NEC

This manual covers the installation of the serial and USB drivers, CTA and CTU Adapter installation, as well as the setup and configuration for the following applications:

- Alarms (including EMailing Alarms)
- inDepth
- PCPro
- SMDR
- System Information Reports
- TAPI 1.x
- TAPI 2.x
- Traffic Reports
- Ultra CallAnalyst
- Ultra CallAnalyst Server
- WebPro

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2. Installing Telephone Adapters

3. NTCPU Connection and Driver Setup

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Aspíre

System Data Communications Manual

Technical Support Web Site:
http://ws1.necii.com (registration is required)

Section 1: 1
Introduction

Introduction

The system provides the ability to connect data devices (such as modem, fax machines, PCs, etc.). Some of these connections can also be used to send and retrieve system data (such as SMDR, PCPro, WebPro, TAPI, etc.).

In addition to the NTCPU's serial, USB, and ethernet connections, there are four types of data devices available: APA, APR, CTA and CTU.

The Aspire system allows for direct connection to the system data using a serial, USB or LAN connection. In addition, a network connection can also be made through a hub. This manual describes how to install the required drivers and set up the data application which will be used.

Possible system connections are:

Aspire S	Aspire M/L/XL
CPU Serial	CTA Adapter (serial)
CTA Adapter (serial)	CTU Adapter (USB)
CTU Adapter (USB)	NTCPU USB
ENTU LAN	NTCPU LAN
	NTCPU Serial

In addition, the APA and APR adapters can be used to provide analog ports which allow for connection of fax machines, modems or single line telephones. These adapters, however, can not be used to connect to the system for system data exchanges.

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Important!

- When installing or removing the adapters, *the keyset should first be unplugged from the system*.
- Telephones with any adapters installed cannot be wall-mounted. The bracket will not accommodate the adapter(s).
- The APA, APR, CTA, and CTU adapters cannot be installed on an Aspire 2-button phone or IPhone.

APA Adapter

The APA Adapter provides an analog interface for the keyset. The APA Adapter does not provide ringing, so the connected device is used for outgoing calls only (for example, when using a modem). One keyset can have either an APA or an APR Adapter. Both adapters *cannot* be installed on the same keyset as only one voice path is provided by the keyset for the adapters. The maximum distance between the APA Adapter and the analog terminal is 49'. The system provides up to 24 ports (Aspire S) or 192 ports (Aspire M/L/XL) for connecting APA adapters.

The APA Adapter does not support reverse-polarity, message waiting lamping, or Caller ID.
No AC-R AC/DC Adapter is required for this unit.

APR Adapter

The APR Adapter provides an analog interface for the keyset. The APR Adapter provides ringing which allows the connected device to be used for incoming and outgoing calls. This adapter also provides a separate extension number for the analog device, which allows both devices to be used at the same time (this can be removed in system programming if you wish). One keyset can have either an APA or an APR Adapter. Both adapters *cannot* be installed on the same keyset as only one voice path is provided by the keyset for the adapters. **When installing the APR Adapter, an AC-R AC/DC adapter (P/N 780135) is required for power**. As this adapter requires the AC power adapter, it can not be installed on a phone with an CTU or Speakerphone adapter, which also require power. The placement of the AC power adapter plug will not allow the unit placed on the left of the phone to receive power. The maximum distance between the APR Adapter and the analog terminal is 49'.

The APR Adapter does not support reverse-polarity, message waiting lamping, or Caller ID.

With the APA adapter installed, when the analog device attached to the adapter is in use, the keyset cannot be used as there is only one physical port number assigned to the phone. If both the analog device and keyset are picked up at the same time, the analog device takes priority. If the keyset is on a call and the single line telephone is picked up, the single line telephone will take the call from the keyset.

When installing the APR adapter, there must be an extension port available for the adapter or it will function like an APA adapter (only one physical port assigned to the phone so only one phone can be used at a time). The system provides up to 24 B1 channel or 16 B2 channel ports (Aspire S) or 192 ports (Aspire M/L/XL) for connecting APA adapters.

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CTA Adapter

The CTA Adapter provides a serial interface (9-pin male RS-232C) connector. This can be used for SMDR or TAPI (1.4) or system reporting. When using the adapter for printing, the following printers are recommended:

● Citizen CBM CBM1000-RJ100S Thermal Printer
● Star Precision SP2520MD-J1 Impact Dot Printer

When used for SMDR or system reports, the CTA driver does not need to be installed. When used for TAPI, the CTA driver (available on NEC's Technical Support web site: ws1.necii.com) is required. The system provides up to 24 ports (Aspire S) or 128 ports (Aspire M/L/XL) for connecting CTA or CTU adapters.
No AC-R AC/DC Adapter is required for this unit.

CTU Adapter

The CTU Adapter provides a USB connector. This can be used for either SMDR, TAPI (1.4), or system reporting. The CTU driver needs to be installed for any use. The CTU driver is available on NEC's Technical Support web site: ws1.necii.com. The system provides up to 24 ports (Aspire S) or 128 ports (Aspire M/L/XL) for connecting CTA or CTU adapters.

An AC-R AC/DC adapter (P/N 780135) is required for power for each CTU Adapter installed. As this adapter requires the AC power adapter, it can not be installed on a phone with an APR or Speakerphone adapter, which also require power. The placement of the AC power adapter plug will not allow the unit placed on the left of the phone to receive power.

NTCPU Ethernet Port

The Aspire S ENTU PCB and Aspire M/L/XL NTCPU provide an ethernet connector (IEEE802.3 10Base-T and 100Base-TX Compliant). This can be used for PCPro, WebPro, SMDR or TAPI (1.4), ACD MIS (inDepth) or system reporting. No driver installation is required for this ethernet connection.

NTCPU Serial Port

The Aspire S and Aspire M/L/XL NTCPU provides a serial interface (9-pin male RS-232C) connector. This can be used for PCPro, WebPro, SMDR, or system reporting. When using the adapter for printing, the following printers are recommended:

● Citizen CBM CBM1000-RJ100S Thermal Printer
● Star Precision SP2520MD-J1 Impact Dot Printer

No driver installation is required for this serial connection.

NTCPU USB Port

The NTCTU provides a USB connector. This connector requires the installation of a USB driver, which can be downloaded off the NEC Technical Support web site (ws1.necii.com). This can be used for either SMDR, system reporting, or PC Programming.

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System Data Communication Availability With Hardware

Feature	Aspire S Hardware			
	CPU Built-In Serial Port	ENTU-S Ethernet Port	CTA Adapter	CTU Adapter
PCPro	Yes	Yes	No	No
WebPro (for installer)	Yes	Yes	No	No
WebPro (for user)	No	Yes	No	No
SMDR Output to Printer	Yes	No	Yes	Yes
SMDR Output to PC	Yes	Yes	Yes	Yes
Traffic Report	Yes	No	Yes	Yes
System Information Printout	Yes	No	Yes	Yes
Alarm Information Printout	Yes	No	Yes	Yes
1st Party CTI (via serial)	No	No	Yes	No
1st Party CTI (via USB)	No	No	No	Yes
3rd Party CTI	No	Yes	No	No

Functions	Aspire M/L/XL NTCPU Port				
	Serial	USB	Ethernet	CTA Adapter	CTU Adapter
PCPro	Yes	Yes	Yes	No	No
WebPro (for installer)	Yes	Yes	Yes	No	No
WebPro (for user)	No	No	Yes	No	No
SMDR Output to Printer	Yes	Yes	No	Yes	Yes
SMDR Output to PC	Yes	Yes	Yes	Yes	Yes
ACD MIS	Yes	Yes	Yes	No	No
Traffic Report	Yes	Yes	No	Yes	Yes
System Information Print Output	Yes	Yes	No	Yes	Yes
Alarm Information	Yes	Yes	No	Yes	Yes
1st Party CTI (via serial)	No	No	No	Yes	No
1st Party CTI (via USB)	No	No	No	No	Yes
3rd Party CTI	No	No	Yes	No	No

Drivers

Drivers are required for the following connections:

- **NTCPU USB (Aspire M/L/XL only)**
- **CTU Adapter**
- **CTA Adapter (when used for TAPI)**

Applications

The following applications are available for interfacing with the Aspire S or M/L/XL system:

- **Alarm Reports (including EMailing Alarms)**
- **inDepth (ACD MIS)**
- **PCPro**
- **SMDR**
- **System Information Reports**
- **TAPI 1.x (ex: Phone Dialer)**
- **TAPI 2.x (ex: Screen Pops)**
- **Traffic Reports**
- **Ultra CallAnalyst**
- **WebPro**

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- For Your Notes -

![Aspire]

Section 2:
Adapter Installation   **2**

Installing the APA and APR Adapters

1. *Unplug the line cord from the keyset.*
2. If only one adapter is to be installed on the phone, the adapter should be installed on the right-hand side of the phone (beneath the handset). Using a flat-head screwdriver, remove the plastic punch-out piece covering the connector.
3. Set the dip switches on the APA/APR adapter to the required position.
    - The SW3 switch is used to set the terminating impedance. Setting to position "1" is for a pure resistance of 600 ohms; position "2" is used for complex impedance (factory setting is set to "1").
    - The SW1 switch should be left at its factory setting of "1". This also applies to the dip switch settings (1 and 5 = on; 2-4, 6-8 = off).
4. If using an APR Adapter, plug the AC-R AC/DC adapter into the AC jack on the side of the adapter. *The AC/DC adapter is not required when using the APA Adapter.*

SW3
1   2

SW1
1   2

ON
1 2 3 4 5 6 7 8

---

5. Position the adapter with the connector positioned as shown below.
    You may wish to remove the wall-mount bracket to allow for easier adapter installation.

6. Hook the two plastic prongs into the bottom of the phone.
7. Push the connector into place. The top latch on the top of the adapter should lock into place when it is properly positioned.
8. In order for the APA/APR adapter to recognized correctly, the extension number to be used for the adapter should be undefined in Program 10-03-01 before plugging in the keyset.
9. Plug the line cord back into the keyset.
10. Wrap the line cord once through the ferrite bead (included) and snap it shut.
11. Plug the end of the line cord for the analog device with the ferrite bead closest to it into the jack on the adapter. The opposite end should then be connected to the analog device.

    To avoid any hardware problems, when removing the adapter, first unplug the line cord, then the power cord, then any other adapter cables.
12. **To determine the APR's analog extension number . . .**
    10-03-04 : Optional Installed Unit 1
    Displays the type of terminal installed. This can be used to verify that the system recognizes the adapter.

    10-03-06 : PCB Setup
    Assign the terminal type (12) for the keyset's channel which has the APR Adapter installed.

    When you wish to have the APR use the same extension number as the keyset to which it is attached (like an APA), remove the terminal type in this option. With this setup, when the analog device is in use, it busies out the keyset as there is no separate port number assigned for the adapter. To reverse this, and allow the APR to have its own extension number, simply reassign the terminal type (12) in this option.

    10-03-07 : PCB Setup
    The port number of the APR Adapter is displayed for the extension. The ports are assigned from the highest available port down. (Aspire S APR ports = 11-26 ; Aspire M/L/XL APR ports = 193-256 with all software through 3.07 OR 193-512 with 4.xx software and higher)

11-02-01 : Extension Numbering
To determine the extension number assigned for the APR device, refer to the table below.

Aspire S	
APR Extension Port Number	**Extension Number**
11	311
12	312
:	:
25	325
26	326

Aspire M/L/XL	
APR Extension Port Number	**Extension Number**
193	493
:	:
199	499
200	5000
:	:
256 or 512 * * Above 256, software 4.xx or higher is required.	5056 or 5312 * * Above 5056, software 4.xx or higher is required.

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- For Your Notes -

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Installing the CTA Adapter

Be sure to follow these steps in order to allow the system to properly recognize the CTA Adapter!

1. *Unplug the line cord from the keyset.*
2. If only one adapter is to be installed on the phone, the adapter should be installed on the right-hand side of the phone (beneath the handset). Using a flat-head screwdriver, remove the plastic punch-out piece covering the connector.
3. Set the dip switches on the CTA adapter to the required position.
   ● The DSW settings are 1 = on, 2-8 = off for a PC connection or 1 and 2 = on, 3-8 = off for a printer/SMDR connection (factory setting is for a PC connection).

PC Connection   Printer/SMDR Connection

4. Position the adapter with the connector positioned as shown below.
   You may wish to remove the wall-mount bracket to allow for easier adapter installation.

5. Hook the two plastic prongs into the bottom of the phone.
6. Push the connector into place. The latch on the top of the adapter should lock into place when it is properly positioned.
7. Connect an RS-232C straight-thru cable from the adapter to the printer or PC.
8. Change system programming (15-02-19) to match the CTA module dip switch settings. Enter 0 for CTI (PC connection) or 1 for non-procedural (SMDR).
9. Change system programming (15-02-20) to the correct baud rate.
10. Change remaining system programming as required. Refer to the specific feature in the **Programming Features** section in this manual.
11. In order for the CTA adapter to recognized correctly, before plugging in the keyset, make sure that in Program 10-03-01, the extension number using the adapter is undefined.
12. Plug the line cord back into the keyset. **This should only be done once the system has been programmed as indicated in steps 8-10 above.**
    To avoid any hardware problems, when removing the adapter, first unplug the line cord, then any other adapter cables.
13. Wait approximately 1 minute for the adapter to be recognized by the system.
14. Check Program 10-03-04 or 10-03-06 to make sure the system recognizes the CTA adapter. If not, unplug the phone, undefine the port in Program 10-03-01 and repeat the installation steps.
15. Connect the serial cable from the PC to the CTA Adapter.
16. When using the adapter for TAPI, install the CTA Adapter driver downloaded from the NEC Technical Support web site (http://ws1.necii.com). Refer to the following steps for the driver installation.
    To uninstall the CTU Adapter, refer to Uninstalling the CTA Driver/Adapter on page 2-20.

CTA Driver Installation

> **! IMPORTANT !**
>
> - A driver is required for the CTA adapter when used for TAPI (SMDR and system reports do not require the driver to be installed). This driver can be downloaded from the NEC Technical Support web site (ws1.necii.com).
>
> - **Service Pack 6 or later is required when used with Windows NT 4.0.**
>   When installing the CTA driver in Windows NT Workstation/Server 4.0, always ensure that the Windows NT Service Pack 6 or later is already installed. Contact Microsoft Corporation to obtain the Windows NT Service Pack.
>
> - **No plug and play function.**
>   As the CTA adapter has no plug and play function, install the driver in accordance with the procedure described here.
>
> - **Check the COM port to which the CTA adapter is connected.**
>   As the CTA adapter is connected to a COM port on the PC, the port must be verified as usable before the driver is installed.
>
> - **Multiple CTI drivers (CTA and CTU adapters) cannot be used simultaneously on the same PC.**
>   Refer to *Uninstalling the CTU Driver/Adapter* on page 2-40 for the CTU driver uninstall procedure.
>
> *If a CTU adapter has been used previously, the CTU driver must first be uninstalled before installing the CTA driver. Correct operation will not be possible if the CTA driver is installed without first removing the previous CTU driver.*

PC Specifications

Recommended Hardware

Windows 98 Second Edition
- CPU   : Intel Pentium 300MHz or higher compatible processor
- RAM   : minimum 64MB
- HD   : minimum 50MB
- An available RS-232C port

Windows Me / NT 4.0 / 2000 / XP
- CPU   : Intel Pentium 300MHz or higher compatible processor
- RAM   : minimum 128MB
- HD   : minimum 50MB
- An available RS-232C port

Aspire Cable Requirements			
Device	**Cable Type**	**Cable Run Length (ft)**	**Notes**
PC to CTA	Serial Straight Thru Cable	49.21 (15 meters)	D-Sub 9-Pin Female (PC) to D-Sub 9-Pin Male (CTA)
CTA to Printer	Serial straight cable	49.21 (15 meters)	D-Sub 9-Pin Female (Printer) to D-Sub 9-Pin Male (CTA)

Aspire

Operating System Software
- Microsoft® Windows® 98 Second Edition
- Microsoft® Windows NT® Workstation 4.0 Service Pack 6 or later
- Microsoft® Windows NT® Server 4.0 Service Pack 6 or later
- Microsoft® Windows® 2000 Professional
- Microsoft® Windows® 2000 Server
- Microsoft® Windows® Me
- Microsoft® Windows® XP Home Edition
- Microsoft® Windows® XP Professional

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Installing the CTA Driver
1. Check that the CTA adapter and the PC are connected by a serial cable.
   If a CTU adapter has been used previously, the CTU driver must first be uninstalled before installing the CTA driver. Correct operation will not be possible if the CTA driver is installed without first removing the previous CTU driver.

   The CTA adapter must be installed in order for all the TAPI TSP menu options to be recognized during the installation process.
2. Start Windows.
   Login using the 'Administrator' account when using Windows NT 4.0 or Windows 2000, and using the 'Computer Administrator' account when using Windows XP.
3. Insert the supplied CD-ROM in the CD-ROM drive on the PC.
4. Download the CTA driver from the NEC Technical Support web site (ws1.necii.com).
5. Unzip the downloaded file using WinZip (can be obtained from www.winzip.com).
6. Click START - RUN to display the RUN dialog box and select the SETUP.EXE from the unzipped files. Click OK.

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7. The WELCOME TO THE ASPIRE TELEPHONY DRIVER (RS) SETUP PROGRAM dialog box appears. Verify the details and click NEXT. Copying of files begins.

8. The CHOOSE DESTINATION LOCATION dialog box appears.
    - If the destination folder remains unchanged:
    - Click NEXT.
    - If the destination folder is changed:
    - Click BROWSE, select the destination folder in the CHOOSE FOLDER dialog box, and click OK. Return to the CHOOSE DESTINATION LOCATION dialog box and click NEXT.

9. The SETTING ADAPTER PORT dialog box appears. Enter the name of the COM port connected to the CTA adapter and click OK.

    The COM port name may also be changed after the CTA driver is installed.

    Refer to 'TSP Setup on page 2-11 when changing the COM port and extension number settings after the CTA driver has been installed.

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10. After the file installation has completed, the INITIALIZING dialog box appears. The setup must now be performed in order for the CTI application to operate correctly.
11. The ASPIRE TELEPHONY SERVICE PROVIDER dialog box appears.

    This window can be accessed after the installation process by clicking START - SETTINGS - CONTROL PANEL - TELEPHONY or PHONE AND MODEM OPTIONS (depending on the version of Windows software being used) then click the TELEPHONY DRIVERS or ADVANCED (when using Windows 2000 or XP) tab to display the following screen.

    The TSP Setup must match the Aspire system data to ensure that this product operates correctly.

12. Continue the installation process with *TSP Basic Setup – Telephony System* on page 2-12.

Telephony Service Provider (TSP)

Starting the TSP Setup Dialog Box

The TSP Setup dialog box may be started in a number of ways. For example, this section describes starting it from the Control Panel. (The TSP Setup screen may be started with other methods depending on the application in use.)

1. Select Windows START - SETTINGS - CONTROL PANEL - TELEPHONY or PHONE AND MODEM OPTIONS (when using Windows 2000 or XP).
2. The DIALING PROPERTIES dialog box is displayed. Click the TELEPHONY DRIVERS or ADVANCED (when using Windows 2000 or XP) tab to display the following screen.

3. Select ASPIRE TELEPHONY SERVICE PROVIDER on the screen above and click CONFIGURE to display the TSP setup screen.

TSP Setup

This section describes the various TSP (Telephony Service Provider) settings and method of setup necessary for correct operation of this product. The setup must match the office communication gateway Aspire system data setup.

There are three TSP setup dialog boxes - one for basic settings of the TSP, one for line configuration, and one for port settings. The first and second dialog boxes are each associated with a setup screen (tab). TSP setup consists of the following seven screens.

The TSP Basic Setup dialog box has the following tabs:
<1> Telephony System
<2> Power Management

The Line Configuration dialog box has the following tabs:
<3> Call Setting
<4> Monitor Setting
<5> Basic Setting
<6> Media Setting

The Port Setup dialog box contains no additional tabs.
<7> Port Setup

The TSP setup dialog box (screen <1>) appears when the TSP setup screen is started. Click LINE CONFIG-URATION on screen <1> to display the Line Configuration dialog box (screen <3>), or click PORT SET-TING in screen <1> to display the Port Setting dialog box (screen <7>).

TSP Basic Setup – Telephony System

This is the first screen displayed when the TSP setup screen is started. It displays the Aspire Telephony Service Provider and general line information. Click LINE CONFIGURATION to move to the Line Configuration screen, click PORT SETTING to move to the Port Setting screen.

The fields on the screen are as described below. Read thoroughly and enter settings appropriate for the system environment.

Operation Mode

Select to suit the application used.

- Select NORMAL if using a CTI application with the Aspire system.
- Select SINGLE LINE if using a CTI application with the i-Series system.
- Select ELITE/XEN if using a CTI application with the Elite / Xen system.

Line Info Refresh

Click LINE INFO REFRESH if the function key data for the telephone has been changed. Clicking LINE INFO REFRESH acquires the new line information and displays the date and time at which the information was acquired in the REFRESH DATE field.

TSP Basic Setup – Power Management

This is the TSP power management setup screen. Click the POWER MANAGEMENT tab in the TSP basic setup dialog box to display the screen.

A PC is normally set up to ensure that it does not enter the Sleep or Hibernation mode during an active call. These modes may be enabled by changing the relevant setting on this screen, and conversely, they may be completely disabled while TAPI applications are running. Note that the power management function cannot be used with Windows NT 4.0. Under Windows NT 4.0, the PC is unable to enter the sleep or hibernation modes while a TAPI application is running.

The fields on the screen are as described below. Read thoroughly, and enter settings appropriate for the system environment.

Power Management Support
● Place a check in this field to allow the PC to enter the Sleep or Hibernation mode. Note that DON'T ENTER SLEEP OR HIBERNATION MODE WHEN THE ACTIVE CALL EXISTS has priority if checked.
● Remove the check to prevent the PC entering the Sleep or Hibernation mode while TAPI applications are running.

Don't enter Sleep or Hibernation mode during an active call.
● This setting is only valid when a check has been placed in the POWER MANAGEMENT SUPPORT field.
● Place a check in this field to prevent the PC entering the Sleep or Hibernation mode during an active call between the PC and the phone.
● Remove the check to allow the PC to enter the Sleep or Hibernation mode at any time (including during an active call).
   When returning to the original status after the PC has entered the Sleep or Hibernation mode (i.e. with Resume), in many cases the call status of the TAPI application currently running will not reflect the current call status.

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Line Configuration – Call Setting

This is the line Call Setting screen. Click LINE CONFIGURATION on the TSP Telephony System screen (screen <1>) to display the screen.

The fields on the screen are as described below. Read thoroughly, and enter settings appropriate for the system environment.

Call Mode
- Select AUTO SPEAKER MODE to emit a tone from the phone speaker when a line is acquired.
- Select AUTO HEADSET MODE to emit a tone from the headset connected to the phone when a line is acquired.
- PC cannot be selected.

Aspire

Line Configuration – Monitor Setting

This is the line Monitor Setting screen. Click the MONITOR SETTING tab on the LINE CONFIGURA-
TION dialog box to display the screen.

*The MONITOR SETTING tab is displayed when NORMAL or ELITE/XEN is selected on the
TSP Telephony System screen (screen <1>).*

2

Usage of other extensions may be monitored by adding extensions in THE EXTENSION POSSIBLE TO
MONITOR list to THE EXTENSION TO BE MONITORING list.

Adding to THE EXTENSION TO BE MONITORING List:

● Select an extension from THE EXTENSION POSSIBLE TO MONITOR list and click <-ADD to add
it to THE EXTENSION TO BE MONITORING list. The selected extension is moved from THE
EXTENSION POSSIBLE TO MONITOR list to THE EXTENSION TO BE MONITORING list.
Next, click MONITOR REGISTRATION. The REGISTRATION COMPLETE dialog box appears.
Click OK.

Deleting from THE EXTENSION TO BE MONITORING List:

● Select the extension to be deleted from THE EXTENSION TO BE MONITORING list and click
DELETE->. The selected extension is moved from THE EXTENSION TO BE MONITORING list to
THE EXTENSION POSSIBLE TO MONITOR list. Next, click MONITOR REGISTRATION. The
REGISTRATION COMPLETE dialog box appears. Click OK.

Monitoring usage of other extensions must be supported by the application in use.

Line Configuration – Basic Setting

This is the line Basic Setting screen. Click the BASIC SETTING tab on the LINE CONFIGURATION dia-log box to display the screen.

> *The BASIC SETTING tab is displayed when SINGLE LINE is selected on the TSP Telephony System screen (screen <1>).*

The fields on the screen are as described below. Read thoroughly and enter settings appropriate for the sys-tem environment.

Line Name:
● Enter EXTENSION xxx KEYSET ('xxx' is the extension number of the phone connected to the PC).

Phone Number:
● Enter the extension number of the phone connected to the PC.

Notify Call Information:
● MODE 0: WHEN CALLED selected:
  Notify call information for an incoming call on a phone set for sound.
● MODE 1: WHEN CONNECTED selected:
  Call information displayed with phone operation, such as a response involving pressing the station line button on a phone receiving a call and not set for sound, and for an incoming call from an application.
● MODE 2: BOTH selected:
  Notify call information for an incoming call on a phone set for sound, and at connection with a phone not set for sound.
● MODE 3: NORMAL MODE selected:
  Normally selected, this option enables acquisition of the caller number, as well as information such as the trunk number, origin, and reason at connection.

Block Call Information:
- OUTGOING CALL checked/not checked.
  Checked   : Don't notify for outgoing trunk call.
  Not checked   : Notify for outgoing trunk call.
- INCOMING CALL checked/not checked
  Checked   : Don't notify for incoming trunk call.
  Not checked   : Notify for incoming trunk call.
- INTERNAL CALL checked/not checked
  Checked   : Don't notify for outgoing/incoming call on extension.
  Not checked   : Notify for outgoing/incoming call on extension.
- Trunk number entered in TRUNK NUMBERS
  Outgoing/incoming information not notified for the set trunk.

Different block call information may be set/not set depending upon the mode selected with NOTIFY CALL INFORMATION (O : May be set, X : Cannot be set).

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Notify Call	Block Call			
	Outgoing Call	Incoming Call	Internal Call	Trunk Number
Mode 0	X	O	O	O
Mode 1	O	O	O	O
Mode 2	O	O	O	O
Mode 3	X	X	X	X

Line Configuration – Media Setting

This is the audio media setup screen used by the TSP. Click the MEDIA tab on the LINE CONFIGURA-TION dialog box to display the screen. Nothing is required for this setting.

Port Setup

The port used by the CTA adapter is setup on the following screen. It is displayed by clicking PORT SET-TING on the TSP Telephony System screen (screen <1>).

Enter the name of the COM port connected to the CTA adapter and click OK.

Completing the Installation

1. Click OK on all the open DIALING PROPERTIES windows.
2. The SETUP COMPLETE dialog box appears. Click FINISH to display the latest CTA driver information.
   The CTA driver is now installed.

2

Uninstalling the CTA Driver/Adapter

This section describes the removal of the CTA driver from the PC and the adapter from the keyset when the CTA adapter is no longer required. **Note that if the CTU driver is to be installed, the CTA driver must be removed first from the PC!**

! Always uninstall the CTA driver with this procedure !

● Removing CTA driver-related files with Explorer etc. will not uninstall the driver. In the worst case, it may no longer be possible to start the PC and the operating system may need to be reinstalled.

1. Close all applications before beginning this procedure.
2. Select START - PROGRAMS - ASPIRE TELEPHONY DRIVER (RS) and click UNINSTALL ASPIRE DRIVER.
3. The CONFIRM UNINSTALL screen appears. Click OK.

4. The UNINSTALL COMPLETE dialog box appears. Click FINISH to complete the uninstall process.

5. Unplug the line cord from the keyset.
6. Remove the CTA Adapter from the phone by pushing in the latch on the top of the adapter and lifting the adapter up.
7. In Program 10-03-01, undefine the keyset's port by entering "00".
8. Plug the line cord back into the keyset.

Installing the CTU Adapter

1. Unplug the line cord from the keyset.
2. If the keyset on which the CTU adapter is to be connected was previously installed, undefine the circuit type in Program 10-03-01 for the extension (enter 0 as the circuit type).
3. If only one adapter is to be installed on the phone, the adapter should be installed on the right-hand side of the phone (beneath the handset). Using a flat-head screwdriver, remove the plastic punch-out piece covering the connector.
4. Set the dip switches on the CTU adapter to the required position.
    - The DSW settings are
      For CTI connection: 2, 3, 5, 6 = on / 1, 4, 7, 8 = off (default factory setting)
      For non-procedure (SMDR) mode: 2, 5, 6 = on / 1, 3, 4, 7, 8 = off.

CTI Mode   Non-Procedure Mode

5. Program the system for the feature to be used with the adapter. Refer to the **Programming Features** section in this manual for details on programming.
6. Install the CTU Adapter driver. Refer to **CTU Driver Setup** (page 2-23) for details.
    The CTU Adapter driver can be downloaded from the NEC Technical Support web site: http://ws1.necii.com.
7. Attach ferrite beads to the AC-R power cable and USB cables. These should be installed on the ends of the cables closest to the adapter.
    The USB cable is a USB Type B Male (to adapter) to Type A Male Cable (to USB device).

8. Position the adapter with the connector positioned as shown below.
    You may wish to remove the wall-mount bracket to allow for easier adapter installation.

9. Hook the two plastic prongs into the bottom of the phone.
10. Push the connector into place. The top latch on the top of the adapter should lock into place when it is properly positioned.
11. Plug the AC-R AC/DC adapter into the AC jack on the side of the adapter and to an AC outlet.
12. Plug the line cord back into the keyset.
13. Connect the USB cable from the adapter to the USB device to be connected.
    To avoid any hardware problems, when removing the adapter, first unplug the line cord, then the power cord, then any other adapter cables.

    To print from the CTU to a printer, you must connect the CTU to a PC, with the printer then connected to the PC (you can not have a direct CTU-to-printer connection).
14. Confirm in Program 10-03-04 that the CTU adapter is recognized for the keyset's port.
15. You can now confirm the port assignment using the Windows Device Manager (click **Start - Settings - Control Panel - System - Hardware - Device Manager**). Under the **Ports (COM & LPT)** section should be displayed **NEC-I CTU Communications Port (Com x)**. Use the port number displayed here when connecting via your communications program (such as HyperTerminal). Note that the baud rate in HyperTerminal does not matter when connecting via USB.

To uninstall the CTU Adapter, refer to *Uninstalling the CTU Driver/Adapter* on page 2-40.

CTU Driver Setup

<div>

! IMPORTANT !

- A driver is required for the CTU adapter. This driver can be downloaded from the NEC Technical Support web site (ws1.necii.com).

- **Check the USB port on the PC.**
  This product is connected to the PC via a USB interface. Check that the USB interface on the PC is operating normally before installing the CTU driver. Despite the PC containing a USB port, the driver cannot be used unless the BIOS has been setup appropriately.

- **Multiple CTU adapters cannot be used simultaneously.**
  Refer to *Uninstalling the CTA Driver/Adapter* on page 2-20 for the CTA driver uninstall procedure.

  If a CTA adapter has been used previously, the CTA driver must first be uninstalled before installing the CTU driver. Correct operation will not be possible if the CTU driver is installed without first removing the previous CTA driver.

- **Do not connect the USB cable to the PC and CTU adapter until instructed to do so**.
  Preparations for installation (copying files) are required before connecting the USB cable between the PC and the CTU adapter. Correct operation will not be possible if the CTU adapter and the PC are connected before the necessary files are copied.

  If the USB cable is connected before the CTU driver is installed, then refer to USB cable has been connected before the CTU driver is installed. on page 5-3 to setup the CTU driver again.

</div>

PC Specifications

Recommended Hardware

Windows 98 Second Edition
- CPU   : Intel Pentium 300MHz or higher compatible processor
- RAM   : minimum 64MB
- HD   : minimum 50MB
- An available USB port

Windows 2000 / XP
- CPU   : Intel Pentium 300MHz or higher compatible processor
- RAM   : minimum 128MB
- HD   : minimum 50MB
- An available USB port

Operating System Software
- Microsoft® Windows® 98 Second Edition
- Microsoft® Windows® 2000 Professional Service Pack 3 or Later
- Microsoft® Windows® 2000 Server Service Pack 3 or Later
- Microsoft® Windows® XP Home Edition
- Microsoft® Windows® XP Professional

Installing the CTU Driver Under Windows XP

1. Start or restart Windows and login as 'Administrator'.
2. Download the CTU driver from the NEC Technical Support web site (ws1.necii.com).
3. Unzip the downloaded file using WinZip (can be obtained from www.winzip.com).
4. Click START - RUN to display the RUN dialog box and select the SETUP.EXE from the unzipped files. Click OK.

5. The SERVICE SOFTWARE dialog box appears. When installing the driver for CTI (TAPI) select the CTI CONNECTION option. If you install the driver for SMDR or other system reports, select OTHER (non-control sequence) mode.

6. Click NEXT.

7. The WELCOME TO THE ASPIRE TELEPHONE DRIVER (USB) SETUP PROGRAM dialog box appears. Verify the details and click NEXT.

8. The CHOOSE DESTINATION LOCATION dialog box appears.
   If the destination folder remains unchanged: Click NEXT.
   If the destination folder is changed: Click BROWSE, select the destination folder in the CHOOSE FOLDER dialog box, and click OK. Return to the CHOOSE DESTINATION LOCATION dialog box and click NEXT.

2

9. The SETUP COMPLETE dialog box appears. Click FINISH to display the CONNECTING USB CABLE dialog box appears. **Connect the USB cable to the PC only after clicking OK.**

Aspire Telephony Driver(USB)

Setup Complete

Setup has finished installing Aspire Telephony Driver(USB) on your computer.

Setup can launch the ReadMe file. Choose the options you want below.

☑ Yes,I want to view the ReadMe File.

Click Finish to complete Setup.

< Back   Finish   Cancel

10. Connect the USB cable from the CTU adapter to the PC.
    Insert the USB cable Series A connector (flat connector) in the ⟵• socket on the PC.
    The CTU adapter must be installed in order for all the TSP menu options to be recognized during the installation process.

! Important !
Insert the USB cable firmly in the socket.
Ensure that the USB cable is firmly inserted and removed.
Rapid insertion or removal, or partial insertion, of the USB cable will interfere with correct reading of signals, which in turn may prevent recognition of the device. If this problem occurs, remove the USB cable from the connector, wait, and then firmly insert the cable again.

11. For Windows XP installations, refer to page 2-27.
    For Windows 2000 installations, refer to page 2-29.
    For Windows 98 installations, refer to page 2-30.

Aspíre

2

Windows XP Installations Only

1. When the USB cable is connected to the PC the FOUND NEW HARDWARE WIZARD dialog box appears and automatic installation of the driver begins.
2. The DIGITAL SIGNATURE NOT FOUND screen appears. Click YES to continue installation.

3. When the necessary driver has been installed, the PLEASE WAIT ... dialog box appears and the setup required for the operation of the CTI application proceeds automatically.

2

4. The ASPIRE TELEPHONY SERVICE PROVIDER dialog box appears.
     *This window can be accessed after the installation process by clicking START - SETTINGS -
     CONTROL PANEL - PHONE AND MODEM OPTIONS then click the ADVANCED tab to display
     the following screen.*

     The TSP Setup must match the Aspire system data to ensure that this product operates correctly.

5. Continue the installation process with *TSP Basic Setup – Telephony System* on page 2-33 when
     installing the driver for TAPI applications.
6. After the TSP settings have made, the SYSTEM SETTING CHANGE dialog box appears. In order
     to confirm a new setup, it is necessary to reboot a computer. Click OK.
     *Unless the computer reboots, any application which uses the CTU adapter may not operate
     correctly.*

7. The CTU driver is now installed.

Windows 2000 Installations Only

1. When the USB cable is connected to the PC the FOUND NEW HARDWARE WIZARD dialog box appears and automatic installation of the driver begins. Select INSTALL SOFTWARE AUTOMAT-ICALLY (RECOMMENDED) and click NEXT.

2. The ASPIRE TELEPHONY SERVICE PROVIDER dialog box appears.

   This window can be accessed after the installation process by clicking START - SETTINGS - CONTROL PANEL - PHONE AND MODEM OPTIONS then click the ADVANCED tab to display the following screen.

   The TSP Setup must match the Aspire system data to ensure that this product operates correctly.

3. Continue the installation process with *TSP Basic Setup – Telephony System* on page 2-33 when installing the driver for TAPI applications.

Installing Telephone Adapters
CTU Adapters

Aspíre

Windows 98 Installations Only

1. When the USB cable is connected to the PC the FOUND NEW HARDWARE dialog box appears and automatic installation of the driver begins. When the necessary driver has been installed, the PLEASE WAIT... dialog box appears and the setup required for operation of the CTI application proceeds automatically.

    With some installations, the PC may request the Windows CD-ROM be inserted in order to complete the process. Insert the CD, select the WIN98 folder and click OK.

2. The ASPIRE TELEPHONY SERVICE PROVIDER dialog box appears.

    This window can be accessed after the installation process by clicking START - SETTINGS - CONTROL PANEL - TELEPHONY then click the TELEPHONY DRIVERS tab to display the following screen.

    The TSP Setup must match the Aspire system data to ensure that this product operates correctly.

3. Continue the installation process with *TSP Basic Setup – Telephony System* on page 2-33.

2

Aspire Data Communications Manual

Telephony Service Provider (TSP)

Starting the TSP Setup Dialog Box

The TSP Setup dialog box may be started in a number of ways. For example, this section describes starting it from the Control Panel. (The TSP Setup screen may be started with other methods depending on the application in use.)

1. Select Windows START - SETTINGS - CONTROL PANEL - TELEPHONY or PHONE AND MODEM OPTIONS (when using Windows 2000 or XP).

2. The DIALING PROPERTIES dialog box is displayed. Click the TELEPHONY DRIVERS or ADVANCED (when using Windows 2000 or XP) tab to display the following screen.

2

```
Dialing Properties                                    ? X

  My Locations   Telephony Drivers

          The following telephony drivers are installed
          on this computer:

   Aspire Telephony Service Provider
   NDISWAN TAPI Service Provider
   Unimodem Service Provider


        Add...        Remove       Configure...




                        OK       Cancel      Apply
```

3. Select ASPIRE TELEPHONY SERVICE PROVIDER on the screen above and click CONFIGURE to display the TSP setup screen.

TSP Setup

This section describes the various TSP (Telephony Service Provider) settings and method of setup necessary for correct operation of this product. The setup must match the office communication gateway Aspire system data setup.

There are three TSP setup dialog boxes - one for basic settings of the TSP, one for line configuration, and one for port settings. The first and second dialog boxes are each associated with a setup screen (tab). TSP setup consists of the following seven screens.

The TSP Basic Setup dialog box has the following tabs:
<1> Telephony System
<2> Power Management

The Line Configuration dialog box has the following tabs:
<3> Call Setting
<4> Monitor Setting
<5> Basic Setting
<6> Media Setting

The Port Setup dialog box contains no additional tabs.
<7> Port Setup (Not Used)

The TSP setup dialog box (screen <1>) appears when the TSP setup screen is started. Click LINE CONFIG-URATION on screen <1> to display the Line Configuration dialog box (screen <3>).

TSP Basic Setup – Telephony System

This is the first screen displayed when the TSP setup screen is started. It displays the Aspire Telephony Service Provider and general line information. Click LINE CONFIGURATION to move to the Line Configuration screen.

2

The fields on the screen are as described below. Read thoroughly, and enter settings appropriate for the system environment.

Operation Mode
Select to suit the application used.

- Select NORMAL if using a CTI application compatible with the Aspire system.
- Select SINGLE LINE if using a CTI application compatible with the i-Series system.
- Select ELITE/XEN if using a CTI application compatible with the Elite / Xen system.

Line Info Refresh
Click LINE INFO REFRESH if the system data for the telephone has been changed. Clicking LINE INFO REFRESH acquires the new line information and displays the date and time at which the information was acquired in the REFRESH DATE field.

TSP Basic Setup – Power Management

This is the TSP power management setup screen. Click the POWER MANAGEMENT tab in the TSP basic setup dialog box to display the screen.

A PC is normally set up to ensure that it does not enter the Sleep or Hibernation mode during an active call. These modes may be enabled by changing the relevant setting on this screen, and conversely, they may be completely disabled while TAPI applications are running. Note that the power management function cannot be used with Windows NT 4.0. Under Windows NT 4.0, the PC is unable to enter the sleep or hibernation modes while a TAPI application is running.

The fields on the screen are as described below. Read thoroughly, and enter settings appropriate for the system environment.

Power Management Support
- Place a check in this field to allow the PC to enter the Sleep or Hibernation mode. Note that DON'T ENTER SLEEP OR HIBERNATION MODE WHEN THE ACTIVE CALL EXISTS has priority if checked.
- Remove the check to prevent the PC entering the Sleep or Hibernation mode while TAPI applications are running.

Don't enter Sleep or Hibernation mode during an active call.
- This setting is only valid when a check has been placed in the POWER MANAGEMENT SUPPORT field.
- Place a check in this field to prevent the PC entering the Sleep or Hibernation mode during an active call between the PC and the phone.
- Remove the check to allow the PC to enter the Sleep or Hibernation mode at any time (including during an active call).
    When returning to the original status after the PC has entered the Sleep or Hibernation mode (i.e. with Resume), in many cases the call status of the TAPI application currently running will not reflect the current call status.

Line Configuration – Call Setting

This is the line Call Setting screen. Click LINE CONFIGURATION on the TSP Telephony System screen (screen <1>) to display the screen.

The fields on the screen are as described below. Read thoroughly, and enter settings appropriate for the system environment.

Call Mode
● Select AUTO SPEAKER MODE to emit a tone from the phone speaker when a line is acquired.
● Select AUTO HEADSET MODE to emit a tone from the headset connected to the phone when a line is acquired.
   The headset button must be registered with a function key when Auto Headset Mode is used.
● Select PC to emit a tone from the PC speaker when a line is acquired.

Line Configuration – Monitor Setting

This is the line Monitor Setting screen. Click the MONITOR SETTING tab on the LINE CONFIGURA-
TION dialog box to display the screen.

The MONITOR SETTING tab is displayed when NORMAL or ELITE/XEN is selected on the TSP Telephony System screen (screen <1>).

2

Usage of other extensions may be monitored by adding extensions in THE EXTENSION POSSIBLE TO MONITOR list to THE EXTENSION TO BE MONITORING list.

Adding to THE EXTENSION TO BE MONITORING List:
● Select an extension from THE EXTENSION POSSIBLE TO MONITOR list and click <-ADD to add it to THE EXTENSION TO BE MONITORING list. The selected extension is moved from THE EXTENSION POSSIBLE TO MONITOR list to THE EXTENSION TO BE MONITORING list. Next, click MONITOR REGISTRATION. The REGISTRATION COMPLETE dialog box appears. Click OK.

Deleting from THE EXTENSION TO BE MONITORING List:
● Select the extension to be deleted from THE EXTENSION TO BE MONITORING list and click DELETE->. The selected extension is moved from THE EXTENSION TO BE MONITORING list to THE EXTENSION POSSIBLE TO MONITOR list. Next, click MONITOR REGISTRATION. The REGISTRATION COMPLETE dialog box appears. Click OK.

Monitoring usage of other extensions must be supported by the application in use.

Line Configuration – Basic Setting

This is the line Basic Setting screen. Click the BASIC SETTING tab on the LINE CONFIGURATION dialog box to display the screen.

> *The BASIC SETTING tab is displayed when SINGLE LINE is selected on the TSP Telephony System screen (screen <1>).*

2

The fields on the screen are as described below. Read thoroughly, and enter settings appropriate for the system environment.

Line Name:
● Enter EXTENSION xxx KEYSET ('xxx' is the extension number of the phone connected to the PC).

Phone Number:
● Enter the extension number of the phone connected to the PC.

Notify Call Information:
● MODE 0: WHEN CALLED selected:
Notify call information for an incoming call on a phone set for sound.
● MODE 1: WHEN CONNECTED selected:
Call information displayed with phone operation, such as a response involving pressing the station line button on a phone receiving a call and not set for sound, and for an incoming call from an application.
● MODE 2: BOTH selected:
Notify call information for an incoming call on a phone set for sound, and at connection with a phone not set for sound.
● MODE 3: NORMAL MODE selected:
Normally selected, this option enables acquisition of the caller number, as well as information such as the trunk number, origin, and reason at connection.

Block Call Information:
- OUTGOING CALL checked/not checked.
  Checked   : Don't notify for outgoing trunk call.
  Not checked   : Notify for outgoing trunk call.
- INCOMING CALL checked/not checked
  Checked   : Don't notify for incoming trunk call.
  Not checked   : Notify for incoming trunk call.
- INTERNAL CALL checked/not checked
  Checked   : Don't notify for outgoing/incoming call on extension.
  Not checked   : Notify for outgoing/incoming call on extension.
- Trunk number entered in TRUNK NUMBERS
  Outgoing/incoming information not notified for the set trunk.

Different block call information may be set/not set depending upon the mode selected with NOTIFY CALL INFORMATION (O : May be set, X : Cannot be set).

Notify Call	Block Call			
	Outgoing Call	**Incoming Call**	**Internal Call**	**Trunk Number**
Mode 0	X	O	O	O
Mode 1	O	O	O	O
Mode 2	O	O	O	O
Mode 3	X	X	X	X

Line Configuration – Media Setting

This is the audio media setup screen used by the TSP. Click the MEDIA tab on the LINE CON-FIGURATION dialog box to display the screen.*As the appropriate media is incorporated when the CTU driver is installed, these settings are normally left unchanged.*

2

Used to specify the audio device used for sound recording at the specified line and phone.

● Line Media

Input : Specifies the audio device to which the sound from the line (caller) is input as the recording source.

Output : Specifies the audio device used for playback of sound to the line (caller).

● Phone Media

Input : Specifies the audio device to which the sound from the phone (self) is input as the recording source.

Output : Specifies the audio device used for playback of sound to the phone (self).

● Line and Phone Mixed Media

Input : Specifies the audio device to which the mixed line (caller) and phone (self) sound is input as the recording source.

Output : Specifies the audio device used for playback of sound to both the line (caller) and phone (receiver).

Uninstalling the CTU Driver/Adapter

This section describes the removal of the CTU driver from the PC and the adapter from the keyset when the CTU adapter is no longer required. **Note that if the CTU driver is to be installed, the CTA driver must be removed first from the PC!**

! Always uninstall the CTU driver with this procedure !

● Removing CTU driver-related files with Explorer etc. will not uninstall the driver. In the worst case, it may no longer be possible to start the PC and the operating system may need to be reinstalled.

1. Remove the USB cable from the PC. If not, the following error message will appear.

2. Close all applications before beginning this procedure.
3. Select START - PROGRAMS - ASPIRE TELEPHONY DRIVER (USB) and click UNINSTALL ASPIRE DRIVER.
4. The CONFIRM UNINSTALL screen appears. Click OK.

5. The UNINSTALL COMPLETE dialog box appears. Click FINISH to complete the uninstall process. The PC must be restarted in order to complete the process.

