR.**

If the Change Control Board rejects a PCR, the requester has the option of appealing the decision by following the appeal process. Rejected PCRs are stored in the project change repository in the event that the requester wishes to resubmit the change request at a future time.

Step 5 – Final Review and Initiate the Project Change Request

Project Team Approval

The Project Team receives all PCRs that the CCB approved without any cross project impact. If the Project Team approves the PCR, it moves to the Steering Team. If the PCR is disapproved, the request and its documentation is returned to the requester and placed in the project's archives.

Steering Team Approval

Once the Project Team approves the PCR, the Steering Team issues a decision on the project change request. If it is approved, the Steering Team determines the priority for completing the PCR and sends the PCR to the Change Sub Team to initiate the change. If the Team denies the PCR, the request and its documentation is returned to the requester and placed in the project's archives.

Initiate the Change Request

The Steering Team's approval of the PCR authorizes the Change Sub Team to initiate and perform the work within the PCR. The Change Sub Team is authorized to incur the additional time, cost, or resources adjustments to make the change occur, too.

Schedule the Change Request

After a PCR is initiated, the Change Sub Team schedules the change to occur based on the Steering Team's prioritization of the PCR. This change may produce several work products, which are discussed further in Step 7 of this process.

Step 6 – Appeals

If the CCB denies the PCR and returns it to the requester, it can be subject to appeal. If the requester elects to appeal the decision, the Project Team reviews the PCR and all supporting documentation at Step 5 and makes a decision. The appeal operates under the following provisions:

- If the Project Team decides to approve the PCR, it will re-enter the process at Step 5. The PCR moves to the Steering Team and proceeds along Step 5 according to the standard operating procedure of this process.
- If the appeal is lost, the PCR is returned to the requester, archived, and not subject to another appeal.
- If the Project Team or Steering Team rejects the PCR, the decision is not subject to an appeal.

Work Products

These work products are a sample list of what could be changed as a result of a PCR being scheduled. Please note, this list may vary based on the project and situation surrounding the PCR.

Re-Baseline Affected Control Items

Where an approved Change request affects any control items, those control items must be changed to reflect the approved request and a new baseline is saved.

Update Detailed Work Plan

Activities that are required to complete the approved change must be added to the project work plan. Dependencies among the new tasks and existing activities must also be added. Notes should be added to the work plan indicating the change orders that have dictated the update. After the new activities and notes have been added, the project work plan should be saved as a new baseline.

In addition, the project and change leads should track change order work separately from project costs so that it can be reimbursed, if appropriate, or so that the changes to the project's estimates can be tracked to the actual costs.

Document Lessons Learned if Appropriate

If lessons learned are apparent from the change order process—if the change is a result of an oversight that could be avoided in the future, for example, —those errors may be recorded using the lessons learned process so that it will not be repeated.

Communicate Change to Stakeholders

The project's stakeholders were identified in the planning process. Some or all of the project stakeholders may be affected by the approved change request. The change lead will communicate with those stakeholders, making them aware of the nature of the change request, the effect of the change on the project deliverables or schedule, and any other impacts that have been identified.

Roles and Responsibilities

The following table lists the tasks and responsible individual(s) that are required for the project change process.

Task	Required?	Step	Responsible Individual
Submit a change request	Y	1	Project Team member, end-user, Project Lead, program office
Record a change request in the tracking system	Y	1	Project Lead, Change Lead, or authorized team member
Conduct a quick assessment	Y	2	Project/Change Lead, Functional Owner(s), Quick Assessment Sub Team, Change Sub Team
Assess the impact of a change request	Y	3, 4	Project/Change Lead, Functional Owner(s), affected team leaders, Impact Analysis Sub Team, Change Control Board, Project Team, Steering Team, Cross Project IRM
Approve or deny a request	Y	1, 4, 5	Project/Change Lead, Project Team, Steering Team Change Control Board, Project Team, Steering Team, Cross Project IRM
Revise the control items to reflect an approved change request	Y	Work Outputs	Change Lead
Verify that a change request has been adequately implemented; close out the change request	Y	Work Outputs	Project Lead
Coordinate the project change process and ensure that the tracking system is current	Y	3, 5	Project/Change Lead
Participate in appeals process	N	6	Project Team

Appendix A: Decision Parameters

When determining whether a PCR should be accepted into the Change Process, the Change Sub Team must consider the following:

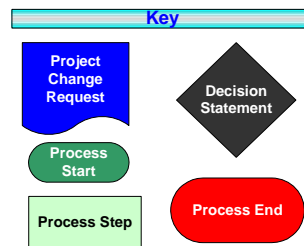
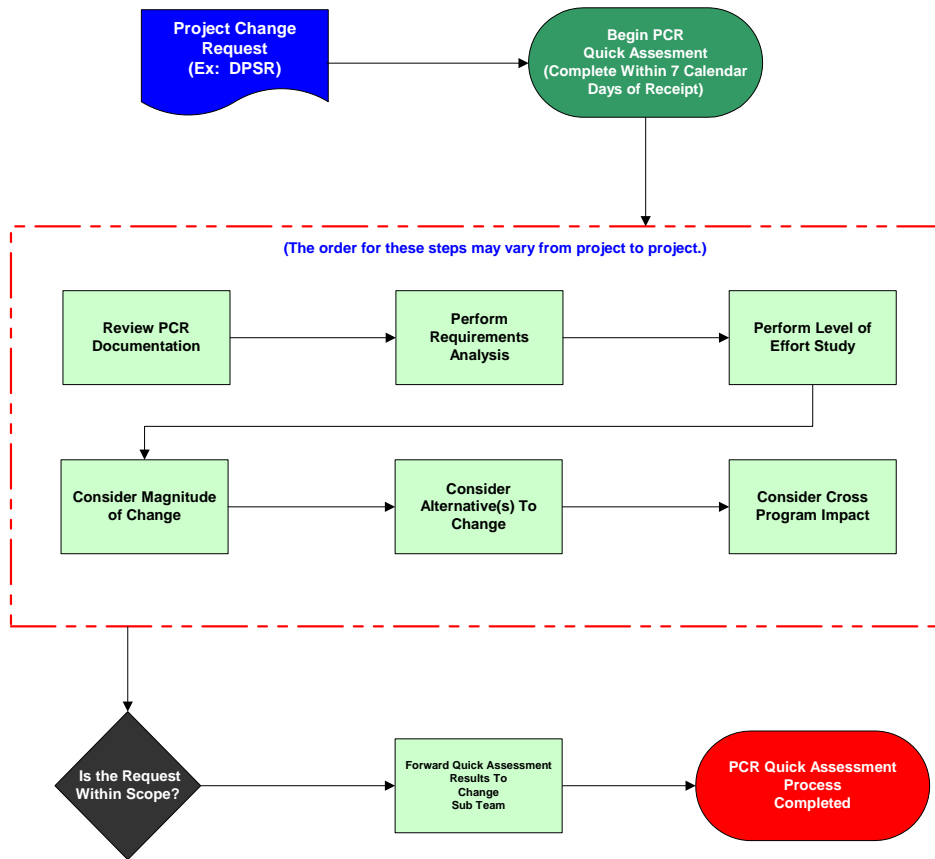
- Does the suggested change request seem to represent a necessary enhancement to the product?
- Will the project fail if the change request is not executed?
- Will the product of the project fail to satisfy customer requirements if the change request is not executed?
- Does the suggested change request support a state or federal mandate that was not in place when the project's original scope was complete?
- Does the suggested change request represent a desired enhancement to the product's functionality?
- Does the suggested change request have a significant negative impact on completed project work without a commensurate benefit to the product or project?
- Is the requested change request a result of changes in other project(s)?

Appendix B: Quick Assessment

The quick assessment process will determine the technical and business requirements that are needed to complete the material in the PCR. The Quick Assessment Sub Team uses this step to be sure that they fully document the project change request, consider the alternatives and impact of the change request, estimate the time, resources, and costs needed to complete the change request, and decide if the change request is in or out of the project's current scope. In summary, the Quick Assessment Sub Team determines if the PCR has sufficient material to continue and is in or out of the project's scope.

The next page contains a process map that illustrates what occurs during a quick assessment of a PCR.

PCR QUICK ASSESSMENT PROCESS



Inputs

In order to conduct a quick assessment, a Quick Assessment Sub Team needs to procure the original PCR and its entire packet of supporting documentation. Some samples of supporting documentation include:

- Segment of the project's work plan that is pertinent to the PCR
- Project's scope documents
- Justification statement or documents
- Completed documents that are attached to that project's work plan segment

Review the PCR's Documentation

This step involves examining the PCR and its supporting documents to understanding background behind the change request. By reviewing this material, the Quick Assessment Sub Team can properly understand the PCR. In this step, they add any extra material that was omitted during prior processing of the PCR.

Perform the Requirements Analysis for the PCR

In this step, the Quick Assessment Sub Team determines what material resources are needed to complete the request. A few examples of material resources are computers, office supplies, utility hookups, and office space. This step also examines what the current PCR should do to minimize or erase any adverse side effects to either this request or all of the PCRs dealing with the same project.

Level of Effort Study

The Quick Assessment Sub Team conducts the technically based two part level of effort (LOE) study after they conclude that the PCR is sufficiently complete and maximizes the Department current IT resources. The two parts are the numerical ranking and the organizational review. Each part is described in more detail below.

Numerical Ranking

The purpose of this numerical ranking is to expeditiously provide a high level estimate (a "ballpark figure") of the time and staff resources and time required to design, code, and unit test the impacted project's software modules. If the PCR requires work on several components or several programs, then a level of effort score is set for the combined work on all of the components. The level of effort examines the PCR from a technical perspective and sets a ranking according to the following guidelines:

1. Little or no software development effort required. Some examples are table updates, recompiles, and simple program edits. **LOE = one week or less**
2. Minor software development effort required. Some examples are simple edits affecting several programs, minor screen changes, etc. **LOE = up to three weeks**
3. Moderate software development effort required. Some examples are development of a single new program, new functionality affecting a few programs, etc. **LOE = up to 6 weeks**
4. Major software development required. An example is a minor project (e.g., Act 150). **LOE = up to one year**
5. Very major software development required. An example is a large scale project (e.g., MEDA). **LOE = one to three years**

This numerical ranking is recorded in the PCR's documentation and assists the Quick Assessment Sub Team with the next part of the process, the organizational review.

Organizational Review

With the LOE score in hand, the Quick Assessment Sub Team reviews the requests to see if the tasks are already done in the organization and can be completed before they reach the Quick Assessment process. This segment of the level of effort aims to pull out requests that are for queries or routines that were already created for prior requests, work that other sections regularly complete, simple changes, especially those that will not be close to affecting the project's scope, etc.

Consider the PCR's Magnitude and Alternatives

During this step, the Quick Analysis Sub Team evaluates the consequences of completing and not completing the PCR. The Sub Team also documents the complexities and size of the proposed change request. Finally, they consider and document any alternatives to the change request.

Consider the PCR's Cross Project Impact

With this, the Sub Team determines if the PCR has any cross project impact and the magnitude of this impact. If it is determined the PCR has cross project impact, the PCR and supporting documentation is forwarded to Step 3 for an Impact Analysis.

Is the PCR Within Scope?

Once the Quick Analysis Sub Team examines all of the documents, they must determine if the PCR is within scope. If it is in scope, the Team sends the PCR and supporting documentation to the CCB for their review. If it is out of scope, the Quick Assessment Sub Team requests an impact analysis on the PCR.

Forward the Assessment Results to the Change Sub Team

The Quick Assessment Sub Team lead signs off on his or her work, bundles all of the documentation, and makes sure that the Change Sub Team gets the material to review the quick assessment results.

Appendix C: Thresholds for In/Out of Scope

A change request may be considered to be in scope if:

- Its cost does not exceed project costs.
- Current resource allocation does not increase
- The schedule for key milestones is not impacted by more than three weeks
- Contingency funds are available to cover extra costs
- New technology being requested does not impact functionality or resource requirements to implement

If a change is requested to a non-baseline control item, then the Project Team decides if the request can be built into the control item's requirements. It does not need to go through the project change process.

Appendix D: References

This document contains best practices, suggestions, and ideas that were gathered from experience or study of the following sources.

- Specific Project Change experience at Bell South, Bell Atlantic, and General Electric
- www.tenstep.com - TenStep Project Management Process
- www.spmn.com - Software Program Managers Network
- <http://www.sei.cmu.edu/cmml/models/model-components-word.html> - Software Engineering Institute, SECMM-95-01/CMU/SEI-95-MM-003 v1.1, PA 09: Manage Configurations
- www.cmtoday.com - CM Today
- www.gantthead.com - The online community for IT Project Managers
- http://michigan.gov/dit/0,1607,7-139-18391_22016---,00.html - Department of Information Technology, Michigan State Government
- <http://web.mit.edu/pm/> - MIT Information Systems, Project Management Resources and Exploration

- <http://pbma.hq.nasa.gov/index2.html>, <http://satc.gsfc.nasa.gov/GuideBooks/cmpub.html> - NASA's Process Based Mission Assurance, Program Management Methodology and Software Change Guideline
- <http://www.dcma.mil/onebook/5.0/5.2/ConfigMgmt.htm> - Defense Contract Management Agency, DOD Configuration and Technical Data Management Policy
- H-Net Change Overview Presentation
- Tracking and Monitoring Scope Changes, Project Mentors
- *A Guide to the Project Management Body of Knowledge* (PMBOK), Project Management Institute

Appendix E: Glossary

Baseline

A set of control items (software components and documents) that has been formally reviewed and agreed upon, that serves as the basis for further development, and that can be changed only through formal project change procedures.

A document or a set of such documents formally designated and fixed at a specific time during the lifecycle of a configuration item.

The original plan (for a project, a work package, or an activity) plus or minus approved change requests. Usually used with a modifier (for example, cost baseline, schedule baseline, performance measurement baseline.) [Source: Project Management Institute Project Management Book of Knowledge]

Allocated Baseline

The Allocated Baseline is that point in a project when all the resources required to develop and to install a system have been identified and obtained or allocated. This baseline is used on all future project activities in determining whether a proposed aspect of the system should be developed or installed. It is the baseline that allocates functional requirements to specified hardware and software items, too. The Work Plan Standard stipulates that the Project Team create this baseline near the end of the DSD by using the control items for the Functional Baseline and the documents completed and approved during the DSD. The DSD's documents include the following: the Signed Contract with the Vendor, the project's Physical Data Model, the project's Expanded Data Dictionary, the Proof of Concept, Test Plans, Conversion and Interface Plan, User Training Plan, the Outreach Plan, the project's Final Requirements Traceability Matrix, and the DSD Document.

Functional Baseline

The Functional Baseline is the point in a project when there is a clear definition of what the system to be developed should provide. This baseline will establish the measure that will be used in determining whether a proposed element is to be included in the new system. This baseline includes these descriptions: Project Summary, Project Objectives, Project Scope, Organizations Affected, Project Constraints, Project Assumptions, Project Risks and Mitigation Plans, Key Project Dates, High-Level Project Resource Plan, and Project Procurement Plan. At DPW, this baseline will be attained when these project materials are prepared and approved: Program Office Initiative Description, IRM Prioritization Workbook, IRM Strategic Plan, Program Revision Request (PRR) (including Concept Paper), ITRM Service Request, Investment Review Program (IRP) Registration, and the System Requirements Document. These documents are completed during the project's Initiative Definition, Planning, Requirements Definition, and General System Design (GSD) Phases. The Work Plan Standard states that the Project Team establishes the Functional Baseline usually near the end of GSD.

Product Baseline

A product baseline is that point in a project when the entire system is developed. This baseline identifies the fact that the system is ready for the testing, implementation, and operations portions of a project. Subsequent to this point, an evaluation can be conducted to review the processes and tools that were used to develop the new system. These experiences can be captured, catalogued, and filed for use in future system development projects.

Project Change

Project Change is the process of accepting or rejecting changes to a project baseline. It is the process of ensuring that only approved changes are incorporated into a final work product prior to being released to production. Project Change is the process of managing changes to baseline control items in the change plan.

Control Item

A control item is any document or component of a project that is approved and considered part of a baseline. Control items form the reference point from which the Project Team performs work to ensure that the delivered product meets the approved and agreed to expectations of the project sponsor and client. Control items also form reference points for the Change Sub Team to determine if a requested change constitutes a change of scope. Baseline control items are potential inputs to the change process because they form the limit against which change of scope is gauged.

Cost-Benefit Analysis

Cost-Benefit Analysis (CBA) is an evaluation of the costs and benefits of alternative approaches to a proposed activity to determine the best alternative.

Acronyms Used in This Document

APD – Advance Planning Document
CCB – Change Control Board
BADD – Bureau of Application Development and Delivery
BIMO – Bureau of Infrastructure Management and Operations
BTE – DPW's Bureau of Technical Engineering
DCSS – Division of Client Support Services
DPW – Department of Public Welfare
DSD – Detailed System Design phase of the Work Plan Standard
GSD – General System Design phase of the Work Plan Standard
IRP – Investment Review Program
IT – Information Technology
PCR – Project Change Request
PMI – Project Management Institute
PMBOK® - Project Management Body of Knowledge
PMO – Program Management Office
POI – Program Office Initiative
PRR – Program Revision Request
SDM – Software Development Methodology

Document Change Log

Subject Matter Expert: PMO, Strategy and Planning, and DCSS

Change Date	Version	Change Description	Author and Organization
09/27/02-10/25/02	1.0 – 1.7	Initial Creation	PMO
10/30/02-11/5/02	1.8	Changes made as a result of final Resource Management team review	PMO
11/22/02	1.9	Remove CCB and replace with PMO and IRM Leadership responsibilities	PMO
1/7/03	2.0	Rework CCB section to incorporate Project Team suggestions of 1/6/03; moved Document Change Log and Acronyms to end of document; made various grammatical changes	PMO
5/13/03	2.1-2.3	Rework change process to move it more in line with present change processes on current projects	DCSS, Strategy and Planning
6/6/03	2.4	Revise content based on comments, process map revisions, and new uses for the process.	DCSS
6/13/03	2.5	Added graphics and text about the Steering Team and Project Team's role	DCSS
6/13/03	2.6	Revised graphics and text of the Inputs and Before Beginning parts of the document based on feedback	DCSS
6/30/03	2.7	Revised the Before Beginning section of the document and defined maintenance	DCSS
7/10/03	3.0	Revised the baseline control item listing and released to the general public.	DCSS
8/4/03	3.1	Added descriptions for the level of effort and quick assessment	DCSS

8/22/03	3.3	Change Process to Project Change and added clarity to the baselines' creation	DCSS
9/15/03	3.4	Added the Architecture Review Board, renamed change process, and revised the CCB's decision portion	DCSS
11/25/03	3.5	Changed all Project Teams to Project Management Teams	DCSS
05/21/04	3.5	Changed title to Project Change Management Guideline & Format	DCSS
10/25/04	3.5	Change OIS to BIS	PW-DCSS
11/05/04	3.5	Correct a hyperlink that changed	PW-DCSS
06/17/05	3.5	Reviewed content – No change necessary	PW-DCSS

RFP # 39 - 06

Appendix R

Holiday Schedule for 2007

Month	Batch	System Status/Available	SME & Helpdesk Support	Batch
Date/Day	Event		Available	Execution
January				
1 st – Mon.	New Year's Day	HOLIDAY	No	No
15 th - Mon.	Martin Luther King, Jr. Day	HOLIDAY	Yes	Yes
February				
19 th - Mon.	Presidents Day	HOLIDAY	Yes	Yes
May				
28 th - Mon.	Memorial Day	HOLIDAY	No	Yes
July				
4 th – Wed.	Independence Day	HOLIDAY	No	No
September				
3 rd – Mon.	Labor Day	HOLIDAY	No	Yes
October				
8 th - Mon.	Columbus Day	HOLIDAY	Yes	Yes
November				
12 th – Mon.	Veterans Day	HOLIDAY	Yes	Yes
22 nd – Thurs.	Thanksgiving	HOLIDAY	No	No
23 rd – Fri.	Thanksgiving	HOLIDAY	Yes	Yes
December				
25 th – Tue.	Christmas	HOLIDAY	No	No

RFP # 39 – 06

Appendix S

Pennsylvania
Department of Public Welfare
Bureau of Information Systems

Deliverables Review Process Guideline

Version 1.4

September 20, 2005

Table of Contents

Introduction	4
Purpose	4
Objectives	4
Benefits	4
Definitions	5
Overview of the Deliverables Process	6
Identify Deliverables.....	6
Submission of Deliverables.....	6
Identification of Reviewers and Distribution for Review	6
Deliverables Reviewed	6
Disposition of Deliverables.....	6
Close-out.....	6
Step 1 – Identify Deliverables	7
Deliverables Log	7
Step 2 – Contractor Provides Deliverables	7
Step 3 – PMO Logs and Distributes Deliverables	8
Step 4 – Deliverables Reviewed	8
Designated Reviewers:	8
PMO Responsibilities:	8
Step 5 – Disposition of Deliverable(s)	9
Acceptance Process:	9
DPW Contract Administrator	9
DPW PMO	10
Step 6 – Close-out	10
Outputs	11
Roles and Responsibilities	12

Deliverables Review Process Guideline

Introduction

The Deliverables Review Process guideline documents the process for recording and monitoring, managing and verifying, and determining the final disposition of project related deliverables within the Department of Public Welfare (DPW).

Purpose

The purpose of this document is to provide a process, methodology, and reference guide for the management and control of project related deliverables.

The Deliverables Process guideline will assist the efforts of DPW Project Managers and staff, to provide support for the management and control of a project and the specific deliverables associated with that project.

Objectives

The objectives of the deliverables review process are to:

- Define the steps associated with receiving, documenting, reviewing and determining disposition of project related deliverables.
- Identify the responsible individuals and/or groups and their associated tasks.
- Document the disposition of deliverables as they are moved through the process.
- Ensure that deliverables are reviewed by the appropriate staff to promote quality.

Benefits

The deliverables review process, and its use, will benefit the project manager, contract administrator, designated reviewers, project governance teams, those responsible for creating and providing the defined deliverables and the Department by:

- Clearly identifying required deliverables.
- Assisting in maintaining the project schedule.
- Reviewing processes clearly outlined, defined and documented.
- Providing guidance to the Project Manager and defining the disposition and condition of the deliverable.
- Providing support and documentation for any post-project contract mediation if needed.
- Reducing the likelihood that the quality, performance or functionality of the deliverables will be impaired.
- Ensuring that the appropriate individuals have input in the process of review.
- Reduces the likelihood of breach of contract.

Definitions

Contract

A type of written agreement, regardless of what it may be called, for the procurement of supplies, services, or construction and executed by all parties in accordance with the Commonwealth.

Contractor

Any person that has entered into a contract with a Commonwealth agency and/or Department Program, Project Team, or Representative.

Contract Administrator

The Contract Administrator will have the single authority to act for DPW under the Contract. Whenever the Commonwealth is required by terms of the contract to provide written notice to the Contractor, such notice will be signed by the Contract Administrator, or in that individual's absence or inability to act, such notice may be signed by the Contract Administrator's designee.

The Contract Administrator will also be responsible for acceptance or non-acceptance of each deliverable identified in the contract. Prior to any payment being made, the DPW Contract Administrator will certify via the acceptance process that the deliverables or services, for which invoices were issued, have been received and accepted.

Contract Management

Contract Management is the final two essential steps of procurement management that includes activities such as monitoring and control of performance, reviewing progress, making payments, recommending modifications, and approving contractor's actions to ensure compliance with contractual terms during contract execution. It is the process of ensuring the seller's performance meets contractual requirements.

Deliverable

A deliverable is the physical item to be delivered for a project. This may include organization attributes, reports and plans, as well as physical products or objects. It can apply to the project itself, such as a risk management plan, or to a system, such as software code.

Designated Reviewer

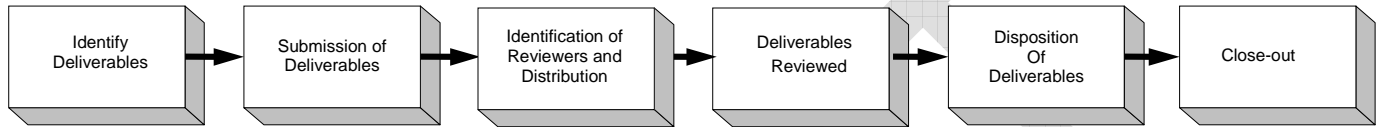
The designated reviewer is an individual or group that has the responsibility to ensure the deliverable satisfies the terms defined in the project documentation and contract.

Project Manager

A Project Manager is a person who heads up the project team and is assigned the authority and responsibility for conducting the project and meeting project objectives through project management.

Overview of the Deliverables Process

The major steps of the deliverables review process are shown below:



Identify Deliverables

The deliverables log will be created and maintained by the Program Management Office (PMO) and stored in the Project Folder. The deliverables log will capture the activity and track the date/time of project specific deliverables. The log will also provide information pertaining to the reviewers and the disposition of the deliverable and it will link to the deliverable documents and reviewers comments.

Submission of Deliverables

The contractor provides the required deliverable(s) defined in the contract to the Contract Administrator on or before the deliverable due date. The PMO documents receipt of the deliverable in the deliverables log.

Identification of Reviewers and Distribution for Review

Upon receipt of the deliverable the PMO will update the deliverables log reflecting this activity and distribute the deliverable(s) to the designated reviewers for the project. The Project Manager will identify to the PMO the specific designated reviewers.

Deliverables Reviewed

The designated reviewers will review and validate the deliverables ensuring compliance with the requirements defined in the contract. The reviewer will then document and forward their findings to the PMO for compilation.

Disposition of Deliverables

Based on the information compiled by the PMO from the reviewing process, the final comments review by the project managers and the requirements outlined and documented in the contract, the Contract Administrator will make a determination as to the disposition of the deliverable.

Close-out

Upon final approval, or conditional approval without the need for resubmission of the deliverable, the review process will be closed. This will include the completion and delivery of the certificate of acceptance to the contractor. And the contractor will move the final approved deliverable to the specific project related folder in FileNET. The PMO will also update the deliverables log and file hard and soft copies of all deliverable related documentation.

Step 1 – Identify Deliverables

Based on the business needs and project scope the project deliverables are identified and defined. These deliverables can be defined in a Request for Services (RFS), Request for Quotation (RFQ), Request for Proposal (RFP), Contractor's Proposal, Contract, Requirements Document or Statement of Work (SOW)

Deliverables Log

The Deliverables Log will be created and maintained by the PMO. The log will be stored in the project specific, Project Folder. The Deliverables Log will document and track required deliverables/work products for a specific project and contractor. Based on the contract, the log will provide a timeline, record and disposition of project related deliverables and work products.

The Deliverables log will record:

- Name and Description of the Deliverable/Work Product
 - Linked to deliverable
- Status/Disposition of Deliverable/Work Product:
 - Under Review
 - Approved
 - Conditionally Accepted
 - Rejected
- Tracking Number
- Deliverable/Work Product Due Date – Anticipated and Actual
- DPW Review Dates — Sent and Comments Due-by
- DPW Review Due to Contractor Date
- Designated Deliverable Reviewers
 - Reviewers will be identified by the Project Managers and BIS Management for each deliverable or reviewable work product. The PMO will solicit and document this information.
- Contractor Notification Date

Step 2 – Contractor Provides Deliverables

As per the contract, the contractor will deliver to the Contract Administrator's Office the required deliverable or work product on or before the documented due date. The contractor will provide one (1) hard copy and one (1) electronic copy of the deliverable. The hard copy will be date stamped.

All deliverables should be presented in an organized format segregated by project. All deliverables with a specified due date must be received on or before the due date unless the Contractor and Commonwealth have agreed on a new date.

The Contract Administrator's Office will date stamp the hard copy of the deliverable and forward the deliverable to the PMO for processing – this will include updating the deliverables log, filing and providing access to the deliverable and review document to the deliverable specific designated reviewers.

Step 3 – PMO Logs and Distributes Deliverables

The PMO will:

- If needed, file the electronic copy of the deliverable for review in the Project Folder.
- Update the Deliverables Log to record the date received.
 - The date received will be shown in a red type face if it is received after the designated deliverable due date.
- The PMO will electronically link a copy of the deliverable to the appropriate deliverable in the deliverables log.
- The PMO will provide a copy of the deliverable to the designated reviewers via email; in addition the PMO will make the reviewers aware of the timeframe allocated for the review of the deliverable the date/time required for comments to be returned to the PMO. The PMO will also provide a deliverable review document; this document will be used by the designated reviewers for comments pertaining to their review.
- File the hard copy of the deliverable in a pre-defined central location within the PMO central office.

Step 4 – Deliverables Reviewed

Designated Reviewers:

The designated reviewers will review the deliverable(s) to ensure it satisfies the requirements of the project as identified in the contract. The reviewers will then document their findings and comments with the PMO provided review document and forward the results to the PMO for compilation. The designated reviewers will have eight (8) business days to review, document and respond to the PMO.

PMO Responsibilities:

The PMO will compile the designated reviewer's comments, consolidate the results into a single document, and log non-responses. The PMO will then provide the consolidated reviewer information, to the project manager for final comments review and disposition. The Project Managers will then forward their final comments and along with a recommended course of action and disposition to the PMO.

The PMO will then prepare the final review package for the DPW Contract Administrator for review and final disposition of the deliverable. The final review package will include:

- Disposition/Contractor Notice Letter
- Deliverable Acceptance Certificate (if applicable) – Upon Approval

Step 5 – Disposition of Deliverable(s)

Acceptance Process:

The DPW Contract Administrator will review each deliverable review package, and provide written notice of approval, conditional approval with modifications, or rejection to the contractor within ten (10) business days of receipt. If the review of the deliverable requires more than 10 business days, the DPW Contract Administrator will submit a written request, to the contractor, for an extension of time.

If a disposition other than an approval is reached, the conditions that must be met for acceptance will be provided with the Disposition/Contractor Notice Letter to the contractor.

Acceptance or non-acceptance of a deliverable will be at the discretion of the DPW Contract Administrator.

If required, as soon as possible, but in no event later than five (5) business days after receipt of a rejection, the Contractor will make the corrections and resubmit the corrected deliverable to the Contract Administrator. The Contract Administrator will then make a determination if a re-submitted deliverable must go through the review process again or if a disposition determination can be made at that point.

Following resubmission of any originally disapproved deliverable, the DPW Contract Administrator will give written notice to the Contractor of the approval or disapproval, either in whole or in part. If the resubmission results in non-acceptance of the deliverable, the Contractor will have five (5) business days or such other time as agreed to by the parties to correct the deficiencies at no charge and resubmit the deliverable. If the second submission results in non-acceptance, the DPW Contract Administrator may return the deliverable to the Contractor for additional remediation at no cost or terminate the contract for cause.

DPW Contract Administrator

The DPW Contract Administrator will review the consolidated comments and determine if the deliverable should be accepted, conditionally approved, or rejected.

If the Deliverable is:

- Approved: The DPW Contract Administrator will:
 - Sign the Disposition/Contractor Notice Letter and Deliverable Acceptance Certificate (if applicable) and
 - Forward the signed documentation to the Contractor, DBW Budget Office, Project Managers and the PMO

- Conditionally Approved: The DPW Contract Administrator will:
 - Sign Disposition/Contractor Notice Letter
 - Indicating what condition(s) must be met for acceptance of the deliverable.
 - Forward the letter to the Contractor, Project Managers and the PMO

- Rejected: The DPW Contract Administrator will:
 - Complete the Disposition/Contractor Notice Letter
 - Provide the conditions that must be satisfied in the resubmission.
 - Forward the notice to the Contractor, Project Manager and the PMO
 - The process will follow what was presented in the Acceptance Process section – Contractor having five (5) business days to re-submit the deliverable.

DPW PMO

The DPW PMO, based on the determination, disposition and feedback from the DPW Contract Administrator, will process and document the deliverables condition and status.

If the Deliverable is:

- Accepted: The PMO will:
 - File the Deliverable Acceptance Certificate (if applicable) and Disposition/Contractor Notice Letter
 - Update the Deliverables Log
 - Electronically link the Deliverable Acceptance Certificate (if applicable) to the appropriate deliverable in the Deliverables Log
 - Forward the Deliverable Acceptance Certificate (if applicable) to the DPW Budget Office and to the Contractor
 - File all deliverable related hard copy documentation in a pre-defined central location within the PMO central office.
- Conditionally Approved or Rejected: The PMO will:
 - Update the Deliverables Log with the disposition and date the DPW Contract Administrator disposition
 - Electronically link a copy of the compiled reviewer comments (for rejected deliverables) to the appropriate deliverable in the Deliverables Log
 - Record in the Deliverables Log when the revised deliverable is due (if required).
 - The contractor will have five business day to resubmit the deliverable/work product to the Contract Administrator.

Step 6 – Close-out

Upon final approval, or conditional approval without the need for resubmission of the deliverable the review process will be closed. This will include the completion and delivery of the Certificate of Acceptance (if applicable) to the contractor.

The contractor will move the final approved deliverable to the specific project related folder in FileNET. The PMO will also update the deliverables log and file hard and soft copies of all deliverable related documentation in the appropriate location and Project Folders

Outputs

The Deliverables/Work Products are saved in the project specific folders in FileNET for future historical reference. The contract monitoring artifacts which may include the deliverables, documents, procedures, or standards that are modified while working on the deliverables process and all communications related to the deliverables process, are archived for future reference or potential auditing purposes.

Roles and Responsibilities

The following table lists the Deliverables Review Process roles and responsibilities:

ROLE	RESPONSIBILITIES
Contract Administrator	<ul style="list-style-type: none"> • Primary contact for all communications, comments, deliverables, work products and reports • Final review to determine disposition of deliverables and work products
Designated Reviewers	<ul style="list-style-type: none"> • Review deliverables for compliance with requirements outlined in contract • Document findings from review of deliverable • Provide documented findings to PMO
Project Managers	<ul style="list-style-type: none"> • Provide to PMO designated reviewers (if needed) for deliverable reviews • Participate in review process • Provide comments back and disposition suggestion based on deliverable and final review comments • On-going Project Management
Program Management Office (PMO)	<ul style="list-style-type: none"> • Contract Monitoring • File electronic copy of the deliverable in the Project Folder – Contract File • Update and maintain the Deliverables log. • Provide deliverable(s) to the designated reviewers and a due-date reminder midway through the review cycle. • Compile reviewer's comments and consolidate into single document form DPW Contract Administrator review. • Document disposition determination and update deliverables log accordingly • Prepare final review package for Contract Administrator
Contractor	<ul style="list-style-type: none"> • Provide to DPW on-time deliverables defined in contract • Deliverables will be provided as such: <ul style="list-style-type: none"> ○ One (1) Hard Copy ○ One (1) Electronic Copy • Respond to “Conditionally Approved” or rejected deliverable dispositions addressing documented conditions for approval-within the time-frame required (Five (5) business days from contractor notification)

RFP # 39 – 06
Appendix T

PACSES Documentation Library

1. PACSES General System Design
2. PACSES Detailed System Design
3. PACSES System Documentation
 - a. Program Specifications
 - b. Giant Activity Matrix Design Documentation
 - c. Test Scripts/Test Results
4. PACSES Forms Book
5. PACSES Screens
6. On-line Help
7. Change Controls Requirements Documents
8. PACSES Service Request Documentation
9. Server Applications Design Documentation

RFP # 39 - 06

Appendix U

RFP # 39 – 06

Appendix V

**PACSES Mainframe Operations
Responsibility Matrices**

Computer Operations and Console Operations	Responsibility	
	DPH Vendor	Other
Identification of source and scope of hardware and software problems	X	
Daily File Back-up /Daily Recovery Assistance	X	
Hardware Planning and Installation at Vendor Service Location (System)		
Hardware facilities requirements at Vendor Service Location (System)	X	
Hardware installation and maintenance at Vendor Service Location (System)	X	
Provide hardware maintenance coverage at Vendor Service Location (System)	X	
Scheduling of Vendor Agent maintenance and escalation Vendor Agent issues	X	
Data Center/Data Network Machine Failure		
Data Center Equipment	X	
Data Network equipment at Data Center	X	
Other network equipment		NMV-X
Channel Extension to Agency Print locations	X	
Printing Equipment		C-X
Operate Console	X	
Command Center Automation Tools		
Define and maintain process documentation	X	
Define requirements	X	
Define command center requirements	X	
Implement Automation Programs	X	

Hardware Environment	Responsibility	
	DPH Vendor	Other
Hardware Maintenance		
Maintenance contract negotiation	X	
Provide 7x24x365 maintenance for in –scope hardware	X	
New Hardware		
Maintain current knowledge concerning hardware technology	X	
Evaluate and recommend new hardware	X	
Submit recommendations/alternatives	P	C-I, AMOS-I
Review and approve new hardware	I	C-P
Hardware acquisition	X	
Hardware installation	X	
Maintain asset database of all in-scope equipment	X	

Responsibility Key

X - Responsible – The party identified has full responsibility for performing the Service.

P – Principal – The party has responsibility for performing the Service an obtaining concurrence from the other party.

I – Input – The party provides Input to the Principal responsible party for the Service upon the specific request of the Principal responsible party.

