

Security Guide  
SAP Yard Logistics  
Document Version: 1.1 – 2016-05-13

CUSTOMER

# SAP Yard Logistics 1.0



# Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
<b>Example</b>	Emphasized words or expressions.
<b>EXAMPLE</b>	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
<code>Example</code>	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<b>&lt;Example&gt;</b>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
<b>EXAMPLE</b>	Keys on the keyboard, for example, <b>F2</b> or <b>ENTER</b> .

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# Document History

Version	Date	Change
1.0	2015-11-20	Released to Customer
1.1	2016-05-13	New authorization object /SAPYL/SLF (Authorization Check for Special Functions) added in Section 6.1

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# 1 Introduction



## Caution

This guide does not replace the administration or operation guides that are available for productive operations.

## 1.1 Target Audience

- Technology consultants
- Security consultants
- System administrators

This document is not included as part of the Installation Guides, Configuration Guides, Technical Operation Manuals, or Upgrade Guides. Such guides are only relevant for a certain phase of the software life cycle, whereas the Security Guides provide information that is relevant for all life cycle phases.

## 1.2 Why Is Security Necessary?

With the increasing use of distributed systems and the Internet for managing business data, the demands on security are also on the rise. When using a distributed system, you need to be sure that your data and processes support your business needs without allowing unauthorized access to critical information. User errors, negligence, or attempted manipulation of your system should not result in loss of information or processing time. These demands on security apply likewise to the *SAP Yard Logistics* solution. To assist you in securing the solution, we provide this Security Guide.

## 1.3 About this Document

This Security Guide provides an overview of the security-relevant information that applies to *SAP Yard Logistics*.

## 1.4 Overview of the Main Sections

The Security Guide comprises the following main sections:

- Before You Start

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This section contains information about why security is necessary, how to use this document and references to other Security Guides that build the foundation for this Security Guide.

- Technical System Landscape

This section provides an overview of the technical components and communication paths that are used by [SAP Yard Logistics](#).

- Security Aspects of Data, Data Flow, and Processes

This section provides an overview of security aspects involved throughout the most widely used processes within [SAP Yard Logistics](#).

- User Administration and Authentication

This section provides an overview of the following user administration and authentication aspects:

- Recommended tools to use for user management
- User types that are required by [SAP Yard Logistics](#)
- Standard users that are delivered with [SAP Yard Logistics](#)
- Overview of the user synchronization strategy, if several components or products are involved
- Overview of how integration into Single Sign-On environments is possible

- Roles and Authorizations

This section provides an overview of the authorization concept that applies to [SAP Yard Logistics](#).

- Session Security Protection

This section provides information about activating secure session management, which prevents JavaScript or plug-ins from accessing the SAP logon ticket or security session cookie(s).

- Network and Communication Security

This section provides an overview of the communication paths used by [SAP Yard Logistics](#) and the security mechanisms that apply. It also includes our recommendations for the network topology to restrict access at the network level.

- Internet Communication Framework Security

This section provides an overview of the Internet Communication Framework (ICF) services that are used by [SAP Yard Logistics](#).

- Application-Specific Virus Scan Profile (ABAP)

This section provides an overview of the behavior of the AS ABAP when application-specific virus scan profiles are activated.

- Data Storage Security

This section provides an overview of any critical data that is used by [SAP Yard Logistics](#) and the security mechanisms that apply.

- Data Protection

This section provides information about how [SAP Yard Logistics](#) protects personal or sensitive data.

- Enterprise Services Security

This section provides an overview of the security aspects that apply to the enterprise services delivered with [SAP Yard Logistics](#).

- Other Security-Relevant Information

This section contains information about:

- User Front End
- Virus Check of Document Attachments

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- Security-Relevant Logging and Tracing

This section provides an overview of the trace and log files that contain security-relevant information, for example, so that you can reproduce activities if a security breach occurs.

- Services for Security Lifecycle Management

This section provides an overview of services provided by Active Global Support that are available to assist you in maintaining security in your SAP systems on an ongoing basis.

- Appendix

This section provides references to further information.



## 2 Before You Start

### 2.1 Fundamental Security Guides

The *SAP Yard Logistics* solution is built on SAP Supply Chain Management (SAP SCM), SAP ERP, and SAP NetWeaver. Therefore, the corresponding Security Guides also apply to *SAP Yard Logistics*. Pay particular attention to the most relevant sections or specific restrictions as indicated in the following table.

Fundamental Security Guides

Landing page or common entry point is <http://service.sap.com/securityguide>.

Scenario, Application or Component Security Guide	Most Relevant Sections or Specific Restrictions
→ <i>SAP Business Suite Applications</i> → <i>SAP ERP</i> → <i>6.0, EHP5</i>	<i>SAP ERP 6.0 Security Guides, EHP5</i> <i>SAP ERP Central Component: Security Guide</i>
→ <i>SAP Business Suite Applications</i> → <i>SAP SCM</i> → <i>SAP Advanced Planning and Optimization</i>	<i>SAP APO 703 - Security Guide</i>
→ <i>SAP Business Suite Applications</i> → <i>SAP SCM</i> → <i>SAP Supply Chain Management</i>	<i>SAP Supply Chain Management 7.0 EHP 1 Security Guide</i>

For a complete list of the available SAP Security Guides, see SAP Service Marketplace at <http://service.sap.com/securityguide>.

### 2.2 Important SAP Notes

The most important SAP Notes that apply to the security of the *SAP Yard Logistics* are the same for SAP SCM and, therefore, no additional notes are required.

For a list of additional security-relevant SAP Hot News and SAP Notes, see also SAP Service Marketplace at <http://service.sap.com/securitynotes>.

### 2.3 Configuration

You can find a summary of the configuration steps for implementing security for the *SAP Yard Logistics* solution in the related security guide for SAP SCM.