6. Unplug the line cord from the keyset.
7. Unplug the AC-R AC/DC adapter from the AC jack on the side of the adapter and from the AC outlet.
8. Remove the CTU Adapter from the phone by pushing in the latch on the top of the adapter and lifting the adapter up.
9. In Program 10-03-01, undefine the keyset's port by entering "00".
10. Plug the line cord back into the keyset.

2

- For Your Notes -

2

Section 3:
NTCPU Connection and Driver Installation

<div style="text-align:right">**3**</div>

Connecting to the Aspire S/Aspire System's NTCPU

A direct connection to the system's NTCPU, and ENTU with the Aspire S, can be made in one of the ways shown in the following graphics. The connection can be a direct connection to the system using a serial cross-over cable, ethernet, or USB cable or a network connection through a hub.

Connection for Local Access:

For local connection, you can connect from the PC to the Aspire S/Aspire using the serial port, USB port (Aspire M/L/XL only), or LAN port on the CPU.

> When using the USB port, an NEC USB port driver must be installed. This driver can be downloaded from the NEC Technical Support Site, ***http://ws1.necii.com***. This web site requires registration with NEC Sales Support. Contact them by phone (1-800-365-1928) or EMail (ubsdsupport@necinfrontia.com) in order to register.

ENTU PCB

LAN Straight Cable
(RJ-45)

LAN Hub

Aspire S Connection

9-Pin Female
Connector

LAN Cross Cable
(RJ-45)

PC

9-Pin Female
Connector

Serial Cross Cable

LAN Straight Cable
(RJ-45)

LAN Hub

Aspire Connection

LAN Cross Cable
(RJ-45)

9-Pin Female
Connector

USB Cable

Serial Cross Cable

PC

9-Pin Female
Connector

Connection for Remote Access:

For remote connection, you can connect from the PC to the Aspire S/Aspire using an ISDN or central office trunk.

Aspire S Connection

Aspire Connection

3

Aspire S Cable Requirements		
Device	**Cable Type**	**Cable Run Length (ft)**
CPU to PC	Serial cross cable	49.21 (15 meters)
	4-wire LAN (UTP) cable with category 3 or higher for 10Base-T, and category 5 or higher for 100 Base-TX Ethernet cross cable	328.08 (100 meters)
CPU to Switching Hub	4-wire LAN (UTP) cable with category 3 or higher for 10Base-T, and category 5 or higher for 100 Base-TX Ethernet straight cable	328.08 (100 meters)
CPU to Printer	Serial cross cable	49.21 (15 meters)
ENTU-S PCB to PC	Standard Ethernet Cable (cross-cable)	328 (100 meters)
ENTU-S to Switching Hub	Standard Ethernet Cable (straight-cable)	328 (100 meters)

Aspire M/L/XL Cable Requirements		
Device	**Cable Type**	**Cable Run Length (ft)**
NTCPU to PC	Serial cross (null modem) cable Ethernet cross cable USB cable (USB1.1)	49.21 (15 meters) 328.08 (100 meters) 16.40 (5 meters)
NTCPU to Hub	Ethernet straight cable	328.08 (100 meters)
NTCPU to Printer	Serial cross cable	49.21 (15 meters)

Connecting to the Serial Port - Locally

When a connection is made to the Aspire S/Aspire system using a serial connection, use the following information to set the Aspire port.

1. ***Aspire S:*** Set the SW3 switch on the Aspire S CPU to the "1" position (up).
   If it is set to "3" (down), this is the debugging mode and the serial connection will not work.

SW3
Serial Port Switch

CN1
Serial Cable Connector
(D-Sub 9-pin male)

3

   Aspire: Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).
   If it is set to ON, this is the debugging mode and the serial connection will not work.

SW3 Switch
Set to OFF position
(down)

2. Through telephone programming, use Program 10-21-02 to set the NTCPU serial communication baud rate (default=19200).
   It is recommended to increase the baud rate to 38400 (the maximum rate for a serial connection).

3. Connect the PC to the serial port on the Aspire S/Aspire NTCPU using a null modem (cross-over) cable (P/N 0892004).
   The modem to be used should already be installed on the PC. Refer to the modem installation instructions for details, if needed.

   When creating a null modem cable, refer to the Null Modem Pin-Out table which follows.

Null Modem Pin-Out						
Signal	DB-25 Pin	DB-9 Pin	To	DB-9 Pin	DB-25 Pin	Signal
FG (Frame Ground)	1	-		-	1	FG
TD (Transmit Data)	2	3		2	3	RD
RD (Receive Data)	3	2		3	2	TD
RTS (Request to Send)	4	7		8	5	CTS
CTS (Clear to Send)	5	8		7	4	RTS
SG (Signal Ground)	7	5		5	7	SG
DSR (Data Set Ready)	6	6		4	20	DTR
CD (Carrier Detect)	8	1		4	20	DTR
DTR (Data Terminal Ready)	20	4		1	8	CD
DTR (Data Terminal Ready)	20	4		6	6	DSR

3

4. Using a communication software (such as HyperTerminal), connect to the Aspire S/Aspire serial port which is connected to your PC's serial COM port (usually COM 1). The baud rate setting in the communication software must match the Aspire S/Aspire setting in Program 10-21-02. In addition, the following items should be set :
    Data Bits=8, Parity=None, Stop Bit=1, Flow Control=Hardware.
5. Type **AT** and press **Enter**.
    Either OK or AT should appear to tell you that your cable connection and communication parameters are set correctly. If not, recheck your communication parameters set in Program 10-21-02, recheck the communication software parameters and check that the null modem cable is using the correct pin-out.
6. Disconnect the HyperTerminal session.

Connecting to the Serial Port - Remotely

After setting up the NTCPU's serial port to a modem, you can remotely access the system for programming using PCPro, or you can receive SMDR or DIM history. Note, however, that the serial port can be used for PCPro **OR** SMDR **OR** DIM - it cannot be used for all outputs as the PCPro setup requires a specific modem initialization string be defined, and DIM requires the SW3 switch to be positioned differently.

If used for SMDR, be aware that the SMDR buffer will hold up to 500 calls. Once the buffer is full, the oldest record is deleted for each new call. This would mean that records would be lost unless the remote connection is made to download the records prior to the buffer being filled.

Modem Set Up for PCPro Only:

1. The Aspire system must have software version 1.06 or higher. Confirm your software version by pressing the CHECK key plus the HOLD key on an Aspire display set.

2. *Aspire S:* Set the SW3 switch on the Aspire S CPU to the "1" position (up).
   If it is set to "3" (down), this is the debugging mode and the serial connection will not work.

SW3
Serial Port Switch

CN1
Serial Cable
Connector
(D-Sub 9-pin male)

3

Aspire: Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).
   If it is set to ON, this is the debugging mode and the serial connection will not work.

SW3 Switch
Set to OFF position
(down)

3. Connect the PC to the serial port on the Aspire S/Aspire NTCPU using a null modem (cross-over) cable (P/N 0892004).
   The modem to be used should already be installed on the PC. Refer to the modem installation instructions for details, if needed.

   When creating a null modem cable, refer to the Null Modem Pin-Out table which follows.

Null Modem Pin-Out						
Signal	DB-25 Pin	DB-9 Pin	To	DB-9 Pin	DB-25 Pin	Signal
FG (Frame Ground)	1	-		-	1	FG
TD (Transmit Data)	2	3		2	3	RD
RD (Receive Data)	3	2		3	2	TD
RTS (Request to Send)	4	7		8	5	CTS
CTS (Clear to Send)	5	8		7	4	RTS
SG (Signal Ground)	7	5		5	7	SG
DSR (Data Set Ready)	6	6		4	20	DTR
CD (Carrier Detect)	8	1		4	20	DTR
DTR (Data Terminal Ready)	20	4		1	8	CD
DTR (Data Terminal Ready)	20	4		6	6	DSR

3

4. Use a communication software (such as HyperTerminal) to connect to the Aspire S/Aspire serial port. Set the communication software to use the following settings:
   - Baud Rate: 19200
      (must match Aspire Program 10-21-02 setting)
      It is recommended to increase the baud rate to 38400 (the maximum rate for a serial connection).
   - Data Bits: 8
   - Parity: None
   - Stop Bits: 1
   - Flow Control: Hardware
   If using HyperTerminal, start the program by clicking START - PROGRAMS - ACCESSORIES - COMMUNICATIONS - HYPERTERMINAL. Create a name for the new connection, such as MODEM SETUP and click **OK**.

   Select the **COM Port** *to be used and click* **OK**, *set the RS232 options with the above settings, then click* **OK**.

5. Type **AT** then press **Enter**.
   Either OK or AT should appear to tell you that your cable connection and communication parameters are set correctly. If not, recheck your communication parameters set in Program 10-21-02, recheck the communication software parameters and check that the null modem cable is using the correct pin-out.

6. Once the communication between the system and PC is established, the Aspire S/Aspire serial port needs to be modified with the following entries. After each line, press the **Enter** key.
   ATR1
   AT&W
   The screen should indicate a series of ATs. If not, repeat Step 6 until they appear.

   To reset this serial port to its initial setting, enter:
      ATR0
      AT&W

7. Disconnect the HyperTerminal connection but do not close the HyperTerminal program. Disconnect the PC from the Aspire S/Aspire system.

8. Connect the NEC-recommended CNet modem model #CN5614XR (P/N 85862D) power supply to the modem, connect the modem using a straight-through cable to the serial communication port of your computer, and turn on the modem.
   Check the manuals that came with your computer if you're not sure how to set up and connect a modem to your computer.

Send and store the INIT string in the site modem:

1. Type **AT&F** and press **Enter** to default the modem.
   *OK will display on the screen. If OK does not appear, press **Enter**, type AT&F and press **Enter** again. If OK still does not appear, there is a problem with the connection between the computer and mode. Correct the problem before repeating this step.*

2. Enter the following initialization string:
   AT&D3 and press **Enter.**
   ATS0=2 and press **Enter.**
   AT&C0 and press **Enter**.
   AT&W0 and press **Enter.**
   AT&W1 and press **Enter.**

3. To view all the modem settings and check the INIT string, type
   AT&V and press **Enter**.
   *The INIT string you sent in step 2 is contained in the data that displays. Review the displayed Active Profile, Stored Profile 0 and Stored Profile 1 data to be sure your entries were correct. (Not all types of modems are compatible with all these commands and will disregard the entries for some items.) The entries of **&C0**, **S00:002** and **&D3** should appear in the active and stored profiles. If not, repeat Steps 1-3.*

4. Close the HyperTerminal Program. You do not need to save the modem file created.
5. Turn off the modem and disconnect it from the PC.

3

Connecting the site modem to the Aspire S/Aspire system:

1. Connect the modem to the Aspire S/Aspire system using a straight-through cable.
2. Turn the modem on.
3. Determine how you wish to communicate with the modem connected to the system and make the proper connections.
   Some of the possible connections to the remote modem which may be done are:

   - *Using a direct line connected to the modem*
   - *Through a DISA line along with a single line port connected to the modem*
   - *Through Voice Mail/Automated Attendant along with a single line port connected to the modem*
   - *Through a line directly terminated to a single line port connected to the modem*
   - *Through a normal line to have a person answer the incoming call and transfer you to the single line extension number connected to the modem.*

Modem Setup For SMDR and DIM History Only:

Though remote connection is possible for SMDR and DIM history, it is not recommended as the change in the modem initialization string will prevent access with the PCPro application. In addition, for SMDR, unless a device is constantly connected, records will be lost once the buffer fills (500 calls - the oldest records are deleted and the new calls are stored).

Connecting the site modem to the Aspire S/Aspire system:

1. The Aspire system must have software version 1.06 or higher. Confirm your software version by pressing the CHECK key plus the HOLD key on an Aspire display set.

2. *Aspire S:*
   For SMDR: Set the SW3 switch on the Aspire S CPU to the "1" position (up).
   If it is set to "3" (down), this is the debugging mode and the SMDR connection will not work.

   For DIM: Set the SW3 switch on the Aspire S CPU to the "3" position (down).
   If it is set to "1" (up), this is the SMDR/PCPro mode and the DIM connection will not work.

SW3
Serial Port Switch

CN1
Serial Cable
Connector
(D-Sub 9-pin male)

   Aspire:
   For SMDR: Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).
   If it is set to ON, this is the debugging mode and the serial connection will not work.

   For DIM: Set the SW3 switch number 1 on the Aspire NTCPU to ON (up).
   If it is set to "OFF" (down), this is the SMDR/PCPro mode and the DIM connection will not work.

SW3 Switch
Set to OFF position
(down)

3. Connect the PC to the serial port on the Aspire S/Aspire NTCPU using a null modem (cross-over) cable (P/N 0892004).
   The modem to be used should already be installed on the PC. Refer to the modem installation instructions for details, if needed.
   When creating a null modem cable, refer to the Null Modem Pin-Out table which follows.

Null Modem Pin-Out						
Signal	DB-25 Pin	DB-9 Pin	To	DB-9 Pin	DB-25 Pin	Signal
FG (Frame Ground)	1	-		-	1	FG
TD (Transmit Data)	2	3		2	3	RD
RD (Receive Data)	3	2		3	2	TD
RTS (Request to Send)	4	7		8	5	CTS
CTS (Clear to Send)	5	8		7	4	RTS
SG (Signal Ground)	7	5		5	7	SG
DSR (Data Set Ready)	6	6		4	20	DTR
CD (Carrier Detect)	8	1		4	20	DTR
DTR (Data Terminal Ready)	20	4		1	8	CD
DTR (Data Terminal Ready)	20	4		6	6	DSR

3

4. Use a communication software (such as HyperTerminal) to connect to the Aspire S/Aspire serial port. Set the communication software to use the following settings:
   - Baud Rate: 19200
        (must match Aspire Program 10-21-02 setting)
        It is recommended to increase the baud rate to 38400 (the maximum rate for a serial connection).
   - Data Bits: 8
   - Parity: None
   - Stop Bits: 1
   - Flow Control: Hardware
        If using HyperTerminal, start the program by clicking START - PROGRAMS - ACCESSORIES - COMMUNICATIONS - HYPERTERMINAL. Create a name for the new connection, such as MODEM SETUP and click **OK***.*

        Select the **COM Port** *to be used and click* **OK***, set the RS232 options with the above settings, then click* **OK***.*

5. Type **AT** then press **Enter**.
        Either OK or AT should appear to tell you that your cable connection and communication parameters are set correctly. If not, recheck your communication parameters set in Program 10-21-02, recheck the communication software parameters and check that the null modem cable is using the correct pin-out.

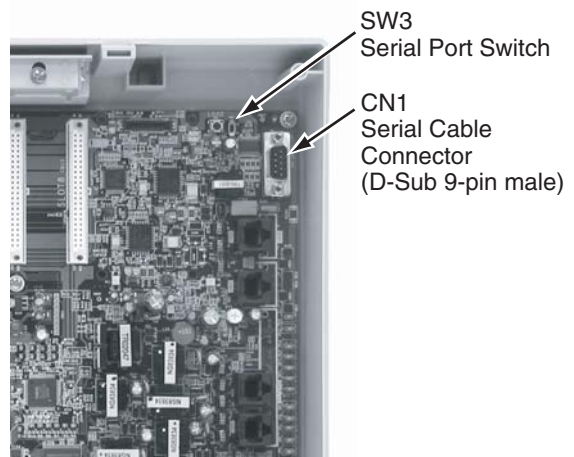6. Once the communication between the system and PC is established, the Aspire S/Aspire serial port needs to be modified with the following entries. After each line, press the **Enter** key.
   ATQ1
   ATE0
   S0=1
        These commands will turn off local echo, provide no result codes, and enable auto answer.

        To reset this serial port to its initial setting, enter:
        ATQ0
        ATE1
        S0=0

7. Disconnect the HyperTerminal connection but do not close the HyperTerminal program. Disconnect the PC from the Aspire S/Aspire system.

8. Connect the NEC-recommended CNet modem model #CN5614XR (P/N 85862D) power supply to the modem, connect the modem using a straight-through cable to the serial communication port of your computer, and turn on the modem.

    Check the manuals that came with your computer if you're not sure how to set up and connect a modem to your computer.

Send and store the INIT string in the site modem:

1. Type **AT&F** and press **Enter** to default the modem.

    *OK will display on the screen. If OK does not appear, press **Enter**, type AT&F and press **Enter** again. If OK still does not appear, there is a problem with the connection between the computer and mode. Correct the problem before repeating this step.*

2. Enter the following initialization string. After each line, press the **Enter** key.
    ATQ1
    ATE0
    S0=1

    These commands will turn off local echo, provide no result codes, and enable auto answer.

    To reset this serial port to its initial setting, enter:
        ATQ0
        ATE1
        S0=0

3. Close the HyperTerminal Program. You do not need to save the modem file created.
4. Turn off the modem and disconnect it from the PC.

Connecting the site modem to the Aspire S/Aspire system:

1. Connect the modem to the Aspire S/Aspire system using a straight-through RS-232 cable.
2. Turn the modem on.
3. Determine how you wish to communicate with the modem connected to the system and make the proper connections.

    Some of the possible connections to the remote modem which may be done are:

    - *Using a direct line connected to the modem*
    - *Through a DISA line along with a single line port connected to the modem*
    - Through Voice Mail/Automated Attendant along with a single line port connected to the modem
    - *Through a line directly terminated to a single line port connected to the modem*
    - *Through a normal line to have a person answer the incoming call and transfer you to the single line extension number connected to the modem.*

\

Connecting to the LAN Port

When connection to the Aspire S/Aspire system is made using a LAN connection, an IP address and the subnet type must be assigned to the PC. The IP address and subnet mask are determined by the Aspire S/Aspire system in Programs 10-12-01 and 10-12-02.

If the PC is already connected to a network and you are connecting to the NTCPU through a hub or router, please check with your network manager to determine the IP address that should be used.

Aspire S

Ethernet
Straight-Thru
Cable

Aspire S Cabinet

LAN

Ethernet PC

CPU
4VOIPU
4VOIPDB
ENTU

AC Adaptor
(Not needed if power
supplied by LAN)

Aspire IPhone,
Aspire Keyset with IP Adapter or
H.323 Terminal

Aspire M/L/XL

Ethernet
Straight-Thru
Cable

Aspire Cabinet

LAN

Ethernet PC

NTCPU
4VOIPU
4VOIPDB
16VOIPU
16VOIPDB
8SHUBU

AC Adaptor
(Not needed if power
supplied by LAN)

Aspire IPhone,
Aspire Keyset with IP Adapter or
H.323 Terminal

The following information is based on a stand-alone PC connected to the Aspire S/Aspire, with the Aspire S/Aspire using the default settings for the IP address and subnet mask (Program 10-12-01: IP Address 172.16.0.10 / Program 10-12-02: Subnet Mask 255.255.0.0).

1. **Aspire S:** Set the SW3 switch on the Aspire S CPU to the "1" position (up).
   If it is set to "3" (down), this is the debugging mode and the serial connection will not work.

SW3
Serial Port Switch

CN1
Serial Cable Connector
(D-Sub 9-pin male)

Aspire: Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).
   If it is set to ON, this is the debugging mode and the serial connection will not work.

SW3 Switch
Set to OFF position
(down)

2. Connect the Aspire S/Aspire system to the PC using a LAN cable. When connecting to a LAN hub, use a straight-through cable. If connecting directly to the telephone system, use a cross-connect cable.
   Connect the cable to the CN15 LAN connector on the Aspire M/L/XL NTCPU or the CN2 LAN connector on the ENTU with the Aspire S.

   If the connection is correct, the green and amber LEDs on the LAN connector in the Aspire S/Aspire system will be lit.

3. To change the TCP/IP information, click **START** ☞ **SETTINGS** ☞ **NETWORK CONNEC-TIONS**. Right-click on **NETWORK CONNECTIONS** and click **OPEN**. The following window appears.

4. Right-click on the **LOCAL AREA CONNECTION** icon and click on **PROPERTIES**.

5. In the list of items, **INTERNET PROTOCOL (TCP/IP)** should be checked. Click on the **INTER-NET PROTOCOL (TCP/IP)** and then click on **PROPERTIES**.

6. In the Internet Protocol (TCP/IP) Properties window that appears, click on **USE THE FOLLOWING IP ADDRESS** button:
   With the Aspire S/Aspire set at default (Program 10-12-01 = IP Address 172.16.0.10 and Program 10-13-01 = 0 [DHCP Server disabled]):
   IP Address: 172.16.0.100   (172.16.0.101, 172.16.0.102, etc. would also be acceptable)
   Subnet Mask: 255.255.0.0

   With the Aspire S/Aspire set to use the built-in DHCP Server (Program 10-12-01 = IP Address 172.16.0.10 and Program 10-13-01 = 1 [DHCP Server enabled]):
   The network settings on the PC connected to the Aspire S/Aspire system must be set to obtain an IP address automatically.

7. Click **OK** and close the **INTERNET PROTOCOL** window.
8. Click **OK** and close the **LOCAL AREA CONNECTION PROPERTIES** window.
9. Close the **NETWORK CONNECTIONS** window.

Connecting to the USB Port

When the USB port is used to connect to the Aspire system, an NEC USB driver must be installed. Use the steps below to install the USB driver.

> *The graphics shown below are with Windows XP. When using Windows 2000, there may be some differences.*

1. Insert the disk containing the NEC USB driver into your PC.
2. Connect the Aspire system to the PC using a USB cable.
3. Windows notifies you of new hardware found. Open the Hardware Wizard window to begin the setup.

4. The software locates the USB driver file on the disk and begins the installation.
    > *Depending on your software, the next screen may ask you to check which drives should be searched for the USB driver.*
5. When the following window appears, click **CONTINUE ANYWAY**.

6. The software continues the installation process.

7. Once the software is installed, click **FINISH**.

8. The PC must then be restarted in order for the USB port to work.

9. Once the computer has been rebooted, right-click on **MY COMPUTER** and click on the **HARDWARE** tab.

10. Click on the **DEVICE MANAGER** button. The following screen displays listing the installed hardware.

11. Click on **MODEM**. If the installation was successful, the NECI USB MODEM will be listed. *If the NECI USB Modem is not listed, repeat the installation process.*

3

- For Your Notes -

3

![Aspire logo]

Section 4:

Feature Setup / Programming

4

This section details any additional setup or programming required for the data features. After determining the system connection, and installing the required adapter and driver, use this section to finalize the setup and programming.

- For Your Notes -

4

Aspíre

Alarm Reports

The system logs various errors and information about the operation which can be used to determine the cause of a problem (up to 100 individual alarms are stored, then oldest data is deleted to allow for new information to be stored). The system can indicate the errors on a keyset's display, send the information to a printer at a programmed time, or send the data via EMail. When an alarm report is printed through PCPro, the system will not delete the report data after printing. If the system is set up to EMail the report and the mail server is down, the report will not be sent.

The alarm reports indicate:

- System start-up/upgrade date and time
- PCB communication error with the date and time and the restoration date and time
- Date and time a PCB was removed from the system
- Date and time an extension was disconnected from the system
- Date and time of any interruption in system power
- Power brown-outs generate a Low Battery log
- Date and time of any system data change

Sample Report:

<< Alarm Report >>						06/16/2003 14:12	PAGE 001

LVL	NO	STAT	DATE	TIME	ITEM	UNIT	SLT	PRT	PARAMETER
MIN	0002	ERR	06/09/03	11:34	PKG Installation	VMSU	04	00	
MIN	0002	ERR	06/09/03	11:34	PKG Installation	VMSU	04	00	

4

Programming

Basic Programming

➡ **90-10-01 : System Alarm Setup - Alarm Type**
Assign a status to system alarms (001-100). You can designate an alarm as Major or Minor (0=no notification, 1=major alarms displayed, 2=minor alarms displayed).

➡ **90-10-02 : System Alarm Setup - Report**
This program assigns whether or not the alarm is displayed to a key telephone and whether or not the alarm information is reported to the pre-defined destination (0=no report, 1=report).

➡ **90-11-01 : System Alarm Report - System Alarm Display Telephone**
Assign the display keyset's extension number that should receive system alarms.

➡ **90-12-05 : System Alarm Output - Clear All Alarm Reports**
Entering 1 will clear all alarm reports.

➡ **90-12-06 : System Alarm Output - Output Mode**
Select either manual (0) or automatic (1) alarm reports.

➡ **90-24-01 - 90-24-04 : System Alarm Report Notification Time Setup**
Set the month (00=disabled, 01-12), day (00-31), hour (00-23), and minute (00-59) that the alarm report should print. Up to 12 time settings can be programmed (01-12). This report will indicate both major and minor alarms.

Printing Reports - in addition to the Basic Programming above

➼ **90-12-01 : System Alarm Output - Output Port Type**
Define the output port to be used as the output for system alarm report (0=no setting, 1=NTCPU COM port, 2=NTCPU USB port, 4=CTA/CTU adapter). Set the baud rate for the COM port in Program 10-21-02. The system can have up to 50 reports.

➼ **90-12-02 : System Alarm Output - Destination Extension Number**
If the output port (90-12-01) is a CTA or CTU, enter the extension number with the CTA/CTU connection.

➼ **90-12-03 : System Alarm Output - Output All Alarm Reports**
Entering 1 will print all the alarm reports.

➼ **90-12-04 : System Alarm Output - Printout New Alarm Reports**
Entering 1 will print all new alarm reports.

EMailing Reports - in addition to the Basic Programming above

➼ **10-12-01 : NTCPU Network Setup - IP Address**
Select the IP address for the IP connection (default: 172.16.0.10). A static IP address is required by the NTCPU. The system must be reset in order for the change to take effect.

➼ **10-12-02 : NTCPU Network Setup - Subnet Mask**
Select the Subnet Mask to be used by the IP server (default: 255.255.0.0).

➼ **10-12-03 : NTCPU Network Setup - Default Gateway**
If required, select the default gateway IP address to be used when using a router (default: 0.0.0.0).

➼ **90-11-02 : System Alarm Report - Report Method**
When alarm reports are to be EMailed, set this option to "1".

➼ **90-11-06 : System Alarm Report - SMTP Name**
Set the SMTP name or IP address (up to 255 characters/numbers) (ex: smtp.yourisp.com). Contact your ISP (internet service provider) for the correct entry if needed.

➼ **90-11-07 : System Alarm Report - SMTP Host Port Number**
Set the SMTP host port number (0-65535). Contact your ISP (internet service provider) for the correct entry if needed. Usually, the default entry of 25 can be used.

➼ **90-11-08 : System Alarm Report - To Address**
Set this EMail address to which the report should be sent (up to 255 characters).

➼ **90-11-09 : System Alarm Report - Reply Address**
Set this EMail address to which any replies should be EMailed (up to 255 characters).

➼ **90-11-10 : System Alarm Report - From Address**
Set this EMail address from which the report is being sent (up to 255 characters). *This option is required for the EMail function to work.*

➼ **90-11-11 : System Alarm Report - DNS Primary Address**
Set the DNS primary address (0.0.0.0-255.255.255.255).

➼ **90-11-12 : System Alarm Report - DNS Secondary Address**
Set the DNS secondary address (0.0.0.0-255.255.255.255).

➼ **90-11-13 : System Alarm Report - Customer Name**
Enter a name which will be used to identify the particular system (up to 255 characters).

➼ **90-25-01 : System Alarm Report CC Mail Setup**
Set up to five additional destinations which can receive copies of the report.

inDepth Lite/inDepth/inDepth+

Introduction

Welcome to inDepth MIS, a Call Center Management tool which provides real time status information, cumulative performance statistics and a range of historical reports to help you manage the people in the Call Center and the level of service you provide to your customers. The system uses the Windows™ Graphical User Interface (GUI) giving it a look and feel which is consistent with other Windows™ products you may use. This manual is directed toward those familiar with Windows™ and NEC's Aspire telephone systems and its programming.

The inDepth Management Information System (MIS) computer software enhances the ACD capabilities of the NEC's Aspire phone systems. Using the Windows™-based program, real time statistics and reports are available to a customer providing ACD group traffic patterns and usage. The inDepth software is designed with a high degree of flexibility to suit the needs of a wide range of call centers. To allow even more flexibility, there are three levels of the inDepth software - inDepth Lite, inDepth and inDepth+.

The inDepth Lite software provides small or startup organizations the ability to choose from six different management reports and four different status options to appear on-screen in the display window. Only a single screen template can be created and saved.

The inDepth software offers many of the MIS capabilities of inDepth+ but is streamlined for more modest ACD applications. The inDepth provides a single real time screen template that may include up to 14 different status windows, up to seven reports and can track report data for up to one full month. Customized reports may be created, but the template for a report may not be saved. Although loaded with ACD/MIS capabilities like Report View/Print and Audible/Visual Alarms, inDepth excludes the ability to run certain reports as well as the ability to connect multiple inDepth computers. In addition, there are limits on the number of real time screens available and wallboards are not supported.

The inDepth+ software is the most comprehensive and capable ACD/MIS package and offers 30 different reports, the ability to create and save an unlimited number of customized report templates and it includes one (1) inView user license.

The type of license assigned to the PC dongle determines which inDepth software is available to the user.

Throughout this section, unless otherwise noted, references to the inDepth Lite, inDepth or inDepth+ will be made as "inDepth".

The inDepth software is made up of three main components; Real Time Displays, the Reporter, and the Configurator. Communicating through the Open Application Interface (OAI), inDepth provides an extensive set of user-configurable Real Time Windows and Reports.

For details on using the Configurator, Real Time Displays, Reports, and Wallboards, refer to the *inDepth Lite/inDepth/ inDepth + Manual*, P/N 0893230.

4

inDepth Real Time Displays

The Real Time Displays show important data concerning calls entering the call center in several formats, including:

- **Real Time Status Window**
  Displays vital agent status, state and connection information.
- **Real Time Statistics Window**
  Provides a visual performance summary for lines, agents and ACD groups.
- **Call Queue and Wait Time Windows**
  Shows the number of calls waiting and the longest wait time, as well as the number of calls answered and abandoned.
- **inView™ LAN Wallboard**
  Provides real-time status and wallboard views of the call center's performance to all PCs attached to a Local Area Network (LAN).
- **Wallboard Template (inDepth+ only)**
  Motivates and informs agents through a dynamic display of real time statistics and messages.

The Reporter

The Reporter is the source for information about each agent's activity. This allows ACD system administrators to create fully-configurable reports for display and printing. The reports can include traffic reports, event/activity reports, utilization reports, contention reports, agent-based reports, wait time profiles, etc. Each report format is saved as a template and can be started or stopped at any date and time.

The Configurator

The Configurator is the place to create the settings for the software. In the Configurator, devices and groups of devices are created, shifts are created, real call thresholds are set, and passwords are set. All the editing and programming for the inDepth is done within the Configurator.

Common Configuration

The inDepth MIS and inDepth Reporter run over the top of a common configuration database that defines what lines, DID numbers, extensions, agents and their corresponding groups the system is monitoring.

The inDepth Configurator manages this common configuration database. The inDepth Configurator can be password protected to stop unauthorized access. Also, on networked systems, it is possible to setup the network of inDepth MIS and Reporter applications to have just one common configuration database.

Features Offered with the inDepth Lite Software

Note: Currently, inDepth Lite does not support multiple ACD group log-ons by an ACD agent or Uniden H.323 phones (as P codes are not provided by the telephone).

● Seven different types of real time windows:
  Status
  - 2 different types of status displays
    ● agent status
    ● extension status
  Statistics
  - 4 different types of statistics displays
    ● agent group statistics
    ● extension group statistics
    ● extension statistics
    ● line group statistics
  Large Character Windows
  - 37 different parameters may be displayed using the Large Character windows

  The displays may be configured to report on individual devices, device groups, or on a supergroup (group of groups).

  The only limit to the number of windows that can be displayed at any one time is the size of the screen and the size of each window.

● One real time template can be created and saved at any time using any number of windows.

● Six types of reports available.
  Reports can be viewed on screen and printed, but may not be saved.
  - Agent Traffic Report
  - Agent Group Traffic Report
  - Agent Group Traffic Profile Report
  - Agent Utilization Report
  - Line Group Traffic Report
  - Line Group Traffic Profile Report

● Reports cover a maximum period of 31 days.
  The maximum date range of an individual report is 31 days. To view data over a period of a year, it is necessary to compile 12 consecutive reports (each of a period of 31 days). The report information can be printed going back to the time of installation as long as that information has not been deleted or archived.

● Reports can be detailed to a minimum of one minute.

4

Features Offered with the inDepth Software

Note: Currently, inDepth does not support multiple ACD group log-ons by an ACD agent or Uniden H.323 phones (as P codes are not provided by the telephone).

● Fourteen different types of real time windows:

Status
- Three different types of status displays
  ● agent status
  ● extension status
  ● line status

Statistics
- Eight different types of statistics displays
  ● agent statistics   ● DID statistics
  ● agent group statistics   ● DID group statistics
  ● extension statistics   ● line statistics
  ● extension group statistics   ● line group statistics

Large Character Windows
- More than 300 different parameters may be displayed using the Large Character windows

Graphical Displays
- Two different types of graphical displays
  ● Wait Time graphs
  ● Call-In Queue Graphs

The displays may be configured to report on individual devices, device groups, or on a supergroup (group of groups).

The only limit to the number of windows that can be displayed at any one time is the size of the screen and the size of each window.

● One real time template can be created and saved at any time using any number of windows.

● Seven types of reports available.
Reports can be viewed on screen and printed, but may not be saved.
- Line Group Traffic Report
- Line Group Traffic Profile Report
- Agent Traffic Report
- Agent Traffic Profile Report
- DID Group Traffic Report
- DID Group Traffic Profile Report
- Wait Time Distribution Report

● Reports cover a maximum period of 31 days.
The maximum date range of an individual report is 31 days. To view data over a period of a year, it is necessary to compile 12 consecutive reports (each of a period of 31 days). The report information can be printed going back to the time of installation as long as that information has not been deleted or archived.

● Reports can be detailed to a minimum of one minute.

Features Offered with the inDepth+ Software

> *Note: Currently, inDepth+ does not support multiple ACD group log-ons by an ACD agent or Uniden H.323 phones (as P codes are not provided by the telephone).*

- Fourteen different types of real time windows:
  Status
  - Three different types of status displays
    - agent status
    - extension status
    - line status

  Statistics
  - Eight different types of statistics displays
    - agent statistics
    - agent group statistics
    - extension statistics
    - extension group statistics
    - DID statistics
    - DID group statistics
    - line statistics
    - line group statistics

  Large Character Windows
  - More than 300 different parameters may be displayed using the Large Character windows

  Graphical Displays
  - Two different types of graphical displays
    - Wait Time graphs
    - Call-In Queue Graphs

  The displays may be configured to report on individual devices, device groups, or on a supergroup (group of groups).

  The only limit to the number of windows that can be displayed at any one time is the size of the screen and the size of each window.

- Any number of real time templates can be created and saved at any time using any number of windows.
  If a window layout contains too many windows to be visible on the screen, then the windows are moved to the top left-hand corner and a warning message box will be displayed.

- There are 30 types of reports available.
  Reports can be viewed on screen, printed, and saved.

- The maximum period of an individual report is 1 year, except event reports which have a maximum of 10,000 events.

- Reports may be exported in comma delimited format to spreadsheet packages like Excel™ or Lotus 123™, where information may be displayed in graphical format.

- The inDepth database may be exported (in call record format) to a 16-bit ODBC compliant database for further analysis.
  Note: The ODBC is installed when the inDepth+ program is installed. However, the ODBC drivers are not installed. Therefore, to use the ODBC option within the Reporter, the user must install the relevant ODBC driver for their particular database.

4

● The use of Wallboards is supported.

inDepth+ supports physical wallboards. Up to six wallboards may be connected to each real-time client. Wallboard drivers supplied are compatible with the Shorekarn Messagemaker and a range of Spectrum, Inc. wallboards, including:

❍ Shorekarn Messagemaker 2x16
❍ Shorekarn Messagemaker 4x16
❍ Shorekarn Messagemaker 2x21
❍ Shorekarn Messagemaker 4x21
❍ Spectrum 215C/1512 1x15
❍ Spectrum 320C/1023 1x20
❍ Spectrum 4120C/3214 2x20

The use of wallboards allow information to be quickly distributed to all agents, advising of a critical status for numbers of call in queue, wait time, etc.

● Multiple real-time clients are supported.

4

Features Offered with inDepth Lite, inDepth and inDepth+ Software

- License Options
  The product is protected by means of a software protection device (dongle). It is possible to restrict the following options by means of this dongle:

  - Type of software (e.g. inDepth Lite, inDepth or inDepth+). The software is auto-configuring with respect to the license contained within the dongle, i.e. there is one software distribution; the type of inDepth software is controlled by the dongle.
  - Wallboard (message board) - may be enabled or disabled
  - Expiry date. An expiry date may be set in the dongle. The software will cease to function after this date.
  - Number of real-time clients
  - Number of reporting clients
  - Number of inView clients
  - Number of agents
  - Number of extensions

  inDepth products may operate up to 1000 agents, with 1000 extensions, 1000 DID's, and 1000 lines but are limited to the capacity of the telephone system. Up to 500 groups and 500 supergroups are supported.

  Aspire S:
  - ACD: Not Supported
  - Lines and Extensions: 8x50

  Aspire M/L/XL:
  - ACD Agents: 512
  - ACD ID Codes: 512 [Program 41-18]
  - Lines and Extensions: 200x512

- Remote Access
  Remote access is supported by all inDepth products. To use this feature, an additional remote access package, such as **PC Anywhere**™ is required by the user and the Technical Support center. This allows a technician to dial in remotely to the system to make programming changes.

- Help File
  There is a comprehensive context-sensitive help file with all inDepth products which provides users with immediate on-line assistance on operation and programming.

- Alarms
  Audible and visual alarms may be programmed at the individual device or group level. They enable the supervisor to continue with their daily activities with the knowledge that any problems will be highlighted by means of an audible or visual alarm.

- Password Protection
  Password protection of the product configuration, exit of the product, real-time screen templates and reporting templates is standard. Additional security has been added by the introduction of security groups.

- Flexible Reporting
  Reports can be compiled using statistics relating to any shift pattern, as defined by the call center manager. When compiling a report, the user defines the time period over which the report is compiled. This period may be defined to the nearest minute and is not limited to any time boundaries. For example, a report can cover the

period from 11:04 p.m. on Wednesday, May 21st to 3:43 p.m. on Tuesday, June 3rd and can be set so it only includes information relating to the call center's night shift.

The resolution of event reports (inDepth+ only) is to the second. For profile reports, the user may set the resolution to any integral value of minutes, hours, days or weeks.

● Snap-to-Grid Alignment Tool
Once in edit mode, the user may choose whether to show a grid in the background. A snap-to-grid alignment tool is provided as an option for use with the parameter windows. The user may adjust the spacing of the grid lines.

● Automatic Reporting
The Automatic Reporting feature of inDepth enables reports to be generated at user-defined times (and intervals). There is a choice of outputs available; more than one output option can be selected at any one time.

● inView™ LAN Wallboard
The inView™ LAN Wallboard is a Windows-based product which can show two different views and be customized using standard Windows tools, such as "click and drag", toggle buttons and a tool bar. It provides real-time wallboard and status views of a call center's performance to all PCs attached to a LAN. A special inDepth license is available that allows the agents access to the inView™ Wallboard.

● Upgrading Software Allows Previously Collected Data to be Used
Reports may be compiled even after software upgrades (including upgrades from inDepth to inDepth+) using data collected from the original installation date of the inDepth (as long as that information has not been deleted). If a new report is added to the inDepth products, it can be used to analyze all the previously collected inDepth data.

● Automatic Configuration
All individual devices will automatically be identified and added to the product configuration as they appear. These devices then simply require grouping according to user requirements.

● Output Options
    ● **Print** - After the report has been generated, it will automatically be printed to the inDepth default printer.
    ● **Close on Completion** – After the report has been generated or has completed any other output options selected, the report will be removed from the inDepth Reporter screen.
    ● **Save to file** – The report will be saved after being generated to the file name specified. Every time this report is generated, the name will be overwritten. (Only available on inDepth+)
    ● **Export to file** – This is similar to *Save To File* but it will create a text file which can be opened in another application such as a spreadsheet package. (Only available on inDepth+)

The reports may be scheduled to output a report every hour, day or week at a specified time. There are advanced scheduling options which include more control over interval, frequency, commencement date and period of the report.

● Replaceable Splash Screen Graphic
The splash screen (the opening inDepth screen) is stored as a bitmap (LOGO.BMP) in the installation folder. This file can be replaced with any BMP file you choose.

● Evaluation Period - Aspire Version Only
With software version 3.10 or higher, the inDepth+ software can be run in evaluation mode without a dongle for 30 days from the point of installation. In this mode, inDepth will run with 1 Supervisor, 1 Reporter, and 5 inView licenses. To update to a licensed version, simply purchase the inDepth dongle and install it on the PC. No software change is required.

inDepth Feature Comparison Chart			
	inDepth Lite	**inDepth**	**inDepth+**
Alarms	✔	✔	✔
Automatic Reporting (Scheduler)	✔	✔	✔
Back Up Capabilities	✔	✔	✔
Calls in Queue Graphs	No	5	5
Flexible Reporting	✔	✔	✔
Help File	✔	✔	✔
inView™ LAN Wallboard	Optional	Yes	Yes
Large Character Displays	37	320	320
License Options	1000 Agents	1000 Agents	1000 Agents
Password Protection	✔	✔	✔
Real Time Templates	1	1	Unlimited
Remote Access	PC Anywhere	PC Anywhere	PC Anywhere
Reports	6	10	30
Report Detail	1 Minute	1 Minute	1 Minute
Report Export	No	No	Excel, Lotus, etc.
Statistics Displays	4	8	8
Status Displays	Agent and Extension	Agent, Extension and Line	Agent, Extension and Line
Sub-Supervisor	No	No	100
Time Length For Reports	31 Days	31 Days	366
Upgrading of Software	✔	✔	✔
Wait Graphs	No	5	5
Wallboards	No	No	Yes
Windows Displayed	Statistics Status Large Character	Statistics Status Large Character Graph	Statistics Status Large Character Graph
Compatible with: Windows XP, Windows NT, Windows 2000 Professional, Windows 2000 Server, Windows 2003 Server	✔	✔	✔

4

inDepth - Version 2 vs. Version 3

Version 2 Schematic

With a single license, all applications are installed on the same PC.

Real Time MIS	Reporter
inDepth Link	

LAN

– – – – ▶ Other applications across the LAN

Version 3 Schematic

With a single license, each application (Real Time MIS or Reporter) can be installed on separate PCs.

Real Time MIS	Reporter

Gateway

LAN

– – – – ▶ Other applications across the LAN

Hardware and Software Requirements

The following is a list of hardware and software required to run the inDepth software with the NEC Aspire S and M/L/XL System:

- Aspire Cabinet with station and trunk cards (Loop Start, Ground Start, DID, T1, etc.)
- LAN connection from the inDepth PC to the Aspire cabinet
  (Aspire S requires an ENTU PCB, P/N 0891053, for LAN connections.
  Aspire provides a LAN connector (CN15) on the NTCPU or use an 8SHUBU PCB, P/N 0891021.)
  The maximum length should not exceed 328 feet (100 meters).
- ACD group or groups set up and running (***Aspire only***)
- M.I.S. inDepth/inDepth+ software dongle
- inDepth software version 3.10.500.1 or higher

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System Requirements for inDepth Server

	Minimum	Recommended
Computer/Processor	Pentium II 300 Megahertz (MHz) or equivalent	Pentium III 700 Megahertz (MHz) or above
Operating System	Windows 98 Second Edition Windows Millennium Edition Windows XP Home Edition	Microsoft Windows NT4 with Service Pack 6a Windows 2000 Professional SR-3 Windows XP Professional
Memory	RAM requirements depend on the operating system used:	
Windows 98 Second Edition	32 MB	64 MB
Windows Millennium Edition	64 MB	128 MB
Windows XP Home Edition	128 MB	128 MB
Microsoft Windows NT4	64 MB	128 MB
Windows 2000 Professional	64 MB	128 MB
Windows XP Professional	128 MB	128 MB
Hard Disk	Hard disk space requirements will vary depending on Operating System configuration and call traffic	
Free Space	2 GB	10 GB
Graphics Cards	256 colour resolution 800 x 600 (SVGA)	256 colour resolution 800 x 600 (SVGA) or above
Video Display Unit	14"	17" or above
CD- ROM Drive	Installed	Installed
Network Card	10 Mbps	100 Mbps
Uninterruptible Power Supply	No	Yes
Additional Software		
Internet Explorer	Version 4	Version 6
Backup	N/A	CD-R, Tape or Network

Additional Requirements

Serial Ports	Serial Port requirements dependant upon configuration
Events From Switch	1
Physical Wallboard	1
External Modem	1
Parallel Ports (Free)	1
Microsoft Network	Required
TCP/IP	Installed
Static IP Address	Required
Network File sharing	Enabled
Remote Support	
Software	PC Anywhere Version 9 or Above
Connection	Direct Telephone Line or Remote Access Server

- With Windows 2000 or Windows XP using inDepth version 2.xx, a driver update is required. This driver update can be obtained from the NEC web site (web address: www.necii.com) in the Software Library.

Additional Setup Requirements - TCP/IP

- Each PC must have TCP/IP installed
- Each inDepth PC must have a unique IP address
- If running a networked inDepth system, each inDepth PC must be able to communicate with each other inDepth PC via TCP/IP.
- It is recommended that name resolution be implemented.

System Requirements for inDepth Client - Sub-Supervisor (Real Time and Reporter)

	Minimum	Recommended
Computer/Processor	Pentium II 300 Megahertz (MHz) or equivalent	Pentium III 700 Megahertz (MHz) or above
Operating System	Windows 98 Second Edition Windows Millennium Edition Windows XP Home Edition	Microsoft Windows NT4 with Service Pack 6a Windows 2000 Professional SR-3 Windows XP Professional
Memory	RAM requirements depend on the operating system used:	
Windows 98 Second Edition	32 MB	64 MB
Windows Millennium Edition	64 MB	128 MB
Windows XP Home Edition	128 MB	128 MB
Microsoft Windows NT4	64 MB	128 MB
Windows 2000 Professional	64 MB	128 MB
Windows XP Professional	128 MB	128 MB
Hard Disk		
Free Space	30 MB	30 MB
Graphics Cards	256 colour resolution 800 x 600 (SVGA)	256 colour resolution 800 x 600 (SVGA) or above
Video Display Unit	14"	17" or above
Network Card	10 Mbps	100 Mbps
Uninterruptible Power Supply	No	Yes
Additional Software		
Internet Explorer	Version 4	Version 6
Installation	CD-Rom or Networked Drive	CD-Rom or Networked Drive

Additional Requirements

Serial Ports	Serial Port requirements dependant upon configuration
Physical Wallboard	1
Microsoft Network	Required
TCP/IP	Installed

Note above system requirements are based on systems with no other applications installed. If you run other applications you may need to increase processor speed, memory and hard disk space accordingly.