C- Commonwealth

AMOS – Application Maintenance and Operational Support Vendor

NMV – Network Management Vendor

DPHV – Data PowerHouse Vendor

Blank – Not applicable

**PACSES Mainframe Operations
Responsibility Matrices**

Capacity Management	Responsibility	
	DPH Vendor	Other
Hardware Planning and Installation Capacity Management		
Technology input, review and general recommendations	P	C-I, AMOS-I
Technology plan review	P	C-I, AMOS-I
Technology plan approval	I	C-P
Hardware facility requirements	P	C-I
Hardware installation and maintenance	X	
Capacity Management (day to day)		
Define and maintain capacity management process requests	P	AMOS-I
Define application and database requirements		AMOS-P, C-I
Capacity monitoring	P	AMOS-I
Storage management (DASD, tape)	P	AMOS-I
Network management		
Establishment of network throughput thresholds	I	NMV-P
Perform first-month baseline studies to identify optimal network conditions	X	
Maintain optimal storage environment (on a cost and service basis)	P	AMOS-I
Capacity Management (long term)		
Define and maintain capacity management process forecasts	P	C-I, AMOS-I
Define application and database requirements		AMOS-P, C-I
Capacity forecasting	P	C-I, AMOS-I
Storage management (DASD, tape)	P	C-I, AMOS-I
Maintain optimal storage environment (cost, service)	X	
Space planning assistance	X	
Development of storage standards	P	C-I, AMOS-I

Performance and Availability Monitoring	Responsibility	
	DPH Vendor	Other
Availability "Manager"		
Assign and execute Availability "Manager" functions	X	
Execute Availability "Manager" functions		
Review all problems	X	
Enforce problem management processes and disciplines	X	
Host daily meetings to discuss problems	X	
Participate in daily problem meetings	P	C-I, AMOS-I
Collect outage data	X	
Analyze outage data	P	C-I, AMOS-I
Initiate other systems management control processes as required	X	
Collect performance and availability data	X	
Analyze data for trending purposes and impact	X	
Utilize tools and processes daily to monitor	X	
Track, monitor, and study Agency metrics	X	
Log/maintain Level 1 Help Desk problems	I	AMOS-P
Log/maintain Level 2 Help Desk problems	X	
Generate measurement report monthly	X	
Monthly measurement/performance review TBD		
Prepare agenda and provide performance data	X	

**PACSES MAINFRAME OPERATIONS
Responsibility Matrices**

Performance and Availability Monitoring	Responsibility	
	DPH Vendor	Other
Amend	P	C-I, AMOS-I
Conduct	X	
Prepare minutes	X	
Implementation common processes for each Agency	X	

Batch Scheduling	Responsibility	
	DPH Vendor	Other
Establish PACSES job requirements and priorities	I	AMOS-P
Maintain job schedules		
Update daily production job schedules		AMOS-X
Integrate new jobs in to schedule		AMOS-X
Construct schedules for new applications		AMOS-X
Incorporate recurring and ad-hoc processing requirements		AMOS-X
Batch execution		
Monitor production batch cycle	P	AMOS-I
Control production batch jobs	P	AMOS-I
Restarts and reruns		
Provide instructions and processes		AMOS-X
Execute restarts and reruns based on agency Documentation/runbooks	X	
Schedule special (ad hoc) jobs		AMOS-X
Re-prioritize jobs based upon Commonwealth Agency requests and Service Level Commitments	I	AMOS-P
Track production runs to ensure abnormal ends are reported, tracked, Analyzed, and problems resolved	X	
Correct batch processing failures other than those from invalid Commonwealth Agency input data or applications	P	AMOS-P
Correct batch processing failures resulting from invalid Commonwealth Agency input data or applications	I	AMOS-P
Batch scheduling documentation		
Provide batch scheduling information/requirements		AMOS-X
Create/maintain associated documentation		AMOS-X
Report increase in number of ad hoc and emergency jobs for review	P	AMOS-I
Batch processing support 7 days per week, 24 hours per day	P	AMOS-I
List of support contracts		
Identify contracts		AMOS-X
Maintain list in central repository	P	C-I
Utilize list for problem resolutions, as required	X	
Document procedures with input from Commonwealth	P	

**PACSES Mainframe Operations
Responsibility Matrices**

Tape Processing Environment/Practices	Responsibility	
	DHP Vendor	Other
Tape Management System Administration		
Update the automated tape management system to extend expiration dates for application system and database related tapes or any tapes needed for audit purposes	I	AMOS-P
Update the automated tape management system to extend expiration dates for system related tapes.	P	AMOS-I
Update the appropriate automated tape management system mechanisms that identify and select tapes for off-site for application and database related tapes	I	AMOS-P
Update the appropriate automated tape management system mechanisms that identify and select tapes for off-site system related tapes.	P	AMOS-I
Periodic review and cleanup of the tape management system to remove Application system and database related tapes no longer being created or sent Offline.	I	AMOS-P
Periodic review and cleanup of the tape management system to remove System related tapes no later being created or sent offsite	P	AMOS-I
Schedule tape and vault (off-site) management batch jobs as required to Meet daily processing requirements and off-site pickup schedule	I	AMOS-P
Execution and maintenance of standard tape management jobs and reports To identify and expire scratch tapes and to identify tapes for vaulting	X	
Creation and execution of customized tape management reports to meet other Agency needs		AMOS-X
Secure access to the CA-ONE and RMM automated tape management Systems for purposes of update through RACF	I	AMOS-P
Secure access to the Unisys (STAR, BL LIB) tape management systems For purposes of update through security mechanism provided by software	P	AMOS-I
Tape Operations		
Mount tapes	X	
Manage tape drive allocation	X	

**PACSES MAINFRAME OPERATIONS
Responsibility Matrices**

Tape Processing Environment/Practices	Responsibility	
	DPH Vendor	Other
Tape Library Management		
Initialize tapes	X	
Apply internal bar code labels by Agency	X	
Track and audit all tape movement using log-in/log-out procedures	X	
Tape shipment back to Agency		
Provide list of signatures of authorized personnel who can sign Shipment release/request form	X	
Submit standard shipment release/request form	X	
Maintain/control authorization lists	X	
Log in tape inventory database	X	
Process request	X	
Off-site rotation management		
Obtain distribution list	X	
Pull and tub tapes for shipment (daily critical files)	X	
Seal and date tapes for shipment	X	
Coordinate pickups with off-site storage provider	X	
Follow-up on delinquent records/mishandled tapes or shipments	X	
Recalled tapes		
Adhere to recall procedure	X	
Coordinate with off-site provider	X	
Sign for receipt	X	
Return to off-site as soon as possible after processing	X	
Inventory	X	
Prepare tapes for shipment	X	
Migrate Agencies' off-site to Arcus	X	
Process foreign tapes (as defined in the Transition Plan)	X	
Tape Disposal		
Obtain approval from Commonwealth	X	
Identify tape(s) to be destroyed	P	AMOS-I
Dispose of in secure manner	X	
Tape/Cartridge Supply inventory management		
Maintain adequate level of scratches	X	
Bar coding supplies	X	
Labels	X	
Racks	X	
Off-site tubs	X	
Tape cleaning solution	X	
Consumables	X	

**PACSES Mainframe Operations
Responsibility Matrices**

Printing Support	Responsibility	
	DPH Vendor	Other
Print related support software	X	
Print/Report Generation and Distribution		
Queue management	I	AMOS-P
Electronic transmission from Vendor Service Location (Systems) to Commonwealth Agency	X	
Electronic interfaces	X	
Monitoring transmissions	X	
Problem determination	I	C-P
Physical printing		C-X
Forms/paper/supply management		C-X
Set-up of printers		C-X
Output separation		C-X
Distribution of printouts/reports		C-X
Printer hardware and hardware maintenance		C-X

Input/Output Control and Verification	Responsibility	
	DHP Vendor	Other
Utilize scheduling tools fro batch execution		AMOS-X
System Input/Output Verification		
Implement automated alerts for input/output discrepancies to meet agency's Processing requirements	P	AMOS-I
Develop procedures for handling discrepancies	P	AMOS-I
Address input/output discrepancies per procedures		
Isolate cause of problem	X	
Review program documentation for recovery/restart procedures	X	
Consult shift supervisor	X	
Take corrective action as problem warrants	X	
Collaborate with Commonwealth designee, as required, using problem management procedures	X	
Application Input/Output Verification		
Run to run balance		AMOS-X
Master file record control total		AMOS-X
Output control of print, tape, and other files with the exception of tapes sent to Arcus		AMOS-X
Isolate Cause of problem		AMOS-X
Take corrective action as problem warrants	I	AMOS-P

PACSES Mainframe Operations
Responsibility Matrices

Technical Support	Responsibility	
	DPH Vendor	Other
System Control Program- configure, generate	X	
Operating Systems Software – install new versions and releases; apply Preventive and corrective maintenance (Ex. MVS, VM, VM/VSE, OS/400, Unisys 2200)	X	
Online Transaction Processing and Database Management System Software – Install new versions and releases; apply preventive and corrective maintenance (Ex. IMS, CJCS, DB2, TSO, DMS, DMSII, TIP, MAPPER)	X	
Online Transaction Processing and Database Management System Software – Perform software administration functions that involve interacting with agency users; Provide input to vendor on customization		AMOS-X
Program Products/Third Party Software- install new versions and releases; apply preventative and corrective maintenance (Ex. SAS, Software AG, Expediter, CA/Verify)	X	
Program Products/Third Party Software – perform software administration functions that involve interacting with agency users; provide input to vendor on customization		AMOS-X
Notify Commonwealth/AMOS when new versions/releases are available	X	
Support of Commonwealth-developed software tools		AMOS-X
Performance tuning		
Operating Systems	X	
Subsystems (including Database Management Systems, Disk, Teleprocessing Monitors)	P	C-I, AMOS-I, NMV-I
Applications		AMOS-P, C-I
Troubleshooting/problem analysis and resolution		
Operating Systems Technical Support	X	
Subsystems Including Database Management Systems, Disk, Teleprocessing) Technical Support	X	
Unique Third Party Software Technical Support	X	
Application Technical Support (interacting with application developers/reviewing application code)	I	AMOS-X
Establish System Automation Routines/Smart Console for systems and subsystems	P	AMOS-I
Data Management/DISK Management		
File backup and recovery procedures for operating systems, subsystems, program products, system & subsystem catalogs & directories, databases/files, Control files required for operation and maintenance of operating systems/subsystems	P	AMOS-I
File backup and recovery procedures to support applications (Ex. Source libraries, load libraries, absolute or executable files, JCL/WFL/ECL/CL libraries, CLIST/EXEC libraries, Schema Files, Procedure/Addstream libraries, File Definition Libraries	P	AMOS-I
Dump all DISK volumes (full volume dumps/Save All dumps) to tape and store off-site.	P	AMOS-I

File backup and recovery procedures as documented in the Business Continuity/ Disaster Recovery Plan. Tape backups sent off site.	P	AMOS-I
Database backup & recovery procedures	I	AMOS-P

PACSES Mainframe Operations
Responsibility Matrices

Technical Support	Responsibility	
	DPH Vendor	Other
Database Recovery (if related to media failure or DISK allocation problems)	P	AMOS-I
Database recovery (if not related to media failure or DISK allocation problems)	I	AMOS-P
Schedule Database backups so that regular backups can be sent off-site and others can be retained in-house if needed for recovery purposes	I	AMF-P
Set up procedures to automate "picking" of tapes for off-site or vaulting	P	AMOS-I
See that Database backups are completed and copies sent off-site according to ARCUS pick-up schedule	P	AMOS-I
Manage DISK so that adequate SYSDA/WORK/SORTWK/TEMP File space is available to support testing, batch, end-user computing, etc.	P	AMOS-I
Performance (production) & Facility Monitoring		
Performance thresholds alert setup	X	
Operating System and Subsystem monitoring	X	
Environmental	X	
Subsystem performance for Database Management Systems, Teleprocessing Monitors (Ex.DB2, DMS, TIP, MAPPER, CICS, TSO, COMS)	X	
Applications performance analysis	I	AMOS-P, C-I
Performance reporting	P	AMOS-I, C-I
System capacity planning (day to day)	P	AMOS-I, C-I
New Technology/Product Research		
Technology input	P	AMOS-I, C-I
Conduct semi-annual technology reviews	P	AMOS-I, C-I
Technology implementation	P	AMOS-I, C-I
Technology selection (if related to Data Center Operations)	P	AMOS-I, C-I
Technology selection (if related to Agency business requirements or Enterprise standardization)	I	AMOS-I, C-P
System monitoring (Security, Environmental, DISK, TAPE, Availability)	X	
Data Base		
Install new versions/releases of Data Base management system software; apply preventive and corrective maintenance	X	
Logical database design		AMOS-X
Data modeling		AMOS-X
Database reorganizations		AMOS-X
Database creation, deletion, or alteration		AMOS-X
Data base design issues not related to DISK allocation or placement		AMOS-X
Database design issues related to DISK allocation or placement	X	
Creation & management of User Views, file definitions, Schemas, Sub-Schemas, DBDS/PSBS, DDL, Database gens/definitions		AMOS-X
Data Administration (metadata)		AMOS-X
Database security administration		AMOS-X
Database growth management	I	AMOS-P

Database size management	I	AMOS-P
--------------------------	---	--------

PACSES Mainframe Operations
Responsibility Matrices

Technical Support	Responsibility	
	DPH Vendor	Other
Database monitoring for performance management		AMOS-X
DISK utilization tracking	P	AMOS-I
Data base troubleshooting/problem resolution		AMOS-X
Data base monitoring for availability	X	
Provide technical Support to application development staff		AMOS-X
Service Level management (day to day)	X	
Service Level monitoring	X	
Adhere to problem management, change management, and quality assurance procedures related to the technical environment	X	
Adhere to Commonwealth Agency window for scheduled outages for routine software maintenance	X	
Maintain up to date product knowledge through ongoing training and research, reading technical manuals and journals, consultation with technical experts	X	
Document technical support procedures and maintain a library of Vendor Technical documentation	X	
Provide BCCS access to Vendor technical documentation	X	
Conduct monthly review of all open software problems	P	AMOS-I

PACSES Mainframe Operations
Responsibility Matrices

Telecommunications	Responsibility	
	DPH Vendor	Other
WAN/LAN Maintenance and Support		
WAN/LAN Design and Implementation Coordination	I	NMV-P
Router, Switch, HUB, and other network hardware in the Vendor Service Location (Systems)	X	
Router, Switch, HUB, and other network software in the Vendor Service Location (Systems)	X	
Router, Switch, HUB, and other network hardware outside the Vendor Service Location (Systems)		NMV-X
Router, Switch, HUB, and other network software outside the Vendor Service Location (Systems)		NMV-X
Maintain Commonwealth/Agency network documentation		NMV-X
Maintain network documentation for data center interface to Commonwealth Agency printers and to the Commonwealth	X	
TCP/IP and source route bridge address administrations		NMV-X
Existing network equipment and maintenance cost		NMV-X
New network equipment and maintenance cost		NMV-X
Data circuit financial responsibility		C-X
Mainframe		
Provide and coordinate Commonwealth Agency Network change requirements		NMV-X
VTAM installation, maintenance, and configuration	X	
FEP/DCP installation and maintenance	X	
FEP/DCP configuration	P	NMV-I
Channel extension installation, maintenance, and configuration	X	
TCP/IP installation, maintenance, and configuration	X	
Install, maintain, and configure network monitors	X	

Dial-in Capabilities	Responsibility	
	DPH Vendor	Other
Install and Maintain dial in systems for mainframe/mid range systems (excludes Radius dial-in which is the responsibility of OA)	X	
Administer IPRS		AMOS-X
Monitor and report dial in network security violations	I	AMOS-P

PACSES Mainframe Operations
Responsibility Matrices

Problem Management	Responsibility	
	DPH Vendor	Other
Define and maintain problem management process	P	AMOS-I
Participate in problem management process	I	AMOS-I, C-I
Create and maintain accurate call list(s)	P	AMOS-I
Create and maintain escalation list(s)	P	AMOS_I
Vendor Level 2 Help Desk (for Level 2 support in –scope problems)		
Provide toll-free and local telephone lines	X	
Record all problems in tracking tool	P	AMOS-I
Perform/assist with problem severity assessment	P	AMOS-I
Problem assignment, if not solved on call	X	
Notify Level I Help Desk of system availability	X	
Problem Resolution	X	
Problem escalation per procedures	X	
Document resolution and root cause in tracking tool	X	
Follow up to ensure resolution and satisfaction	X	
Perform trending and analysis of documented problems	X	
Provide problem management reports to Commonwealth	X	
Administer problem tracking software and reporting tool	X	
Ensure knowledge base documentation accurately is maintained	X	
Commonwealth Level 1 Help Desk		
All prime shift Level I calls	X	
Non-prime shift and holidays Level 1 calls (at their discretion, agencies may elect not to use this service)	X	

Change Management	Responsibility	
	DHP Vendor	Other
Define and maintain the change management process	P	AMOS-I
Participate in Commonwealth's Change management process	I	AMOS-I, C-P
Maintain change management software tool (Remedy, or any successor product thereto)	X	
Major Application Changes		
Provide change requirements		AMOS-X
Enter all change records and supporting information in Remedy	X	
Provide backout documentation		AMOS-X
Develop and test changes		AMOS-X, C-I
System Software Changes		

PACSES Mainframe Operations
Responsibility Matrices

Change Management	Responsibility	
	DPH Vendor	Other
Provide change requirements	X	
Enter all change records and supporting information in Remedy	X	
Provide backout documentation	X	
Develop and test changes	X	
Change review meetings		
Identify attendees	P	AMOS-I, C-I
Ensure relevant communications are distributed	X	
Chair and conduct meeting	X	
Implement production environment changes	X	

RFP # 39 - 06

Appendix W

COMMONWEALTH OF PENNSYLVANIA
Department of Public Welfare
Bureau of Contract Policy, Management and Procurement
RFP# 39 - 06

Enclosed in four separately sealed submittals is the proposal of the Offeror identified below for the above-referenced RFP:

Offeror Information:	
Offeror Name	
Offeror Mailing Address	
Offeror Website	
Offeror Contact Person	
Contact Person's Phone Number	
Contact Person's Facsimile Number	
Contact Person's E-Mail Address	
Offeror Federal ID Number	

Submittals Enclosed and Separately Sealed:	
<input type="checkbox"/>	Technical Submittal
<input type="checkbox"/>	Disadvantaged Business Submittal
<input type="checkbox"/>	Cost Submittal
<input type="checkbox"/>	Contractor Participation Program

Signature	
Signature of an official authorized to bind the Offeror to the provisions contained in the Offeror's proposal:	
Printed Name	
Title	

FAILURE TO COMPLETE, SIGN AND RETURN THIS FORM WITH THE OFFEROR'S PROPOSAL MAY RESULT IN THE REJECTION OF THE OFFEROR'S PROPOSAL



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC WELFARE
Division of Procurement
Room 106, Health & Welfare Building
Commonwealth Avenue & Forster Street
Harrisburg, PA 17120

Daniel R. Boyd
Director

January 29, 2007

FLYER

(REVISION #1)

SUBJECT: RFP 39-06 Pennsylvania Child Support Enforcement System (PACSES) Application Maintenance and Operational Support Services

Dear Prospective Offeror:

The attached package represents a formal issuance of materials related to the Commonwealth of Pennsylvania, Department of Public Welfare Request for Proposal (RFP) 39-06 Pennsylvania Child Support Enforcement System (PACSES) Application Maintenance and Operational Support Services. The following material is being sent to all entities that were mailed the original RFP package:

1. Official Answers to Questions raised by prospective offerors for RFP 39-06.
2. Liquidated Damages section of the current contract.
3. Overview of the PACSES support layer.
4. PACSES Transition Plan
5. List of the current job classifications for staff supporting PACSES.
6. Summary of RFP Changes.
7. RFP 39-06 with highlighted text to show Revisions.
8. RFP 39-06 Appendix U Cost Submittal (revised)
9. Attendance list for the pre-proposal conference held January 22, 2007.
10. RFP 39-06 Pre-proposal Conference Power Point presentation

It has been determined that it is in the best interest of the Commonwealth to extend the deadline for submission of proposals. The new deadline for submission of proposals is Thursday, March 22, 2007 at 2:00 P.M.

All proposals must be received by the Department of Public Welfare, Bureau of Contract Policy, Management, and Procurement, Room 106, Health and Welfare Building, Commonwealth Avenue and Forster Street, Harrisburg, Pennsylvania 17120. Late proposals will not be accepted regardless of the reason.

Sincerely,

A handwritten signature in cursive script, appearing to read "Daniel R. Boyd".

Daniel R. Boyd, Director
DPW Division of Procurement

Attachments:

ATTACHMENT 1

Official Answers to Questions

	Question	Response	RFP Reference
1	<p>Calendar of Events page iii, indicates a Proposal due date of 2/22/07. a. Question: Due to the complicated nature of this RFP and the need to establish liaison and partnerships with various MBE/WBE and disadvantaged groups would it be possible to extend the deadline to 3/8/07, a two week period?</p>	<p>The Department has determined it is in the best interest of the Commonwealth to extend the deadline for submission of proposals by 30 days. The new deadline for submission of proposals is Thursday, March 22, 2007 at 2:00 P.M.</p>	N/A
2	<p>Can we get a one month extension on the due date of this proposal?</p>	<p>The Department has determined it is in the best interest of the Commonwealth to extend the deadline for submission of proposals by 30 days. The new deadline for submission of proposals is Thursday, March 22, 2007 at 2:00 P.M.</p>	N/A
3	<p>Section I-25 Department Participation on page 11 of the RFP - it states: "The Commonwealth will not provide the selected Offeror with the following: ...General Office Software to include: Email ..." Are we to assume that this means the vendor will provide desktop software (e.g. Outlook) on the vendor's workstations that will be used to access the existing PACSES email servers?</p>	<p>Yes – the vendor is required to adhere to Commonwealth technology standards which include the use of the Microsoft Office software suite. They should provide this software on the workstations being provided by the vendor. • It will not be necessary for the vendor to have mailboxes on the PACSES e-mail system. The Commonwealth will provide access by creating Custom Recipients on the PACSES network system that point to the vendor's SMTP addresses. We will also help the vendor create and maintain directory listings by periodically sending "dumps" of our recipients to the vendor. • Please recognize that the selected vendor needs to agree to work with PACSES network technicians to establish a one-way trust between the vendor's domain and a PACSES domain (the PACSES domain would trust the vendor's domain). This would allow select users on the vendor's domain to access resources on the PACSES domain without duplicating user accounts. PACSES domain administrators would control access to the PACSES resources.</p>	N/A
4	<p>Ref. I-4 C.Goals and Objectives, Objective 3, Page 3. Appendix O is marked Draft, please explain further what the Department means by "institutionalize the SDM." Is the selected vendor expected to provide or develop new or additional tools to finalize this draft procedure?</p>	<p>No, the vendor is not expected to provide or develop new or additional tools to finalize this draft procedure. By requiring all application development-related activities (whether performed by State Staff or contracted staff) to follow the processes and procedures defined in Appendix O, DPW System Development Methodology (SDM), the Department is institutionalizing the SDM.</p>	N/A
5	<p>Ref. I-5 Type of Contract, Page 3. RFP states "If a contract is entered into as a result of this RFP, it will mostly be a deliverables based firm fixed price." The term "mostly" is unclear. Please specify which elements of the contract will be firm fixed price. For those elements not firm fixed price, what other type of contract pricing do you request?</p>	<p>All components of the contract will be deliverables based firm fixed price with the exception of the Requirements Definition and General Systems Design (GSD) phases of the development cycle which are performed on a time and materials basis. The Department uses a multi-step work order process for application modifications. Time and materials pricing is used for the Requirements Definition phase and for the General Systems Design (GSD) phase. Once the Requirements Document and the GSD have been approved by the Department, the Detailed Systems Design thru Implementation phases of the project are then performed on a firm fixed price basis.</p>	N/A

6	Ref. I-12 Proposals, Page 5. RFP states "Offerors must submit one (1) original and eight (8) copies of the Technical, Cost, and Domestic Workforce Utilization Certification Submittals.....". II-4 Domestic Workforce Utilization Certification states that the signed Domestic Workforce Utilization Certification must be submitted in the same sealed envelope with the Cost Submittal. Reference in I-12 does not indicate this. Which process is correct?	The process referenced in II-4 should be utilized.	Page 33, Part II, Section II-4
7	Page 10 of the RFP indicates that State staff assigned to the project will be located separately. a. Question: Will they be located in the Willow Oaks Building? If not, where will they be located?	The state staff working directly on this PACSES Project will be located at the Ollie Building at 1303 N Seventh Street, Harrisburg. (These staff are the Division of Automated Child Support Enforcement Systems.) The Project Management Office and the DPW Contract Administrator are located at the Willow Oak Building in Harrisburg.	N/A
8	Page 14 of the RFP discusses access to the Procurement Reference Library. a. Question: Is there a limit on the number of staff the vendor can have in the library at any given time? b. Can a vendor bring their own copy machine?	a. No, there is no limit on the number of staff that can be in the library at any given time; however, the Procurement Reference Library is (available on one personal computer) located in a private office, so space is limited; and, the answer to b. is no, vendors cannot bring their own copy machines.	N/A
9	Page 16 item I-40 B. states that Offerors are required to propose Service Level Standards and Service Level Objectives to measure standards and objectives against all approved standards and objectives of the contract. a. Question: Can prospective bidders get a copy of the current SLA's and SLO's so that a baseline can be determined in reference to the performance of the current contract?	The Commonwealth is including an excerpt from the current Application Maintenance contract related to Liquidated Damages. There are no specific Service Level Agreements in this contract.	Reference Attachment 2 to this flyer
10	How is the distance from the Willow Oak Office to the vendor site determined?	The Department is seeking a vendor site which is approximately within 15 miles; and will consider disqualifying a proposal if the site is not exactly within a 15 mile radius	Page 10, Part I, Section I-25
11	Tab 3 (Approach to Project Start Up) on page 19 of the RFP it states: "The summary will condense and highlight the contents of the technical proposal in a way that provides the Department with a broad understanding of the entire proposal." Since Tab 3 is for Project Start-up, would it be acceptable to the Department if the vendor addresses this requirement in Tab 2, Management Summary?	Yes – It is acceptable to include Project Start-up in Tab 2.	N/A
12	Ref. II-1, Page 19 C. TAB 3 Approach to Project Start-up, paragraph 3. The RFP states "...the contract is expected to take effect April 1, 2007.....No costs will be reimbursed by the Commonwealth for knowledge transition services prior to July 1, 2007." This can be read to imply that the Commonwealth will not pay, at any time, services rendered for knowledge transition prior to July 1, 2007. Is this the intent of the Commonwealth?	No. Because of the extension to the proposal submission date, DPW no longer expects that knowledge transition services will begin as originally planned. The selected offeror will be reimbursed for knowledge transition services rendered prior to October 1, 2007; however, based on the assumption that there will only be one deliverable for knowledge transition services, it would be due September 30, 2007. In this scenario, payment would not be made until after the deliverable is reviewed and accepted by the Department.	N/A

13	Ref. II-1, Page 19 C. TAB 3 For purposes of clarity, please state the anticipated start and end dates of the contract.	Because DPW now has extended the deadline for submission of proposals, DPW now anticipates a start date of July 1, 2007. The start date will be determined as the later of the date on which the contract receives all state approvals or the date on which the contract receives all necessary federal approvals. The contract will continue through June 30, 2009 unless DPW exercises its renewal option.	N/A
14	Ref. II-3, Cost Submittal, last full sentence on Page 30. "Offerors should not include any assumptions in their cost submittal." Instruction #3 in Appendix U states "Provide any business assumptions that impact completion of these worksheets in written narrative at the conclusion of each pricing sheet." Please clarify intent.	While pricing proposals must be based upon RFP requirements, please provide any other business assumptions that impact the completion of the cost submittal and worksheets in written narrative, at the conclusion of each pricing sheet (if applicable).	N/A
15	Ref. II-3, Tab 10, 2a Project Deliverables, Page 31. This section identifies four major project deliverables and references Tab 2 of Appendix U, Title "Project Deliverables". Tab 2, Project Deliverables, lists an additional deliverable ("Applications Maintenance & Modifications") to those identified on page 31. Please clarify	Appendix U has been corrected and "Application Maintenance and Modifications" has been appropriately removed from Tab 2. In addition, line items on Tab 2 also include pricing for facilities, materials/supplies, equipment and audit have also been inserted to Tab 2, per II-3/Tab 10 of the RFP. Offerors must use the corrected Appendix U for their proposal submission.	Part II, Section II-3, Tab 10 and Attachment 8 to this flyer which replaces Appendix U to the RFP in its entirety.
16	Ref. II-3, Tab 10, 2a Project Deliverables, Page 31. RFP states that costs for facilities, materials, supplies, equipment, and audit must be priced separately from all specific deliverables proposed, but will be priced on Tab 2. Since Tab 2 contains the project deliverables, it is unclear what is being requested. Please clarify what costs (direct labor, overhead, indirect cost, etc.) should be included on Tab 2.	All costs associated with each deliverable (as well as for facilities, materials/supplies, equipment, and audit) should be included within the price for that item. Tab 2 as amended provides specific line items for facilities, materials/supplies, equipment and audit. The specific components of cost for all of these items on Tab 2 will be presented in detail on Tab 5, Cost Verification.	Part II, Section II-3, Tab 10 and Attachment 8 to this flyer which replaces Appendix U to the RFP in its entirety.
17	Page 19 item C. Tab 3 paragraph 3 indicates the contract is to begin April 1st 2007. a. Question: When does the State anticipate announcing the award? Given the anticipated contract start date, the award date is important for our planning purposes (in order to understand the timeframe needed to build out the facility, hire staff, and order equipment, etc.).	Based on our current project schedule, DPW anticipates announcing the award in late April 2007.	N/A
18	Page 22, item II-5 Contractor Partnership Program. a. Question: Will the Workforce Utilization Department assist in the recruitment of its clients?	The Workforce Utilization Department works with a different population and is not related in any way to the Contractor Partnership Program. At this time we do not anticipate the Workforce Utilization Department being involved in the recruitment process for CPP clients.	N/A

19	Tab 3, Page 19 states "No costs will be reimbursed by the Commonwealth for knowledge transition services prior to July 1, 2007." Does this statement mean that the Commonwealth will not reimburse the vendor for transition costs April 1-June 30? Or, does it mean that the Commonwealth will reimburse the vendor for transition costs incurred during the period, but the reimbursement will not be paid until after July 1, 2007?	No. Because of the extension to the proposal submission date, DPW no longer expects that knowledge transition services will begin as originally planned. The selected offeror will be reimbursed for knowledge transition services rendered prior to October 1, 2007; however, based on the assumption that there will only be one deliverable for knowledge transition services, it would be due September 30, 2007. In this scenario, payment would not be made until after the deliverable is reviewed and accepted by the Department.	N/A
20	The Evaluation Criteria seem very subjective and seemingly favoring the incumbent (s). What can you add to encourage other competent companies to bid?	DPW's evaluation criteria, both seen and unseen, were not designed to favor the incumbent. DPW strongly encourages competition for all its RFPs and hopes to further encourage competition for this RFP by extending the proposal submission deadline for this RFP.	N/A
21	Part IV-4.4 C.1 Application Support Services: Would it be acceptable to the Commonwealth if "Provide ongoing data management services" (RFP IV-4.4.C.1, pg. 61) was addressed within the Application Maintenance Services and/or Application Modification Services sections (RFP IV-4.4.A and IV-4.4.B, respectively)?	Yes - Providing ongoing data management services should be considered an Application Maintenance task.	Page 61, Part IV, Section 4.4 A
22	Page 69, System Operations (i) states "all PACSES batch and outline data and software libraries, the specific timeframe and frequency will be determined during contract negotiations". What are the current timeframes and frequencies?	This task relates to functions that should be performed by a Data Base Administrator and Configuration Manager. Maintaining the software libraries and data bases for the various environments of PACSES is a daily task.	N/A
23	Sections IV-4.2(A)(1) states that PACSES was developed using a middleware technology called the PACSES Support Layer (PSL). A. Was this middleware developed specifically for PACSES, or is it commercially available software? B. If commercially available, what is the name of the software?	The middleware was developed specifically for PACSES. It is written using the following languages: COBOL, SSG (Symbolic Stream Generation), Assembler, and C.	Reference Attachment 3 to this flyer
24	Could you more fully discuss the "support layer"? How was the custom sorter designed? Who designed it? Is it well documented? If I bring my "assembler" software experts will the code be understandable?	A brief overview of the PACSES Support Layer is provided as an attachment to this flyer. Lockheed Martin - ACS, the vendors from 1992-2001, developed the support layer. Yes, it's well documented. Yes, it's in the Procurement Library and, yes, your "assembler" experts should be able to understand it.	Reference Attachment 3 to this flyer
25	Ref. IV-1, Work Statement Page 39. The offeror is responsible for knowledge transfer services to assume maintenance and application support activities currently being handled by the incumbent contractor. The offeror is also responsible for a turnover plan upon expiration or termination of the contract. Does a turnover plan exist for the current contract? If so, can this be made available immediately for all offerors to use as input for the knowledge transfer service they are bidding on?	Yes – A copy of the current transition plan is provided as an attachment to this flyer. The dates must be adjusted accordingly, due to the change to the proposal submission deadline.	Reference Attachment 4 to this flyer

26	Ref. Page 78, under Item 3, Applications Maintenance. RFP states "The total projected yearly hour level for these change control tasks is twenty-four thousand (24,000). This represents twenty-five percent (25%) of the total hours (96,000) projected per year for this contract. Does the 96,000 hours per year represent the total contract hours or the total hours for Applications Maintenance and Modification?"	Page 78 of the RFP has been corrected and indicates that the 96,000 hours is a total amount for Application Maintenance (72,000 hours, per Tab 3 of Appendix U) and Modifications (24,000 hours, per Tab 3 of Appendix U).	Page 78, item 3
27	Part IV-4.4 C Application Support Services: Can we assume that the Commonwealth will still provide access and support of the CDN software for training and workshop support, annual IRS Security certifications and other ongoing initiatives? If so, should we include support of this functionality within the Application Support Services section of our response?	Yes – The Commonwealth through its Network vendor will provide network access and technical support of the Content Delivery Network (CDN). As part of the Subject Matter Expert Services which is part of the Application Support Services, the vendor should recognize that they will need to provide expertise in the development and production of child support training content for the Content Delivery Network. The Content Delivery Network supports a function called "PACSES TV" in the PACSES system. Through PACSES TV short training videos (two to fifteen minutes) are written, produced and delivered to the DRS workers desktop for playback through Windows Media Player at their convenience. The writing and production would be a responsibility of this vendor in conjunction with the Commonwealth project team.	N/A
28	Ref. Department of Public Welfare Addendum to Standard Contract Terms and Conditions, Section Q, Contractor's Responsibility to Employ Welfare Clients. Does the Contractor Partnership Program supersede this requirement? If not, does Section Q paperwork need to be completed in addition to the CPP?	The Contractor Partnership Program is new in name only. The same principles apply to the CPP as they did to the Contractor's Responsibility to Employ Welfare Clients. The Department, however, will now have a dedicated Unit to focus on these contract provisions to ensure the benchmarks are being met and to provide assistance in achieving them.	N/A
29	In what job classification(s) does the incumbent contractor utilize staff hired through a CPP?	DPW is looking for offerors to propose how it will seek to fulfill its commitment to hire welfare recipients, including what types of job classifications would be available for this population.	N/A
30	Can the Small Enterprises be from anywhere in PA?	We are assuming the questions refers to Enterprise small business only. Yes, any business across the Commonwealth which has been designated an Enterprise Zone Small Business by the PA Department of Community and Economic Development.	N/A
31	Is Appendix E, Commonwealth of Pennsylvania Business Associate Appendix Language, to be completed and submitted with the Technical Proposal?	Yes.	N/A
32	Ref. Appendix U, Instructions. Instruction 1 for Tab 5 states that the cost verification worksheet must equal the total of Tab 2 and Tab 3. Both Tab 2 and Tab 3 contain the same cost item, Application Maintenance & Modifications. Please clarify intent.	Appendix U has been corrected and "Application Maintenance and Modifications" has been appropriately removed from Tab 2.	Reference Attachment 8 to this flyer

33	Ref. Appendix U, Instructions. Tab 3 instructions state that for Applications Maintenance and Application Modification pricing, offeror must use the hours allotted as determined by the Department. Tab 3 states that offers cannot exceed a specified maximum number of hours. Does the Commonwealth want the offeror to propose the specified number of hours given or a number not exceeding the specified maximum?	Offeror's must propose hourly rates by personnel classification for all 72,000 hours dedicated to Application Maintenance and propose hourly rates by personnel classification for all 24,000 hours dedicated to Application Modifications . Itemization by classification should disclose hourly rates as well as the number of hours per classification. Offerors must provide pricing for the indicated number of hours.	Reference Attachment 8 to this flyer
34	Ref. Appendix U, Tab 3. RFP states that Application Maintenance cannot exceed 96,000 hours and Applications Modifications cannot exceed 24,000 hours. Appears to conflict with Page 78, Item 3, which states "The total projected yearly hour level for these change control tasks is twenty-four thousand (24,000). This represents twenty-five percent (25%) of the total hours (96,000) projected per year for this contract. " Please clarify intent.	Page 78 of the RFP has been corrected and indicates that the 96,000 hours is a total amount for Application Maintenance (72,000 hours, per Tab 3 of Appendix U) and Modifications (24,000 hours, per Tab 3 of Appendix U).	Reference Attachment 8 to this flyer
35	Ref. Appendix U, Tab 3. States that total hours per year cannot exceed 124,000. Is this correct?	Appendix U has been corrected to indicate that total hours that must be priced for Application Maintenance and Modifications.	Reference Attachment 8 to this flyer
36	Ref. Appendix U, Tab 3. What cost elements (direct labor, overhead, indirect costs, etc.) should be included in the hourly rates on Tab 3.	Hourly rates should include ALL elements of cost not contemplated within the 4 categories of deliverables (as well as facilities, materials/supplies, equipment, and audit) on tab 2 of Appendix U. The specific elements included within your hourly rates must be disclosed within Tab 5, cost verification.	Reference Attachment 8 to this flyer
37	Ref. Appendix U, Tab 4. Tab 4 requires rates for all years by personnel classification. It is unclear as to what the rates should include. Please specify what elements of cost (such as those on Tab 5, i.e., direct labor costs, labor overhead, etc) should be included in the rates.	Same as #36 above. Specific components included within hourly rates may vary from offeror to offeror, based upon pricing methodologies used. However, the composition of these hourly rates should be consistent with hourly rates proposed for year 1. Pricing for deliverables in future years will be negotiated through scoping sessions.	Reference Attachment 8 to this flyer
38	Appendix U, Tab 3: Should we assume that the TOTAL Per Year (Hours Cannot Exceed 124,000 for tasks #1 and #2 above) referenced in Appendix U Tab 3 should instead be 120,000 (the sum of 96,000 and 24,000)?	Appendix U has been corrected to indicate that total hours that must be priced for Application Maintenance and Modifications.	Reference Attachment 8 to this flyer
39	Appendix U Tab 3 indicates an annual maximum of 96,000 hours for Application Maintenance and 24,000 hours for Application Modification. However, the total annual hours on Tab 3 is 124,000. Should the total be 120,000?	Appendix U has been corrected to indicate that total hours that must be priced for Application Maintenance and Modifications.	Reference Attachment 8 to this flyer
40	The Department has indicated in various sections the number of staff the current vendor has deployed for Customer Service, SME's, and System Operations Maintenance. a. Question: How many and what types of other job classifications are part of the current vendor's team?	The list of the job classifications being used by the current vendor is provided as an attachment to this flyer. As part of the vendor's proposed solution they should determine the appropriate numbers and types of staff for the work described in the Work Statement.	Reference Attachment 5 to this flyer

41	Is the Unisys IX6800 dedicated solely to PACSES, or is it shared with other departments?	The Unisys IX6800 is dedicated solely to PACSES.	N/A
42	Are you planning on replacing PACSES in the next five years? Is that why this is only a 2 year contract?	The Department is evaluating options and is not prepared to discuss a firm commitment at this time.	N/A
43	During the term of this maintenance contract, is there a plan to modernize PACSES from its current legacy state - through another procurement or through this contractual agreement?	The Department is evaluating options and is not prepared to discuss a firm commitment at this time.	N/A
44	Will you award this contract if only one vendors submitted a bid?	In the event that only one proposal is submitted, DPW will evaluate its available options and may award the contract or may reissue the RFP.	N/A
45	a. What is your current uncollected debt? b. What is your current undistributed collections? c. After October 2007 when you can not use incentives to fund this projects, what is your primary source of funding? d. How many contracting staff currently support PACSES?	a. Approx \$2.1 billion; b. Approx \$3.1 million; c. Federal and state dollars; d. 72	N/A

ATTACHMENT 2

Liquidated Damages section of the current PACSES contract

I-34 Liquidated Damages

In addition to any other remedies that may be available to the Department of Public Welfare, the Department may impose liquidated damages as follows:

a. Schedule Delays

The selected vendor is responsible for ensuring that the overall project is not jeopardized by delays in the transition schedule, as agreed and stated in the contract. The vendor must insure that the Commonwealth is not charged for any additional effort required to meet these schedules. If there are schedule delays, the vendor becomes subject to liquidated damages. These liquidated damages, which shall not be considered a penalty, shall be in addition to any other remedy or remedies, and may be deducted from payments due, or which become due, to the vendor.

If the vendor fails to complete the required transition schedules by the agreed upon completion dates, liquidated damages of \$1,000.00 per business day for the first twenty (20) days, and thereafter \$2,500.00 per business day, shall be paid by the vendor to the Commonwealth for every business day, or fraction of a day that the schedule is delayed, from the **date** of written notification by the PACSES Contract Officer to the vendor that the schedule is late.

b. Change Control Deficiencies

The selected vendor is responsible for completing the application change controls in accordance with the time frames and budgets approved by the Contract Officer. A change control will be considered complete when it is implemented in accordance with the approved schedule, is completed within the approved cost estimate and when it has been error free in production for thirty (30) days and all associated documentation has been submitted, received, and approved by the Contract Officer. If the vendor fails to comply with any of these requirements and the change control is found to be incomplete or deficient, liquidated damages of \$1,000.00 per day for the first twenty days (20) days, and thereafter \$2,500.00 per business day, will be paid by the vendor to the Commonwealth for every business day, or fraction of a day from the **date** of written notification by the PACSES Contract Officer to the vendor that the change control is incomplete.

If the vendor fails to complete the change control within thirty (30) days of the **date** of written notice from the Contract Officer, the contract with the vendor may be terminated for lack of satisfactory performance.

c. Change Control and Incident Backlogs

The selected vendor is responsible for reducing the backlog of change controls and incidents to the targeted levels indicated in Part IV-4, Task 1. If the vendor fails to comply with these requirements and the change control and incident backlogs are not

reduced to these targeted levels, liquidated damages of \$1,000.00 per day for the first twenty days (20) days, and thereafter \$2,500.00 per business day, will be paid by the vendor to the Commonwealth for every business day, or fraction of a day from the **date** of written notification by the PACSES Contract Officer to the vendor that it has not complied with Part IV-4, Task 1.

If the vendor fails to complete the change controls and incident backlogs within thirty (30) days of the **date** of written notice from the Contract Officer, the contract with the vendor may be terminated for lack of satisfactory performance.

ATTACHMENT 3

Overview of the PACSES Support Layer

A. Maintenance of the Support Layer

The vendor must provide maintenance for the middleware component of the PACSES system referred to as the Support Layer. This includes upgrades and redesign when determined appropriate for program efficiency and effectiveness. The Support Layer is described below.

PACSES was developed using a middleware technology called the PACSES Support Layer (PSL). Its function is to provide an application programming environment that is isolated from the programming interfaces provided by the underlying operating system. The terms *layer* and *middleware* relate to the common practice of viewing a computing system in terms of abstraction layers. In this view, a middleware product like PSL is an additional layer inserted between the application programs and the operating system.

Using a middleware layer adds a small amount of run-time overhead to a computing system, but offers some important advantages:

- **Simplicity.** PSL is designed to support a certain restricted class of applications and one host programming language. The support layer's application programming environment does not attempt to provide the many forms of generality and flexibility available via traditional operating system programming interfaces. Because of this, the environment can be much simpler than that provided by the operating system, and can be defined in terms of more abstract concepts. This makes the application programs more concise and easier to develop and maintain.
- **Standardization.** Most of the coding that should be the same in all application programs can be moved into the middleware layer, where only one copy of the source code needs to exist. The fact that the middleware provides a specialized execution environment allows common code to be factored out more effectively and completely than traditional techniques like subroutines and source code preprocessing.
- **Portability.** The application/middleware interface is largely operating system independent. This allows the application programs to be written in a truly portable fashion. The application can be moved with minimal source code changes to any platform on which PSL is implemented. This provides a portability improvement in any situation where the programming effort needed to provide the middleware is less than that needed for the applications using the middleware. In practice such situations are easy to achieve. For example, PSL is intended to be considerably smaller than the single application using it.

- **Shared Object Code.** The middleware layer's large run time presence allows common functionality to be implemented by shared object code. This provides an important performance benefit for high-volume applications.