## 2.4 Additional Information

For more information about specific topics, see the Quick Links as shown in the following table:

Content	Quick Link on SAP Service Marketplace or SCN
Security	<a href="http://scn.sap.com/community/security">http://scn.sap.com/community/security</a>
Security Guides	<a href="http://service.sap.com/securityguide">http://service.sap.com/securityguide</a>
Related SAP Notes	<a href="http://service.sap.com/notes">http://service.sap.com/notes</a> <a href="http://service.sap.com/securitynotes">http://service.sap.com/securitynotes</a>
Release Platforms	<a href="http://support.sap.com/pam">http://support.sap.com/pam</a>
Network Security	<a href="http://service.sap.com/securityguide">http://service.sap.com/securityguide</a>
SAP Solution Manager	<a href="http://support.sap.com/solutionmanager">http://support.sap.com/solutionmanager</a>
SAP NetWeaver	<a href="http://scn.sap.com/community/netweaver">http://scn.sap.com/community/netweaver</a>

### 3 Technical System Landscape

The following figure shows an overview of the technical system landscape for *SAP Yard Logistics* and its components.

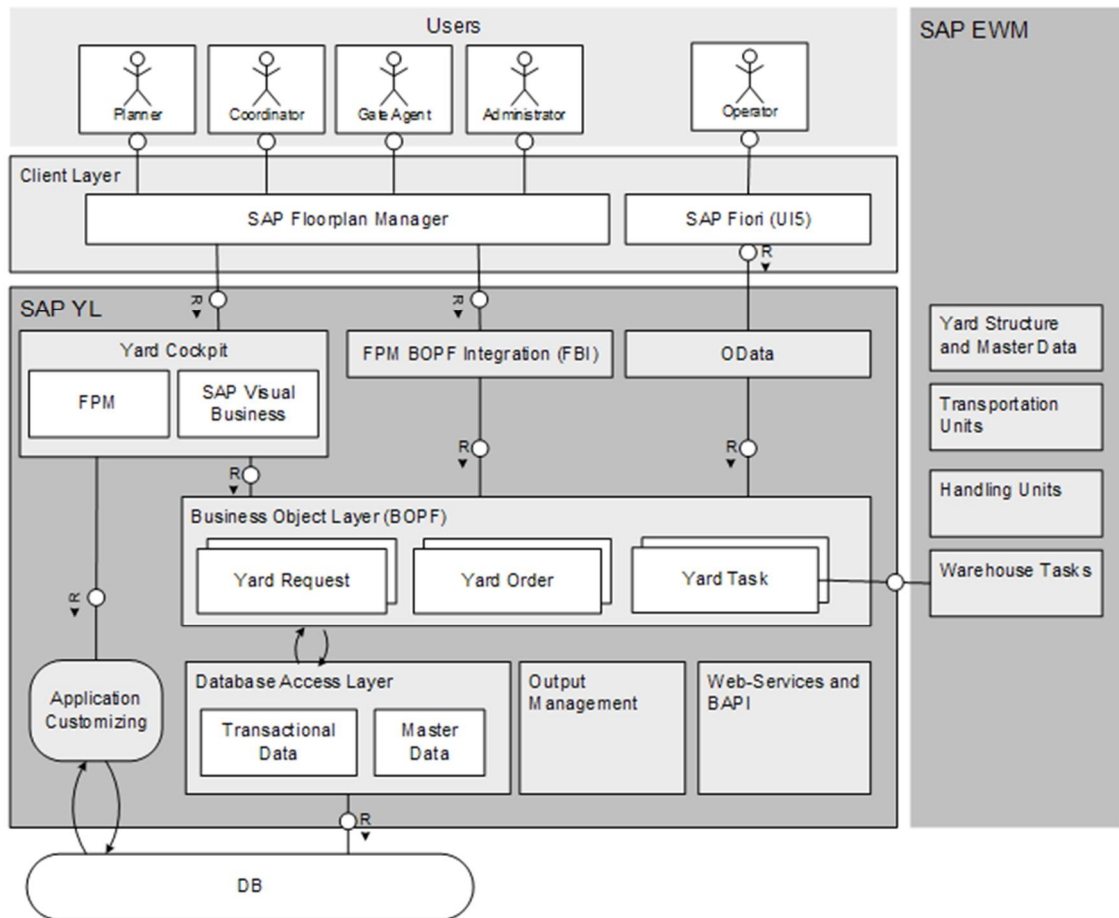


Figure 1: Technical System Landscape

For more information about the technical system landscape, see the resources listed in the following table:

Topic	Guide/Tool	Quick Link on SAP Service Marketplace or SCN
Technical description for SAP Yard Logistics	Master Guide	<a href="http://service.sap.com/instguides">http://service.sap.com/instguides</a>
High availability	See applicable documents	<a href="http://scn.sap.com/docs/DOC-7848">http://scn.sap.com/docs/DOC-7848</a>
Technical landscape design	See applicable documents	<a href="http://scn.sap.com/docs/DOC-8140">http://scn.sap.com/docs/DOC-8140</a>

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Topic	Guide/Tool	Quick Link on SAP Service Marketplace or SCN
Security	See applicable documents	<a href="http://scn.sap.com/community/security">http://scn.sap.com/community/security</a>

## 4 Security Aspects of Data, Data Flow, and Processes

The following table describes some typical processes and communication channels, along with appropriate security measures:

Process	Security Measure	Application Relevance
SAP Yard Logistics offers the possibility for upload and download of attachments in yard tasks. It is possible to either choose a local file system (PC) or provide a URL to a file.	Ensure that only a few people can access these transactions. Restrict access to the application server file system by designing logical paths and filenames. For more information, see section on Data Storage Security.	Relevant for Yard Task application where upload of attachments is allowed.
SAP Yard Logistics offers a possibility for direct integration to SAP Transportation Management (SAP TM).	SAP Yard Logistics receives inbound messages from SAP TM and can send outbound messages to SAP TM. The communication is performed using enterprise services.	Relevant only if you are using a direct integration to SAP TM
SAP Yard Logistics offers a possibility for Warehouse Billing where there is an integration with the SAP TM system.	SAP Yard Logistics can extract billing relevant information from SAP TM and send order and settlement information back to SAP TM. The communication is performed using enterprise/web services.	Relevant only if you are using Warehouse Billing

### File Upload Interaction

The figure below shows an overview of the file upload interaction for SAP Yard Logistics 1.0. This is relevant if you upload files in the Yard Operations, either from the Fiori Application for Yard Tasks or from the FPM Application for Yard Tasks.

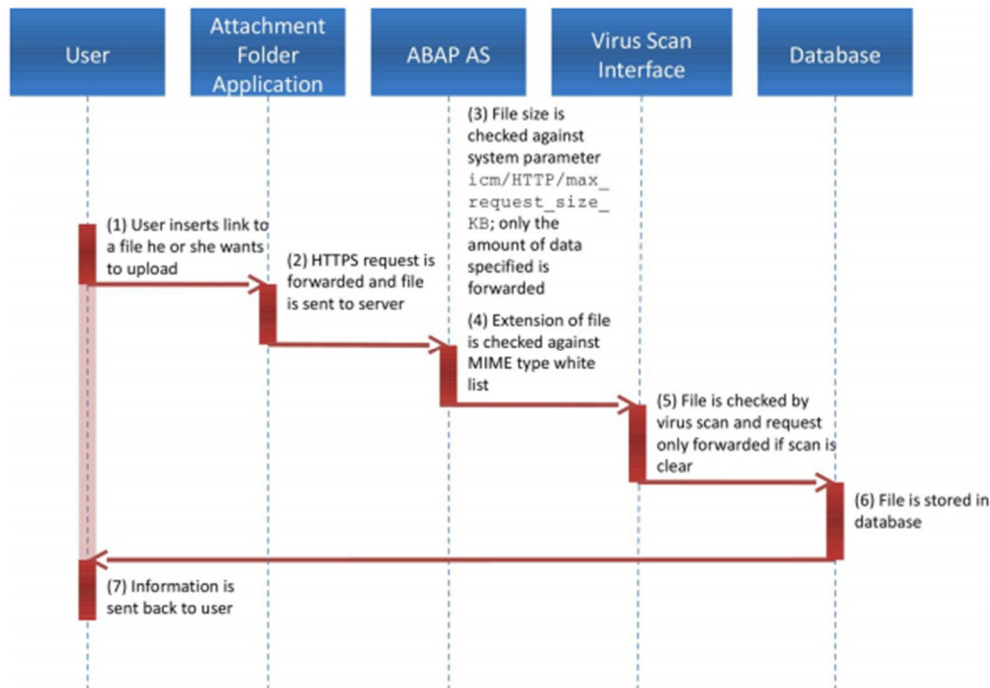


Figure 2: File Upload Interaction

The table below shows the security aspects to be considered for the process step and what mechanism applies.

Step	Description	Security Measure
1	Insert link to a file that you want to upload	You have to be aware of the file that you want to upload
2	HTTPS request is forwarded and the file is sent to the server	Not applicable
3	File size is checked against system parameter <i>icm/HTTP/max_request_size_KB</i> ; only the amount of data specified is forwarded	Maximum file size needs to be restricted to secure the server. For more information, see the Security Guide for SAP NetWeaver 7.4 on SAP Service Marketplace at <a href="http://help.sap.com/nw74">http://help.sap.com/nw74</a> . Choose <i>Security Information</i> → <i>Security Guide</i> .
4	MIME type of file is checked against white list	The extension of the uploaded file (but not its content) is checked against MIME type white list. As a prerequisite for using the white list, you must implement SAP Note <a href="#">1514253</a> .

Step	Description	Security Measure
5	File is checked by virus scan and request only forwarded if scan is clear	Virus scan needs to be active in your system. For more information, see SAP Library for SAP NetWeaver 7.4 at <a href="http://help.sap.com/nw74">http://help.sap.com/nw74</a> . Choose <i>Application Help</i> → <i>Function-Oriented View</i> → <i>Security</i> → <i>Security Developer Documentation</i> → <i>Secure Programming</i> → <i>Secure Programming – Java</i> → <i>Secure Programming</i> → <i>SAP Virus Scan Interface</i> . We strongly recommend that you create a virus scan profile with linkage type <i>All steps successful</i> .
6	File is stored in the database	Not applicable
7	Information is sent back to the user	Not applicable

### Caution

Only file extensions are compared to the entries in the white list, not the content of the files.

Always ensure that your virus scan is set-up and working correctly before enabling file uploads. If your virus scan is not up and running, do not use the file upload.

# 5 User Administration and Authentication

The *SAP Yard Logistics* solution uses the user management and authentication mechanisms provided with the SAP NetWeaver platform, in particular, the SAP NetWeaver Application Server for ABAP. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Application Server ABAP Security Guide also apply to *SAP Yard Logistics*. For more information, see SAP Library for SAP NetWeaver on SAP Help Portal at <http://help.sap.com/netweaver>.

In addition to these guidelines, we include information about user administration and authentication that specifically apply to the *SAP Yard Logistics* solution in the following topics:

- User Management  
This topic lists the tools to use for user management, the types of users required, and the standard users that are delivered with *SAP Yard Logistics*.
- User Data Synchronization
- Integration into Single Sign-On Environments

## 5.1 User Management

User management for the *SAP Yard Logistics* solution uses the mechanisms provided with the SAP NetWeaver Application Server for ABAP.