System Requirements for inDepth Client (inView *LAN Wallboard*)

Computer/Processor	Pentium II 300 Megahertz (MHz) or equivalent
Operating System	**Windows Millennium Edition** **Windows XP Home Edition** **Microsoft Windows NT4 with Service Pack 6a** **Windows 2000 Professional SR-3** **Windows XP Professional**
Memory	RAM requirements depend on the operating system used:
Windows Millennium Edition	64 MB
Windows XP Home Edition	128 MB
Microsoft Windows NT4	64 MB
Windows 2000 Professional	64 MB
Windows XP Professional	128 MB
Hard Disk	
Free Space	30 MB
Graphics Cards	256 colour resolution 800 x 600 (SVGA)
Video Display Unit	14"
Network Card	10 Mbps
Uninterruptible Power Supply	No
Additional Software	
Internet Explorer	Version 4
Installation	CD-Rom or Networked Drive

Additional Requirements

Microsoft Network	Required
TCP/IP	Installed

Note above system requirements are based on systems with no other applications installed. If you run other applications you may need to increase processor speed, memory and hard disk space

inDepth Part Numbers

- inDepth Software:
  - 0892144   Aspire inDepth Lite Software and Dongle
  - 0892102   Aspire inDepth Software and Dongle
  - 0892103   Aspire inDepth Plus Software and Dongle
  - 0892125   Aspire inDepth Supervisor
  - 0892153   inDepth Upgrade i-Series to Aspire

- inView Software
  - 0892126   inView for 5 Agents
  - 0892127   inView for 10 Agents
  - 0892128   inView for 15 Agents
  - 0892129   inView for 20 Agents
  - 0892130   inView for 25 Agents
  - 0892131   inView for 30 Agents
  - 0892132   inView for 40 Agents
  - 0892133   inView for 50 Agents

- inView Upgrades
  - 0892134   inView Upgrade to add 5 Agents
  - 0892135   inView Upgrade to add 10 Agents
  - 0892136   inView Upgrade to add 15 Agents
  - 0892137   inView Upgrade to add 20 Agents
  - 0892138   inView Upgrade to add 25 Agents
  - 0892139   inView Upgrade to add 30 Agents
  - 0892140   inView Upgrade to add 40 Agents
  - 0892101   inDepth/inDepth Plus/Demo CD

Information Flow

NEC System → ACD * Information → Single DCI or 3DCI or LAN cable → Computer COM Port → inDepth Software

* The Aspire and i-Series systems can show all system data - not just the ACD information. (Account Codes require any version of Aspire software or i-Series software 2.00.00 or higher.

As the inDepth program and the telephone system work together, prior to installing the inDepth software, be sure to have the following information available:

- Software level of the telephone system
- Telephone system configuration (trunk cards, station cards, and their types)
- Number of lines connected to the system and their types (loop, ground start, DID, T1 DNIS)
- Number of extensions connected to the telephone system
- Number of agents and their log-in PIN numbers
- The configuration for the PC which will be running the inDepth software
- The software level and type of the inDepth software

Installation

Setting Up the inDepth Computer

1. Follow the instructions included with the computer for equipment installation.
2. The inDepth computer should not be turned off. Powering down will cause the following results:
   - The system will not log any call data.
   - In a network, when a client tries to start inDepth, they will receive an error message.
   - In a network, if the server is shut down while clients are running inDepth, then the clients will fail and receive an error message.
3. If you have a serial mouse, there could be a possibility that the mouse could lock up when the computer is restarted due to a port conflict unless you make an adjustment in your inDepth installation.
   Mouse Types:
   - *Bus Mouse* - This is an older type of mouse. It will have a small 8-pin round connector with one side flat. This type has a special interface that connects to the motherboard of the computer and has its own configuration.
   - *PS2 Mouse* - This is used in such computers as IBM, Dell, etc. They are also used in laptops. This type has a small 6-pin round connector and has its own configuration.
   - *Serial Mouse* - This is a standard type of mouse which uses a serial port, base address, and has its own interrupt (or IRQ). This type has 9-pin D-Type connector.

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Setting Up the Aspire S/Aspire System and the PC for inDepth

1. Make sure ACD on the Aspire system is programmed and running correctly. Refer to the ACD manual (0893402) and the Aspire Software Manual (0893400). ACD is not available on the Aspire S.
2. *Aspire S:* Using a network cable with RJ-45 modular connectors on both ends, connect one end into the LAN connector (CN2) on the ENTU PCB.
   Aspire: Using a network cable with RJ-45 modular connectors on both ends, connect one end into the NTCPU's LAN connector (CN15) or to an available LAN connector on the 8SHUBU PCB.
3. Connect the opposite end of the cable into the PC's network interface card (NIC).

The inDepth PC can connect directly to the NTCPU or to an SHUBU PCB which is connected to the NTCPU.

4. Program the following:

Program 10-12-01 : NTCPU Network Setup
Set the IP address for the NTCPU (by default, this is set to 172.16.0.10).

Program 10-12-02 : NTCPU Network Setup
Set the subnet mask for the NTCPU (by default, this is set to 255.255.0.0).

Program 10-13-01 : In-DHCP Server Setup
If the NTCPU's DHCP server is to be used to decide the IP address, set this option to '1'. If the IP address and subnet mask entered in Program 10-12-01 and 10-12-02 are to be used, set this option to '0'.

Program 10-20-01: LAN Setup for External Equipment
Define the TCP port (10-20-01) and Keep Alive Timer (10-20-03) for the inDepth (External Device = 2 [ACD MIS], TCP Port 0-65535 [default: 0], Keep Alive Time 1-255 seconds [default: 30]). The TCP Port must match the port used in the inDepth Aspire Setup window (Accessed by clicking START ☞ PROGRAMS ☞ INDEPTH ASPIRE MIS {US} ☞ INDEPTH ASPIRE SETUP). By default in the inDepth program, the port is set to 4000.

Program 41-01-03 : System Options for ACD - ACD MIS Connection Ports
Set the ACD MIS connection port to option 3 - LAN (NTCPU).

Program 41-01-02 : System Options for ACD - Login ID Code Digit (Aspire Only)
The ACD ID Code can be between 1 - 20 digits in length. If this option is set for a 3-digit code, for example, this will prompt an ACD agent to enter a 3-digit pin code for the inDepth software to recognize the ACD agent.

Program 41-17-01 : ACD Login Mode Setup (Aspire Only)
If AIC codes are to be used for agent logins, define the log-in mode (0=normal log-in mode, 1=AIC log-in mode).
Currently, inDepth does not support multiple ACD group log-ons by an ACD agent.

Program 41-18-01 : ACD Agent Identity Code Setup (Aspire Only)
For each agent, define the AIC code, default ACD group number, and ACD group number in the 8 time modes.

5. As the Aspire system uses a LAN connection to the PC, an IP address and the subnet type must be assigned to the PC. The IP address and subnet mask are determined by the Aspire system in Programs 10-12-01 and 10-12-02. If the PC is already connected to a network and you are connecting to the NTCPU through a hub or router, please check with your network manager to determine the IP address that should be used.

6. The following information is based on a stand-alone PC using Windows XP connected to the Aspire, with the Aspire using the default settings for the IP address and subnet mask (Program 10-12-01: IP Address 172.16.0.10 / Program 10-12-02: Subnet Mask 255.255.0.0).

   a. To change the TCP/IP information, click **START** ☞ **SETTINGS** ☞ **NETWORK CONNECTIONS**. The following window appears.

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b. Right-click on the **LOCAL AREA CONNECTION** icon and click on **PROPERTIES**.

c. In the list of items, click on the **INTERNET PROTOCOL (TCP/IP)** and then click on **PROPERTIES**.

d. In the Internet Protocol (TCP/IP) Properties window that appears, click on **USE THE FOLLOWING IP ADDRESS** button and enter the following:
   IP Address: 172.16.0.100
   Subnet Mask: 255.255.0.0

    e. Click **OK** and close the **INTERNET PROTOCOL** window.

    f. Click **OK** and close the **LOCAL AREA CONNECTION PROPERTIES** window.

    g. Close the **NETWORK CONNECTIONS** window.

7. From the PC connected to the Aspire system, open a DOS window and display a "C:\" prompt.

    To Open a DOS Window:

    a. Click on **START**.

    b. Highlight **PROGRAMS**.

    c. Highlight **ACCESSORIES** and click on **DOS PROMPT** or **COMMAND PROMPT** (depending on your operating system).

8. At the C:\ prompt, enter "Telnet" plus the IP address of the Aspire system set in Program 10-12-01) and the port number for the LAN (set in Program 10-20-01). For example, with the default IP address, the entry would be "Telnet 172.16.0.10 7625".

9. Place a call to an extension (Aspire S) or ACD group (Aspire). The data should appear on the monitor which indicates the Aspire P codes are being received. This is required for the inDepth to recognize calls.

    This will ensure that the Aspire system is operating correctly and sending the data to the inDepth computer.

    The inDepth dongle should not be installed at this point or you may not see the P codes.

10. If the P codes are displayed, close the DOS window. If the P codes are not displayed, check the physical connection to the system and the check the system programming. Repeat steps 5 and 6.

11. Plug the inDepth dongle into the computer's parallel port. A printer can then be connected to the dongle to print the inDepth reports.

    Unless a printer is connected to the dongle, there are no further connections to the dongle.

12. Install the inDepth software onto the inDepth computer. Refer to page 2-14.

    The inDepth must be defined with the Aspire's LAN address before a connection can be made.

4

Installing inDepth Lite\inDepth\inDepth+ Software

Before installing/upgrading the inDepth software, all applications must be closed.

> *Note: After installing the inDepth software, any remaining COM ports will be disabled for all other functions. (If inDepth is removed you can enable the COM ports by doing the following: From the START menu, highlight PROGRAMS-INDEPTH MIS (US) and click on INDEPTH SETUP. Click on the EVENT SOURCE tab and set the PORT NUMBER to <NONE>. If you wish to reinstall inDepth, reverse these steps.)*
>
> *Note: The IP address for the NTCPU's LAN connector must be entered in the inDepth Setup. This will be requested during the installation process, but can be changed later by selecting INDEPTH SETUP from the inDepth program group in the Windows Start Menu (START ☞ PROGRAM ☞ INDEPTH ☞ INDEPTH SETUP). Select the Phone System Connection tab. This is available for the Server PC only. This indicates the network port number and the IP address of the Aspire system. The Aspire default for this is set at port 0 and IP address 172.16.0.10, but it can be changed. Refer to Program 10-12-01 for the IP address and Program 10-20-01 for the port number.*

TCP/IP

TCP provides reliable byte stream communication between pairs of processes in hosts attached to interconnected networks. It is the portion of the TCP/IP protocol suite that governs the exchange of sequential data. IP provides the addressing needed to allow routers to forward packets across a multiple LAN inter-network. If these protocols are not installed, inDepth will not run and the PC may act erratically.

The inDepth software requires that the system has TCP/IP protocols installed. Install the TCP/IP protocols before proceeding with the installation. If you already have TCP/IP installed, use the steps below to confirm that it is working correctly. If you need to install TCP/IP, the Windows installation disks will be required.

Installing TCP/IP with Windows 9x or Higher

1. From the **START** menu, click on **CONTROL PANEL** then double-click on **NETWORK**.
   If the TCP/IP protocols are already installed, it will be shown under the CONFIGURATION tab. If it's already installed, skip to UPGRADING INDEPTH SOFTWARE or PREPARING THE PC FOR INDEPTH.
2. *Windows 9x or Higher:*
   Click **ADD**. Select **PROTOCOL**, then click **ADD**. Click **Microsoft** in the Manufacturers column, and then click **TCP/IP**. Click **OK**.
   Windows NT:
   Select **PROTOCOL**, then click **ADD**. Choose the **TCP/IP** protocol from the list and then click **OK**.
3. Select **ADAPTER** and click **ADD**.
4. Under **Manufacturers**, select **MICROSOFT**, the select **DIAL UP ADAPTER** in the Network Adapters column. Click **OK**.
5. When prompted for the Windows disk(s), insert the disk and follow the instructions on the screen.
6. Reboot the computer.

To Confirm TCP/IP Installed Correctly

1. From the **START** menu, click on **PROGRAMS** and select **MS-DOS PROMPT**.
2. Enter **PING 127.0.0.1** and press **ENTER**.
   *If you see **REPLY FROM 127.0.0.1**, TCP/IP is correctly installed.*
3. Type **EXIT** to close the MS-DOS window.
   You can now proceed with either UPGRADING INDEPTH SOFTWARE or PREPARING THE PC FOR INDEPTH.

Preparing the PC for inDepth

Also refer to page 4-20 for additional PC settings.

PC Power Management

Power Management must be disabled on the server PC. This is accessed through the Control Panel.

1. From the Windows™ menu, click **START**. Highlight **SETTINGS** and click on **CONTROL PANEL**.
2. Double-click on the **POWER MANAGEMENT** icon.
3. Make sure that **SYSTEM STANDBY**, **TURN OFF MONITOR**, and **TURN OFF HARD DRIVES** are set to **NEVER**.

PC Network Identification (Computer Name)

A PC connected to a network must have a name by which it can be identified on the network. The computer name is used by inDepth for licensing purposes. The PC can belong to either a Work-group or an NT Domain. Please see the Systems Administrator for further information.

The computer name should be something that is easily recognizable on the network (i.e., INDEPTHPC). The name must contain at least one letter character and must not contain any characters such as spaces or punctuation marks.

File and Print Sharing - Windows 9x Only

File and print sharing is a network service within Windows 9x and, therefore, must be installed to enable the sharing of directories for the inDepth installation.

1. From the Windows™ menu, click **START**. Highlight **SETTINGS** and click on **CONTROL PANEL**.
2. Double-click on the **NETWORK** icon.
3. Click on the **FILE AND PRINT SHARING** button.
4. Select the file sharing option to allow access to files across the network and select the printer sharing option to allow others to use your printer.
5. Click **OK**.

Administration Privileges/User Profiles - Windows NT Only

The Logged On user must have sufficient rights to install NT Services and have the rights to Load and Unload Device Drivers. The right to install services is necessary to install the Sension License Server and Sension Gateway services.

Upgrading inDepth Software

Upgrading the inDepth software is only possible if the existing machine(s) are running Windows ME, XP or Windows NT. If they are not, then it will be necessary to upgrade the operating software of the computer. Also refer to **Upgrading Your License** (page 4-43).

1. Shut down all open applications. This includes any PC's that are networked by the inDepth program.
2. Carefully remove the existing dongles from all the PC(s).
3. Connect the new dongle to the machine chosen as the inDepth Server.
4. Before performing any upgrade, back up the existing configuration and data (if possible) to a temporary directory on the hard drive, or more preferably, a storage area on the network.
5. Continue with PRODUCT INSTALLATION.

4

Product Installation

When installing the inDepth MIS, various configurations are possible. Select the configuration that is most appropriate for installation.

Single Computer Installation

PSTN

Serial
Cable from
PBX to
MIS Server

PBX

Modem

MIS Server

Multiple Computer Installation

PSTN

Serial
Cable from
PBX to
MIS Server

PBX

Modem

MIS Server

Ethernet

Client

Client

Installation with single wallboard

PSTN

Serial Cable from PBX to MIS Server

PBX

Modem

MIS Server

Ethernet

Client

Client — Wallboard

Installation with multiple wallboards

PSTN

LAN Cable from PBX to MIS Server

PBX

Modem

MIS Server

Ethernet

Wallboard — Client

Client — Wallboard

PSTN

LAN Cable from PBX to MIS Server

PBX

Modem

MIS Server

Ethernet

Wallboard

Client

Client — Wallboard

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inDepth Server Installation

With Windows XP, even when installing inDepth as a stand-alone computer, the computer must be connected to a LAN in order for the installation to complete correctly (this is required for TCP/IP).

1. Make sure the telephone system is connected to the inDepth PC using either a LAN cable.
2. Insert the dongle into the parallel port.
    If a printer is to be attached to this PC, then the printer should be connected to the connector at the back of the dongle.

3. Insert the inDepth MIS CD-ROM into the drive. If the PC is configured to auto play CD-ROMs, a menu screen will appear and offer a choice of installing the live software, demo software, or to view the explore the CD. If the auto play option is disabled on the PC, browse and double click on the Autorun.exe file.
    With software version 3.04, both the inDepth and inDepth+ software is included on the installation CD. The type of dongle installed determines which version of the inDepth software is installed. With software 3.11.100.0, the installation CD also provides inDepth Lite ability.

    With software version 3.10 or higher, the inDepth+ software can be run in evaluation mode without a dongle for 30 days from the point of installation. In this mode, inDepth+ will run with 1 Supervisor, 1 Reporter, and 5 inView licenses.

4. After selecting the option to install the software an installation wizard will appear: Click **NEXT**.
    Depending on your inDepth version, you may see a message advising you that the dongle license needs to be upgraded. This would be required, for example, when upgrading to version 3.04 or higher. If you have the new license key, enter it and click OK. If you do not, contact your dealer for details on obtaining a new license key.

On each screen, the installation process can be progressed by reading the instructions on-screen and pressing the Next button. Some of the following screens may be slightly different, depending on the version of inDepth you are installing.

5. The installation program will display the same Name and Company information with which Microsoft Windows has been registered. Click on the boxes and change the information if necessary.

4

6. Choose the installation type for this PC. If the PC has the dongle attached to its parallel port, and has the event stream from the telephone switch connected to it, then it will be the Server.

7. The path box determines the installation path for the program files and should be a path on a local drive of the PC. To change the path, type in a new path or press **BROWSE** to search for the location. If the default location is acceptable, click **NEXT**.

If the installation is an upgrade of an existing inDepth program, the existing directory will appear. This will allow the existing configuration to be used. To load the program using the default configuration, enter a new directory for the program installation.

8. At this point, both the **CONFIG** and the **DATA** folders must be shared. This will allow inDepth clients to share the configuration and share the collected data for reports.

    With inDepth software version 3.04 or higher, the program installation has been changed to automatically detect sharing, and if enabled on the PC, the CONFIG and DATA files are automatically shared. Skip to Step 10.

    If for some reason the directories are already being used, the share names will start at MIS_DATAo and MIS_CONFIGo and increase the last digit until an unused name is found.

9. The installation wizard will take you to Windows Explorer showing the directories to be shared. Sharing is enabled by selecting the directory, pressing the right-mouse button and then selecting the "**SHARING**" option. Make sure that the directories are shared with FULL, read and write access. Once the directories are shared, proceed by clicking **NEXT** on the installation wizard.

4

10. Select the products you wish to have installed. Only licensed products will be able to run.

11. Select the TCP port (defined in Program 10-20-01) and the IP address of the Aspire (defined in Program 10-12-01). Click **FINISH**.

This information can be changed at any point after the installation by selecting INDEPTH SETUP from the inDepth program group in the Windows Start Menu (START ☞ PROGRAM ☞ INDEPTH ☞ INDEPTH SETUP). Select the Phone System Connection tab. This is available for the Server PC only.

12. In the ADDITIONAL OPTIONS window, check the box if you want the inDepth to run automatically whenever the computer is started. Uncheck this box if the inDepth is to be started manually by the user.

13. A review of installation options will be presented.

14. Click **FINISH** to proceed with the installation of the program files. Once the installation program has copied all the files to the hard drive, the installation will prompt you to click **OK** to finish the installation.

Client (Sub-Supervisor) and inView Installation

Note: When installing only the inView LAN Wallboard, follow the installation as per the client, selecting only the inView LAN Wallboard option and de-selecting the other options.

On each screen, the installation process can be progressed by reading the instructions on-screen and pressing the Next button. Some of the following screens may be slightly different, depending on the version of inDepth you are installing.

A client can only be installed when a server is already in place on the network.

1. Insert the inDepth MIS CD-ROM into the drive. If the PC is configured to auto play CD-ROMs, a menu screen will appear and offer a choice of installing the live software, demo software, or to view the explore the CD. If the auto play option is disabled on the PC, browse and double click on the Auto-run.exe file.

   With software version 3.04, both the inDepth and inDepth+ software is included on the installation CD. The type of dongle installed determines which version of the inDepth software is installed.

   With software version 3.10 or higher, the inDepth software can be run in evaluation mode without a dongle for 30 days from the point of installation. In this mode, inDepth will run with 1 Supervisor, 1 Reporter, and 5 inView licenses.
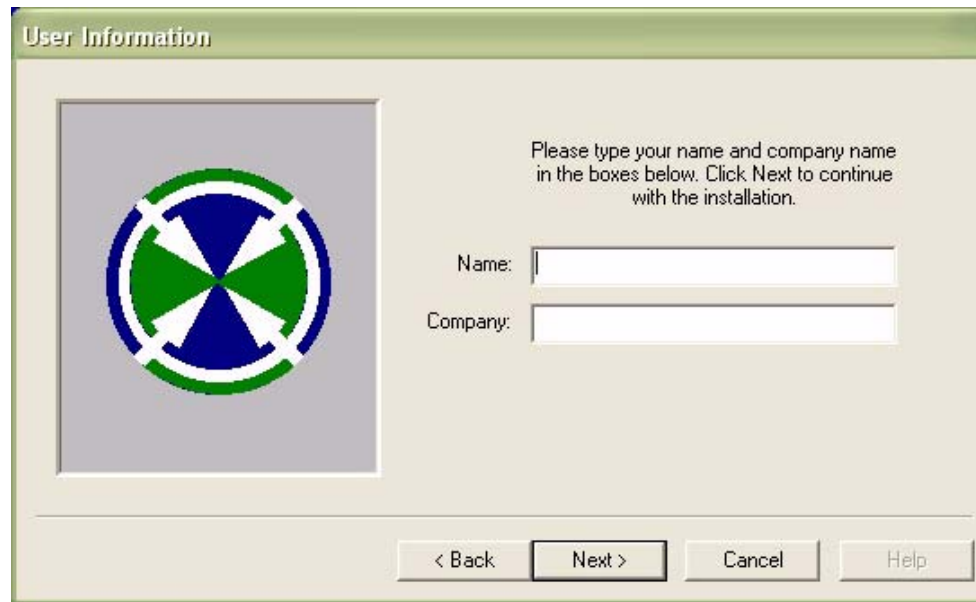
2. After selecting the option to install the software an installation wizard will appear: Click **NEXT**.

 Depending on your inDepth version, you may see a message advising you that the dongle license needs to be upgraded. This would be required, for example, when upgrading to version 3.04 or higher. If you have the new license key, enter it and click OK. If you do not, contact your dealer for details on obtaining a new license key.
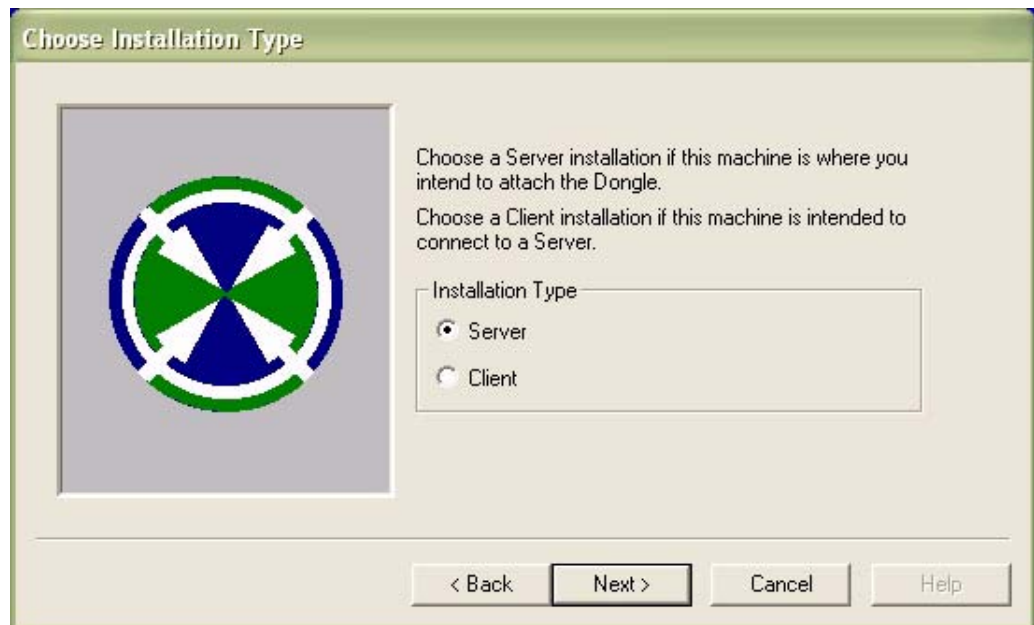
 On each screen, the installation process can be progressed by reading the instructions on-screen and pressing the Next button. Some of the following screens may be slightly different, depending on the version of inDepth you are installing.

4

3. The installation program will display the same Name and Company information with which Microsoft Windows has been registered. Click on the boxes and change the information if necessary.

4. Please note that the wizard will automatically select the **SERVER** installation. This must be changed to **CLIENT**.

5. Choose a different path if required, or press **NEXT** to accept the default.

6. The next step involves pointing the Client to the CONFIG folder present on the inDepth server. Use the browse buttons to search the network for the inDepth server and the folders. Follow the instructions on screen.

4

7. Select the products required for the installation. Only licensed products will be able to run.

8. In the ADDITIONAL OPTIONS window, check the box if you want the inDepth to run automatically whenever the computer is started. Uncheck the box if the inDepth is to be started manually by the user.

9. A review of installation options will be presented. Click **FINISH** to proceed with the installation of the program files. Once the installation program has copied all the files to the hard drive, the installation will prompt you to click **OK** to finish the installation.

10. When starting inDepth for the first time, there is some programming required. Refer to **Starting inDepth for the First Time** (page 4-41) for further details.

Changing the inDepth Setup Options

To review the way in which the inDepth installation is configured, select INDEPTH SETUP from the inDepth program group in the Windows Start Menu (START ☞ PROGRAM ☞ INDEPTH ☞ INDEPTH SETUP).
If you wish to change any options, you must close down all inDepth components first.

In this window, five tabs will be available on the server PC; two tabs on the client PC.

Folders   – This is available for the Server PC only. This contains the paths for the logging of data and the shared configuration. These must be directories on the server PC.

Licensing   – This is available for the Server and Client PC. This tab contains the name of the PC to which the licensing dongle is attached. INSERT allows you to insert a new server name or number - REMOVE lets you remove it. The PORT number should always be set to 7625. The VALIDATE LICENSE button displays the current licensing contained with the dongle. This information is for viewing only - no changes can be made here except in the DIAGNOSTICS tab.
Note: This can only be performed on the PC to which the dongle is physically attached.
GENERAL tab: This area displays the type of inDepth software installed (inDepth Lite, inDepth or inDepth+), whether wallboards are available, and the expiration date of the inDepth program.
CAPACITY tab: This window displays the number of supervisors, agents, reporters, and extensions for which the inDepth dongle is licensed.
LAN WALLBOARDS tab: This section shows the number of LAN wallboards available with the current inDepth license.

Diagnostics   – This is available for the Server PC only. This area allows you to select whether or not inDepth will store diagnostic information on serial port data and other errors to a file for troubleshooting inDepth (all serial communications errors are logged regardless of this setting). You can also determine whether network connections made at the inDepth PC server will be displayed. These options should only be selected when instructed to do so.
With inDepth version 3.04 some changes have been made to the Diagnostics:
- diagnostics can be turned on/off without stopping the Gateway
- critical errors are always logged regardless of the diagnostic setting
- auto-configured devices are always logged
- all manual configuration changes are logged
- inDepth Setup only restarts the Gateway when the event source, data directory or configuration directory is changed

Operational Mode   – This indicates whether the product is installed as either a Server or a Client.

Phone System Connection   – This is available for the Server PC only. This indicates the network port number and the IP address of the Aspire system. The Aspire default IP address is set at 172.16.0.10, but it can be changed (refer to Program 10-12-01). The TCP IP port is set to "0" by default, but can be changed in Program 10-20-01 (External Device 2). This port number must match the setting in the inDepth program (set to "4000" by default).

Sension License Administrator

To View/Validate the Licenses on the Network:

1. From the Windows™ menu, click **START**. Highlight **PROGRAMS**, then **INDEPTH MIS**. Click on **SENSION LICENSE ADMINISTRATOR**.
2. To view the current licensing state, click **FILE ☞ CONNECT**.
3. The **SLOW CONNECTION** box increases a timeout period. It can be used when a network connection is slow or there is a lot of network traffic.
    The name of the PC to which the dongle is attached should be displayed. If it is not, type it in the box provided and click OK.
4. To exit, click **FILE ☞ EXIT**.

To Add A License:

1. Click **TOOLS ☞ ADD LICENSE**.
2. After adding a new license, the server PC must be rebooted. All the inDepth client PCs will then need to re-started.

4

Physical Wallboards

Wallboards can be connected to Client and/or Server PCs.

The following wallboards can be used in conjunction with the inDepth software:

- Shorekarn Messagemaker 2x16
- Shorekarn Messagemaker 4x16
- Shorekarn Messagemaker 2x21
- Shorekarn Messagemaker 4x21
- Spectrum 215C/1512 1x15
- Spectrum 320C/1023 1x20
- Spectrum 4120C/3214 2x20

The wallboards can be connected to the inDepth PC using a standard CAT5 UTP network cable. The connection is made to the PC using a serial port adapter from the cable. This can either be a 9-way or 25-way D socket. Connection to a PC will require a free serial COM port.

Once the physical connection has been made, it is necessary to point the inDepth software to the correct COM port and wallboard type. This is achieved by selecting WALLBOARDS ☞ DRIVERS from the top of the real-time screen.

Up to six wallboards can be connected together on one COM port. Wallboards can only be connected to one COM port on a PC and only wallboards by the same manufacturer can by connected together. To use wallboards from two manufacturers will require two PC's running the inDepth Client software.

4

inDepth Configuration

To ensure reliable and accurate statistics and real time displays, the inDepth must be correctly configured. The basic rule is as follows:

The configuration of every Trunk (line), Extension, Extension Group, Agent, and Agent Pin on the telephone system should be mirrored in the configuration of the inDepth MIS. This applies even if the lines or extensions are not part of the ACD group!

After programming the inDepth with the above information, the other options within the Configurator should also be considered and programmed as required as they can affect the system's ability to interpret the information gathered.

For more details on configuring the inDepth system, refer to *THE CONFIGURATOR* section in the ***inDepth Lite/inDepth/inDepth+ Manual***, P/N 0893230.

Starting inDepth for the First Time

The first screen you will see when inDepth is opened is the inDepth MIS screen with windows for LINE STATUS: ALL LINES and EXTENSION STATUS: ALL EXTENSIONS. The defaults are:

Lines ranging from L9001-L9128.

The Aspire S has lines from 1-8. The Aspire has lines from 001-200. The 124i has lines from 01-52. The 384i has lines from 001-128. The 704i has lines from 001-192.

Extensions ranging from E301-E556.

The Aspire S/Aspire has extensions from 301-499 and 5000-5312. The 124i Commonized has extensions from 301-799. The 124i Enhanced has extensions from 301-548. The 384i has extensions from 301-556. The 704i has extensions from 301-499 and 5000-5696.

ACD Agents ranging from A400-A419.

The Aspire S does not support ACD. The Aspire can have 512 ACD Agents. The 124i Commonized can have 36 ACD Agents. The 124i Enhanced can have 72 ACD Agents. The 384i can have 144 ACD Agents. The 704i can have 512 ACD Agents.

DID's range from D1000-D1009.

The Aspire S/Aspire can have 20 DID Translation Tables with a total of 2000 entries. The 124i Commonized can have 4 DID Translation Tables with a total of 200 entries. The 124i Enhanced can have 8 DID Translation Tables with a total of 800 entries. The 384i can have 8 DID Translation Tables with a total of 1500 entries. The 704i can have 16 DID Translation Tables with a total of 2000 entries.

Each line, line group, extension, extension group, etc., uses the first digit to help differentiate between the different devices, in addition to the preceding letter. For example, using the default settings shown above, "L9" is used to define a line, "E3", "E4", and "E5" define extensions, "A4" defines an ACD Agent, and "D1" is used for DID's. The only one that must be kept is the line setting. ***The first digit for lines must be "9" in order for the inDepth program to recognize it and consist of only 4 digits (this does not include the 'L').*** For example, in the Configurator, the entry must be "9XX" (The X represents any other combination of numbers.). When the lines display in the Real Time Display, they will appear as "L9XXX". If your numbering plan is different for extensions, agents, or DID's, you can change the digits inDepth uses to match your system settings. Refer to *THE CONFIGURATOR* section in the ***inDepth Lite/inDepth/inDepth+ Manual***, P/N 0893230.

If ACD Agents are using PIN codes to log in on their phones (Program 41-18-01), the inDepth ACD Agent numbers must match the codes being used on the telephone system. For example, if the ACD Agents use PIN codes that range from 500-650, the ACD Agent numbers in the inDepth must be changed to A500-A650.

To make changes in the inDepth programming easier, add all the ACD Agents available in the phone system. If the agents' numbers are not used, the inDepth will ignore them. This will ensure that the data from any new agents added in the telephone system will be reflected in the inDepth screens and reports. If a line, DID, agent, extension, or extension has not been previously configured and it is used, inDepth will automatically add the new item to its configuration so accurate call logging is maintained. But these automatically added devices may not have the preferences you desire, so it's best to add all the devices when initially programming the inDepth.

4

Editing Agents:

1. From the INDEPTH CONFIGURATOR window, click **EXTENSIONS/AGENTS**, then click **EDIT AGENTS**.
2. The first agent number will be highlighted. Use the down arrow to get to the last available agent. Hold down the **SHIFT** key and click on the last agent number.
    This will highlight all the agent numbers.
3. Click **DELETE AGENTS**.
4. Click **CREATE AGENTS**.
    The CREATE AGENTS window appears.
5. In the **START AGENT NUMBER** box, enter the first agent number in the telephone system.
    This number should be the same as what the agents use to log in on the telephone system. These digits are the agent's pin code.
6. Click on the **NUMBER OF AGENTS** box. Enter **1000** (the maximum number of ACD Agent pin codes allowed in the inDepth program) and click **OK**.
7. In the **AGENT CONFIGURATION** window, click **OK**.
8. In the **AGENTS** box, click **EDIT GROUPS**.
9. In the **AGENTS** box, **AG499-ALL AGENTS** is highlighted. Click **DELETE GROUPS**.
10. Click **CREATE GROUPS**. Enter "**1**" as the **STARTING GROUP NUMBER** and click **OK**.
    The Agent Group AG1 is added. This change is necessary in order for the telephone system to translate the call data correctly.

    The AGENT GROUP CONFIGURATION window appears. The first agent group (AG1) must be updated to include the agent number changes.
11. With **AG1** highlighted, click **EDIT GROUP**.
    The AGENT GROUP AG1 CONFIGURATION window appears.
12. In the **AGENTS AVAILABLE** box, click on the first agent number. Use the down arrow to get to the last available agent number. Hold down the shift key and click on the last agent number.
    This will highlight all the agent numbers.
13. Click **ADD**.
    The agent numbers will then be added to the group and will appear in the AGENTS IN GROUP box.
14. Click **OK**.
15. In the **AGENT GROUP CONFIGURATION** window, click **OK**.
16. In the **EXTENSIONS** box, click **EDIT GROUPS**.
    The EXTENSION GROUP CONFIGURATION window appears. The first extension group EG1-ALL EXTENSIONS must be updated to be associated with the correct Agent Group created in step 10.
17. With **EG1-ALL EXTENSION GROUPS** highlighted, click **EDIT GROUP**.
    The EXTENSION GROUP EG1 CONFIGURATION window appears.
18. In the **ASSOCIATED AGENT GROUP** box, click the drop-down list and select the AG1 group. Click **OK**.
19. In the **EXTENSION GROUP CONFIGURATION** window, click **OK**.
20. In the **INDEPTH CONFIGURATOR** window, click on the **SAVE CHANGES** button.
21. The program will then prompt you with "**ARE YOU SURE YOU WISH TO SAVE THE CHANGES YOU HAVE MADE?**". Click **YES**.

☞ **Note: The inDepth computer must remain on in order to collect data. If the computer is turned off, all information will be lost for that time period!**
    Powering down will also cause the following:
    - In a network, when a client tries to start inDepth, they will receive an error message.
    - In a network, if the server is shut down wile clients are running inDepth, then the clients will fail and receive an error message.

☞ When audible alarms are selected, in order to receive the alarms, the Taskbar must be visible at all times.

Upgrading Your License

If you need to add additional agents or features to your program's capabilities, you will need to upgrade your license. If you wish to increase the number of agents that can use the inView LAN Wallboard, simply purchase an upgrade for the number of additional agent wallboards you wish to add.

Prior to any upgrading, you must first obtain a license number from NEC Unified Solutions. For this you will need to provide the NEC representative with the number printed on the side of your dongle.

To Upgrade the License:

1. After receiving the license number code from NEC Unified Solutions, the License Administrator needs to be updated. From the Windows™ menu, click **START**. Highlight **PROGRAMS**, then **INDEPTH MIS**. Click on **SENSION LICENSE ADMINISTRATOR**.
2. Click **FILE** ☞ **CONNECT**.
3. After the current license information displays, click **TOOLS** ☞ **ADD LICENSE**.
4. Enter the license number and click **ADD**.

Sension Services

The inDepth includes two programs that run in the background on the Server PC: SLISVR.EXE and GATEWAY.EXE. In Windows 2000/ME/XP, they can be found by pressing **CTRL + ALT + DELETE** once. With Windows XP, you will then need to select the Task Manager and click on the **PROCESSES** tab. In Windows NT, they can be found in the Task Manager or the Services folder within the Control Panel (the file names are SENSION GATEWAY and SENSION LICENSE SERVER).

If any network connection has been lost between inDepth PCs, then it is advisable to run Setup from each inDepth PC and press **OK**. If any components of the inDepth are currently running when **OK** is pressed, Setup will display a warning message advising you to close down the running components.

For details on using the Configurator, Real Time Displays, Reports, and Wallboards, refer to the ***inDepth Lite/inDepth/ inDepth + Manual***, P/N 0893230.

4

- For Your Notes -

4

PCPro/WebPro

Introduction

In addition to the keyset programming, the Aspire system provides the ability to use a PC to access system programming. The Windows-based PCPro and the HTML-based WebPro allows you to:

- Edit the telephone system programming options from a remote location.
  The PCPro application requires changes to be uploaded to the system before they take effect. The WebPro application applies the changes as soon as the APPLY or OK icon is clicked.

- Access system maintenance functions (like reports and tests).

In addition, PCPro allows you to:

- Save your programming to your PC's hard disk - then upload it via a LAN (Local Area Network), PPP, serial or USB connection.
  PPP is a protocol that allows a computer to use a regular telephone line and a serial interface (modem) to make TCP/IP connections.

  *Local programming is possible using the LAN, USB or serial connection (**the USB connection is not available on the Aspire S**) (CTA and CTU adapters cannot be used). Remote programming is possible using the dial-up serial port connection or LAN connection provided there is internet/network access to the IP address of the CPU.*

- Download the existing programming in the telephone system via a LAN, PPP, serial or USB connection - and save it to your PC's hard disk.

- Set up a default database with the settings you use most often.

- Create a unique database for each phone system you have installed. Since you save the site-specific data to your PC's hard disk, you can easily retrieve a customer's programming if something goes wrong.

4

Aspire S/Aspire System Requirements

- Aspire S system software 2.50 or higher or any version of Aspire system software
- Aspire S: ENTU for LAN Connection

- PCPro: NTCPU LAN, Serial or USB Connection to PC (USB on Aspire M/L/XL Only)

  WebPro: TCP/IP via LAN Connection to PC

PCPro PC Requirements

- CPU: Pentium II 500 MHz equivalent or higher
- 20Mb of Hard Drive Space
- Mouse
- Internet Browser: Internet Explorer 6.0 or higher or Netscape 6.0 or higher

- 128Mb of RAM
- Monitor Resolution: 800 x 600 pixels or higher
- Microsoft Windows 2000/XP
- Network Interface Card (NIC) (depending on connection type)

WebPro PC Requirements

- CPU: Pentium III 600 MHz equivalent or higher
- Mouse
- Internet Browser: Internet Explorer 6.0 or higher or Netscape 6.0 or higher

- Monitor Resolution: 800 x 600 pixels or higher
- Microsoft Windows 2000/XP
- Network Interface Card (NIC) (depending on connection type)

The browser settings should allow all Cookies and have Scripting/Active Scripting enabled.

Internet Explorer: Click *Tools-Internet Options-Security-Internet* or *Local Intranet* (depending on your connection)-*Custom Level*. Set *Allow Cookies That Are Stored On Your Computer* and *Allow Per-Session Cookies (Not Stored)* to "Enable". Set *Active Scripting* to "Enable".

Netscape: Click *Edit-Preferences*. Under *Privacy & Security*, set *Cookies* to "Enable All Cookies". Under *Advanced-Scripts & Plug-ins* the check box for *Enable JavaScript for Navigator* should be checked.

Important Points to Remember

- When updating the PCPro software, it is recommended that you first remove the existing software version.

- Only one person is allowed in programming mode at a time. An error message will be received if trying to log in while another user is already in programming mode.

- When exiting the PCPro application, disconnect the session by pressing the F6 key or clicking on **COMMUNICATIONS ☞ DISCONNECT** *before* closing the application. Exiting the application without disconnecting will prevent any attempt to re-enter programming for 10-15 minutes until the session is closed automatically or unless the system is reset.

- When connecting to the system with PCPro (either before or just after the connection is made), you must make sure to open an Aspire S or Aspire database file (from within the PCPro application, click **FILE ☞ NEW ☞ ASPIRE S** or **ASPIRE**). If this step is not done, the program will not allow you to upload or download data to/from the system.

- The Aspire S 2.50 software increases the port capacity for the system as well as adds the ability to use IntraMail which is a plug-in "in-skin" full-featured, DSP-based integrated Voice Mail with Automated Attendant for the Aspire S.

  Due to the port capacity changes, it is recommended the system be cold started and the customer database reprogrammed. However, using PCPro 3.00 or higher, you can choose to reload the majority of the customer database. Follow the steps in the **Aspire S Software Update to 2.50 or Higher Instructions**, P/N 0893222.

- If using PCPro on a PC which has inDepth installed, note that a PC Pro database which takes a long time to download will fail. It is recommended that the inDepth application be installed on its own PC.

- The CTA and CTU adapters *cannot* be used for system programming access.

- In the Aspire Software Manual (P/N 0893200), the item numbers for the programs indicated below are different when using PCPro/WebPro due to the window layout of the applications. Refer to the program within the PCPro/WebPro application to determine the correct item number when making:
  - Program 10-03
  - Program 15-01
  - Program 22-11
  - Program 44-03
  - Program 47-12

+--+
| **!! IMPORTANT !!** |
| |
| With Aspire software 1.08 or prior, due to modem commands sent |
| by the Aspire system after a remote session is disconnected, you |
| must wait 30 seconds before dialing back into the system. |
+--+

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Aspire Software and PCPro Compatibility

Certain PCPro software is not backwards compatible with all Aspire system software. Refer to the following table for the software compatibility.

In order to update an Aspire system which is using 1.11-1.13 software to 2.50 or higher, the update must be performed in the following order:

- Use PCPro version 2.02 to save the current Aspire database or save the database to a PC-ATA flash card.
- Update the Aspire system to 1.18 or higher software.
- Remove the currently installed version of PCPro.
- Install the PCPro 2.05+ software.
- Download the database from the Aspire system to the PCPro application.
- Save the PCPro database file.

For further details on upgrading the Aspire system software, refer to the Upgrade Instructions in the **Aspire Software Enhancements** in P/N 0893209. For the Aspire S, when updating 2.0x, 2.1x, or 2.2x software to 2.50 or higher, refer to the **Aspire S Software Update to 2.50 or Higher** instructions, P/N 0893222.

PCPro Software	Compatibility
5.00	• This version is compatible with Aspire S software 2.50 - 4.01 except for 2.63 OR Aspire software versions 0.29 - 1.10 and 1.14 - 4.01 except for 2.63. • It will also support PCPro 1.23, 2.04 - 5.00+ database files. • It is NOT compatible with Aspire system software 1.11 or PCPro 2.01 or 2.02 database files.
5.00F	• This version is compatible with Aspire S software 2.50 - 4.0J except for 2.63 OR Aspire software versions 0.29 - 1.10 and 1.14 - 4.0J except for 2.63. • It will also support PCPro 1.23, 2.04 - 4.01+ database files. • It is NOT compatible with Aspire system software 1.11 or PCPro 2.01 or 2.02 database files.
5.00D	• This version is compatible with Aspire S software 2.50 - 4.0C except for 2.63 OR Aspire software versions 0.29 - 1.10 and 1.14 - 4.0C except for 2.63. • It will also support PCPro 1.23, 2.04 - 4.01+ database files. • It is NOT compatible with Aspire system software 1.11 or PCPro 2.01 or 2.02 database files.
4.10	• This version is compatible with Aspire S software 2.50 - 3.00 except for 2.63 OR Aspire software versions 0.29 - 1.10 and 1.14 - 3.00 except for 2.63. • It will also support PCPro 1.23, 2.04 - 4.02 database files. • It is NOT compatible with Aspire system software 1.11 or PCPro 2.01 or 2.02 database files.
4.02	• This version is compatible with Aspire S software 2.50 - 2.67 except for 2.63 and 2.64 OR Aspire software versions 0.29 - 1.10 and 1.14 - 2.67 except for 2.63. • It will also support PCPro 1.23, 2.04 - 4.01 database files. • It is NOT compatible with Aspire system software 1.11 or PCPro 2.01 or 2.02 database files.
3.00	• This version is compatible with Aspire S software 2.50+ or Aspire software versions 0.29 - 1.10 and 1.14+. • It will also support PCPro 1.23, 2.04+ database files. • It is NOT compatible with Aspire system software 1.11 or 1.12 or with PCPro 2.01 or 2.02 database files.
2.05	• This version supports PCPro 1.23 and 2.04 database files and is compatible with Aspire system software 0.29-1.10 and 1.14-1.16. • It is NOT compatible with Aspire system software 1.11 or 1.12 or with PCPro 2.01 or 2.02 database files.
2.02	• This version of PCPro is backwards compatible with Aspire system software 0.29-1.12 and with any PCPro file saved with 1.23 or higher. • It is incompatible with system software 1.14.
2.01	• This software is not backwards compatible prior to system software 1.11.
1.23	

Installing PCPro

To install the PC Program on your hard disk:

1. Insert the PC Program Installation disk into your PC.
2. From **MY COMPUTER**, double-click on the drive.
3. Double-click on the **SETUP.EXE** file. You see:

4. Click **NEXT**.

5. Click on the checkbox to accept the license terms. The following window displays:

6. Change the installation directory if required, then click **NEXT**.

7. Change the shortcut name if required, then click **NEXT**.

8. Click **FINISH** to begin the installation. The following message is displayed:

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9. Click **NEXT**. Once the installation process has completed, the following window appears. Click **FINISH**.

10. Make sure the system is connected to the PC in one of the following ways:

*   Remote Modem to Serial Port
    -   Connect to the system modem. Refer to **Connecting to the Serial Port - Remotely** (page 3-7).
    -   Continue with *Direct Dial Up (modem connection via serial cable to Aspire S/Aspire cabinet)* on page 4-59.

*   Local Serial Port Connection
    -   Make sure the system and PC are connected using an RS-232 cable. Refer to **Connecting to the Serial Port - Locally** (page 3-5).
    -   Continue with *Creating a Dial Up Setting* on page 4-51.