Design Principles

In order for PSL to be a support layer, it must first of all be a layer. In order to accomplish that, the following rules are applied:

- Every source module is classified as to whether it is application-specific or not. The criterion is whether the module would need to be changed in order to support a different application.
- Source modules that are application-specific are either application programs or configuration elements, which are data. In other words, support layer programs are explicitly identified as such, are not application-specific, and may not contain application-specific identifiers.
- Direct usage of operating system interfaces by application programs is not allowed, except to the extent that such interfaces are part of standard COBOL.
- The support layer's interface to the application programs is well defined and strictly separate from the support layer's internal documentation.

To the extent feasible, application programs are carefully isolated from the operating system. For example, with a few exceptions all database I/O is done by calling support layer code. The biggest reason for doing this is to allow many characteristics of the database management software to be hidden from application programs. In particular, PSL hides the underlying data model, providing instead a much simpler and more abstract notion of database I/O. This greatly simplifies PACSES application programs.

Each application program is required to conform to one of the *program models* defined in the PSL Programmer's Reference. Each model defines the structure of a COBOL application program.

Many COBOL applications that use middleware have performance problems that are clearly related to the middleware. Generally, the symptoms of such problems are excessive processor utilization and/or I/O activity attributable to middleware "overhead", which is a euphemism for all middleware activity. PSL supports rigidly structured application programs and elaborate I/O mappings, and is therefore at risk from such problems. PSL addresses these problems with two general techniques:

- Early binding of control and configuration information, coupled with extensive compile-time analysis and decision-making, leading to specialized object code from generic source.

- Implementing a very fast general-purpose main-storage cache of non-recoverable information local to each on-line user's session. Both support layer and application programs use this cache.

Several other design principles are applied to facilitate development:

- Do not constrain the spellings of the names of application entities.
- Do not constrain the spellings of the names of operating system entities, such as terminal-ids, user-ids, files, runs, etc.
- Where feasible, define API calls to be insensitive to the COBOL picture, usage, and alignment of their arguments. Where this is not feasible, provide a data division copy-text for every argument.
- Analyze application COBOL source code to extract information from it. This minimizes the need for hand-coded configuration elements replicating information present in the source code, making it easier to keep the configuration elements consistent with application source code.

It should be noted that these design principles are not rigidly enforced. For example, there are several situations where PSL source code is somewhat customized for the needs of the application. These include security administration and name search.

Logical Structure

PSL has two major components:

- The programming environment used for development and maintenance of the PACSES application;
- The run-time environment in which the PACSES application operates.

The programming environment is designed to maximize programmer productivity and to facilitate controlled, managed development. It is divided into three parts:

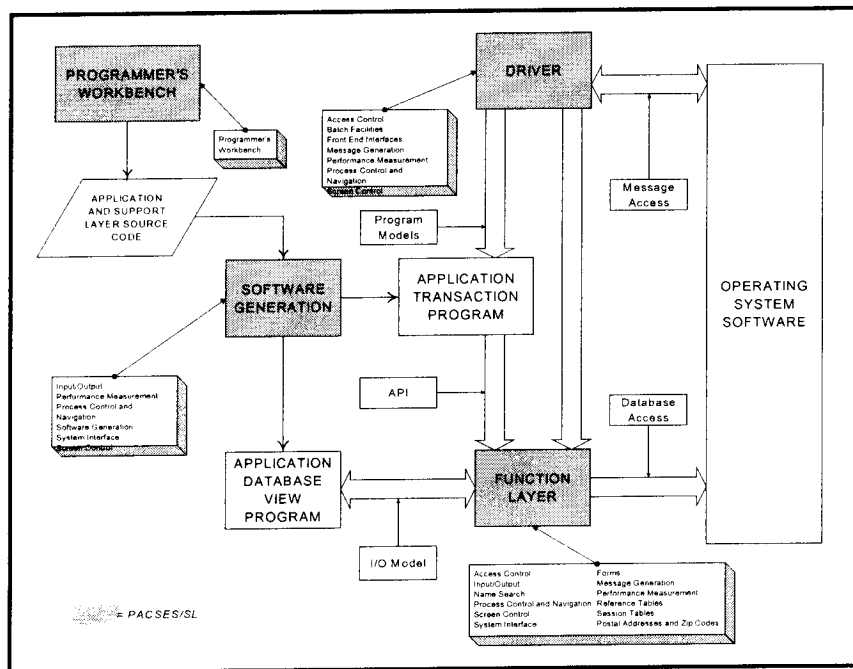
The programmer's workbench is an interactive demand-mode program that provides a menu interface to most development tasks. The workbench performs these tasks by generating appropriate ECL using easily customized skeletons. The workbench is used for source code version management and locking, NECSES source code conversion, new source code creation, test compilation, unstructured test executions (i.e. unit test), test data generation, database record dumping, and other similar functions.

The software generation facility is a collection of non-interactive programs that provide configuration management, source code analysis, ECL generation for production compilations, interpretation of various configuration parameters, post-

processing of compilation listings, and various forms of automatic dependency detection for compilations and similar processing steps.

The installation procedures are a collection of specialized SSG programs and control files that automate the process of installing and operating both the support layer and the application. The programming environment is used for development, maintenance, and installation of both the PACSES application and the support layer itself. The PACSES/SL run-time environment is designed to handle the technical transaction (TIP/DPS/MasQ) and database (DMS/RDMS 2200) interfaces, allowing the application to focus primarily on business functionality. The run-time environment consists of two components: the drivers and the **function layer**.

The drivers, which include all main programs, call the application's online, batch and report programs. The term driver comes from the fact that the principal purposes of the drivers are to establish the contexts in which application programs execute, and also to invoke those application programs. The drivers control online screen navigation, user message handling, program error handling, screen handling, the MasQ and DPS interfaces, I/O complex startup and shutdown, etc. Elements of the batch restart/recovery processing are implemented within batch drivers.



PST Technical Architecture

The function layer isolates application programs and to a lesser extent, drivers from the host system.

The function layer includes all application-callable programming interfaces except those defined as

part of the COBOL language. Facilities provided by the function layer include: database access, user message generation, screen manipulation, user and program error handling, application program-initiated navigation, forms generation, communication with the drivers, environmental inquiry, user command validation, and name search.

PSL Complexes

The previous section explains how PSL is subdivided into development and run-time components, and how those components are further subdivided into layers. These distinctions are useful for understanding how the system works, but do not represent a good basis for modular design of the support layer. There are two reasons for this:

- The abstractions provided to the application programs span levels. For example, there are API functions whose sole purpose is to communicate with specific driver modules.
- The design policy of using early binding of most control information implies that the software generation process is intricately related to run-time logic.

The subdivision into layers is not used for modularization of the support layer. Instead, the top-level modularization breaks PSL down into seventeen *complexes*. The main modularization criterion was data structure sharing – the idea was to minimize the size and complexity of the data structures that were referenced in more than one complex. This generally serves to classify modules by function, so the complexes are named to reflect major pieces of support layer functionality. The complexes are:

Access Control	These are the modules used to make access control decisions, the online programs used to maintain access control information, and any other modules that are solely concerned with access control.
Front End Interface	These are modules that interface with specific on-line terminal types, <i>e.g.</i> , MasQ and DPS, along with the dispatching logic used to select the proper terminal access modules for a given user.
Forms	Enables data accessed on the PACSES host to be merged with workstation-based form definitions. The resulting forms are then printed at the requestor's local printer.
Input/Output	Defines PSL table I/O and implements the interface to DMS 2200.
Message Generation	Provides the facilities used by the application and the support layer to produce the humanly legible user messages.
Name Search	Provides a means to find a "scored match" on entered strings of data. The

	Name Search complex interfaces with the SSA-NAME3 product.
Performance Measurement	Captures and reports on the resource utilization and timing of application programs and other support layer complexes.
Process Control and Navigation	Allows the application to define sequencing of screens to accomplish specific tasks. Controls run-time user navigation across PACSES screens.
Programmer's Workbench	Provides a menu-driven development environment on the UNISYS 2200 mainframe. Also handles version control and source code lockouts for the development environment.
Batch Facilities	Consists of the drivers and support modules that are specific to batch and report program models. Includes all sequential file I/O.
Reference Tables	Enables the access and maintenance of read-only reference data. These are cached main-storage copies of database tables.
Relational Database	Consists of modules supporting RDMS access. This includes SQL command tracing and statistics gathering.
Screen Control	Consists of modules closely associated with formatted screens. This complex defines the on-line program model.
Software Generation	Provides a highly automated build process for the application and support layer, helping to ensure the integrity of the run-time environment.
System Interface	Consists of utility programs and callable functions related to the operating system. Two examples of SI features are access to environmental information, and controlled error recovery.
Session Tables	Implements <i>session tables</i> , which are updateable main storage tables private to each user session.

ATTACHMENT 4

PACSES Transition Plan

PACSES Transition Plan

Friday, January 26, 2007

1	MANAGEMENT SUMMARY	3
1.1	VERSION CONTROL.....	3
2	TRANSITION PROCESS OVERVIEW	3
2.1	TRANSITION ASSUMPTIONS	4
2.2	TRANSITION APPROACH.....	4
	<i>Roles and responsibilities</i>	<i>5</i>
	<i>Issues and Risks</i>	<i>7</i>
	<i>Review and Approval of Deliverables.....</i>	<i>7</i>
	<i>Methods of Knowledge Transfer.....</i>	<i>8</i>
	<i>Project Close Out</i>	<i>9</i>
2.3	SUCCESS FACTORS.....	9
2.4	KNOWN ISSUES	10
3	DETAILED PROJECT ACTIVITIES	10
3.1	STAGE I – TRANSITION PREPARATION	10
3.2	STAGE II – TRANSITION EXECUTION.....	14
4	APPENDIX A – SKILLS MATRIXES	20
	REQUISITE SKILLS MATRIXES (BY TEAM)	20
5	APPENDIX B – WORK PLAN	22

1 Management Summary

Deloitte Consulting is providing a transition plan that identifies the critical tasks that need to occur to provide orderly transition from our team to the incoming contractor in order to minimize disruption of the PACSES operation.

As per the language in the existing contract, Deloitte Consulting is providing the transition plan nine months prior to the expiration of the contract period; as the current contract period is anticipated to expire on December 31, 2006, this transition plan is being submitted on March 31, 2006 in order to meet the requirement.

Transition of PACSES will focus on the following key areas and the critical activities that comprise them:

- Application maintenance and modification (mainframe and server)
- User support services
- Database and technical environments
- Testing
- Migration management
- Production management, including batch schedule management

This document provides a plan to transition the activities required to maintain and enhance the functionality contained within PACSES and support effective operations of business. This Transition Plan will incorporate the activities necessary to turnover the PACSES business application functions in an orderly manner, and outlines the processes associated with transitioning ongoing production and operational support, data conversion, requirements definition, application development, testing procedures, system documentation, training, utilities and tools.

Deloitte Consulting will continue to develop and refine this draft plan through discussions with the Commonwealth of Pennsylvania staff to enable a common understanding of the transition deliverables. Our principal objective is a smooth transition of the current services, processes and systems that support PACSES operations while maintaining business continuity.

1.1 Version Control

Once approval of the initial document is obtained, the plan will come under version control and changes to the document must be approved by both the Commonwealth and Deloitte Leadership.

2 Transition Process Overview

The following section highlights the overall transition process and gives an overview of the tasks, activities and deliverables that will be generated from the process.

The transition of PACSES from Deloitte Consulting to the incoming contractor will consist of two phases: Transition Preparation and Transition Execution.

- Transition Preparation (April – July 1 2006) will entail those tasks and activities required to further refine the Transition execution work plan and prepare for a successful execution of the transition plan during the final six months of the contract.

- Transition Execution (July through December 31st 2006) will entail the implementation of the approved transition plan and the turnover of PACSES operations from Deloitte Consulting to the incoming contractor by December 31, 2006.

The activities and tasks in the preparation and execution phases will focus on the organizational, personnel and operational aspects of on-going PACSES support as well as the actual transition itself.

Deloitte Consulting will apply a transition methodology and processes so that we can maximize the effectiveness of the effort for PACSES staff while reducing risk associated with a transition of this size and complexity. After the PACSES leadership and Deloitte Consulting finalize this plan, the Deloitte team member designated as the Transition Lead will assume responsibility for the transition and will implement the plan in accordance with the agreed approach to verify that all tasks, milestones and timings are achieved to the satisfaction of the Commonwealth.

The cornerstone of the transition approach is the creation of a collaborative working environment that facilitates open communications between all parties and integrates the entire PACSES project team into a strong, cohesive unit whose members have both a personal and a shared commitment to contributing to the Department's business objectives.

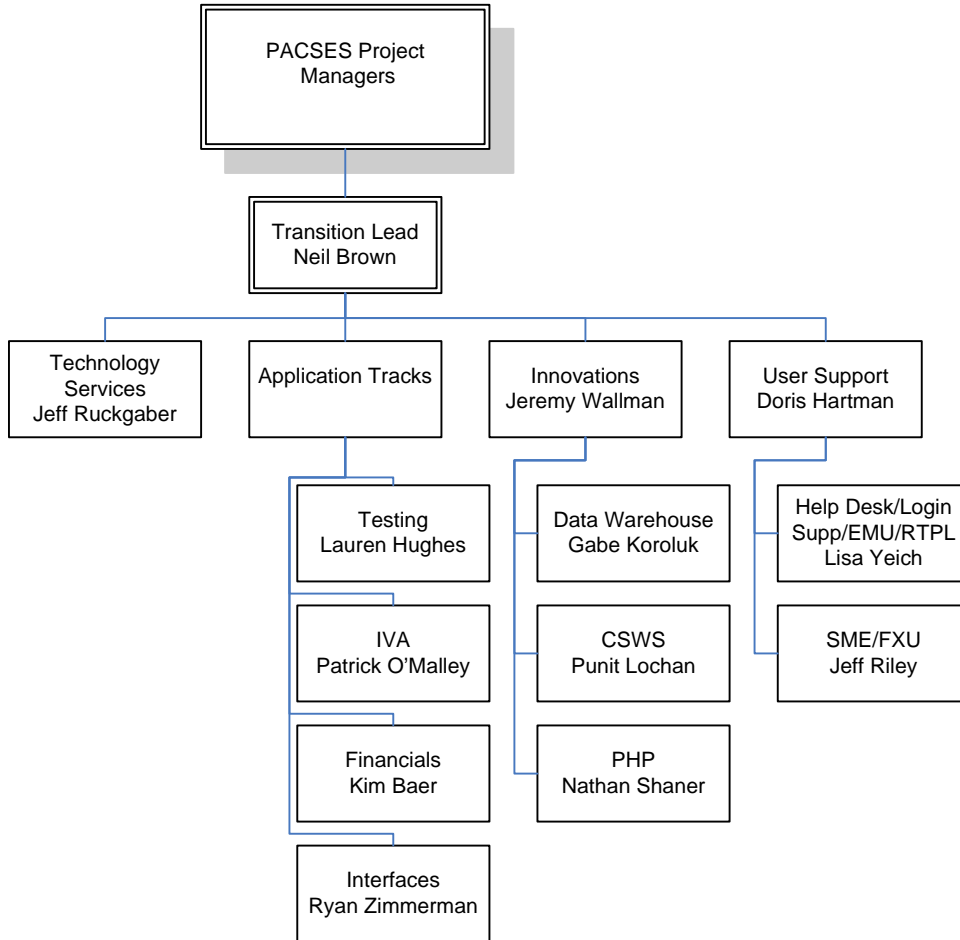
2.1 Transition Assumptions

The following assumptions were made during the creation of this document:

- This execution phase of the transition plan assumes a start date of July 5, 2006, for executing the activities and tasks described to transfer responsibilities of PACSES operations to the incoming contractor
- The Commonwealth will identify their transition team to Deloitte Consulting by June 1, 2006, in order to finalize the transition work plan and enable the timely start of the transition activities. As part of this, a point of contact for the management of deliverable approvals will be indicated
- A new contractor has been chosen prior to the execution phase and their team is available to participate in the transition activities
- Deloitte Consulting will work with the Commonwealth to review and agree upon the critical tasks included within this plan.

2.2 Transition Approach

Deloitte Consulting will establish a core transition team that will prepare, monitor and manage the transition activities. The organization chart for the core transition team is as follows:



The transition team will be led by Neil Brown (existing application manager) and is composed of the managers and track leads from all of the teams that currently support and operate PACSES. In addition to these individuals, we are assuming that most of the existing AMV staff will have a role in the transfer of knowledge to the new contractor.

Roles and responsibilities

The following table defines initial roles and responsibilities for the transition effort:

Role	Name	Responsibilities	Reports To
PACSES Project Managers	Rowe, Match, Pender, Poe, Bannister, Wiest, Richard	<ul style="list-style-type: none"> Review status with transition lead Decision making concerning transition tasks Deliverable approvals Staffing assistance Contract assistance 	
Transition Lead	Neil Brown	<ul style="list-style-type: none"> Provide updates to the management team on status Manage risks and issues associated with the transition Manage resources on the 	PACSES Project Managers

Role	Name	Responsibilities	Reports To
		transition team <ul style="list-style-type: none"> • Interface with the on-coming contractor lead • Facilitate status meetings, knowledge transfer sessions, etc. • Review deliverables before submission • Manage deliverable approval process 	
Application Track Leads	Patrick O'Malley, Lauren Hughes, Kim Baer, Ryan Zimmerman	<ul style="list-style-type: none"> • Prepare documentation for knowledge transfers • Facilitate code and tools walkthroughs and reviews for their respective track areas • Manage staff allocations (time and availability for transition) • Facilitate meetings with outside organizations (e.g. JNET, BIS, etc.) between management and new contractors • Act as POC for their teams for the new contractors • Report on status of their transition area 	Transition Lead
Innovations Lead	Jeremy Wallman, Punit Lochan, Gabe Koroluk, Nathan Shaner	<ul style="list-style-type: none"> • Prepare documentation for knowledge transfers • Facilitate code and tools walkthroughs and reviews for CSWS, Data Warehouse, WebPACSES, and PHP • Manage staff allocations (time and availability for transition) • Act as POC for their teams for the new contractors • Report on status 	Transition Lead
Technology Support	Jeff Ruckgaber	<ul style="list-style-type: none"> • Prepare documentation for knowledge transfers • Facilitate walkthroughs of support processes, tools and procedures • Facilitate discussions/transition with Unisys contacts, BIS, and Shared Services • Facilitate transition with the network group • Manage staff allocations (time and 	Transition Lead

Role	Name	Responsibilities	Reports To
		availability for transition) • Act as POC for their teams for the new contractors • Report on status	
SME/Logon/User/RPTL/ EMU/FXU	Doris Hartman, Lisa Yeich, Jeff Riley	• Prepare documentation for knowledge transfers • Facilitate walkthroughs of processes, tools and procedures • Facilitate SME transition with county contacts • Manage staff allocations (time and availability for transition) • Act as POC for their teams for the new contractors • Report on status	Transition Lead

The transition lead will be responsible for the reporting of the status to the PACSES Project Management team at the weekly Tuesday meetings. In addition, the team will hold transition status meetings on Fridays throughout the process.

Issues and Risks

A tracking log will be maintained during the Preparation and Execution phases to identify issues that may arise and to document resolution plans. The purpose is to minimize the possibility of risks/issues and mitigate their effect upon the on-going operations of the project should they occur. The following steps will occur at the onset of the project to establish the issue management log:

- Establishment of an Excel spreadsheet management of issues and
- Identification of the initial issues and risks that exist presently
- Identification of the potential issues and risks that could occur
- Development of mitigation plans and strategies to manage both existing and potential risk/issues
- Regular monitoring and reporting of issues and risks as they occur

Review and Approval of Deliverables

In order to be able to achieve the timelines that are outlined in the plan and effectively perform the transition, it is important to delineate the process and timing of approvals for deliverables. Deloitte proposes the following steps for deliverables:

1. The transition lead will be responsible for the QA of deliverables by the respective teams
2. Once the QA is completed (and any changes implemented), the transition lead will prepare the document for review by the PACSES management team through the creation of a cover sheet with appropriate sign offs

3. The transition lead will submit the deliverable to the point of contact identified by the Commonwealth for the PACSES management team and at that time the deliverable is considered 'delivered'
4. The Commonwealth POC will review the deliverable for a period of not more than five days before either approving the deliverable or returning it for further clarification/work
5. The transition lead then takes the appropriate action on the deliverable:
 - If it is approved, the lead will store the deliverable as part of the project artifacts and log its completion
 - If it has been denied for any reason, the transition lead will take the appropriate activities to rectify the situation and re-submit the deliverable

In the case of disagreement of deliverables, the transition lead will review the situation with the project management team at the weekly PMM meeting to try and obtain resolution.

Deliverables are defined in this document within the matrix found under "Section 3 Detailed Project Activities."

Methods of Knowledge Transfer

In order to execute upon the activities that are outlined in the plan, the Deloitte transition team plans to use a number of knowledge transfer techniques based upon what is being transferred. The methods are grouped according to their function they perform in the transition process: "prepare" tasks, those that involve preparation and reviewing of documentation, source code, and other reviewable components; "observe" tasks, which involves demonstrations and reviews; and finally "execute" activities which are generally tasks where the new contractor will actually perform the task being transitioned. This approach to or method of turnover facilitation for each of the turnover tasks includes one or a combination of the following basic knowledge transfer methods:

- **Prepare Tasks**
 - **Documentation Self Review** – This method of knowledge transfer involves the 'Transition To' resources thoroughly reviewing all available project and system documentation on the knowledge transfer topic. This self study may result in questions which can then be addressed using one of the other methods defined below. This method is critical to the successful completion of the majority of the turnover tasks.
 - **Meeting/Discussion Forum** – This method provides for the congregation of the appropriate resources for an open discussion on the knowledge transfer topic. Each meeting, led by the Deloitte team responsibility, should have a defined agenda to control the scope of the discussion and the participants should have reviewed documentation prior to attending the meeting so that all have a basic understanding of the topic allowing the discussion to be as productive as possible. There should also be time allotted for a question/answer session as determined by the facilitators.
- **Observe Tasks:**
 - **System or Tool Demonstration** – This method consists of a demonstration of a component of the system or of a specific tool used to

support the system or other project activities. It involves a visual presentation as well as a detailed discussion of the topic. The participants should have reviewed the documentation prior to attending the demonstration so that they have a basic understanding of the topic, allowing an effective review of details during the demonstration.

- **Walkthroughs** – This knowledge transfer method provides for a logical or sequential overview of a system functional or technical component. It involves a visual presentation, as applicable, as well as a detailed discussion of the topic. The participants should have reviewed the documentation prior to attending the walkthrough so that they have a basic understanding of the topic, allowing an effective review of details during the walkthrough.
- **Execute Tasks:**
 - **Shadowing or Participation in Meetings or Activities** – This knowledge transfer method involves having the resources that are responsible for turnover jointly participating in meetings and/or following each other through all day to day project activities, operations, and discussions. The goal is to move from the shadowing to actual performing of the task by the new contractor.
 - **Status Reporting** – This method provides a regular check point to validate the progress of the turnover activities. It involves an identification of any issues for escalation and resolution purposes. It will be incorporated into the existing project status reports and will be reported separately.
 - **PACSES Leadership Participation** – This method provides a hands on means to keep up with project structures by participating in the various governance meeting forums – PMM, project team, development team, logistics and user team meetings. We will perform this through weekly status reporting at the Tuesday PMM meetings.

Project Close Out

At the end of the transition period, the transition team will be responsible for the close out of the Deloitte support on the project. This will include the following tasks:

- Final status review/report with the PACSES Management Team
- Turn over of any PACSES-specific documentation that is not proprietary to Deloitte and can be utilized by the on-coming contractor
- Archiving of project artifacts from the transition project
- Turn over of source code, utilities, tools and other program related products
- Final contract activities (invoices, contract correspondence, etc.)

2.3 Success Factors

There are a number of key success factors that the Deloitte team believes will contribute to the effective execution of the plan. These include:

- On-time completion of the transition activities included in the work plan
- Support from the management team for the activities

- Timely turn-around on deliverable approvals
- Timely resolution of issues/risks/conflicts
- Full participation from the new contractor
- Staffing plan/time allocation that takes into consideration time constraints on on-going operations

We will work closely with the Commonwealth and the new contractor to enable these success factors to occur.

2.4 Known Issues

- Lease space at 30 N 3rd Street

The existing lease for the facilities presently occupied is under the Deloitte name; this lease is in force until June 2007. According to the transition plan, the transition is to be completed by end of December 2006; thus the Commonwealth Management and Deloitte must enter into negotiations on how the space problem will be rectified.

- Time/resource risk

It is important that we understand that the transition will involve existing members of the support team; therefore it is imperative that our transition plan is managed in conjunction with the workplan for the team's on-going activities. This risk is mitigated by the fact that we have assigned the existing Application Manager the role of managing the transition plan.

- Space availability

The present space at 30 N 3rd Street is at full capacity, causing an issue with providing space for the on-coming contractor. The PACSES Management Team will need to develop a strategy to resolve this issue; however, the following is a potential option:

- Require the new contractor to have off-site facilities that are adequate for the housing of their staff; they will travel to PACSES to attend meetings, walkthroughs, discussions, etc.
- As the staff roll-off plan is executed and space becomes available, the new contractor can begin to relocate its staff to the PACSES facility

3 Detailed Project Activities

3.1 Stage I – Transition Preparation

The main focus of Stage I is to further refine the transition work plan and to begin gathering information related to the identified areas that will be transitioned to the new contractor. It consists of the following activities:

Task	Description	Turnover Method	Deliverables
Project Management			

Task	Description	Turnover Method	Deliverables
Establish Project Organization Chart	At the commencement of the development stage of the project, Deloitte will develop an organization chart outlining the projected roles that will be played on the transition team. This chart is considered a deliverable of the process and will be review and sign off by the Commonwealth management staff	None, since this is used for the management of the on-going transition document.	Organization Chart (completed – part of this document)
Identify Key Roles and Responsibilities	Once the organization chart has been agreed upon, a roles and responsibilities matrix will be developed in order to clarify the activities and responsibilities of each individual team member.	None, since this is used for the management of the on-going transition document.	Transition team allocated (completed – part of this document)
Develop Status Reporting Plan	A communications plan is to be developed that includes the following components: - Communications vehicles - Communications timing - Meetings, status, etc.	None, since this is used for the management on-going operations of the transition team.	Status Reports to the weekly PMM
Develop standards for Deliverables	During this stage, the format and quantity of deliverables will be developed, as well as the process for which the deliverables will be approved. Proposed deliverables schedule will be established and integrated into the project plan	Documentation Self-review, meeting/discussion forum, walkthroughs.	Deliverables schedule and formats
Revision/development of workplan	In order to execute upon the goals of the transition effort, we build a workplan for each sub-team that will include: <ul style="list-style-type: none">• All appropriate transition activities• Completion dates, assignments, and milestones• Task dependencies Once the workplan is completed, it will be reviewed by Deloitte Management and Commonwealth stakeholders, approval agreed upon, and then will be 'locked down' and changes to it must go through the established approval process	None, since this is used for the management on-going operations of the transition team.	Revised/updated workplan (Initial Work Plan can be found under APPENDIX B)

Task	Description	Turnover Method	Deliverables
Develop Issue and Risk Management Plan	<p>This particular activity focuses on the management of issues and risks through the life of the transition effort. The purposed is to minimize the possibility of risks/issues and mitigate their effect upon the on-going operations of the project should they occur. The risk management process consists of the following components:</p> <ul style="list-style-type: none"> • Establishment of a tool for management of issues and risks (usually Microsoft Excel or a Word document) • Development of the initial issues and risks that exist presently • Development of the potential issues and risks that could occur • Development of mitigation plans and strategies to manage both existing and potential risk/issues • Regular monitoring and reporting of issues and risks as they occur <p>A key part of the management of risks associate with large scale transitions is the development of a contingency plan covering all aspects of staff, technology and process. As part of the 1st stage of the transition, the project management team will create a contingency plan to cover the potential options available should one of the contingency scenarios play out.</p>	Meeting/discussion forum, walkthroughs, status reporting	Risk Management plan
Staff Planning and Development			
Develop staffing plan	<p>The transition team will review open PSRs, change controls considered to be 'in-flight,' and other work in progress and determine the resource and time requirements to complete the above work. Furthermore, the team will review and understand the work that could potentially</p>	Meeting/discussion forum, walkthroughs	Staff allocation plan

Task	Description	Turnover Method	Deliverables
	<p>span over the end of the contract and what actions will be required to effectively transition the work to the new contractor. From all of this information, a staff reduction plan will be developed and delivered to the Commonwealth for approval.</p> <p>In addition to the development of the resource reduction plan, the team will be responsible for the creation of an 'off-boarding' process that includes the turning over of PACSES documentation and related information, information security procedures (e.g. termination of log-on IDs and access), and physical security procedures (e.g. access to the building).</p>		
<p>Develop Requisite Skills Document</p>	<p>Deloitte Consulting will complete the Requisite Skills Document by May 31, 2006. This document will include:</p> <p>Minimal training and experience requirements for new contractor staff prior to participating in PACSES project activities</p> <p>Mandatory and suggested training required to support the PACSES System in the long-term. Training will be suggested by role within the application team, innovations team, user support, technical support, FXU/EMU, and batch support team.</p> <p>The following section lists the required and suggested training/skills the new contractor project team members will require in order to be able to serve as PACSES subject matter experts.</p>	<p>Meeting/discussion forum, walkthroughs</p>	<p>Requisite Skills Document (APPENDIX A – with examples)</p>
<p>Application Development</p>			
<p>Source Code Reviews</p>	<p>Prepare the source code for review by the incoming staff team. This will include preparing of documentation, cleaning up of code, inventorying code by track</p>		<p>None</p>

Task	Description	Turnover Method	Deliverables
	and preparing hardcopies where needed.		
Prepare Unit Testing and Development Tools	Prepare and review documentation associated with the Unit test and development process.	None, will be executed during the transition	Inventory of tools
Prepare PACSES design procedures for Turnover	Prepare documentation (MCPs) related to the PACSES design procedures and processes as they exist today.	None, will be executed during the transition	Updated MCPS and MCP inventory for designs
Prepare other MCPs and Technical bulletins for Turnover; includes standards and guidelines	Preparation of the remainder of the MCPs and TBs and other documentation as required for turnover	None, will be executed during the transition	Updated MCPs and TBs and related inventory
Prepare environmental information for Turnover	Update and create (if needed) information on the environments used by the PACSES development team	None, will be executed during the transition	Environment documentation
Prepare Database information	Update and create (if needed) documentation on the databases, including LOUIS dumps, extracts, database calls, etc.	None, will be executed during the transition	Database documentation
Process Documentation			
Prepare PACSES process documentation	Inventorying all of the operations and process documentation, identify any gaps, missing or out of date information, and review this information with the PACSES leadership team.	None, will be executed during the transition	Process Documentation

3.2 Stage II – Transition Execution

In the second stage of our transition plan we will implement the activities in accordance with the approved transition work plan; these activities are:

Task	Description	Turnover Method	Deliverables
Execute Staff Roll off Plan	During the execution phase Deloitte will execute upon the staff roll off plan that was developed earlier. Staff will go through the off-boarding process and turn over their tasks to the new contractor (if required). The project management team will provide a weekly status of the staffing levels of the Deloitte team and the corresponding levels of the	Meeting/Discussion Forum Shadowing PACSES Leadership Participation	Status report

Task	Description	Turnover Method	Deliverables
	new contractor.		
Review Standing meetings and roles at each	<p>The Deloitte team will review each of the standing meetings at PACSES with the new contractor and provide them with the expectations and information they will require to effectively participate and facilitate these meetings in the future. Some of the initial meetings Deloitte views as having to transition to the new contractor includes:</p> <ul style="list-style-type: none"> OIS Cross Project Meetings Track Lead Meetings Team Meetings Application Management Meetings User Support Meetings DIT Meetings Data Management Meetings 	<p>Meeting/Discussion Forum</p> <p>Shadowing</p>	None
Workplan Review	<p>The new contractor and Deloitte will perform an extensive review of the work plan, with a particular focus on the plans that are in progress at the time. After Deloitte, the Commonwealth, and the new contractor agree that the transition of the plan is complete, the work plan responsibility will be turned over to the on-coming application manager</p>	<p>Meeting/Discussion Forum</p> <p>System or Tool Demonstration</p> <p>Walkthroughs</p>	None
Report Review	<p>Deloitte will review the weekly status reports, RATS, Monthly Status Reports, Monthly Migration Reports, Monthly Data Change Reports, System Reports, and other reports as required with the new contractor. The team will be responsible for providing information on the location and creation of the reports, including the data sources where the information is accessed. After agreement among the parties involved, responsibility for the creation of the reports will be transitioned to the new</p>	<p>Meeting/Discussion Forum</p> <p>System or Tool Demonstration</p> <p>Walkthroughs</p> <p>Shadowing</p>	None

Task	Description	Turnover Method	Deliverables
	contractor with enough time before the end of the contract so that any corrections, reviews, etc. can be completed		
People Transition			
Review Team Roles and Responsibilities	<p>Deloitte and the new contractor will undertake a review of the Responsibilities Matrix as it exists at the time of the beginning of Stage III. A series of interviews between the new contractor and existing staff member will be arranged so that it is fully understood what their responsibilities will be.</p> <p>In order to best integrate the teams, Deloitte envisions a 'shadow staffing' period of not less than 49 days (according to the plan). During this period, the new contractor staff will 'shadow' their counterpart on the existing team to observe and, eventually, participate in their daily activities and responsibilities. Each track lead will be responsible for the establishment of criteria that will indicate when the 'shadow' period is over and the new contractor can take over daily operations.</p> <p>At the end of the 'shadow' period, Deloitte will create a gap assessment that indicates to the Commonwealth the areas that the new contractor needs to pay particular attention to in order to bring their performance standards up to the existing service levels presently achieved on the project.</p>	Meeting/Discussion Forum Walkthroughs Shadowing	None
Technology Transition Execution			
Review Change Controls in Process	Particular attention will be paid to the change controls that are in process at the time of transition. Deloitte will walk through change controls in each of the parts of the system development lifecycle and perform detailed reviews of functional designs,	Meeting/Discussion Forum Walkthroughs	None

Task	Description	Turnover Method	Deliverables
	technical designs, and code that is in development/testing. Furthermore, we will review change controls that have been implemented within the last 12 months.		
PSRs In progress	Key PSRs that are presently being worked by the team (either developed or under analysis) will be reviewed and walked through with the new contractor. Deloitte will not review PSRs that are in queue but are not scheduled for work at the time of the transition execution.	Meeting/Discussion Forum Walkthroughs	None
Process and Operations Transition Execution			
Testing process review	Review of the testing process for both environments (TFP and ST), scripting, deliverables, results, online testing, batch testing, CSWS testing, and WebPACSES testing. A review of the environments that are used for testing on the server side. This will include shadow staffing by the new contractor.	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None
Migration Control	Review of the migration process and the use of the migration tool for tracking of information related to change controls, PSRs and other systemic changes	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None
Batch Support Process	Review of the batch support process, activities related to the batch process, review of the batch cycle, and escalation procedures. Includes a review of on-call procedures.	Meeting/Discussion Forum Walkthroughs Shadowing Documentation Self-Review	None
Interfaces Review	Review of the interfaces that PACSES works with	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Documentation Documentation Self-Review	None

Task	Description	Turnover Method	Deliverables
Individual Track Team process review	Discussions with each of the respective track leads concerning their teams and the processes they use to manage their teams. Additionally, review of Commonwealth contacts and the interaction with.	Meeting/Discussion Forum Walkthroughs Shadowing	None
DBA Process Review	Review with the existing DBA their daily activities, including extracts, data fixes, ECLs, code, etc.	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None
External Organization Transition	<p>PACSES interacts with a number of outside organizations beyond what is under the purview of the interfaces team. Several of these organizations include (but are not limited to):</p> <p>OIS/BIS BCSE SCDU JNET CSLN CIS DPHS Network</p> <p>These will be transitioned through the reviewing of processes and procedures related to each, shadow attendance at meetings the Deloitte team attends (including conference calls), and introductions/facilitation of contacts within each organization.</p> <p>Also addressed are the ARB, BRB, and CMB meetings.</p>	Meeting/Discussion Forum Shadowing	None
PHP Procedures	PACSES Home Page (PHP) maintenance and procedures performed by the existing AMV contractor	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None
CSWS Procedures	The portal procedures for design, development and	Meeting/Discussion Forum	None

Task	Description	Turnover Method	Deliverables
	testing, and overall maintenance.	Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	
WebPACSES Procedures	Procedures for the maintenance and updating of WebPACSES.	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None
Data Warehouse	Procedures for maintenance and updating of the Data Warehouse	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None
General Server Side Procedures	Procedures related to maintaining and updating of the server. This includes the process for dealing with the support organization, DR, etc.	Meeting/Discussion Forum Walkthroughs Shadowing System and Tool Demonstration Documentation Self-Review	None

4 Appendix A – Skills Matrixes

Requisite Skills Matrixes (By Team)

The following matrix is what will be used for the tracking of Requisite skills; examples of the type of information that will be provided are shown below.

Resource Type	Title	Resource Responsibilities	Resource Characteristics with recent experience (within the last 5 years)	Resource Estimate Range
Engagement Management	Engagement Manager	<p>EXAMPLE:</p> <ul style="list-style-type: none"> Aligning engagement with Department vision, goals, and standards Provide engagement oversight and guidance – align and deliver people, process, operations and technology components of the engagement Bring best industry practices in HHS and Child Support Enforcement Systems in the context of people, process and technology improvements Monitor compliance with department business and IT goals Manage overall conformance to project objectives and requirements 	<p>EXAMPLE:</p> <ul style="list-style-type: none"> 5 to 8 years of in depth program knowledge in a engagement management 8 to 10 years in active engagement and project management of large scale IT system development and maintenance experience. 5 years of experience in managing a project in a enterprise environment integrating with common business and technology processes 5 years of experience with department solutions and standards, and cross project systems or in a similar environment of integration with a Human Services system 	1
Application Maintenance and Development	Application Manager	<p>EXAMPLE</p> <ul style="list-style-type: none"> Coordinate all aspects of PACSES SDLC based system development and maintenance 	<p>EXAMPLE</p> <ul style="list-style-type: none"> 3 to 5 years of hands on experience and knowledge in the application management and implementation of large Human Services systems 	1

Resource Type	Title	Resource Responsibilities	Resource Characteristics with recent experience (within the last 5 years)	Resource Estimate Range
		<ul style="list-style-type: none"> • Leverage and bring application development best practices from similar systems and processes • Manage quality assurance of PACSES application initiatives – including architecture, design and components • Manage PACSES system compliance with stakeholders business requirements • Manage compliance with project schedules • Provide accurate level of effort and resource estimates • Manage application change control and execute established change priorities • Provide technical support and guidance to the application team • Provide IV-A program and functional insights during design and development 	<ul style="list-style-type: none"> • 3 to 5 years in managing software development methodology in a large scale IT systems integration project. Experience with SDLC or a similar waterfall based methodology • 2 to 3 years of experience with department solutions and standards, and cross project systems or in a similar state environment of integration with an Human Services systems • 3 to 5 years of hands on management experience in the application architecture, data architecture, integration broker, security and component based architecture • 1 to 2 years of hands on experience with industry standard tools 	

5 Appendix B – Work Plan

Please Note: the workplan for Stage II – Transition Execution is a proposed plan; our assumption is that we will continue to develop and refine that part of the plan through the Stage I activities.

ATTACHMENT 5

List of the current Job Classifications for staff supporting PACSES

Admin Support
Business Analyst
Data Warehouse Analyst
Data Warehouse Lead
Database Administrator
Database Lead
Director
Help Desk Support Staff
Implementation Support
Manager
Partner
Product Specialist
Product Specialist 3
Programmer 3
Project Controller 2
Senior Consultant
Senior Manager
Senior Programmer
Senior Programmer Analyst
Senior Systems Analyst
Senior T&I Specialist
Systems Analyst
Technical Architect 1
Technical Architect 2
Test Lead
Tester

ATTACHMENT 6

Summary of RFP Changes

SUMMARY OF RFP 39-06 CHANGES

Document or Page Number	Description of Change
Part I – General Information	iii – Revised the Calendar of Events to reflect the decision to extend the proposal due date.
	I-33 – Change in the 3 rd paragraph - the procurement library is available from January 8, 2007 through March 21, 2007.
Part II – Information Required from Offerors	C. Tab 3 – 3 rd paragraph – the contract is expected to take effect July 1, 2007 with knowledge transition services to be completed by September 30, 2007.
	C. Tab 3 – 3 rd paragraph – knowledge transition deliverables will not be due or paid prior to October 1, 2007.
	II-3. J. Tab 10 1. – 2 nd paragraph – deleted 1 st sentence regarding not including assumptions in cost submittals.
	II-3. J. Tab 10 2. a. – 3 rd paragraph – added language clarifying the Application Maintenance and Modifications hours to be priced in Appendix U, Cost Submittal Template.
Part IV – Work Statement	Page 78 – 3 rd paragraph - has been corrected and indicates that the 96,000 hours is a total amount for Application Maintenance (72,000 hours, per Tab 3 of Appendix U) and Modifications (24,000 hours, per Tab 3 of Appendix U).