For an overview of how these mechanisms apply, see the Security Guide for SAP NetWeaver 7.4 on SAP Service Marketplace at <http://help.sap.com/nw74>.

### User Administration Tools

The following table shows the tools to use for user management and user administration with *SAP Yard Logistics*.

#### User Management Tools

Tool	Detailed Description	Prerequisites
User and role maintenance with SAP NetWeaver AS ABAP (Transactions SU01, PFCG)	For more information, see the topic <a href="#">User and Role Administration of Application Server ABAP</a> in the Help Portal for SAP SCM Server at <a href="http://help.sap.com">http://help.sap.com</a> .	Not applicable



## User Types

It is often necessary to specify different security policies for different types of users. For example, your policy may specify that individual users who perform tasks interactively have to change their passwords on a regular basis, except for those users who run the background processing jobs.

The solution includes the following base user types:

Type	Purpose
Dialog	Individual, interactive system access
System	Background processing and communication within a system, such as RFC users for ALE, Workflow, TMS, and CUA
Communication	Dialog-free communication for external RFC calls
Service	Dialog user available to a larger, anonymous group of users
Reference	General, non-person related users that allows the assignment of additional identical authorizations for example, internet users created with transaction SÜ01. No logon is possible here.

For more information about these user types, see the chapter [User Types](#) in the SAP NetWeaver Security Guide.

## Standard Users

Rules for user creation must be considered and can be read from the following places:

- For information about user types, see the Security Guide for SAP NetWeaver 7.4 on SAP Service Marketplace at <http://help.sap.com/nw74>. Choose *Security Information* → *Security Guide*. Go to *SAP NetWeaver Security Guide* → *User Administration and Authentication* → *User Management* → *User Types*.
- For information about SAP NetWeaver Standard Users, see *SAP NetWeaver Security Guide* → *User Administration and Authentication*.

### Recommendation

We recommend that you change the user IDs and passwords for users that the system automatically creates during installation.

## 5.2 User Data Synchronization

For information about this topic, go to <http://help.sap.com/scmsserver> → *SAP Supply Chain Management* → *SAP SCM 7.0 EHP3* → *Security Information* → *Security Guide*. Go to *SAP Supply Chain Management*. Download *SAP Supply Chain Management 7.0 EHP 3 Security Guide*. Go to *User Data Synchronization*.

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## 5.3 Integration into Single Sign-On Environments

For information about this topic, see the Security Guide for SAP NetWeaver 7.4 on SAP Service Marketplace at <http://help.sap.com/nw74>. Choose *Security Information* → *Security Guide*. Go to *User Administration and Authentication* → *User Authentication and Single Sign-On*.

## 6 Roles and Authorizations

Roles and authorization objects are delivered to allow the end users to work within the limits of their tasks. In other words, they should only be allowed to execute and see what they need in their daily work. These tasks depend on your specific business processes.

As a logical consequence, the authorizations and roles assigned to your users depend heavily on the business processes you deploy, and depend on the configuration of your system accordingly.

The concept of your configuration needs to be considered for the concept of your authorizations. Although template roles are delivered for your use, they can hardly be applied without modification to your business.

### 6.1 Authorization Objects used in SAP Yard Logistics Authorization

The following authorization objects are available in *SAP Yard Logistics* and should be set to the business requirements to enable users to work with the solution:

- /SAPYL/YC (Authorization Object Yard Cockpit)

This authorization object is used to regulate access to the Yard Cockpit application.

Field	Description
Yard Number	Yard Number(s) the user can access - As defined in the Customizing (transaction <i>SPRO</i> ) for <i>SAP Yard Logistics</i> under <i>Master Data</i> → <i>Setting up the Yard</i> → <i>Define Yard Numbers</i>
Activity	Activities that the user is allowed to execute Possible values are: <ul style="list-style-type: none"><li>• 01 Create or Generate</li><li>• 02 Change</li><li>• 03 Display</li><li>• 06 Delete</li></ul>
BO service name for authorization checks	Service Name for BOPF authorization checks - This field is currently not checked for this authorization object

- /SAPYL/YO (Authorization Object Yard Order)

This authorization object is used to regulate access to the Yard Order / Yard Request applications and objects.

Field	Description
Yard Document Category	Category of the document - Value can be YO (Yard Order), YR (Yard Request) or YT (Yard Task).
Yard Number	Yard Number(s) that the user can access - As defined in the Customizing (transaction SPRO) for <i>SAP Yard Logistics</i> under <i>Master Data</i> → <i>Setting up the Yard</i> → <i>Define Yard Numbers</i>
Yard Order Type	Yard Order Types of the Yard Numbers defined above that the user can access - As defined in the Customizing (transaction SPRO) for <i>SAP Yard Logistics</i> under <i>Yard Request and Yard Order</i> → <i>Define Order Types</i> .
Activity	Activities that the user is allowed to execute Possible values are: <ul style="list-style-type: none"> <li>• 01 Create or Generate</li> <li>• 02 Change</li> <li>• 03 Display</li> <li>• 06 Delete</li> <li>• 16 Execute (execute <i>Actions</i> defined in field <i>BO service name for authorizations</i>)</li> <li>• 39 Check (not used)</li> <li>• AF Prompts (execute <i>Queries</i> defined in field <i>BO service name for authorizations</i>)</li> </ul>
BO service name for authorization checks	Service Name for BOPF authorization checks. Possible values for Actions and Queries in the /SAPYL/-namespace can be seen via F4-help. You are recommended to use an asterisk for this field to allow appropriate operation on the business object Yard Order.

- /SAPYL/YT (Authorization Object Yard Task)

This authorization object is used to regulate access to Yard Task related applications and objects.