*   USB Connection (Aspire M/L/XL Only)
    -   Install the USB driver. Refer to **Connecting to the USB Port** (page 3-17).
    -   Continue with *Creating a Dial Up Setting* on page 4-51.

*   LAN (Ethernet) Connection
    -   Make sure the system and network are connected using an ethernet cable. Refer to **Connecting to the LAN Port** (page 3-13).
    -   Continue with *Using PCPro* on page 4-71 or *PCPro/WebPro - Using WebPro* on page 4-77.

Creating a Dial Up Setting

When connecting to the telephone system through a serial or USB port using either PCPro or WebPro, a Dial Up Setting needs to be created with which you can access the system. These steps are not required when using a LAN connection.

Direct Dial Up (USB cable from PC to Aspire cabinet - not available for Aspire S)

1. Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).
   If it is set to ON, this is the debugging mode and the serial connection will not work.
2. Make sure the PC is connected to the USB port on the Aspire NTCPU with a USB cable and that the USB driver has been installed (**Connecting to the USB Port** (page 3-17)).
3. *Windows XP:* Click on **START** ☞ **PROGRAMS** ☞ **ACCESSORIES** ☞ **COMMUNICATIONS** ☞ **NETWORK CONNECTIONS**.
   Windows 2000: Click on **START** ☞ **PROGRAMS** ☞ **ACCESSORIES** ☞ **COMMUNICATIONS** ☞ **NETWORK AND DIAL-UP CONNECTIONS**.

   The following window appears.

4. Click on **CREATE A NEW CONNECTION**. Click **NEXT**.

5. In the **NETWORK CONNECTION TYPE** window, select **CONNECT TO THE NETWORK AT MY WORK-PLACE** and click **NEXT**.

6.   The **DIAL-UP CONNECTION** bullet should be selected. Click **NEXT**.

7.   Make sure only the box next to the USB Modem is checked and click **NEXT**.
8.   Enter the name to be used for the dial-up connection and click **NEXT**.

9. Enter the Remote Maintenance service code number assigned in Program 11-15-01. By default, this is set to '830' and click **NEXT**.

10. *Windows XP:* Click **NEXT** then **FINISH**.
    Windows 2000: Click **NEXT**, **NEXT** then **FINISH**.
11. Continue with *Completing the Dial Up Settings* on page 4-64.

Direct Dial Up (direct serial cable from PC to Aspire S/Aspire cabinet)

1. *Aspire S:* Set the SW3 switch on the Aspire S CPU to the "1" position (up).
   If it is set to "3" (down), this is the debugging mode and the serial connection will not work.
   Aspire: Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).
   If it is set to ON, this is the debugging mode and the serial connection will not work.
2. Make sure the PC is connected to the serial port on the Aspire S/Aspire NTCPU with a null modem (cross-over) cable.
3. Click on **START** ☞ **CONTROL PANEL** ☞ **PHONE AND MODEM OPTIONS**. Click on the **MODEMS** tab. If there is not already a modem labeled **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS**, one must be added. Continue with Step 4. If the modem setup already exists, continue with Step 5.
4. Click on **ADD** and select the **DON'T DETECT MY MODEM; I WILL SELECT IT FROM A LIST**. Click **NEXT**.
   Double-click on **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS** and click on the COM port to be used (usually COM1). Click **NEXT** and then **FINISH** when it appears.
5. Double-click on the **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS** and then click the **MODEM** tab.
6. Set the **MAXIMUM PORT SPEED** to the setting defined in Program 10-21-02 (default 19200).
7. *Windows XP:* Click on **START** ☞ **PROGRAMS** ☞ **ACCESSORIES** ☞ **COMMUNICATIONS** ☞ **NETWORK CONNECTIONS**.
   Windows 2000: Click on **START** ☞ **PROGRAMS** ☞ **ACCESSORIES** ☞ **COMMUNICATIONS** ☞ **NETWORK AND DIAL-UP CONNECTIONS**.

The following window appears.

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8. Click on **CREATE A NEW CONNECTION**. Click **NEXT**.

9. *Windows XP:* In the **NETWORK CONNECTION TYPE** window, select **SET UP AN ADVANCED CONNEC-TION** and click **NEXT**.
   Windows 2000: In the **NETWORK CONNECTION TYPE** window, select **CONNECT DIRECTLY TO ANOTHER COMPUTER** and click **NEXT**.
   The Windows XP window is displayed below.

10. *Windows XP:* Select the **CONNECT DIRECTLY TO ANOTHER COMPUTER** bullet. Click **NEXT**.
    Windows 2000: Skip this step.

11. Select the **GUEST** bullet. Click **NEXT**.

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12. Enter the name to be used for the dial-up connection and click **NEXT**.

13. Select **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS** as the device type.

14. *Windows XP:* Click **NEXT** then **FINISH**.
    Windows 2000: Click **NEXT**, **NEXT** then **FINISH**.
15. Continue with *Completing the Dial Up Settings* on page 4-64.

Direct Dial Up (modem connection via serial cable to Aspire S/Aspire cabinet)

When using a modem, the following steps are for use with an external modem with an RS-232 serial connection. If you wish to use an internal modem, your steps will vary slightly.

1. **Aspire S:** Set the SW3 switch on the Aspire S CPU to the "1" position (up).

    If it is set to "3" (down), this is the debugging mode and the serial connection will not work.
    Aspire: Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down).

    If it is set to ON, this is the debugging mode and the serial connection will not work.

2. Click on **START** ☞ **CONTROL PANEL** ☞ **PHONE AND MODEM OPTIONS**. Click on the **MODEMS** tab. If there is not already a built-in modem or standard modem which matches the external modem to be used, one must be added. Continue with Step 3. If the modem setup already exists, continue with Step 4.

3. Click on **ADD** and select the **DON'T DETECT MY MODEM; I WILL SELECT IT FROM A LIST**. Click **NEXT**.

    Double-click on the type of modem which matches the external modem to be used (**STANDARD 33600 BPS MODEM** can be used if unknown) and click on the COM port to be used (usually COM1). Click **NEXT** and then **FINISH** when it appears.

4. Double-click on the installed modem to be used (ex: **STANDARD 33600 BPM MODEM**) and then click the **MODEM** tab.

5. Set the **MAXIMUM PORT SPEED** to the setting defined in Program 10-21-02 (default 19200).

6. *Windows XP:* Click on the **ADVANCED** tab and enter service code **830** in the **EXTRA INITIALIZATION COMMANDS** box. Click **OK** then click OK again to close the window.
    Windows 2000: Enter service code **830** for the **EXTRA INITIALIZATION COMMANDS** prompt. Click **OK** until the control panel screen appears then close that window.

    If an ISDN terminal adapter is used, this entry should be entered with a * preceding the number (example: *830).

    The 830 dialed above is the Remote Maintenance service code number assigned in Program 11-15-01. By default, this is set to 830. If this is changed in system software, then the entry made above should match the new code.

7. *Windows XP:* Click on **START** ☞ **PROGRAMS** ☞ **ACCESSORIES** ☞ **COMMUNICATIONS** ☞ **NETWORK CONNECTIONS**.
    Windows 2000: Click on **START** ☞ **PROGRAMS** ☞ **ACCESSORIES** ☞ **COMMUNICATIONS** ☞ **NETWORK AND DIAL-UP CONNECTIONS**.

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The following window appears.

8. Click on **CREATE A NEW CONNECTION**. Click **NEXT**.

9. *Windows XP:* In the **NETWORK CONNECTION TYPE** window, select **CONNECT TO THE NETWORK AT MY WORKPLACE** and click **NEXT**.

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Windows 2000: In the **NETWORK CONNECTION TYPE** window, select **DIAL-UP TO A PRIVATE NETWORK** and click **NEXT**.

10. *Windows XP:* The **DIAL-UP CONNECTION** bullet should be selected. Click **NEXT**.
    Windows 2000: Skip this step.

11. If a list of modems appears, select the modem you want to use for this Aspire dial-up connection by putting a check mark in the box next to the desired modem and click **NEXT**. Otherwise, continue with the next skip.

12. *Windows XP:* Enter the name to be used for the dial-up connection and click **NEXT**.
    Windows 2000: Skip this step.

13. *Windows XP:* Skip this step.
    Windows 2000: Choose either **FOR ALL USERS** to allow all users to use the connection or **ONLY FOR MYSELF** to allow only you to use the connect then click **NEXT**.

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14. Enter the phone number to be dialed and click **NEXT**.

   ● *With a remote serial connection,* this should be the modem number which is connected to the Aspire system. If an ISDN terminal adapter is used, this entry should be the telephone number followed by * 830 (example: 55512345*830). **Remember to include any dial access code digits required to seize an outside line as well as any pauses required to connect to the modem.**

   *The '830' dialed above is the Remote Maintenance service code number assigned in Program 11-15-01. By default, this is set to '830'. If this is changed in system software, then the entry made above should be *nnn (nnn=the setting in Program 11-15-01).*

   ● *If using this procedure to set up a local serial connection,* this should be the Remote Maintenance service code number assigned in Program 11-15-01. By default, this is set to '830'.
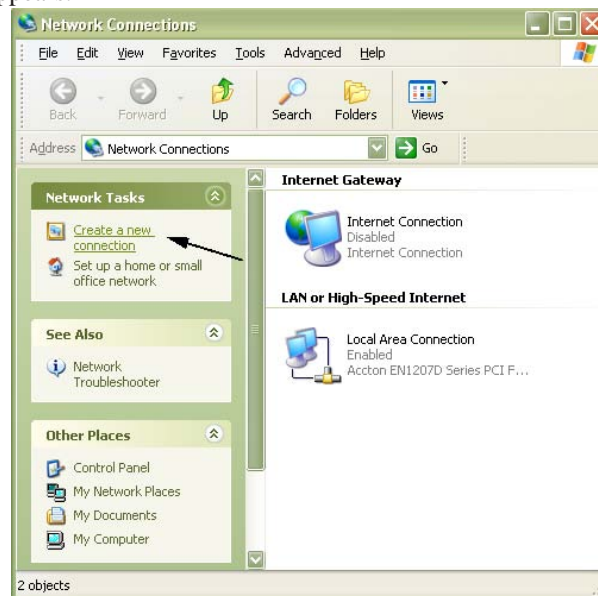

15. *Windows XP:* Click **NEXT** then **FINISH**.
    Windows 2000: Click **NEXT**, **NEXT** then **FINISH**.
16. Continue with *Completing the Dial Up Settings* on page 4-64.

Completing the Dial Up Settings

1. In the window that appears after creating the dial-up setting, enter the Aspire User Name and Password to be used for most sessions. Click in the box **SAVE THIS USE NAME AND PASSWORD** and select the **ME ONLY** option. This will allow these settings to be used when connecting to the Aspire. The table below shows the default Aspire user name and password settings.

User Name	Password
ASPIRE	12345678 (Installer Level)
ADMIN1	0000 (SA Level)
ADMIN2	9999 (SB Level)

These passwords can be changed or additional passwords added after accessing programming using Program 90-02.

With WebPro, to change or add passwords once connected to the system, click PCPRO SETTINGS, then clicking ACCOUNT SETUP.

The "Dial" number (if required) should already be filled in with the telephone number/service code to be dialed.

Direct Serial Connection Window　　　**Modem and USB Connection Window**

2. Click on **PROPERTIES**. In the window that appears, select the correct connection type (**MODEM ☞ NECI USB MODEM, MODEM ☞ STANDARD 33600 BPS MODEM,** or **COMMUNICATION CABLE BETWEEN TWO COMPUTERS** option if not already selected.
3. Click on **CONFIGURE**. Set the **MAXIMUM PORT SPEED** to the setting defined in Step 2 and in Program 10-21-02 (default 19200). ***This is not required for a USB connection.***

4. Select at least the following items: **ENABLE HARDWARE FLOW CONTROL** and **ENABLE MODEM ERROR CONTROL.** *When using Windows 2000* with a remote dial-up connection, select **SHOW TERMINAL WINDOW**. Click **OK**.

5. Select the **SECURITY** tab.

6. Select the **ADVANCED (CUSTOM SETTINGS)** button, then click on **SETTINGS**.

7. In the **ADVANCED SECURITY SETTINGS** window, make the following changes and then click **OK**.

   ● Data Encryption: Set to "No Encryption Allowed"

   ● Logon Security: Should not be checked

   ● Allow These Protocols: Check "Unencrypted Password (PAP)" - all others should be unchecked.

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8. Click **OK**.

9. Select the **NETWORKING** tab. Only the **INTERNET PROTOCOL (TCP/IP)** option and **QoS Packet Scheduler** option (if displayed) should be checked.

10. Click on **INTERNET PROCOTOL (TCP/IP)** then click on the **PROPERTIES** button. The **OBTAIN AN IP ADDRESS AUTOMATICALLY** and **OBTAIN DNS SERVER ADDRESS AUTOMATICALLY** options should be selected.

11. Click on the **ADVANCED** tab. Both the **USE DEFAULT GATEWAY ON REMOTE NETWORK** and **USE IP HEADER** options should be selected.

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12. Click on the **DNS** tab. Make sure the **DNS SERVER ADDRESSES, IN ORDER OF USE** window is empty and that **APPEND PRIMARY AND CONNECTION SPECIFIC DNS SUFFIXES** and **APPEND PARENT SUFFIXES OF THE PRIMARY DNS SUFFIX** options are checked.

13. Click on the **WINS** tab. Make sure the **ENABLE LMHOSTS** and **ENABLE NETBIOS OVER TCP/IP** options are selected.

14. Click **OK** until the property windows are closed and the **ASPIRE USER NAME AND PASSWORD** screen appears.
15. Click **CANCEL**.
16. Some computers may not make the baud rate changes in the Device Manager. In order for the connection to be made, the baud rate must be changed. To verify the correct baud rate has been accepted, right-click on **MY COMPUTER**, click **PROPERTIES** then click **HARDWARE**.

17. Click on the **DEVICE MANAGER** button in the window that appears.

18. Click once on **+ PORTS (COM & LPT1)** to display the list of available ports.

19. Right-click on the COM port to be used, then click on **PROPERTIES**.

20. Select the **PORT SETTINGS** tab, and if necessary, change the **BITS PER SECOND** rate to 19200 (the default setting in Program 10-21-02).

21. Close the **DEVICE MANAGER** window, then click **OK** in the **SYSTEM PROPERTIES** window.
22. Continue with *Using PCPro* on page 4-71 to begin using PCPro or *Using WebPro* on page 4-77 to use WebPro.

Using PCPro

Important Points to Remember

● Set the SW3 to the proper position. <u>**Aspire S:**</u> Set the SW3 switch on the Aspire S CPU to the "1" position (up). <u>**Aspire:**</u> Set the SW3 switch number 1 on the Aspire NTCPU to OFF (down). If it is set to the incorrect position (debugging mode), the serial connection will not work.

● The Aspire system (Program 10-21-02) and the Dial Up setting must be set to use the same baud rate (19200 by default).

● For local connections, make sure the PC is connected to the serial or USB port on the Aspire NTCPU with a null modem (cross-over) cable. If connection is through a LAN, the PC should be connected to the Aspire NTCPU with an ethernet cable.

● When updating the PCPro software, it is recommended that you first remove the existing software version.

● Only one person is allowed in programming mode at a time. An error message will be received if trying to log in while another user is already in programming mode.

● When exiting the PCPro application, disconnect the session by pressing the F6 key or clicking on **COMMUNI-CATIONS** ☞ **DISCONNECT** <u>*before*</u> closing the application. Exiting the application without disconnecting will prevent any attempt to re-enter programming for 10-15 minutes until the session is closed automatically or unless the system is reset.

● In order for users to connect through a firewall, the port used by PCPro must be opened in the router at the far side. Due to changes in different Aspire system softwares, the port number used by PCPro may be 8 or 8000.

● When connecting to the system with PCPro (either before or just after the connection is made), you must make sure to open an Aspire S or Aspire database file (from within the PCPro application, click **FILE** ☞ **NEW** ☞ **ASPIRE S** or **ASPIRE**). If this step is not done, the program will not allow you to upload or download data to/from the system.

● The Aspire S 2.50 software increases the port capacity for the system as well as adds the ability to use IntraMail which is a plug-in "in-skin" full-featured, DSP-based integrated Voice Mail with Automated Attendant for the Aspire S.

   Due to the port capacity changes, it is recommended the system be cold started and the customer database reprogrammed. However, using PCPro 3.00 or higher, you can choose to reload the majority of the customer database. Follow the steps in the **Aspire S Software Update to 2.50 or Higher Instructions**, P/N 0893222.

● If using PCPro on a PC which has inDepth installed, note that a PC Pro database which takes a long time to download will fail. It is recommended that the inDepth application be installed on its own PC.

● The CTA and CTU adapters <u>*cannot*</u> be used for system programming access.

<div style="text-align: right">4</div>

● In the Aspire Software Manual (P/N 0893200), the item numbers for the programs indicated below are different when using PCPro/WebPro due to the window layout of the applications. Refer to the program within the PCPro/WebPro application to determine the correct item number when making:
  - Program 10-03
  - Program 15-01
  - Program 22-11
  - Program 44-03
  - Program 47-12

● The PCPro software provides a Help system if you experience difficulty in using the program. Simply press the 'F1' key.

Common buttons		
✓	Ok	Sets recent changes then exits the feature.
🖱	Apply	Sets recent changes.
✗	Cancel	Discards recent changes then exits the feature.
📋	Copy	Copy settings from an extension, trunk, etc. to another.
?	Help	Displays additional help for the active feature or PRG.
🔍	Search	Search for an item within the active feature or PRG.
⌃	Page Up	Scrolls up one screen within the active feature or PRG.
⌄	Page Down	Scrolls down one screen within the active feature or PRG.

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Make the Connection with PCPro

1. Make sure the required cable (USB, serial, LAN) is connected from the PC to the Aspire S/Aspire system.
2. When using a LAN connection, skip to Step 5.
   When using a connection other than a LAN, you must first connect to the Aspire using the dial-up connection. If not already connected, click on **START** ☞ **SETTINGS** ☞ **NETWORK CONNECTIONS** ☞ select the dial up connection to be used to connect to the Aspire system.
3. In the window that appears, if the user name and password are acceptable, click **DIAL** or **CONNECT** (depending on your dial-up type).
   Only one person is allowed in programming mode at a time. An error message will be received if trying to log in while another user is already in programming mode.
4. If the **PRE-DIAL TERMINAL SCREEN** option was selected in the dial-up setting, when it appears, left click on the black area of that screen. Type **AT** and press **ENTER**. Once **OK** has been displayed, click on **CONTINUE** and wait for the computer to connect to the Aspire system.
   If an OK does not appear on the screen, continue to type AT and then press enter until you get an OK on the screen.
5. After the connection is made, start the PCPro application by clicking on **START** ☞ **PROGRAMS** ☞ **ASPIRE PCPRO** ☞ **ASPIRE PCPRO**.
6. The application opens to the main screen.

7. Click **COMMUNICATIONS** ☞ **CONNECT**.

8. In the Connection window which appears, enter the Aspire user name, password. The table below shows the default Aspire user name and password settings. These can be redefined in Program 90-02.

User Name	Password
ASPIRE	12345678 (Installer Level)
ADMIN1	0000 (SA Level)
ADMIN2	9999 (SB Level)

The passwords are case-sensitive and must be entered as shown.

9. Enter the IP address of the Aspire system (example: http://192.78.0.1). This address entered is based on the type of connection to the Aspire.

Serial Connection	192.78.0.1	Fixed - cannot be changed. (For an Aspire S system with an ENTU PCB installed, the LAN IP address can also be used for this connection.)
USB Connection	192.78.0.2	Fixed - cannot be changed.
ISDN Connection	192.78.0.3	Fixed - cannot be changed.
LAN (Ethernet)	172.16.0.10	This setting is defined in Program 10-12-01 and can be changed.

In order for users to connect through a firewall, the port used by PCPro must be opened in the router at the far side. Due to changes in different Aspire system softwares, the port number used by PCPro may be 8 or 8000.

10. Click **CONNECT**.

Selecting **VIEW** ☞ **VIEW SEARCH TREE BAR** *will display the program listing on the right side of the screen as shown in the graphic above.*

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Using PCPro

To create a new database:

1. Click **FILE** ☞ **NEW**. Select **Aspire S, Aspire M** (for a one-cabinet Aspire system) or **Aspire L** (for a two-cabinet Aspire system).
2. Define the PCB layout for the system by dragging the PCB card name (from the list on the right) to the correct cabinet and slot number. Change other system programs as required.
   *After making changes in a window, click the **APPLY** or **OK** icon.*
3. Click **FILE** ☞ **SAVE AS** and select the location where the file should be saved and the name for the file.
   Refer to To edit a database and exit programming: below for details on uploading changes to the system.

To create a new database by downloading a system's database:

1. Click **FILE** ☞ **NEW**. Select **Aspire S, Aspire M** (for a one-cabinet Aspire system) or **Aspire L** (for a two-cabinet Aspire system).
2. Click on **COMMUNICATIONS** ☞ **DOWNLOAD** ☞ **START**.
   This will download the database from the connected system to the PCPro application. This can take up to approximately 20 minutes depending on the type of connection. While the programs are being received, the window indicates files being copied and the status bar shows the progress. When the transfer is done, COMPLETE will be displayed and the status bar will be solid.
3. Click on **CLOSE** once the download process has completed.
4. Click on **FILE** ☞ **SAVE AS**. Select the location where the file should be and click **SAVE**.
   Refer to To edit a database and exit programming: below for details on uploading changes to the system.

To open an existing database:

1. Click **FILE** ☞ **OPEN** and select the database file.

To edit a database and exit programming:

1. After making changes in a window, click the **APPLY** or **OK** icon. You can then upload the changed programs to the system (without clicking the **APPLY** or **OK** icon, the changes will not be saved). With PCPro, the changes must be uploaded to the system before the changes can take effect.
   When changes are made to the following programs, the Aspire system must be restarted after the data is uploaded to the system.

10-12-01	10-14	80-01	84-03-01	84-05-02	84-06-07
10-12-02	10-15	80-02-01	84-03-02	84-06-01	84-06-08
10-12-03	10-16-01	80-02-02	84-03-06	84-06-02	84-06-09
10-12-04	10-16-02	80-02-03	84-03-07	84-06-03	84-06-10
10-13-01	10-16-03	80-02-04	84-03-08	84-06-04	84-06-11
10-13-02	10-16-04	80-03	84-04	84-06-05	84-09
10-13-03	20-01-03	80-04	84-05-01	84-06-06	84-10

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2. In order to upload your changes to the Aspire system, click **COMMUNICATIONS** ☞ **UPLOAD**. Select one of the range options from the drop-down list. If a list of programs appears in the PRG LIST section, highlight either one or a consecutive range of programs from the list and then click **START** to send system information.

    The Aspire S and M/L databases are not interchangeable. You cannot upload an Aspire S to an Aspire M/L and vice versa.

    This will upload the database from the PCPro application to the connected system. This can take up to approximately 20 minutes. While the programs are being sent, the window indicates files being copied and the status bar shows the progress. When the transfer is done, COMPLETE will be displayed and the status bar will be solid.

3. Click on **CLOSE** once the download process has completed.
4. Make sure to save the database file, if needed, prior to exiting the application.
5. When you wish to exit PCPro, disconnect from the system by clicking **COMMUNICATIONS** ☞ **DISCONNECT**.

    Exiting the application without disconnecting will prevent any attempt to re-enter programming for 10-15 minutes until the session is closed automatically or unless the system is reset.

6. Disconnect the connection between the computer the Aspire system. This is usually done by double-clicking the

    Network Connections icon in the tool bar (usually indicated by a double computer icon [11:02 AM] then clicking the **DISCONNECT** button).

Updating an Installed Version of PCPro

1. When updating PCPro software, it is recommended that you first remove the existing software version to avoid any conflicts with the application data.
2. Click **START** ☞ **PROGRAMS** ☞ **ASPIRE PCPRO** ☞ **UNINSTALL ASPIRE PCPRO**. Click the **UNINSTALL** button then click **YES** to the 'Are you sure?' prompt. Click the **OK** button once the uninstall has completed.
3. Install the latest version of PCPro. Refer to **Installing PCPro** (page 4-48).

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Using WebPro

The WebPro software is installed on the Aspire NTCPU PCB - there is no separate software installation. This means that when the Aspire system software is updated, the WebPro software is updated as well.

Important Points to Remember

● Make sure the SW3 switch on the Aspire NTCPU (switch just above the serial port connector) is set to OFF (down).

● The Aspire system (Program 10-21-02) and the Dial Up setting must be set to use the same baud rate (19200 by default).

● Make sure the PC is connected to the serial or USB port on the Aspire NTCPU with a null modem (cross-over) cable. For LAN connections, use a straight-through cable if connected through a hub. If connected directly to the Aspire S/Aspire LAN connector, use a cross-connect cable.

● In order for users to connect through a firewall, port 80 (the port used by WebPro) must be opened in the router at the far side.

● Only one person is allowed in programming mode at a time. An error message will be received if trying to log in while another user is already in programming mode.

● When exiting the WebPro application, disconnect the session by clicking on the menu option **LOGOUT** *before* closing the application. Exiting the application without disconnecting will prevent any attempt to re-enter programming for 10-15 minutes until the session is closed automatically or unless the system is reset.

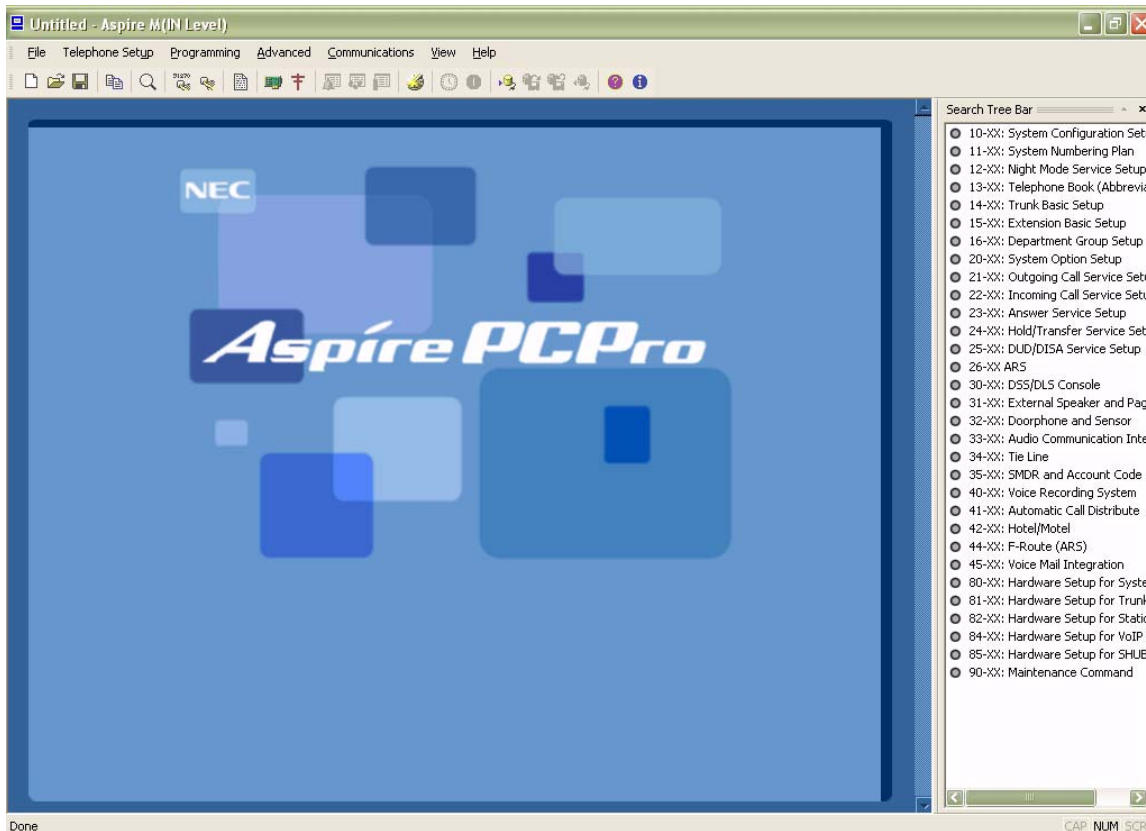● The CTA and CTU adapters *cannot* be used for system programming access.

● In the Aspire Software Manual (P/N 0893200), the item numbers for the programs indicated below are different when using PCPro/WebPro due to the window layout of the applications. Refer to the program within the PCPro/WebPro application to determine the correct item number when making:
    - Program 10-03
    - Program 15-01
    - Program 22-11
    - Program 44-03
    - Program 47-12

● The WebPro software provides a Help system if you experience difficulty in using the program. Simply click HELP in the menu.

● Using the browser's **Refresh** button will change the screen to either advance or decrease the page based on the last action. For example, if a screen is displayed showing extensions 311-320, clicking **Refresh** will change the page to display extensions 321-330. If the left arrow button in WebPro was used first, the window will show extensions 301-310.

1. Make sure the required cable (USB, serial, LAN) is connected from the PC to the Aspire S/Aspire system.
2. When using a LAN connection, skip to Step 5.

   When using a connection other than a LAN, you must first connect to the Aspire using the dial-up connection. If not already connected, click on **START** ☞ **SETTINGS** ☞ **NETWORK CONNECTIONS** ☞ select the dial up connection to be used to connect to the Aspire system.
3. In the window that appears, if the user name and password are acceptable, click **CONNECT** or **DIAL** depending on your connection type.

   Only one person is allowed in programming mode at a time. An error message will be received if trying to log in while another user is already in programming mode.
4. If the **PRE-DIAL TERMINAL SCREEN** option was selected in the dial-up setting, when it appears, left click on the black area of that screen. Type **AT** and press **ENTER**. Once **OK** has been displayed, click on **CONTINUE** and wait for the computer to connect to the Aspire system.

   If an OK does not appear on the screen, continue to type AT and then press enter until you get an OK on the screen.
5. Once the connection has been established, with either Internet Explorer or Netscape Navigator installed, open the internet browser application.
6. Enter the IP address of the Aspire system (example: http://192.78.0.1). This address is selected based on the type of connection to the Aspire.

Serial Connection	192.78.0.1	Fixed - cannot be changed. (For an Aspire S system with an ENTU PCB installed, the LAN IP address can also be used for this connection.)
USB Connection	192.78.0.2	Fixed - cannot be changed.
ISDN Connection	192.78.0.3	Fixed - cannot be changed.
LAN (Ethernet)	172.16.0.10	This setting is defined in Program 10-12-01 and can be changed.

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7. When the connection to the system is made, you'll see the opening page requesting a user name and password. After entering the information, click the Checkmark icon to proceed. The default settings are:

User Name	Password
ASPIRE	12345678 (Installer Level)
ADMIN1	0000 (SA Level)
ADMIN2	9999 (SB Level)

The passwords are case-sensitive and must be entered as shown.

These passwords can be changed or additional passwords added after accessing WebPro by clicking PCPRO SETTINGS, then clicking ACCOUNT SETUP.

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8. Once the User Name and Password have been accepted, WebPro's main window appears.

9. After making changes in a window, click on either the **APPLY** or **OK** icon to accept the changes. The system is immediately updated.
10. When you wish to exit WebPro, click **LOGOUT** from the Home page in order to log out of the system.
11. Close your internet browser application.
12. *(Skip this step for LAN connections)* Disconnect the connection between the computer the Aspire system. This is usually done by double-clicking the Network Connections icon in the tool bar (usually indicated by a double computer icon ⟨💻 11:02 AM⟩ then clicking the **DISCONNECT** button).

PCPro/WebPro Features

The main window for WebPro provides a menu for accessing features, settings, and program options. Most of these options are also available with PCPro, however, you access them using the toolbar at the top of the window.

WebPro   **PCPro**

After selecting an option, each window will display options similar to the following:

As displayed in the above graphic, you can search for extensions and select particular keys to program. This area will change based on the program you are in - this area can allow you to specify the trunk, group, access map, class of service, console, etc. If the program option does not require any selection (such as a system-based program option instead of an extension-based program), this area will not be displayed. However, the top row of icons used for saving, applying changes, cancel, etc. will always be displayed.

File - PCPro Only

New

This option creates a new default database for the Aspire S, M, or L.

Open

Open a previously saved database using the OPEN command.

Save

After creating or changing a database, save the file for future use.

Save As

Use this option to save an existing file with a new name.

Export

With PCPro 4.00 or higher, the following data can be exported as a CSV or Excel file format (the programming data can only be exported as an Excel file).

- Maintenance data
- Abbreviated Dial (Speed Dial) data
- Programming data

Exporting Maintenance Data

This feature is only available when the PCPro software is connected to the Aspire system.

1. From the menu bar, select **File** ☞ **Export...**.
2. Select **Maintenance...**.
3. Select the file format and data details that you wish to save.
   When selecting the CSV file format, you will be prompted for the location to which the data should be saved.
4. Determine if the existing file should be overwritten by selecting or deselecting the **Overwrite existing files** checkbox.

5. Click **Export** to start exporting.

Exporting ABB Dial Data

1. From the menu bar, select **File** ☞ **Export..**.
2. Select **Speed dials...**.
3. Select the file format and data details that you wish to save.
   When selecting the CSV file format, you will be prompted for the location to which the data should be saved.
4. Determine if the existing file should be overwritten by selecting or deselecting the **Overwrite existing files** checkbox.

5. Click **Export** to start exporting.

Exporting Programming Data

Conditions

● This data can be saved only as CSV file format. The Excel file format is not supported.
● The data will be saved as each program group (Program 10-xx, Program 20-xx, etc.).

Example: If Program 10-02, 21-04, 30-01, and 30-03 were chosen, the data will be saved as follows:
Program 10-02 data will be saved as "PRG10-xx.csv".
Program 21-04 data will be saved as "PRG21-xx.csv".
Program 30-01 and Program 30-03 data will be saved as "PRG30-xx.csv".

1. From the menu bar, select **File** ☞ **Export..**.
2. Select **System Data...**.
3. Select the file format and data details that you wish to save.
   When selecting the CSV file format, you will be prompted for the location to which the data should be saved.
4. Determine if the existing file should be overwritten by selecting or deselecting the **Overwrite existing files** checkbox.

Telephone Setup

Speed Dials

This option allows programming of the Common and Group Abbreviated Dialing bins (Program 13-04-01). To switch between Common and Group, click on the bulleted option.

Function Keys

This option allows you to define the Programmable Function Keys (Program 15-07-01) for each extension.

Last Number Redial (WebPro Only)

This menu option allows you to view the last 20 outgoing calls an extension user placed. To clear the list for a particular extension, click on the **CLEAR LIST** bullet at the bottom of the list.

This screen also displays the Caller ID list (see below) and Microphone Status (indicates whether an extension's MIC key is on or off) for the extension being viewed.

Caller ID (WebPro Only)

Each telephone has a list of the last incoming numbers for that telephone. This is known as the Caller ID list. This menu option allows you to view the calling party's name and phone number (if provided by the telco) for each telephone, up to the last 20 incoming calls. To clear the list for a particular extension, click on the **CLEAR LIST** bullet at the bottom of the list.

This screen also displays the Caller ID list (see below) and Microphone Status (indicates whether an extension's MIC key is on or off) for the extension being viewed.

Programming

System Data

This option will display the program listing on the right side of the screen. This listing allows a user to set the data for each particular program. The user name and password used when logging in determines what programs will be available in the list.

Copy

The Copy option allows you to copy the program settings from an existing item to another (Program 92-01 and 92-03). The following items are available to be copied with this option:
- Telephone Settings- Trunk Settings- Trunk Group Settings
    (Extension or Port-Based *)
- Extension Group Settings- DSS Console Settings

* Port-based copying for telephone settings requires software 2.67 or higher.

Select the category to be copied by clicking the bulleted item at the top of the screen, then select the programs to be copied, the item *from* which the settings should be copied, and the item *to* which the settings should be copied. Click the SAVE or APPLY icon to save the changes, or click the CANCEL icon.

To select a sequential group of programs, hold down the **SHIFT** key, click the first program, then click the last program. To select individual programs, hold down the **CTRL** key and click the programs to be selected.

1. Select **Copy** from the Menu (Programming ☞ Copy) or click the **Copy** icon in the Tool Bar.

2. Select **Copy Telephone Settings (Port Base)** and enter the "From" and "To" port numbers to be copied.

3. Click the **Save** or **Apply** button.

4

Swap

This option requires software 2.67 or higher.

The Swap option allows you to swap the program settings from one extension number to another (Program 92-04).

1. Click **Programming** ☞ **Swap** from the Menu or click the **Swap** icon in the Tool Bar.

2. Enter the extension numbers to be swapped in the Telephone 1 and Telephone 2 fields.
3. Click the **Save** or **Apply** button.

As the programs are based on extension numbers, swapping extension ports will not change the extension number's ring group assignment. For example, if a swap is performed between Extension 301 and Extension 302, Program 22-04 is not changed:

- **Program 11-02: Extension Numbering**
  Port 1 Extension 301
  Port 2 Extension 302
- **Program 22-04 : Incoming Extension Ring Group Assignment**
  Incoming Ring Group 1/ Incoming Ring Group Extension 1 Extension 301
  Incoming Ring Group 2/ Incoming Ring Group Extension 1 Extension 302

After performing the swap, the system data is changed as follows:

- **Program 11-02: Extension Numbering**
  Port 1 Extension 302
  Port 2 Extension 301
- **Program 22-04 : Incoming Extension Ring Group Assignment**
  Incoming Ring Group 1/ Incoming Ring Group Extension 1 Extension 301
  Incoming Ring Group 2/ Incoming Ring Group Extension 1 Extension 302

Conditions

- Any user-defined programming stored in the SRAM will not be swapped (for example, Call Forward set up, Selectable Display Messaging, etc.).
- *The extensions to be swapped must be idle* while the swap is performed, or an "Invalid" error message will be received.
- Data for virtual extension's cannot be swapped.
- When a swap is performed, the following actions are executed for the swapped extensions.
  - Camp On Clear (Program 11-12-05)
  - Common Cancel (Program 11-12-37)
  - Last Number Redial Clear (Program 11-17-17)
  - Saved Number Clear (Program 11-12-18)
  - Incoming History data is deleted.
- *Using Program 92-04-01 will also swap the order in which these extensions are displayed in all extension-related programs*. This means that the system will no longer display all the extension numbers from low to high. For example, if port 2 and 6 were swapped, when viewing the extensions in 15-02-01, the extensions will display in the following order: 301, 306, 303, 304, 305, 302.

Modification History (located under the "Advanced" tab in PCPro)

This screen displays the details of recent changes made to the system. The changes displayed will be based on the programming mode being used. When using WebPro, any changes made with Web-Pro are logged. When using PCPro, only changes made with PCPro are logged. Telephone programming changes are not included in either log.

Refer to **Modification History** (page 4-90) for complete details.

Advanced

System Configuration

This area allows you to view and modify the general hardware configuration of the telephone system. To switch between Card Configuration, Telephone Configuration, and Trunk Configuration, click on the bulleted item. Card Configuration displays the currently installed PCBs, the slots in which they are installed, and the ports associated with them. Telephone Configuration displays the extension, the type of terminal used, the IP address, MAC address, terminals (adapters) installed, and the terminal module. Trunk Configuration displays the type of trunk used (CO, VoIP, etc.) and the trunk name assigned. Use this field to change the name displayed for each trunk when seized by a user.

Maintenance (PCPro Only)

This option allows you to view system reports for alarms, resource shortage, and call traffic.

PCPro Settings (WebPro Only)

Use Program 90-02 in PCPro to define the user names/passwords and access levels.

This area allows you to configure specific program settings for the administration and account setup (user name/password) when accessing WebPro.

The Administration option lists currently active programming sessions, the user, how the program mode is accessed (telephone programming, PCPro, or WebPro), and the program level. This option also allows you to log out any other WebPro sessions that may be active.

The Account Setup option allows you to setup the user names, passwords and access levels used when entering the program mode (Program 90-02).

Modification History

This screen displays the details of recent changes made to the system. The changes displayed will be based on the programming mode being used. When using WebPro, any changes made with Web-Pro are logged. When using PCPro, only changes made with PCPro are logged. Telephone programming changes are not included in either log.

With PCPro software 4.00 or higher, the application can provide a history of the modifications made in the system programming. This can be viewed using the **System Data Programming, Search Tree Bar** and **Modification History** screens.
This data will be stored in the local PC, therefore, any other revisions made in WebPro or phone programming will not be saved.

Reviewing Modified Data in the "System Data Programming" Screen
While using the programming screens, any modified data will be highlighted in blue (as indicated in the graphic below).

4

Reviewing at "Search Tree Bar"

The modified data can be displayed by selecting the "Display Modified PRGs" button in the "Search Tree Bar". This will show all the modified options for the current PCPro session. The list will clear when PCPro is exited or if the "Clear Modification History" button in the "Search Tree Bar" is clicked.

4

Review modified programs on each middle category basis

Four icons on the tree bar are newly added for these options below.

[Display All PRGs] Display all programs.

[Display Unmodified PRGs] Display unmodified programs only.

[Display Modified PRGs] Display modified programs only.

[Clear Modification History] Clears all modified data indications. This works like the "Clear list" feature on the "Modification History" screen. The picture to the left is an example when [Display Modified PRGs] are selected.

Restrictions: The modified data indications will not be saved to the history file. Therefore, this list will be cleared when a new file is created, "Clear list" feature is performed or the PCPro software is closed.

Reviewing at "Modification History" Screen

Using this screen, in addition to the modified programs, the time the option was modified is also displayed as well as the specific program option changed (Program XX-XX).

This history information can be saved to a file (refer to **Saving and Loading the History File (page 4-94))**.

1. Select **Advanced** from the menu bar, then choose **Modification History**.

2. The modification history is displayed.

- Up to 300 recent history changes can be displayed.
- The data can be cleared by using the **Clear List** icon on the bottom of the screen. (All modified data indications will be deleted.)

Saving and Loading the History File

Save the history file
PC Pro software can save the history information displayed in the "Modification History" screen to a file.

Conditions

● To clear modified data indication:
When you wish to clear the modified data indication, either select **Clear list** in the **Modification History** screen or click the **Clear Modification History** icon in the Search Tree bar. The modified data indication will remain after uploading any modified data to system.

● Modified data indication for **System Configuration**:
Uploading modified data indication for the **System Configuration** screen is not supported. Therefore, when the system configuration is uploaded to the Aspire system, the configuration will be revised.

How to create the history file:
1. Select **File** from the menu bar, then choose **Save As...** to display the dialog below.
2. Check **Save Modified PRG's History** then click **Save** to create a modification history file. The file is saved as *.n2mod (* is the same name as programming data file). For example:

PC Pro data file name: KANDA.n2p
Modification history file name: KANDA.n2mod

Check this box to save the modification history.

Load the History File (.n2mod)

The history data file can only be loaded along with loading the PCPro programming data file.

1. The history data file must be saved in the same directory as the PCPro programming data file and saved as the same file name with *.n2mod extension. For example:

    PC Pro data file name: C:\Data\KANDA.n2p
    Modification history file name: C\Data\KANDA.n2mod

2. PCPro is now able to upload all or only the selected modified data to the system. Below is the example for each "Select Range" items.

All System Data

When this box is checked, the programs modified using PCPro will be displayed in the "PRG List" box. This also determines what to upload as indicated below.
- When checked: Upload only selected data from "PRG List".
- When unchecked: Upload all data including modified data.

4

System Configuration/System Data

When checked, the programs modified using PCPro will be displayed in the "PRG List" box. When not checked, all the data including any modified data will be displayed.

Telephone Data

When checked, the programs modified using PCPro will be displayed in the "PRG List" box. When not checked, all the telephone data including modified data will be displayed in the box.

Virtual Extension Data

When checked, the programs modified using PCPro will be displayed in the "PRG List" box. When not checked, all Virtual Extension data including modified data will be displayed in the box.

Trunk Data

When checked, the programs modified using PCPro will be displayed in the "PRG List" box. When not checked, all trunk data including modified data will be displayed in the box.

System Initialization

The System Initialization screen allows you to perform a cold start (1st initialization) or hot start (2nd initialization) on the system. When selecting the 1st Initialization, the system will reset all programs back to their default settings and all programming will be lost. Any user in program mode will be logged out.

When selecting the 2nd Initialization, the system will be reset, but all programming will remain (like powering down the system and then powering back up). Any user in program mode will be logged out (Program 90-08).

System Initialise   ⊗ ? 🔲

● 1st Initialise

● 2nd Initialise

1st Initialise: This will reset the switch back to factory defaults resulting in the loss of all previous settings.

2nd Initialise: This will reset the switch but all programming will remain.

NOTE You will be automatically logged out if you perform any initialization.

System Time

This screen allows you to set the time and date for the system (Program 10-01).

Other

Help

Clicking this option opens a help screen which provides details on using WebPro.

Log Out (WebPro Only)

> *PCPro uses a disconnect option accessed by clicking Communications ☞ Disconnect.*

Logs you out of system programming. Exiting the application without logging out will prevent any attempt to re-enter programming for 10-15 minutes until the session is closed automatically or unless the system is reset.

Also displayed at the bottom of this list is the password level with which you are currently logged in. Not all programs are available with each access level. Refer to the programming section of the Aspire Software Manual (P/N 0893200) to determine each programs access level.

Communications (PCPro Only)

This menu item allows you to connect and disconnect from the system, as well as upload and download the system database and/or changes made to programming.

View (PCPro Only)

The View menu item allows you to select the optional views - Toolbar (icon bar at the top of the page), Status Bar (at the bottom of the window), Search Tree Bar (program listing).

In addition, the following option can also be accessed from this menu item:

● Quick Search
   You can click on Quick Search to perform a quick program comparison between the Aspire and i-Series telephone systems. This would be helpful if you knew a particular program in one system and wanted the equivalent program in the other system.

● Language Setting
   This option allows you to select the language the PCPro windows are displayed.

● Customize
   Customize the what is displayed for the commands, toolbars, keyboard, menu, and options.

4

- For Your Notes -

4

Aspíre

SMDR

Station Message Detail Recording (SMDR) provides a record of the system's trunk calls. Typically, the record outputs to a customer-provided printer, terminal or SMDR data collection device. SMDR allows you to monitor the usage at each extension and trunk. This makes charge-back and traffic management easier.

Sample SMDR Report Through Software 3.07

							01/01/03	PAGE 001
CLASS	TIME	DATE	LINE	DURATION	STATION	DIALLED No./CLI	ACCOUNT	
POT	10:44	01/01/03	001	00:00:30	324	12039265400	8841	
POT	10:46	01/01/03	001	00:00:45	324	18874521	0	
POT	10:47	01/01/03	001	00:00:29	318	12039265441	0	
PIN	10:48	01/01/03	002	00:01:39				NO ANSWER
ALB	10:50	01/01/03	02	00:01:40				
POT	10:55	01/01/03	002	00:00:00	324		0	
ALB	10:56	01/01/03	02	00:00:23				
BRD	10:56	01/01/03	002	00:00:00	324		0	
ALB	10:56	01/01/03	02	00:00:09				
BRD	10:56	01/01/03	002	00:00:00	324	120366541233	0	
ALB	10:56	01/01/03	02	00:00:09				
BRD	10:56	01/01/03	002	00:00:00	324	181477445236	0	
ALB	10:56	01/01/03	02	00:00:08				

SMDR provides the following options:

● **Abandoned Call Reporting**

  The SMDR report includes calls that rang into the system but were unanswered (i.e., abandoned). SMDR can include all abandoned calls or only those abandoned calls that rang longer than the specified duration. The Abandoned Call Report helps you keep track of lost business.