ATTACHMENT 7

RFP 39-06 with highlighted text to show Revisions

REQUEST FOR PROPOSAL FOR

**PENNSYLVANIA CHILD SUPPORT ENFORCEMENT SYSTEM
(PACSES)
APPLICATION MAINTENANCE AND OPERATIONAL SUPPORT
SERVICES**

ISSUING OFFICE

**Department of Public Welfare
Bureau of Contract Policy, Management and Procurement
Office of Administration
106 Health and Welfare Building
Commonwealth Avenue & Forster Street
Harrisburg, Pa. 17120**

RFP NUMBER

39 – 06

DATE OF ISSUANCE

January 8, 2007

REQUEST FOR PROPOSALS FOR
PENNSYLVANIA CHILD SUPPORT ENFORCEMENT SYSTEM
APPLICATION MAINTENANCE & OPERATIONAL SUPPORT SERVICES

Table of Contents

CALENDAR OF EVENTS	iii
PART I GENERAL INFORMATION	1
<i>I-1 Purpose</i>	<i>1</i>
<i>I-2 Issuing Office.....</i>	<i>1</i>
<i>I-3 Scope</i>	<i>1</i>
<i>I-4 Problem Statement.....</i>	<i>2</i>
<i>I-5 Type of Contract.....</i>	<i>3</i>
<i>I-6 Rejection of Proposals</i>	<i>4</i>
<i>I-7 Incurring Costs</i>	<i>4</i>
<i>I-8 Preproposal Conference</i>	<i>4</i>
<i>I-9 Questions and Answers</i>	<i>4</i>
<i>I-10 Addenda to the RFP.....</i>	<i>5</i>
<i>I-11 Response Date.....</i>	<i>5</i>
<i>I-12 Proposals.....</i>	<i>5</i>
<i>I-13 Disadvantaged Business Information.....</i>	<i>6</i>
<i>I-14 Information Concerning Small Businesses in Enterprise Zones</i>	<i>7</i>
<i>I-15 Contractor Partnership Program (CPP)</i>	<i>8</i>
<i>I-16 Economy of Preparation.....</i>	<i>8</i>
<i>I-17 Alternate Proposals.....</i>	<i>9</i>
<i>I-18 Discussions for Clarification</i>	<i>9</i>
<i>I-19 Prime Contractor's Responsibilities.....</i>	<i>9</i>
<i>I-20 Proposal Contents.....</i>	<i>9</i>
<i>I-21 Best and Final Offers.....</i>	<i>10</i>
<i>I-22 News Releases</i>	<i>10</i>
<i>I-23 Restriction of Contact.....</i>	<i>10</i>
<i>I-24 Debriefing Conferences.....</i>	<i>10</i>
<i>I-25 Department Participation.....</i>	<i>10</i>
<i>I-26 Key Staff Diversions or Replacements</i>	<i>11</i>
<i>I-27 Special Requirements</i>	<i>12</i>
<i>I-28 Term of Contract</i>	<i>12</i>
<i>I-29 Offeror's Representations and Authorizations.....</i>	<i>12</i>
<i>I-30 Notification Selection.....</i>	<i>14</i>
<i>I-31 RFP Protest Procedure</i>	<i>14</i>
<i>I-32 Use of Electronic Versions of this RFP</i>	<i>14</i>
<i>I-33 Access to Documents.....</i>	<i>14</i>
<i>I-34 Commonwealth Rights</i>	<i>14</i>
<i>I-35 Information Handling</i>	<i>15</i>
<i>I-36 Business/Technical Standards.....</i>	<i>15</i>
<i>I-37 Project Folder</i>	<i>15</i>
<i>I-38 Out of Scope Work.....</i>	<i>15</i>
<i>I-39 Access to Systems and Records.....</i>	<i>15</i>

I-40 Liquidated Damages	16
PART II PROPOSAL REQUIREMENTS.....	17
II-1 Technical Response Requirements	18
II-2 Disadvantaged Business/Enterprise Zone Small Business Utilization.....	24
II-3 Cost Submittal	29
II-4 Domestic Workforce Utilization Certification	31
II-5 Contractor Partnership Program (CPP)	32
PART III CRITERIA FOR SELECTION.....	35
III-1 Mandatory Responsiveness Requirements	34
III-2 Technical Nonconforming Proposals.....	34
III-3 Evaluation.....	34
III-4 Criteria for Selection.....	34
PART IV WORK STATEMENT	39
IV-1 Work Statement/Service Specifications.....	37
IV-2 General Information	38
IV-3 Organization of Pennsylvania's Child Support Program.....	38
IV-4 Overview of the Current PACSES Technical Environment.....	42
IV-5 Contract Requirements-Disadvantaged Business Participation and Enterprise Zone Small Business Participation.....	84
Appendix A Contract Terms and Conditions	
Appendix B DPW Addendum to Standard Contract Terms and Conditions	
Appendix C Audit Clause C and D	
Appendix D Lobbying Certification Forms	
Appendix E Business Associate Appendix	
Appendix F Standard Invoice	
Appendix G RFP Protest Procedure	
Appendix H M-WBE Reference List	
Appendix I Domestic Workforce Utilization Certification Form	
Appendix J DPW Project Governance Teams: Detailed Roles and Responsibilities	
Appendix K Functional Description: Office of Information Systems	
Appendix L BCSE / DACSES Organization Chart	
Appendix M DPW Business and Technical Standards – Table of Contents	
Appendix N Business Review Board and Architecture Review Board Guidelines	
Appendix O DPW System Development Methodology (SDM)	
Appendix P DPW Project Folder Documents	
Appendix Q DPW Project Change Management Guideline	
Appendix R PACSES Holiday Schedule for 2007	
Appendix S DPW Deliverables Review Process Guideline	
Appendix T PACSES Library (Documentation Listing)	
Appendix U Cost Submittal Templates	
Appendix V PACSES Mainframe Operations Responsibility Matrices	
Appendix W Proposal Cover Sheet	

CALENDAR OF EVENTS

The Commonwealth will make every effort to adhere to the following schedule:

Activity	Responsibility	Date
Deadline to submit questions prior to pre-proposal conference via email to ra-pacsesrfp@state.pa.us	Potential Offerors	1/18/07
Pre proposal Conference – State Museum Deadline to submit questions to DPW	DPW/ Potential Offerors	1/22/07
Answers to pre-proposal questions posted to the DGS website (http://www.dgsweb.state.pa.us/comod/main.asp) Please monitor website for all communications regarding the RFP.	DPW	1/25/07
Deadline to submit proposal to the Issuing Office (at address listed on cover page to this RFP).	Potential Offerors	3/22/07

PART I

GENERAL INFORMATION

I-1 Purpose This Request for Proposal (RFP) provides to those interested in submitting proposals for the subject procurement (“Offerors”) sufficient information to enable them to prepare and submit proposals for consideration by the Commonwealth of Pennsylvania, Department of Public Welfare (DPW or the Department) to provide Information Technology (IT) Application Maintenance and Operational Support Services for DPW’s Pennsylvania Child Support Enforcement System (PACSES).

The procurement process for this RFP will be conducted in accordance with the federal laws and regulations, including 45 C.F.R. Part 74, 45 CFR Subpart F, and applicable procurement procedures established by the Commonwealth of Pennsylvania.

Detailed information on the Department’s PACSES strategic business system and the required IT services is provided in Part IV, Work Statement.

I-2 Issuing Office This RFP is issued for the Commonwealth of Pennsylvania by the Department’s Bureau of Contract Policy, Management and Procurement, on behalf of the Office of Administration, Bureau of Information Systems (BIS), in association with the Governor’s Office of Administration. Offerors must direct all inquiries concerning this RFP to the RFP Project Officer. Under no circumstances should an Offeror contact the RFP Project Officer by telephone. The RFP Project Officer for this RFP is:

Ms. Teresa Shuchart
Department of Public Welfare
Office of Administration
Bureau of Information Systems
P.O Box 2675
Harrisburg, PA 17105-2675

Email: ra-pacsesrfp@state.pa.us

The RFP Project Officer is the sole point of contact in the Commonwealth for this RFP.

I-3 Scope This RFP contains instructions governing the requested proposals, including the requirements for the information and material to be included; a description of the services to be provided; requirements which Offerors must meet to be eligible for consideration; general evaluation criteria; and other requirements specific to this RFP.

I-4 Problem Statement

A. Background The Commonwealth of Pennsylvania implemented an automated statewide child support enforcement system known as PACSES in February 1999, which was mandated by the federal Department of Health and Human Services (DHHS), Office of Child Support Enforcement (OCSE). PACSES was federally certified under the Family Support Act of 1988 (FSA) and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in October 2001. The current system is largely mainframe based and uses a screen scraper (eQuate) for user functionality. A portal has also been developed using an Oracle platform and .Net programming language, which provides web-based information for child support users and clients.

Since January 2002, the Commonwealth has had a contract for the provision of application development, database administration, and operational support services for PACSES. This contract includes designing and implementing change controls involving significant changes in system functionality, based on either new or revised federal and state regulations, and/or as a result of user requests to modify existing system functionality. In addition, the existing contractor administers the PACSES databases; coordinates PACSES operations with the mainframe vendor (located offsite); and provides extensive user support services. The contract for these services ends on June 30, 2007. (NOTE: In order to accommodate the extension for Offeror proposals, the Department will extend this contract through September 30, 2007.)

B. Business Challenges the Department is Currently Facing While the Commonwealth continues to work on solutions to address the dramatic rise in operating costs in Pennsylvania over the past several years, Executive agencies under the Governor's jurisdiction are seeing increased pressure to reduce agency spending. In fact, one of the areas hardest hit by budget reductions over the past several years is spending on IT.

Cost containment in the Commonwealth, and specifically in DPW, is part of an ongoing effort to refocus general government operation dollars from some of the traditional areas to assist in covering the gap in State revenues versus State expenditures. As part of this overall strategy, the Department is also consolidating and integrating the management of all DPW IT systems under the DPW Chief Information Officer (CIO). This business realignment allows for integration and synchronization in IT contract management, program management, and portfolio management. It will also allow the Department to take advantage of resource prioritization and distribution of infrastructure, people, facilities, tools, and knowledge.

C. Goals and Objectives The Department's goals for this RFP are:

1. **Effective Program/Project Management Services** – In order for the Department to successfully achieve its business goals, it must be able to effectively manage and deliver IT support for PACSES and other DPW IT projects while simultaneously refining the Department’s program and project management skills, technologies, and methodologies, as needed.
2. **Open Communication and Reporting** – Timely and open communication with the Department’s program office, the PACSES user community, and Federal and State oversight agencies is another critical success factor for the Department’s technology organization.
3. **Planning and Organization** – Planning must exist at all levels from setting work priorities, to planning an individual’s workload, to establishing individual software releases.
4. **Project Human Resource Management** – The Department seeks the effective organization and management of the individuals proposed for the PACSES system within this RFP.
5. **Flexibility** – Today’s public sector environment dictates a management style that is flexible. The success of the Department’s information technology organization is dependent on being able to be responsive to the business needs of the organization.
6. **Quality** – The Department’s goal is the development, delivery, and maintenance of quality systems for customers of the Department and the citizens of the Commonwealth.
7. **Knowledge Transfer** – To help facilitate the transition of DPW’s strategic business systems to State or other contracted staff, the Offeror will partner with the DPW and share all necessary system documentation on an on-going basis.

The specific objectives related to achieving these goals are:

1. **Objective 1:** Support the Department’s Program Office in achieving their business goals.
2. **Objective 2:** Provide timely, accurate, reliable, efficient, and secure solutions.
3. **Objective 3:** Institutionalize the Department’s System Development Methodology (SDM), **Appendix O**, with supporting tools that provide a seamless system development life cycle.
4. **Objective 4:** Develop, deliver, and maintain a quality PACSES system that meets the approval and satisfaction of the customers and stakeholders.
5. **Objective 5:** Transition and transfer system development, maintenance, and knowledge to State staff or other contracted staff in order to reduce dependency on contracted PACSES system support.

A general overview of the PACSES system is provided in **Part IV, Work Statement**.

I-5 Type of Contract If a contract is entered into as a result of this RFP, it will mostly be a deliverables based firm fixed price contract and will include **Appendix A:**

Contract Terms and Conditions; Appendix B: DPW Addendum to Standard Contract Terms and Conditions, including its attachments; one of the audit clauses, shown in **Appendix C: Audit Clause C and D**; and the Lobbying Certification Forms, shown in **Appendix D: Lobbying Certification Forms** and the Commonwealth of Pennsylvania Business Associate Appendix, shown in **Appendix E: Business Associate Appendix**. The awarded entity will be subject to one of the audit clauses attached as **Appendix C**. The Department will determine the applicable audit clause during contract negotiations.

The Department intends to finalize a performance-based contract, which includes business requirements conveyed in terms of deliverables with quality measurements of agreed upon key performance indicators. The Department may, in its sole discretion, undertake negotiations with Offerors whose proposals as to price and other factors show them to be qualified, responsible and capable of performing the work, and meeting performance indicators.

The Department will enter into a deliverables based firm-fixed price contract for the provision of services and tasks defined as “deliverables” within this RFP. In addition, all application maintenance and application modifications (as defined in Sections II-3 and Part IV, Work Statement) will be subject to a change control process, identified in **Appendix Q: DPW Project Change Management Guideline**, to manage the consumption of hours. During the contract term, additional deliverables may be identified and agreed to by both parties for all application maintenance and application modifications. All services and tasks will be subject to performance measures.

I-6 Rejection of Proposals The Department, in its sole and complete discretion, may reject any proposal received as a result of this RFP.

I-7 Incurring Costs The Department is not liable for any costs the Offeror incurs in preparation and submission of its proposal, in participating in the RFP process or in anticipation of award of the contract.

I-8 Preproposal Conference The Department will hold a Preproposal conference as specified in the Calendar of Events. Attendance for the Preproposal conference is optional but is strongly encouraged. The purpose of this conference is to provide an opportunity for clarification of the RFP. Offerors should forward all questions to the RFP Project Officer in accordance with **Part I, Section I-9 Questions and Answers**, to ensure adequate time for analysis, before DPW provides an answer. Offerors may also ask questions at the conference. The preproposal conference is for information only. Any answers furnished during the conference will not be official until they have been verified, in writing, by DPW. All questions and written answers will be posted on the Department of General Services’ (DGS) website at www.dgsweb.state.pa.us/comod/main.asp as an addendum to, and shall become part of, this RFP.

I-9 Questions and Answers If an Offeror has any questions regarding this RFP, the Offeror must submit the questions by email (**with the subject line “RFP #39-06 Question”**) to the RFP Project Officer named in **Part I, Section I-2** of the RFP. If the Offeror has questions, they must be submitted via email **no later than** the date indicated on the Calendar of Events. The Offeror shall not attempt to contact the RFP Project Officer by any other means. DPW will post the answers to the questions on the DGS website by the date stated on the Calendar of Events.

All questions and responses as posted on the DGS website are considered as an addendum to, and part of, this RFP in accordance with RFP **Part I, Section I-10 Addenda to the RFP**. Each Offeror shall be responsible to monitor the DGS website for new or revised RFP information. DPW shall not be bound by any verbal information nor shall it be bound by any written information that is not either contained within the RFP or formally issued as an addendum by DPW. The Department does not consider questions to be a protest of the specifications or of the solicitation. The required protest process for Commonwealth procurements is described in Appendix G to this RFP.

I-10 Addenda to the RFP If the Department deems it necessary to revise any part of this RFP before the proposal response date, it will post an addendum on the DGS website at www.dgsweb.state.pa.us/comod/main.asp. It is the Offeror's responsibility to periodically check the website for any new information or addenda to the RFP. Answers to the questions asked during the Questions & Answers period will be posted to the DGS website as an addendum to the RFP.

I-11 Response Date To be considered for selection, hard copies of proposals must arrive at the Issuing Office on or before the time and date specified in the RFP Calendar of Events. The Issuing Office will **not** accept proposals via email or facsimile transmission. Offerors who send proposals by mail or other delivery service should allow sufficient delivery time to ensure timely receipt of their proposals. If, due to inclement weather, natural disaster, or any other cause, the Commonwealth office location to which proposals are to be returned is closed on the proposal response date, the deadline for submission will be automatically extended until the next Commonwealth business day on which the office is open, unless the Issuing Office otherwise notifies Offerors. The hour for submission of proposals shall remain the same. The Department will reject, unopened, any late proposals.

I-12 Proposals To be considered, Offerors must submit a complete response to this RFP, using the format provided in the RFP. Proposals should be as concise as possible. Offerors must submit one (1) original and eight (8) copies of the Technical, Cost, and Domestic Workforce Utilization Certification Submittals, one (1) original and one (1) copy of its Disadvantaged Business Submittal, and one (1) original and one (1) copy of its Contractor Partnership Program (CPP) to the Issuing Office. Offerors must complete and include with their submission **Appendix W: Proposal Cover Sheet**. In addition, Offerors must submit one (1) copy of their entire proposal on CD-ROM in Microsoft Word or Microsoft Word-compatible format. The Offeror will make no other distribution of proposals. Each proposal page should be numbered for ease of

reference. Proposals must be signed by an official authorized to bind the Offeror to its provisions. For this RFP, the proposal must remain valid for one hundred-eighty (180) days or until a contract is fully executed. This RFP, and the incorporated contents of the selected contactor's proposal, become contractual obligations if a contract is entered into.

Each and every Offeror submitting a proposal specifically waives any right to withdraw or modify it, except as provided in this RFP. Proposals may be withdrawn by written or facsimile notice received at the Issuing Office's address, for proposal delivery, prior to the exact hour and date specified for proposal receipt. However, if the Offeror chooses to attempt to provide such written notice by facsimile, the Commonwealth shall not be responsible for errors in facsimile transmission or receipt. A proposal may be withdrawn in person by an Offeror or its authorized representative, provided its identity is made known and it signs a receipt for the proposal, but only if the withdrawal is made prior to the exact hour and date established for proposal receipt. A proposal may only be modified by the submission of a new sealed proposal or submission of a sealed modification, with copies as previously stated, and within the requirements of this RFP.

I-13 Disadvantaged Business Information The Department encourages participation by small disadvantaged businesses as prime contractors, joint ventures and subcontractors/suppliers, and by socially disadvantaged businesses as prime contractors.

Small Disadvantaged Businesses are small businesses that are owned or controlled by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantages. The term includes:

- a. Department of General Services Bureau of Minority and Women Business Opportunities (BMWBO)-certified minority business enterprises (MBEs) and women business enterprises (WBEs) that qualify as small businesses; and
- b. United States Small Business Administration-certified small disadvantaged businesses or 8(a) small disadvantaged business concerns.

Small businesses are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than one hundred (100) persons and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

Socially disadvantaged businesses are businesses in the United States that BMWBO determines are owned or controlled by a majority of persons, not limited to members of minority groups, who are subject to racial or ethnic prejudice or cultural bias, but which do not qualify as small businesses. In order for a business to qualify as "socially

disadvantaged,” the Offeror must include in its proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person’s color, ethnic origin or gender.

Questions regarding this Program can be directed to:

Department of General Services
Bureau of Minority and Women Business Opportunities
Room 611, North Office Building
Harrisburg, PA 17125
Phone: (717) 787-6708
Fax: (717) 772-0021
Email: gs-bmwbo@state.pa.us

Program information and a database of BMWBO-certified minority- and women-owned businesses can be accessed at www.dgs.state.pa.us, DGS Keyword: BMWBO. The federal vendor database can be accessed at <http://www.ccr.gov> by clicking on *Dynamic Small Business Search* (certified companies are so indicated)

In addition, the Department is providing Offerors with **Appendix H: M-WBE Reference List**, which is a list of DGS, certified MBE/WBE vendors based upon the commodity codes identified. NOTE: Offerors are not limited to the use of these vendors, nor is the Department suggesting that this list be considered preferred MBE/WBE vendors. The list is provided solely as a resource that may be used to identify qualified MBE/WBE subcontractors.

I-14 Information Concerning Small Businesses in Enterprise Zones The Department encourages participation by small businesses, whose primary or headquarters facility is physically located in areas the Commonwealth has identified as Designated Enterprise Zones, as prime contractors, joint ventures, and subcontractors/suppliers.

The definition of headquarters includes, but is not limited to, an office or location that is the administrative center of a business or enterprise where most of the important functions of the business are conducted or concentrated and location where employees are conducting the business of the company on a regular and routine basis so as to contribute to the economic development of the geographical area in which the office or business is geographically located.

Small businesses are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than one hundred (100) persons and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

There is no database or directory of small businesses located in Designated Enterprise Zones. Information on the location of Designated Enterprise Zones can be obtained by contacting:

Aldona M. Kartorie
Center for Community Building
PA Department of Community and Economic Development
4th Floor, Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120-0225
Phone: (717) 720-7409
Fax: (717) 787-4088
Email: akartorie@state.pa.us

I-15 Contractor Partnership Program (CPP) The Contractor Partnership Program (CPP) was created by Pennsylvania's Department of Public Welfare to create additional employment opportunities within the Commonwealth. The CPP is designed to leverage the economic resources of the Commonwealth to create jobs for welfare recipients by maximizing the recruitment, hiring, and retention of welfare clients by Commonwealth contractors, subcontractors, and grantees. The CPP will utilize its partnerships with the local Workforce Investment Agencies (WIAs), County Assistance Offices (CAOs), service delivery providers, and other community action agencies to advance this goal.

The CPP will require all individuals interested in contracting with DPW to make a commitment to hire a specified number or percentage of their workforce from the welfare to work population. DPW will monitor all performance commitments to ensure contractors remain in compliance with the terms of their contract. The CPP will offer assistance to the contractors in fulfilling their requirements. The CPP will work cooperatively with contractors to assist in identifying hiring needs that may be met through the employment of welfare clients. In addition, the CPP will coordinate the resources of local service providers to assist in the identification of qualified individuals for employment opportunities.

Through CPP, DPW expects not only to increase the employment rate for welfare recipients, but to continue to contribute to the economic growth of the Commonwealth.

For more information regarding this program please contact:

Lisa M. Watson, Esq.
Director, Contractor Partnership Program
PA Department of Public Welfare
M & M Building
900 North 6th Street, 1st Floor
Harrisburg, PA 17102
Phone: (717) 705-7716/Fax: (717) 787-4106

Email: c-lwatson@state.pa.us

I-16 Economy of Preparation Offerors should prepare proposals simply and economically, providing a straightforward, concise description of the Offeror's ability to meet the requirements of the RFP.

I-17 Alternate Proposals The Department has identified the basic approach to meeting its requirements and encourages Offerors to be creative and propose their best solution to meeting these requirements. DPW will not accept alternate proposals.

I-18 Discussions for Clarification Offerors that submit proposals may be required to make an oral or written clarification of their proposals to DPW to ensure thorough mutual understanding and Offeror responsiveness to the solicitation requirements. The RFP Project Officer will initiate requests for clarification.

I-19 Prime Contractor's Responsibilities The contract will require the Offeror to assume responsibility for all services offered in its proposal whether it produces them itself or by subcontract. DPW will consider the Offeror to be the sole point of contact with regard to contractual matters.

I-20 Proposal Contents Offerors should not label proposal submissions as confidential or proprietary. DPW will hold all proposals in confidence and will not reveal or discuss any proposal with competitors for the contract, unless disclosure is required:

- i) Under the provisions of any Commonwealth or United States statute or regulation; or
- ii) By rule or order of any court of competent jurisdiction.

After a contract is executed, however, the successful proposal is considered a public record under the Right-to Know Law, 65 P.S. § 66.1—66.9, and therefore subject to disclosure. The financial capability information submitted under Part II, Section II-1.F.2 and the Cost Justification information submitted under Part II, Section II-3.J.2.d, shall not be disclosed in the final contract. All material submitted with the proposal becomes the property of the Commonwealth of Pennsylvania and may be returned only at the DPW's option. DPW, in its sole discretion, may include any person other than competing Offerors on its proposal evaluation committee. DPW has the right to use any or all ideas presented in any proposal regardless of whether the proposal becomes part of a contract.

I-21 Best and Final Offers DPW may conduct discussions with Offerors for the purpose of obtaining "best and final offers." To obtain best and final offers from Offerors, the DPW may do one or more of the following:

- i) Enter into pre-selection negotiations;
- ii) Schedule oral presentations; and
- iii) Request revised proposals.

The DPW will limit any discussions to responsible Offerors (those that have submitted responsive proposals and possess the capability to fully perform the contract requirements in all respects and the integrity and reliability to assure good faith performance) whose proposals DPW has determined to be reasonably susceptible of being selected for award. The Criteria for Selection found in **Part III, Section III-4**, shall also be used to evaluate the best and final offers. Except to the extent that DPW requests changes to the Technical submittal, price reductions shall have no effect upon the Offeror's Technical Submittal. Dollar commitments to Disadvantaged Businesses and Enterprise Zone Small Businesses can be reduced only in the same percentage as the percent reduction in the total price offered through negotiations, however, Offerors are encouraged to maintain or increase their commitment to Disadvantaged Businesses as part of BAFO process

I-22 News Releases Offerors shall not issue news releases, Internet postings, advertisements or any other public communications pertaining to this Project without prior written approval of DPW, and then only in coordination with DPW.

I-23 Restriction of Contact From the issue date of this RFP until DPW selects a proposal for award, the RFP Project Officer is the sole point of contact concerning this RFP. Any violation of this condition may be cause for DPW to reject the offending Offeror's proposal. If the DPW later discovers that the Offeror has engaged in any violations of this condition, DPW may reject the offending Offeror's proposal or rescind its contract award. Offerors must agree not to distribute any part of their proposals beyond the Issuing Office. An Offeror who shares information contained in its proposal with other Commonwealth personnel and/or competing Offeror personnel may be disqualified.

I-24 Debriefing Conferences Offerors whose proposals are not selected will be notified of the name of the Offeror selected and given the opportunity to be debriefed. The RFP Project Officer will schedule the time and location of the debriefing. The debriefing will not compare the Offeror with other Offerors, other than the position of the Offeror's proposal in relation to all other Offeror proposals. An Offeror's exercise of the opportunity to be debriefed does not constitute the filing of a protest.

I-25 Department Participation Offerors shall provide all services, supplies, facilities, and other support necessary to complete the identified work, except as otherwise provided in this **Part I, Section I-25**.

The Offeror will be required to provide a facility for the contract staff proposed in this RFP. The location of the facility must be within a 15 mile radius of the Willow Oak Building located at the DGS Annex Complex.

The Commonwealth staff assigned to the project will be located separately. The Offeror's project site must include appropriate office space, meeting and parking facilities in order to host regular and frequent Commonwealth staff participation.

The Commonwealth **will not** provide the selected Offeror with the following:

- Office Hardware to include: Personal Computers (PCs), Local Area Network servers, printers, facsimile machines, copiers, scanners, shredders, and desktop phones.
- General Office Software to include: Word Processing, Spreadsheet, Project Management, Email, and Presentation.
- Office Supplies such as, pens, pencils, paper, and binders.
- Office Furniture
- Technical support for the previously noted hardware and software.
- Internet access and nationwide phone service, as needed for Offeror staff.

The Department **will** provide Wide Area Network (WAN) connectivity (data circuit) between the Project facility and the Commonwealth technical resources necessary to perform contract responsibilities. Further, DPW will provide the following types or equivalents of software related to the development, maintenance, and operations of PACSES:

- Data Base – Oracle and all Unisys products.
- Software development and management – Visual Studio, .Net Framework, Infragistics, IQU, QPlex, Louis, SQL Server, ErWin, AccVerify, ActivEdit, WebMethods Developer, Web Services Enhancements, Rational Robot, Code-1 plus, Crystal Reports, Dreamweaver, Depcon, WebTS, Alchemy, Support Magic, Adobe, JetForms, Toad for Oracle, View Finder, Enterprise Architect, Equate, RoboHelp, and Cognos.

I-26 Key Staff Diversions or Replacement Once Key Staff Personnel (defined as Project Manager and first level managers) are assigned and approved by DPW, the Offeror may not divert or replace key personnel without approval of the DPW Contract Officer and in accordance with the following procedures.

The Offeror must provide notice of a proposed diversion or replacement to the DPW Contract Administrator at least sixty (60) days in advance and provide the name, qualifications, and background check of the person who will replace the diverted or removed staff. The DPW Contract Administrator will notify the Offeror within fifteen (15) days of the diversion notice whether the proposed diversion is acceptable and if the replacement is approved.

Divert or diversion is defined as the transfer of Key Personnel by the Offeror or its subcontractor to another assignment within the control of either the Offeror or subcontractor. It does not include resignations, death, and disability, dismissal for cause or dismissal as a result of the termination of a subcontract or any other causes that is beyond the control of the selected Offeror or its subcontractor.

The DPW Contract Administrator may request that the selected Offeror remove its staff person at any time. In the event that the selected Offeror staff person is removed from the project, the selected Offeror will have thirty (30) days to fill the vacancy with a staff

person acceptable in terms of experience and skills, subject to the DPW Contract Administrator's approval.

I-27 Special Requirements This RFP Part IV constitutes the work for the first contract year. In order to align DPW's business requirements with the Commonwealth's budget process, the Offeror must submit annual work orders for subsequent years of the contract based upon annual planning sessions with the DPW management team. The annual planning process will occur on a fiscal year basis (July to June). These planning sessions will be used to outline and negotiate agreement on future deliverables and work products for the following year and will be provided to the Offeror by March-April of the prior fiscal year. Through DPW's annual IT planning process, BIS will provide a clear list of project priorities and anticipated deadlines for the following fiscal year. From this, the selected Offeror will provide the DPW Contract Administrator with an annual work order detailing the resources, hours, cost, deliverables, and work products necessary to achieve the DPW business plan for that year. The Offeror must submit their work order estimates by May of the prior fiscal year to allow adequate processing time. The DPW management team will continue to measure the performance of the Offeror against deliverables identified during these planning sessions and reflected in work orders.

The selected Offeror will adopt the existing DPW methodologies and processes and assist in adapting and maturing these to increase efficiencies and performance.

I-28 Term of Contract The term of the contract will commence on the Effective Date, as defined below, and will remain in effect for twenty-four (24) months with three (3) one (1) year renewal options. The Issuing Office will fix the Effective Date as the later of: 1) the date after the contract has been fully executed by the Offeror and by the Commonwealth and all approvals required by Commonwealth contracting procedures have been obtained or 2) the date on which all necessary federal approvals are obtained. The selected Offeror shall not start the performance of any work prior to the Effective Date of the contract and the Commonwealth shall not be liable to pay the Offeror for any service or work performed or expenses incurred before the Effective Date of the contract.

I-29 Offeror's Representations and Authorizations By submitting its proposal, each Offeror understands, represents, and acknowledges that:

- a. All of the Offeror's information and representations in the proposal are material and important, and DPW may rely upon the contents of the proposal in awarding the contract.
- b. The Offeror has arrived at the price(s) and amounts in its proposal independently and without consultation, communication, or agreement with any other Offeror or potential Offeror.

- c. The Offeror has not disclosed the price(s), the amount of the proposal, nor the approximate price(s) or amount(s) of its proposal to any other firm or person who is an Offeror or potential Offeror for this RFP, and the Offeror shall not disclose any of these items on or before the proposal submission deadline specified in the Calendar of Events of this RFP.
- d. The Offeror has not attempted, nor will it attempt, to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
- e. The Offeror makes its proposal in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.
- f. To the best knowledge of the person signing the proposal for the Offeror, the Offeror, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last **four (4)** years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as the Offeror has disclosed in its proposal.
- g. To the best of the knowledge of the person signing the proposal for the Offeror and except as the Offeror has otherwise disclosed in its proposal, the Offeror has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Offeror that is owed to the Commonwealth.
- h. The Offeror is not currently under suspension or debarment by the Commonwealth, any other state or the federal government, and if the Offeror cannot so certify, then it shall submit along with its proposal a written explanation of why it cannot make such certification.
- i. The Offeror has not made, under separate contract with DPW, any recommendations to DPW concerning the need for the services described in its proposal or the specifications for the services described in the proposal.
- j. Each Offeror, by submitting its proposal, authorizes Commonwealth agencies to release to the Commonwealth information concerning the Offeror's Pennsylvania taxes, unemployment compensation, and workers' compensation liabilities.

- k. Until the Offeror receives a fully executed and approved written contract from the Issuing Office, there is no legal and valid contract, in law or in equity, and the Offeror shall not begin to perform.

I-30 Notification of Selection The Department will notify the responsible Offeror in writing of its selection for negotiation after the Department has determined, taking into consideration all evaluation factors, the proposal that is the most advantageous to the Commonwealth.

I-31 RFP Protest Procedure A protest by a party not submitting a proposal must be filed within **seven (7)** days after the protesting party knew or should have known of the facts giving rise to the protest, but no later than the proposal submission deadline specified in the Calendar of Events of the RFP. Offerors may file a protest within **seven (7)** days after the protesting Offeror knew or should have known of the facts giving rise to the protest, but in no event may an Offeror file a protest later than **seven (7)** days after the date the notice of award of the contract. The date of filing is the date of receipt of the protest. A protest must be filed in writing with the Issuing Office. See **Appendix G** for additional information on the protest procedure.

I-32 Use of Electronic Versions of this RFP This RFP is being made available by electronic means. If an Offeror electronically accepts the RFP, the Offeror acknowledges and accepts full responsibility to insure that no changes are made to the RFP. In the event of a conflict between a version of the RFP in the Offeror's possession and the DPW's version of the RFP, the DPW's version shall govern.

I-33 Access to Documents A procurement reference library has been established at the Willow Oak Building, Room 49, of the DGS Annex Complex.

The procurement reference library contains resource materials and systems documentation that Offerors may find useful in preparing proposals. All possible effort has been made to ensure that library material is complete and current. DPW, however, does not guarantee that the information is complete or current at the time of viewing. When a conflict exists, the RFP requirements specified herein will take precedence over materials in the procurement reference library.

The procurement reference library, which will include the documents referenced in **Appendix M: DPW Business and Technical Standards – Table of Contents** and **Appendix T: PACSES Library (Documentation Listing)**, will be available to offerors **by appointment only**, from January 8, 2007 through **March 21, 2007**, from 8:30 a.m. to 4:00 p.m. (ET), except for weekends and Commonwealth of Pennsylvania holidays. Interested Offerors should arrange an appointment with Ginny Magnotta at (717) 705-9761 or via email at ra-pacsesrfp@state.pa.us.

Interested parties may make copies of materials in the Procurement Library. DPW will provide access to a copy machine. Potential Offerors may not remove any material from the Procurement Library. Copies will be provided at the Offeror's expense at \$.20 per single-sided page (only checks made payable to the

Commonwealth of Pennsylvania will be accepted.)

I-34 Commonwealth Rights The Commonwealth retains ownership rights to the curriculum, programs, modifications, source codes, software, data, and all other materials developed by the successful Offeror under this contract. The Commonwealth will have the right to reproduce and use any and all of these materials. The Offeror may not reproduce or otherwise distribute these materials without the express written permission of the DPW Contract Administrator.

I-35 Information Handling The selected Offeror must protect the confidentiality of all Commonwealth and Department information. The selected Offeror agrees that any breach of this provision may result in immediate termination of its contract.

The nature of the work described in this RFP requires the handling of both sensitive and confidential information. The selected Offeror must treat all client information, as confidential and is prohibited from using or disclosing any confidential or sensitive information except when required to perform its contractual duties. The selected Offeror is responsible for ensuring that adequate measures are in place to prevent unauthorized access, copying, and distribution of such information. The selected Offeror is responsible for proper disposal (i.e. shred, surrender) of both hard and electronic copies of all confidential and sensitive information obtained as a result of any contract that may be awarded.

For additional information concerning the handling of confidential and sensitive information, see **Appendix A: Contract Terms and Conditions** and **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**.

I-36 Business/Technical Standards The Bureau of Information Systems created and published the Technology Standards and Policies to be consistent with the Department's IT vision and mission statements. The selected Offeror must comply with DPW Business and Technical Standards and Guidelines and the Commonwealth's Office for Information Technology (OIT) standards.

I-37 Project Folder The selected Offeror is responsible for placing all working and final documentation in the Project Folder. The Project Folder is a central repository for all system related documentation for DPW's IT projects and is a collection of all documents related to a specific project including deliverables received, decisions made, issues raised, and correspondence exchanged, information regarding the Project Folder repository is included in **Appendix P: DPW Project Folder Documents**. This collection documents the history and evolution of the project. The Project Folder is established at start-up and updated throughout all phases of the system lifecycle.

I-38 Out of Scope Work The selected Offeror must monitor all work performed under the resulting contract and identify issues that are outside the scope of its contract. The selected Offeror may not perform any work that is outside the scope of its contract unless and until a contract amendment has been fully executed and approved by all necessary parties.

I-39 Access to Systems and Records In accordance with 45 CFR part 74 and as required by 45 CFR § 95.615, the selected Offeror must allow federal and state representatives to access the systems in all aspects, including: design developments, operation, and cost records of the selected Offeror and subcontractors at such intervals as are deemed necessary by the above government entities to determine whether the conditions for approval are being met and to determine the efficiency, economy, and effectiveness of the system.

I-40 Liquidated Damages Delays in the delivery of deliverables due to the fault of the selected Offeror or its agents may cause damages to the Commonwealth, which are uncertain and impractical or extremely difficult to ascertain. Therefore, the Department may assess the amounts described in the contract as liquidated and agreed upon damages. In its sole discretion, DPW may refrain from imposing liquidated damages. The Department may assess liquidated damages as follows:

- A. **Relating to Deliverables** If assessed, the Offeror shall pay liquidated damages for failing to receive Acceptance for each Deliverable by its deliverable acceptance due date. In determining the amount of liquidated damages, the Department will multiply the liquidated damage amount by the number of business days in which the acceptance of the deliverable was delayed. Liquidated damage amounts for failing to receive acceptance for a deliverable by its due date will not exceed five percent (5%) of the deliverable value per business day unless agreed to otherwise through negotiations with the Offeror. If assessed, the liquidated damages will not exceed the value of the deliverable.

- B. **Relating to Service Level Agreements** Within **Section II-1, Tab 5, “Contract Standards”**, Offerors are required to propose Service Level Standards and Service Level Objectives to measure performance against all approved standards and objectives for the contract. The Department intends to finalize performance measures as either Service Level Agreements or Service Level Objectives through negotiations with the Offeror, as well as amount of liquidated damages that may be assessed for those performance measures designated as Service Level Agreements.

PART II

PROPOSAL REQUIREMENTS

Offerors must submit their proposals in the format, including heading descriptions, outlined within Part II. To be considered, the proposal must respond to all requirements of the RFP. Offerors should provide any other information thought to be relevant, but not applicable to the enumerated categories, as an appendix to the Proposal. All cost data relating to this proposal and all Disadvantaged Business cost data should be kept separate from, and not included in the Technical Submittal. Each Proposal shall consist of the following **four** (4) separately sealed submittals:

- a. Technical Submittal, which shall be a response to RFP **Part II-1, Sections A – G, Tabs 1 through 7;**
- b. Disadvantaged Business Submittal, in response to RFP **Part II-2, Section H – I, Tabs 8 through 9;**
- c. Cost and Domestic Workforce Utilization Certification Submittal, in response to RFP **Parts II-3, Section J, Tab 10 and Part II, Section II-4;** and
- d. Contractor Partnership Program (CPP) Submittal in response to RFP **Part II-5.**

The Offeror must also complete and submit Appendix W: Proposal Cover Sheet with its proposal.

The electronic files submitted as part of an Offeror's proposal response must be limited to versions of Microsoft Word 2000, Excel 2000, and Project 2003. **(NOTE: PDF versions of any portion of the proposal response will NOT be accepted. The PDF requirement does not apply to copies of the Offeror's financial statements.)** The outline section headings shown in Part II **MUST** be used and each proposal page must be numbered for ease of reference. All portions of the proposal must be submitted in separate binders and all fonts must be font size 12 or larger. This font size requirement does not apply to graphics, tables, and Microsoft project plans.

The Department may request any additional information which, in the Department's opinion, is necessary to assure that the Offeror's competence, number of qualified employees, business organization, and financial resources are adequate to perform according to the RFP.

The Department may make such investigations, as deemed necessary, to determine the ability of the Offeror to perform the work, and the Offeror shall furnish to the Commonwealth all such information and data for this purpose as requested. The

Department may reject any proposal if the evidence suggests that the Offeror is not properly qualified to carry out the obligations of a contract and complete the work specified.

Examples provided within this Part II represent the minimum criteria for the respective topic.

II-1 Technical Response Requirements Responses to Tabs 1 through 7 must be bound, sealed, and identified separately as the Technical Proposal. Cost Data must not be presented in the technical portion of the proposal.

- A. **TAB 1 COVER LETTER** The Offeror must provide DPW with a primary contact person for the purposes of this RFP. Contact information for this individual should be displayed prominently in a cover letter and on the first page of the Offeror's Technical Submittal.

The following must be included in the Offeror's cover letter:

1. Contact information for the executive(s) in charge of the contract and the manager who will direct the project team on a day-to-day basis.
2. The name, title, phone number, facsimile number, mailing address, and work hours of a qualified Offeror representative who will be responsible for and available to answer any questions concerning the proposal.
3. Federal Employer Identification Number (FEIN) of the Prime Offeror and any subcontractors.
4. Signature of an authorized representative of the Offeror.