Field	Description
Yard Number	Yard Number(s) that the user can access - As defined in the Customizing (transaction SPRO) for <i>SAP Yard Logistics</i> under <i>Master Data</i> → <i>Setting up the Yard</i> → <i>Define Yard Numbers</i>
Activity	Activities the user is allowed to execute Possible values are: <ul style="list-style-type: none"> <li>• Create or Generate</li> <li>• Change</li> <li>• Display</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>Delete</li> <li>Execute (execute <i>Actions</i> defined in field <i>BO service name for authorizations</i>)</li> <li>Check (not used)</li> <li>Prompts (execute <i>Queries</i> defined in field <i>BO service name for authorizations</i>)</li> </ul>
BO service name for authorization checks	Service Name for BOPF authorization checks Possible values for Actions and Queries in the /SAPYL/-namespace can be seen via F4-help.

Note: Changes on Yard Tasks (for example, Confirmation of the YT) may require follow-on updates on the corresponding Yard Order and, therefore, the user also needs authorization for updating Yard Orders.

- /SAPYL/YTU (Authorization Object Yard Transportation Unit)

This authorization object is used to regulate access to Yard applications, which focusses on Transportation Units (Display Transportation Unit / Transportation Unit Overview).

Field	Description
Yard Number	Yard Number(s) the user can access - As defined in the Customizing (transaction SPRO) for <i>SAP Yard Logistics</i> under <i>Master Data</i> → <i>Setting up the Yard</i> → <i>Define Yard Numbers</i>
Activity	Activities that the user is allowed to execute Possible values are: <ul style="list-style-type: none"> <li>• 01 Create or Generate</li> <li>• 02 Change</li> <li>• 03 Display</li> <li>• 06 Delete</li> </ul>
BO service name for authorization checks	Service Name for BOPF authorization checks - This field is currently not checked for this authorization object.

- S\_START (Start Authorization Check for TADIR Objects)

To access a Web screen (like a direct URL to a Web Dynpro Application or to an HTML UI), a user can either log on using the URL of the Web screen in the internet browser directly or can call up the transaction for the Web screen from the SAP NetWeaver Business Client. To access the Web screen, a user needs appropriate authorizations.

The S\_START authorization object determines if a user can start a Web screen by checking if the user has the authorization to directly access the Web Dynpro application that lies beneath a Web screen. A Web Dynpro application is the framework that forms the basis of a Web screen. By checking the Web Dynpro application, you ensure that only those users who have the right authorization can access the Web screen. By default, the S\_START authorization object is inactive. For more information, see [Authorization Checks](#) and [Security Considerations for Web Dynpro Applications](#).

Field	Description
Object Name	<p>Object name of the Yard Logistics Webdynpro application. You can see the possible values in the <code>/SAPYL/-namespace</code> via F4-help.</p> <p>Possible values for <i>Object Names</i> available in SAP Yard Logistics are:</p> <ul style="list-style-type: none"> <li>• <code>/SAPYL/WD_COCKPIT_NEW</code> - Yard Cockpit Application</li> <li>• <code>/SAPYL/WD_COLOR_PICKER</code> - VBI Color Picker</li> <li>• <code>/SAPYL/WD_YARD_EDITOR</code> - Yard Layout Editor</li> <li>• <code>/SAPYL/WD_YO</code> - Yard Order</li> <li>• <code>/SAPYL/WD_YO_CICO</code> - Yard Order Check-In(Out)</li> <li>• <code>/SAPYL/WD_YO_POWL</code> - Yard Order Overview List</li> <li>• <code>/SAPYL/WD_YO_TU</code> - Assignment Transport to Yard Order</li> <li>• <code>/SAPYL/WD_YR</code> - Yard request Detail</li> <li>• <code>/SAPYL/WD_YR_POWL</code> - Yard Request Overview List</li> <li>• <code>/SAPYL/WD_YT</code> - FPM Application for Yard Task</li> <li>• <code>/SAPYL/WD_YT_POWL</code> - Yard Task Overview List</li> <li>• <code>/SAPYL/WD_YTU</code> - Yard Transportation Unit</li> <li>• <code>/SAPYL/WDCA_YARD_TU</code> - Overview Transportation Unit</li> </ul> <p>Ensure that all entries are put together as a list into the field <i>Object Name</i> of the authority profile above.</p>
Object Type	WDYA - This is a fixed value to focus only on Web Dynpro Applications.
Program ID	R3TR - This is a fixed value due to technical reasons.

- `/SAPYL/SLF` (Authorization Check for Special Functions)

This authorization object is re-used in reports of SAP YL performing special functions, like uploading Yard TU data, migration, and so on.

Field	Description
Yard Number	Yard Number(s) the user can access - As defined in Customizing (transaction <code>SPRO</code> ) for <i>SAP Yard Logistics</i> under <i>Master Data</i> → <i>Setting up the Yard</i> → <i>Define Yard Numbers</i>

Field	Description
Special Function	Special function that will be performed: <ul style="list-style-type: none"> <li>C1 Create and Upload Yard TUs (transaction /SAPYL/CREATE_TU_CSV)</li> </ul>

## 6.2 Other Authorizations

The SAP YL solution uses overview lists for yard orders, yard requests, and yard tasks. For these lists, a specific SAP UI Technology have been used - SAP Power Object Lists (POWLs for short). In the following sections, you will find the relevant information to setup an appropriate authorization concept for these POWLs.

### Transaction POWL\_TYPER

This transaction is used for maintaining POWL Type role assignment. Use this transaction to provide POWL with the feeder types that are available for APPLID. The feeder types available are Role or both.

- For more information, see [Customizing POWL](#).

POWL lists are used within the SAP Yard Logistics applications [Yard Request Overview](#), [Yard Order Over](#), [Yard Task Overview](#) and [Transportation Unit Overview](#).