● **Blocked Call Reporting**

  When Toll Restriction blocks a call, you can have SMDR print the blocked call information. Or, you can have SMDR exclude these types of calls. With Blocked Call Reporting, you can better customize Toll Restriction for the site's application.

● **Customized Date Format**

  The SMDR header can show the report date in one of three formats: American, European or Japanese. Set the format for your preference.

● **Transferred Call Tracking**

  SMDR shows each extension's share of a transferred call. If an outside call is transferred among four extensions, SMDR shows how long each of the callers stayed on the call.

● **Data Call Tracking**

  Data Call Tracking can log the system's internal data calls. Since SMDR normally logs external (trunk) data calls, Data Call Tracking lets you get a complete picture of data terminal activity.

● **Digit Counting**

With Digit Counting, SMDR can selectively keep track of toll calls. For example, if the digit count is nine, SMDR won't include toll calls within the home area code. Digit Counting permits SMDR to include only the types of calls you want to monitor.

● **Digit Masking**

Digit Masking lets you "X" out portions of the number dialed on the SMDR report. A digit mask of seven, for example, masks out all exchange codes (NNXs) and local addresses. Digit Masking makes it easier to keep track of calling patterns, without having to interpret each individual number. You can also use Digit Masking to block out access and security codes.

● **Duration Monitoring**

SMDR can include calls of any duration, or only those that last longer than the interval you specify. If you want to keep track of all trunk activity, use a short duration. To keep track of only significant usage, use a longer duration.

● **Extension Exclusion**

You can selectively exclude extensions from the SMDR report. This ensures privacy for high-profile callers. For example, the company attorney negotiating a merger may not want his calls to show up on an in-house report.

● **PBX Call Reporting**

If you system is behind a PBX, you can have SMDR monitor all traffic into the PBX or just calls placed over PBX trunks. The SMDR record can include all PBX calls (including calls to PBX extensions) or just calls that include the PBX trunk access code.

● **Serial and USB SMDR Communication**

The system is compatible with both serial and USB SMDR devices. This gives you many SMDR output options. For example, you can output the SMDR report to a high speed printer or send it to disk through a PC's serial or USB port (requires the USB driver which can be downloaded from the NEC Technical Support web site - ws1.necii.com).

● **Trunk Exclusion**

Use Trunk Exclusion to exclude certain trunks not subject to per-call charges (like WATS lines) from the SMDR report. This makes call accounting easier, since you review only those calls with variable costs.

● **Usage Summaries**

SMDR can automatically print daily, weekly and monthly call activity summaries. Each summary includes the total number of regular trunk calls and ISDN trunk calls, and the costs for each type. The daily report prints every day at midnight. The weekly report prints every Sunday night at midnight. The monthly report prints at midnight on the last day of the month.

● **Extension Name or Number**

The SMDR report can include an extension's name or extension number. Choose the method that makes it easier for you to track call usage.

● **SMDR Enhanced for Caller ID**

With software version 4.0E or higher, the SMDR output is enhanced to include up to 16 or 24 characters of the Caller ID name information (depending on the view option selected in Program 35-02-18). You can select to display the Caller ID number or name or the DID number. If you wish to display the Caller Name in the "DIALLED NO./CLI" and "ACCOUNT" area, select "2" in the updated Program 35-02-15 and "1" in Program 35-02-17.

If the Caller ID name is not received, the area for Caller ID Name is left blank.

For example, with Program 35-01-09 = 0 (Format for NA) and Program 35-02-17 = 1 (Caller ID Name), if a call is received with the Caller ID Name of "NECinfrontia Corporation" (24 characters), the following SMDR record is displayed:

CLASS	TIME	DATE	LINE	DURATION	STATION	DIALLED No./CLI	ACCOUNT
POT	10:52	12/09	002	00:00:10	2001	2142623801	08754
PIN	10:52	12/09	001	00:00:20	2017	2142623802	NECinfrontia Cor
PIN	10:53	12/09	002			2142623801	NO ANSWER

If Program 35-02-18 = 1 (Caller ID Name Output Method) is set to line feed, the SMDR will display as follows:

CLASS	TIME	DATE	LINE	DURATION	STATION	DIALLED No./CLI	ACCOUNT
POT	10:52	12/09	002	00:00:10	2001	2142623801	08754
PIN	10:52	12/09	001	00:00:20	2017	2142623802	NECinfrontia Cor
NEXT NECinfrontia Corp.							
PIN	10:53	12/09	002			2142623801	NO ANSWER

Definitions	
Call Record Number	SMDR record number (consecutive)
CLASS	Type of call (see Class Definitions below)
TIME	Time call placed or answered. (For Transferred calls, shows time user picked up Transfer.)
DATE	Date the call was made
LINE	Trunk number used for call
DURATION	How long call lasted. (For Transferred calls, shows how long user was on call after answering the Transfer.)
STATION	Extension number of call "owner" (i.e., extension that first placed or answered call) (For Transferred calls, there can be more than one owner - depending on how many extensions shared the call.)
DIALLED No./CLI	For outgoing calls, the number dialed or, for incoming calls, the Caller ID information
COST	For system with ARS, indicates the call cost
OR	
ACCOUNT	Account Code number entered by extension user
Class Definitions	
POT	Outgoing trunk call
POTA	Outgoing trunk call placed using Toll Restriction Override
PIN	Incoming trunk calls
ALB	All lines in group are busy (group number follows TIME field)
BRD	Call blocked due to Toll Restriction
PTRS	Transferred call
IVIN	BRI trunk call

4

SMDR Report Format with Program 35-02-14 Set to "0"	
Character Position	**Field Definition**
Header Line 1	
1-60	Spaces
61-70	MM/DD/YYYY
71	Space
72-75	PAGE
76	Space
77-79	Report page number (e.g., 001)
CR & LF	Carriage return and line feed
Header Line 2	
1-5	CLASS
6	Space
7-10	TIME
11-14	Spaces
15-18	LINE
19-22	Spaces
23-30	DURATION
31-32	Spaces
33-39	STATION
40-44	Spaces
45-51	DIALLED
52	Space
53-59	No./CLI
60-63	Spaces
64-70	ACCOUNT
CR & LF	Carriage return and line feed
LF	Line feed
SMDR Record	
1-4	Call type (e.g., POT for outgoing)
5	Space
6-10	Time in 24 hour clock (HH:MM)
11	Space
12-21	LINE
22	Space
23-30	Call Duration (HH:MM:SS)
31	Space
32-41	Station number or name
42	Space
43-62	Number dialed (20 digits maximum)
63	Space
64-79	Account number or NO ANSWER

SMDR Report Format with Program 35-02-14 Set to "1"	
Character Position	**Field Definition**
Header Line 1	
1-60	Spaces
61-70	MM/DD/YYYY
71	Space
72-75	PAGE
76	Space
77-79	Report page number (e.g., 001)
CR & LF	Carriage return and line feed
Header Line 2	
1-5	CLASS
6	Space
7-10	TIME
11	Spaces
12-15	DATE
16-17	Spaces
18-21	LINE
22	Space
23-30	DURATION
31-32	Spaces
33-39	STATION
40-44	Spaces
45-51	DIALLED
52	Space
53-59	No./CLI
60-63	Spaces
64-70	ACCOUNT
CR & LF	Carriage return and line feed
LF	Line feed
SMDR Record	
1-4	Call type (e.g., POT for outgoing)
5	Space
6-10	Time in 24 hour clock (HH:MM)
11	Space
12-16	DATE
17	Space
18-21	LINE
22	Space
23-30	Call Duration (HH:MM:SS)
31	Space
32-41	Station number or name
42	Space
43-62	Number dialed (20 digits maximum)
63	Space
64-79	Account number or NO ANSWER

Summary Reports

```
OUTGOING CALL/COST SUMMARY
FOR DAY OF nn/nn/nn

     TOTAL NO. OF OUTGOING PSTN CALLS:0
     TOTAL NO. OF OUTGOING ISDN CALLS:0
     NO. OF OUTGOING PSTN CALLS COSTED:0  COST: 0
     NO. OF OUTGOING ISDN CALLS COSTED:0  COST: 0

OUTGOING CALL/COST
SUMMARY FOR WEEK ENDING nn/nn/nn
     TOTAL NO. OF OUTGOING PSTN CALLS:49
     TOTAL NO. OF OUTGOING ISDN CALLS:0
     NO. OF OUTGOING PSTN CALLS COSTED:0  COST: 0
     NO. OF OUTGOING ISDN CALLS COSTED:0  COST: 0

OUTGOING CALL/COST SUMMARY
FOR MONTH ENDING nn/nn/nn
     TOTAL NO. OF OUTGOING PSTN CALLS:49
     TOTAL NO. OF OUTGOING ISDN CALLS:0
     NO. OF OUTGOING PSTN CALLS COSTED:0  COST: 0
     NO. OF OUTGOING ISDN CALLS COSTED:0  COST: 0
```

4

Conditions
- (A.) The SMDR report does not include voice Intercom calls.
- (B.) The SMDR call buffer stores 500 calls. The buffer stores calls when the SMDR device is unavailable. When the buffer fills, the oldest record is deleted to allow the new record to be saved.
- (C.) When SMDR reports are enabled using the same port as the Traffic Reporting feature (example: 147), the SMDR blocks the Traffic reports. Unplugging the cable and plugging it back in again will allow Traffic reports to print.
- (D.) SMDR requires a connection to the NTCPU via a COM port, USB (Aspire only) or LAN connection. A USB connection from the Aspire NTCPU requires the USB driver which can be downloaded from the NEC Technical Support web site - ws1.necii.com.

  The system can also use a connection to the system via a CTA/CTU adapter (the CTU adapter also requires a USB driver which is also available on the web site). Once you designate a CTA or CTU for SMDR, you cannot use that extension for placing and answering other data calls. SMDR and the Traffic Reports should not use the same CTA/CTU.
- (E.) If no answer is received, "NO ANSWER" is displayed regardless of the system programing for the Caller ID display option.
- (F.) The setting in Program 35-02-18 works regardless of the entry in Program 35-02-15 or 35-02-17.
- (G.) When Program 35-02-18 is set to "1", the first and second lines are sometimes separated. When the buffer is full, the overflowed data may not be shown.
- (H.) The special characters used in the Aspire system cannot be output to the SMDR - they are converted to "_".

Default Setting
Disabled.

Installing SMDR

The following devices can be used to output SMDR from the system:

- CTA
- CTU
- NTCPU's Serial Port
- NTCPU's USB Port
- NTCPU's Ethernet Port

> *The LAN port only provides information through LAN-capable programs, such as HyperTerminal. Printing of the SMDR information must be done from within that program.)*

1. Install the data device to be used (refer to the specific CTA/CTU information described previously).
   > *If using a CTU or the Aspire M/L/XL NTCPU's USB connector, drivers are required for each of these devices. The drivers can be downloaded from NEC's Technical Support web site (ws1.necii.com).*
2. Install the SMDR recording device according to the manufacturer's instructions.
3. Connect the SMDR recording device to the telephone system - through the CTA, CTU or one of the NTCPU ports.

Note: **When using a CTA, a straight through RS-232C cable terminated with a 9-pin female connector is required. Refer to the pin-out information below.**

Note: **When using a CTU or the NTCPU USB port, a standard USB cable (USB Type B Male-to-USB Type A Male) is required.**

Note: **When using the ethernet port, a standard ethernet cross-over cable is required.**

Note: **When using the NTCPU serial connector, a null modem cable is required. This cable is available from NEC as part number 0892004 or refer to the pin-out information below to make your own cable.**

Null Modem Pin-Out						
Signal	DB-25 Pin	DB-9 Pin	To	DB-9 Pin	DB-25 Pin	Signal
FG (Frame Ground)	1	-		-	1	FG
TD (Transmit Data)	2	3		2	3	RD
RD (Receive Data)	3	2		3	2	TD
RTS (Request to Send)	4	7		8	5	CTS
CTS (Clear to Send)	5	8		7	4	RTS
SG (Signal Ground)	7	5		5	7	SG
DSR (Data Set Ready)	6	6		4	20	DTR
CD (Carrier Detect)	8	1		4	20	DTR
DTR (Data Terminal Ready)	20	4		1	8	CD
DTR (Data Terminal Ready)	20	4		6	6	DSR

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RS-232-C Pin Out Information

Direction of Signal Flow
(⟶ output or ⟵ input)

RS-232-C Connector	Description	DCE (CTA, CTU or Modem)	DTE (PC or Printer)
8	DCD	⟶	⟵
3	RXD	⟶	⟵
2	TXD	⟵	⟶
20	DTR	⟵	⟶
6	DSR	⟶	⟵
4	RTS	⟵	⟶
5	CTS	⟶	⟵
7	GND		

25-Pin RS-232-C Connector

13 12 11 10 9 8 7 6 5 4 3 2 1

25 24 23 22 21 20 19 18 17 16 15 14

One-Pair Cross-Connect

YEL   BLK
BLU-WHT   WHT-BLU
RED   GRN

To digital station circuit on ESIU PCB

Cross Connect Block

25-Pair Installation Cable

625 Modular Jack

4

SMDR Printer

OR

RS-232-C Cable (with CTA)

Aspire Keyset with CTA or CTU Adaptor

PC

USB Cable (with CTU)

RS-232 Null Modem Cable

IP Network

Aspire S Cabinet

Ethernet Cable

CONNECTING AN SMDR DEVICE TO THE ASPIRE S

RS-232-C Pin Out Information

Direction of Signal Flow
(➝ output or ⬅ input)

RS-232-C Connector	Description	DCE (CTA, CTU or Modem)	DTE (PC or Printer)
8	DCD	➝	⬅
3	RXD	➝	⬅
2	TXD	⬅	➝
20	DTR	⬅	➝
6	DSR	➝	⬅
4	RTS	⬅	➝
5	CTS	➝	⬅
7	GND		

25-Pin RS-232-C Connector

13 12 11 10 9 8 7 6 5 4 3 2 1

25 24 23 22 21 20 19 18 17 16 15 14

One-Pair Cross-Connect

To digital station circuit on ESIU PCB

25-Pair Installation Cable

Cross Connect Block

625 Modular Jack

YEL   BLK
BLU-WHT   WHT-BLU
RED   GRN

09193100 - 126

SMDR Printer

OR

PC

RS-232-C Cable (with CTA or NTCPU Serial connection)

USB Cable (with CTU or NTCPU USB connection)

Aspire Keyset with CTA or CTU Adaptor

Connect Serial or USB Cable To Keyset or NTCPU Connector

Aspire Cabinet

IP Network

Ethernet Cable

Connect to:
NTCPU (CN15) LAN Connector
OR
8SHUBU (with connection to NTCPU)

CONNECTING AN SMDR DEVICE TO THE ASPIRE M/L/XL

4

Programming SMDR

**SMDR With a CPU Connection
(Serial / USB / Ethernet)**

```
                              ┌─────────┐
                              │  Start  │
                              └─────────┘
                                   │
                                   ▼
┌──────────────┐          ◇─────────────────◇          ┌──────────────────┐
│ Connect an   │          │ Which connection│          │  Aspire Only     │
│ ethernet     │ Ethernet │ type will be    │   USB    │ Connect a USB    │
│ cable from   │◄─────────│ used to connect │─────────►│ cable to the     │
│ the CPU to   │          │ the CPU for     │          │ CPU and PC.      │
│ the PC to be │          │ SMDR?           │          └──────────────────┘
│ used for     │          ◇─────────────────◇                   │
│ SMDR.        │                   │                            ▼
└──────────────┘                 Serial            ┌──────────────────┐
       │                           │               │ The PC will      │
       ▼                           ▼               │ recognize the    │
┌──────────────┐          ┌──────────────────┐     │ new hardware and │
│ In 10-20-01, │          │ Connect a null   │     │ ask to install   │
│ define the   │          │ modem cable from │     │ the driver.      │
│ TCP port when│          │ the CPU to the PC│     │ Install the CPU  │
│ communicating│          │ to be used for   │     │ USB driver       │
│ to the SMDR  │          │ SMDR.            │     │ (available from  │
│ (external    │          │ (Refer to the    │     │ the NEC Technical│
│ device 5).   │          │ Aspire Hardware  │     │ Support web site │
└──────────────┘          │ Manual for pin-  │     │ (www.necii.com). │
       │                  │ out details.)    │     └──────────────────┘
       ▼                  └──────────────────┘              │
┌──────────────┐                   │                        ▼
│ In 35-01-01  │                   ▼               ┌──────────────────┐
│ set the SMDR │          ┌──────────────────┐     │ In 35-01-01 set  │
│ output to "3"│          │ In 10-21-02, set │     │ the SMDR output  │
│ for LAN.     │          │ the baud rate    │     │ to "2" for NTCPU │
└──────────────┘          │ (0=4800, 1=9600, │     │ USB.             │
       │                  │ 2=19200,         │     └──────────────────┘
       │                  │ 3=38400).        │              │
       │                  └──────────────────┘              │
       │                           │                        │
       │                           ▼                        │
       │                  ┌──────────────────┐              │
       │                  │ In 35-01-01 set  │              │
       │                  │ the SMDR output  │              │
       │                  │ to "1" for COM   │              │
       │                  │ port.            │              │
       │                  └──────────────────┘              │
       │                           │                        │
       │                           ▼                        │
       │                      ┌─────────┐                   │
       └─────────────────────►│ Go to   │◄──────────────────┘
                              │ "A".    │
                              └─────────┘
```

4

SMDR With a CTA Adapter

The CTA Adapter does NOT require an AC/DC power adapter.

Start

Do Not plug in the keyset with the CTA Adapter.

Was the extension on which the CTA Adapter is to be installed previously connected to the system?

—Yes→ Disconnect the phone and undefine (set to 0) the keyset's port in 10-03-01.

No

In 15-02-19, set the extension with the CTA Adapter to "1".

In 15-02-20, set the baud rate to be used for the CTA connection (0=4800, 1=9600, 2=19200).

In 35-01-01 set the SMDR output to "4" for CTA/CTU.

In 35-01-02, define the extension number of the keyset with the CTA Adapter.

Set the dip switches on the CTA Adapter to pins 1 and 2 on (up), 3-8 off (down).

Refer to the Aspire or Aspire S Hardware Manual for further installation details on the CTA Adapter.

Without the line cord connected to the keyset, install the CTA Adapter onto the keyset.

You may wish to remove the wall mount bracket to allow easier installation.

Connect the line cord to the keyset.

Wait one minute for the system to recognize the adapter.

Check 10-03-04 for the keyset. Does it show the CTA installed?

—No→ Disconnect the phone.

Yes

Connect an RS-232C straight-thru cable to the adapter and PC.

Undefine the keyset's port in 10-03-01.

Go to "A".

Remove the CTA Adapter.

4

SMDR With a CTU Adapter

The CTU Adapter requires an AC/DC power adapter.

Start

Do Not plug in the keyset with the CTU Adapter.

In 35-01-01 set the SMDR output to "4" for CTA/CTU.

Was the extension on which the CTU Adapter is to be installed previously connected to the system?

Disconnect the phone and undefine (set to 0) the keyset's port in 10-03-01.

Yes →

In 35-01-02, define the extension number of the keyset with the CTU Adapter.

Refer to the Aspire or Aspire S Hardware Manual for further installation details on the CTU Adapter.

Set the dip switches on the CTU Adapter to pins 2, 5 and 6 on (up), 1, 3, 4, 7, 8 off (down).

No

Set 15-02-19 to "0" for the extension which will have the CTU installed. (With PCPro/WebPro, select "Direct Print Mode".)

Install the CTU USB driver (available from the NEC Technical Support web site - www.necii.com). Select "non-procedure" service during the installation for SMDR.

When connecting to the USB port using a communications program (such as HyperTerminal), you can determine the COM port used by checking the Ports listing in the Device Manager (right-click on "My Computer" and click on "Manage").

The baud rate selected in HyperTerminal does not matter with the USB connection.

Attach ferrite beads to the AC-R power cable and USB cables. (Install on the ends closest to the adapter.)

You may wish to remove the wall mount bracket to allow easier installation.

Without the line cord connected to the keyset, install the CTU Adapter onto the keyset and connect the AC/DC adapter.

Connect the line cord to the keyset.

Disconnect the phone.

Wait one minute for the system to recognize the adapter.

No

Undefine the keyset's port in 10-03-01.

Check 10-03-04 for the keyset. Does it show the CTU installed?

Remove the CTU Adapter.

Yes

Connect the USB cable to the adapter and PC.

Go to "A".

"A".

What language should be used for the SMDR header?

English → In 35-01-03, enter 0.

Spanish → In 35-01-03, enter 4.

German → In 35-01-03, enter 1.

French → In 35-01-03, enter 2.

Italian → In 35-01-03, enter 3.

Do you want American, European or Japanese date format in the SMDR header?

American → In 80-05-01, enter 0.

European → In 80-05-01, enter 2.

Japanese → In 80-05-01, enter 1.

In 35-03-01, for each trunk group, select the SMDR port (1-8) to which the incoming SMDR information should be sent.

In 35-04-01, for each Department group, select the SMDR port (1-8) to which the outgoing SMDR information should be sent.

Do you want to block (i.e., "X" out) any of the digits on the SMDR report?

Yes → For example, you can use this feature to block the printing of security codes.
In 35-01-04, enter the number of digits you want to block. If you enter 8, for example, SMDR Xs out the last 8 digits dialed.

No → In 35-01-04, enter 0.

Should all outgoing calls print on the SMDR report, regardless of the number of digits dialed?

No → To have only long distance calls print, for example, enter 8.
In 35-01-05, enter the minimum number of digits a user must dial (1-24) before system will include call on SMDR report.

Yes → In 35-01-05, enter 0.

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Should calls of any duration print on the SMDR report?

— Yes → In 35-01-06, enter 0.

— No → In 35-01-06, enter minimum duration of call that will print on the SMDR report (1-65535 seconds).

Should all unanswered (i.e., "NO ANSWER") calls print on the SMDR report?

— Yes → In 35-01-07, enter 0.

— No → In 35-01-07, enter how long an unanswered call must ring (1-65535 seconds) before SMDR logs it as "NO ANSWER".

Do you want the SMDR report to include calls blocked by Toll Restriction?

— Yes → In 35-02-01, enter 1.

— No → In 35-02-01, enter 0.

If your system is behind a PBX, do you want SMDR to include all calls to the PBX or just calls using the PBX trunk access code?

— All Calls → In 35-02-02, enter 1.

— Access Code Calls → In 35-02-02, enter 0.

Should the SMDR report display the trunk name or the date and trunk number?

— Date and Trunk Number → In 35-02-03, enter 1.

— Trunk Name → In 35-02-03, enter 0.

In 35-02-14, enter 0.

In 35-02-14, enter 1.

Do you want to print the SMDR report summaries?

— Yes → Enter 1 to enable the following reports:
35-02-04: Daily Summary
35-02-05: Weekly Summary
35-02-06: Monthly Summary

— No → Enter 0 to disable the following reports:
35-02-04: Daily Summary
35-02-05: Weekly Summary
35-02-06: Monthly Summary

Continued on next page.

```
                    ┌──────────────┐
                    │  Continued   │
                    │    from      │
                    │  previous    │
                    │    page.     │
                    └──────┬───────┘
                           │
                           ▼
          ┌────────────────────────────────────┐
          │  Set 14-01-06 to "1" for each trunk │
          │   which should provide SMDR.        │
          └────────────────┬───────────────────┘
                           │
                           ▼
          ┌────────────────────────────────────┐
          │ Set 15-01-03 to "1" for each extension │
          │   which should provide SMDR.        │
          └────────────────┬───────────────────┘
                           │
                           ▼
```

In 35-02-08, enter 0. ◄──No── Should the SMDR report include incoming calls? ──Yes──► In 35-02-08, enter 1.

In 35-02-09, enter 0. ◄──Extension name── Should the SMDR report include extension names or numbers? ──Extension number──► In 35-02-09, enter 1.

In 35-02-10, enter 0. ◄──No── Should the SMDR report include information when all lines in a group are busy and a user tries to access the group? ──Yes──► In 35-02-10, enter 1.

In 35-02-12, enter 0. ◄──No── Should the DID table name be displayed for incoming DID calls? ──Yes──► In 35-02-12, enter 1.

In 35-02-13, enter 0. ◄──No── Should the SMDR report display the Caller ID when an incoming DID number is transferred to an outgoing trunk? ──Yes──► In 35-02-13, enter 1.

```
                    ┌──────────────┐
                    │ Continued on │
                    │  next page.  │
                    └──────────────┘
```

4

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Is the system software version 4.0E or higher?

No → In 35-02-15, enter 0 to display the Caller ID number.

Yes ↓

Should the Caller ID number, DID number, or Caller ID name be displayed in the SMDR output?

DID Number → In 35-02-15, enter 1 to display the DID number.

Caller ID Name ↓

In 35-02-15, enter 2 to display the Caller ID name.

Should the SMDR report include the trunk port names or received number dialed for ANI/ DNIS and DID trunks?

Trunk Name → In 35-02-16, enter 0.

Received Number Dialed → In 35-02-16, enter 1.

Should the SMDR report include the Account Code or Caller ID name?

Account Code → In 35-02-17, enter 0.

Caller ID Name → In 35-02-17, enter 1.

Should the Caller ID Name appear on the same line as the call record?

Yes → In 35-02-18, enter 0.

No → In 35-02-18, enter 1. Selecting this option inserts a line feed and up to 24 characters can be displayed for the Caller ID name.

Stop

Programming (Cont'd)

➡ **10-12-01 : NTCPU Network Setup - IP Address**

When using an IP connection from the NTCPU's ethernet port, set up the IP address used to connect from the PC to the Aspire system (Default: 172.16.0.10).

➡ **10-20-01 : LAN Setup for External Equipment**

Define the TCP port (0-65535) when communicating to the SMDR (type 5).

➡ **10-21-02 : NTCPU Hardware Setup - Baud Rate for COM Port**

If the SMDR connection is made using the COM port on the NTCPU, define the baud rate (0=4800, 1=9600, 2=19200, 3=38400).

➡ **14-01-06 : Basic Trunk Data Setup - SMDR Print Out**

For each trunk, enter 1 if trunk's calls should appear on SMDR report. Enter 0 if trunk's calls should not appear on SMDR report. See Program 35-01 and 35-02 for SMDR printout options (0=No print out, 1=Prints out).

➡ **15-01-03 : Basic Extension Data Setup - SMDR Printout**

For each extension, enter 1 if extension's calls should appear on SMDR report. Enter 0 if extension's calls should not appear on SMDR report.

➡ **15-02-19 : Multi-Line Telephone Basic Data Setup - CTA/CTU Data Communication Mode**

Select '1' for a printer/SMDR connection to the CTA or CTU adapter.

➡ **15-02-20 : Multi-Line Telephone Basic Data Setup - Baud Rate for CTA Port**

Set the baud rate to be used by the CTA (0=4800, 1=9600, 2=19200). For USB connections, this setting should not matter.

➡ **35-01-01 : SMDR Options - Output Port Type**

Specify the type of connection used for SMDR (0=No setting, 1=COM(NTCPU), 2=USB (NTCPU), 3=LAN (NTCPU), 4=CTA/CTU). The baud rate for the COM port should be set in Program 10-21-02 or 15-02-20.

➡ **35-01-02 : SMDR Options - Output Destination Number**

Specify the SMDR printer output port (CTA/CTU port number).This is the extension number which has the CTA/CTU installed.

➡ **35-01-03 : SMDR Options - Header Language**

Specify the language in which the SMDR header should be printed (0=English, 1=German, 2=French, 3=Italian, 4=Spanish).

➡ **35-01-04 : SMDR Options - Omit (Mask) Digits**

Enter the number of digits (1-24) you want SMDR to block (i.e., "X" out). Enter 0 not to block any digits.

➡ **35-01-05 : SMDR Options - Minimum Number of SMDR Digits**

Enter the minimum number of digits a user must dial (1-24) before the system includes a call on the SMDR report. Enter 0 to include all outgoing calls, regardless of the number of digits dialed.

➡ **35-01-06 : SMDR Options - Minimum Call Duration**

Enter the minimum duration of a call (1-65535) that will print on the SMDR report. Enter 0 to have calls of any duration print.

➡ **35-01-07 : SMDR Options - Minimum Ringing Time**

Enter how long an unanswered call must ring (1-65535) before SMDR logs it as "No Answer". Enter 0 to allow all "No Answer" calls to print.

➡ **35-01-08 : SMDR Options - SMDR Format**

Do not change:

This option is added to allow an increased account code field from 8 to 16 when used in the U.K. This allows 16 characters of the Caller ID name to be displayed. For the U.S., this option is set to "0" and should remain at this setting as 16 characters are already provided for the account code field.

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➥ **35-02-01 : SMDR Output Options - Toll Restricted Call**

Enter 1 if you want the SMDR report to include calls blocked by Toll Restriction. Enter 0 to exclude blocked calls.

➥ **35-02-02 : SMDR Output Options - PBX Calls**

If system is behind a PBX, enter 1 to have SMDR include all calls to the PBX. Enter 0 to have SMDR include only calls dialed using PBX trunk access code.

➥ **35-02-03 : SMDR Output Options - Display Trunk Name or Number**

Select whether the system should display the trunk name (0) or the number (1) on SMDR reports. *If this option is set to "1", Program 35-02-14 must be set to "0".*

➥ **35-02-04 : SMDR Output Options - Daily Summary**
 35-02-05 : Weekly Summary and
 35-02-06 : Monthly Summary

Enter 1 to enable a summary report. Enter 0 to disable a summary report. The daily report prints every day at midnight. The weekly report prints every Sunday night at midnight. The monthly report prints at midnight on the last day of the month.

➥ **35-02-08 : SMDR Output Options - Incoming Calls**

Enter 1 if you want the SMDR report to include incoming calls. Enter 0 if you want the SMDR report to exclude incoming calls.

➥ **35-02-09 : SMDR Output Options - Print Name or Number**

Enter 1 if you want the SMDR report to include the extension's name. Enter 0 if you want the SMDR report to include the extension's number.

➥ **35-02-10 : SMDR Output Options - All Lines Busy (ALB) Output**

Enter 1 to report information when all lines in a group are busy and an extension user tries to access the group. Enter 0 if this information should not be included.

➥ **35-02-12 : SMDR Output Options - DID Table Name Output**

Determine if the DID table name should be displayed for incoming DID calls (0=Not Displayed, 1=Displayed).

➥ **35-02-13 : SMDR Output Options - CLI Output When DID to Trunk**

Determine if the Caller ID should be displayed when the incoming DID number is transferred to an outgoing trunk (0=Not Displayed, 1=Displayed).

➥ **35-02-14 : SMDR Output Options - Date**

Determine whether the date should be displayed on SMDR reports (0=not displayed, 1=displayed). *This option must be set to "0" if the trunk name is set to be displayed in Program 35-02-03.*

➥ **35-02-15 : SMDR Output Options - CLI/DID Number Switching**

Enter 0 to display the Caller ID number. Currently, option "1" for the DID number is not available. With software 4.0E+, determine if the Caller ID number (0), DID number (1) or Caller ID name (2) should be displayed in the SMDR output.

➥ **35-02-16 : SMDR Output Options - Print Trunk Name or Received Dialed Number**

Determine how the SMDR should print incoming calls on ANI/DNIS or DID trunks. If set to (1), ANI/DNIS trunks can print DNIS digits. For DID trunks, if the received number is not defined in Program 22-11-01, then no number will be printed. If set to (0) trunk names are printed instead (as assigned in Program 14-01-01).

➥ **35-02-17 : SMDR Output Options - Print Account Code or Caller ID Name**

Determine whether the Account Code (0) or Caller ID name (1) should appear in the SMDR record. By default, the Account Code will be displayed.
Note: Program 35-01-08 must be set to "0" for this entry to be followed.

➥ **35-02-18 : SMDR Output Options - Caller ID Name Output Method**

Select whether to display up to 16 characters of the Caller ID Name on the same line as the call record (0) or if a line feed should be added and up to 24 characters of the Caller ID Name will be displayed on the following line (1). If the line feed option is selected, the Caller ID Name will be displayed on the next line as : NEXT "Caller ID Name". The default entry for this option is "0".

This setting will work regardless of the setting in Program 35-02-15.

Note: With this option set to "1", if your communications program (such as HyperTerminal) has the line wrap option enabled in the ASCII setup, an additional line break may appear above the Caller ID name line.

➥ **35-03-01 : SMDR Port Assignment for Trunks**

Assign the SMDR port for each trunk group. For each Trunk Group, select the SMDR port to which the incoming SMDR information should be sent.

⇨ Aspire S Trunk Groups: 1-8, SMDR Ports 1-2
⇨ Aspire Trunk Groups: 1-100, SMDR Ports 1-8

➥ **35-04-01 : SMDR Port Assignment for Department Groups**

Assign the SMDR port for each Department Group. For each Department Group, select the SMDR port to which the outgoing SMDR information should be sent.

⇨ Aspire S: Department Groups 1-8, SMDR Ports 1-2
⇨ Aspire: Department Groups 1-64, SMDR Ports 1-8

➥ **80-05-01 : Date Format for SMDR and System Reports**

Set the date format for SMDR (0=American, 1=Japanese or 2=European).

Related Features

PBX Compatibility

To use the PBX Call Reporting option, program system for behind PBX operation.

Traffic Reports

Traffic Management Reports and SMDR should not use the same CTA port.

Operation

Once installed and programmed, SMDR operation is automatic.

4

Aspíre

- For Your Notes -

4

System Information Reports

The system can print a report of the PCBs installed, the port assignments, and the port types. This information is sent to the port defined in Program 90-13. This report includes:

- The version of system software
- PCB names
- Slot condition (working, blocked)
- Port assignment
- Port classification

Sample Report:

```
<< System Information >>                          06/16/2003  13:57

slot    location type    assign port condition   note
-------------------------------------------------------------------
  1     1-1      ESIU    1- 16       Running      *******- -------- Connect:*
  2     1-2      COIU    1-  4       Running
  3     1-3      SLIU    17- 24      Running
  4     1-4      VMSU    25- 28      Running
  5     1-5      -none-  -none-
  6     1-6      -none-  -none-
  7     1-7      -none-  -none-
  8     1-8      -none-  -none-
  9     2-1      -none-  -none-
 10     2-2      -none-  -none-
 11     2-3      -none-  -none-
 12     2-4      -none-  -none-
 13      2-5     -none-  -none-
 14     2-6      -none-  -none-
 15     2-7      -none-  -none-
 16     2-8      -none-  -none-
```

4

Programming

➧ **90-13-01 : System Information Output - Output Port Type**
Define the output port to be used as the output for system information report (0=no setting, 1=NTCPU COM port, 2=NTCPU USB port, 4=CTA/CTU adapter). Set the baud rate for the COM port in Program 10-21-02.

➧ **90-13-02 : System Information Output - Destination Extension Number**
If the output port type (90-13-01) is a CTA or CTU, enter the extension number with the CTA/CTU connection.

➧ **90-13-03 : System Information Output - Output**
Entering 1 will print the system report to the connected device.

Related Features

Traffic Reports
Traffic Reports log system call data providing several reports which can be used to determine adequate system resources (receivers, channels, trunks, etc.).

- For Your Notes -

4

TAPI 1.x / CTI

The system has Telephony Applications Programming Interface (TAPI) capability. TAPI allows the user personalized control of the telephone system from a desktop or laptop PC when used in conjunction with a TAPI-compliant application. The telephone system and PC are connected by installing a CTA or CTU adapter on the telephone keyset, allowing the PC user to access sophisticated communications services via the telephone lines.

Some possibilities are:

● Personal information managers offering features such as automatic dialing, voice mail sorting, and simultaneous communications.

● Strengthened information applications connecting database managers, spreadsheets, and word processors directly to the telephone network.

● Advanced call managers letting users manage more complicated telephone functions (such as setting up conference calls).

● Icon-drive data transmission allowing users to drag icons to send files, specifying whether to transmit as a file, fax, or EMail.

● Caller ID functions letting users identify an inbound caller on another line without putting anyone on hold. The second caller could be sent a message or routed directly to voice mail. Screen pops can also be used with Caller ID to identify incoming callers. Using a screen pop application (such as IdentaFone's IdentaPop with MS Outlook integration), caller information can be retrieved and displayed on the PC's monitor.

● Remote control applications letting users operate their computers from a distance over public telephone lines.

● Access to information services (such as news retrieval services) obtained through TAPI applications.

The Aspire TAPI capability provides:

● Reduced TAPI Feature Set (see the Supported TAPI Commands chart which follows).

● Caller ID data to the PC for data base lookups and screen pops (see the Caller ID Data chart which follows).

● Telephone control (off-hook, on-hook and dialing).

In addition to a compatible system software version (1.07 or higher), you must also have:

● Aspire keyset telephone containing an RS-232-C CTA Adapter (P/N 0890058) / CTU Adapter (P/N 0890059) with TAPI compliant firmware.
   Refer to **CTA Adapters** (page 2-5) *and* **CTU Adapters** (page 2-21) *for details on installing the adapters and drivers required for TAPI 1.4 applications (stand-alone).*

● PC Driver for the CTA: PC running Windows 98 Second Edition or higher

● PC Driver for the CTU: PC running Windows 98 Second Edition, Windows 2000, or Windows XP

● TAPI 2 applications (server-based) are possible with the Aspire S cabinet. With the Aspire M/L/XL, the Aspire 64-port basic CPU (P/N 0891002) with the Feature Upgrade PAL chip (P/N 0891039) or the Enhanced CPU (P/N 0891038) is required. *The 64-port Basic CPU with the basic factory-installed PAL chip does not support TAPI 2.*

● A TAPI compatible Windows application

Supported TAPI Commands	
TSPI_LINEANSWER	TSPI_LINENEGOTIATETSPIVERSION
TSPI_LINEBLINDTRANSFER	TSPI_LINEOPEN
TSPI_LINECLOSE	TSPI_LINESETDEFAULTMEDIADETECTION
TSPI_LINECLOSECALL	TSPI_LINEGETADDRESSCAPS
TSPI_LINECOMPLETETRANSFER	TSPI_LINEPARK
TSPI_LINECONDITIONALMEDIADETECTION	TSPI_LINEPICKUP
TSPI_LINECONFIGDIALOG	TSPI_LINEPREPAREADDTOCONFERENCE
TSPI_LINEDIAL	TSPI_LINEREDIRECT
TSPI_LINEDROP	TSPI_LINESELECTEXTVERSION
TSPI_LINEFORWARD	TSPI_LINESETAPPSPECIFIC
TSPI_LINEGETADDRESSID	TSPI_LINESETMEDIAMODE
TSPI_LINEGETADDRESSSTATUS	TSPI_LINESETSTATUSMESSAGES
TSPI_LINEGETCALLADDRESSID	TSPI_LINESETUPCONFERENCE
TSPI_LINEGETCALLINFO	TSPI_LINESETUPTRANSFER
TSPI_LINEGETCALLSTATUS	TSPI_LINESWAPHOLD
TSPI_LINEGETDEVCAPS	TSPI_LINEUNHOLD
TSPI_LINEGETEXTENSIONID	TSPI_LINEUNPARK
TSPI_LINEGETID	TSPI_PROVIDERCONFIG
TSPI_LINEGETLINEDEVSTATUS	TSPI_PROVIDERINIT
TSPI_LINEGETNUMADDRESSIDS	TSPI_PROVIDERINSTALL
TSPI_LINEHOLD	TSPI_PROVIDERREMOVE
TSPI_LINEMAKECALL	TSPI_PROVIDERSHUTDOWN
TSPI_LINENEGOTIATEEXTVERSION	

4

Caller ID Data		
Call Type	**Signaling**	**Description**
Trunk Call	1st Ring Signal	
	NMBR=XXX XXXXXXX	Caller's number = XXX XXXXXXX
	2nd Ring Signal	
Intercom Call	1st Ring Signal	
	NMBR=XXXX	Caller's number = XXXX
	2nd Ring Signal	

When a CTA keyset answers a call, it provides the following data to the connected device:
If the incoming call data contains the Caller ID number . . .
NMBR=XXX (XXX = Caller ID number data)

If the incoming call data does not contain the Caller ID number . . .
NUMBR=
UNAVAILABLE, OUT OF AREA, or PRIVATE

● To place a call on Hold, the CTA provides the following data to the connected device:
ATD!

● When the data keyset becomes busy, the CTA provides the following data to the connected device:
BUSY

4

Programming for TAPI

➥ **Program 15-02-19 : Multi-Line Telephone Basic Data Setup - CTA/CTU Data Communication Mode**
Set the extension to use TAPI to "0" for PC connection.

➥ **Program 15-02-20 : Multi-Line Telephone Basic Data Setup - Baud Rate for CTA Port**
When using a CTA for the connection, set the baud rate to be used (0=4800, 1=9600, 2=19200).

Related Features

Caller ID
An extension's Class of Service setting determines if additional options (Caller ID display, Caller ID for second incoming call, etc.).

Computer Telephony Integration (CTI) Applications and Caller ID
The system provides Database Lookup through Caller ID and TAPI compatible third-party software (such as Interact Commerce Corporations ACT!).

Data Communications
For more information on setting up the CTA Module, turn to this feature.

Headset Operation
In order to use the headset for some TAPI features (such as dialing out from MS Outlook), use the Automatic Answer feature and press the Headset programmable function key (PGM 15-07 or SC 851: 05) to redirect the call to the headset and disable the hookswitch detection.

Operation

TAPI operation is automatic once programmed in the phone system and enabled in the PC's TAPI application, unless a headset is used.

Using the Headset with Automatic Answer:

1. With the keyset in an idle state, press the Check key.
2. Press the Headset key (PGM 15-07 or SC 851: 05) twice.
3. Press the Clear key to return the display to idle.

   The Headset key blinks when Automatic Headset is activated.

   To cancel Automatic Headset, repeat these steps.

To Redirect Calls to the Headset and Disable the Hookswitch (required for some TAPI features):

1. With the keyset in an idle state, press the Check key.
2. Press the Headset key (PGM 15-07 or SC 851: 05) twice.
3. Press the Clear key to return the display to idle.

   The Headset key blinks when Automatic Headset is activated.

   To cancel Automatic Headset, repeat these steps.
4. Press the Headset key (PGM 15-07 or SC 851: 05) to go off hook.

4

TAPI 2.1 / CTI

Introduction

General Description

The NEC Infrontia Aspire has capability to use Computer Telephony Integration (CTI). It uses the Telephony Application Programming Interface (TAPI) 2.1 protocol. To allow CTI, an Ethernet interface is present on the NTCPU.

TAPI 2.1-based CTI realizes third party call control features such as ACD, Predictive Dialing, and Call Routing.

Requirements

The following are the minimum specifications required to use the CTI (TAPI 2.1) interface feature.

Telephone System

- Aspire S System
- Aspire M/L/XL with Feature Upgrade PAL chip *or* Enhanced CPU

CTI Server

Operating System	Windows NT Server (Min SP6a) Windows 2000 Server (Min SP3) Windows Server 2003 * * If the TAPI server is using Windows Server 2003, then the clients have to be updated to either Windows XP SP2 or Windows 2000 SP4 with Rollup 1. *(Microsoft Windows Small Business Server is not supported by the NEC Infrontia CTI solutions)*
CPU	Pentium 500MHz or higher recommended
Memory	256MB or more
Drives	Free Space 10GB or over
	CD-ROM Drive

Note: The above are the specifications for TAPI set-up only. They may differ depending on the applications to be installed.

A dedicated PC Server is recommend for the Aspire CTI Server.

The setup requires you to be logged onto the PC Server as a Local Administrator.

The server should be connected to the network via the TCP/IP Protocol (including WINS, DNS services), and should include the appropriate number of Client Access Licenses.

An IT Administrator is normally required during the installation.

The backup procedure and virus defenseare not part of the Aspire functionality and is the responsibility of the customer.

CTI Client PC (Optional)

Operating System	Windows ME Windows 2000 Professional (Min SP3) Windows XP Professional (Min SP1) * * If the TAPI server is using Windows Server 2003, then the clients have to be updated to either Windows XP SP2 or Windows 2000 SP4 with Rollup 1. *(Microsoft Windows Small Business Server is not supported by the NEC Infrontia CTI solutions)*
CPU	Pentium 500MHz or higher recommended
Memory	256MB or more

The setup requires you to be logged onto the PC Server as a Local Administrator.

The server should be connected to the network via the TCP/IP Protocol (including WINS, DNS services), and should include the appropriate number of Client Access Licenses.

An IT Administrator is normally required during the installation.

4

Requirements

The ethernet interface is located on the Aspire M/L/XL NTCPU or the Aspire S ENTU. This is a 10/100MB RJ45 ethernet connection.

CN15
LAN Connector
(CTI Interface)

The following basic commands must be set in the Aspire.

➤ **Program 10-12 : NTCPU Network Settings**
Assign a TCP/IP Address, Subnet Mask and Default Gateway to the NTCPU.

10-12-01 IP Address	Aspire IP Address = 0-255.0-255.0-255.0-255
10-12-02 Subnet Mask	Aspire Subnet Mask = 0-255.0-255.0-255.0-255
10-12-03 Default Gateway	Aspire Default Gateway = 0-255.0-255.0-255.0-255

➤ **Program 10-20-01 : External Equipment LAN Settings**
Assign the TCP port and keep alive timer.

External Device 1	
TCP Port No	0-65535 (8181 Recommended)
Keep Alive Timer	0-255 seconds (Default 30 Seconds)

Installing the TAPI Driver NT Server

Installation Procedure

1. Double-click on the **Setup.exe** file. Click **NEXT** when you see the following welcome screen.

2. At the *Aspire Telephony Service Provider Setup* screen, select **SERVER** and click **NEXT**.

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3. The *Destination Location* screen appears allowing you to choose the destination folder where you install the TAPI driver. Click **NEXT** to accept the default target folder. If necessary, click **BROWSE** to choose a different drive or folder.

4. The *Setup Address* screen appears. Enter the IP address of the computer, the IP address for the NTCPU in the Aspire system, and the TCP port number. Use period (**"."**) between numbers. **The PBX IP and TCP port numbers must match the entry within the Aspire programming** (Programs 10-12 and 10-20). (e.g. TAPI: 192.168.1.76, PBX IP: 192.168.1.75, TCP Port: 8181) When you enter the information, click **NEXT**.

   Note: This address should be given to you by the network administrator.

5. Enter the communication timeout value. This is the time the TSP will wait for a response from the Aspire before deciding it will not respond. This value should be left at the default value (10 seconds).

6. The *Register for Service Provider Setup* screen appears. Select **REGISTER** and click **NEXT** to begin the installation.

7. Specify the option mode for call appearance. Specify **SINGLE LINE MODE**.

8. Verify the installation settings before clicking **NEXT** to complete the installation.

9. On completion of the installation, the following setup screen appears. Select **YES, I WANT TO RESTART MY COMPUTER NOW** and select **FINISH**.