- B. **TAB 2 MANAGEMENT SUMMARY** DPW must acquire an Offeror to perform the tasks and services outlined in Part IV of the RFP immediately upon the Effective Date in the Letter of Notice to Proceed. Through their proposal, Offerors must demonstrate their expertise in providing effective management of large-scale business systems, application maintenance and modification, and operational support services. It must convey the Offeror's capability to provide a qualified staff that is prepared to begin these responsibilities within this timeframe.

In this Tab, the Offeror must include a brief narrative description of the proposed effort and a list of the items to be delivered or services to be provided. The summary will condense and highlight the contents of the technical proposal in a way that provides the Department with a broad understanding of the entire Technical Submittal.

1. Provide a description of the Offeror's understanding of the purpose of this RFP.
2. Present a summary of its proposal that includes an overview of the approach to completing the tasks identified in Part IV.
3. Present a description of how the staff resources required by this RFP will be provided. Include timeframes for providing these resources.

4. Explain how the project will be administered from a corporate level.
5. Explain how the prime Offeror plans to monitor and evaluate the performance of subcontractors (if used) and Offeror personnel.

C. TAB 3 APPROACH TO PROJECT START-UP For the purposes of this Tab, the Offeror should provide a discussion of the transition issues and solutions recognizing that three (3) months time will be available for the actual transition. The Offeror should present its understanding of how the PACSES project currently operates and describe how it would handle the transition from the current contractor to its proposed operating methods and structure. It should also recognize and discuss how the Offeror intends to interface with Commonwealth staff assigned to the project as well as other vendors that support the PACSES project.

Include a brief narrative description of the proposed effort and a list of the items to be delivered or services to be provided. The summary will condense and highlight the contents of the technical proposal in a way that provides the Department with a broad understanding of the entire proposal.

The current vendor, for the PACSES project, is under contract to provide services through June 30, 2007. (NOTE: In order to accommodate the extension for Offeror proposals, the Department will extend this contract through September 30, 2007.) The vendor will develop knowledge transfer plans. If any contracts are awarded as a result of this RFP for the PACSES project, the contract is expected to take effect July 1, 2007 to accomplish receipt of knowledge to ensure that by October 1, 2007, all the appropriate knowledge is obtained so that a sound takeover occurs. No costs will be reimbursed by the Commonwealth for knowledge transition services prior to October 1, 2007. However, vendors must propose knowledge transition costs as a deliverable with a due date no earlier than October 1, 2007. If there is no cost for this knowledge transition, indicate "none" or "no cost" in Appendix U. Due to the period July 1, 2007 through September 30, 2007, being solely designated for knowledge transition, no deliverables can have due dates prior to October 1, 2007.

D. TAB 4 WORK PLAN Describe in narrative form your technical plan for accomplishing the work. Use the task descriptions in Part IV of this RFP as your reference point. Modifications of the task descriptions are permitted; however, reasons for changes should be fully explained. Indicate the number of person hours allocated to each task. If more than one approach is apparent, comment on why you chose this approach. Offerors should also propose a timeline that includes the anticipated completion date for each task. Include an organizational chart of the proposed staffing and structure.

The Offeror must present all proposed deliverables in an organized format along with proposed due dates with an attachment giving a brief description of each deliverable. For those deliverables for which this RFP specifies a due date, the

Offeror may propose alternative due dates with justification; however, the Offeror should not assume that the Department will accept these alternate due dates.

- E. **TAB 5 CONTRACT STANDARDS** In this Tab, the Offeror must propose Service Level Standards and Service Level Objectives that DPW can use to monitor the selected Offeror's performance and ensure that the tasks included in the scope of this RFP are successfully completed. The Offeror must also describe the process that will be employed to measure and report its progress in meeting the proposed performance standards on a quarterly basis. These reports must allow the Department to assess the Offeror's performance against all approved standards for the current reporting period and historically throughout the contract period.

During contract negotiations, the Department intends to finalize the Service Level Agreements (SLA) and Service Level Objectives (SLO) consistent with other contracted DPW applications. For purposes of this RFP, the key difference between a SLA and a SLO is that a SLA will include financial penalties for failure to meet the agreed upon standard.

The intent of achieving agreed upon SLA/SLO standards is to ensure that the successful Offeror provides the efficient and effective services expected by the Department. The chart that immediately follows is a model and provides possible examples of SLAs/SLOs as a reference:

Service Level Agreements and Objectives

Description	Activities	Metric	Goal	Performance Target	Frequency of Review
<p>#1 Corrective Maintenance – defined as activities associated with root-cause analysis and bug-fix isolation and resolution:</p> <p>Root-cause analysis – Problems must be reviewed to determine their root causes, measures must be taken to correct the sources of the problems, and reports must be prepared and distributed in a timely manner.</p> <p>Bug fixes – Defined as the emergency repair of any system operation. This includes system errors. “hung” or halted screens, or unexpected results within the system that render it unusable for the purpose for which it was designed.</p>	1) Assist in problem prioritization	Response time			
	2) Provide immediate support on application failure – Provide call back to user	Time to acknowledgement			
	3) Provide application recovery from outages	Recovery time			
	4) Fix production system problems (includes code or data changes, testing, and deployment)	Correction time			
	5) Provide feedback and status reporting until the problem is resolved and closed	Intervals through resolution			
	6) Disseminate information to ensure effective user support	Response time			
	7) Disseminate information to prevent future reoccurrence of the problem	Lapse time following resolution			
	8) Implement and document changes in supporting environments (e.g., training)	Lapse time following resolution			

PA Department of Public Welfare
PACSES Application Maintenance and Operational Support Services

Description	Activities	Metric	Goal	Performance Target	Frequency of Review
#2 Application Monitoring Defined as periodic monitoring of production applications to assess application availability	Make use of monitoring tools to detect problems before they impact users	Unscheduled downtime			
#3 Adaptive Maintenance Defined as activities relating to upgrades or conversions to an application due to new versions of operating environment, including operating system, application server, or database software	Coordinate planning, scheduling, and deployment with designated DPW staff	Timeliness			
#4 On-Call Support Management – Staff available to respond to trouble calls beyond the established, routine work week	Establish points of contact who can rally appropriate staff in response to a problem report	Availability			
#5 Modification Requests Defined as existing PCRs pending resolution	Reduce the PCR backlog	Backlog size			
#6 Enhancement Assignments – Defined as coding tasks assigned including, but not limited to: A. New or added interfaces to other systems B. Adding new screens or modifications to existing screens C. Report creation D. Addition of data fields E. Business rule changes	Code and test in accordance with detailed program specifications	Timeliness			
		Defect Rates			
		Standards Compliance			
		Service Satisfaction			

F. TAB 6 OFFEROR QUALIFICATIONS

1. **Organizational Status** The Offeror must describe its corporate identity, legal status and forms, including name, address, telephone number, facsimile number, and email address for the legal entity with whom the contract will be written. In addition, please provide the name and address of the principal officers, a description of its major services, its legal status as a for-profit or not-for-profit company, and any specific licenses and accreditations held by the Offeror.

Offerors must provide similar organizational background information on any significant subcontractor (exclusive of affiliates). A significant subcontractor is defined as an organization undertaking more than ten percent (10%) (on a total cost basis) of the work associated with this RFP.

2. **Financial Information** Offerors must submit information about the financial conditions of the company in this section. This section is distinct from Part II-3 Cost Submittal. No information required in the Cost Submittal should be included in this section or anywhere else other than in the Cost Submittal. Failure to provide all information requested below may result in disqualification. Financial Statement information will not be a part of a publicly accessible finalized contract. The Offeror must provide the following information as an appendix to the proposal:
 - a. The identity of a related party who may have submitted a proposal, and how the other party meets the definition of a related party. Compliance with this requirement does not require an Offeror to seek out information that it does not already have available.
 - b. The identity of each entity that owns at least five percent (5%) of the proposing entity. Provide the below required information on the proposing entity, and for each entity that owns at least five percent (5%) of the proposing entity, and for any proposed subcontractors that will be providing goods/services equal to ten percent (10%) or more of the proposed contract value. If any information requested is not applicable or not available, provide an explanation. Offerors may submit appropriate documentation to support information provided.
 - c. Audited financial statements for the two (2) most recent fiscal years for which statements are available. The statements must include a balance sheet, statement of revenue and expenses, and a statement of cash flows. Statements must include the auditor's opinion, the notes to the financial statements, and management letters submitted by the auditor to the Offeror. If audited financial statements are not available, explain why, and submit unaudited financial statements.
 - d. Unaudited financial statements for the period between the last month covered by the audited statements and the month before the submission of the proposal.

- e. Documentation about lines of credit that are available, including maximum credit amount and amount available thirty (30) days prior to the submission of the proposal.

The Offeror must provide copies of all proposed subcontracted arrangements as an appendix to the Technical Submittal and include the following information:

- a. The full name and address of any proposed subcontractor in which the Offeror has a five percent (5%) or more ownership interest. The Offeror will provide a copy of its Financial and Accounting Policies and Procedures.
- b. The full name and address of any organizations with which the Offeror anticipates subcontracting. The Offeror must describe how it will ensure a smooth working relationship with subcontractors.
- c. A list of any financial interests the subcontractor may have in its organization or any financial interest its organization has in proposed subcontractors.
- d. Information about any pending litigation.

The Offeror should include in this Tab a general statement regarding its corporate resources and financial stability that demonstrates its ability to perform the work required in this RFP.

The Offeror must append its financial documentation rather than including it in the main body of the Technical Submittal.

- 3. **Prior Experience** Offerors must provide the Department with information on up to three projects that were similar to this project in size, scope, and complexity. Additionally, the Offeror should describe other projects that it believes will establish its ability to successfully complete the requirements of the RFP.

For each identified project, Offerors must provide a summary information sheet(s) that includes the following information:

- a. the name of the client;
- b. the name of the project;
- c. a brief narrative description of the scope of the work performed, including types of reports provided;
- d. the role of the prime Offeror;
- e. the time period of the project (and whether it is currently in place);
- f. the staff months expended in transfer, design, development, implementation, and operation phases;
- g. the scheduled and actual completion dates for development, implementation, program training, and operations tasks;
- h. a disclosure of liquidated or other damages imposed or sought against the Offeror, including the circumstances and amounts involved;

- i. the subcontractor(s) used in each project, their scope of work, the percentage of the subcontractor(s) work on the project as well as, any client references as defined above; and
- j. a client reference (including name, address, email address, and current telephone number of the responsible project administrator or manager who is familiar with the Offeror's performance).

DPW may conduct reference checks to verify the accuracy of submitted materials and to ascertain the quality of past performance. DPW may pursue any reference that may assist in completing the Technical Proposal evaluation. Reference checks shall be used in scoring this and previous sections of the RFP.

- G. TAB 7 OBJECTIONS AND ADDITIONS TO STANDARD CONTRACT TERMS AND CONDITIONS** The Offeror will identify which, if any, of the terms and conditions contained in **Appendix A: Contract Terms and Conditions** or **Appendix B: DPW Addendum to Standard Contract Terms and Conditions** it would like to renegotiate and what additional terms and conditions the Offeror would like to add to these standard contract terms and conditions. The Offeror's failure to make a submission under this paragraph will result in its waiving its right to do so later, but DPW may consider late objections and addition requests if to do so, in DPW's sole discretion, would be in the best interest of the Commonwealth. DPW may, in its sole discretion, accept or reject any requested changes to the standard contract terms and conditions. The Offeror may not request changes to other provisions of the RFP, nor any Offeror request to completely substitute its terms and conditions be substituted for **Appendix A: Contract Terms and Conditions** and/or **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**. All terms and conditions must appear in one integrated contract. DPW will not accept references to online guides or online terms and conditions contained in any proposal.

Regardless of any objections set out in its proposal, the Offeror must submit its proposal, including the cost proposal, on the basis of the terms and conditions set out in **Appendix A: Contract Terms and Conditions** and **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**. The Department will reject any proposal that is conditioned on the negotiation of terms and conditions other than those set out in **Appendix A: Contract Terms and Conditions** and **Appendix B: DPW Addendum to Standard Contract Terms and Conditions**.

II-2 Disadvantaged Businesses/Enterprise Zone Small Businesses Utilization

- H. TAB 8 DISADVANTAGED BUSINESSES INFORMATION** DPW is committed to increase Disadvantaged Business (DB) participation levels in

Commonwealth procurements. Since the scoring for DB portion of the proposals will represent an important component of the evaluation of this RFP, actual DB participation will be a measurable performance standard in any contract that may be awarded for this RFP.

- i. To receive credit for being a Small Disadvantaged Business or a Socially Disadvantaged Business, or for entering into a joint venture agreement with a Small Disadvantaged Business or for subcontracting with a Small Disadvantaged Business (including purchasing supplies and/or services through a purchase agreement), an Offeror must include proof of Disadvantaged Business qualification in the Disadvantaged Business Submittal of the proposal, as indicated below:
 - 1) Small Disadvantaged Businesses certified by BMWBO as a MBE/WBE must provide a photocopy of their BMWBO certificate.
 - 2) Small Disadvantaged Businesses certified by the U.S. Small Business Administration pursuant to Section 8(a) of the *Small Business Act* (15 U.S.C. §636(a)) as an 8(a) or small disadvantaged business must submit proof of U.S. Small Business Administration certification. The owners of such businesses must also submit proof of United States citizenship.
 - 3) All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must attest to the fact that the business has one hundred (100) or fewer employees.
 - 4) All businesses claiming Small Disadvantaged Business status, whether as a result of BMWBO certification or U.S. Small Business Administration certification as an 8(a) or small disadvantaged business, must submit proof that their gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax or audited financial statement.
- ii. All businesses claiming status as a Socially Disadvantaged Business must include in the Disadvantaged Business Submittal of the proposal clear and convincing evidence to establish that the business has personally suffered racial or ethnic prejudice or cultural bias stemming from the business person's color, ethnic origin or gender. The submitted evidence of prejudice or bias must:
 - 1) Be rooted in treatment, which the businessperson has experienced in American society, not in other countries.

- 2) Show prejudice or bias that is chronic and substantial, not fleeting or insignificant.
- 3) Indicate that the businessperson's experience with the racial or ethnic prejudice or cultural bias has negatively impacted on his or her entry into and/or advancement in the business world.

BMWBO shall determine whether the Offeror has established that a business is socially disadvantaged by clear and convincing evidence.

- iii. In addition to these verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:
 - 1) The name and telephone number of the Offeror's project (contact) person for the Small Disadvantaged Business.
 - 2) The business name, address, name and telephone number of the prime contact person for each Small Disadvantaged Business included in the proposal. The Offeror must specify each Small Disadvantaged Business to which it is making commitments. The Offeror will not receive credit for stating that it will find a Small Disadvantaged Business after the contract is awarded or for listing several companies and stating that one will be selected later.
 - 3) The specific work, goods, or services the Small Disadvantaged Business will perform or provide.
 - 4) The estimated dollar value of the contract to each Small Disadvantaged Business.
 - 5) Of the estimated dollar value of the contract to each Small Disadvantaged Business, the percent of the total value of services or products purchased or subcontracted that will be provided by the Small Disadvantaged Business directly.
 - 6) The location where each Small Disadvantaged Business will perform these services.
 - 7) The timeframe for the Small Disadvantaged Business to provide or deliver the goods or services.
 - 8) The amount of capital, if any, each Small Disadvantaged Business will be expected to provide.
 - 9) The form and amount of compensation each Small Disadvantaged Business will receive.

- 10) In the case of a joint venture agreement, a copy of the agreement, signed by all parties.
 - 11) For a subcontract a signed subcontract or letter of intent.
- iv. The Offeror is required to submit only **one** (1) original and one (1) copy of its Disadvantaged Business Submittal. The submittal shall be clearly identified as Disadvantaged Business information and sealed in its own envelope separate from the remainder of the proposal.
 - v. The Offeror must include the dollar value of the commitment to each Small Disadvantaged Business in the same sealed envelope with its Disadvantaged Business Submittal. The following will become a contractual obligation once the contract is fully executed:
 - 1) The amount of the selected Offeror's Disadvantaged Business commitment.
 - 2) The name of each Small Disadvantaged Business; and
 - 3) The services each Small Disadvantaged Business will provide, including the timeframe for performing services.
 - vi. A Small Disadvantaged Business can be included as a subcontractor with as many prime contractors as it chooses in separate proposals.
 - vii. An Offeror that qualifies as a Small Disadvantaged Business and submits a proposal as a prime contractor is not prohibited from being included as a subcontractor in separate proposals submitted by other Offerors

I. TAB 9 ENTERPRISE ZONE SMALL BUSINESS PARTICIPATION

- i. To receive credit for being an enterprise zone small business or entering into a joint venture agreement with an enterprise zone small business or subcontracting with an enterprise zone small business, an Offeror must include the following information in the Disadvantaged Business Submittal of the proposal:
 - 1) Proof of the location of the business' headquarters (such as a lease or deed or Department of State corporate registration), including a description of the activities that occur at the site to support the other business in the enterprise zone.
 - 2) Confirmation of the enterprise zone in which it is located (obtained from the local enterprise zone office).

- 3) Proof of United States citizenship of the owners of the business.
 - 4) Certification that the business employs one hundred (100) or fewer employees.
 - 5) Proof that the business' gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax or audited financial statement.
 - 6) Documentation of business organization, if applicable, such as articles of incorporation, partnership agreement or other documents of organization
- ii. In addition to the above verifications, the Offeror must include in the Disadvantaged Business Submittal of the proposal the following information:
- 1) The name and telephone number of the Offeror's project (contact) person for the Enterprise Zone Small Business.
 - 2) The business name, address, name and telephone number of the primary contact person for each Enterprise Zone Small Business included in the proposal. The Offeror must specify each Enterprise Zone Small Business to which it is making commitments. The Offeror will not receive credit for stating that it will find an Enterprise Zone Small Business after the contract is awarded or for listing several businesses and stating that one will be selected later.
 - 3) The specific work, goods, or services each Enterprise Zone Small Business will perform or provide.
 - 4) The estimated dollar value for the contract to each Enterprise Zone Small Business.
 - 5) Of the estimated dollar value of the contract to each Enterprise Zone Small Business, the percent of the total value of services or products purchased or subcontracted that each Enterprise Zone Small Business will provide.
 - 6) The location for each Enterprise Zone Small Business will perform these services.
 - 7) The timeframe for each Enterprise Zone Small Business to provide or deliver the goods or services.

- 8) The amount of capital, if any, each Enterprise Zone Small Business will be expected to provide.
 - 9) The form and amount of compensation each Enterprise Zone Small Business will receive.
 - 10) For a joint venture agreement, a copy of the agreement, signed by all parties.
 - 11) For a subcontract, a signed subcontract or letter of intent.
- iii. The dollar value of the commitment to each Enterprise Zone Small Business must be included in the same sealed envelope with the Disadvantaged Business Submittal of the proposal. The following will become a contractual obligation once the contract is fully executed:
- 1) The amount of the Offeror's Enterprise Zone Small Business commitment;
 - 2) The name of each Enterprise Zone Small Business; and
 - 3) The services each Enterprise Zone Small Business will provide including the timeframe for performing services.

II-3 Cost Submittal

J. TAB 10 COST SUBMITTAL

1. **Background** The information requested in this section II-3 and the associated **Appendix U: Cost Submittal Templates** (which includes directions at **Tab 1** of the worksheet) where Offerors must complete pricing and cost verification worksheets shall constitute the Cost Submittal. **Offerors must complete all "tabs" and worksheets in Appendix U and the failure to complete all "tabs" and worksheets in Appendix U in their entirety may result in automatic disqualification of the proposal.** The Cost Submittal shall be placed in a separate sealed envelope within the sealed proposal, separated from the technical submittal. Failure to meet this requirement may result in disqualification of the proposal. All electronic and hard copy submittals must be **exact** duplicates. If they are not, the hard copy will take precedence with the Commonwealth. The total cost proposed must be completed in a Microsoft Excel format and broken down into the components listed in **Appendix U. For pricing purposes, assume that Audit Clause "D" will apply.**

Offerors should direct in writing to the RFP Project Officer pursuant to **Part I, Section I-9** of this RFP any questions about whether a cost or other

component is included or applies. All Offerors will then have the benefit of the Department's written answer so that all proposals are submitted on the same basis.

2. **Pricing Proposal Components** For a contract that may be issued as a result of this RFP, the Department intends to enter into a firm fixed priced deliverables based agreement. Offerors must propose pricing within their cost submittals for the following components:
 - a. **Project Deliverables** Offerors must identify and propose project deliverables, due dates, and pricing for the following major tasks and services as identified in the Work Statement, at Section IV of this RFP:
 - i. All Knowledge Transition/Receipt Services
 - ii. All Project Management Services
 - iii. All Application Support Services
 - iv. All Turnover Services/Knowledge Transfer Services

Although Application Maintenance and Modification hours are limited, this RFP does not restrict or prescribe the number of hours proposed for the four (4) categories of project deliverables, or the overall hours proposed for the contract. However, Offerors must disclose total hours assigned to each of the four (4) categories of deliverables when pricing them on Appendix U, to support the deliverables pricing for each category. All proposed deliverables should be presented in an organized format along with proposed due dates and an attachment should be provided giving a brief description of each deliverable. All deliverables that specify a due date within this document must be accepted by the due date specified unless the Offeror proposes for negotiation alternative due dates that the Commonwealth agrees to through negotiations.

Costs for facilities (and any occupancy costs), materials, supplies, equipment, and audit (assume Audit Clause D will apply) must be itemized and priced separately from all specific deliverables proposed, but will be priced on Tab 2 of Appendix U, titled "Project Deliverables".

- b. **Project Application Maintenance and Modifications** Offerors must provide the Department with pricing for Application Maintenance and Application Modification tasks as defined within the Work Statement, in Section IV of this RFP. The DPW has provided Offerors with an estimated number of hours for each of these two (2) tasks within the Work Statement as well as on Appendix U, Tab 3, where Offerors must propose pricing for these tasks. Based upon generally recognized industry standards, the Department anticipates that

approximately seventy-five percent (75%) of the total estimated hours will be consumed by application maintenance tasks and twenty-five (25%) by application modification tasks. Offerors must price these services by proposing an hourly rate for each personnel classification/title performing this work. Offerors may allocate total hours for each service amongst personnel classifications/titles, but total hours cannot exceed the limit established by the Department. Offerors must understand that during the term of any contract, these tasks will be subject to a change control process that will enable both parties to establish and agree on firm fixed price deliverables.

- c. Rate Card** Offerors must also complete the rate card sheet located in **Tab 4 of Appendix U** for each potential contract year (including the option years). These rates will represent the firm fixed hourly rates Offerors are proposing for proposed staffing necessary to complete work during the contract period. These rates will then be used in conjunction with the annual scoping sessions, which help define work needed for the next contract year to determine contract costs. Offerors must list all possible position titles that the Offeror may use during the contract to perform the work. Offerors must also include a list, for each job position offered, that defines the job position and the types and years of experience that is required for that job position.
 - d. Cost Verification** Offerors must complete **Tab 5, “Cost Verification” of Appendix U**. The information requested in this section is required to support the reasonableness of Offeror’s total year-one (1) pricing and is for internal use only. Unless required by law or court of competent jurisdiction, this information will not be disclosed to competing Offerors. The total amount proposed on **Tab 5** must equal proposed costs from both **Tab 2** (Project Deliverables) and **Tab 3** (Application Maintenance and Modifications). Offerors must provide full disclosure of itemized direct costs included within personnel classification hourly rates, (wages, labor overhead, etc.) as well as indirect costs (general overhead costs, etc.).
- 3. General Information** The purpose of cost information is to determine the underlying cost factors of the Offeror’s proposal and to assess its feasibility.

For all pricing “tabs” within **Appendix U**, Offerors should indicate “no cost” or \$0, rather than leaving an item blank.

Additional details on the actual requirements for the PACSES Project can be found in the Work Statement, located within Section IV of this RFP.

The Department will reimburse the selected Offeror for work satisfactorily performed after execution of a written contract and the start of the contract term, in accordance with contract requirements, and only after the Department has issued a notice to proceed.

II-4 Domestic Workforce Utilization Certification

K. TAB 11 DOMESTIC WORKFORCE UTILIZATION CERTIFICATION

Complete and sign the Domestic Workforce Utilization Certification contained in **Appendix I** of this RFP. Offerors who seek consideration for this criterion must submit in hardcopy the signed Domestic Workforce Utilization Certification Form in the same sealed envelope with the Cost Submittal.

II-5 Contractor Partnership Program (CPP)

L. TAB 11 CONTRACTOR PARTNERSHIP PROGRAM (CPP) To receive credit for a response to the Contractor Partnership Program, Offerors must include the following information in the Contractor Partnership Submittal of their proposal:

- Company's name, telephone number, and address.
- Address of the company's headquarters. If located in Pennsylvania, identify the county..
- The name, title, telephone number, address, and email of the project (contact) person for the Contractor Partnership Program.
- Address of all offices located within Pennsylvania. Identify the county where the office is located.
- Name, address, and telephone number of subcontractors, if applicable.
- If subcontractors are the primary service delivery providers, list the address of all their offices located within Pennsylvania, including the county where the offices are located.
- Type of services being provided.
- Anticipated number of employees assigned to this project.
- Anticipated number of welfare recipients that will be hired for this project.
- Type of positions needed for this project. (Specify management versus non management positions)
- Type of business entity. (i.e., not for profit, government entity, public corporation, university)

In addition to the basic information requested above, each Offeror must answer the following questions as they relate to hiring and retaining individuals receiving welfare:

- Describe the recruitment strategies that will be utilized by the Offeror to obtain qualified welfare clients.
- How will the Offeror ensure the retention of applicants hired through the CPP and maintain its performance goals throughout the existence of the contract?
- What steps will the Offeror take to ensure professional development opportunities are available to new hires to advance beyond entry level positions?
- Describe the methods that will be implemented to recruit, hire, and retain welfare recipients.

Offerors are only required to submit one (1) original and one (1) copy of its CPP Submittal. This Submittal must be clearly identified as CPP information and sealed in its own envelope, separate from the remainder of the proposal.

PART III

CRITERIA FOR SELECTION

III-1 Mandatory Responsiveness Requirements To be eligible for selection, a proposal must be

- (a) timely received; and
- (b) properly signed by the Offeror.

III-2 Technical Nonconforming Proposals Except for those Mandatory Responsiveness Requirements listed in Section III-1, the Department, in its sole discretion, may waive nonconformities in an Offeror's proposal.

III-3 Evaluation DPW has selected a committee of qualified personnel to review and evaluate timely submitted proposals. Independent of the committee, BMWBO will evaluate the Disadvantaged Business Submittal and DPW's CPP will evaluate the CPP Submittal and provide DPW with ratings for these components of each proposal. The Department will then notify in writing of its selection for negotiation the responsible Offeror whose proposal is determined to be the most advantageous to the Commonwealth as determined by the Department after taking into consideration all of the evaluation factors. The Department will award a contract only to an Offeror determined to be responsible in accordance with the most current Commonwealth Management Directive 215.9, ***Contractor Responsibility Program***.

III-4 Criteria for Selection The following criteria will be used in evaluating each proposal:

A. Technical Evaluation Criteria

1. **Commitment to Perform:** The evaluation committee will evaluate the degree to which the Offeror's proposed solution, organizational policies, methodologies, and work processes will meet DPW's needs. Evaluators will also consider if the Offeror's response indicates an in-depth understanding of the complexities of this project, the need to integrate PACSES into DPW's existing business processes, and the unique requirements of this project.
2. **Ability to Perform:** The evaluation committee will evaluate the knowledge, number, skills, and experience of the resources and organizational structures proposed by the Offeror to ensure quality performance of the activities described in the RFP. Evaluators will also consider if key personnel meet or exceed the minimum qualifications included in the task-level descriptions of the Work Statement.

3. **Measurement and Analysis:** The evaluation committee will evaluate the project management plan of the Offeror's proposal. Evaluators will also review the work plan to ensure it identifies all the tasks and resources required to support the ongoing maintenance of PACSES and that the project timeline proposed by the Offeror meets DPW requirements. The project management plan will also be evaluated to determine how the Offeror will manage project reporting; status meetings; change management; deliverable reviews, defined in **Appendix S: DPW Deliverables Review Process Guideline**; issue tracking; quality assurance; and the like.
 4. **Verification of Performance:** The evaluation committee will evaluate and determine if the Offeror's solution encompasses an adequate number of reviews, audits by management, and software quality assurance tasks to ensure the quality of all of the activities performed and the outputs they produce.
- B. Cost** The evaluation committee will evaluate the Offeror's Cost Submittal in relation to those submitted by other Offerors. The Cost Proposal shall detail the total fixed price for each activity during the contract period. If a contract is awarded, the Commonwealth will not pay or be liable for any other additional costs.
- C. Disadvantaged Business Participation/Enterprise Zone Small Business Participation**
1. **Disadvantaged Business Participation**
Evaluation will be based upon the following in order of priority:
 - i) **Priority Rank 1** Proposals submitted by Small Disadvantaged Businesses.
 - ii) **Priority Rank 2** Proposals submitted from a joint venture with a Small Disadvantaged Business as a joint venture partner.
 - iii) **Priority Rank 3** Proposals submitted with subcontracting commitments to Small Disadvantaged Businesses.
 - iv) **Priority Rank 4** Proposals submitted by Socially Disadvantaged Businesses.

Each proposal will be rated for its approach to enhancing the utilization of Small Disadvantaged Businesses and/or Socially Disadvantaged Businesses. Each approach will be evaluated, with Priority Rank 1 receiving the highest score and the succeeding options receiving scores in accordance with the above-listed priority ranking.

To the extent that a proposal is submitted by a Small Disadvantaged Business or a Socially Disadvantaged Business, the Small Disadvantaged Business or Socially Disadvantaged Business cannot enter into subcontract arrangements for more than forty percent (40%) of the total estimated dollar amount of the contract. If a Small Disadvantaged Business or a Socially Disadvantaged Business subcontracts more than forty percent (40%) of the total estimated dollar amount of the contract to other contractors, the Disadvantaged Business Participation scoring shall be proportionally lower for that proposal.

2. **Enterprise Zone Small Business Participation** The following options will be considered as part of the final criteria for selection.
- i) **Priority Rank 1** Proposals submitted by an Enterprise Zone Small Business will receive the highest score.
 - ii) **Priority Rank 2** Proposals submitted by a joint venture with an Enterprise Zone Small Business as a joint venture partner will receive the next highest score for this criterion.
 - iii) **Priority Rank 3** Proposals submitted with a subcontracting commitment to an Enterprise Zone Small Business will receive the lowest score for this criterion.
 - iv) **Priority Rank 4** Proposals with no Enterprise Zone Small Business Utilization shall receive no points under this criterion.

To the extent that an Offeror is an Enterprise Zone Small Business, the Offeror cannot enter into contract or subcontract arrangements for more than 40% of the total estimated dollar amount of the contract in order to qualify as an Enterprise Zone Small Business for the purposes of this RFP.

- D. **Domestic Workforce Utilization** Each proposal will be scored for its commitment to use domestic workforce in the fulfillment of the contract. Maximum consideration will be given to those Offerors who will perform the contracted direct labor exclusively within the geographical boundaries of the United States. Those who propose to perform a portion of the direct labor outside of the United States will receive a correspondingly smaller score for this criterion. Offerors who seek consideration for this criterion must submit in hardcopy the signed Domestic Workforce Utilization Certification Form in the same sealed envelope with the Cost Submittal. The certification will be included as a contractual obligation when the contract is executed.

- E. **Contractor Partnership Program (CPP)** Each proposal will be rated based on the responses to questions in Section II of this RFP and the commitment to hiring from the Welfare-to-Work population.

PART IV

WORK STATEMENT

IV-1 Work Statement / Service Specifications The Offeror will be responsible for the management, application maintenance, modification, and operational support tasks in support of the Pennsylvania Child Support Enforcement System (PACSES). All work performed and products produced in support of PACSES must adhere to the DPW Business and Technical Standards and Guidelines and the Commonwealth's Office for Information Technology (OIT) standards, refer to www.oit.state.pa.us .

This section of this RFP defines the major tasks and services that are to be completed by the Offeror to maintain and operate PACSES during the contract period. These services are divided into the following groups:

- **Knowledge Transition** – The Offeror will be responsible for knowledge transfer and must assume responsibility for activities currently being handled by the incumbent vendor.
- **Project Management** – The Offeror will be responsible for identifying, establishing, coordinating, monitoring, and providing project management for all services, activities, and resources necessary for the successful completion of the tasks related to PACSES as identified in this RFP.
- **Application Maintenance** – The Offeror will be responsible for the maintenance of the production system to ensure that all present PACSES functionality is maintained and the system is operating efficiently and effectively to serve its ever-growing user and customer community.
- **Application Modification** – The Offeror will be responsible to assist in the planning and prioritization of modifications and to complete all approved modifications based on DPW's System Development Methodology (SDM).
- **Application Support Services** – The Offeror will be responsible for performing and maintaining the following operational items for PACSES:
 - Implementation Support
 - System Reporting
 - Help Desk Operations
- **Turnover Services** – The Offeror will be responsible for providing a turnover plan that identifies the critical tasks that need to occur to provide a smooth and orderly turnover of functions between the outgoing vendor and the new Offeror and/or State Staff with minimal disruption to the operation.

IV-2 GENERAL INFORMATION PACSES is an operationally stable system that meets federal certification requirements, federal and state laws and regulations, and the general business needs of the county Domestic Relations Section users. The system has minimal down time (greater than 99.9% availability) and consistently provides sub-second response time. The nightly, weekly, and monthly batch processes run within the off-hour time limitations (average daily batch time is seven (7) hours). The number of outstanding incidents (system bugs) has been reduced significantly and many major functionality improvements have been completed since PRWORA certification in 2001. Some Federal law mandates specified in Federal Deficit Reduction Act of 2005 legislation will be completed in the current legacy system before this contract is effective. The remaining federal law mandates will be completed by the selected Offeror during this contract period as further defined in this Work Statement.

For this RFP, the selected Offeror must continue to maintain and operate current PACSES and provide application support services. Current PACSES includes the core mainframe system and ancillary systems that are integral to child support operations. These ancillary systems include a data warehouse, a customer service web site, case and data management systems, a medical provider data management system, an intranet, and an electronic reports repository system. Maintenance includes the sustaining of the system components to meet federal and state mandates and operational efficiencies.

During the term of the contract resulting from this RFP, the selected Offeror will be expected to:

- i) Operate and maintain the PACSES mainframe application and ancillary server-based systems.
- ii) Provide application support services.
- iii) Meet or exceed current system performance standards for response time, system availability, and batch completion timeframes.
- iv) Provide the services and tasks as specified in this RFP with the Commonwealth of Pennsylvania project staff serving in an oversight, contract monitoring, and deliverable review capacity.

IV-3 ORGANIZATION OF PENNSYLVANIA'S CHILD SUPPORT PROGRAM

- A. **Child Support Program Operations** The Pennsylvania child support program is state-administered, court-based, and county-operated. DPW is the agency responsible for the administration of the Title IV-D Child Support Program. The delivery of child support services in Pennsylvania occurs as a result of a Cooperative Agreement between the DPW and the sixty-seven (67) county governments.

The county Domestic Relations Sections (DRSs) operate the child support program in accordance with the provisions of the Cooperative Agreement, State and Federal laws, and the administrative rules and regulations

governing child support enforcement. The DRSs provide the following services to the public: establish paternity on behalf of children; establish legal orders obligating parents to pay child support, including health insurance coverage for their children; locate parents for the purpose of establishing paternity and/or support; collect, distribute and disburse child support monies; and enforce court order compliance through all available administrative and legal remedies.

The DRSs have been utilizing the current PACSES since 1998 to assist in conducting the daily child support business which includes developing and maintaining case data for all members, compiling court order information, and recording activities relating to the management of each client's case.

The Office of Income Maintenance (OIM), Bureau of Child Support Enforcement (BCSE) within DPW administers the Title IV-D Child Support Enforcement Program under the Social Security Act as amended. BCSE consists of four (4) divisions; however, within the scope of this RFP the Division of Automated Child Support Enforcement Systems (DACSES) is responsible for the day-to-day operation and maintenance of current PACSES; and, the Division of Program Development and Evaluation (DPDE) that is responsible for the following services:

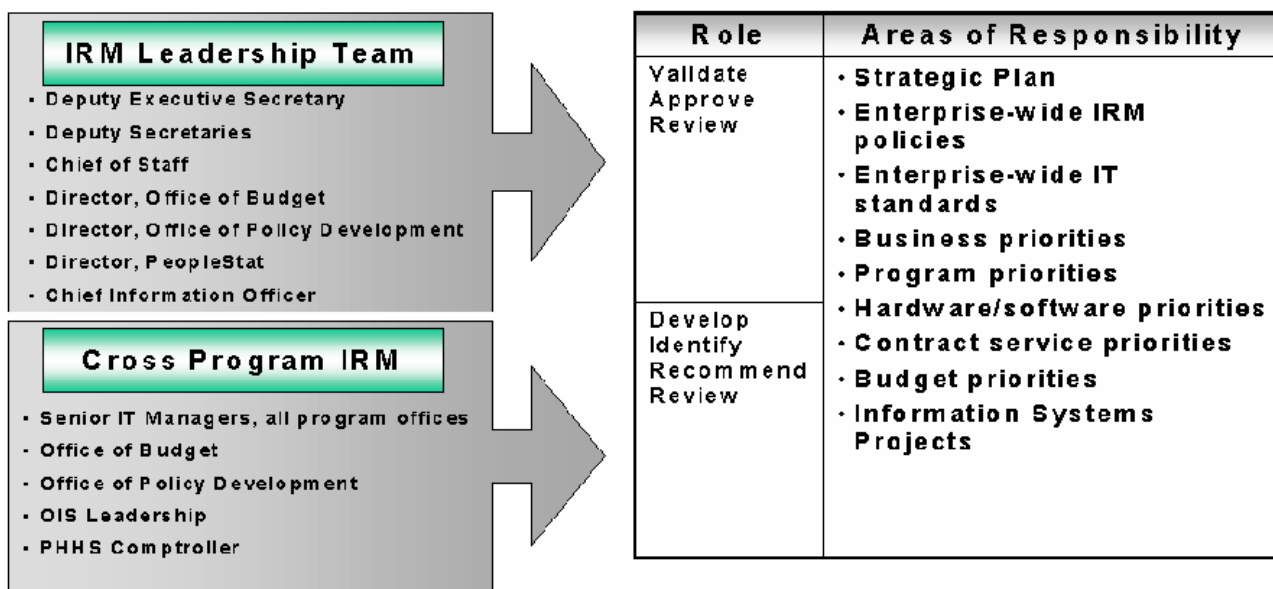
1. Provides policy interpretation, information and operational assistance to DRSs, and issues directives.
2. Publishes procedural manuals, develops and disseminates public informational child support materials and brochures.
3. Provides all child support program reports to the Federal government required by federal regulations.
4. Coordinates federal audits of the child support program and, when necessary, implements statewide corrective action plans.
5. Conducts performance audits of the operation of the child support program within individual county offices.
6. Sponsors and evaluates pilot projects designed to improve child support programs and operations.
7. Reviews and approves systems development, maintenance, and enhancement activities.

Appendix L: BCSE Organization Chart provides the structure of BCSE and DACSES.

The Office of Administration, Bureau of Information Systems (BIS) within the Department of Public Welfare plans, develops, implements, and manages a comprehensive Information Resource Management (IRM) program for the DPW. The purpose of the IRM program is to ensure the coordinated, effective, and efficient employment of information resources in support of DPW business goals and objectives.

Information Resource Management is based on the premise that information should be treated as a resource of strategic value to organizations. Organizations must recognize that data is a resource – as indispensable to success as raw materials, facilities, cash reserves, and employees. The IRM team looks for ways in which the management of information and the management of Information Technology are interrelated and fosters that interrelationship and organizational integration. The focus is on information rather than technology as the key enterprise asset – a subtle, yet important, difference between IRM and IT.

BIS provides Department-wide direction and coordination of IT plans, research, engineering, standards, policy, applications development, infrastructure management, customer support, program and project management, technical training, and information resource management. The Cross Program IRM team and their responsibilities are depicted in the following diagram. A functional description for the BIS is provided as Appendix K.



B. Child Support Systems Management DACSES is responsible for the day-to-day oversight and management of the entire set of PACSES applications. Currently this includes the PACSES mainframe application, the ancillary systems, the State Collections and Disbursement Unit, and the network infrastructure. DACSES oversees two primary contracts to accomplish its child support systems management responsibilities.

Twenty (20) Commonwealth staff members are assigned to DACSES and provide day-to-day project management, coordination, and control activities. These staff provide day-to-day direction to the contracted resources, monitor

vendor performance, review and approve deliverables, and participate in design, develop, testing, and implementation planning. This state staff also oversees current system maintenance and support service responsibilities. The Department does not anticipate any significant increases in this staff at this time.