The transaction can be used to assign SAP Yard Logistics user roles to SAP Yard Logistics POWL application IDs. Only users who have a role assignment maintained here, are allowed to see the corresponding POWL query lists.

The following table shows the available POWL Types/APPLIDs for SAP Yard Logistics:

Application	POWL Type ID	Description
/SAPYL/YR_APPID	/SAPYL/YR_TYPE	POWL for Yard Requests
/SAPYL/YO_APPID	/SAPYL/YO_TYPE	POWL for Yard Orders
/SAPYL/YT_APPID	/SAPYL/YT_TYPE	POWL for Yard Tasks
/SAPYL/TU_APPID	/SAPYL/TU_TYPE	POWL for Yard Transportation Units

## 6.3 Roles for SAP Yard Logistics

### Sample Business Roles

SAP Yard Logistics provides four sample roles predefined with authorizations needed for specific yard-related business roles. Each role provides a work center menu and authorizations needed to operate with the applications within the menu.

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As mentioned above, these roles can only be seen as templates and should be copied to the customer namespace and modified for the individual business needs.

The following template roles are available:

- /SAPYL/SUPERVISOR  
The role contains all authorizations and menu links to access any SAP Yard Logistics application.
- /SAPYL/COORDINATOR  
The role contains the same authorizations and menu links as the Supervisor except the menu nodes *Master Data* and *Settings*.
- /SAPYL/OPERATOR  
This role contains authorizations and menu links for a Yard Operator executing tasks within a yard.  
The operator is only allowed to use applications from the menu nodes *Yard Execution*, *Yard Monitoring* and *Yard Operations*. Therefore, a user who has this role assigned can create, display and edit Yard Tasks, can get information about specific Transportation Units and enter the Yard Cockpit.  
Additionally, the menu contains a link to the SAP Fiori Launchpad to enable the user to execute Yard Tasks via a mobile UI on a mobile client.  
Note: Authorizations needed to work with the mobile UI are contained in separate technical roles (see the next paragraph).
- /SAPYL/GATE\_AGENT  
This role contains authorizations and menu links for a Gate Agent checking-in and checking-out yard orders. Users who have this role assigned are able to display and edit Yard Orders, display Yard Tasks. They are also allowed to use the overview lists for both kinds of business documents and to launch the Yard Cockpit.

## Additional Roles for the Mobile UI

For the usage of the mobile client/mobile UI the following roles need to be assigned to a user.

- 
- /SAPYLUI/TCR\_T  
This technical role is used to provide catalogue content for the Fiori Launchpad.
- /SAPYLUI/BCR\_YARDOPERATOR\_T  
This technical role is used to provide the Fiori Launchpad tiles for the Yard Operator using the mobile UI.
- /SAPYL/YTASK\_APP  
This is the backend role for the Fiori Launchpad application to be able to access the SAP Gateway service for executing the business logic in the backend application of SAP YL.



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## 7 Session Security Protection

To increase security and to prevent access to the SAP logon ticket and security session cookie(s), we recommend activating secure session management.

We also highly recommend using SSL to protect the network communications where these security-relevant cookies are transferred.

### 7.1 Session Security Protection on AS ABAP

To activate session security on the AS ABAP, set the corresponding profile parameters and activate the session security for the client(s) using the transaction `SICF_SESSIONS`.

For more information, a list of the relevant profile parameters, and detailed instructions, see the topic [Activating HTTP Security Session Management on AS ABAP](#) in the SAP NetWeaver Security Guide.

## 8 Network and Communication Security

Your network infrastructure is extremely important in protecting your system. Your network needs to support the communication necessary for your business needs without allowing unauthorized access. A well-defined network topology can eliminate many security threats based on software flaws (at both the operating system level and application level) or network attacks such as eavesdropping. If users cannot log on to your application or database servers at the operating system or database layer, then there is no way for intruders to compromise the machines and gain access to the backend system's database or files. Additionally, if users are not able to connect to the server LAN (local area network), they cannot exploit well-known bugs and security holes in network services on the server machines.

The network topology for the *SAP Yard Logistics* solution is based on the topology used by the SAP NetWeaver platform. Therefore, the security guidelines and recommendations described in the SAP NetWeaver Security Guide also apply to *SAP Yard Logistics*. Details that specifically apply to the solution are described in the following topics:

- **Communication Channel Security**  
This topic describes the communication paths and protocols used by the solution.
- **Network Security**  
This topic describes the recommended network topology for the solution. It describes the appropriate network segments for the various client and server components. It also tells you where to use firewalls for access protection. It includes a list of the ports needed to operate the application.
- **Communication Destinations**  
This topic describes the information needed for the various communication paths, for example, which users are used for which communications.

For more information, see the following sections in the Security Guide for SAP NetWeaver 7.4 on SAP Service Marketplace at <http://help.sap.com/nw74>. Choose *Security Information* → *Security Guide*. Go to:

- *Network and Communication Security*
- *Security Guides for Connectivity and Interoperability Technologies*

### 8.1 Communication Channel Security

DIAG and RFC connections can be protected using Secure Network Communications (SNC). HTTP connections are protected using the Secure Sockets Layer (SSL) protocol. SOAP connections are protected with Web services security.

#### Recommendation

We strongly recommend using secure protocols (SSL, SNC) whenever possible.

For more information, see [Transport Layer Security](#) and [Web Services Security](#) in the SAP NetWeaver Security Guide in SAP Library on SAP Help Portal at <http://help.sap.com>. Also, refer to the related section in the security guide for SAP SCM and SAP APO.