10. The TSP Installation is now complete. You should now proceed to the section for your operating system:
    - Windows NT Server - page 4-136
    - Windows 2000 Server - page 4-148
    - Windows Server 2003 - page 4-163

4

Configuring Telephony Windows NT Server

General Description

The following section assumes you have installed the Aspire TSP. This section contains further information on configuring TAPI 2.1 on Windows NT Server. The following information is provided:

- Aspire TSP Configuration
- Enabling TAPI Server
- TAPI Server User Administration

Configuration

1. To verify that the Aspire TSP installed correctly and is using the proper settings double-click the **TELEPHONY** icon from within the Control Panel (**START** ☞ **SETTINGS** ☞ **CONTROL PANEL**).

2. Click on the **TELEPHONY DRIVERS** tab to see that the Aspire TSP is installed.

Dialing Properties

My Locations | Telephony Drivers

The following telephony drivers are installed on this computer:

> Aspire Telephony Service Provider
> TAPI Kernel-Mode Service Provider
> Unimodem Service Provider

Add... | Remove | Configure...

OK | Cancel | Apply

3. Click on the Aspire TSP and select the **CONFIGURE** button to see the configuration of the Aspire TSP. On the **CONFIGURATION** tab, you can see the Server/PBX IP addresses, TCP port number and Display Call Status Dialog option set during installation. If necessary, change the data.

Aspire Telephony Service Provider

Configuration	Device

Telephony System Information

Company Name   NEC Infrontia Corporation.

Product Version   1.00

PBX IP Address   192.168.1.75

TCP Port   8181

TAPI Server IP Address 192.168.1.76

Call Status Dialog   ☐

[OK] [CANCEL] [APPLY]

4

4. Click on the **DEVICE** tab to confirm the system extension ports' status. You cannot change any data on this screen.

5. By selecting a device and clicking **DETAIL,** the Call Mode can be set.

   Auto Speaker Mode (Default)
   If selected, Answer call requests to the selected device via TAPI will be answered using the speaker.

   Auto Headset Mode
   If selected, Answer call requests to the selected device via TAPI will be answered using a headset (if connected).

   Note: To allow the call mode configuration, the device should be not be in use by any TAPI application (i.e Arc ScreenPop).

6. To exit, click **CANCEL** then click **OK** until you have exited to the Control Panel. Double-click in the upper left hand corner of the Control Panel to close the window.

Enabling TAPI Server and User Administration

Windows NT Server includes a Telephony Server which enables distributed access to shared telephony devices.

An example of this is where users wish to connect to the telephony devices handled by the Aspire system. By enabling the Telephony Server, it allows Clients to connect to the Aspire telephony devices. TAPI-based requests are sent from the Client PC to the Aspire system via the Telephony Server.

Enabling TAPI Server and User Administration

To allow other Domain users to use the TAPI services, the TAPI server must be enabled. This is performed by using the TCMSETUP command.

1. Click **START ☞ RUN**.
2. Enter the following command in the **RUN** command line.

   TCMSETUP /S [/n] domain\username [password]

   The following example installs the Server using the **Administrator** account within the **CTI** domain using the Administrator's password **Passw0rd**.

3. Click on **OK** or press **ENTER**.

4. The following message should be displayed.

Usage is:

/S - Server Setup
/n - No Password

Note: The logon account you specify **MUST** be a member of the Administrator's group on the server. It must also be in the same domain as the server.

By default Client computers will not be able to access any extensions. By enabling the TAPI Server, you are able to permit Domain users to access their telephone extension(s). Extensions available to the TAPI Server are authenticated using Windows NT access permissions.

Client computers will be allocated telephone extensions based on their Domain Logon account. The only exception to this is where by a Client computer is logged on using a Domain Administrator account, which has permission to access all telephone extension(s).

Access permissions are configured using a Windows program called *TCMAPP*. This program allows the Telephony administrator to assign telephone extension(s) to domain users.

1. Click **START ☞ RUN**.

2. Enter the following command in the **RUN** command line.

3. *TAPI Administration Application* screen appears. From the taskbar, select **USER ☞ ADD A USER TO THIS TELEPHONY SERVER**.

4

4. Select the appropriate domain user account and click **ADD**.

5. Click **OK**. The *TAPI Administration Application* screen will then display the selected user(s).

4

6. You should now assign the user with telephone extension(s), as required. Select **USER** ☞ **CHANGE SELECTED USER'S LINE ACCESS**. Select the appropriate telephone extension(s) which the user should have access to and click **OK**.

Change Line Device Access For Selected User

The TAPI line devices that the user currently has access to are highlighted.

To add additional lines, hold down the <Ctrl> key and click on the line to add.

To remove lines, hold down the <Ctrl> key and click on the line to remove.

Line Name	Switch Info	Provider Info	Perm Line ID
EXTENSION Ordinary	Aspire with 200 Tru...	Aspire Telephony S...	197117
EXTENSION Ordinary	Aspire with 200 Tru...	Aspire Telephony S...	197118
EXTENSION Ordinary	Aspire with 200 Tru...	Aspire Telephony S...	197119
EXTENSION 200 Ke...	Aspire with 200 Tru...	Aspire Telephony S...	196608
EXTENSION 202 Ke...	Aspire with 200 Tru...	Aspire Telephony S...	196610
EXTENSION 203 Ke...	Aspire with 200 Tru...	Aspire Telephony S...	196611
EXTENSION 208 Or...	Aspire with 200 Tru...	Aspire Telephony S...	196616
EXTENSION 209 Or...	Aspire with 200 Tru...	Aspire Telephony S...	196617
EXTENSION 210 Or...	Aspire with 200 Tru...	Aspire Telephony S...	196618
EXTENSION 211 Or...	Aspire with 200 Tru...	Aspire Telephony S...	196619
EXTENSION 212 Or...	Aspire with 200 Tru...	Aspire Telephony S...	196620
EXTENSION 213 Or...	Aspire with 200 Tru...	Aspire Telephony S...	196621

[OK]   [Cancel]

7. The Administration application will then update the user account with the devices to which he/she has access.

TAPI Administration Application

File   User   Line   Help

```
CTI
  jsmith
      EXTENSION 200 Keyset Aspire with 200 Trunks,512 Extensions,256 Virtu
      EXTENSION 202 Keyset Aspire with 200 Trunks,512 Extensions,256 Virtu
      EXTENSION 203 Keyset Aspire with 200 Trunks,512 Extensions,256 Virtu
      EXTENSION 208 Ordinary Aspire with 200 Trunks,512 Extensions,256 Virtu
```

8. Repeat this process to add/change domain user(s) access permissions.

9. On completion, select **FILE** ☞ **EXIT**. When the following message appears, click **YES** and save the changes.

TAPI Client Management

Save changes?

[Yes]   [No]

Upgrading the TAPI Driver

The upgrade of TSP requires the existing TSP (n2iptsp.tsp) file to be replaced by the new TSP.

1. Go to the Windows **CONTROL PANEL ☞ SERVICES**.

2. Locate the **AspireTspStart** service, and select **STOP**.

3. Locate the **Telephony Service**, and select **STOP**.

4. Copy the file **n2iptsp.tsp** to **C:\WINNT\SYSTEM32** (assuming C:\WINNT is the location of the OS). You will be asked if you are sure you want to replace, click **YES**.

Uninstalling the Aspire TSP

1. Go to the Windows **Control Panel** ☞ **Services**.

4

2. Locate the **AspireTspStart** service, and select **STOP**.

3. Locate the **Telephony** service, and select **STOP**.

4. When the Telephony Service stops, double-click the **ADD/REMOVE PROGRAMS** icon from the Control Panel. Select **AspireTSP** from the **INSTALL/UNINSTALL** tab, then click **ADD/REMOVE**.

5. The verification message follows, click the **YES** button to proceed with the uninstall.

6. Click the **OK** button at the end of the uninstall program. The uninstall of the Aspire TSP is complete.

4

Configuring Telephony Windows 2000 Server

General Description

The following section assumes you have installed the Aspire TSP. This section contains further information on configuring TAPI2.1 on a Windows 2000 Server.

The following information is provided:

- Aspire TSP Configuration
- Enabling TAPI Server
- TAPI Server User Administration

Configuration

1. To verify that the Aspire TSP is installed correctly and is using the proper settings, double-click the **PHONE AND MODEMS** icon from within the Control Panel (**START ☞ SETTINGS ☞ CONTROL PANEL**).

2. Click on the **ADVANCED** tab to see that the Aspire TSP is installed.

3. Click on the **Aspire TSP** and select the **CONFIGURE** button to see the configuration of the Aspire TSP. On the **CONFIGURATION** tab, you can see the Server/PBX IP addresses, TCP port number and Display Call Status Dialog option set during installation. If necessary, change the data.

Aspire Telephony Service Provider

Configuration | Device

Telephony System Information

| Company Name | NEC Infrontia Corporation. |
| Product Version | 1.00 |

PBX IP Address	192.168.1.75
TCP Port	8181
TAPI Server IP Address	192.168.1.76
Call Status Dialog	☐

OK   CANCEL   APPLY

4

4. Click on the **DEVICE** tab to confirm the system extension ports' status. You cannot change any data on this screen.

Aspire Telephony Service Provider

Configuration | Device

Type	Port	Exte...	Term...	Mount	TAPI	Line...	Pho...
Exten...	001	200	Keyset	Mount	Enable	0	0
Exten...	002		Ordin...		Enable	1	1
Exten...	003	202	Keyset	Mount	Enable	2	2
Exten...	004	203	Keyset	Mount	Enable	3	3
Exten...	005		Ordin...		Enable	4	4
Exten...	006		Ordin...		Enable	5	5
Exten...	007		Ordin...		Enable	6	6
Exten...	008		Ordin...		Enable	7	7
Exten...	009	208	Ordin...	Mount	Enable	8	8
Exten...	010	209	Ordin...	Mount	Enable	9	9
Exten...	011	210	Ordin...	Mount	Enable	10	10
Exten...	012	211	Ordin...	Mount	Enable	11	11

Detail

OK   CANCEL   APPLY

5. By selecting a device and clicking **DETAIL,** the Call Mode can be set.

Auto Speaker Mode (Default)
If selected, Answer call requests to the selected device via TAPI will be answered using the speaker.

Auto Headset Mode
If selected, Answer call requests to the selected device via TAPI will be answered using a headset (if connected).

Note: To allow the call mode configuration, the device should be not be in use by any TAPI application (i.e Arc ScreenPop).

6. To exit, click **CANCEL** then click **OK** until you have exited to the Control Panel. Double-click in the upper left hand corner of the Control Panel to close the window.

4

Enabling TAPI Server and User Administration

Windows 2000 Server includes a Telephony Server which enables Distributed Access to shared telephony devices.

An example of this is where users wish to connect to the telephony devices handled by the Aspire system. By enabling the Telephony Server, it allows Clients to connect to the Aspire telephony devices. TAPI-based requests are sent from the Client PC to the Aspire system via the Telephony Server.

4

Enabling TAPI Server

To allow other Domain users to use the TAPI Services, the TAPI server must be enabled. This is performed by using the Windows Computer Management Tool.

Note: Enabling the TAPI Server requires you to specify a Domain User account which exists in the same Domain to which the TAPI Server is a member. This account must also be a member of the TAPI Server's Local Administrator group.

We strongly recommend using a Domain User account created specifically for use with the Telephony Service, which contains a password which is unchangeable and does not expire.

1. Click **START** ☞ **SETTINGS** ☞ **CONTROL PANEL** ☞ **ADMINSTRATIVE TOOLS** ☞ **COMPUTER MANAGEMENT**.

2. Go to **SYSTEM TOOLS** ☞ **LOCAL USERS AND GROUPS** ☞ **GROUPS**, double-click the **ADMINISTRATORS** group.

4

3.   Select **ADD** and specify the appropriate Domain in the **LOOK IN** drop-down list.

4.   Specify the appropriate Domain User account and click **ADD**. Click **OK** to accept the account.

5. Click **APPLY** and then **OK** to accept the selected account into the TAPI Server Local Administrator Group. You are returned to the Computer Management Tool.

6. Go to **SERVICES AND APPLICATIONS** ☞ **TELEPHONY**, right-click the **TELEPHONY** icon and go to **PROPERTIES**.

7. In the **TELEPHONY** properties, tick the box which says **ENABLE TELEPHONY SERVER**. Below in the user name field, click the **CHOOSE USER** button.

8. The **SELECT USER** window will appear. From this list, select the account used in **Step 4**.

9. Enter the password associated with the selected user account.

    The following example installs the Server using the **TAPI** account within the **necinfrontia** domain.

10. Click **APPLY** and the following message is displayed. Select **OK** to confirm.

11. The following message appears, confirming that the Telephony Service must be restarted. Click **NO**.

    Note: Restarting the Telephony Service will drop any existing connection to the Aspire system.

12. The Server must now be shut down and restarted before proceeding.

4

User Administration

By default, the Client computers will not be able to access any extensions. By enabling the TAPI Server, you are able to permit Domain users to access their telephone extension(s). Extensions available to the TAPI Server are authenticated using Windows 2000 access permissions.

Client computers will be allocated telephone extensions based on their Domain Logon account. The only exception to this is where by a Client computer is logged on using a Domain Administrator account, which has permission to access all telephone extension(s).

Access permissions are configured using the Telephony snap-in within Windows *Computer Management*. This allows the Telephony administrator to assign telephone extension(s) to domain users.

1. Click **START** ☞ **SETTINGS** ☞ **CONTROL PANEL** ☞ **ADMINSTRATIVE TOOLS** ☞ **COMPUTER MANAGEMENT**.

2. Go to **SERVICES AND APPLICATIONS** ☞ **TELEPHONY** ☞ **ASPIRE TELEPHONY SERVICE PROVIDER**. You should see a list of all connected Aspire telephone extensions.

3. Double-click on an available extension. The *Edit Users* screen appears. Click **ADD**.

4. Click **ADD** - the *Edit Users* screen appears. Specify the appropriate domain user account and click **OK** to accept.

5. The *Edit Users* screen reappears with confirmation of selected users. Click **OK** to accept.

6.   The selected user should now be associated with the extension you assigned.

7.   Repeat this process to add/change domain user(s) access permissions.

8.   On completion, close the **Computer Management** window.

4

Upgrading the TAPI Driver

The upgrade of TSP requires the existing TSP (n2iptsp.tsp) file to be replaced by the new TSP.

1. Go to the Windows **CONTROL PANEL** ☞ **ADMINISTRATIVE TOOLS** ☞ **SERVICES**.

2. Locate the **AspireTspStart** service and select **STOP**.

3. Locate the **Telephony** service and select **STOP**.

4. Copy the file **n2iptsp.tsp** to **C:\WINNT\SYSTEM32** (assuming C:\WINNT is the location of the OS). You will be asked if you are sure you want to replace - click **YES**. Restart the computer.

Uninstalling the Aspire TSP

1. Go to the Windows **CONTROL PANEL** ☞ **ADMINISTRATIVE TOOLS** ☞ **SERVICES**.

2. Locate the **AspireTspStart** service and select **STOP**.

3. Locate the **Telephony** service and select **STOP**.

4

4. When the Telephony Service has stopped, go to the Windows **CONTROL PANEL** ☞ **ADD/REMOVE PROGRAMS**. In **CHANGE OR REMOVE PROGRAMS**, select **AspireTSP**, then click the **CHANGE/REMOVE** button.

5. The verification message follows, click the **YES** button to proceed with uninstall.

6. Click the **OK** button at the end of the uninstall program. The uninstall of the Aspire TSP is complete.

Configuring Telephony Windows Server 2003

General Description

The following section assumes you have installed the Aspire TSP. This section contains further information on configuring TAPI2.1 on Windows 2000 Server.

The following information is provided:

- Aspire TSP Configuration
- Enabling TAPI Server
- TAPI Server User Administration

Configuration

1. To verify that the Aspire TSP installed correctly and is using the proper settings, double-click the **PHONE AND MODEMS** icon from within the Control Panel (**START** ☞ **SETTINGS** ☞ **CONTROL PANEL**).

2. Click on the **ADVANCED** tab to see that the Aspire TSP is installed.

4

3. Click on the **Aspire TSP** and select the **CONFIGURE** button to see the configuration of the Aspire TSP. On the **CONFIGURATION** tab, you can see the Server/PBX IP addresses, TCP port number and Display Call Status Dialog option set during installation. If necessary, change the data.

4. Click on the **DEVICE** tab to confirm the system extension ports' status. You cannot change any data on this screen.

Aspire

5.   By selecting a device and clicking **DETAIL**, the Call Mode can be set.

> **Auto Speaker Mode (Default)**
> If selected Answer call requests to the selected device via TAPI will be answered using the Speaker
>
> **Auto Headset Mode**
> If selected Answer call requests to the selected device via TAPI will be answered using a Headset (If connected)
>
> **Note:** To allow configuration of Call mode the device should be not be in use by any TAPI application (i.e Arc ScreenPop)

```
Port001                                              ×
 ┌─Line Name──────────────────┐  ┌─Device ID──┐
 │ EXTENSION 200 Keyset        │  │ 0          │
 └─────────────────────────────┘  └────────────┘
 ┌─Call mode──────────────────────────────────┐
 │   ⦿ Auto Speaker Mode                       │
 │                                             │
 │   ○ Auto Headset Mode                       │
 │                                             │
 └─────────────────────────────────────────────┘
                        ┌────OK────┐  ┌─CANCEL─┐
                        └──────────┘  └────────┘
```

4

6.   To exit, click **CANCEL** then click **OK** until you have exited to the Control Panel. Double-click in the upper left hand corner of the Control Panel to close the window.

Enabling TAPI Server and User Administration

Windows Server 2003 includes a Telephony Server which enables Distributed Access to shared telephony devices.

An example of this is where users wish to connect to the telephony devices handled by the Aspire system. By enabling the Telephony Server, it allows Clients to connect to the Aspire telephony devices. TAPI-based requests are sent from the Client PC to the Aspire system via the Telephony Server.
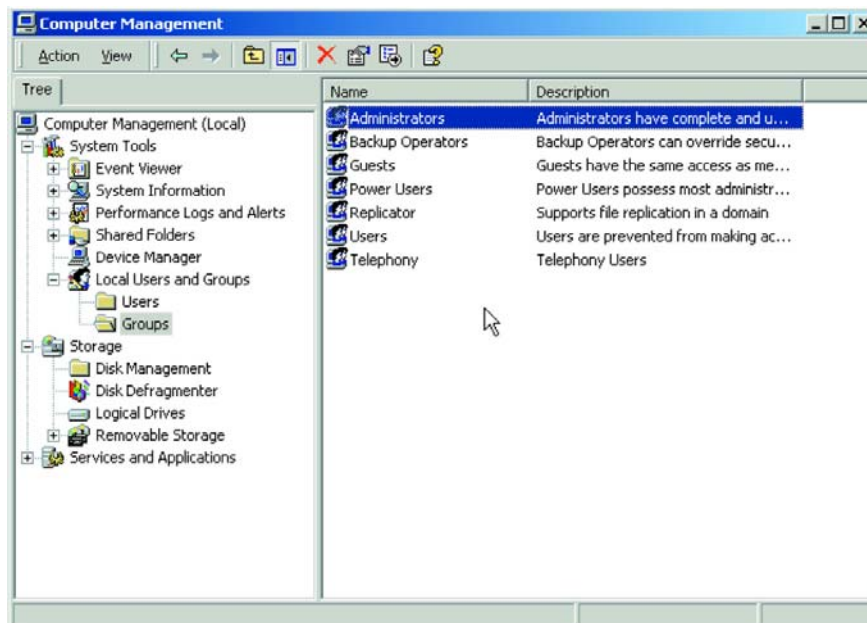
4

Enabling TAPI Server

To allow other Domain users to use the TAPI Services, the TAPI server must be enabled. This is performed by using the Windows Computer Management Tool.

Note: Enabling the TAPI Server requires you to specify a Domain User account which exists in the same Domain to which the TAPI Server is a member. This account must also be a member of the TAPI Server's Local Administrator group.

We strongly recommend using a Domain User account created specifically for use with the Telephony Service, which contains a password which is unchangeable and does not expire.

1. Click **START** ☞ **SETTINGS** ☞ **CONTROL PANEL** ☞ **ADMINSTRATIVE TOOLS** ☞ **COMPUTER MANAGEMENT**.

2. Go to **SYSTEM TOOLS** ☞ **LOCAL USERS AND GROUPS** ☞ **GROUPS**, double-click the **ADMINISTRATORS** group.

4

3. Select **ADD** and specify the appropriate location (i.e., Entire Directory).

4. Specify the appropriate User account and click **CHECK NAMES** to confirm. Click **OK** to accept the account.

5. Click **APPLY** and then **OK** to accept the selected account into the TAPI Server Local Administrator Group. You are returned to the *Computer Management* window.
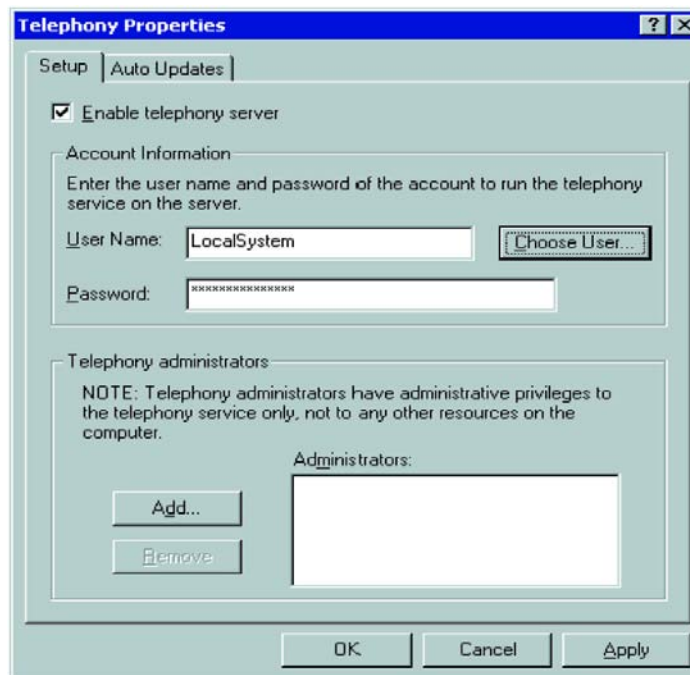
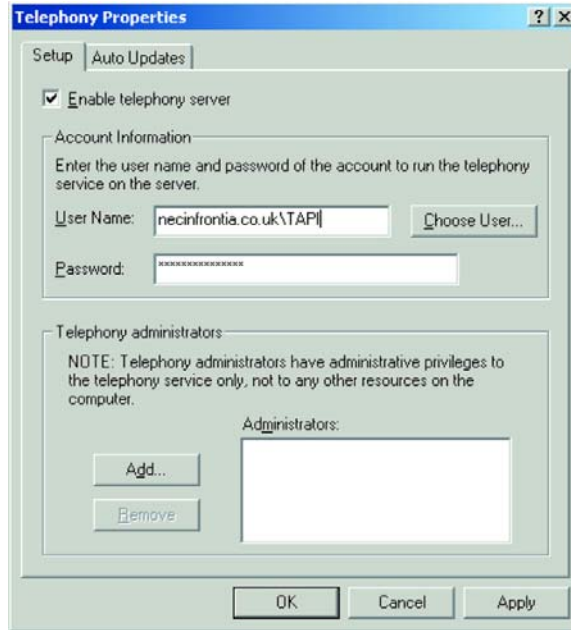6.   Go to **SERVICE AND APPLICATIONS** ☞ **TELEPHONY**, right-click the **TELEPHONY** icon and go to **PROPERTIES**.

7.   In the Telephony properties, tick the box which says **ENABLE TELEPHONY SERVER**. Below in the **USER NAME** field, click the **CHOOSE USER** button.

8.   The *Select User* window will appear. From this list select the account used in **Step 4**.

9.   Enter the password associated with the selected user account.

     The following example installs the Server using the **TAPI** account within the **necinfrontia** domain.

10.   Click **APPLY**. The following message is displayed. Select **OK** to confirm.

11.   The following message appears confirming that the Telephony Service must be restarted. Click **NO**.

     Note: Restarting the Telephony Service will drop any existing connection to the Aspire system.

12.   The Server must now be shut down and restarted before proceeding.

User Administration

By default, the Client computers will not be able to access any extensions. By enabling the TAPI Server, you are able to permit Domain users to access their telephone extension(s). Extensions available to the TAPI Server are authenticated using Windows 2000 access permissions.

Client computers will be allocated telephone extensions based on their Domain Logon account. The only exception to this is where by a Client computer is logged on using a Domain Administrator account, which has permission to access all telephone extension(s).

Access permissions are configured using the Telephony snap-in within Windows *Computer Management*. This allows the Telephony administrator to assign telephone extension(s) to domain users.

1. Click **START** ☞ **SETTINGS** ☞ **CONTROL PANEL** ☞ **ADMINSTRATIVE TOOLS** ☞ **COMPUTER MANAGEMENT**.

2. Go to **SERVICES AND APPLICATIONS** ☞ **TELEPHONY** ☞ **ASPIRE TELEPHONY SERVICE PROVIDER**. You should see a list of all connected Aspire telephone extensions.
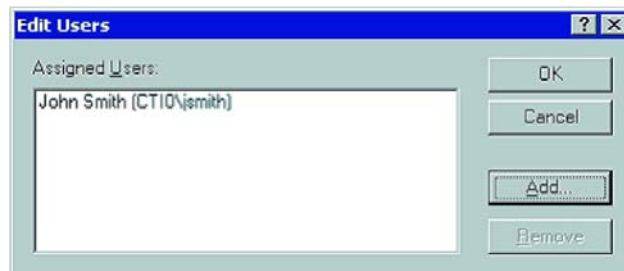
3. Double-click onto an available extension. The *Edit Users* screen appears.
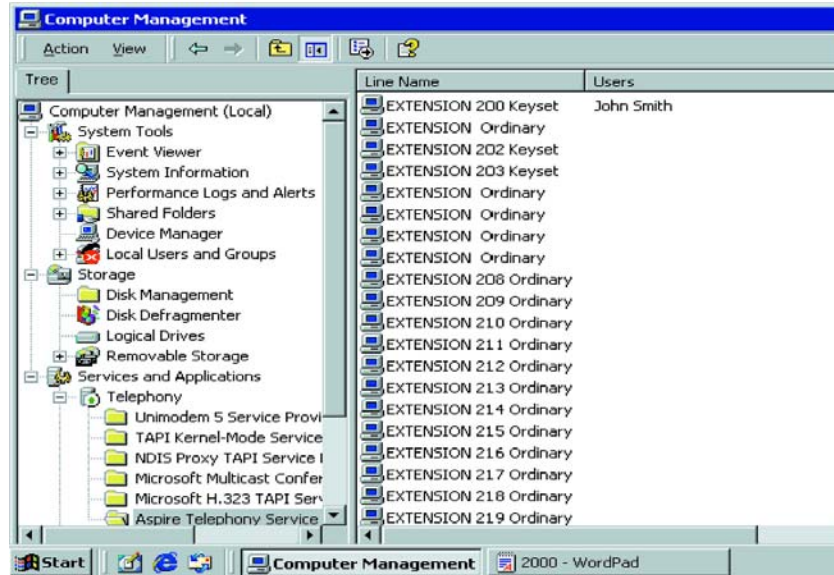

4. Select **ADD** and specify the appropriate Location (i.e., Entire Directory).

5. Specify the appropriate User account and click **CHECK NAMES** to confirm. Click **OK** to accept the account.

6. The *Edit Users* screen reappears with confirmation of selected users. Click **OK** to accept.

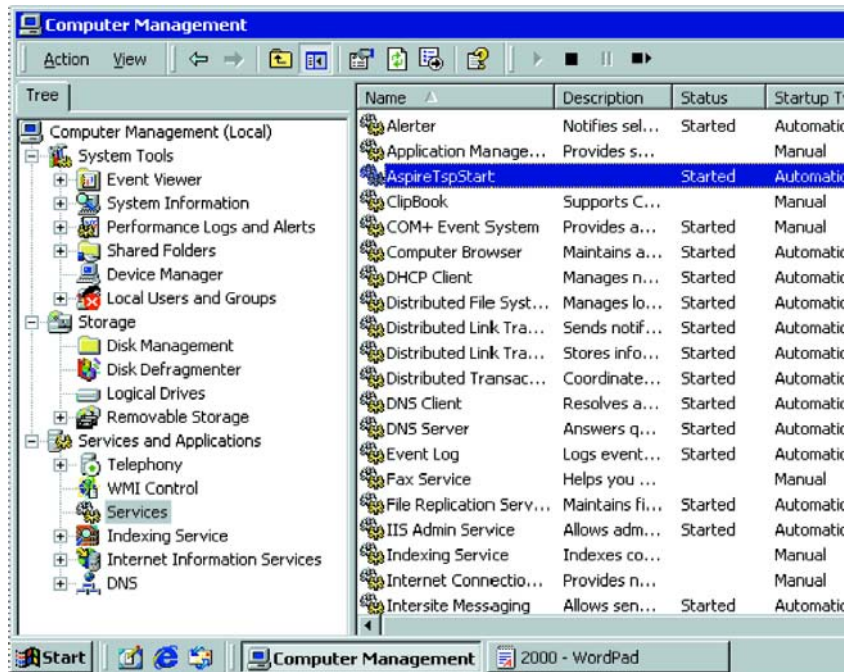7. The selected user should now be associated with the extension you assigned.

8.   Repeat this process to add/change domain User(s) access permissions.

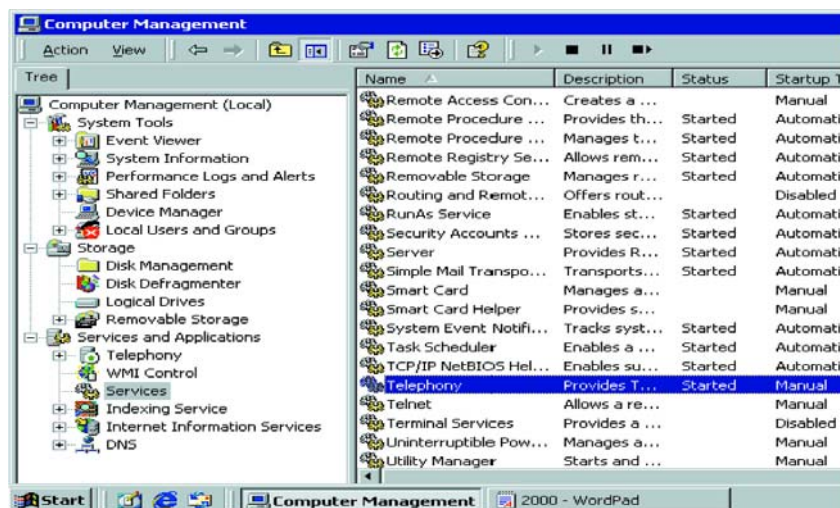9.   On completion, close the **Computer Management** window.

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Upgrading the TAPI Driver

The upgrade of TSP requires the existing TSP (n2iptsp.tsp) file to be replaced by the new TSP.

1. Go to the Windows **CONTROL PANEL** ☞ **ADMINISTRATIVE TOOLS** ☞ **SERVICES**.

2. Locate the **AspireTspStart** service and select **STOP**.

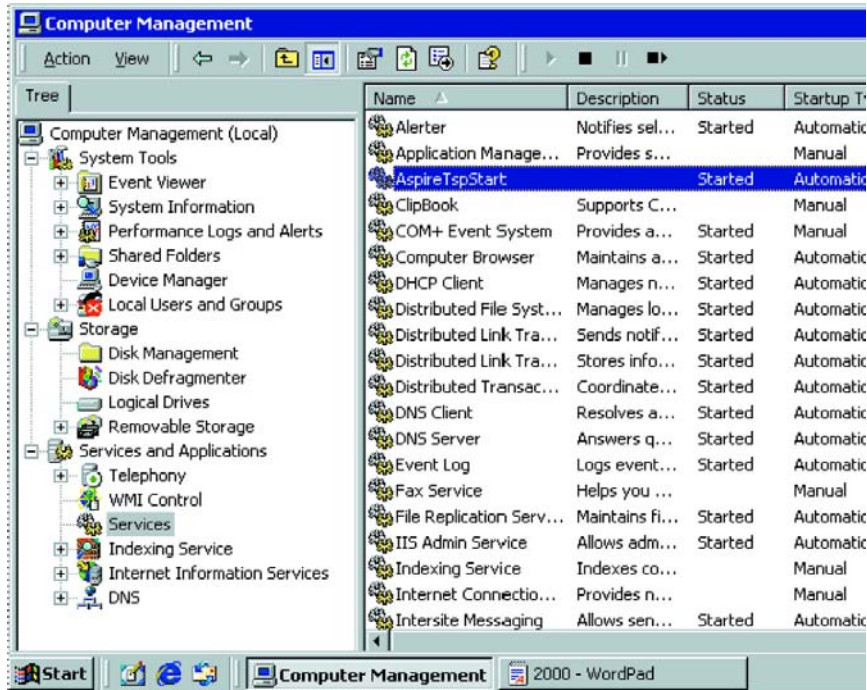3. Locate the **Telephony** service and select **STOP**.

4. Copy the file **n2iptsp.tsp** to **C:\WINNT\SYSTEM32** (assuming C:\WINNT is the location of the OS). You will be asked if you are sure you want to replace - click **YES**. Restart the computer.
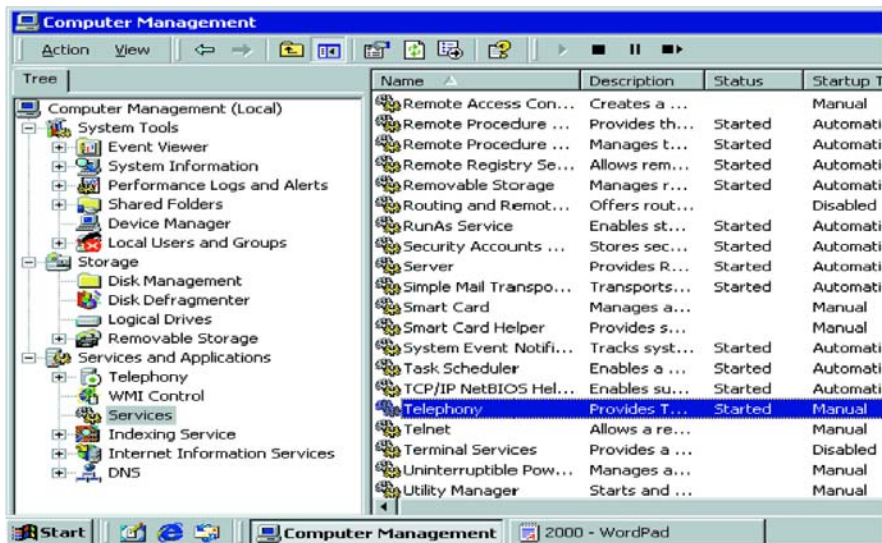
Uninstalling the Aspire TSP

1. Go to the Windows **CONTROL PANEL** ☞ **ADMINISTRATIVE TOOLS** ☞ **SERVICES**.

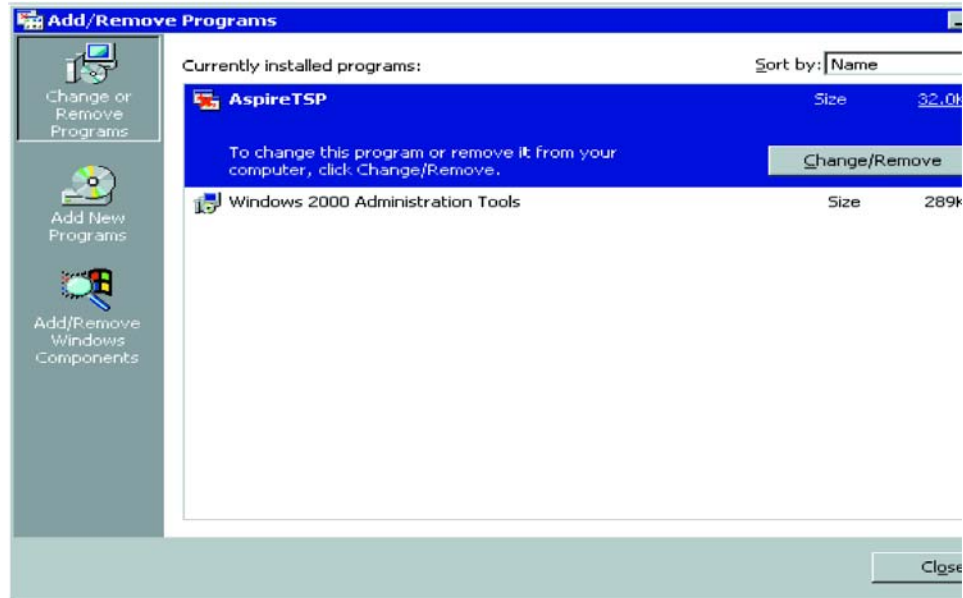2. Locate the **AspireTspStart** service and select **STOP**.

3. Locate the **Telephony** service and select **STOP**.

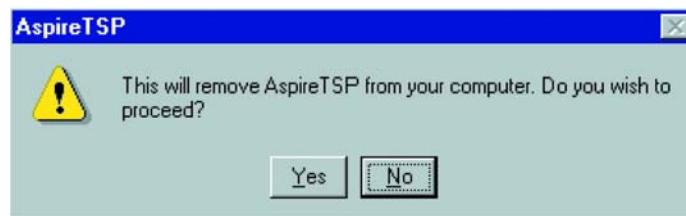4. When the Telephony Service has stopped, go to the Windows **CONTROL PANEL** ☞ **ADD/ REMOVE PROGRAMS**. In **CHANGE OR REMOVE PROGRAMS**, select **AspireTSP**, then click the **CHANGE/REMOVE** button.

5. The verification message follows, click the **YES** button to proceed with uninstall.

6. Click the **OK** button at the end of the uninstall program. The uninstall of the Aspire TSP is complete.

![Aspire]

Installing TAPI Clients

Enabling TAPI Clients - NT/2000/XP

The conditions for installing the TAPI 2.1 Client on Windows NT/2000/XP are as follows:

● The Client PC should be connected to the network via TCP/IP and all associated services (i.e. DNS/WINS) should be configured.

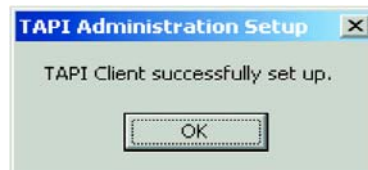● The Client PC must log on to the same Windows Domain as the TAPI Server.

To issue the TCMSETUP command, you must be logged on as a Local Administrator.

1. Enter the following command in the **RUN** command line.

   TCMSETUP /C SERVERNAME   (where **SERVERNAME** is the name of your TAPI Server)

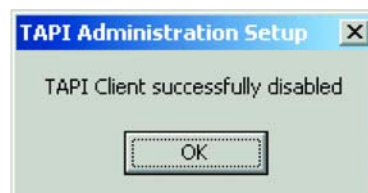2. After executing the command, the following window should be received.

Disabling TAPI Clients

The procedure for disabling a TAPI Client is the same across all Windows operating systems.

1. Enter the following command in the **RUN** command line.

   TCMSETUP /C /D

2. After executing the command, you will receive the following message. Click on **OK**.

- For Your Notes -

4

Traffic Reports

The system provides the ability to send data to a PC connected to the Aspire. The telephone call traffic data for each extension is captured for use with the SMDR feature (refer to **SMDR** (page 4-101) for more details). Traffic Reports require connection to the serial or USB connector on the NTCPU or a CTA or CTU adapter. Additional programming and a customer-provided printer is also required. Refer to **NTCPU Connection and Driver Installation** (page 3-1), **Installing the CTA Adapter** (page 2-5) or **Installing the CTU Adapter** (page 2-21) for more on setting up and connecting to the Aspire system.

Call Traffic

The total of outgoing call frequency, outgoing call duration, call charge, incoming call frequency, answer frequency, incoming call duration, ringing duration for each line and extension, and abandon call frequency for each line is logged. The total of incoming calls, answer frequency, call duration for each line and extension, and abandon call frequency of each line is logged and the data is outputted to the PC. The system totals the hour, day, week, and month for each terminal and trunk number. This information is used by the SMDR feature. The extension which is totalled is determined by system programming. The system outputs this data to the PC for the total period.

Traffic Total Report - Sample Report

Terminal	OTG	Duration	Cost	ICM	Answer	Duration	Ringing	Abandon
301	54	01:45:14	720	326	115	02:11:52	00:09:36	
301	92	02:37:22	1855	84	84	01:58:31	00:04:19	
LINE001	--	--	--	79	71	01:05:26	--	8

Definitions	
Terminal	Terminal Number/Called Party Number (maximum 24 digits)
OTG	Outgoing Call Frequency/number of outgoing calls (maximum 65535 calls)
Duration	Call Duration for an Outgoing Call
Cost	Call Charge
ICM	Incoming Call Frequency/number of incoming calls (maximum 65535 calls)
Answer	Answer Frequency (maximum 65535 calls)
Duration	Call Duration for an Incoming Call
Ringing	Ringing Duration
Abandon	Number of Abandoned Calls (maximum 65535 calls)

Conditions

- The SMDR call buffer stores 500 calls. The buffer stores calls when the SMDR device is unavailable. When the buffer fills, the oldest record is deleted to allow the new record to be saved.
- If connected to the output device, the reports will print hourly. If not connected and the data is not outputted at the end of the hour, the traffic data will be overwritten by new incoming data.
- The traffic data is lost if a power failure occurs.

Default Setting

Disabled.

Programming

➻ **90-20-01 : Traffic Report Data Setup - Call Traffic Output**
Determine whether or not the Call Traffic Output should be measured (0=no, 1=yes).

➻ **90-21-01 : Traffic Report Output**
Define the output port to be used for the traffic reports (0=no setting, 1=NTCPU COM port, 2=NTCPU USB port). The reports will print hourly when connected to the output device.

4

![Aspire]

Ultra CallAnalyst

Ultra CallAnalyst is an easy to use, graphically oriented software package that allows you to monitor and analyze phone calls, understand phone usage and cut costs. CallAnalyst tracks both incoming and outgoing calls accurately as well as the date and time of each call. If you need to track the incoming phone call with name and/or telephone numbers, CallAnalyst requires Caller ID services from the local phone company.

Ultra CallAnalyst increases productivity, facilitates billing and helps detect toll fraud and phone abuse. It also has powerful tabular (text) and graphical report generating capabilities. Reports include extension/line summaries, date/time and department summaries, longest/most expensive calls, most frequently called numbers, and other commonly used summaries.

These reports can be used to analyze your telephone as a critical business communication tool, thereby, improving its effectiveness and helping you to reduce your telephone related costs. CallAnalyst keeps track of:

- The date and time calls were made or received.
- The duration of each call.
- Which extension made or received the call.
- The CID/ANI, DNIS of the caller.
- The trunk or line numbers which handled the call.
- Account codes and authorization codes used for the call.

Ultra CallAnalyst Part Numbers:

- 0891081 - Ultra CallAnalyst Lite
- 0891082 - Ultra CallAnalyst Lite-to-Full Upgrade
- 0891083 - Ultra CallAnalyst Full
- 0891084 - Ultra CallAnalyst Full + 1 Client
- 0891085 - Ultra CallAnalyst Additional 1 Client

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How SMDR Information is Sent to the PC

Upon the completion of an inbound or outbound call, your phone system sends SMDR data about the call (e.g. extension called, number dialed, date and time, duration of the call). Once the phone system sends the SMDR data, it is usually erased from the phone system on the assumption that an external device has recorded the data. The Call Data Manager (CDM) records all SMDR data sent from the phone system to your PC. The CDM is included as part of the CallAnalyst installation. Most phone systems have a SMDR port that is of the serial port type much like the COM ports on your PC. The SMDR port can be enabled or disabled by programming the phone system.

For CallAnalyst to receive call information from your telephone system, you must connect a serial cable between the SMDR port on your phone system and a serial port on your PC. Or, with CallAnalyst software 6.0 or higher, you can also connect using an IP network connection. CallAnalyst uses the Call Data Manager (CDM) communications program to read the call information from the PC.

The following steps must be taken in order for CDM to track your calls:

- Connect an RS-232C cable from the serial port on the PC to the phone system's SMDR port. Or, if available, connect to the TCP/IP network port on the phone system to the PC or to the USB connector on a CTU Adapter (The NTCPU's USB connector cannot be used - for a USB connection, a CTU must be used as the CallAnalyst does not allow the port selection.). The SMDR connection is made to the

serial connector on the NTCPU, through a CTA or CTU Adapter installed on a keyset, or through an IP network connection. For details on connecting the CTA, refer to **CTA Adapters** (page 2-5). Refer to **CTU Adapters** (page 2-21) for connecting the CTU. For details on connecting to the NTCPU, refer to **Connecting to the Serial Port - Locally** (page 3-5) or **Connecting to the LAN Port** (page 3-13).

● Program your phone system with following features:
  - Enable SMDR output.
  - Enable Caller ID for incoming calls in the SMDR (if available).
  - Disable the SMDR output for station-to-station calls (if required).
  - Configure the phone switch to produce SMDR output for both inbound and outbound calls.

For details on programming the SMDR options, refer to **SMDR - Programming** (page 4-110).

Programming Notes:

● If the system is programmed to display the date (Program 35-02-14=1), the date will be displayed regardless of the setting for display of trunk name (Program 35-02-03) and only the trunk number is printed. For example, if trunk port "049" has a trunk name of "PRI Ch1", if Program 35-02-03 = 0 (name) and 35-02-14 = 1 (display date), then SMDR will show "8/19 049." However, if Program 35-02-14 = 0 (date not displayed), the SMDR will show "PRI Ch1".

● For proper handling of DNIS calls, the name field (Program 22-11-03) must be the same as the received DNIS digits (Program 22-11-01). If this is not set, CallAnalyst will not be able to track transferred calls since the system displays the DNIS number when a call is received and displays the DNIS name for transferred calls. This setting has no impact on outgoing calls, which display the trunk name instead of the DNIS name.

● With Aspire software 4.0E+, Caller ID name can be displayed in SMDR records. Program 35-02-17 must be set to "0" and Program 35-02-18 set to "1".

CTA/CTU Adapter:

❧ **15-02-19 : Multi-Line Telephone Basic Data Setup - CTA/CTU Data Communication Mode**
Change the system programming to match the CTA adapter's dip switch settings.

❧ **15-02-20 : Multi-Line Telephone Basic Data Setup - Baud Rate for CTA Port**
Select the baud rate to be used by the CTA Adapter (0=4800, 1=9600, 2=19200).

LAN Connection:

❧ **10-12-01 : NTCPU Network Setup - IP Address**
When using an IP connection, set up the IP address used to connect from the CallAnalyst PC to the Aspire system (Default: 172.16.0.10).

❧ **10-20-01 : LAN Setup for External Equipment**
When using an IP connection, define the TCP port used for communicating to the CallAnalyst (External Device 5=SMDR, Entries: 0-65535). This entry must match the entry made in the CDM setup with the CallAnalyst program.

Serial Connection:

❧ **10-21-02 : NTCPU Hardware Setup - Baud Rate for COM Port**
If the SMDR connection is made using the COM port on the NTCPU, define the baud rate (0=4800, 1=9600, 2=19200, 3=38400).