The following is a description of the key roles and responsibilities of the PACSES Project Manager role and each of the DACSES managers:

1. **DACSES Division Chief** Manages the Commonwealth staff assigned to the division and oversees the day-to-day operation and maintenance of PACSES.
2. **Application Services Manager** Manages and supervises the application design and development efforts associated with the Intake, Enforcement, Locate, Scheduling, Interstate, Interfaces, History, Security, and Reference Tables subsystems. The Application Services Manager provides day-to-day direction to the Commonwealth-designated subsystem functional leads for each of these subsystems and contracted resources with functional responsibilities in these areas. The Application Services Manager manages the change controls, incidents, and production support issues for these functional areas of the application and provides related direction and leadership of the system.
3. **Financial Programs Manager** Manages and supervises the application design and development efforts associated with the Aging, Billing, Support Order Establishment, Collections, Distribution, Disbursement, and Financial Accounting subsystems. The Financial Programs Manager provides day-to-day direction to the Commonwealth-designated subsystem functional leads for each of these subsystems and contracted resources with functional responsibilities in these areas. In addition to the financial subsystems outlined above, this person also manages the Statewide Collections and Disbursement Unit (SCDU). The Financial Programs Manager manages all issues and incidents associated with financial-related change controls and enhancements as well as for production support issues, and will provide related direction and leadership of the system.
4. **User Services Manager** Manages and supervises the applications and services that impact PACSES users to include the following subsystems/functional areas: Child Support Web Site, Data Warehouse, Reports, Integrated Voice Response, and Data Management/Data Integrity. Additionally, this manager has oversight responsibilities for coordinating conference planning, coordination with Pennsylvania Child Support Enforcement Training Institute (PACSETI), the Content Delivery Network/PACSES TV (CDN), the PACSES Home Page (PHP-Intranet), and network operations. Federal audits and reporting as related to system tasks are within this area of responsibility.

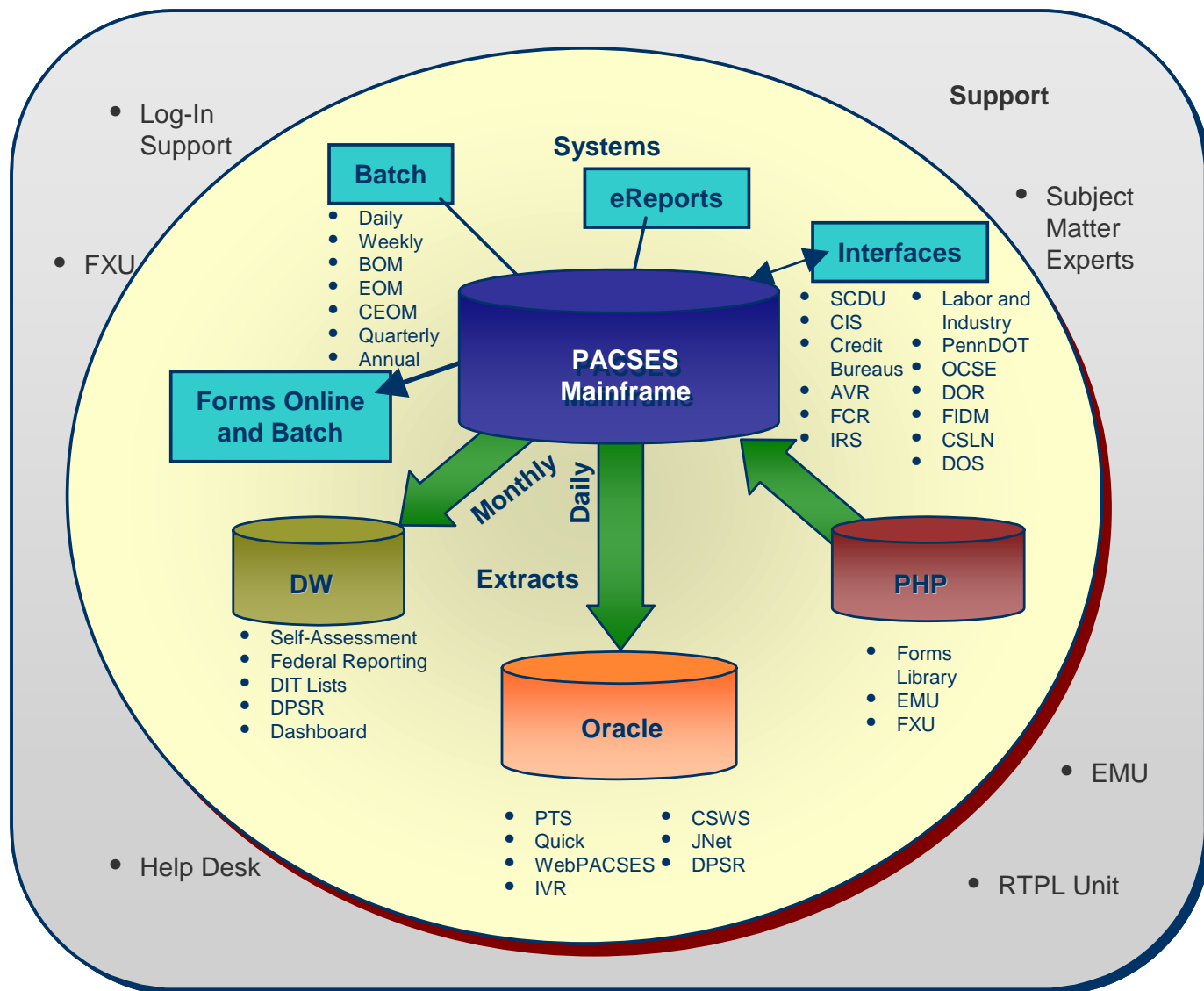
IV-4 OVERVIEW OF THE CURRENT PACSES TECHNICAL ENVIRONMENT

IV-4.1 General Information PACSES is a member-based on-line and batch system that provides automation of the Commonwealth's Child Support Enforcement (CSE) program. The original design was based on a transfer of the New England Child Support Enforcement System which was built in the late 1980s utilizing hierarchical data base structures and centralized mainframe technology. This design has been enhanced to meet federal, state, and user requirements. Enhancements to the mainframe design and the addition of several ancillary systems using Oracle on a server platform during the past five (5) years has produced a system that generally meets the business requirements of the user community. Significant performance enhancements have occurred during the past ten (10) years to allow online and batch performance on the mainframe system to remain within acceptable levels.

Currently, PACSES serves over four thousand (4000) registered users at seventy-three (73) separate locations including the sixty-seven (67) county judicial offices and the Commonwealth's central and four (4) regional offices. The system network includes approximately thirty-three hundred (3,300) workstations statewide. The PACSES mainframe system supports a caseload of approximately seven hundred thousand (700,000) cases.

PACSES in a Picture:

The diagram shown on the next page provides a pictorial overview of the current PACSES technical environment.



IV-4.2 Technical Architecture

A. Technical Environments PACSES operates in two technical environments; a Unisys ClearPath mainframe system and a Unisys ES7000 server system.

- 1. Mainframe System** PACSES operates on a Unisys IX6800 ClearPath mainframe system with a DMS 1100 hierarchical database and an RDMS relational database via a TCP/IP WAN. The production system includes eleven hundred (1,100) dynamically linked application programs, containing approximately three million (3,000,000) total lines of executable code with data stored and accessed on more than six hundred (600) database tables. Of these programs, thirty percent (30%) execute on-line

processing and seventy percent (70%) perform batch processing. Source code is written in Unisys COBOL – 8R1. The on-line transaction volume is approximately 2 million to 2.5 million per day.

System deliverables and software have been developed on local PCs using DPW's structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction for batch and on-line modules is accomplished on the mainframe. Numerous other system tools are being utilized for development and maintenance including Case Tools, Testing Tools, Louis II, and Unisys IQU.

The PACSES application utilizes Jet Forms software (third party product) for the production of all forms. PACSES includes over three hundred (300) unique form templates with a monthly production volume of one million form outputs. The vast majority of the forms are printed locally at the user's site online (75%) or as a result of the nightly batch (25%). About a quarter of the online forms require additional data be inserted in the form by the user before delivery to the client. The "filler" forms are delivered via the email system to the users' desktop where the additional data elements are added. Forms are available for reprint for a limited time period (ten days) and a very small portion is archived.

PACSES was developed using a middleware technology called the PACSES Support Layer (PSL). Its function is to provide an application programming environment that is isolated from the programming interfaces provided by the underlying operating system. The terms 'layer' and 'middleware' relate to the common practice of viewing a computing system in terms of abstraction layers. In this view, a middleware product like PSL is an additional layer inserted between the application programs and the operating system.

Direct usage of operating system interfaces by application programs is not allowed, except to the extent those interfaces are part of standard COBOL. The support layer's interface to the application programs is well defined and strictly separate from the support layer's internal documentation.

To the extent feasible, application programs are carefully isolated from the operating system. For example, with a few exceptions all DMS database input/output (I/O) is done by calling support layer code. This allows many characteristics of the database management software to be hidden from application programs. In particular, PSL hides the underlying data model, providing a much simpler and more abstract notion of database I/O. This

greatly simplifies PACSES application programs. All RDMS database I/O is done by SQL coding located within the respective application program module.

Each application program is required to conform to one of the program models defined in the PSL Programmer's Reference. Each model defines the structure of a COBOL application program. The models are a transaction driven program, a batch program, and a report program.

Application software is promoted through five environments: Development, System Test, Test for Production, Training, and Production. System software is migrated and tracked through all environments to mainframe production versions via custom-build databases. PACSES has a daily, weekly, end of month (last weekend of month), calendar end of month, and beginning of month batch cycle processes.

Access to PACSES online system is required Monday through Friday 7:30 AM to 5:30 PM; Wednesday evening till 9:00 PM and Saturday morning from 8:00 AM to 12:00 PM. The PACSES Holiday schedule for 2007 is provided in **Appendix R**. This further defines the system support and batch execution time requirements. The Offerors should assume similar time frame requirements for 2008 and 2009.

2. **Server System** DPW and the Data Power House (DPH) vendor, hereafter referred to as DPHV, collectively manage the hosting environment for all DPW server-based applications. The following PACSES applications utilize the DPW Oracle database environment:
 - Child Support Web Site (CSWS)
 - Data Warehouse (DW)
 - Web PACSES (financial and diary archive)
 - Interactive Voice Response system (IVR)
 - Intranet (PACSES Home Page)
 - CSWS Co-Browsing
 - Voluntary Acknowledgement of Paternity Tracking System (PTS)
 - DRS-at-a-Glance
 - DRS Directors' Dashboard
 - Login Support Administration Module
 - Justice Network (JNET)
 - Employer Maintenance Application (EMU)
 - Financial Exceptions Request (FXR)

B. Child Support Web Site The Child Support Web Site application server operates on a three (3) node cluster of 4 CPU ES7000 servers in a load balanced configuration. The database server currently runs Oracle 10g on a Windows 2003, 4 CPU ES7000/420 servers configuration running Oracle 10g. The Production application consists of five (5) modules and one (1) administrative module; and two hundred-forty-five (245) stored procedures that represent four hundred-fifty-thousand (450,000) lines of code. The Production database is comprised of eighty-seven (87) tables, containing two hundred-fifty-million (250,000,000) rows of data and consuming approximately 45GB of storage space. There are thirty-seven (37) batch programs that run nightly that update the CSWS database with updated mainframe information for that current business day. The code is comprised of COM+, ASP.NET, PL/SQL, and SQL Loader components. There are approximately two hundred thousand (200,000) hits on the CSWS daily and eight thousand-five hundred (8,500) unique visitors per day.

System deliverables and software have been developed on local PCs using DPW's structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction for batch and on-line modules is accomplished in the Development environment. From there, the software is migrated through the environments (Integration, System Acceptance Test, Test for Production), and ultimately to Production.

Templates have been developed for each program type and developers are required to integrate these as a basis for any new development effort. These templates have been defined and described in several project control documents that outline the standard programming practices to be employed for that development. Templates will be provided in the PACSES Library, **Appendix T: PACSES Library (Documentation Listing)**

C. Web PACSES The Web PACSES application operates on an 8 CPU ES7000 server as the application/web server. The database server currently runs on a Windows 2003, dual 8 CPU ES7000 server configuration running Oracle 10g. The Production application includes twenty-five (25) programs, fifty-seven (57) stored procedures that represent three hundred thousand (300,000) lines of code. The Production database is comprised of twenty-four (24) tables, containing seven hundred-fifty million (750,000,000) rows of data, and consuming approximately 197GB of storage space. There are four (4) batch programs that run nightly that update the CSWS database with updated mainframe security information for that current business day. The code is comprised of ASP.NET, PL/SQL, SQL Loader, and SQL Server Reporting Services components. There are approximately twenty thousand (20,000) hits on Web PACSES daily and three hundred (300) unique visitors per day.

System deliverables and software have been developed on local PCs using a structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction for batch and on-line modules is accomplished on the development environment at the Willow Oak building of the DGS Annex Complex. From there, the software is migrated through the environments (Integration, System Acceptance Test, Test for Production), and ultimately to Production.

- D. Data Warehouse** The PACSES Data Warehouse operational configuration includes a 4 CPU ES7000 COGNOS application server, a 4 CPU ES7000 Informatica server. The database server runs on a Windows 2003, dual 8 CPU ES7000 server configuration running Oracle 10g. The PACSES Data Warehouse is comprised of forty-five (45) cubes (MDC files), three hundred-fifty (350) queries, and consumes 400GB of disc space. The source data for the PACSES Data Warehouse is forty-five (45) flat files that are created by the mainframe during calendar end of month processing. These source files are loaded into the PACSES Data Warehouse Oracle tables using one hundred-sixty-three (163) Informatica mappings. The PACSES Data Warehouse is comprised of twenty-nine (29) fact tables that are loaded each month with data and forty-six (46) static dimension tables. After the data is loaded to Oracle, Cognos Impromptu queries are run in a batch by BIS to refresh the cubes with the latest data. The cubes are then migrated to Production and accessed by the end users through the Cognos Series 7 Upfront. There are approximately twelve thousand (12,000) hits on the Data Warehouse each month and about one hundred-twenty-two (122) unique visitors per month.

System deliverables and software have been developed on local PCs using a structured system development methodology. Analysis and design deliverables are produced primarily in Microsoft Word and other Microsoft Office packages. These deliverables are the major source of system documentation supporting system quality assurance, impact analysis, and change management. Construction of the Cognos Impromptu queries and Informatica mappings is done on local PCs and migrated to the development environments at the Willow Oak building of the DGS Annex Complex. From there, the software is tested and migrated to Production.

IV-4.3 Functional Design PACSES consists of a mainframe application and server based applications.

A. Mainframe System PACSES consists of seventeen (17) subsystems. These subsystems perform the following functions:

Case Intake	Automates the client intake and interactive application process.
Client Scheduling	Creates worker schedules and schedules client appointments.
Establishment	Provides automated processes for the following business activities: (1) paternity establishment; (2) establishment of new orders; (3) modification of existing orders; (3) termination of existing orders; (4) suspension and reinstatement of existing orders; and (5) guideline calculation of orders.
Enforcement	Identifies delinquency or non-compliance with support orders. Monitors compliance with financial and non-financial support order obligations, suggests appropriate remedies, and tracks the processing of those remedies.
Locate	Supports the process of locating missing case and member-level data regarding custodial and non-custodial parents
Interstate	Responsible for requests for child support functions to be performed in other states on behalf of Pennsylvania and allows Pennsylvania to respond to requests for assistance from other states.
Aging	Accrues a defendant's obligation(s) according to the terms of the support order. Monitors an account for payment and detects delinquency.
Billing	Summarizes the obligation(s) and produces a monthly billing file for payors and employers.
Support Order	Enables three key features: (1) entering the financial obligations of a support order and creating the basic structure through which the obligations will be charged, collected, distributed, and disbursed automatically through the Aging, Billing, Distribution, and Disbursement subsystems; (2) enter non-financial obligations of a support order and create the basic structure through which these obligations will be automatically charged and tracked; and (3) enter fees that must be paid defendant

PA Department of Public Welfare
PACSES Application Maintenance and Operational Support Services

Collections	Provides the receipt processing function of PACSES. Posts payments received from different sources and interfaces with the SCDU. Information about unidentified receipts is maintained by the collections subsystem.
Distribution	Facilitates the process of allocating collections for disbursement in accordance with the Commonwealth's established distribution hierarchy.
Disbursement	Directs payments to the appropriate payee and/or disbursement recipients. Performs the payment production and disbursement at the Commonwealth's Statewide Collections and Disbursements Unit (SCDU).
Integrated Centralized System (ICS)	Interfaces with the Pennsylvania Department of Treasury to facilitate money transfers for assigned child support collections.
Reference Tables	Creates, maintains, and displays code values commonly needed by workers using PACSES and by the PACSES programs.
History Maintenance	Maintains on-line and archived historical data from the PACSES system.
Security Maintenance	Controls internal authorization for read-write access to subsystems and functions within PACSES.
IV-A / IV-D Interface	Processes Child Support referral and payment data between PACSES and the Department's TANF system, known as CIS – Client Information System.

Within these subsystems there are active interfaces with other agencies. These interfaces exchange data on standard daily, weekly, and monthly schedules. The following table provides summary-level information regarding current interfaces.

System / Agency	Frequency	# Outgoing files / # Incoming files
Automated Voice Response (AVR)	Daily	68 Outgoing
Client Information System (CIS)	Daily	1 Outgoing 4 Incoming
Code 1 (Address Normalization)	Daily	3 Outgoing
Comptroller	Daily	9 Outgoing
Child Support Enforcement Network (CSENet)	Daily	1 Outgoing 2 Incoming
Child Support Lien Network (CSLN)	Daily	1 Incoming
Child Support WebSite (CSWS)	Daily	19 Outgoing 5 Incoming
Federal Case Registry (FCR)	Daily	2 Incoming

PA Department of Public Welfare
PACSES Application Maintenance and Operational Support Services

Justice Network (JNET)	Daily	1 Outgoing
Labor and Industry (L&I)	Daily	1 Outgoing 3 Incoming
PennDOT	Daily	1 Outgoing 5 Incoming
State Collections and Disbursement Unit (SCDU)	Daily	14 Outgoing 3 + Incoming
Treasury	Daily	1 Outgoing
CIS	Weekly	1 Incoming
Comptroller	Weekly	1 Outgoing
CSWS	Weekly	2 Outgoing
Department of Revenue	Weekly	1 Incoming
Federal Case Registry (FCR)	Weekly	1 Outgoing
Financial Institution Data Match (FIDM)	Weekly	1 Incoming
Internal Revenue Service (IRS)	Weekly	1 Outgoing 1 Incoming
JNET	Weekly	1 Outgoing
L&I	Weekly	2 Outgoing 2 Incoming
PennDOT	Weekly	2 Outgoing 1 Incoming
SCDU	Weekly	2 Outgoing 1 Incoming
IRS	Bi-Weekly	2 Incoming
CSENet	Semi-Monthly	1 Incoming
Bureau of Child Support Enforcement (BCSE)	Monthly	1 Outgoing
Bureau of Information Systems (BIS)	Monthly	1 Outgoing 2 Incoming
CIS	Monthly	2 Outgoing
Child Support Lien Network	Monthly	1 Outgoing
Credit Bureaus (4 separate)	Monthly	4 Outgoing
Data Warehouse	Monthly	32 Outgoing
Department of Revenue	Monthly	1 Outgoing 1 Incoming
Department of State	Monthly	1 Incoming
Financial Institution Data Match (FIDM)	Monthly	1 Outgoing
SCDU	Monthly	3 Outgoing
IRS	Quarterly	1 Incoming
Social Security Administration – Interstate Case Reconciliation (SSA – ICR)	Ad Hoc	1 Outgoing 1 Incoming

TOTALS		178 Outgoing 42 + Incoming
---------------	--	---------------------------------------

Detailed documentation on the PACSES application is available in the PACSES library, reference **Appendix T**. A subsystem overview contains explanations of the functions and processes within the subsystems, inputs to and outputs from the subsystem, and interface requirements.

B. Server Systems

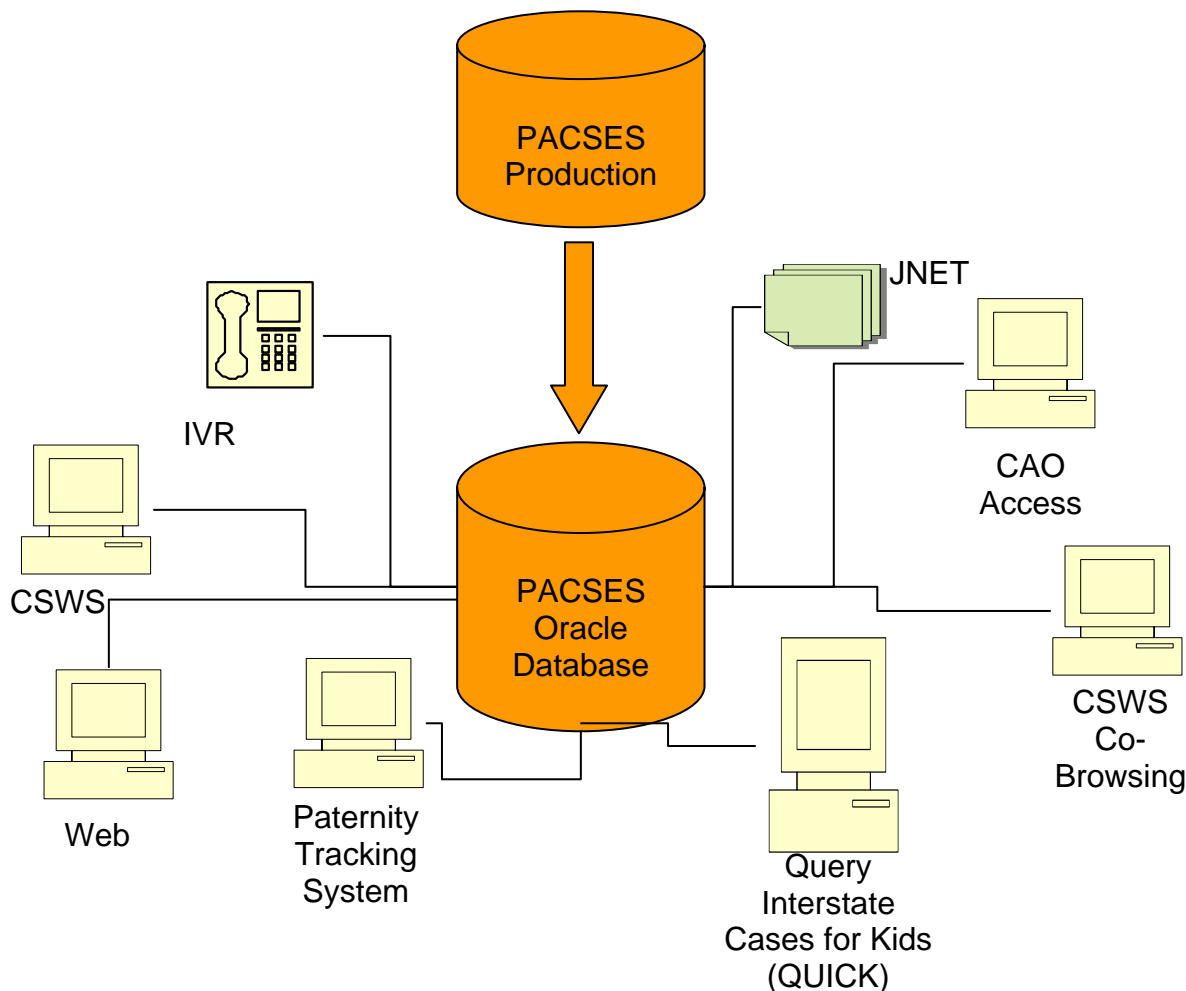
1. **Web PACSES** Financial and case activity records that are more than two (2) years old are archived to the Oracle database environment on an annual basis. PACSES users are provided access to this data via a web-based Intranet application. Users performing account audits and other research will continue to get current financial information from the on-line PACSES system; if the information they need is more than two (2) years old, users must navigate to the Archive database to perform their research.

Most of the archived records, after they are successfully archived to the new database, are purged from the mainframe PACSES database. After records are purged the PACSES mainframe database is reorganized to optimize storage and enhance performance.

2. **Child Support Web Site** The PACSES Child Support Website (CSWS) is an interactive web-based application which provides a variety of services to individuals involved in the PA Child Support Program. The following services are provided:
 - a. Secure access to case and financial information; future scheduled events and docket information; provide employer tips for payor, etc.
 - b. Secure access to wage attachment and employee information for employers of individuals involved in the child support program.
 - c. Secure access to publicly available docket and lien information to attorneys, financial institutions, credit bureaus, and the general public
 - d. Secure self-service capabilities to payors, payees, and employers, which include but not limited to:
 - i) Update demographic information
 - ii) Register to receive email notification of Electronic Funds Transfers (EFT) and stored value card disbursements, and scheduled events
 - iii) Maintain employee wage attachment information
 - e. General program information, child support program services, policy/legal information, child support terms, frequently asked questions, county contact information, etc.
 - f. Refresh Tuesday through Saturday the server systems from the mainframe primary data source.

In addition to the public-facing website, the following ancillary applications are also supported as part of the overall CSWS systems:

- i) Co-Browsing – allows county and state staff who have access to the PACSES Home Page to view child support case and financial information
- ii) Login Support Administration module – provides maintenance tools for customer support unit and program office by issuing surveys, broadcast messages, enabling/disabling accounts, password resets, etc.
- iii) Interactive Voice Response System – the financial module accesses the Oracle DB to provide client specific information
- iv) Paternity Tracking System – Database of information collected through the voluntary Paternity Acknowledgement form
- v) DRS-at-a-Glance – Table of county DRS demographic and contact information which enables county staff to directly update information presented through the Child Support Web Site
- vi) JNET – method of providing information on Child support Obligors through the Justice Network
- vii) EMU – data base of employer data used to send forms
- viii) FXR – method of exchanging specified financial case information between county DRS and a central processing unit



3. **PACSES Home Page** The PACSES Home Page (PHP) is a system of hardware and software components which reside on the PACSES network. The PHP is a secure Intranet available to state, county, and local government staff. There are a number of applications which are processed through the PHP:

- a. Employer Maintenance (EMU)
- b. Financial Exceptions Request (FXR)
- c. Medical Operations Maintenance (MOM)
- d. Request Third Party Liability (RTPL)
- e. Data Integrity Tasks (DIT)
- f. Data Services Processing Requests (DPSR)
- g. CSWS Co-Browsing
- h. CSWS Administration Module
- i. IRS Survey
- j. DRS-at-a-Glance
- k. Forms Library
- l. PACSES Intranet Website

4. **Support Magic** PACSES utilizes Support Magic software to manage change requests, track software defects, project activities, and inventory management. Support Magic is a proprietary web-based COTS product which is supported by an Oracle database.

C. Data Management

1. **Data Integrity** Data Integrity Tasks (DIT) lists are a set of case and member listings that are delivered via an interactive web-application residing on the PHP. All DIT lists can be downloaded to Excel for further analysis. DIT lists have been organized into five (5) general categories:
 - a. Affects performance measures - Reducing these cases will improve the State's overall performance.
 - b. Affects interfaces - Reducing these cases will improve interfaces with other agencies.
 - c. Affects data integrity in general - identifies data integrity issues that must be corrected to ensure data reliability.
 - d. Systematic updates - Provides a history of systematic correction of data in PACSES existing data for the implementation of new software.
 - e. Historic DIT lists - Provides a history of DIT lists that have been manually corrected.
2. **Data Warehouse** PACSES includes a data warehouse component that is part of the Department of Public Welfare's enterprise Data Warehouse application. The application is hosted and operated by the Bureau of Information Systems (BIS). The PACSES Data Warehouse (DW) is designed to provide monthly snapshots of data regarding the Title IV-D Child Support Enforcement (CSE) Program for the Commonwealth of Pennsylvania. The main source of data for the DW is the Pennsylvania Child Support Enforcement System (PACSES) application. Data is extracted from PACSES twice each month and loaded into the DW for CSE staff across the state to use for reporting Title IV-D CSE Program information. During the End of Month (EOM) batch processing – the last business day of the month – all data for the month (except disbursements to DPW) are extracted. During Beginning of the Month (BOM) batch processing – the first Friday of the month all Department of Public Welfare (DPW) disbursements for the prior month are extracted. The extracted information is loaded to the DW and the reports are refreshed the following week.

After the data is loaded into the DW, CSE staff can view and create reports using the Cognos user interface. Cognos is a software tool that provides a web-based interface allowing a user to view and manipulate reports. Currently, there are twenty-eight (28) child support-related “cubes” in the warehouse, as follows:

- a. Attachments
 - b. Cases
 - c. Collections
 - d. Disbursements
 - e. Distributions
 - f. Member Roles
 - g. Members
 - h. Non-distributed collections
 - i. Obligations
 - j. Support Orders
 - k. OCSE 34a (and 1 pre-run report)
 - l. 7 - OCSE 157 cubes
 - m. 8 - Self Assessment cubes
 - n. Driver's License Suspension
 - o. New Hire Collections
3. **eReports** PACSES production reports (non-IRS) are generated at the end of daily, weekly, monthly, end of calendar month, beginning of calendar month, quarterly, and annual batch cycle periods.

These reports are sent to the PHP web server and can be accessed by the DRS workers. DRS workers are able to view the county reports, both for their county and other counties, if needed. Additionally, workers can choose which reports to print. DRS workers do not have access to state level or SCDU reports.

Federal Tax Information (FTI) reports are similar to e-Reports, but fall under special IRS regulations for data security. The FTI Report server is required to maintain six (6) years of FTI reports. On the FTI Report server all reports for the years 2001, 2002, 2003, and 2004 are collapsed into processing year folders (example: '2002-PY') and these folders can be expanded to view the years' worth of preformatted reports.

FTI and e-Reports provide the ability for users to customize the reports by creating sorts on multiple columns, creating filters, and selecting the data elements that they want to appear on the report. Users are able to save their custom settings for each report, so that the custom settings are applied whenever the user opens that report. Both FTI and e-Reports provide auditing to track the usage of each report. FTI provides additional auditing features so the state can perform audits of the IRS data usage, as required by the IRS.

4. **Director's Dashboard** The DRS Directors' Dashboard is an intranet application that was built to support the following needs of DRS Directors:

- a. Provides a simple, consolidated interface for DRS Directors to obtain a quick snapshot of key indicators for their county (e.g., Performance Incentive Ratios, Caseload Information, Collections, and Disbursements).
- b. Provides assistance to Directors in identifying reports which may help to improve performance incentive ratio.
- c. Provides Directors with visibility into how their county is using these reports

The information in the Dashboard is refreshed monthly, after all source data is available (following PACSES BOM processing). The Dashboard is accessible via the PACSES Home Page (PHP). After the refresh each month, an email is sent to the authorized users containing a link to the Dashboard. Only DRS Directors and their authorized representatives have access to this tool.

5. **FXR** The Financial Exceptions Request application is an ancillary system accessed via the PACSES Home Page. DRS staff, BCSE staff, and SCDU staff are required to enter requests for modification and correction of PACSES financial records into the FXR database. The FXR application provides secure request tracking and audit capabilities which are used by the Financial Exceptions Unit to identify and track adjustments, receipt reversals, collection and distribution holds, and misapplied payment corrections for PACSES cases. Access to the FXR application is limited to authorized users at BCSE, the DRSSs, and SCDU. The selected Offeror must provide support/maintenance to the Financial Exceptions Request application, as well as maintenance of the FXR database.
6. **DPSR** In response to the increasing demand for ad-hoc data delivery by the DRS users, BCSE, and other external stakeholders, the Data Processing Service Request (DPSR) process was developed. The DPSR application is used to receive, evaluate, process, and deliver ad-hoc data requests. Stakeholders submit DPSRs to obtain specific data that can assist with the following tasks:
 - a. Evaluation of County performance,
 - b. Evaluation of Statewide program initiatives, such as the outcomes and effectiveness of Enforcement remedies,
 - c. Data clean-up activities (through generating case listings where data may be missing or incorrect),
 - d. Reorganization of local offices for better management and delivery of services, and
 - e. Prioritization of daily activities.

The DPSR process provides a uniform mechanism for submitting requests and enables the PACSES team to effectively obtain/modify the information requested, assign requests to the appropriate person and track the requests through completion. All DPSRs are submitted electronically via

the DPSR on-line request form on the PACSES Home Page (PHP), and are stored in a tracking database (MS Access).

D. Central Data Operations Several data management functions are centralized for improved control and accuracy. Contracted staff currently perform these functions with oversight by DACSES.

1. **Employer Maintenance** The Employer Maintenance application interfaces with the Child Support Website and generates a list of changes to employers. The Employer Maintenance Unit (EMU) verifies this information before updating it on the PACSES mainframe. Counties can also submit and query change requests, through a server-based tracking and control application (developed in Microsoft Access). Offeror must provide support/maintenance to the Employer Maintenance application and the Financial Exceptions Request application.

2. **Medical Operations Maintenance** Medical maintenance functions are currently being defined as a result of new interfaces between PACSES and the Third Party Liability Unit. PACSES data files are being matched with Health Insurance Providers to identify coverage for children. Some of this information is loaded automatically to the PACSES medical information record. Information that cannot be automatically loaded needs further research by contacting health insurance providers, employers, and clients. This unit provides research activities to determine valid information to load to PACSES.

E. Network Management The PACSES Network is administered by Lockheed Martin Services Inc. through a contract with the DPW. The selected Offeror must work with this vendor in planning network infrastructure impacts of current system maintenance activities and new systems development and implementation activities. The following information describes the network and the general responsibilities of the network infrastructure vendor.

The PACSES infrastructure is comprised of approximately seventy-three (73) county sites, the PACSES Project Site, the Bureau of Child Support Enforcement and its field offices, the PACSES Mainframe Operation, and other system interfaces such as the State Collection and Disbursement Unit (SCDU), Departments of Labor and Industry, Transportation, Revenue, and Electronic Parent Locator Network. Approximately three thousand-three hundred (3,300) desktop PCs (presently the vast majority are IBM Pentium 4. 2.26 GHz), two hundred (200) + servers, and seven hundred-fifty (750) printers are in use. The daily management of PACSES requires support of all network devices in the network except for the Frame Relay connections provided by the Commonwealth of Pennsylvania through its contract with Verizon. The list of devices includes: desktop PCs; Windows 2000 and Windows 2003 servers; Cisco 2600 series routers; and Ethernet hubs and

switches, as well as, the PACSES dedicated cabling plant in each county. The servers have been upgraded to Windows 2003. The Ethernet hubs and switches are being upgraded to a model 3500 Cisco switch. The Offeror support team is the only entity to have the Administrator passwords and administers the boxes using Remote Control (a Computer Associates Product) and Terminal Services. PACSES is a high availability system with a standard of 99.5% network availability.

The vendor supports all email and Web access and monitoring. The vendor maintains the Internet firewall system. Internet access is provided at the PACSES Project Site through Steel City Broadband. The Project Site houses a computer room for all the Internet servers and routers; and also includes a PACSES internal centralized Microsoft Exchange server farm that services PACSES users. The server farm also interfaces with the Department of Public Welfare/Commonwealth mail system (CWOPA). The PACSES email system provides routine email services and also serves as the mechanism for delivering certain types of the PACSES forms using Adobe JetForms software. Approximately three hundred (300) varying types of forms are delivered in this manner to Domestic Relations Offices, which translates to approximately one million (1,000,000) forms per month.

The network vendor provides Levels II and III Help Desk support for the approximately four thousand (4000) user group. The vendor handles an average of thirty (30) – fifty (50) calls a week from this user group. The Offeror for this RFP will provide Level I helpdesk support and passes Level II and III calls to the network vendor's support team. Level II and III helpdesk support includes: tracking calls, resolving problems that are within the scope of the Network Contract, and referring calls to the statewide hardware maintenance vendor when necessary. The Offeror will monitor all open calls to insure that the hardware maintenance vendor is complying with the contractual time frames for service and resolution, and works with this vendor to insure resolution. This includes preparing reports and attending meetings with the hardware maintenance vendor.

The vendor supports County PACSES LAN interfaces to local county data processing networks in about one-half of the seventy-three (73) DRs via the PACSES provided on-site Cisco 2600 router. The vendor maintains the existing network virus and software releases and monitors new technology to recommend and implement changes to the PACSES network when a return on investment warrants.

IV-4.4 Requirements

A. Application Maintenance Services

1. Provide ongoing operational support for the PACSES mainframe and server applications. These activities must be provided in conjunction with the Commonwealth's Data Powerhouse Contract with Unisys Corporation

and under the direction of DPW's BIS. Reference **Appendix V: PACSES Mainframe Operations Responsibilities Matrices**.

2. Provide application maintenance services for the mainframe and server applications to enable efficient system performance.
3. Provide application maintenance service for the mainframe and server applications to correct system errors, aborts or incorrect data results.
4. Provide application maintenance services to the mainframe and server applications to correct problems that impede efficient work processes and affects users across multiple counties.

B. Application Modification Services

1. Provide application modifications to the mainframe and server applications that improve the performance of the child support program in Pennsylvania.
2. Provide application modifications to the mainframe and server applications resulting from Federal law mandates, State law mandates, or Court rule mandates.
3. Utilize the change control process to complete application modifications during the contract period. The selected Offeror will be responsible for the design, development, testing, and implementation of the change controls and application maintenance fixes.

C. Application Support Services

1. Provide ongoing data management services. These services include the ongoing completion of Data Processing Service Requests (DPSR), Data Integrity Task (DIT) lists, eReports that are currently defined and operational; and the loading and daily maintenance activities associated with the Data Warehouse. Approximately, seventy (70) DPSRs need to be run per month (existing programs run against new data extracts), thirty (30) DIT lists need to be maintained monthly (reports refreshed against new data extracts) along with the routine monthly maintenance (refreshed data) of the eReport system and Data Warehouse.
2. Provide Subject Matter Expert (SME) services to support the daily operational needs of the DRSs and Child Support central operations. SME services handle help desk level II calls from DRSs, act as a liaison with a county DRS systems coordinator, review and update user documentation, analyze business/system process issues, and participate in troubleshooting maintenance and operational support service issues. Current operations employ seven (7) SMEs.
3. Provide Help Desk Level I services which log, document respond, resolve, or refer DRS user issues with the PACSES system. Referrals are made to SME support level II or network support level II. Nine hundred (900) calls per month are projected. Current operations employ three (3) advanced clerical level positions for this purpose.
4. Provide medical operational maintenance services. The selected Offeror will be required to operate a Medical Operations Maintenance Unit (MOM)

that will perform the tasks listed below. Current operations employ three (3) advanced clerical level positions for this purpose.

- a. Review the results of data matching activities; and based on specific guidelines, research the validity of medical support information.
- b. Based on results and specific criteria, this staff will determine if the information will be added to PACSES.
- c. Add medical information to PACSES through direct input or by creating lists to be added.

IV-4.5 PACSES Task Requirements The Offeror must complete the following major tasks. The tasks must be developed in accordance with applicable federal child support certification requirements, state laws and regulations, court rules, and subject to Commonwealth technology and business standards.

- a. Task 1 – Knowledge Transition
- b. Task 2 – Project Management
- c. Task 3 – Application Maintenance and Modification Services
- d. Task 4 – Application Support Services
- e. Task 5 – Turnover Services

A. **Task Overview** The Offeror must describe how each task and service is to be accomplished. Emphasis must be given to the procedures proposed to accomplish the scope of work under the contract. For all tasks described in this Section, the Offeror is required to provide the following items:

1. Provide a detailed description as to how the Offeror proposes to complete the tasks required and the methodology planned to support the successful accomplishment of the requirements specified.
2. Propose a detailed schedule of deliverables recommended to support the solution and methodology proposed above. Offeror must propose deliverables that are part of the Offeror's overall approach and methodology for each of the areas outlined in this part of the RFP. All deliverables produced by the Offeror pursuant to this RFP shall become and remain the property of the DPW, which shall exercise sole authority over the use and distribution of said materials.
3. Provide a high level Work Plan detailing the activities and timeframes required to complete each of the tasks. The Offeror must fully describe the approach, methods, and specific work steps for doing the work on this Project and producing the Deliverables.
4. Propose Service Level Agreements (SLA) and Service Level Objectives (SLO), following the format provided in **Section II-1, Tab 5 Contract Standards**, that ensures the tasks required in this RFP are successfully completed.
5. The selected Offeror will measure and report progress in meeting performance standards, with the specific timeframe and frequency will be determined through contract negotiations. These reports must allow the

Department to assess performance against all approved standards for the current reporting period and historically throughout the contract period.

6. An organizational chart illustrating how the Offeror proposes to administer, manage, and oversee all aspects of the specified tasks. Include reporting relationships and the responsibilities of each position. Include the names, classifications, and qualifications of the proposed staffing by prime, state, or subcontractor resources.

B. Knowledge Transition The selected Offeror will be responsible for knowledge transfer to assume maintenance and application support activities currently being handled by the incumbent vendor. The contract will provide a ninety (90) day transition period from the incumbent vendor to the selected Offeror. The transition period is critical and necessary in order to effectuate knowledge transfer to the incoming Offeror's staff. A continuation of the services provided by the PACSES application and a smooth transition is imperative to Pennsylvania citizens who are dependent on the child support services. This knowledge transition is crucial to understanding how to continue the smooth operation of the system and readily fix operational problems if they occur.