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## 8.2 Network Security

### Ports

The *SAP Yard Logistics* solution runs on SAP NetWeaver and uses the ports from the AS ABA. For more information, see the topics for [AS ABAP Ports](#) in the corresponding SAP NetWeaver Security Guides. For other components, for example, SAPinst, SAProuter, or the SAP Web Dispatcher, also see the document *TCP/IP Ports Used by SAP Applications*, which is located on SAP Developer Network at <http://scn.sap.com/community/security> under *Network and Communications Security*.

## 8.3 Communication Destinations

Refer to the related chapter in the security guide for SAP SCM.

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## 9 Internet Communication Framework Security

You should only activate those services that are needed for the applications running in your system. For [SAP Yard Logistics](#) solution, special services are needed. For further information, see the Security Guides for the subcomponents of SAP SCM.

In addition, for more information, see [Activating and Deactivating ICF Services](#) in the SAP NetWeaver Library documentation.

For more information about ICF security, see the [RFC/ICF Security Guide](#).

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## 10 Application-Specific Virus Scan Profile (ABAP)

SAP provides an interface for virus scanners to prevent manipulated or malicious files from damaging the system. To manage the interface and the file types that are checked or blocked, there are virus scan profiles. Different applications rely on default profiles or application-specific profiles.

To use a virus scanner with the SAP system, you must activate and set up the virus scan interface. During this process, you also set up the default behavior. SAP also provides default profiles.

For more information, see [SAP Virus Scan Interface](#) in SAP Library, and SAP Note [1693981](#) (*Unauthorized modification of displayed content*).

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# 11 Data Storage Security

## 11.1 Using Logical Path and File Names to Protect Access to the File System

The data storage security of SAP NetWeaver and components installed on that base is described in the SAP NetWeaver Security Guide. Therefore, the data storage security of *SAP Yard Logistics* is also described at this place.

### Note

For information about the data storage security of SAP NetWeaver, see the SAP NetWeaver Security Guide under Security Guides for Operating System and Database Platforms.

All business data in SAP SCM, and therefore, also in *SAP Yard Logistics*, is stored in the system database. If SAP liveCache is used, some business data is also stored there. This business data is protected by the authorization concept of SAP NetWeaver and SAP SCM.

In some special cases, business-relevant data is stored in another location, such as a file system. For information on further special cases, see the *Data Storage Security* section in the Security Guides for the subcomponents of SAP SCM.

## 11.2 Activating the Validation of Logical Path and File Names

These logical paths and file names, as well as any subdirectories, are specified in the system for the corresponding programs. For downward compatibility, the validation at runtime is deactivated by default. To activate the validation at runtime, maintain the physical path using the transactions `FILE` (client-independent) and `SF01` (client-specific). To find out which paths are being used by your system, you can activate the corresponding settings in the *Security Audit Log*.

For more information, see the following topics in SAP Library:

- [Logical File Names](#)
- [Protecting Access to the File System](#)
- [Security Audit Log](#)

## 12 Data Protection

Data protection is associated with numerous legal requirements and privacy concerns. In addition to compliance with general data privacy acts, it is necessary to consider compliance with industry-specific legislation in different countries. This section describes the specific features and functions that SAP provides to support compliance with the relevant legal requirements and data privacy.

This section and any other sections in this Security Guide do not give any advice on whether these features and functions are the best method to support company, industry, regional or country-specific requirements. Furthermore, this guide does not give any advice or recommendations with regard to additional features that would be required in a particular environment; decisions related to data protection must be made on a case-by-case basis and under consideration of the given system landscape and the applicable legal requirements.

### Note

In the majority of cases, compliance with data privacy laws is not a product feature.

SAP software supports data privacy by providing security features and specific data-protection-relevant functions, such as functions for the simplified blocking and deletion of personal data.

SAP does not provide legal advice in any form. The definitions and other terms used in this guide are not taken from any given legal source.

### Glossary

Term	Definition
Personal Data	Information about an identified or identifiable natural person
Business Purpose	A legal, contractual, or in other form justified reason for the processing of personal data. The assumption is that any purpose has an end that is usually already defined when the purpose starts.
Blocking	A method of restricting access to data for which the primary business purpose has ended
Deletion	Deletion of personal data so that the data is no longer usable
Retention Period	The period during which data must be available
End of Purpose (EoP)	A method of identifying the point in time for a data set when the processing of personal data is no longer required for the primary business purpose. After the EoP is reached, the data is blocked and can only be accessed by users with special authorization.

Some basic requirements that support data protection are often referred to as technical and organizational measures (TOM). The following topics are related to data protection and require appropriate TOMs:

- Access control: Authentication features as described in section User Administration and Authentication.
- Authorizations: Authorization concept as described in section Roles and Authorizations
- Read access logging: As described in section Read Access Logging
- Transmission control / Communication security: As described in sections Network and Communication Security and Security Aspects of Data, Data Flow, and Processes

- Input control / Change logging: Change logging is described in the application-specific documentation.
- Availability control as described in:
  - Section Data Storage Security
  - SAP NetWeaver [Database Administration](#) documentation in SAP Library
  - SAP Business Continuity documentation in the SAP NetWeaver Application Help under *Function-Oriented View* → *Solution Life Cycle Management* → *SAP Business Continuity*.
- Separation by purpose: Is subject to the organizational model implemented and must be applied as part of the authorization concept.



### Caution

The extent to which data protection is ensured depends on secure system operation. Network security, security note implementation, adequate logging of system changes, and appropriate usage of the system are the basic technical requirements for compliance with data privacy legislation and other legislation.

## Configuration of Data Protection Functions

Certain central functions that support data protection compliance are grouped in Customizing for *Cross-Application Components* under *Data Protection*.

Additional industry-specific, scenario-specific, or application-specific configuration might be required.

For information about the application-specific configuration, see the application-specific Customizing in transaction `SPRO`.