Ultra CallAnalyst Server (CES)

CallAnalyst Enterprise Server is a network version of Ultra CallAnalyst used for collecting and generating telephone usage reports for multiple telephone systems on a network. It is a scalable call accounting solution for the small to mid-size business.

CallAnalyst Enterprise Server is an easy to use, graphically oriented software package that allows you to monitor and analyze phone calls, understand telephone usage and cut costs. Ultra CallAnalyst tracks both incoming and outgoing calls accurately. The application supports connection of heterogenerous (different type) telephone systems as well as the connected interfaces (serial or TCP/IP) and supports real time consolidation and reporting of call accounting data. If you need to track the incoming telephone traffic with calling name and/or telephone numbers, Ultra CallAnalyst requires Caller ID services from the local phone company.

Ultra CallAnalyst increases productivity, facilitates billing and helps detect toll fraud and phone abuse. It also has powerful tabular (text) and graphical report generating capabilities. Reports include extension/line summaries, date/time and department summaries, longest/most expensive calls, most frequently called numbers, and other commonly used summaries. Ultra Cal-lAnalyst also has the ability to automatically generate and Email reports to managers on set schedules. These reports can be used to analyze your telephone as a critical business communication tool, thereby, improving its effectiveness and helping you to reduce your telephone related costs. Ultra CallAnalyst keeps track of:

- The date and time calls were made or received.
- The duration of each call.
- Which extension made or received the call.
- The CID/ANI, DNIS of the caller.
- The trunk or line numbers which handled the call.
- Account codes and authorization codes used for the call.

4

Main Server Minimum PC Requirements
Hardware
- PC with Pentium 4 Processor
- 512 MB RAM
- SVGA Monitor with 1024 x 768 resolution
- 2 GB of free hard drive space
- CD-ROM drive (for software installation)
- Available serial port and RS-232 cable (if required)
- Network Interface Card (NIC)
- Printer (if required to print reports)

Software
- Windows NT 4.0 (workstation or server) w/SP6, 2000 Professional w/SP3, XP Professional w/ SP1 or 2003 Server
- MS SQL Server 2000 or MSDE (Microsoft Database Engine) for the database (MSDE is included on the application CD)
- Microsoft Internet Explorer 5.0 or higher (Internet Explorer is included on the application CD)

Network Client / Remote Site Reporting Client Minimum PC Requirements
Hardware
- PC with Pentium III Processor
- 256 MB RAM
- 1 GB of free hard drive space
- CD-ROM drive (for software installation)
- Network Interface Card (NIC)
- Available serial port and RS-232 cable (if required)

Software
- Windows NT 4.0 w/ SP6, or 2000 Professional w/ SP3, XP Professional w/ SP1 or 2003 Server
- Microsoft Internet Explorer 5.0 or higher (Internet Explorer is included on the application CD)

! IMPORTANT !
The time and date on the telephone system must match to the minute the time and date on the PC running the Ultra CallAnalyst software. The PC time can not lag behind the telephone system time more than 1 minute or the date reported by Ultra CallAnalyst will roll back to the previous day.

Connecting the Telephone System to the Ultra CallAnalyst Enterprise Server

Most telephone systems use a standard serial cable to connect the SMDR output to a PC. Modern telephone systems are also capable of sending call records to a PC via an RJ45 network connection.

1. Connect an RS-232C cable from the serial port on the PC to the telephone system's SMDR port.
    OR
    Connect the telephone system to the Local Area Network using a network cable.

Connecting to Remote Telephone Systems

Data from the remote sites is received via an IP network. There are 3 possible ways to connect the telephone system to the IP network:

1. **Direct** - If the telephone system is able to send call data directly to an IP network.
2. **Hardware** - Use a hardware device for converting call data output from the telephone system serial port to an IP format for transmitting on an IP network. The Lantronix Adapter is an example of such a Serial-to-IP converter.
3. **PC with MSR (Multi Site Reporting) Thin Client Program** - Collects call data from the telephone system and transmits it to a central location on an IP network (the PC requires a dedicated IP address).

Program the Telephone System with the Following Features

-   Enable SMDR output.
-   Enable Caller ID for incoming calls in the SMDR (if required).
-   Disable the SMDR output for station-to-station calls (if required).
-   Configure the telephone switch to produce SMDR output for both inbound and outbound calls.
    For details on programming the SMDR options, refer to **SMDR - Programming** (page 4-110).
    All sites must be programmed so the call data is the same from each system.

    ❍ If the system is programmed to display the date (Program 35-02-14=1), the date will be displayed regardless of the setting for the displaying of the trunk name (Program 35-02-03). Any trunk information is ignored. For example, if trunk port "049" has a trunk name of "PRI Ch1", if Program 35-02-03 = 0 (name) and 35-02-14 = 1 (display date), then the SMDR will show "8/19 049." However, if Program 35-02-14 = 0 (date not displayed), the SMDR will show "PRI Ch1".

    ❍ For proper handling of DNIS calls, the name field (Program 22-11-03) must be the same as the received DNIS digits (Program 22-11-01). If this is not set, Ultra CallAnalyst will not be able to track transferred calls since the system displays the DNIS number when a call is received and displays the DNIS name for transferred calls. This setting has no impact on outgoing calls, which display the trunk name instead of the DNIS name.

    ❍ Program the port to which the SMDR data will be outputted (serial or IP). Define the IP port number for the SMDR data for IP transmission.

Installing Ultra CallAnalyst Server (CES)

Prerequisites

The instructions to perform installation assume you have the following settings:

1. The location is set to United States. To set the location to United States:
   a. Click **Start** and point to **Settings**.
   b. Select **Control Panel**.
   c. In the Control Panel window, double-click **Regional Options**.
   d. In the **General** tab, select **English (United States)** from the **Your locale (location)** drop down.
   e. Click **OK**.
2. The currency symbol is set to Dollar ($). To set the currency to Dollar:
   a. Click **Start** and point to **Settings**.
   b. Select **Control Panel**.
   c. In the Control Panel window, double click **Regional Options**.
   d. In the **Currency** tab, select **$** from the **Currency symbol** drop down.
   e. Click **OK**.
3. The date format is set to MM/DD/YYYY format. To set the date format to MM/DD/YYYY format:
   a. Click **Start** and point to **Settings**.
   b. Select **Control Panel**.
   c. In the Control Panel window, double click **Regional Options**.
   d. In the **Date** tab, select **MM/dd/yyyy** from the **Short date format** drop down.
   e. Click **OK**.

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Steps for Installing the Software

Due to the dependency of the programs with each other, they should be installed in the following sequence:

- On the Application Server for the CallAnalyst Enterprise Server:
  1. Microsoft Internet Explorer 5.0 (or higher) must be installed first if not already installed.
  2. A database server must be installed. If the CES database will be used on the Microsoft SQL Server, then first verify that it is installed and running. The MS SQL Server can be on the CES application server or on a server on the network that is accessible from the CES application server. If using MSDE (Microsoft Database Engine), then it must be installed on the application server. (MSDE is included on the application CD).
  3. Install Ultra CallAnalyst.

- On the Workstations for Network Client or CallAlert:
  1. Microsoft Internet Explorer 5.0 (or higher) must be installed first if not already installed.
  2. CallAlert should then be installed on workstations that will monitor for call abuse.
  3. Install the Network Client on workstations that will access Ultra CallAnalyst to review data and generate reports.

- On the Remote Workstations for MSR (Multi Site Reporting) Thin Client Module:
  1. Microsoft Internet Explorer 5.0 (or higher) must be installed first if not already installed.
  2. MSR (Multi-Site Reporting) Thin Client should then be installed on any workstation that is used to collect call data from a telephone system serial port and forward it on the IP network to the central application server. The MSR Thin Client loaded on the workstation can also store data locally on the PC when the IP connection is down. When connectivity is recovered it will transmit the stored data to the central application server as normal.

When installing the CallAnalyst Enterprise Server programs, it is recommended that the Ultra CallAnalyst software be installed on a separate PC, however, other applications may be installed. The performance of Ultra CallAnalyst depends on the other application's need for memory and processing. During the installation process, the PC may need to be restarted several times in order to update files required by the Ultra CallAnalyst software.

After loading the NEC CallAnalyst Enterprise Server CD-ROM into your CD-ROM drive, choose from one of the five available options from the Installation screen.

1. **CES (CallAnalyst Enterprise Server) Installation** - For installing components of CES (listed below):
    a. Ultra CallAnalyst - software for analyzing and generating reports from captured call data. For installation details, see "Install CallAnalyst Enterprise Server" in the Installation and Configuration Guide on the CES application CD.
    b. Ultra CallAnalyst Network Client – Software is installed on a workstation for running Ultra CallAnalyst from another network location. The number of Network Client Licenses installed on CallAnalyst Server determines the number of workstations that can simultaneously access Ultra CallAnalyst. The Network Client software may be installed on as many computers as you wish. For further details refer to "Install CallAnalyst Network Client" in the Installation and Configuration Guide on the CES application CD.
    c. CallAlert – Software installed on a workstation with TCP/IP access to the CallAnalyst Enterprise Server so it can monitor call records and send alerts when telephone abuse is detected. For installation details, see "Install CallAlert" in the Installation and Configuration Guide on the CES application CD.
2. **MSR (Multi-Site Reporting) Thin Client Installation** - This software is installed on a computer at a remote site to packetize the SMDR data and send it over an IP network. This software is only needed if the telephone system is not able to send SMDR data to an IP network directly. Refer to "Install Multi-Site Reporting Thin Client" on the CES application CD for installation details.
3. **MSDE (Microsoft Database Engine) Installation** - This is installed on the CallAnalyst Enterprise Server if Microsoft SQL Server is NOT installed on the network. Microsoft Internet Explorer 5.0 (or higher) must be installed before MSDE is installed. See the "Installation and Configuration Guide" on the CES application CD for more details.

    SQL Server's security mode is stored as the LoginMode value in the Windows NT Registry as part of the HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSQLServer\ MSSQLServer. You should change the value of LoginMode to 2. After changing the value, restart the MSSQLSERVER service.

    Important Information: If you install the MSDE on a Windows NT machine, then the machine restarts after successful completion of the installation. In case of any error, see MSDEInstall.log stored in the temporary directory.
4. **Internet Explorer 5.0** - MSDE and the CallAnalyst Help file require Microsoft Internet Explorer 5.0 or later to be installed.
5. **Adobe Acrobat Reader 5.0** - Adobe Acrobat Reader must be available for viewing the Ultra CallAnalyst manuals.
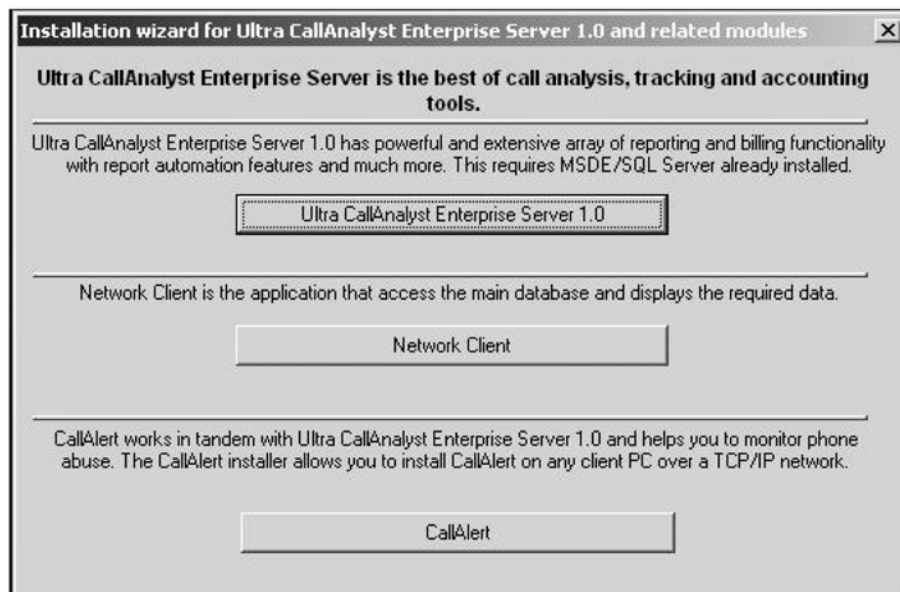
For more information about installing each software package, refer to the following installation information or to the installation documentation provided on the CES application CD.

To install CallAnalyst Enterprise Server:

1. Close all applications running on your system.
2. Load the **NEC CallAnalyst Enterprise Server** CD-ROM into your CD-ROM drive.
3. The **Setup** program will start automatically. If it does not start, follow the next step, otherwise skip the next step.
4. On the Windows Desktop, choose **Start ☞ Run**; enter **F:\Install.exe** (where F: is your CD-ROM drive) and press **Enter**.
5. In the **Select the Installer** window, select the **CES Installation**.

6. Click **Install**. This takes you to the Ultra Call Analyst Enterprise Server Enterprise Server Installation wizard.

7. In the **Installation** wizard for CallAnalyst Enterprise Server and related modules window, select **CallAnalyst**.
The **System Check in Progress...** window appears. Click **OK** to start the installation.
This takes you to the **Ultra Call Analyst Enterprise Server Enterprise Server Installation** wizard.

8. In the **Welcome** window, click **Next**.

9. In the **Select Destination Directory**, click the **Browse** button to select the destination folder and click **Next**. The **Backup Replaced Files** window appears as shown below:

10. Select the **Yes** option (recommended) to backup all the files replaced during installation and click **Next**.

11. The **Select Backup Directory** window appears as shown below:

12. Click the **Browse** button to select the destination directory and click **Next**. The **Ready to Install** window appears.

13. Click **Next** to begin installation.

    The **License agreement** window appears. Click **OK** to accept the agreement and continue with the installation.

    Ultra Call Analyst Enterprise Server installation starts. All the Data Access Components are installed along with the other required files. The **Installing CallAnalyst Security** window appears.

14. Click **OK** to install the **CrypKey Software Security Service** for network. This helps you generate license key and also helps you to protect the Ultra Call Analyst Enterprise Server application and its data from harm or loss. This is implemented especially so that only the authorized user can gain access to the Ultra Call Analyst Enterprise Server application and nobody can tamper with the license key. The installer also provides you with an option to setup Ultra Call Analyst Enterprise Server database.

Important Information:
- You cannot connect to the database, if you are not a valid user and have the authorized network connection.
- The machine where you run the database installer should have the SQL Server 2000 client installed.

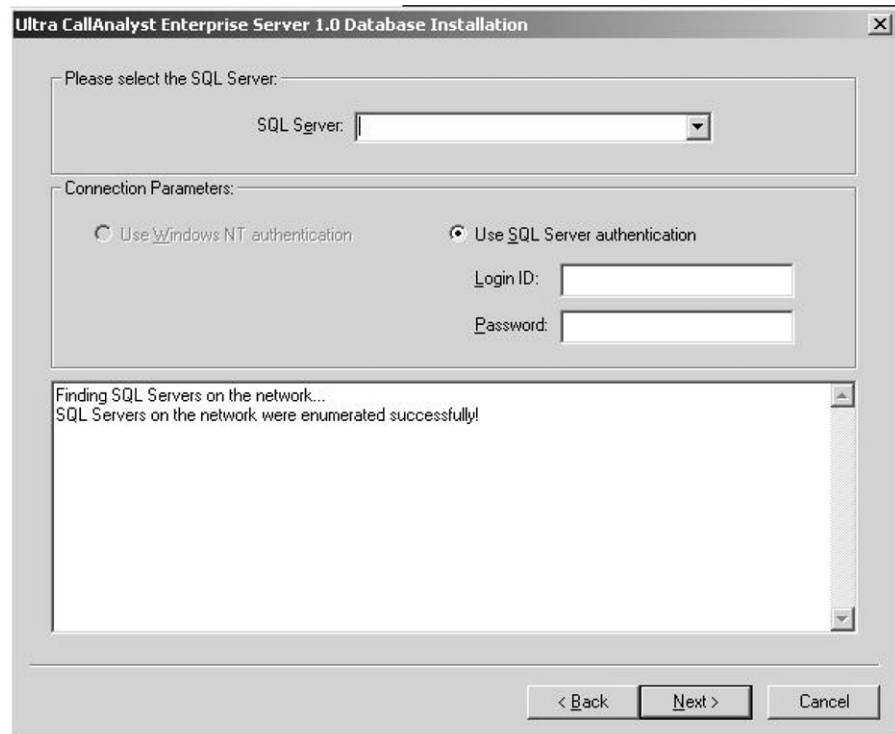Using Ultra Call Analyst Enterprise Server's database wizard, you can either:
- Create a new database or
- Use an existing database

Installation of the database creates all Ultra Call Analyst Enterprise Server related database objects and load the sample data or only the data necessary for bootstrapping, as specified by you.
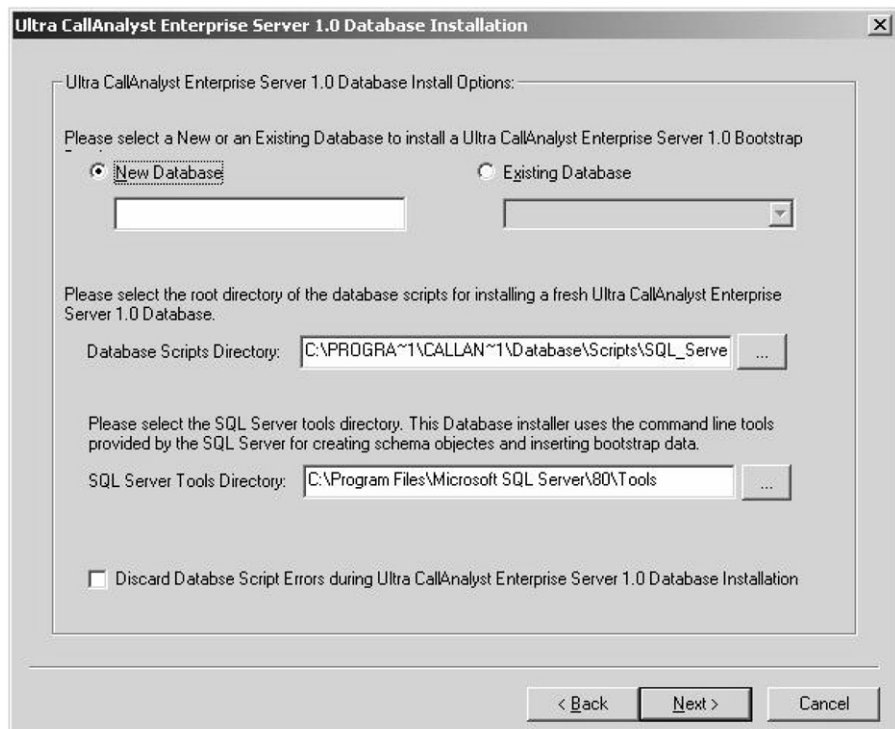
Important Information:
We recommend that you do not overwrite any database associated with the previous version of Ultra Call Analyst Enterprise Server.

15. In the **CallAnalyst Enterprise Server Database Installation** window that appears, select the SQL Server to which you want to connect.
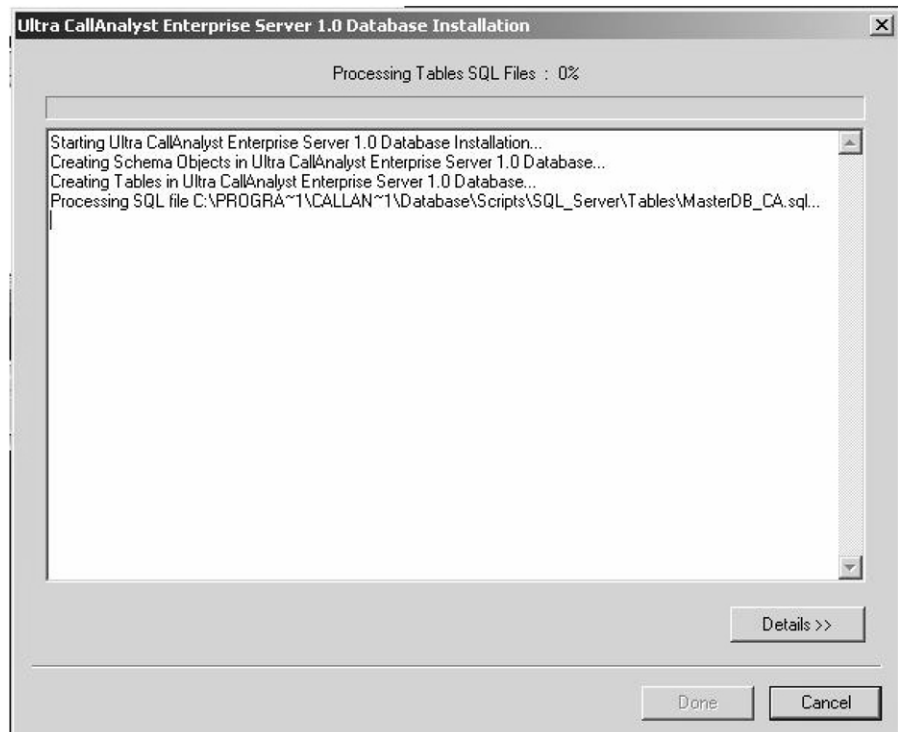

16. Enter the necessary login ID and the Password. Only SQL Server authentication is supported currently. Please make sure that the database user has the **'dbo'** role.
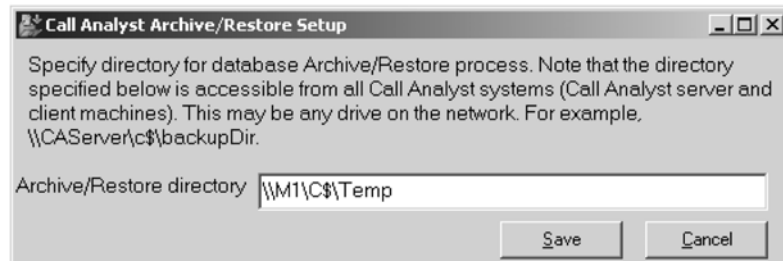17. Click **Next**.

18. Create a new database or select an existing database. By default, **New Database** option is selected. The database name should not contain blank spaces.

    If you select an existing database, make sure that there are no Ultra Call Analyst Enterprise Server specific database objects or data present in that database. If any data exist in the database, then these data will be lost and a fresh database is created.

19. Select the location of Ultra Call Analyst Enterprise Server database scripts. By default, it displays the script directory for the current Ultra Call Analyst Enterprise Server instance.

20. Select the **Tools** directory of the SQL Server client. By default, it displays the location in the Registry.

21. To discard the errors while installing the database, select the **Discard Database Script Errors during Ultra Call Analyst Enterprise Server Database Installation** option.

22. Click **Next**. Ultra Call Analyst Enterprise Server Database installation starts. The installer installs the database accordingly:
    - Creates the following schema objects of the SQL Server:
      - Database Tables
      - Database Views
      - Database Triggers
    - Executes some pre-data SQLs.
    - Imports the Bootstrap data, required for starting the Ultra Call Analyst Enterprise Server.
    - Executes post-data SQLs.

    The status of the installation is displayed in the progress bar.

23. Once the Ultra Call Analyst Enterprise Server Database installation is completed, click **Done** to continue with the Ultra Call Analyst Enterprise Server installation.

    The installer also allows you to configure the directory for database archive and restore process. Once configured, this directory is centrally located, thus available to the Ultra Call Analyst Enterprise Server as well as the SQL Server (ideally located on different machine).

24. In the **CallAnalyst Archive/Restore Setup** window that appears, type the directory name along with the machine name (that resides on the network) and the path. For example, *\\M1\C$\Temp*, where *Temp* is the directory and *M1* is the machine name. The Temp directory created is accessible to the Ultra Call Analyst Enterprise Server and the SQL Server residing on the network.

25. Click **Save** to continue with the Ultra Call Analyst Enterprise Server installation.
    If you do not want to configure the directory during installation, click **Cancel**. *For details on how to configure the directory at a later stage, see "*****Configure the Archive and Restore Directory***". The* **Important Information** *window appears*.

26. Go through the information and click **OK**. The **Installation Completed** window appears.
27. Click **Finish** to complete the installation.

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Important Information:
1. In case the Ultra Call Analyst Enterprise Server database is not installed properly due to some reason, you can re-install the database as follows:
   a. Click the Windows **Start** button, point to **Programs** and then click the **Ultra Call Analyst Enterprise Server** shortcut folder.
   b. Point to **Tools** and click **Install CA Database**.
   c. Once you have re-installed the Ultra Call Analyst Enterprise Server database, configure the database as follows:
      - Click the Windows **Start** button, point to **Programs** and then click the **Ultra Call Analyst Enterprise Server** shortcut folder.
      - Point to **Tools** and select **Configure CA Database**.
2. In case you want to change the directory for database archive and restore process due to some reason, you can re-configure the directory as follows:
   a. Click the Windows **Start** button, point to **Programs** and then click the **Ultra Call Analyst Enterprise Server** shortcut folder.
   b. Point to **Tools** and select **Configure Archive Restore Directory**.
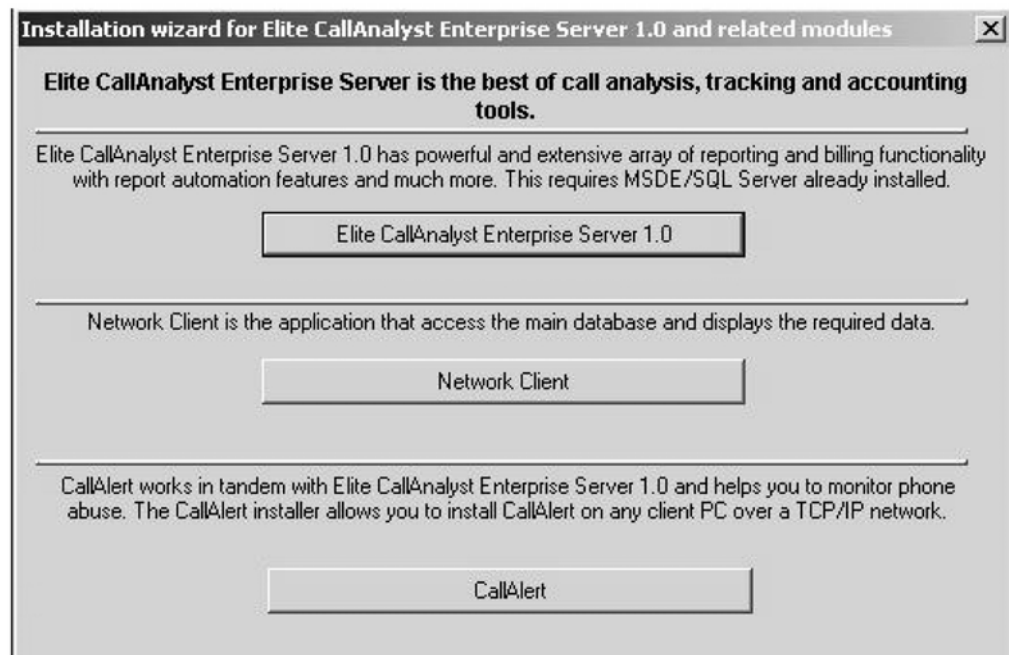
Install CallAlert

CallAlert installation allows you to install CallAlert on any PC on the (LAN) network with TCP/IP enabled. CallAlert helps you monitor phone abuse. Call Data Manager (CDM) communicates with the CallAlert and generates alarms when certain conditions are met. CallAlert can also be installed on the same PC as the CallAnalyst server.

You can install CallAlert on more than one machine for Ultra CallAnalyst Enterprise Server CES Version.

1. Close all applications running on your system.
2. Load the **NEC CallAnalyst Enterprise Server** CD-ROM into your CD-ROM drive.
3. The **Setup** program will start automatically. If it does not start, follow the next step, otherwise skip the next step.
4. On the Windows Desktop, choose **Start ☞ Run**; enter **F:\Install.exe** (where F: is your CD-ROM drive) and press **Enter**.

Installation wizard for Elite CallAnalyst Enterprise Server 1.0 and related modules ✕

Elite CallAnalyst Enterprise Server is the best of call analysis, tracking and accounting tools.

Elite CallAnalyst Enterprise Server 1.0 has powerful and extensive array of reporting and billing functionality with report automation features and much more. This requires MSDE/SQL Server already installed.

> [Elite CallAnalyst Enterprise Server 1.0]

Network Client is the application that access the main database and displays the required data.

> [Network Client]

CallAlert works in tandem with Elite CallAnalyst Enterprise Server 1.0 and helps you to monitor phone abuse. The CallAlert installer allows you to install CallAlert on any client PC over a TCP/IP network.

> [CallAlert]

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5. In the Installation wizard for CallAnalyst Enterprise Server and related modules window, select **CallAnalyst ☞ CallAlert**.

   This takes you to the **CallAlert Installation** wizard, similar to the server installation. For details see **To install CallAnalyst Enterprise Server:** (page 4-187).

   The wizard also prompts you to load the **CALL ALARM** at the time of System boot. Call Alarm is a CallAlert component, which monitors the phone system and triggers alarms as defined by the CallAlert.

   If you are installing the CallAlert on a machine (client machine) other than the server (where the Ultra CallAnalyst Enterprise Server is installed), the installation prompts you to configure the CallAlert Database.

6. Enter the Ultra CallAnalyst Enterprise Server database information to connect to the CallAlert remotely. After you have entered the required information, click **Test Configuration**. On successful test, click **Save**. The Data Source Network (DSN) is created automatically.

Install CallAnalyst Network Client

The section includes all information needed to install Ultra CallAnalyst Enterprise Server Network Client. The installer allows you to install the Ultra CallAnalyst Enterprise Server client application to your machine.

Important Information: You cannot install the Ultra CallAnalyst Enterprise Server Network Client on the same machine, where the Ultra CallAnalyst Enterprise Server is installed. If you try to install the Ultra CallAnalyst Enterprise Server Network Client on the same machine, the **Existing Installation** window appears. Click **Finish** to exit the installation.

To perform Ultra CallAnalyst Enterprise Server Network installation:
1. Close all applications running on your system.
2. Load the **NEC CallAnalyst Enterprise Server** CD-ROM into your CD-ROM drive.
3. The **Setup** program will start automatically. If it does not start, follow the next step, otherwise skip the next step.
4. On the Windows Desktop, choose **Start ☞ Run**; enter **F:\Install.exe** (where F: is your CD-ROM drive) and press **Enter**.

5. In the **Installation** wizard for CallAnalyst Enterprise Server and related modules window, select **CallAnalyst Network Client**. This takes you to the **Ultra CallAnalyst Enterprise Server Network Client Installation** wizard, similar to the server installation. For details see **To install CallAnalyst Enterprise Server:** (page 4-187).

6. Map a network drive to the Ultra CallAnalyst Enterprise Server installation folder (point to the machine, where the Ultra CallAnalyst Enterprise Server is running) as shown below. The Call Data Manager is not loaded on the local PC for a Network Client installation.

The Network Client connects to a Ultra CallAnalyst Enterprise Server installation via a mapped network drive. The CallAnalyst Server installation synchronizes call records with the Network Client allowing you to remotely administer the Server. The installation also prompts you to configure the Ultra CallAnalyst Enterprise Server Network Client Database.

7. Enter the Ultra CallAnalyst Enterprise Server database information to connect to the Network Client remotely. After you have entered the required information, click **Test Configuration**. On successful test, click **Save**. The Data Source Network (DSN) is created automatically.

Install Multi Site Reporting Thin Client

Users in remote locations can connect to the CES Server using Lantronix Adaptor. To avoid the use of Lantronix Adaptor, the Multi Site Reporting Thin Client (MSR Thin Client) must be installed on every remote user's computer. This permits the remote user to access and manage call records using CallAnalyst Enterprise Server on their local computer. Thus they can connect directly to the CES Server using the LAN connection.
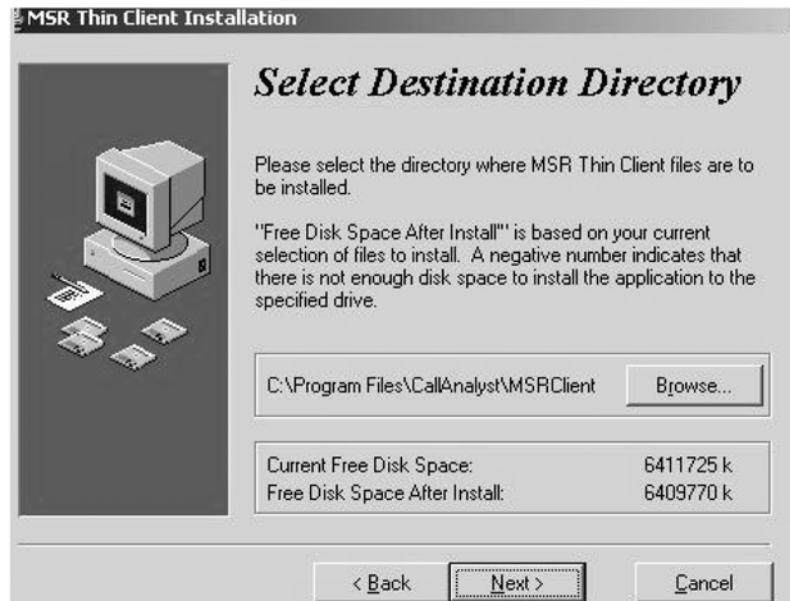
To perform MSR Thin Client installation:
1. Close all applications running on your system.
2. Load the **NEC CallAnalyst Enterprise Server** CD-ROM into your CD-ROM drive.
3. The **Setup** program will start automatically. If it does not start, follow the next step, otherwise skip the next step.
4. On the Windows Desktop, choose **Start** ☞ **Run**; enter **F:\Install.exe** (where F: is your CD-ROM drive) and press **Enter**.
5. In the **Select the Installer** window, select the **CES Installation**.

6. In the **Select the Installer** window, select the **MSR Thin Client Installation**.
7. Click **Install**. This takes you to the **CES MSR Thin Client Installation** wizard.
8. In the **Welcome** window, click **Next**.

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9. In the **Select Destination Directory** window, click the **Browse** button to select the destination folder and click **Next**.

The **Backup Replaced Files** window appears as shown below:

10. Select the **Yes** option (recommended) to backup all the files replaced during installation and click **Next**. The **Start Installation** window appears.
11. Click **Next** to begin installation. The **Installation Complete** window appears.
12. Click **Finish** to complete the installation. Once MSR Thin Client is installed on your system, the MSRCDM receives the call record data from the MSR Thin Client and dumps them into the Data Manager.

Install Scheduler as a Service

Some applications of Ultra CallAnalyst Enterprise Server on Windows NT systems may require to run the scheduler as a windows service. This allows you to log in and log out of the operating system while scheduler records call records.

To perform Ultra CallAnalyst Enterprise Server Network installation

1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Install Scheduler Service**.
3. In the **Welcome** window, click **Next**. The **Start Installation** window appears.
4. Click **Next** to begin installation. The **Installation Complete** window appears.
5. Click **Finish** to complete the installation. You need to restart your computer for the installation to complete. The **Install** window appears.
6. Click **OK** to restart your computer or click **Cancel** to return to Windows without restarting.

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Acquiring a License

After the software is installed, a License Site Key must be entered. Access to CallAnalyst Enterprise Server is controlled by licenses. It is these licenses that determine the number of sites and extensions that a user is allowed to access. The license of all applications are installed on the computer where CallAnalyst Enterprise Server is installed. Network Client software will not be able to access Ultra CallAnalyst unless the proper license has been installed on the PC running the CES.

The License and associated Site Key are valuable. This unlocks the software. Be very careful when working with License and Site Keys. If procedures are not followed, the Site Key can be damaged or erased. There are procedures for moving the software and license from one drive or computer to another. If it becomes necessary to re-issue a new Site Key, you will be required to produce proof of purchase and you may be charged a processing fee.

1. Start Ultra CallAnalyst by clicking **Start** ☞ **Programs** ☞ **NEC CallAnalyst** ☞ **CallAnalyst**.
2. Press **Enter** on your keyboard within three seconds of starting Ultra CallAnalyst. This step should display the **CallAnalyst License Configuration** dialog box.
     If CallAnalyst Enterprise Server is displayed instead of the license configuration dialog box, that means you did not press Enter soon enough. You will need to close CallAnalyst Enterprise Server and restart from Step 1 again.
3. Once the license configuration dialog box appears the **Site Code** will be displayed. Write this number down for future reference.
4. While the **Configuration** window is opened, you must call the telephone number displayed on the screen and provide proof of purchase along with this **Site Code** information. You will be asked questions about the installation site and be given a **Site Key**. Write this number down for future reference.
5. Enter the **Site Key** information in the space provided in the **CallAnalyst License Configuration** dialog box.
6. Once entered click the **Validate** button.
     A message will be displayed to indicate that the software is now ready to use.
7. After installation, start Ultra CallAnalyst by choosing **Start** ☞ **Programs** ☞ **NEC CallAnalyst** ☞ **CallAnalyst**.

Upgrading A License (if required by the configuration):

The basic license supports one site and up to 120 extensions. In order to capture call records from more sites and/or support more extensions, additional licenses are required.

1. Click on **Start** ☞ **Programs** ☞ **NEC CallAnalyst** ☞ **Tools** ☞ **Load Additional License**.
2. In the **Load Additional License** window, the **License Key** will be displayed. Write this number down for future reference.
3. You must call the telephone number displayed on the screen and provide proof of purchase, license key and the number of additional sites and/or extensions required.
4. A file named **License.lic** will be EMailed to you as specified. Please save this file for future use. ***It is strongly recommended that a back up of this file be maintained.***
5. In the **Load Additional License** window, click on the **Browse** button and select the **License.lic** in the folder.
6. Click on **Validate**.
     A message indicates the number of sites and extensions supported by the upgraded license.

Refer to the Installation and Configuration Guide for information about updating the software with additional site or extension licenses or for additional network clients.

Transferring a License

If you move CallAnalyst Enterprise Server to a different directory or to a different computer, then you need to transfer the license. The process for transferring a license must be followed as described or the license may be destroyed. Do not uninstall Ultra CallAnalyst Enterprise Server on the licensed computer until after this transfer process is completed.

Transfer to a Directory on the Same Computer:
1. Shut down all Ultra CallAnalyst programs on the main computer.
2. Copy the files in the CallAnalyst directory to the new directory.
3. Start CallAnalyst Enterprise Server by choosing **Start** ☞ **Programs** ☞ **NEC CallAnalyst** ☞ **CallAnalyst**.
4. Press **Enter** on your keyboard within three seconds of starting Ultra CallAnalyst. This step should display the **CallAnalyst License Configuration** dialog box.
5. Click **License** on the Menu Bar and select **Transfer to Directory**.
6. Enter the new directory path or use the browse button to select the new directory when prompted.
7. Click **OK**. The license will now be transferred to the new directory.

Transfer to a New Computer:
1. To move a license between two computers, first use the application CD to install CallAnalyst Enterprise Server on the new computer.
2. On the new computer, start the unlicensed copy of CallAnalyst Enterprise Server. Press **Enter** on your keyboard within three seconds of starting Ultra CallAnalyst. This step should display the **CallAnalyst License Configuration** dialog box.
3. From the drop-down **License** menu, select **Transfer Into Computer**. Insert a floppy disk into the computer's disk drive, and enter the path of the floppy disk (for drive A, this is "A:\"). Press **OK**.
   This will copy the computer identification information to the disk.
4. On the old licensed computer, start the licensed copy of CallAnalyst Enterprise Server. Press **Enter** on your keyboard within three seconds of starting Ultra CallAnalyst. This step should display the **CallAnalyst License Configuration** dialog box.
5. Insert the floppy disk into the drive of the old licensed computer. Select **Transfer Out of Computer from the License Configuration** window, enter the path to the floppy disk and click **OK**.
   This will copy the license information to the floppy disk and remove the license on the old computer.
6. Take the disk back to the new computer and select **Continue Transfer from the License** menu in the dialog box.
   The license should now have been transferred from the licensed copy to the unlicensed copy.
7. If using an upgraded license (supporting more than one site and 120 extensions), locate the **License.lic** file on the old computer (installed folder) and EMail the file to **support@trivi- umsys.com**. Call TriVium Systems for authorizing the upgrade license on the new computer.

For more information about license transfer including handling of transfers for special cases, refer to the Installation and Ultra CallAnalyst User Guides on the CES application CD or on-line help.

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Ultra CallAnalyst Software Configuration

After the software is installed and the license has been unlocked, each program must be configured. Refer to the information below or the Ultra CallAnalyst Installation Manual and User Guide on the installation CD for details.

Configure the Call Data Manager

Multi Site Reporting Call Data Manager (MSRCDM) monitors your serial port for phone records and saves them into a database for Ultra CallAnalyst Enterprise Server. For detail on MSRCDM, refer to the Online Help.

Configuring MSRCDM includes:
• "Configure and Test the Serial Port"
• "Configuring Call Data Manager"

Configure and Test the Serial Port

Ultra CallAnalyst Enterprise Server provides this tool to ensure that data is being received from your phone system via the selected COM port on your PC. Using Ultra CallAnalyst Enterprise Server with your phone system requires that the COM port settings on the phone system match the COM port settings on you PC. You can choose either the guided process if you do not know the COM port settings for your phone system or you may manually test the COM port settings.

If the COM port is properly configured and the phone system is configured to generate call records then the following tests will show some kind of ASCII output - recognizable call records (if the port settings are correct) or gibberish (random ASCII characters, if the port settings are incorrect). If no output appears during the testing, then refer to the Troubleshooting section.

Guided Process

1. Click **Start Test**.
   The test starts with the most common COM port settings.
   Follow the directions that appear in the Call Data Output screen. You will be instructed to make a test phone call on your phone system to see if the COM port settings are correct. If they are, you will see lines of alphanumeric characters that clearly (i.e. gibberish characters, *&%#@) represent call records. You are now ready to save the parameters and continue the CDM setup. If you do not have clear call records then go to the next step.
2. Click **Try Next Setting** to set the COM port to the next setting and again follow the directions that appear.
3. Continue to repeat this step until clear call records are shown in the test window or until it is determined that some other factor (such as an improper wiring between the phone system and PC or incorrect phone system output settings) is inhibiting transmission of the data.
   When you are able to see call records, you are done.
4. Click **Save Current Configuration for use in CDM** and click **Exit**.

Manual Testing

1. Click **Configure Port** to set the COM port settings as desired.
2. Click **Apply and Test Configuration** and follow the directions that appear in the Call Data Output Screen. You would be instructed to make a test phone call on your phone system to see if the COM port settings are correct. If they are, then you will see lines of alphanumeric characters (gibberish characters *&%#@) that clearly represent call records.
   If you do not have clear call records then try using the guided process.

   When you are able to see the call records, you are done.
3. Click **Save Current Configuration for use in CDM** and click **Exit**.

Configuring Call Data Manager

1. To configure MSRCDM, click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Select **Multi Site Configuration**. The **CA - CES Site Setup** window appears.
   - From the **Sites** pane, select the site for which you want to configure the Call Data Manager.
   - The site code and the site name appear in the **Site Code** and the **Site Name** boxes respectively.

   You can add or delete a site, if required.
   - In the **Phone System** drop down, select the switches (Ultra IPK) that you use in your phone system.

   - In the **Call Data Source** pane, select the call data source. External DB, Web (URL) and Log files are used to store the call information after the call is over. Comm Port or TCP/IP are used to store real time data (records the call, while it is in process).

   - **Comm Port** settings:
     ○ In the **Port** pane, select the serial port to which you want to connect the MSR Thin Client.
     ○ In the **Communication Settings** pane, do the following:
       • From the **Baud** drop down, select the transmission rate in bits per second
       • From the **Parity** drop down, select how the system should use the parity bit to select the errors. The default value is **Even**. All computers do not support Mark and Space.
       • From the **Data Bits** drop down, select the number of data bits in a character. The valid values for data bits are in the range 5 through 8.

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• From the **Stop Bits** drop down, select the number of stop bits that define the end of a character. The valid values for stop bits are 1, 1.5 and 2. If the baud rate is 110, then the default value is **2**; otherwise the default value is **1**. All computers do not support the value 1.5.

To configure the serial port using the configuration tool, click Configure. For details see **Configure and Test the Serial Port** (page 4-202).

- **External DB** settings:
  - ❍ In the **Data Source DSN** box, type the data source name to connect to an existing database.
  - ❍ In the **Data Request Interval (max. 7 day equivalent)** box, type the time interval (in minutes) after which the call data should be retrieved from this data source and stored.

- **Web (URL)** settings:
  - ❍ In the **Data Source (URL)** box, type the web address of the site, where the call records are stored.
    The format should be http://<server_name>/<logfile_name>?<userlogin>, <password>. For example, http://10.1.1.2/d1.txt?administrator,0000.
    The user login and password are the authentication to access call data within the switch.
  - ❍ In the **Local filename to store data from URL**, select the filename in your machine where you want to store the call data records. For example, C:\CAURLdump\ dumphere.txt.
  - ❍ In the **Data Request Interval (max. 7 day equivalent)** box, type the time interval (in minutes) after which the call data should be retrieved from this site and stored.

    To test the validity of the site address, click **Test**.

- **Log File** settings:
  - ❍ In the **Data Source Log File** box, type the log file (along with the path), where the call records are stored. To select the log file, click **Browse**.
  - ❍ In the **Data Request Interval (max. 7 day equivalent)** box, type the time interval (in minutes) after which the call data should be retrieved from log file and stored.

- **TCP/IP** settings:
  - ❍ In the **IP Address** box, type the IP address of the MSR Thin Client.
  - ❍ In the **Port Number** box, type the port number to which you want to connect the MSR Thin Client.

    To test the validity of the site address, click **Test**.

Important Information: External DB is supported only for the 3COM SUPERSTACK switch.
- In the **Advanced Option** pane, select any or all of the following option:
  - ❍ **Dialed number in call data output includes the trunk access code prefix:** Select this option, to dial a digit (such as 8 or 9) to access a trunk line. You need to select this option only if your phone system prefixes this access digit to the phone number in the data output by the phone system. (91800XXXXXXX).
  - ❍ **Discard extra digits dialed after phone number:** Select this option to show any extra digits dialed after the phone number. For example, digits dialed to access a phone card or for automated phone systems (DTMF digits).

❍ **Member of a multi-site installation:** Select this option, to use the installation of the Ultra CallAnalyst Enterprise Server as a part of the multi-site installation. If you select this option, then you need to enter a site code.

You can also configure your local and toll free area codes as follows:
❍ **Local Area Code:** Enter your local area code (such as 503). This area code is tagged with all the local calls and is useful in generating reports.
❍ **Other Toll Free Area Codes:** Enter your toll free area codes (such as 503). This code is tagged with **all toll free** or **long distance** calls and useful in generating reports.

You can add or delete codes, if required.