1. Knowledge Transition Task Responsibilities

- a. The selected Offeror must provide a well-planned and executed transition of the operation and maintenance activities currently being executed by the incumbent vendor associated with the PACSES system and functions included in the scope of this RFP.
- b. The selected Offeror must ensure that knowledge transfer occurs in such a manner so that it is able to independently operate and maintain the current system.
- c. The selected Offeror must receive the turnover of the operation and management of all business functions no later than the end of the transition period. This turnover must be planned and managed in an orderly fashion so that no disruption of service to users and/or clients takes place.

2. Knowledge Transition Task Required Items

- a. The Offeror must provide a detailed transition work plan describing how the Offeror proposes to use the transition period.
- b. The Offeror must provide the procedures and criteria for ensuring the quality of transferred system activities including, but not limited to the following items:
 - i. Work materials such as software, system documentation and development support tools;
 - ii. Institutional knowledge including crucial design tradeoffs made to meet performance goals and methods used to isolate operational problems; and
 - iii. Responsibilities for managing the system lifecycle.

- C. **Project Management** The Offeror will be responsible for identifying, establishing, coordinating, monitoring, and providing project management of all services, activities, and resources necessary for the successful completion of the tasks related to PACSES as identified in this RFP.

The Department's Project Governance provides a foundation for the organized and consistent planning and execution of projects. More specifically, it defines the roles and responsibilities project teams perform during a project. In the Department of Public Welfare (DPW), a six (6) team structure is used. These six (6) teams consist of the Steering Team, Project Management Team, Development Team, Testing Team, User Education Team, and Logistics Team. High level goals for each team are as follows:

- Steering Team - Satisfied customers and strategic alignment.
- Project Management Team - Deliver projects within project constraints.
- Development Team - Design and build to project specifications.
- Testing Team - Release after addressing all issues.
- User Education Team - Enhance user performance.
- Logistics Team - Smooth deployment and ongoing management.

While the Department's Project Governance structure, defined in **Appendix J: DPW Project Governance Teams: Detailed Roles and Responsibilities** and **Appendix N: Business Review Board and Architectural Review Board Guidelines**, is the management framework for individual projects, the Department's Program Management Methodology is the framework used to manage overall IT project development to assure that new projects meet business and technical standards. As new components to existing systems are proposed, portions of this process apply to those components. The Management Methodology is described in **Appendix O: DPE System Development Methodology (SDM)**.

1. **Project Management Task Offeror Responsibilities** The selected Offeror's responsibilities include, but are not limited to:
- a. Organize and manage the individuals proposed on the project. This involves utilization and integration of the Offeror and Commonwealth staff.
 - b. Provide Program and IT integration – Assure that the child support enforcement program operation is appropriately represented within the DPW system environment.
 - c. Integrate individual aspects of system maintenance and project coordination.
 - d. Provide overall system Quality Assurance – ensuring alignment with established standards and policies.
 - e. Manage contract compliance and timely completion of deliverables, work products, and operational work products.

- f. Provide Project Resource management – Create Resource Management Plan and use this to manage and utilize resources for overall project delivery.
- g. Develop and implement a Communications Management Plan.
- h. Facilitate project/stakeholder communications through execution of the Communication Management Plan.
- i. Develop and implement a Risk Management Plan.
- j. Provide continuous Risk Management identification and mitigation
- k. Manage project issues and risks and escalate as appropriate to senior management.
- l. Provide Timesheets and Invoicing - Manage timely completion of timesheets and overall project invoicing.
- m. Manage project schedule and ensure timely completion of established tasks.
- n. Manage system compliance with technical and federal certification requirements.
- o. Coordinate all aspects of the PACSES system maintenance process based on the DPW SDM.
- p. Leverage and bring application development best practices and processes to DPW.
- q. Manage quality assurance of PACSES application initiatives – including architecture, design, and components.
- r. Manage system compliance with DRS and BCSE business requirements.
- s. Manage compliance with project schedules and escalate, as appropriate, to senior management.
- t. Provide accurate level of effort and resource estimates.
- u. Manage application change control and execute established change priorities.
- v. Provide technical support and guidance to the application team.
- w. Provide Child Support program and functional insights during design and development to BCSE.
- x. Address and deliver staff training and knowledge transfer throughout the contract period, as appropriate.
- y. Coordinate and present weekly and monthly status reports representing project status to DPW management.
- z. Serve as a single point of contact for all PACSES technology related tasks. This includes architectural designs and strategies; operational tasks like load testing and batch scheduling; configuration management activities including: software migration, server configurations/upgrades and deployment planning; security architecture/configurations; and relevant data tasks such as modeling, database management and metadata collection.
- aa. Serve as liaison between project team and BIS; represent project teams at various cross project logistics and planning meetings; design and manage technical requirements from application team; and work to

determine technical direction via the interaction with BIS and third-party software vendor.

2. Project Management Task Required Items

- a. DPW requires that a single Offeror employee (not a subcontractor) be identified as the Offeror's Project Manager to oversee the operation of the project, including the performance of all Offeror and subcontractor personnel. The selected Offeror may not reassign the Project Manager without the prior written consent of the DPW's Contract Administrator. This individual must function as the Offeror's authorized point of contact with the PACSES Project Director and must be available to respond promptly and fully to all issues and concerns.
- b. The selected Offeror must comply to DPW Business and Technical Standards in its approach to management of the project throughout all the stages of the project including the following items:
 - i. Project Management Procedures
 - ii. Project Work Plans and Scheduling
 - iii. Project Management Tools
 - iv. Systems Development Life Cycle Methodology
 - v. Project Status Reporting
 - vi. Issue Resolution and Control Procedures
 - vii. Quality Assurance Procedures
 - viii. Risk Management
 - ix. Adherence to Project Standards
- c. Include the number, and where possible, names of executive and professional personnel, analysts, auditors, researchers, programmers, consultants, etc. who will be engaged in the work. Where appropriate, identify your project manager and first level managers as key personnel, in accordance with **Part I, Section I-26 Key Staff Diversions or Replacements**. Show where these personnel will be physically located during the time they are engaged in the Project. Include, through resume or similar document, the Project personnel's education and experience. Indicate the responsibilities each individual will have in this project and how long each has been with your company.
- d. The Offeror must provide a concise description of the proposed approach to meeting requirements of managing individual tasks and coordinating overall activities under this procurement.
- e. Offeror must ensure that a staffing plan for the project is developed. The plan should provide a methodology for personnel requirements estimation and address both the acquisition and retention of experience project personnel. The Offeror must provide an organization chart identifying key staff assigned to essential tasks.
- f. The selected Offeror must provide a Communication Management Plan to successfully perform stakeholder communication to ensure commitment.

- g. The selected Offeror must supply support and technical staff dedicated to this project. Staff assigned to this project must be able to work cooperatively with Commonwealth staff and contracted staff performing work on behalf of the Commonwealth during all phases of the project. The Offeror's staff must be able to coordinate with designated DPW staff during all phases of this project. The selected Offeror's staff must be able to deliver work that is not in conflict with the priorities and hardware/software choices and limitations as established by the Commonwealth or the DPW.
- h. For purposes of this proposal, the Offeror must demonstrate the ability to meet the following requirements:
 - i. Provide a Project Manager experienced in Information Technology Project Management, preferably in the area of Child Support Enforcement.
 - ii. Demonstrate experience and understanding of the Federal and state child support requirements.
 - iii. Provide resumes of key staff that have demonstrated experience in the development and/or maintenance of systems developed in the following software:
 - Windows 2000
 - Oracle
 - Oracle Fine Grained Access
 - XML, HTML
 - Visual Studio
 - .ASP
 - .Net
 - PL/SQL
 - Golden 3.2
 - Visual Source Safe
 - Microsoft Office Suite
 - Automated tracking software
 - FileNet
 - ReportNet
 - CAI Siteminder
 - Web Methods
 - OpCon Scheduler
 - Cognos
 - Crystal Reports
 - Adobe
 - UNISYS ES 7000 Knowledge and skills
 - Windows 2000 Data Center knowledge and skills
 - Support Magic software
 - COBOL
- i. The Offeror may acquire specialized expertise through the use of subcontract agreements. The Offeror, however, is required to have

staff that have, or will obtain prior to performing work on the project, training and/or certification in the recommended software solution products. Subcontracts must be identified in the proposal.

3. **Project Management Reporting Responsibilities** The selected Offeror must provide regular and frequent communication with the DPW Contract Administrator regarding staff resources, management approach for new tasks, adherence to schedules, problems, or issues that may affect successful outcomes of work under the contract and to PACSES as a whole. The following describes the minimum level of required reports. The Offeror may propose additional reports as deemed necessary.
 - a. The selected Offeror is required to provide a monthly production maintenance report on the status of all work in this work statement, the specific timeframe will be determined during contract negotiations. It must highlight problems or special activities in application maintenance, user support, implementation, support, and database administration. Measurable components would include: project schedule and progress; resource distribution in relation to the current activity schedule; current system functional performance; current system technical performance; current system architecture effectiveness, etc.
 - b. The selected Offeror is responsible to provide a bi-weekly report. This report must describe the status, progress, and/or problems related to systems maintenance and enhancement work that is in process.
 - c. The selected Offeror is responsible to provide a weekly personnel report, a quarterly performance report, and a weekly status report. Through the personnel report, the Offeror must provide summary descriptions of the tasks accomplished by each of its staff. It must identify any staffing problems, potential staff changes, and the vacation and off site work plans of all selected key Offeror or subcontractor staff for the next month, training activities, issues, and plans for the subsequent month.
 - d. The selected Offeror is responsible to provide a monthly training report. This report must describe any training activities that are being undertaken with the selected Offeror and Commonwealth staff to keep them technologically and programmatically up to date.
 - e. The selected Offeror is required to provide a weekly manager level report that tracks key project issues and proposes next steps and solutions. The specific timeframe and frequency will be determined during contract negotiations.
4. **Project Management Reporting Required Items**
 - a. Offeror must describe the process for producing the reports discussed in **Section 3 Project Management Reporting Responsibilities**.

- b. Offeror must describe the quality control procedures in place to assure accuracy and timeliness of reports.
- c. Offeror must provide samples of the reports described in **Section 3 Project Management Reporting Responsibilities**.
- d. Offeror must provide samples of any other reports that it proposes to produce to enable the Commonwealth to analyze and evaluate the effectiveness of the requirements included in this RFP.

D. Application Maintenance and Modification Services The selected Offeror is responsible for the operation and maintenance of current PACSES as defined by the following tasks and in accordance with the requirements of this RFP.

1. Mainframe Operations The selected Offeror will have specific responsibilities for the daily operation of the current mainframe system. The PACSES Mainframe is located at the Willow Oak Building of the DGS Annex Complex. The PACSES Mainframe is a UNISYS ClearPath IX 6800. The primary operation of the mainframe is provided by Unisys Corporation and occurs under the Commonwealth's Data Powerhouse contract (DPHC). Specific responsibilities associated with mainframe operations that are part of the DPHC are not to be provided by the Offeror. The Offeror and DPHC have a shared responsibility to keep PACSES operating efficiently, effectively, and within standards.

Appendix V: PACSES Mainframe Operations Responsibility Matrices delineates the responsibilities of the Mainframe Operations Vendor, referred to as the Data Power House Vendor (DPHV), Application Maintenance and Operational Support (AMOS) vendor, the Network Management Vendor (NMV), and the Commonwealth; and defines the coordination of responsibilities that must occur between each of the entities.

a. Systems Operations

- i. Maintain and update all PACSES batch and online data and software libraries, the specific timeframe and frequency will be determined during contract negotiations.
- ii. Provide necessary detailed input to the Commonwealth for conducting a scheduled daily production status meeting with the project team and Commonwealth each work day morning between 8:00 and 8:30 AM.
- iii. Analyze system fatal and abends in the production and test environments and the software problems causing such problems. Work with application development team to develop corrective actions in a timely and accurate manner.
- iv. Maintain all PACSES operating environments (production, test, and training) to ensure that changes are made to PACSES that are

required as a result of upgrades to mainframe software and platform technology (e.g. implementation of a new release of the mainframe operating system).

- v. Provide support to system testing and test for production (TFP) testing by ensuring that special requests for running batch cycles in the test environment or other non-production environments are met without delay.
- vi. Support “on request jobs” for the production environment within available time in the batch window.
- vii. Work with the application maintenance team in finalizing which jobs will be scheduled and in which order for production, training, and acceptance environments. Assist in developing Job Documentation standards and Batch scheduling ‘best practices’.
- viii. Schedule PACSES batch cycles including configuration management, migrations, and daily/weekly reporting of migrations.
- ix. Schedule database maintenance batch cycles including loads/unloads, migrations, and weekly database maintenance.
- x. Assist DPW’s database administrator with maintenance of the PACSES meta-data dictionary.
- xi. Participate with system performance analysis and tuning and implement identified enhancements in a timely and accurate manner.
- xii. Participate with the disaster recovery operations planning, testing, and documentation.
- xiii. Provide a detailed description and impact analysis of operational problems that result in inaccuracy, data corruption, and delay/interruption in PACSES online availability. Work with the application maintenance team to develop a corrective action plan.
- xiv. Provide on call support for PACSES operations including Commonwealth holidays, snow days, etc.
- xv. Participate in documenting PACSES mainframe operations procedures that is not limited to the following – batch operations, scheduling, data storage – disk and tape management, backup, recovery, and security.

b. Operations Management

- i. Act as the primary PACSES liaison with the DPHV and ensure PACSES operations and service levels are not compromised, apprising of issues as necessary.
- ii. Act as the PACSES liaison with Unisys Technical Support for troubleshooting any Unisys system related technical problems that may be encountered in any of the PACSES environments.
- iii. Act as the primary PACSES liaison with the Bureau of Information Systems (BIS) operations and support teams to help ensure PACSES operations in the server environment are not comprised.

- iv. Act as the PACSES liaison with Microsoft and Oracle for troubleshooting any system related technical problems that may be encountered in any of the PACSES server environments.
 - v. Provide the Commonwealth an ongoing risk assessment of changes/enhancements to PACSES technical operating environment – mainframe and server-based processor upgrades, disk upgrades, and installation of new enterprise tools/software by DPHV and BIS.
 - vi. Responsible for PACSES Disaster recovery planning and testing and coordination with DPHV and BIS as appropriate. Maintain the PACSES disaster recovery plan documentation.
 - vii. Responsible for documenting PACSES mainframe operations procedures for database administration and mainframe operations.
 - viii. Review PACSES compliance with DPW standards and report to the Project Manager potential issues, if any.
 - ix. Oversee the development of the quarterly capacity plan updates and annual project plan for the mainframe and server environments and make sure that such are provided by the Offeror's Project Manager and delivered on time to the Department.
 - x. Participate with trouble shooting critical system related problems.
 - xi. Participate in developing batch job documentation standards and batch scheduling 'best practices' and communicate to application development team.
 - xii. Act at the primary implementation liaison between PACSES and BIS for new technology deployments.
 - xiii. Oversee the DPHV operations and compliance to **Appendix V – PACSES Mainframe Operations Responsibility Matrices**, to ensure DPHV is providing sufficient mainframe power to operate PACSES online and batch programs within the ranges of the Service Level Agreements (SLA) which are part of the Data Power House Contract.
 - xiv. Oversee PACSES performance tuning activities to improve the overall response time experiences by users, and to reduce other operational costs for PACSES. Analyze high usage transaction or batch program that requires an excessive execution time and analysis indicates redesign is cost effective. Develop recommendations, cost/benefit plan, and estimated implementation timelines and present to the PACSES Project Manager for review.
- c. **Database Administration**
- i. Function as point of contact for all database-related activities for both PACSES and the Child Support web site.
 - ii. Perform data fixes and other activities as necessary, upon approval of the PACSES Project Manager, and in a timely manner.
 - iii. Manage daily database backup process to ensure that PACSES database recoveries are executed efficiently.

- iv. Work with the DPHV to provide PACSES requirements and necessary steps for backup, recovery, and restoration of the database to its prior state following an application or system malfunction, or human error.
- v. Participate in application technical design sessions to provide programmer/analysts guidance and necessary standards framework to ensure that database designs are optimized and database access by the application is done as efficiently as possible by taking into account performance considerations during the design.
- vi. Update and maintain PACSES meta-data dictionary. Review DPW data naming standards and address PACSES compliance requirements for new tables added to the database.
- vii. Establish, maintain, and communicate standards and procedures for requesting database changes and informing the application development team when database changes have been implemented.
- viii. Perform necessary database maintenance to ensure that there is no deterioration in database performance.
- ix. Implement database design changes in all test environments and production. Work with the Commonwealth and DPHV to determine the best use of storage and other computer resources to ensure that there is no deterioration in database performance while keeping costs at a minimum.
- x. Test and Migrate databases to new releases of RDMS or related software, as and when upgrades and enhancements are made to system and application software.
- xi. Develop, maintain, and document database utilities and procedures for automating routine database administration tasks.
- xii. Ensure data integrity by performing necessary processing to restore or correct data that has been corrupted or otherwise damaged due to any processing problems and by adding Check Point restart logic to batch programs, where needed.
- xiii. Develop job documentation for PACSES jobs that have checkpoint restart logic so that operations staff will have specific instructions for restarting the job when the abort has been fixed.
- xiv. Assist in documenting PACSES mainframe operations procedures, reference **Appendix V, PACSES Mainframe Operations Responsibility Matrices** that is not limited to the following – database operations, scheduling, data storage – disk and tape management, backup, recovery, and security.
- xv. Provide on-call support in production and test regions for all PACSES database related activities.
- xvi. Work with the DPHV to ensure PACSES database administration tasks are planned, scheduled, and carried out without interruption to PACSES operations.

- d. **Support Layer Maintenance**
- i. Maintain and enhance PACSES Support Layer. Document PSL complexes. Communicate changes to PSL to the application maintenance team. Cross train Support Specialists in all PSL complexes.
 - ii. Maintain and communicate standards for naming and organizing PACSES batch and online data and software libraries.
 - iii. Analyze critical system fatal and abends in the production that are hard to reproduce or suspected to be Unisys system related rather than application related. Pursue with Unisys as required to help resolve these system issues.
 - iv. Establish standards and procedures for streamlining maintenance of different PACSES development regions - Development, Retest, Support Layer, RDMS, Conversion, System Test, and Acceptance Test.
 - v. Establish Job Documentation standards and Batch scheduling 'best practices' and communicate to application maintenance team.
 - vi. Participate with the research/analysis and prototyping of solutions using new middleware technologies for the PACSES application – Open/TI.
 - vii. Participate with system performance analysis and tuning and implement identified enhancements in a timely and accurate manner. Provide recommendations for developing a work plan of performance enhancements that may include – database and data structure enhancements, and PSL enhancements.
 - viii. Participate with establishing a PACSES disaster recovery operations plan that includes a testing strategy.
 - ix. Participate in maintaining PACSES mainframe operations procedures that is limited to the following – batch operations, scheduling, data storage – disk and tape management, backup, recovery, security.
- e. **Disaster Recovery** PACSES is a critical benefits delivery system that requires a high degree of disaster recovery availability. Establishing and executing disaster recovery plans for the mainframe operation is the primary responsibility of the DPHV. The Network Maintenance Vendor is primarily responsible for establishing and executing the LAN/WAN disaster recovery plan. The selected Offeror is responsible for assuring database and program libraries are properly maintained and available for backup and recovery activities. The selected Offeror will be required to participate in meetings involving the planning and execution of disaster recovery activities.
- f. **Security** The selected Offeror must provide security provisions that ensure the privacy and confidentiality of all PACSES data. The privacy

and confidentiality of all data maintained and processed by PACSES must be ensured through the use of passwords and other measures designed to limit access to authorized individuals. The selected Offeror must take all necessary steps to safeguard data from unauthorized access, accidental destruction, or other hazards that may occur. The PACSES Project Manager or designee must approve all requests for access to the mainframe, PACSES data files, and PACSES database and libraries of source code.

All Offeror and subcontractor staff will be required to sign a Confidentiality Statement. The selected Offeror is responsible for background checks on its and subcontractor staff. The selected Offeror must ensure the complete confidentiality of all passwords and IDs used by its employees and subcontractors. The selected Offeror's employees will not be permitted to share passwords or IDs among themselves. The selected Offeror must provide security training to staff on this policy.

The selected Offeror must notify the Commonwealth PACSES security officer prior to any staff leaving the project. All reports, notices, letters that are printed at the Offeror's site that contain client information and are not forwarded to DPW must be properly destroyed.

- g. **Performance Tuning** The DPHV is primarily responsible for providing sufficient mainframe power to operate PACSES online and batch programs within the ranges of the Service Level Agreements (SLA) which are part of the Data PowerHouse Contract. Within this framework, the Commonwealth requires that that the Offeror develop, design, and implement efficient programs.

This selected Offeror will be required to conduct performance-tuning activities to improve the overall response time experienced by users, and to reduce other operational costs for PACSES. The selected Offeror on any high usage transaction must initiate performance tuning or batch program that requires an excessive execution time and analysis indicates redesign is cost effective. The selected Offeror will gather input and work with the DPHV to determine the cost effectiveness of application redesign versus hardware upgrades. Note: it is anticipated that minimal performance tuning will be necessary during the contract period.

2. **Server Operations** The selected Offeror is responsible for providing technical assistance in maintaining the PACSES intranet and continuing the maintenance activities associated with the PACSES CSWS which provides child support information and customer-specific information to clients, employers and business partners. Currently, PACSES provides

information to the DRS users through an Intranet application that operates on a server on the PACSES network.

The selected Offeror will be required to maintain the CSWS application that includes emergency incident fixes and the completion of two (2) major software releases per year.

a. CWDS Operations:

- i. Perform database and application maintenance
- ii. Provide application and database performance improvements
- iii. Provide operational reporting for the CSWS application
- iv. Provide input to BIS for software, hardware, and infrastructure maintenance activities
- v. Provide DPW/BIS reporting and communication
- vi. Perform application Unit testing and document results
- vii. Support development and communication of data fixes as required by this RFP
- viii. Establish, maintain, and conform to PACSES-project technical standards
- ix. Establish, maintain, and conform to all documented project management controls and procedures
- x. Work with BIS and its technology and infrastructure support services vendor to complete migrations of software from environment to environment
- xi. Work with BIS to prepare installation and configuration documentation associated with application software and third-party products
- xii. Work with BIS to help debug 'system' related issues associated with deployed application code or application specific third-party products
- xiii. Work with BIS and its technology and infrastructure support services vendor to add/change/delete batch processes in OPCON
- xiv. Add/change/delete application batch documentation that conforms to DPW standards
- xv. Provide 24x7 batch support via pager and cell phone contact
- xvi. Add/change/delete application software so that it conforms to DPW and OIT standards
- xvii. Prepare and participate in the completion of the Application Review Board (ARB) and Change Management Board (CMB) reviews/presentations
- xviii. Complete BIS load testing requirements for application components for software releases and present results at the Cross project logistics meeting
- xix. Prepare and publish capacity plans as required by BIS

- xx. Act as liaison between BIS and the PACSES Commonwealth team to help explain technical issues and requirements associated with that environment
 - xxi. Perform prototype activities at the request of the PACSES Project Manager
 - xxii. Perform regression testing of PACSES software due to changes in the software and hardware infrastructure
 - xxiii. Provide technical, infrastructure, design, industry best practices, and programmatic advice and perspective to the PACSES Project Manager
 - xxiv. Add/change/delete Integration and SAT testing scenarios
 - xxv. Perform Integration and SAT testing
 - xxvi. Report results of Integration and SAT testing to the PACSES Project Manager
 - xxvii. Coordinate migration activities with the application team and configuration management personnel
 - xxviii. Prepare client outreach presentations for upcoming software releases
 - xxix. Provide project management oversight on all project related activities associated with this application
 - xxx. Finalize and document requirements with various PACSES and BIS teams
 - xxxi. Create release plan and communicate details to BIS to ensure proper migration management
 - xxxii. Coordinate necessary approvals and sign-offs from various stakeholders including: DACSE, BCSE, BIS, etc.
 - xxxiii. Design and maintain database architecture and security framework such as: partitioning strategies, indexing strategies, user grants, roles and privileges, object level privileges, etc.
 - xxxiv. Monitor performance logs to maximize the application performance, availability, and maintainability
- b. **Data Management Operations** The Performance and Incentives Act of 1998 changed the method by which the State and Counties receive incentives under the Title IV-D Program. Incentives are no longer solely based on the amount of child support collections, but on eight (8) specific performance measures that may have a potential impact on the Commonwealth of Pennsylvania's child support enforcement program. To maximize the incentives, it becomes very important to not only improve caseload management activities but also improve the accuracy of the data in the system. The Commonwealth established a Data Integrity Team composed of BCSE and current vendor staff. This team has been very successful in identifying key data requiring county clean-up and validation. The Commonwealth expects these tasks to continue through this contract period. Some data clean-up and archive

purge activities will be necessary to maintain the operational integrity of the systems.

The selected Offeror will be required to perform the following data management operation activities:

- i. Support the Data Integrity Tasks (DIT) by operating the DIT process and assisting in the identification and resolution of data integrity issues, coordinate and monitor overall data integrity activities, and maintain data integrity reports on the intranet.
- ii. Establish guidelines for data clean-up tasks for DIT and data archive purge purposes.
- iii. Identify on-going preventive maintenance measures.
- iv. Provide "custom views" of information to the Commonwealth for executive/strategic management information purposes.
- v. Receive, manage, and prioritize data processing service requests (DPSRs) around information delivery to counties, program office officials, and legislators.
- vi. Maintain operations of the data warehouse and Director's Dashboard.
- vii. Manage the ongoing operation of the PACSES eReports system.
- viii. Perform data extracts from PACSES for the purposes of supporting the data managements systems.

- 3. Application Maintenance** The selected Offeror will be required to complete application modification and application maintenance activities that affect the mainframe and ancillary server applications during the contract period. Application modification is a significant change to system functionality requiring execution of the systems development methodology (SDM). Application maintenance is corrections to the current system which is typically identified by users after the program has been implemented in production, or is related to an incorrect or revised interpretation of program policy. Application maintenance could be the result of an incorrect design, coding issue or program policy interpretations. Application maintenance follows an expedited SDM process which includes design modification, program specifications, coding, testing, and implementation.

Application maintenance activity requests, defined in PACSES terms as a PACSES Service Request (PSR), must be logged, prioritized, and tracked. Given the long term stability of the system it is anticipated that the number and complexity of application maintenance PSRs will be minimal. Please reference the PSR Table which follows within this section.

Application modifications will follow a structured Change Control process. They must be completed if related to a mandated federal law, state law, or court rule or provides significant program performance improvements as determined by a cost benefit analysis.

Emergency software changes must be migrated to Production as quickly as possible (weekly). All other software changes should be migrated based on a quarterly release process. The Offeror should plan on four (4) major software migrations per year during the contract period.

The Offeror should plan on completing ten (10) change controls per year. The total projected yearly hour level for these change control tasks is twenty-four thousand (24,000). This represents twenty-five percent (25%) of the total hours ninety-six thousand (96,000) Offerors must price for Application Maintenance and Modification activities. These change control hours reflect level of effort from completion of functional design through implementation. The DPW Contract Administrator will establish prioritization standards to determine the change controls and PSRs to be completed within these volume levels.

The following guidelines and examples will be used to define a change control and a PSR for current mainframe PACSES and the ancillary server systems.

Change Controls

- Mandate – Federal, state or court rule mandate, Program Revision Request (PRR) with no option to defer or significant performance and budgetary penalties.
- Program Management – A cost effective modification of the system that improves the program performance measures or improves work efficiencies.
- Technology Update – Change driven by the need to upgrade software or hardware.

The following chart provides a list of potential change controls which may be completed during the contract period

Change Control Title	Brief Description
Pre-Assistance Arrears	Modification of PACSES financials to accommodate DEFRA 2005 requirements
Distribution to former TANF	Modification of PACSES financials to accommodate DEFRA 2005 requirements
Paternity Tracking Hospitals	Develop on-line application used by hospitals for entering voluntary paternity

	acknowledgements
Automated National Medical Support Notice	Automate the generation of the NMSN based on case specific criteria
FTROP Expansion of Eligibility	DEFRA mandated expansion of age limits for FTROP
Automated FIDM Processing	Modify FIDM process to prioritize cases meeting specific account/case criteria
Mail Alert Delivery	Mitigate “death by alerts” through consolidation and prioritization
Centralized Income Withholding Orders	Comply with DFAS requirement to provide income withholding order information electronically
Adobe-JetForm Upgrade	Technology upgrade necessary because JetForms is no longer a support product line.
Cell Phone Interface	Interface with cell phone companies to locate defendants
Alerts on Closed Cases	Review and modification of the rules for issuing alerts on closed cases
Guideline Calculation Changes	Modify PACSES guideline calculation application to comply with changes defined by Rules Committee of the Supreme Court.

PSRs – Application Maintenance

- Fix – Global problem to existing application, critical process fails, cannot complete predefined task, and no effective work around
- Mandate – minor modification to program due to federal or state policy requirement
- Operations – ongoing activities necessary to keep system functioning efficiently and effectively
- Program Management– minor modification to application to improve child support program performance/management and is cost effective
- Customer Service – modification to application to improve the delivery of child support services to our customers/business partners

- Examples – program error, server software update, mainframe batch monitoring, revised interface file format, revised policy interpretation, data analysis, form template change, report format change, web text change. Note: detailed lists of open and closed PSRs are available in the PACSES Library for Offeror review
- These Application PSRs are prioritized daily with a proposed future release plan.

Support Services PSRs

Support Services PSRs are typically initiated by the county DRSs, processed through the Help Desk and tracked in Support Magic. The types of Support Services PSRS are:

- Data Modification – tightly controlled central process to change specific data elements
- Password Reset – request to reset user passwords
- Table Update – change table information
- Network Problem – issue with network
- Hardware/Software Problem – issue with PC, servers, printers, office software, PC image
- These PSRs are completed within two (2) days of receipt.

Table of PSR Information

PSRType	Monthly Volume Estimates	PSR Group
Fix	10-15	Application Maintenance
Mandate	1-5	Application Maintenance
Operations	70 (ongoing tasks)	Application Maintenance
Program Management	5-10	Application Maintenance
Data	150-200	Support Services
Password Reset	300-400	Support Services
Table updates	30-50	Support Services
Network	30-40	Referral to Network vendor only
Hardware-Software	120-160	Referral to Network vendor only

4. Application Maintenance Task Responsibilities

- Execute all necessary application code software migrations through the various non-production environments. This includes all relevant database objects, application components, security objects, and server configuration changes.
- Test in accordance with SDM standards. Submit test plans and conduct systems and test for production level testing and promote through DPW’s test environments. Support software migration activities. Submit test plan results to DPW.
- Work with the project teams to analyze the results of the tests, coordinate necessary changes, and communicate results.

- d. Work with BIS to coordinate execution of required load tests. These include configuring the test scenarios and coordinating database activities, security parameters, and server configurations.
- e. Develop a yearly Master Implementation Plan for PACSES and execute that plan following Commonwealth approval. Define how the following components of the Master Implementation Plan will be handled.
 - i. Archive – moving application data that must be kept and must be accessible but does not require similar level of immediacy.
 - ii. Purge – moving and deleting data from the mainframe application that does not need to be kept.
 - iii. Documentation to include user procedures and help systems.
- f. Coordinate implementation logistics meetings for quarterly release deployments. The document provides a detailed series of planned steps which comprise the complete set of activities prior to, during, and after a major implementation.
- g. Develop and update Quarterly Capacity Plans which define ongoing system hardware requirements based on system design and program activity projections. Create, maintain, and submit capacity plans per the BIS Standard addressing server, data, GIS, Knowledge Management (image/content services), and architectural capacity needs. Work with database, architecture, and operations domain to collect, report, and publish business transaction information that can be utilized in the BIS capacity plan.
- h. Proactively identify performance gaining opportunities within the database, server, operations, and security domains. This result would be suggestions to the project team and/or BIS to realize a performance/capacity gain.
- i. Develop and implement a Quality Assurance Plan. Verify that application code reflects industry best practices, DPW standards, and leverages lessons learned. Additionally, work with BIS to proactively verify the technical infrastructure supports planned application releases and business initiatives.
- j. Provide assistance in adhering to DPW system management and control processes to include the Business Review Board, Application Review Board, Data Base Design standards, and Technical Application Development standards. Work with project team to enforce necessary BIS standard technologies and industry best practices.
- k. Attend and document regularly scheduled management status meetings specifically for the purpose of overseeing the application modification tasks. Coordinate issue escalation and resolution with project management team.
- l. Provide a maintenance and warranty plan that recognizes and prioritizes software maintenance fixes and responds to critical issues. Adhere to the maintenance and warranty plan. Create, document, and

communicate vision for enterprise technical solutions in future releases; drive solution determination and progression.

- m. Provide post implementation support through help desk services level I and level II services and through the SME structure.
- n. Perform work assignments in accordance with priorities set by the Commonwealth and the requirements of this contract.

5. Application Maintenance Task Required Items

- a. Mainframe Operations Plan - The Offeror must provide a detailed plan which includes a description of how the Offeror will operate and maintain the Mainframe Application. The plan should describe the resources responsible for completion of these task responsibilities which includes a description of the work skills to be provided.
- b. Server Operations Plan - The Offeror must provide a detailed plan that includes a description of how the Offeror will operate and maintain the Server Applications. The plan should describe the resources responsible for completion of these task responsibilities that includes a description of the work skills to be provided.
- c. Application Maintenance Plan – The Offeror must provide a detailed plan that includes a description of how the systems development methodology (SDM) will be used to maintain and refine applications residing on the mainframe and servers. This plan must recognize the minimal volume of change controls and maintenance fixes (PSRs) that are expected during this period. The plan should describe the resources responsible for completion of these task responsibilities which includes a description of the work skills to be provided and provide a methodology for prioritizing, controlling and monitoring this work.
- d. Application Maintenance Management Reports – The Offeror must describe the management reports that will be produced for oversight and monitoring of the application maintenance responsibilities and provide samples. This section should include descriptions of regular meetings being proposed for purposes of managing application maintenance task responsibilities.
- e. Application Maintenance Deliverables – The Offeror must propose a cost effective deliverable structure for the ongoing completion of Application Maintenance Task Responsibilities during the contract period. Since considerable documentation exists on the operation and maintenance of this system (Management Control Procedures), these procedural preparation tasks do not need to be redone.

- E. Application Support Services** The selected Offeror must provide several different types of application support services that will directly support the system and program operations as it is being utilized by its four thousand (4,000) plus users. The Application Support Services required are defined in this task and specified in **Section IV-3 C. Application Support Services**.

1. Application Support Services Offeror Responsibilities

- a. **Subject Matter Expert Services** The selected Offeror must provide a team of subject matter experts (SME). The SMEs primary responsibility will be to assist county users in the use of PACSES and to communicate the impact of change controls and maintenance fixes. This assistance is provided via phone, email, and incident resolution responses. In essence, this team serves as the second level of help desk support. Other responsibilities of the SMEs are:
- Provide assessment of the impact of maintenance fixes, change control requests and legislative proposals on system users.
 - Provide user input into system designs.
 - Review application maintenance fixes (PSRs) prior to assignment to application team.
 - Participate with the Commonwealth with reconciling system data problems through data cleanup initiatives.
 - Participate in developing workshop sessions to DRS users.
 - Participate in providing updates for training course content changes when PACSES changes require course revisions.
 - Currently, seven (7) SMEs are performing the defined tasks with backlogs and new work being anticipated.
- b. **Help Desk Services** The selected Offeror must operate a User Help Desk. The Help Desk must be available during regular business hours (Monday through Friday, 7:45 AM to 5:00 PM) to respond to PACSES issues and questions from counties and other PACSES users. The Offeror should present appropriate staffing and an operating methodology for a Help Desk operation that efficiently and effectively handles contacts related to application and hardware problems. The Offeror may propose a help desk methodology that routes problem reports to other staff with appropriate expertise.

Currently, county offices designate a PACSES Coordinator to manage the flow of questions and answers at the county level. The local coordinators communicate with the Help Desk by phone, facsimile, or email and also have access to the Support Magic (Help Desk ticket tracking system) to query the status of previously reported problems or questions.

The selected Offeror must work to continuously enhance the knowledge of the Help Desk staff regarding the PACSES system in order to improve their capacity to deliver high quality assistance to local agencies. The selected Offeror will also seek to improve the

accuracy and specificity of problem reports generated by the Help Desk and must facilitate communication and understanding of problems and their resolution between the system analysts and the Help Desk staff.

Currently, there are three (3) staff providing Level I Help Desk Services with no backlogs or issues. Approximately, eight hundred (800) calls are received per month.

- c. **Medical Operations Maintenance** The selected Offeror must provide staff to review the results of data matching activities, and based on specific guidelines, research the validity of medical support information. Based on results and specific criteria, these staff will determine if this information will be added to PACSES.

2. Application Support Services Task Required Items

- a. **Application Support Services Delivery Plan** - The Offeror must provide a detailed plan that includes a description of how the Offeror will operate and maintain the Application Support Services Task Responsibilities. The plan should describe the resources responsible for completion of these task responsibilities that includes a description of the work skills to be provided.
 - b. **Application Support Services Management Reports** – The Offeror must describe the management reports that will be produced for oversight and monitoring of the application support services responsibilities and provide samples. This section should include descriptions of regular meetings being proposed for purposes of managing application support services task responsibilities.
 - c. **Application Support Services Deliverables** – The Offeror should propose a cost effective deliverable structure for the ongoing completion of Application Support Services Task Responsibilities during the contract period. Since considerable documentation exists on the operation and maintenance of this system (Management Control Procedures), these procedural preparation tasks do not need to be redone but must be maintained and updated.
- F. **Turnover Services** The Offeror must address the approach and methodology to ensure a smooth and orderly transition of functions, programs, responsibilities, services, and systems to the Commonwealth or its agent upon the expiration or termination of the contract.

1. Turnover Services Offeror Responsibilities

- a. The selected Offeror will prepare and submit a Turnover Plan. The Turnover Plan will incorporate the activities necessary to turnover the application functions in an orderly manner. The plan will address specialized technical transition of applications and operations. The plan must address the resources required for the turnover including those from the Department and the Offeror, if any. Additionally, the plan will identify the system turnover objectives and work plan activities on a Gantt chart and document activity time frames and responsibilities. The Turnover Plan will be submitted to DPW for final review and approval.
- b. Upon approval of the Turnover Plan, the selected Offeror will begin transitioning the business applications and provide the updated versions of system documentation. DPW will prioritize the turnover tasks along with the activities needed to maintain and operate the systems.
- c. At the end of the turnover phase, the selected Offeror will prepare the Turnover Results Report. This will document the completion of turnover activities, and will provide status of each high level task and activity that took place during the transition period. The report will highlight how each of the objectives stated in the Turnover Plan have been achieved and the resolution of issues identified and prioritized during the turnover process.

2. Turnover Services Task Required Items The Offeror must submit the methodology to support a solution for turnover that includes at a minimum the items listed below:

- a. Proposed approach to the turnover with risk assessment and mitigation strategies
- b. High-level tasks required for transition of the system
- c. Estimated turnover schedule
- d. All source code with a detailed inventory document
- e. All Management Control Procedures, system documentation and operations manuals, user documentation, and training manuals
- f. Final user and system documentation listing, available for access by DPW or agent
- g. Reference to operational instructions
- h. Procedures for updating computer programs, data and reference files, ECL, and other documentation
- i. Current Project plans and test plans
- j. Other information that is currently in use to support application processing.

The Offeror must submit the methodology to be used in determining the results documented and how they will be measured in the Turnover Results Report.

The Offeror must identify staffing resources to provide the services and develop the Turnover Plan.

IV-5 CONTRACT REQUIREMENTS—DISADVANTAGED BUSINESS PARTICIPATION AND ENTERPRISE ZONE SMALL BUSINESS PARTICIPATION

All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must also include a provision requiring the selected contractor to meet and maintain those commitments made to Disadvantaged Businesses and/or Enterprise Zone Small Businesses at the time of proposal submittal or contract negotiation, unless a change in the commitment is approved by the BMWBO. All contracts containing Disadvantaged Business participation and/or Enterprise Zone Small Business participation must include a provision requiring Small Disadvantaged Business subcontractors, Enterprise Zone Small Business subcontractors and Small Disadvantaged Businesses or Enterprise Zone Small Businesses in a joint venture to perform at least fifty percent (**50%**) of the subcontract or Small Disadvantaged Business/Enterprise Zone Small Business participation portion of the joint venture.

The selected contractor's commitments to Disadvantaged Businesses and/or Enterprise Zone Small Businesses made at the time of proposal submittal or contract negotiation shall be maintained throughout the term of the contract. Any proposed change must be submitted to BMWBO, which will make a recommendation to the Contracting Officer regarding a course of action.

If a contract is assigned to another contractor, the new contractor must maintain the Disadvantaged Business participation and/or Enterprise Zone Small Business participation of the original contract.