## 12.1 Read Access Logging

If no trace or log is stored that records which business users have accessed data, it is difficult to track the person(s) responsible for any data leaks to the outside world. The Read Access Logging (RAL) component can be used to monitor and log read access to data and provide information such as which business users accessed personal data, for example, of a business partner, and in which time frame.

In RAL, you can configure which read-access information to log and under which conditions.

For more information about [Read Access Logging](#), see SAP Library for SAP NetWeaver on SAP Help Portal at <http://help.sap.com>.



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## 13 Enterprise Services Security

The following sections in the SAP NetWeaver Security Guide and documentation are relevant for all enterprise services delivered with *SAP Yard Logistics*:

- [Web Services Security](#)
- [Recommended WS Security Scenarios](#)
- [SAP NetWeaver Process Integration Security Guide](#)

There are no specific security issues relevant for *SAP Yard Logistics*.

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# 14 Other Security-Relevant Information

## 14.1 User Front End

### Web Browser as a User Front End

To use the web browser as a user front end, you must first activate JavaScript (Active Scripting), to ensure a working user interface. This could, however, conflict with your security policy regarding web services.

For more information about SAP Front End, see SAP Service Marketplace at <http://service.sap.com/instguides> → *SAP NetWeaver* → *SAP NetWeaver 7.4* → *Installation Installation – Clients* → *Installation – SAP Frontend Installation Guide*.

### SAP NetWeaver Business Client as a User Front End

For more information about SAP NetWeaver Business Client (SAP NWBC) with PFCG connection, see SAP Library for SAP NetWeaver on SAP Help Portal at:

- <http://help.sap.com/nw703>. Go to *SAP NetWeaver by Key Capability* → *Application Platform by Key Capability* → *ABAP Technology* → *UI Technologies in ABAP* → *SAP NetWeaver Business Client* → *Security Aspects*.
- <http://help.sap.com/nw74>. Go to *SAP NetWeaver Library: Function-Oriented View Application Server* → *Application Server ABAP* → *UI Technologies* → *SAP NetWeaver Business Client* → *Security Aspects*.

### Virus Check of Document Attachments

Use of SAP SCM allows you to check documents using a virus scanner before they are uploaded to the SAP SCM system.

#### Prerequisites

You must have a virus scanner that is correctly installed and configured.

For more information, see the Customizing for SAP NetWeaver and choose *Application Server* → *System Administration* → *Virus Scan Interface*.

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# 15 Security-Relevant Logging and Tracing

Consider the relevant chapter in the Security Guide for SAP SCM.

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# 16 Services for Security Lifecycle Management

The following services are available from Active Global Support to assist you in maintaining security in your SAP systems on an ongoing basis.

## Security Chapter in the EarlyWatch Alert (EWA) Report

This service regularly monitors the Security chapter in the EarlyWatch Alert report of your system. It tells you:

- Whether SAP Security Notes have been identified as missing on your system  
In this case, analyze and implement the identified SAP Notes, if possible. If you cannot implement the SAP Notes, the report should be able to help you decide on how to handle the individual cases.
- Whether an accumulation of critical basis authorizations have been identified  
In this case, verify whether the accumulation of critical basis authorizations is okay for your system. If not, correct the situation. If you consider the situation okay, you should still check for any significant changes compared to former EWA reports.
- Whether standard users with default passwords have been identified on your system  
In this case, change the corresponding passwords to non-default values.

## Security Optimization Service (SOS)

The Security Optimization Service can be used for a more thorough security analysis of your system, including:

- Critical authorizations in detail
- Security-relevant configuration parameters
- Critical users
- Missing security patches

This service is available as a self-service within SAP Solution Manager, as a remote service, or as an on-site service. We recommend you use it regularly (for example, once a year) and in particular after significant system changes or in preparation for a system audit.

## Security Configuration Validation

The Security Configuration Validation can be used to continuously monitor a system landscape for compliance with predefined settings, for example, from your company-specific SAP Security Policy. This primarily covers configuration parameters, but it also covers critical security properties like the existence of a non-trivial Gateway configuration or making sure standard users do not have default passwords.

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## Security in the RunSAP Methodology / Secure Operations Standard

With the E2E Solution Operations Standard Security service, a best practice recommendation is available on how to operate SAP systems and landscapes in a secure manner. It guides you through the most important security operation areas and links to detailed security information from SAP's knowledge base wherever appropriate.

### More Information

For more information about these services, see:

- EarlyWatch Alert: <http://service.sap.com/ewa>
- Security Optimization Service / Security Notes Report: <http://support.sap.com/sos>
- Comprehensive list of Security Notes: <http://service.sap.com/securitynotes>
- End-to-End Change Control Management: <http://service.sap.com/changecontrol>

# 17 Appendix

You can find more information about security of SAP applications on the SAP Services Marketplace at <http://service.sap.com/security>. Security guides are available at <http://service.sap.com/securityguide>.

For more information about topics related to security, see the links in the following table:

Content	Quick Link on the SAP Service Marketplace
Master Guides, Installation Guides, Upgrade Guides, Solution Management Guides	<a href="http://service.sap.com/instguides">service.sap.com/instguides</a>
Related SAP Notes	<a href="http://service.sap.com/notes">service.sap.com/notes</a>
Release Platforms	<a href="http://service.sap.com/platforms">service.sap.com/platforms</a>
Network Security	<a href="http://service.sap.com/securityguide">service.sap.com/securityguide</a>
Technical Infrastructure	<a href="http://service.sap.com/installNW74">service.sap.com/installNW74</a>
SAP Solution Manager	<a href="http://support.sap.com/solutionmanager">support.sap.com/solutionmanager</a>
SAP Supply Chain Management	<a href="http://service.sap.com/scm">service.sap.com/scm</a>





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