● **Route Numbers for Local Calls:** Enter the route numbers that will be considered in the local calls for billing purposes. You can add or delete the route numbers, if required.
● **Route Numbers for Long Distance Calls:** Enter the route numbers that will be considered in the long distance calls for billing purposes. You can add or delete codes, if required.
● In the **Common Parameters** pane, select the following:
   ❍ **Local DM IP Address:** The IP address of the machine, where the Data Manager (DM) is running. The DM and the MSRCDM must be running on the same machine. The IP address should be 127.0.0.1.
   ❍ **Receive UDP Port Number:** Type the User Datagram Protocol (UDP) port number of the DM, where it will receive the call data records from MSRCDM. You can use port number between 2000 and 65536, except 15000, 15001 and 15002. The value 0 is invalid and values 15000, 15001 and 15002 are reserved port numbers. This port is used mainly for receiving data from local computer. It cannot receive data from remote locations.
   ❍ **Receive TCP Port Number:** Type the Transfer Control Protocol (TCP) port number of the DM, where it will receive the call data records from MSRCDM. You can use port number between 2000 and 65536, except 15000, 15001 and 15002. The value 0 is invalid and values 15000, 15001 and 15002 are reserved port numbers. The port is mainly used for receiving data mainly from remote locations. The value for this port number should not be same as UDP Port number.
   ❍ **Send CDR to remote DM? :** Select this option, if you want your local DM to transmit the Call Data Records to the remote DM. Once you select this option, type the remote DM IP address and the port number in the respective boxes.

3. After you have updated the CDM configuration, click **Save**.
   CallAnalyst is now ready to receive call information from your telephone system.

4

Configure Ultra CallAnalyst Enterprise Server Database

You must configure the Ultra CallAnalyst Enterprise Server database to communicate with the Ultra CallAnalyst Enterprise Server. The Server Name and Data Base name are to be specified as part of Ultra CallAnalyst Enterprise Server Database configuration.

To configure the Ultra CallAnalyst Enterprise Server database
1. Click the Windows **Start** button, point to Programs and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to Tools and select **Configure CA Database**.

The **Configure Ultra CallAnalyst Enterprise Server Database** appears as shown below:

3. Enter the server name and the database name.
4. Enter the required user id and the password.
5. Click **Test Configuration** to test the connection to the database.
6. Click **Save** to save the configuration.
   On successful configuration, the data source name is created automatically.

Configure Administrator's EMail

To send an email to the Administrator, a simple configuration is required. The exchange server should be accessible and functioning correctly for the Administrator to receive the mail.

Whenever the license limit (i.e., license for number of extensions) is violated, the process MSAdvPrs.exe sends an email to this email address.

Important Information: The process MSAdvPrs.exe can send the mail only when the Administrator is logged into the system. The mails cannot be sent if the system restarts automatically due to a power failure and the Administrator is logged out.

To set the email address of the Administrator
1. From the Windows **Start** menu, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Configure Administrator Email**.

The **Configure Admin Email** window appears.

3. In the **Administrator Email** box, type the mail address of the Administrator.
4. Click **Save**.

4

Configure the Archive and Restore Directory

Ultra CallAnalyst Enterprise Server allows you to configure the directory for database archive and restore process even after the installation process is over.

To configure the directory for archive and restore process

1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Configure Archive Restore Database**.

    The **CallAnalyst Archive/Restore Setup** window appears.

3. In the **Archive/Restore directory** box, type the directory name along with the machine name (that resides on the network) and the path. For example, \\M1\C$\Temp, where Temp is the directory and M1 is the machine name.
4. Click **Save**.
    The Temp directory created is accessible to the CallAnalyst Enterprise Server and the SQL Server residing on the network.

4

Configure the Multi Site Reporting Thin Client

You must configure the Multi Site Reporting Thin Client (MSR Thin Client) to communicate with the CES Server using MSRCDM.

To configure the MSR Thin Client
1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Select **MSR Thin Client**.

- **Comm Port Details:** Allows you to configure the serial communications port.
  - ❍ In the **Port** pane, select the serial port to which you want to connect the MSR Thin Client.
  - ❍ In the **Communication Settings** pane, do the following:
    - From the **Baud** drop down, select the transmission rate in bits per second
    - From the **Parity** drop down, select how the system should use the parity bit to select the errors. The default value is **Even**. All computers do not support Mark and Space.
    - From the **Data Bits** drop down, select the number of data bits in a character. The valid values for data bits are in the range 5 through 8.
    - From the **Stop Bits** drop down, select the number of stop bits that define the end of a character. The valid values for stop bits are 1, 1.5 and 2. If the baud rate is 110, then the default value is **2**; otherwise the default value is **1**. All computers do not support the value 1.5.
  - ❍ **TCP/IP Details:** Allows you to set the TCP/IP Port.
    - In the **Port Number** box, type the port number to which you want to connect the MSR Thin Client.
3. After you have entered all the details, click **Save**.

   *Note: If you want to configure the serial port using the configuration tool of CallAnalyst Enterprise Server, click **Configure**. For details see **Configure and Test the Serial Port** (page 4-202).*

Configuring Service Parameters

In order for your Windows NT Services to access the mail services and other network services, you need to start your Windows NT Services under the user account. These service parameters are used to run **Ultra CallAnalyst Enterprise Server Scheduler** and the **Multi Site Process Manager** service, after you install the Ultra CallAnalyst Enterprise Server.

To configure service parameters

1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
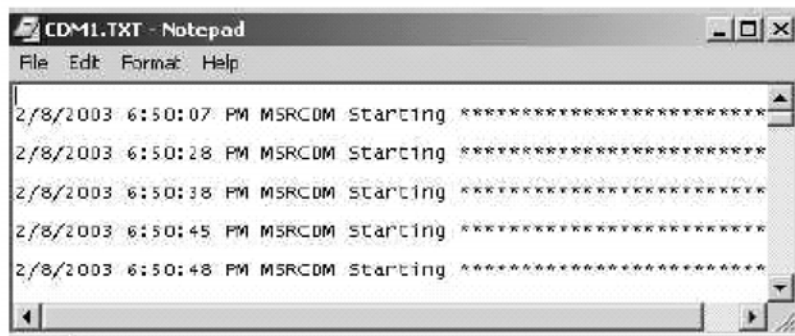2. Point to **Tools** and select **Configure Service Parameters**.

   The **Configure Service Parameters** window appears.

3. In the **Domain/Workgroup Name** box, enter you domain or the workgroup name. These names are stored under the **Network Identification** tab of "My Computer" properties.
4. In the **User Name** box, enter your Windows user name.
5. In the **Password** box, enter your password.
   Note: Whenever you open the Configure Service Parameters window, the password remains blank. You need to confirm your password.
6. Click **Save**.

Acquire your License

Access to Ultra CallAnalyst Enterprise Server is controlled by licenses. They determine the number of sites and extensions that a user is allowed to access. When the license limit is violated, then the process **MSAdvPrs.exe** sends an EMail to the Administrator (for details on how to configure Administrator's EMail see **Configure Administrator's EMail** (page 4-207).

After installing Ultra CallAnalyst Enterprise Server, you may or may not have a trial license for an introductory period. You must obtain a permanent license from TriVium Systems.

To acquire a license
1. Start CallAnalyst.
2. Press the **Enter** key on your keyboard within 3 seconds.

The **CallAnalyst License Configuration** window appears.

If Ultra CallAnalyst Enterprise Server starts instead of the license configuration window, then it means you did not press the **Enter** key quickly enough. You must close CallAnalyst and restart from step 1 again.
3. Contact your Ultra CallAnalyst Enterprise Server vendor with your Site Code information to receive your license. Enter the **Site Key** given by the vendor to license Ultra CallAnalyst Enterprise Server.
4. If you re-install Ultra CallAnalyst Enterprise Server in a different directory or on a different computer, then you need to transfer your license.

Monitor Site Performance

Ultra CallAnalyst Enterprise Server allows you to measure the performance of the local and remote sites. With the Health Monitor you can determine the status of each site, identify the processes that are carried out these sites.
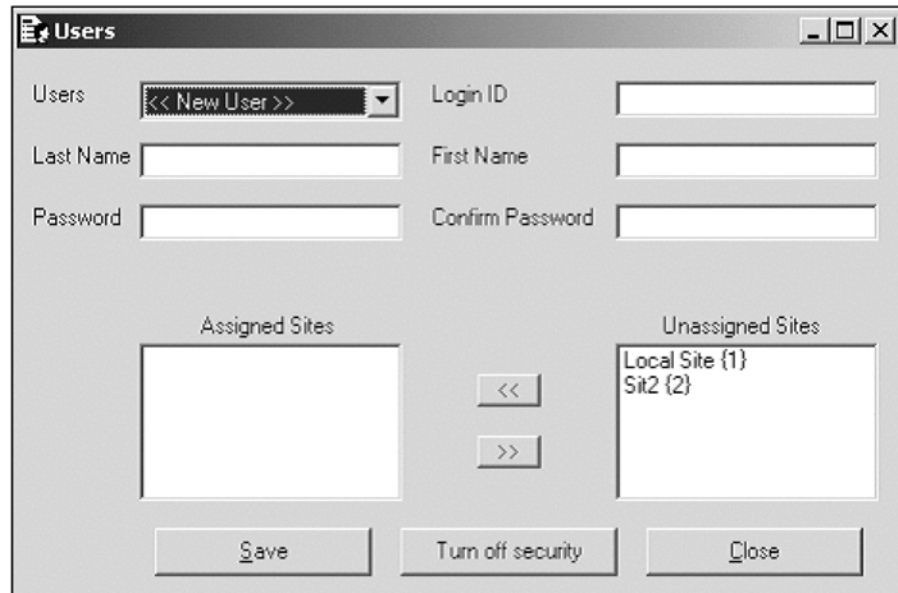
To view the performance of the site:

1. From the Windows **Start** menu, point to **Programs** and then click the **CallAnalyst Enterprise Server** shortcut folder.
2. Select **Health Monitor**.

The **CallAnalyst Health Check** window appears.

The Process Status pane appears and you can view the activity of each site. To view more detail information on each site:

- Select the row that contains the site code and double click.
  The log file opens and you can view all the activities performed on the site.

The log file refreshes every one minute.

Manage Your Users

Ultra CallAnalyst Enterprise Server allows you to create users and assign sites to the users. Ultra CallAnalyst Enterprise Server can have only one Administrator. The login id and the password of the Administrator is admin and admin respectively. As an Administrator, you can use this login id and the password to create different users, modify existing user details and change the password of the user.

To create different users

1. From Windows **Start** menu, point to **Programs** and then click the **CallAnalyst Enterprise** shortcut folder.
2. Point to **Tools** and select **User Management**.

   The **Login to Users Screen** window appears.

3. Enter the user name and the password as mentioned above.
4. Click **OK**. The **Users** window appears.

5. Enter the necessary details and assign the relevant sites.
6. Click **Turn off Security** to skip the security checks throughout the system. This changes the caption of the button to **Turn on Security**. Whenever it is necessary, you can turn on the security.
7. Click **Save**.

To modify the existing user details:

1. From Windows **Start** menu, point to **Programs** and then click the **Ultra CallAnalyst Enterprise** shortcut folder.
2. Point to **Tools** and select **User Management**. The **Login to Users Screen** window appears.
3. Select the user from the **Users** drop-down list.

4. Make the necessary changes and click **Save**.

To change the user password:

1. From Windows **Start** menu, point to **Programs** and then click the **Ultra CallAnalyst Enterprise** shortcut folder.
2. Point to **Tools** and select **User Management**. The **Login to Users Screen** window appears.
3. Check the **Change Password** check box.
4. Enter the new password and click **Save**.

   If you change the password of a user, then the password becomes effective only from the next time when the user logs in.

Uninstall CallAnalyst

When removing CallAnalyst from your system, it is important that you first close the application and uninstall the scheduler and other services, if installed.

Uninstall Scheduler Service

To uninstall Scheduler Service
1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Uninstall Scheduler Service**.
3. In the **Welcome** window, click **Next**. The **Installation Complete** window appears.
4. Click **Finish** to complete the uninstall.

Remove CallAnalyst

This instruction completely remove all CallAnalyst Enterprise Server programs from your computer.

To remove Ultra CallAnalyst Enterprise Server from your computer
1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Remove CallAnalyst**. The **Select Uninstall Method** window appears.
3. Select the **Automatic** option (recommended) to automatically uninstall the CallAnalyst Enterprise Server. You can also select the **Custom** option to select the modifications that you want to make during uninstall.
4. The **Perform Rollback** window appears. You can select to rollback all the files that were created during installation. This returns your computer to the state it was before the last installation.
5. Select the **Yes** option to rollback all the files. The **Perform Uninstall** window appears.
6. Click **Finish** to complete the start and complete the uninstall.

Remove CallAlert

This instruction completely remove the CallAlert programs from your computer.

To remove CallAlert from your computer
1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Remove CallAlert**. The **Select Uninstall Method** window appears.
3. Select the **Automatic** option (recommended) to automatically uninstall the CallAlert. You can also select the **Custom** option to select the modifications that you want to make during uninstall.
4. The **Perform Rollback** window appears. You can select to rollback all the files that were created during installation. This returns your computer to the state it was before the last installation.
5. Select the **Yes** option to rollback all the files. The **Perform Uninstall** window appears.
6. Click **Finish** to complete the start and complete the uninstall.

4

Remove MSR Thin Client

This instruction completely remove the MSR Thin Client programs from your computer.

To remove MSR Thin Client from your computer

1. Click the Windows **Start** button, point to **Programs** and then click the **Ultra CallAnalyst Enterprise Server** shortcut folder.
2. Point to **Tools** and select **Remove MSR Thin Client**. The **Select Uninstall Method** window appears.
3. Select the **Automatic** option (recommended) to automatically uninstall the MSR Thin Client. You can also select the **Custom** option to select the modifications that you want to make during uninstall.
4. The **Perform Rollback** window appears. You can select to rollback all the files that were created during installation. This returns your computer to the state it was before the last installation.
5. Select the **Yes** option to rollback all the files. The **Perform Uninstall** window appears.
6. Click **Finish** to complete the start and complete the uninstall.

4

Section 5:

Troubleshooting

Troubleshooting CTA/CTU/TAPI Operation

This section describes the causes and solutions to problems which may occur during use of the CTA or CTU adapter and CTI application.

General

● The product (CTA adapter, CTU adapter, or CD-ROM) is defective.

Cause	Solution
• Problems during manufacture.	• Contact your distributor/dealer.
• Damage during use.	• Contact your distributor/dealer.

● Cannot run setup program.

Cause	Solution
• MS-DOS or another Windows application is still running.	• Close all MS-DOS and Windows applications (except the program manager), and run the setup program again.
• Defective CD-ROM.	• Contact your distributor/dealer.

● An error occurs while loading from the installation disk.

Cause	Solution
• Defective CD-ROM.	• Contact your distributor/dealer.

CTA

● Dial-up connection to the Internet is no longer possible after a CTI application has been installed.

Cause	Solution
• The same COM port is used by the CTA driver and the dial-up connection.	• The same COM port cannot be used. Uninstall one of the two.

● The CTA driver does not operate correctly after the operating system is updated.

Cause	Solution
• The CTA driver settings are lost when the operating system is updated.	• Refer to *CTA Driver Installation* on page 2-6 and reinstall the CTA driver.

● Cannot send or receive calls using the CTA adapter.

Cause	Solution
• The COM port in the PC BIOS is set to DISABLED.	• Set the COM port in the PC BIOS to ENABLED (refer to the PC manual).
• The serial cable is not connected.	• Connect the PC and CTA adapter with serial cable.
• The serial cable is cross cable.	• Use a 9 pin-9 pin straight cable.
• The PC is in the power saving mode.	• Clear the power saving mode on the PC (refer to the PC manual).
• The remote access service is operating with the COM port connected to the CTA adapter.	• Set the COM port used with the remote access service to a port other than the COM port connected to the CTA adapter.

5

CTU

● USB cable has been connected before the CTU driver is installed.

Cause	Solution
• CTU driver has to be installed first in order to correctly install the driver of CTU adapter. Otherwise, it is recognized as unknown device.	• Follow the procedure as below. 1. Unplug the USB cable. 2. To install the CTU driver, refer to *CTU Driver Setup* on page 2-4. After the installation is complete, the display requires to connect the USB cable, BUT, do not connect the USB cable at this step. 3. Uninstall the CTU driver. Refer to *Uninstalling CTU Driver* on page 2-21 to uninstall. After uninstall operation is complete, then boot the PC again. 4. Install the CTU Driver. 5. After the installation is complete, plug the USB cable in.

● Cannot send or receive calls using the CTU adapter.

Cause	Solution
• The USB cable is not connected correctly.	• Check that the PC and the CTU adapter are connected correctly with the USB cable (to make sure, remove the cable, wait five seconds, and insert it again firmly).
• The AC adapter is not connected correctly.	• Ensure that the AC adapter is connected to the CTU adapter and that the AC adapter is plugged into a power outlet.
• The PC is in the power saving mode.	• Clear the power saving mode on the PC (refer to the PC manual for details).

5

● Using the CTU adapter, cannot record audio in an application.

Cause	Solution
• The audio input device is used by other software.	• Halt or disable the audio function of the other software.
• The audio device has not been installed correctly.	• Open SYSTEM on the control panel, double-click the DEVICE MANAGER tab, select VIEW DEVICES BY TYPE, and check that 'DTR-8/16/32KH-1D' is included under SOUND, VIDEO AND GAME CONTROLLERS and that it operates correctly.
• Another USB device is in use at the limits of the usable band.	• Change the settings to reduce the usable band for other USB device. • Remove the other USB device.
• The TSP media setting is incorrect.	• Refer to '<6> Detailed Settings by Line – Media Setting' and specify the correct device.

● Using the CTU adapter, cannot playback audio in an application.

Cause	Solution
• The audio output device is used by other software.	• Halt or disable the audio function of the other software.
• The audio device has not been installed correctly.	• Open SYSTEM on the control panel, double-click the DEVICE MANAGER tab, select VIEW DEVICES BY TYPE, and check that 'DTR-8/16/32KH-1D' is included under SOUND, VIDEO AND GAME CONTROLLERS and that it operates correctly.
• Another USB device is in use at the limits of the usable band.	• Change the settings to reduce the usable band for other USB device. • Remove the other USB device.
• The TSP media setting is incorrect.	• Refer to '<6> Line Configuration – Media Setting' and specify the correct device.

● Using the CTU adapter, sound is intermittent during recording playback of an audio in an application.

Cause	Solution
• Performance of the PC is insufficient.	• Use a PC with the recommended minimum performance or greater.
• Another application which uses considerable processing power is running simultaneously.	• Do not use other applications during recording or playback. • Use a PC with enough processing power to allow other applications to be run simultaneously.

● The sound from the computer and applications is played back from the phone connected to the CTU adapter.

Cause	Solution
• The CTU adapter 'NEC-I CTU-R' has been selected as the preferred device for sound playback.	• Double-click MULTIMEDIA (SOUNDS AND MUL-TIMEDIA with Windows 2000) on the Control Panel, set the preferred device for sound playback to a device other than 'NEC-I CTU-R', and place a check in USE ONLY PREFERRED DEVICES.

5

TAPI 1.x/CTI

● Dial-up connection to the Internet is no longer possible after a CTI application has been installed.

Cause	Solution
• The same COM port is used by the CTA driver and the dial-up connection.	• The same COM port cannot be used. Uninstall one of the two.

● When the CTI application is used, it cannot be used again when a subsequent attempt is made to use it after a short internal.

Cause	Solution
• The PC power saving function disables the COM port, thus preventing communication between the CTU adapter and the PC.	• Change the PC BIOS setting so that the power saving function does not disable the COM port.

● The Aspire Telephony Service Provider has been uninstalled with the required procedure, however the 'AspireTelephonyDriver' icon remains of the Windows 'Start menu.'

Cause	Solution
• ASPIRE TELEPHONY DRIVER is still in the list displayed by double-clicking ADD/REMOVE PROGRAMS on the control panel.	• Select ASPIRE TELEPHONY DRIVER, click ADD/REMOVE PROGRAMS, and uninstall again.
• ASPIRE TELEPHONY DRIVER' is not in the list displayed by double-clicking ADD/REMOVE PROGRAMS on the control panel.	• Select START - PROGRAMS - ASPIRE TELEPHONY DRIVER, and click the DEL key.

5

● TAPI Initialization is not completed successfully even when the CTI application is started.

Cause	Solution
• ASPIRE TELEPHONE SERVICE PROVIDER not displayed in TELE-PHONY on the control panel (in PHONE AND MODEM OPTIONS with Windows 2000 and Windows XP). Due to the CTA or CTU driver not having been installed, or not having been installed correctly.	• Install the CTA or CTU driver if it has not been previously installed. • Reinstall the CTA or CTU driver if it has not been correctly installed.

• CTA hardware is not connected correctly.	• Check connections:
	 - *Serial cable:* Is the serial cable correctly connected to the COM port on the PC?
	 - *Phone*
	  Is the phone operating? (Is the time displayed on the LCD? Are outgoing calls possible?)
	 - *Is it connected to ESI?*
	  The CTA adapter does not operate when the phone is connected to ESIC.

• CTU hardware is not connected correctly.	• Check the connections: - *AC adapter:* Is the AC adapter connected to the CTU adapter? - *USB Cable:* Is the USB cable connected correctly to the PC and the CTU adapter? - *Keyset:* Is the phone operating? (Is the time displayed on the LCD? Are outgoing calls possible?
• The CTA's serial cable is not a straight cable (e.g. cross or special cable).	• Use a 9 pin-to-9 pin straight cable.
• A special communications driver is installed.	• Uninstall the special communications driver.
• With the CTA adapter: The COM port is disabled in DEVICE MANAGER (CONTROL PANEL - SYSTEM). - The port to which the serial cable is connected does not exist. - The port is noted with a red 'X'. - '!' is superimposed on a yellow background.	• Enable the COM port. • Check whether the relevant COM port is enabled in the PC BIOS settings. • Check that the PC contains a modem board which may be competing for resources (e.g. IRQ). In any of the above cases, refer to the PC manual, check, and change as necessary. If the COM port still cannot be used, change to another COM port. If normal operation is still not possible, the following fault(s) may have occurred. • Contact your distributor/dealer. • Defective CTA adapter. • A problem with Windows (Windows detects the COM port correctly, however the port does not operate correctly with the COM port driver used.)
• With the CTA adapter: The remote access service is operating with the COM port connected to the CTA adapter.	• Set the COM port used with the remote access service to a port other than the COM port connected to the CTA adapter.

5

TAPI 2.x/CTI

The majority of problems encountered with CTI operation are related to general networking troubleshooting. In addition to networking, CTI relies on a working domain, due to the fact the operation is based on Microsoft TAPI 2.1 setup.

Problems:
- **Server unable to see Aspire devices within Aspire TSP**
- **Server unable to see Aspire devices under Phone.exe**
- **Server Phone and Modem Options fails to Open**
- **Server Telephony Service is not responding**

These problems normally indicate that there is a communication problem between the Aspire and CTI Server.

Please follow the steps below to check communication between the CTI Server and Aspire.

1. Use the Ping command line tool from the CTI Server to ensure you can ping the Aspire IP address. The Aspire IP address is found in **Program 10-12-01**.

   Click **START** - **RUN**
   Type **CMD** and press **ENTER**
   Type **PING xxx.xxx.xxx.xxx**
   (**xxx.xxx.xxx.xxx** = Aspire NTCPU IP address. By default this address is: 172.16.0.10)


```
C:\WINDOWS\system32\cmd.exe

C:\Documents and Settings\master>ping 172.16.0.10

Pinging 172.16.0.10 with 32 bytes of data:

Reply from 172.16.0.10 : bytes=32 time=1ms TTL=30
Reply from 172.16.0.10 : bytes=32 time<1ms TTL=30
Reply from 172.16.0.10 : bytes=32 time<1ms TTL=30
Reply from 172.16.0.10 : bytes=32 time<1ms TTL=30

Ping statistics for 172.16.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Documents and Settings\master>_
```

You should ensure that, as above, there is 0% Packet Loss displayed in the Ping statistics.

If you are unable to Ping the Aspire NTCPU, verify the Aspire NTCPU IP address (**10-12-01**). Next, verify that the PC you are using is connected to the LAN, and attempt to Ping other Hosts on the LAN (the Default Gateway for example). A useful way of eliminating the LAN is to Ping the Aspire NTCPU using a cross-over cable from your PC to the Aspire.

Alternatively, consult the Local IT Administrator for any specific configuration requirements on the LAN.

2. Using Telnet ensures that the CTI port is available by establishing a session from a network host. The Aspire CTI port is found in **Program 10-20-01**.

    Click **START** - **RUN**
    Type **CMD** and press **ENTER**
    Type **TELNET xxx.xxx.xxx.xxx 8181**
    - **xxx.xxx.xxx.xxx** = Aspire NTCPU IP address. By default this address is: 172.16.0.10
    - **8181** is the recommended CTI port and is defined in Program 10-20-01.

    You should ensure that a Telnet session is established, and verify that the Keep Alive Timer symbol appears within the Telnet session after 30 seconds (defined in **10-20-01**).

    Note: You should ensure that the following Services are disabled on the CTI Server before proceeding:
    - AspireTSP
    - Telephony

    If you are unable to establish a Telnet session to the CTI port, verify the CTI port has been defined in **10-20-01** (8181 recommended).

3. Verify the AspireTSP is installed and configured using the correct parameters. It is possible to verify the configuration using the Registry.

    Click **START** - **RUN**
    Type **REGEDIT** and press **ENTER**
    Go to the following registry key:
        HKEY_LOCAL_MACHINE\SOFTWARE\NEC\N2IPCTI\N2IPTSP\3rdParty
        pbxipaddress 'REG STRING VALUE'
        pbxport 'REG STRING VALUE'

    You should verify that the PBX IP address matches the IP address configured in the Aspire (**10-12-01**). You should also verify that the PBX Port matches that used in the Aspire configuration (**10-20-01**).

5

Problem:

● **Clients cannot access telephony devices on a Server running Windows Server 2003.**
   The client can ping the TAPI server, but no devices displayed.

On Windows XP or Windows 2000 based computers, when you try and connect to a Telephony Server running Windows Server 2003, you cannot see or access any telephony devices.

This problem is specific to the Security level within Microsoft Windows Server 2003, in that the Client does not support the Default Level.

If the TAPI server is using Windows Server 2003, then the clients have to be updated to either XP SP2 or 2000 SP4 with Rollup 1. Or, Microsoft has released a Hotfix which resolves the problem.

The Hotfix can be obtained by contacting Microsoft Support. Further information regarding this can be found by going to the following Microsoft web page:

http://support.microsoft.com/default.aspx?scid=kb;en-us;824692

The above link also provides a link to the Windows XP service pack 2 update. To obtain the Windows 2000 SP4 Rollup 1 update, go to the following Microsoft web page:

http://support.microsoft.com/default.aspx?scid=kb;en-us;891861

5

Problem:
- **TAPI 2.1 remote clients using Microsoft Windows XP Pro Service Pack 2 causes Microsoft's TAPI Remote Service Provider connection to the Telephony Server to run slow.**
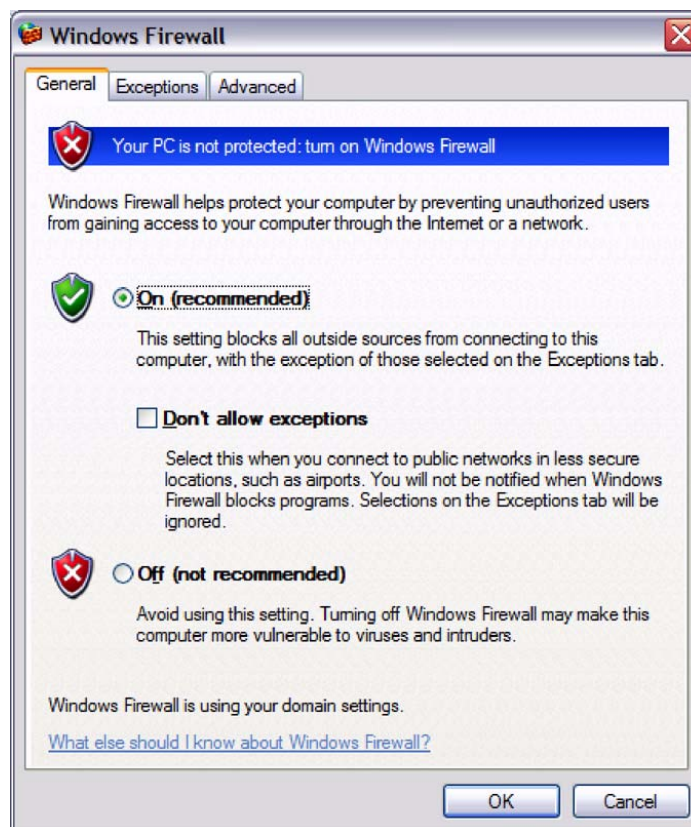
A problem with TAPI 2.1 remote clients using Microsoft Windows XP Pro Service Pack 2 exists due to Firewall settings in Windows.

The built-in firewall (added with Service Pack) is set to the most restrictive mode. This causes Microsoft's TAPI Remote Service Provider connection to the Telephony Server to run slow. One client with the firewall in the default mode connecting to a TAPI server will cause every TAPI user on site to run extremely slow.

The firewall settings should be changed for all potential TAPI users to allow a speedy connection. The recommended change is to enable file and printer sharing in the exception list of the firewall.
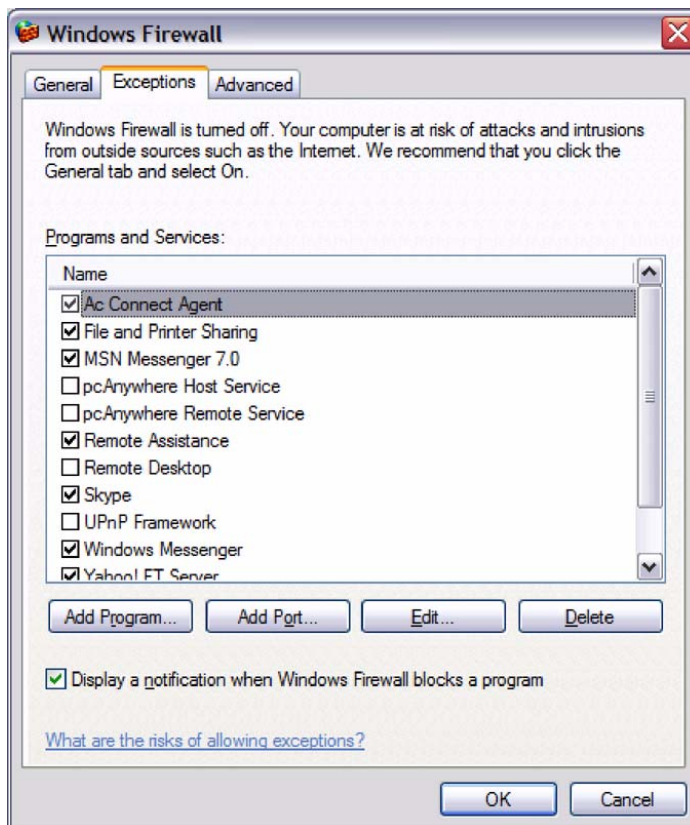
This can be performed as follows:

1. Click **Start** - **Settings** - **Control Panel**, open the **Security Center**.
2. Open **Windows Firewall**
3. Select the **General** tab
4. Ensure **"Don't allow exceptions"** is *not* selected:

5. Select the **Exceptions** tab.

6. Ensure **File and Printer Sharing** is selected (by default this is not selected).
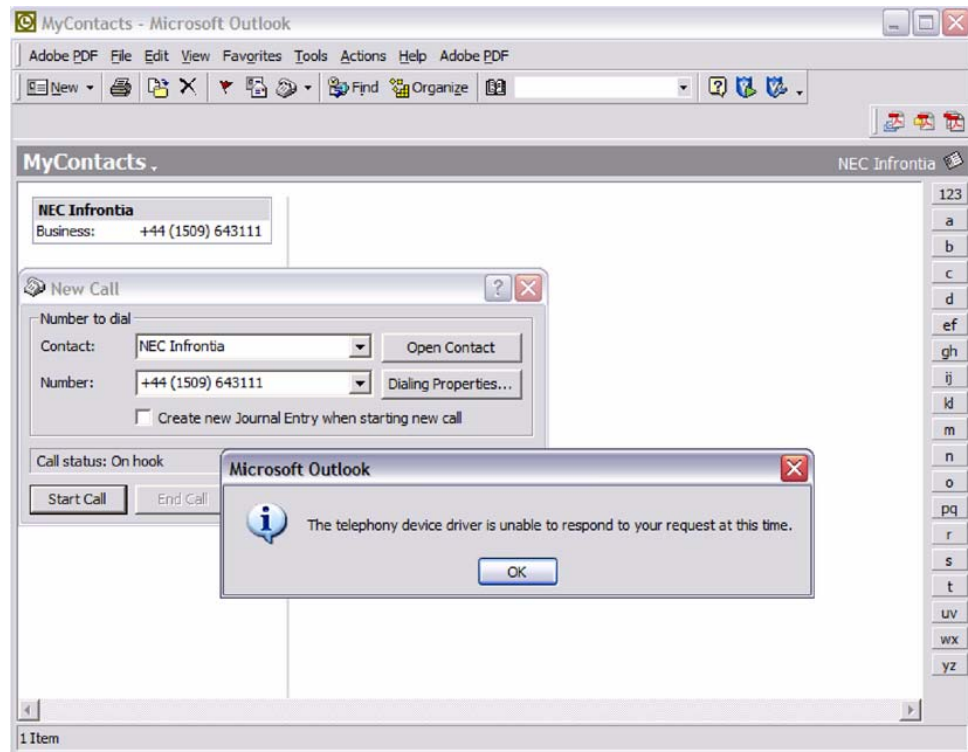

7. Click **OK**.

5

Problem:

- **Ending a call in Microsoft Outlook® causes a telephony device driver error to appear as below.**

This is a Microsoft error - complete details can be found on Microsoft's web site at:
http://support.microsoft.com/default.aspx?scid=kb;en-us;274298

The fault affects several manufacturers utilizing the Microsoft Windows Remote Service Provider as used in the Microsoft TAPI distribution model.

A fix was provided by Microsoft for Outlook® 2000, however currently no fix is available for Outlook 2002, 2003 and XP.

Please check Microsoft's web site for further updates on this matter.

The error box does not affect the call being ended as required and the ability to make a new call. Unfortunately, it does however mean an extra click on ending a call.

Troubleshooting Your PCPro/WebPro Connection

USB Connection - Direct from PC to Telephone System

● Verify the cable being used is a working USB cable.

● Confirm the USB driver is installed and that the USB modem is recognized by clicking **START** ☞ **CONTROL PANEL** ☞ **PHONE AND MODEM OPTIONS**. Click on the **MODEMS** tab. The NECI USB Modem should be displayed in the list and the COM port it is using is shown in the **ATTACHED TO** column. If it shows as **NOT PRESENT**, verify the cable connection and driver installation.

● Verify no other users are in system programming.

LAN Connection - Direct from PC to Telephone System

● Verify the cable being used is a cross-over cable.

● Confirm the correct IP address is being used to connect to the Aspire S/Aspire system (Program 10-12-01).

● Verify no other users are in system programming.

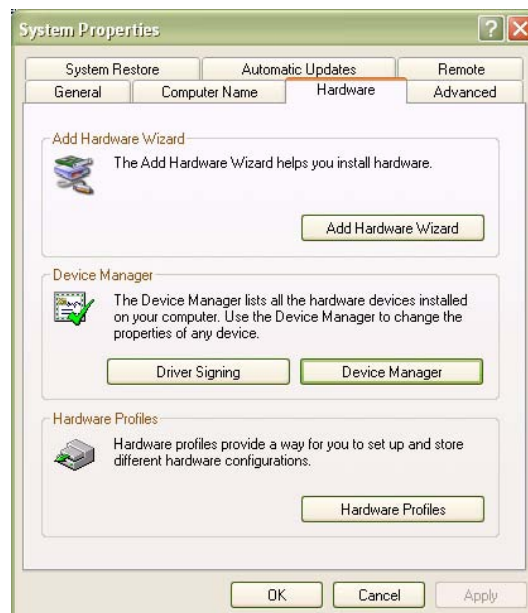### LAN Connection - From PC to Telephone System via a LAN Hub
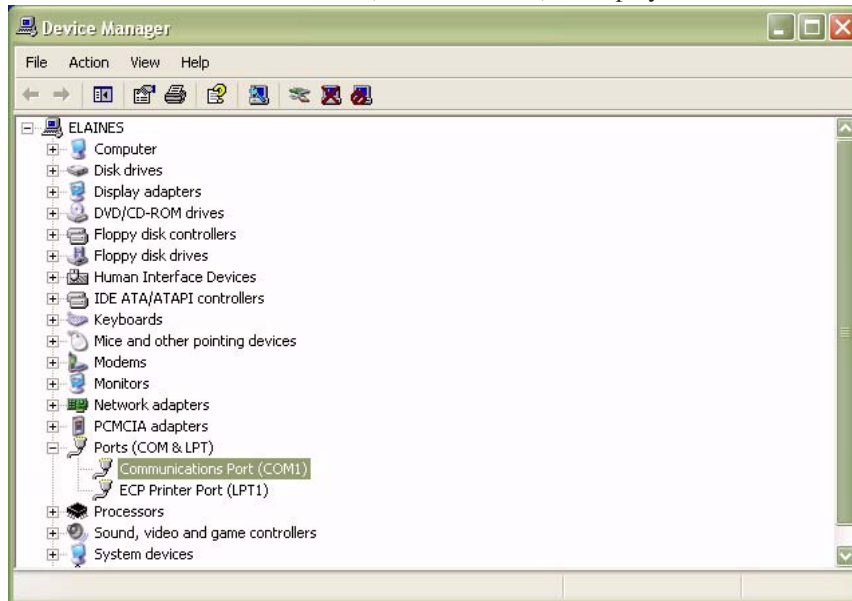
● Verify the cable being used is a straight-through cable.

● Confirm the correct IP address is being used to connect to the Aspire S/Aspire system (Program 10-12-01).

● Verify no other users are in system programming.

Serial Connection - Direct

- If you've successfully connected to the system once, and the next time you redial, the connection will not complete:
  - Remove the serial connection from the Aspire S/Aspire serial port momentarily, then reconnect it.
  - Try to reconnect.
- Verify the null-modem (cross-over) cable is pinned out correctly (refer to page 3-6).
- Verify no other users are in system programming.
- If the connection will not complete:
  1. Click on **START** ☞ **CONTROL PANEL** ☞ **PHONE AND MODEM OPTIONS**. Click on the **MODEMS** tab.
  2. Right-click on the modem labeled **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS**, click on **REMOVE**, then click **YES**.
  3. Click on **ADD** and select the **DON'T DETECT MY MODEM; I WILL SELECT IT FROM A LIST**. Click **NEXT**.
     Double-click on **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS** and click on the COM port to be used (usually COM1). Click **NEXT** and then **FINISH** when it appears.
  4. Double-click on the **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS** and then click the **MODEM** tab.
  5. Set the **MAXIMUM PORT SPEED** to the setting defined in Program 10-21-02 (default 19200).
  6. Make sure that the **COMMUNICATIONS CABLE BETWEEN TWO COMPUTERS** is the only device using COM 1. For any other devices using this port, click on **REMOVE** and then click **YES**.
  7. From the **CONTROL PANEL** window, double-click on **SYSTEM** and then click **HARDWARE**.
  8. Click on the **DEVICE MANAGER** button in the window that appears.
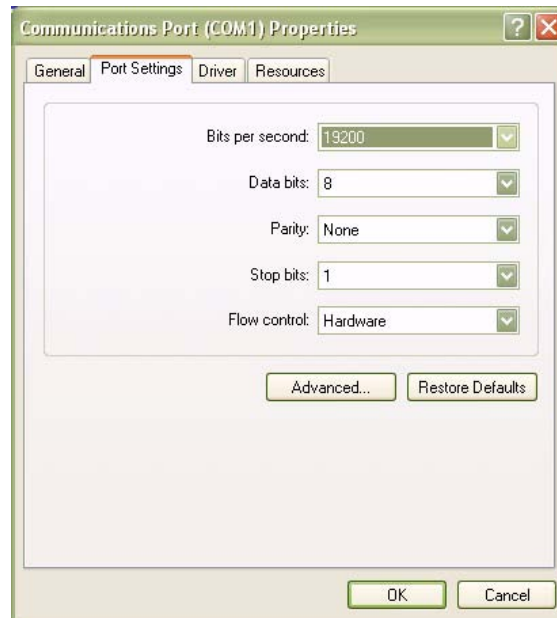

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9. Click once on **+ PORTS (COM & LPT1)** to display the list of available ports.

10. Right-click on the serial COM port (usually COM 1) and then click on **UNINSTALL**. Click **OK** to confirm the removal.
11. Right-click on **PORTS** and click on **SCAN FOR HARDWARE**.
12. After the communications port has been reinstalled, right-click on the serial port (usually COM 1) and click on **PROPERTIES**.
13. Select the **PORT SETTINGS** tab, and make sure the following settings are selected then click **OK**:

BITS PER SECOND = rate to set in Program 10-21-02 (default setting: 19200)	**PARITY** = None
	STOP BIT = 1
DATA BITS = 8	**FLOW CONTROL** = Hardware.

14. Close the **DEVICE MANAGER** window, click OK in the **SYSTEM PROPERTIES** window, then close the Control Panel window.
15. Try to reconnect using the dial-up connection (refer to page 5-15).

Serial Connection - Remote

- If you've successfully connected to the system once, and the next time you redial, the connection will not complete:
  - Have the modem powered down for a moment, then powered back up.
  - Try to reconnect.
- Verify the straight-through cable is pinned out correctly.
- Verify no other users are in system programming.
- If the connection will not complete:
  1. Using HyperTerminal to connect to the Aspire S/Aspire serial port. Start the program by clicking **START** - **PROGRAMS** - **ACCESSORIES** - **COMMUNICATIONS** - **HYPERTERMI-NAL**. Create a name for the new connection, such as **MODEM SETUP** and click **OK**.
  2. Under the **CONNECT USING** option, select the **Modem** to be used and click **OK**.
  3. Type **AT** then press **ENTER**.
  4. Either OK or AT should appear to tell you that you are connected to the modem. If **OK** does not appear, type **AT&F** and press **ENTER**. Repeat Step 3. If **OK** still does not appear, there is a problem with the connection between the PC and modem, the modem, or the PC (turning the PC off and then back on may correct the problem). Uninstalling then re-installing the modem in the **PHONE AND MODEM OPTION** of the Control Panel may also correct the problem. Correct the problem before continuing with Step 4.
  5. Type **ATDT** plus the digits required for the modem to access an outside line if not directly connected to an outside line, and enter the telephone number to reach the remote modem connected to the telephone system.
  6. Make sure to include any pauses required to connect to the remote modem.
  7. Press **ENTER**.
  8. The modem will call the remote system, negotiate a connection speed, and give you a connect message (a modem tone should be heard after the remote modem answers). If you can connect, your modem and PC are set up correctly. If you cannot connect, call NEC Technical Service for help.
  9. After you connect, disconnect the call, close the HyperTerminal session (do not save the connection) and restart the PC.
  10. Try to reconnect using the dial-up connection (refer to page 5-17).

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Troubleshooting Ultra CallAnalyst Server

Use this information to troubleshoot the problems that you encounter. For further information, contact Trivium's client service.

- **I am not able to connect to the database.**
  For you to connect to the database in the network, you need to be an authorized user and should have proper network connections.

- **How do I get started?**
  For maximum success you need the following information prior to the installation:
  - The Com Port where the SMDR data will be sent to on the CallAnalyst PC?
  - The correct settings on the Com Port to speak to the phone system

  Use the HyperTerm connected directly to the port that you have selected to determine if the SMDR is sent. If you receive garbled data, then it is most likely that the Com Port settings are incorrect. You can also use the Port Configuration tool in CallAnalyst to fine tune the settings.

- **I do not see my phone system on your list of supported phone systems. How do I get Ultra CallAnalyst Enterprise Server to recognize my phone system, which is not on the list.**

  The requirements to add a new phone system to Ultra CallAnalyst Enterprise Server are:
  1. SMDR output from the phone system captured into a text file (use the Hyperterm instructions at the end of this file). Capture approximately 10 to 15 inbound/outbound and transferred/conference calls.
  2. The SMDR format information from the manual of the phone system.

  Send the captured data and the information to TriVium Systems, who in turn will make the necessary arrangements.

- **No Inbound or Outbound calls are showing in the Call Data Manager Screen.**
  1. Make sure that the PC running the Ultra CallAnalyst Enterprise Server has a good serial cable connection to the SMDR port of your phone system.
  2. Verify that the correct COM port is selected with the right settings (Baud rate, Stop bits, Data bits, Parity) in the CDM. If you do not have this information you can contact the phone vendor who should have the default settings in the manual. If the default settings are not working please use the configuration tool available on the CDM setup screen for a guided process to determine the settings.
  3. Make sure that you have the green telephone icon from CDM in the system tray (right hand corner of the computer screen).

- **Why is Ultra CallAnalyst Enterprise Server not recording my calls correctly from my Comdial phone system? I am getting the wrong dates and time for my calls.**
  Most likely, you have selected the wrong phone system. You need to select either the SMDA or SMDR based on the output format selected on your phone system.

- **CDM screen shows invalid password instead of my phone system.**
  The license key may have failed. This occurs when the SITEKEY was given for the wrong tier or when the PC has been shut down without shutting down the CDM first. Please call the TriVium Support line to reinstate the license.

- **When does the need for re-licensing the CallAnalyst software arise?**
  During installation, Ultra CallAnalyst Enterprise Server uses a SITEKEY, which authenticates the Ultra CallAnalyst Enterprise Server license. The SITEKEY is uniquely generated each time the Ultra CallAnalyst Enterprise Server is installed on a computer. In situations where the software has to be reinstalled on new equipment or re-installed on its current equipment, the need may arise for re-authenticating your Ultra CallAnalyst Enterprise Server license. If you need to do this, you have to get the a unique SITEKEY re-issued from TriVium Systems. We refer to this situation as Re-licensing Ultra CallAnalyst Enterprise Server.

- **I am getting the call information in CDM/CallAnalyst, but the local calls have the format (000)0nn-nnnn.**
  The CDM Setup may be incorrect. For details see "Configure the Call Data Manager".

- **I am not getting any Caller ID service from the phone company.**
  Verify with your local phone company that your service is activated.

- **I am not getting any Caller ID information from the phone system**
  Some phone systems require special configuration to output this information. With regard to the name of the caller, some phone systems send only the Caller ID number, even though the LCD display on the telephone set also shows the name.

- **I am not able to run more than 40 instances of MSRCDM in my system.**
  To support more than 40 instances of MSRCDM, do the following:
  1. Change the registry value for the size of the desktop heap allocated for a desktop associated with a window station in:

     HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Session Manager\
     Sub-Systems\Windows

     The default data for this registry value is (all in one line):

     %SystemRoot%\system32\csrss.exe ObjectDirectory=\Windows SharedSection=1024,3072,512,512 Windows=On SubSystemType=Windows ServerDll=basesrv,1 ServerDll=winsrv:UserServerDllInitialization,3 ServerDll=winsrv:ConServerDllInitialization,2ProfileControl=Off MaxRequestThreads=16

     The desktop heap is allocated based on the numeric values (in Kilo Bytes) following the Shared-Section.

  2. Change the third value 512 to 1024.

  Note: You should restart your system for the changes to take effect.

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- For Your Notes -

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NEC

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