The selected contractor shall complete the Prime Contractor's Quarterly Utilization Report (or similar type document containing the same information) and submit it to the contracting officer of the Issuing Office and BMWBO within **ten (10)** workdays at the end of each quarter the contract is in force. This information will be used to determine the actual dollar amount paid to Small Disadvantaged Business and/or Enterprise Zone Small Business subcontractors and suppliers, and Small Disadvantaged Business and/or Enterprise Zone Small Business participants involved in joint ventures. Also, this information will serve as a record of fulfillment of the commitment the selected contractor made and for which it received Disadvantaged Business and Enterprise Zone Small Business points. If there was no activity during the quarter then the form must be completed by stating "No activity in this quarter."

NOTE: EQUAL EMPLOYMENT OPPORTUNITY AND CONTRACT COMPLIANCE STATEMENTS REFERRING TO COMPANY EQUAL EMPLOYMENT OPPORTUNITY POLICIES OR PAST CONTRACT COMPLIANCE PRACTICES DO NOT CONSTITUTE PROOF OF DISADVANTAGED BUSINESSES STATUS OR

ENTITLE AN OFFEROR TO RECEIVE CREDIT FOR DISADVANTAGED
BUSINESSES UTILIZATION.

ATTACHMENT 8

RFP 39-06 Appendix U Cost Submittal (revised)

ATTACHMENT 9

Attendance list for the Pre-proposal Conference held January 22, 2007

RFP 39-06
 Preproposal Conference
 January 22, 2007 - State Museum

Attendee Name	Company Name & Address	Phone	Email
STINA SUGANIAN	DPW/BSJ	772-7098	stina.suganian@state.pa.us
Lisa Watson	DPW/BETP	705-7716	c-watson@state.pa.us
Kevin M. Faul	DPW/OA	772.2231	KFrie1@state.pa.us
Jeff Rowe	DPW	705-5100	
Dan Richard	DPW	783, 96059	danrichard@state.pa.us
Michelle Herring	DPW	772-6501	mherring@state.pa.us
Roger Morefield	LOCKHEED	705-5204	

RFP 39-06
 Preproposal Conference
 January 22, 2007 - State Museum

Attendee Name	Company Name & Address	Phone	Email
Jerry Hair	Deloitte Consulting 2601 MARKET PLACE HARRISBURG, PA.	717 651 6239	Jhair@Deloitte.com
Joy Rendler	DPW - OIM - BCSE - DACSES	717-705-5106	joyrender@pacses.com
JOYCE MATCH	DPW - OIM - BCSE - DACSES	717-705-5104	joycematch@pacses.com
Tim Wiest	Deloitte Consulting	717-651-6300	Tim.wiest@Deloitte.com
Jim Peyton	Saber Corporation	508-612-0664	JPeyton@sabercorp.com
Christian L. Sours	Melody of Wishes 604 N 3rd St #16a 17101	717 364 9194	c.sours@melody-wishes.com
Dennis Pochodzey	Computer Aid, Inc 470 Friendship Harrisburg, PA 17111	717 651 3245	dennis.pochodzey@compaid.com

RFP 39-06
 Preproposal Conference
 January 22, 2007 - State Museum

Attendee Name	Company Name & Address	Phone	Email
Brian Shea	75 Haddon Ave Suite 302 Haddonfield NJ Policy Studies Inc. 08033	856-304-1402	Bshea@Policy-Studies.com
J. V. Cain	LOCKHEED MARTIN 7500 GREENWAY CENTER DR. GREENBELT, MD 20770	301-313-8212	JAMES.V.CAIN@LMCO.COM
Thomas Jessen	Informatic Inc 101 Montgomery Suite 2600 SF CA 94104	415-365-1515	Thomas.Jessen@informatic.com
Phil Griny	Verdyne Inc. 3507 Market St, Suite 302 Camp Hill PA 17011	717 612 9561	Phil@verdyne.com
John Abbott	INFORMATIX INC 1740 CROOKSIDE OAKS DR # 175 SACRAMENTO, CA 95833	916-584-6151	John.Abbott@informatix.com
Joe Kenney	1744 LAKE ALABAMA LAWRENCE, KS 66044	785-550-1585	JKENNEY@TIER.COM
Karen Sarabok	2120 Market St Momentum, Inc Camp Hill	717-314-8000 x12	KSarabok@M-inc.com

RFP 39-06
 Preproposal Conference
 January 22, 2007 - State Museum

Attendee Name	Company Name & Address	Phone	Email
Near Brown	Deloitte 2607 MarketPlace 2d Floor Harrisburg PA	(717) 651-6393	Nebrown@deloitte.com
John Luchetti	IBM 2020 TECHNOLOGY PKWY MECHANISBURG, PA 17050	717-610-2085	JMLUCHETT@us.ibm.com
John White	Deloitte 2607 MarketPlace 2nd Fl. Harrisburg PA	614-214-8729	jwhite@deloitte.com
Brian Green	ACS STATE LOCAL SOLUTIONS 303 BRD ST, SUITE 600 HARRISBURG, PA 17101	717-705-5200	BROOME@ACS.COM
Gene Trindley	UNISYS 3501 Park HARRISBURG, PA 17111	717-214-2689	GENE@UNISYS.COM
Gloria Wilbur	DPW Procurement	214-7529	Gwilbur@state.pa.us
Bridgette Wuzler	TK SYSTEMS 4391 SHARP DRIVE, STE 102 HARRISBURG, PA 17110	520-1948	bluzera@tkystems.com

RFP 39-06
 Preproposal Conference
 January 22, 2007 - State Museum

Attendee Name	Company Name & Address	Phone	Email
Danni Wertz	PAW Procurement	783-5675	dwertr@state.pa.us
Heather Kirk	TEKsystems, 4392 Shubridge Dr, Ste 102, Harrisburg PA 17110	717-526-1937	h.kirk@teksystems.com
Carolyn Shaw	OTA/OTT	717 214 7949	CASHAW@STATE.PA.US
Fran Litten	DTC 5521 Carlisle Pike, Mech, PA 17050	717 691-9450	littenf@diverse-tech.com
RAJ SRINIVASAN	PROTECH SOLUTIONS 400 ALEXANDER PARK, PRINCETON NJ 08540	903 585 5290	RSRINIVASAN@PROTECHSOFT.COM
Merry-Grace Majors	BEO-223HE, W Bldg	787-3336	mmejors@state.pa.us
RON SIMBA	MURATA SYSTEMS MURATA, PA 19063	4944463304	rsiena@muratasystems.com

RFP 39-06
 Preproposal Conference
 January 22, 2007 - State Museum

Attendee Name	Company Name & Address	Phone	Email
Tami Mistretta	Department of General Svcs	(717) 346-3828	tmistretta@stat.pa.us
Danielle Ran	Diverse Technologies Corp 5821 Carlisle Pike, 2A Mech. PA 17050	717-691-9450	rand@diverse-tech.com
Gina Peters	DGS- BMW/B30	717 346 6105	gpeters@stat.pa.us
Michelle Henning	DPW	717-72259	MHenning@dpw.state.pa.us
Deborah Akers	Akers Personal (w B35)	(717) 561-2222	dabaker@personal.com
Adolph S. Mazzei	INFORMATIX INC	415 430 0591	adolph.mazzei@informatix.com
Terry Shuchart	DPW	717-772-7101	tshuchart@state.pa.us

ATTACHMENT 10

RFP 39-06 Pre-Proposal Conference Power Point Presentation

Commonwealth of Pennsylvania
Department of Public Welfare

*RFP 39-06 – PA Child Support Enforcement System (PACSES)
Application Maintenance & Operational Support Services*



January 22, 2007

Introductions

- Teresa Shuchart – Chief Information Officer for the Department of Public Welfare and RFP Project Officer
- Gina Peters – Procurement Liaison, Department of General Services
- Lisa Watson – Director, Contractor Partnership Program for the Department of Public Welfare
- Daniel Richard – Director, Bureau of Child Support Enforcement
- Jeffrey Rowe – Director, Automated Child Support Enforcement Systems (PACSES) Division
- Sallie Rodgers – Office of Legal Counsel for the Department of Public Welfare

Agenda

- Ground Rules
- Information Concerning Small Business Enterprises
- Information Concerning Contractor Partnership Program
- Purpose of Today's Meeting
 - Background Leading to the Issuance of this Request for Proposals
 - Critical Points in the RFP
 - Requirements of the RFP we consider especially important
 - To answer your questions concerning the RFP
 - Additional information about the required services
- Project Overview
- Next Steps/Project Timeline
- Break
- Preliminary Answers to Questions
- Adjourn

Ground Rules

- Offerors will submit their questions in writing to the RFP Project Officer at the break or at the end of the conference.
- Any answers to questions provided at this preproposal conference are not final until issued as a formal written addendum to this RFP. Any changes to this RFP will be issued as a formal written amendment to the RFP. Communications shall only be through the RFP Project Officer.

Small Business Enterprise Information

Contractor Partnership Program Information

Background Leading to the Issuance of this RFP

- In 1999, the Commonwealth implemented an automated child support enforcement system known as PACSES, which was mandated by the federal Department of Health and Human Services (DHHS), Office of Child Support Enforcement (OCSE).
 - PACSES was federally certified under the Family Support Act of 1988 (FSA) and the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in October 2001.

Background - continued

- New technology, maintenance costs, and changes to federal requirements have led to several key business decisions:
 - As part of the Commonwealth effort to refocus general operation costs and cost containment strategy; the Department is consolidating and integrating the management of all DPW IT systems under the DPW CIO.

Background - continued

- DPW elected to stop development of the legacy system and continue to maintain the system to meet federal and state mandates and operational efficiencies.
- The role of DPW's development contractor has evolved over time to include the ongoing maintenance and operational support of PACSES.

Background - continued

- DPW is currently completing the development of mandates specified in the Federal Deficit Act of 2006 and maintaining the PACSES systems via an Emergency Procurement with its existing supplier.
- DPW is seeking proposals to complete the remaining federal law mandates and for the ongoing maintenance and operational support services for its child support enforcement system.

Background - continued

- Required services:
 - Knowledge Transition
 - Project Management
 - Application Maintenance
 - Application Modification
 - Application Support Services
 - Turnover Services

Critical Points in the RFP

- To minimize delays in proposal evaluation and to avoid rejection of your proposal, read the RFP carefully and submit a complete proposal.
- Follow the proposal format given in Part II, Information Required from Offerors, of the RFP.

Requirements of the RFP We Consider Especially Important

- The resulting contract will be for a term of two years with three 1-year renewal options.
- Use of annual scoping sessions to align DPW business priorities and the Commonwealth's budget process.
- The period from April through June 30, 2007 has been designated as the knowledge transfer period. Under the terms of the current EP, the outgoing contractor's staff begins scaling down while the incoming contractor's staff is ramping up.

Requirements of the RFP We Consider Especially Important

- Proposals must be received timely and properly signed by the Offeror.
- **Do not include any cost data in the technical portion of your proposal.**
- The proposal must consist of four (4) separately sealed submittals:
 - Technical Submittal
 - Small Business Enterprise Submittal
 - Cost Submittal
 - Contractor Partnership Program

PROJECT OVERVIEW

Project Overview

Bureau of Child Support Enforcement

- Pennsylvania's Child Support Enforcement Program (CSEP) is mandated under Title IV-D of the Social Security Act, P.L. 93-647, as amended, and State Statute, Title 23 Pa C.S. Section 4372.
- Federal law requires the operation of a certified Child Support Enforcement Program as a condition of receipt of Temporary Assistance to Needy Families (TANF) block grant funds.
- Pennsylvania's Title IV-D State Plan is approved by the federal Office of Child Support Enforcement (OCSE), which is under the Administration for Children and Families of the Department of Health and Human Services.

Project Overview

Bureau of Child Support Enforcement

- The Child Support Enforcement Program in Pennsylvania serves about 1.8 million members, including mothers, fathers, and 736,201 children; about 49,498 paternities were established in FFY 2005, which included 18,654 voluntary acknowledgements.
- About \$1.5 billion is collected annually: \$1 billion from income (wage) withholding, \$49.5 million IRS intercept, \$5.2 million State income tax intercept, \$41.7 million UC intercept, \$79 million from other states, and \$265 million self-pay and other sources.

Project Overview

Bureau of Child Support Enforcement

- The federal Child Support Performance and Incentive Act of 1998 establishes standards of program performance that are required to maintain federal reimbursement at the prevailing rate of 66 percent of administrative and operations costs, and earn incentives (high-performance bonus payments) based on collections and indices of program effectiveness:
 1. Establishment of Paternity = 80 percent
 2. Establishment of Court Orders = 80 percent
 3. Collection of Current Support = 80 percent
 4. Cases paying on arrears = 80 percent
 5. Cost Effectiveness = or > \$5/\$1
- Failure to meet federal standards results in decreased incentive earnings and may result in financial penalties of 1 – 5 percent, which are applied to the TANF Block Grant.

Project Overview

General Structure/Budget

- Joint State / County Initiative: The Title IV-D Cooperative Agreement establishes the roles of the State (DPW / OIM / BCSE), the Court of Common Pleas / Domestic Relations Sections (DRS), and the County Executive or County Commissioners.
- The Cooperative Agreement is signature-authorized by State authorities, the President Judge (or Administrative Judge for Philadelphia and Allegheny Family Courts) of each of the 62 Judicial Districts, and the County Executive Home Rule Counties or County Commissioners for all other counties.

Project Overview

General Structure/Budget

- The Cooperative Agreement, which provides for compliance with State and Federal laws and regulations and Pennsylvania Supreme Court Rules, was most recently negotiated in early 2005 effective October 1, 2005 – September 30, 2010.
- The Cooperative Agreement provides for sanction and penalty of County / Court Child Support Enforcement Programs for failure to meet federal program requirements through withholding of reimbursement and/or incentive funds.

Project Overview

General Structure/Budget

- The Cooperative Agreement is also the contractual mechanism for the “pass-through” of federal reimbursement of eligible costs incurred by the counties / courts to provide child support services at the local level.
- Federal reimbursement “pass-through” to Counties / Courts is about \$98 million dollars for FFY 2005.

Project Overview

General Structure/Budget

- Counties / Courts also earn a portion of federal incentive funds received by DPW based on the relative distribution of State / County investment (costs) in the Child Support Enforcement Program, which currently denotes about a 32 / 67 split of total incentive payments of about \$26 million, or about \$8.32 million state and \$17.4 million county.
- Presently, there are about 131 State Staff distributed across BCSE Headquarters and 4 regional offices, and about 2,500 County staff in the 62 judicial districts.

Project Overview

General Structure/Budget

- DPW / OIM / BCSE provides central support services to County / Court operations:
 1. Legislative initiatives to maintain congruency with required federal laws and improve program performance;
 2. Program Development (policy) initiatives to implement new State and Federal laws and other requirements to maintain funding and/or improve performance;
 3. Program Evaluation (county/court performance and financial audits) to ensure the propriety of program-related invoices and compliance with State and Federal laws, regulations, and Supreme Court Rules;

Project Overview

General Structure/Budget

4. Liaison between State and County social services agencies (CAO/DRS);
5. Central Registry for interstate child support service requests;
6. Central Registry for voluntary establishments of paternity from hospitals and CAOs;
7. Legislative liaison and communications for positive public relations;
8. Governance of the OCSE annual Data Reliability Audit of PACSES data, which determines eligibility for incentive payments based on collections and performance; must meet 95% confidence level or higher;

Project Overview

General Structure/Budget

9. Compile and submit required annual Self-Assessment Report, which is a summary of customer service outcomes;
10. Compile and submit official federal cost, collections, and outcomes reports;
11. Maintain a nationwide HotLine which answers about 18,000 calls and about 1,500 correspondents annually.

Project Overview

General Structure/Budget

- DPW operates and maintains the federally-certified Pennsylvania Child Support Enforcement System, or PACSES, which consists of 21 State and 121 contracted staff. PACSES' Child Support Website, which provides access to individual case information, child support court dockets, arrears information, and employer HelpDesk, has had over 11 million site visits, including customers and business partners such as employers, title searchers, attorneys and financial institutions.

Project Overview

General Structure/Budget

- DPW operates the State Collection and Disbursement Unit (SCDU), which processes about \$1.5 billion annually in child support collections; SCDU had 4 State oversight staff and about 90 contracted staff.
- Other central services include various Federal/State data interfaces, UC, IRS, and insurance intercept programs, FIDM asset data matching, and Driver's License and Passport Suspension initiatives.

PROJECT OVERVIEW REQUIRED SERVICES

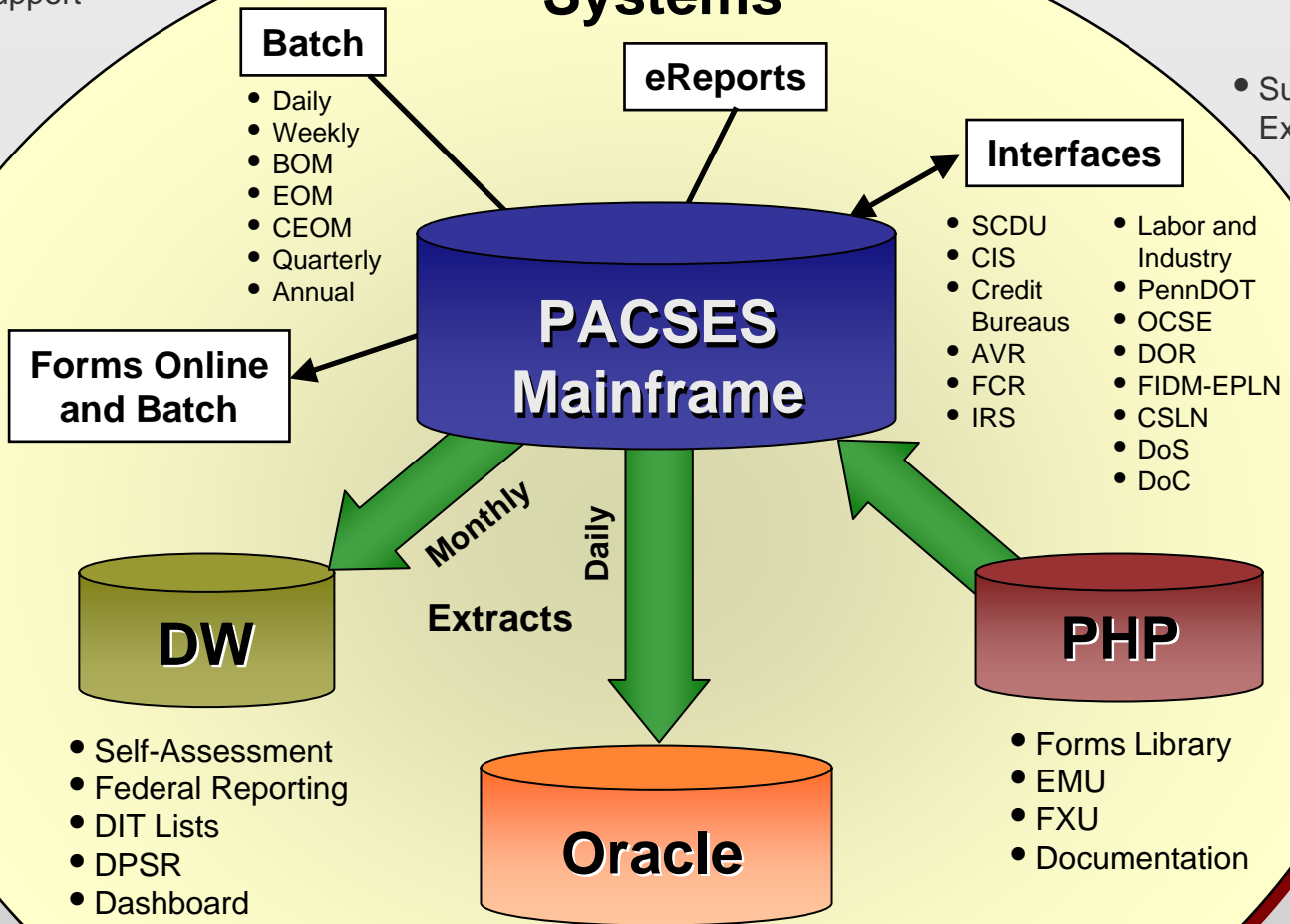
Support

Systems

• Log-In Support

• FXU

• Subject Matter Experts



• Help Desk

• EMU

• MOM Unit

Project Overview

Required Services

PACSES - SYSTEM TEST - [CASE]

File Field Options Help Navigation Menu PACSES Help

Func: **CASE** Case Status ST-DANA 11/11/04 11:14

CASE ID: CC543PLAINTIFF, MIKE V. CC543DEFENDANT, MIKE

Case Cat: **MD C Sup** Case Type: **NON-ASST** Estab Type: **O** Exempt:

County: **59 TIOGA** Num of Dep: **01** Med Spt Only: **Confid Ind:**

Case Status: **OPEN** Close Reason: Status As Of: **08/04/15**

Applic/Referral Received Date: **08/04/15**

Local: **County Use:**

Complaint Filed Date/Pet: / Non-Coop Ind:

Service of Process Date: **08/04/15** Non-Coop Occurrence Code:

Mod Petition Date/Pet: / Non-Coop Date:

Intercounty Ind: **Non-Coop Reas Code/Desc:**

Interstate Jurisdiction: /

Initiating Comp Date/Pend: /

Initiating Mod Date/Pend: /

Order Review Date: **08/04/18** Good Cause Approve Ind:

Wage Assignment Ind: **Y** Good Cause Filed Date:

Distribution Hold Ind: Good Cause Response Date:

Dist Hold Reas Code: **Continue IV-D Ind:**

Sup APIF Until Date:

Sup Reas Code:

01-C900W:CASE CLOSURE PENDING S--#0003:COMMAND COMPLETED

BACK NEXT CHANGE CI CISKIP CICHG DHCHG

eQuate Session Manager

Project Overview

Required Services

The screenshot shows a Microsoft Internet Explorer browser window displaying the Pennsylvania Child Support Program Home Page. The browser's address bar shows the URL: <https://www.humanservices.state.pa.us/cs/ws/index.aspx>. The page header includes navigation links: Home | Search | Site Map | Privacy | Contact Us. The main content area is titled "Welcome to the Pennsylvania Child Support Site" and features three login buttons: "employers login here", "receiving child support? login here", and "paying child support? login here". Below these is a banner for a "NEW Site?" with a "click here to take a site tour" link. A "What's New" section lists two recent updates: "Important Information on Establishing Paternity" dated 02/24/2006 and "Department of Public Welfare Website" dated 01/01/2005. The left sidebar contains several menu categories: "Client Services" (Liens Search, Docket Search, Financial Institution Data Match), "Useful Links" (Government, Employers, Child Support, Social Services, Legal, Medical), "Language" (English, Español), and "Public Information" (Services Provided, Locate Domestic Relations Office, Frequently Asked Questions, Child Support Terms, Laws and Legislation, Bureau of Child Support Enforcement). The Windows taskbar at the bottom shows the Start button, several open applications (Microsoft Outlook, Work Statement N..., Microsoft PowerPoint), and the system clock showing 4:19 PM on 4/19/06.

Project Overview

Required Services

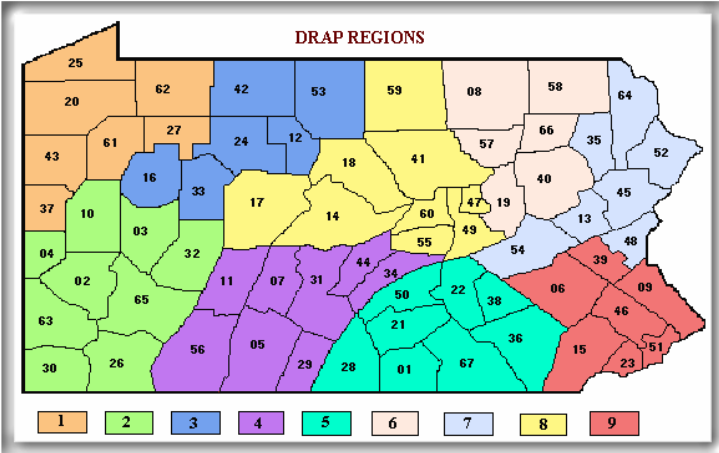
The PACSES Home Page - Current child support information starts here! - Microsoft Internet Explorer provided by PACSES Team

File Edit View Favorites Tools Help

Address <http://php.pacses.com/pacses/default.htm> Go Links

Home | Site Tools | Menus | Auxiliary Sites

The PACSES Home Page



DRAP REGIONS

The map displays 67 counties, each assigned a number from 01 to 67. These counties are grouped into 9 distinct color-coded regions, labeled 1 through 9. Region 1 (orange) includes counties 25, 20, 62, 43, 37, 10, 03, 04, 02, 63, 30, 26, 61, 27, 16, 33, 07, 11, 05, 29, 56, 05, 29, 42, 24, 12, 33, 17, 14, 11, 07, 31, 28, 53, 18, 41, 60, 47, 19, 55, 49, 54, 59, 08, 57, 66, 35, 40, 13, 45, 48, 52, 58, 64, 46, 09, 06, 38, 36, 15, 23, 51, 01, 21, 22, 38, 36, 01, 21, 22, 38, 36, 01, 21, 22, 38, 36.

Click on a county on the map or the drop-down list below for its corresponding directory.

Select County: Go

Suggested settings for viewing this site:

Local intranet

start | 2 Microsoft... | Work State... | PACSES Ne... | Jeff's OIM P... | The PACSES ... | 4:04 PM

Project Overview

Required Services

County Summary - Microsoft Internet Explorer provided by PACSES Team

Address: http://199.20.240.142/DRSdashboard/CountySummary.aspx?closest_office=14

Centre County Summary Dashboard

As of 9/30/2005

Performance Ratio	County Ratio	Class Average	Statewide Average	Target
Support Order	94.21%	91.18%	84.72%	80.00%
Paternity Establishment	97.44%	91.99%	87.46%	80.00%
Current Support	84.53%	77.02%	74.73%	80.00%
Arrears	86.65%	78.48%	73.34%	80.00%

Month	IV-D Caseload	Distributed Collections	Disbursements	Collections Remaining Undistributed	Held Disbursements	% of Collections Undistributed / Held
Sep'05	2592	\$ 817,303.47	\$ 829,520.86	\$ 12,532.50	\$ 39,219.38	6.33%
Aug'05	2593	\$ 780,792.16	\$ 788,982.33	\$ 20,749.91	\$ 50,596.13	9.14%
Jul'05	2628	\$ 852,880.43	\$ 860,197.96	\$ 22,808.69	\$ 57,056.68	9.36%
Jun'05	2624	\$ 890,047.53	\$ 880,397.00	\$ 18,005.99	\$ 59,335.27	8.69%
May'05	2615	\$ 819,099.11	\$ 813,864.43	\$ 23,904.88	\$ 49,272.35	8.93%
Apr'05	2618	\$ 871,760.23	\$ 893,104.97	\$ 23,762.00	\$ 40,124.18	7.33%
Mar'05	2608	\$ 890,599.62	\$ 892,259.34	\$ 36,565.90	\$ 39,577.55	8.55%
Feb'05	2590	\$ 811,690.94	\$ 798,655.67	\$ 37,093.88	\$ 36,071.37	9.01%
Jan'05	2596	\$ 721,029.16	\$ 735,656.20	\$ 34,860.40	\$ 18,326.96	7.38%
Dec'04	2636	\$ 884,145.92	\$ 892,105.12	\$ 36,751.62	\$ 18,949.30	6.30%

Done Local intranet

Project Overview

Required Services

RD50 Report - Microsoft Internet Explorer provided by PACSES Team

Search Entire Report [] Search

Print the Report

Query [] Show County ADAMS Re-Display

Frequency: Monthly Order Review Status As Of 05/27/05
 Report ID: R050 ADAMS County Page 1 of 13

Worker ID/Unit No.: 5DFIX

Payor ID	Defendant Name	Case ID	Type	Status	Support Order ID	Review Date
4035000314		369001013	N	O	DR-372-90	07/17/2005
WORKER TOTALS:		1 Cases				

Frequency: Monthly Order Review Status As Of 05/27/05
 Report ID: R050 ADAMS County Page 2 of 13

Worker ID/Unit No.: 01100

Payor ID	Defendant Name	Case ID	Type	Status	Support Order ID	Review Date
6872000257		311000888	N	O	DR-605-98	07/09/2005
3458000281		649000920	N	C	DR-887-97	07/14/2005
2990100024		179100048	N	O	DR-00192-98	07/20/2005
WORKER TOTALS:		3 Cases				

THIS REPORT WILL CLOSE IN: 09:49

Local intranet

Start [] Unicenter Remot... [] Inbox - Microsof... [] 3 Internet Ex... [] Document3 - Mic... [] 12:31 PM

Project Overview

Required Services

PACSES - FTPR - Microsoft Internet Explorer provided by PACSES Team

File Edit View Favorites Tools Help

Address <http://199.20.240.73/FormsLibrary/ftpr.aspx>

Form Template Print Request Oct 19, 05 10:04:32 AM

Page Help Close Window

Search by

Subsystem

Form ID	Form Name	Subsystem	Spanish	Confidential
PE-006	Identification of Putative Father's Photo	Paternity	Y	N
PE-010	Acknowledgement of Paternity - Waiver of Trial	Paternity		Y
PE-012	Cover Letter - Acknowledgement of Paternity (Incarcerated)	Paternity		N
PE-013	Notice - Right to Trial on Issue of Paternity	Paternity		N
PE-017	Order to Appear - Genetic Tests	Paternity		N
PE-019	Stipulation Regarding Genetic Tests	Paternity		N
PE-020	Order of Court - Transport Mother/Defendant for Genetic Tests	Paternity		N
PE-023	Cover Letter - Genetic Test Results	Paternity	Y	Y
PE-031	Order and Notice of Paternity Trial	Paternity		N
PE-039	Order of Court - To Appoint Counsel/Deny Appointment	Paternity		N
PE-040	Order to Appear - Genetic Tests (Out of County/State)	Paternity		N
PE-041	Order to Transport Defendant for Genetic Tests	Paternity		N
PE-042	Order of Court - Deny Appointment of Counsel	Paternity		N
PE-043	Order of Court - Paternity Stipulation (DF is Father)	Paternity		N
PE-044	Order of Court - Paternity Stipulation (DF is not Father)	Paternity		N
PE-045	Order of Court - Paternity (DF is Father)	Paternity		N

Start Co... In... F... dit... eQ... RE... Do... PA... 10:04 AM

Project Overview

Required Services

QUICK Financial Summary - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address G:\My Documents\Work\Design\ITN\2005\Screen Shots\050815 v2\QuICKScreenShots\financialSummary.html

U.S. Department of Health & Human Services Administration for Children & Families Office of Child Support Enforcement

Query Interstate Cases for Kids QUICK

Print

NCP: William J. Jones CP: Sandy R. Jones As of: 07/27/2005

Providing State: Virginia Case ID: 787665CA4

Requesting State: North Carolina Case ID: 966665CA4

Case Request

Case Information

Financial Summary

NCP Payment Detail

Disbursement Detail

Help

Financial Summary

Current Obligation		Last Payment Information	
Monthly Support Amount	\$150.00	Last Payment Amount	\$100.00
Monthly Arrears Amount	\$20.50	Last Payment Date	08/28/2004
Other Monthly Amount	\$29.50		
Total Monthly Amount*	\$200.00		

Balance to Date			
Total Arrears Owed	\$6,000.00	Total Judgment Amount	\$34,000.00
Total Interest Owed	\$300.00	Total Assigned Arrears	\$2,500.00
Total NCP Fees Owed	\$200.00	Total Owed Amount*	\$6,500.00

* Due to differences in state policies, the total amounts may not reconcile.

Notice

Access to the QUICK System is limited to authorized IV-D child support personnel and subject to safeguards, applicable to all confidential information, that are designed to protect the privacy rights of the parties. Information provided by a state IV-D agency through the QUICK system shall be used for informational purposes.

Local intranet

Start Inb... G:\... G:\... G:\... Adv... web... G:\... Fax ... Micr... G:\... QuI... 5:10 PM

Project Overview

Required Services

Name: Test User001 | User ID: TEST001 | April 28, 2006 | 03:29:55 PM Home Print Help Logoff

Acknowledgment of Paternity - Update Details Record Locator: 280303

AOP Detail Information

Record Number *	280303	HBU Code *	07926	READING HOSPITAL/MEDICAL CENTER	
Transaction Type *	Acknowledgment	Transaction Reason *		Paternity Establish Date	4/29/2004
State/Country of Birth	Pennsylvania	County of Birth	Philadelphia	Input Date	06/07/2004
Reviewed Non-Dup	- select -	BOW	Yes	Last Updated Date	04/27/2006 10:4
Member ID		Case ID		Last Updated By	TEST001
Remarks	<input type="text"/>				

Child's Information

Last Name *	DLINO LEONA	First Name *	OSCAR	Middle Name	ANTONIO
Suffix		Birth Date *	3/5/2004	SSN	

Mother's Information

Last Name *	OLN REYESE	First Name *	MARIA	Middle Name	ELENA
		Birth Date *	7/21/1972	SSN	000000000

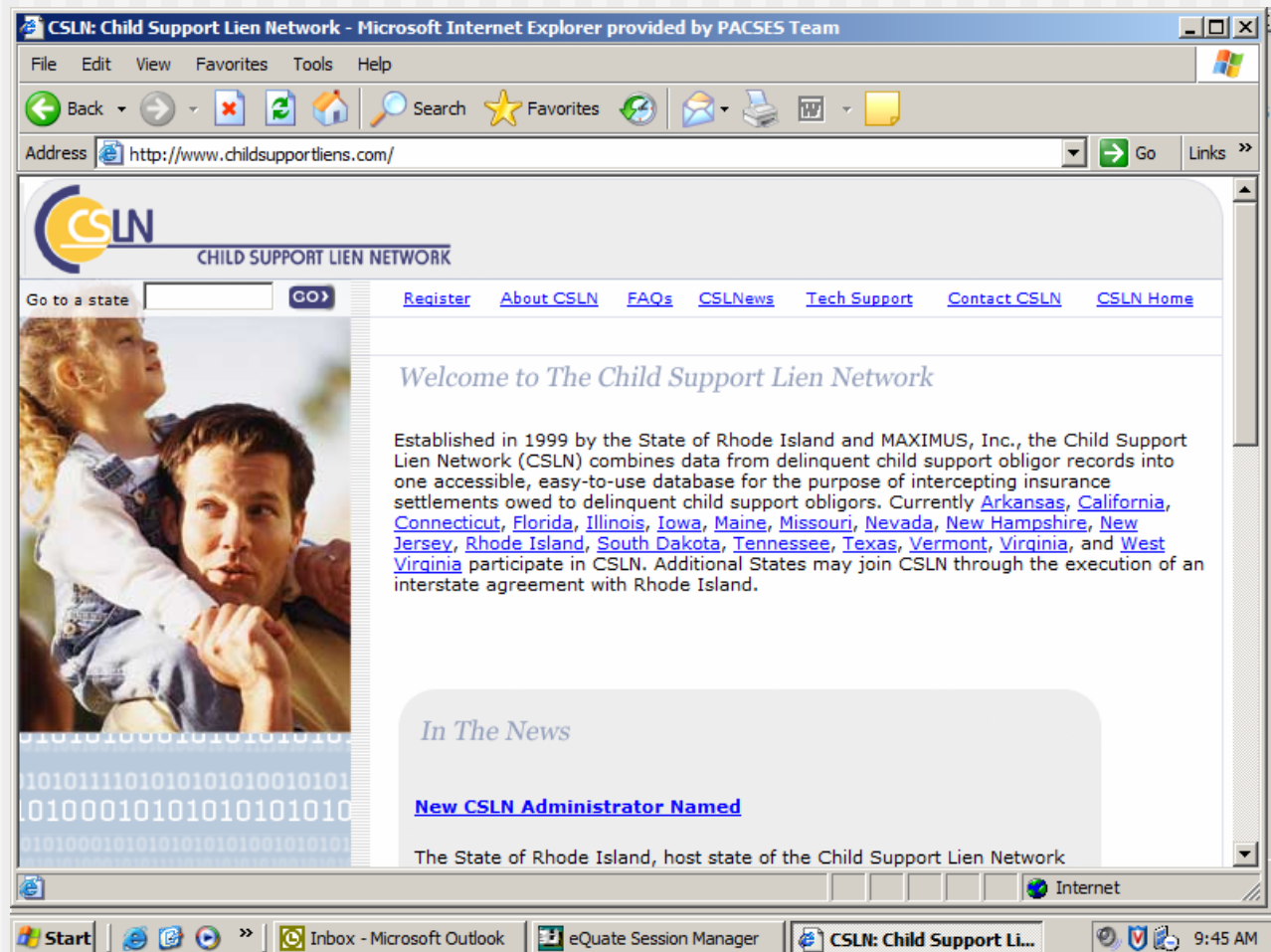
Father's Information

Last Name *	DLINO CAPULINA	First Name *	OSCAR	Middle Name	
Suffix		Birth Date *	4/19/1979	SSN	000000000

14:40 -- Time Remaining Until Session Timeout Local intranet

Project Overview

Required Services



The screenshot shows a Microsoft Internet Explorer browser window displaying the CSLN website. The browser's address bar shows the URL <http://www.childsupportliens.com/>. The website header includes the CSLN logo and the text "CHILD SUPPORT LIEN NETWORK". Below the header is a navigation menu with links for "Register", "About CSLN", "FAQs", "CSLNews", "Tech Support", "Contact CSLN", and "CSL Home". A "Go to a state" dropdown menu is also present. The main content area features a photograph of a man holding a young child, with a decorative binary code pattern at the bottom. The text on the page reads: "Welcome to The Child Support Lien Network". It states that the network was established in 1999 by the State of Rhode Island and MAXIMUS, Inc., and provides a list of participating states: Arkansas, California, Connecticut, Florida, Illinois, Iowa, Maine, Missouri, Nevada, New Hampshire, New Jersey, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Virginia, and West Virginia. A section titled "In The News" includes a link for "New CSLN Administrator Named". The browser's taskbar at the bottom shows the Start button, several open applications including Microsoft Outlook and eQuate Session Manager, and the system clock showing 9:45 AM.

CSLN: Child Support Lien Network - Microsoft Internet Explorer provided by PACSES Team

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Stop Print Mail Word Pad

Address <http://www.childsupportliens.com/> Go Links >>

CSLN
CHILD SUPPORT LIEN NETWORK

Go to a state GO>

[Register](#) [About CSLN](#) [FAQs](#) [CSLNews](#) [Tech Support](#) [Contact CSLN](#) [CSLN Home](#)

Welcome to The Child Support Lien Network

Established in 1999 by the State of Rhode Island and MAXIMUS, Inc., the Child Support Lien Network (CSLN) combines data from delinquent child support obligor records into one accessible, easy-to-use database for the purpose of intercepting insurance settlements owed to delinquent child support obligors. Currently [Arkansas](#), [California](#), [Connecticut](#), [Florida](#), [Illinois](#), [Iowa](#), [Maine](#), [Missouri](#), [Nevada](#), [New Hampshire](#), [New Jersey](#), [Rhode Island](#), [South Dakota](#), [Tennessee](#), [Texas](#), [Vermont](#), [Virginia](#), and [West Virginia](#) participate in CSLN. Additional States may join CSLN through the execution of an interstate agreement with Rhode Island.

In The News

[New CSLN Administrator Named](#)

The State of Rhode Island, host state of the Child Support Lien Network

Start | | | | | Internet | 9:45 AM

Project Overview

Required Services

PACSES TV

Channel List

- Administrative Information
- BCSE Programs
- Child Support Web Site
- Data Management
- General
- Network
- SCU
- Security
- Using MS Software
- Using PACSES

Internal

- BCSE Test Area
- Brown Bag Training
- Internal Testing
- PACSES 101 Training

PACSES TV Introduction

Welcome to PACSES TV, the beginning of a new communication era for PACSES. Our goal for this new initiative is to empower users through system knowledge. The Cisco Content Delivery Network (CDN) is the platform for PACSES TV and has the capability of delivering quality video to user PCs across Pennsylvania. We look forward to working together to leverage the potential of this powerful learning delivery tool.

How it works

The Cisco Content Delivery Network (CDN) and its parallel application, IPTV, accept inputs from any video source; reformat them into movie quality video, which can then be delivered to the local Cisco storage device on the PACSES network. Through the intranet homepage, PACSES TV will be available for staff viewing at their PC and at their convenience.

How it can be used

PACSES TV potential is unlimited. Videos from conferences and workshops, clips developed for mini lessons about new change controls and incidents, data correction procedures, and legislation reviews are examples of the content that can be viewed on PACSES TV. Staff members can choose when and how often they access particular

Recent Updates

10/4/2005	Forms Library
9/26/2005	Performance Part 1
9/26/2005	Performance Part 2

Most Viewed

IRS Training Clip 2005	3300
Case Closure	1729
An Introduction of PA Eppicard by Dan Richard	1468
Important Information about the Eppicard	1185
Extreme Makeover: CASE Edition	1163

Project Timeline

- 1/8/07 - RFP 39-06 Issued
- 1/22/07 – Pre-proposal Conference
- 1/25/07 - Answers to questions posted
- 2/22/07 - Proposal due date
- February - March 2007 – Proposal evaluation and Contractor selection
- March - April 2007 – Contract Negotiations
- April 2007 – Federal and State Contract Approvals
- April 2007 – June 2007 – Transition period