

MiCollab Advanced Messaging 9.4

Installing the Perle IOLAN DS1

Serial to Ethernet Converter

Spare Parts Document

For version 9.4 and above

Notice

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Preface

This document is written for Mitel certified MiCollab Advanced Messaging (MiCollab AM) technicians who are experienced with MiCollab AM and are familiar with its procedures and terminology. This document assumes you are familiar with MiCollab AM and the Microsoft Windows® operating system.

This document consists of the following parts:

- An Overview of the Perle IOLAN serial to Ethernet converter
- Technical Specifications and physical attributes
- Installing the IOLAN device
- Configuring the IOLAN device

References

A catalog of technical documentation is included on the MiCollab AM Installation Media. If you are installing any advanced applications, such as Networking and Fax Server applications, you should refer to the appropriate technical documentation for application and installation information.

Documentation

The technical documentation is produced in the PDF format and requires the PDF reader to view it. The MiCollab AM Documentation Library includes the following documents and resources:

- **Administration Documentation.** Available as a PDF only. Contains the following:
 - **Administration Guides.** Available as a PDF only. Contains administrative guides for administrators about how to manage and configure the messaging system.
 - **Quick Reference Cards (QRC).** Contains shortcuts and quick instructions telling subscribers how to access and use the messaging system.
 - **User Guides.** Available as a PDF only. Contains user guides for subscribers about accessing the messaging system and checking and sending messages.
- **Server Documentation.** Available as a PDF only. Contains the following:
 - **Developer Resources.** Contains programming guides and API references for developers for integrating the server clients and web applications with MiCollab AM.
 - **Installation and Configuration.** Available as a PDF only. Contains installation and configuration guides for server administrators about how to install and configure the messaging system.
 - **Integration Technical Notes (ITN).** Contains a set of guides that describe the integration methods and instructions for a variety of phone systems to work with MiCollab AM. The ITNs

are generally used by resellers or administrators who are experienced with MiCollab AM and familiar with the integration procedures and terminology.

- **Spare Parts Documentation.** Contains a set of guides that describe the instructions for installing and configuring hardware parts to work with MiCollab AM. These documents are written for Mitel-certified MiCollab AM technicians who are experienced with MiCollab AM and familiar with the procedures and terminology.
- **Software Release Notice (SRN).** This notice introduces the new features, capabilities, and hardware/software requirements for the corresponding MiCollab AM version.

Documentation Updates

Documentation updates may be available from the following sources:

- Mitel-certified technicians can view or download documents and program files from our partner web site: www.mitel.com

Help

The primary source of information about MiCollab AM is the online help available within any of its administrative utilities. You can access **Help** by clicking the **Help** button in the dialog box or window in which you are working.

Document Conventions

The following conventions are used in this document:

- **Key Names.** Names of keys on the keyboard are shown in a box.

Example: **Enter**

When two keys must be pressed simultaneously, they are joined by a + sign.

Example: **Alt** + **Tab**

- **Reference to Document** Titles of other documents are shown in italics.

Example: See the *System Installation and Configuration Guide*.

- **User Interface (UI) Element Names.** Names of UI elements such as dialog boxes, windows, screens, menu items, tabs, buttons, and icons are shown in bold.

Example: On the **Startup** screen, click the **Start** icon.

- **User Input.** Information required to be typed is shown in italics.

Example: Type the password *voicemail*.

- **Warning, Caution, Important, and Notes.** Text for the contents that require attention are shown as follows:

WARNING A warning paragraph advises you of circumstances that can result in the loss of data, harm to the MiCollab AM System Server platform, or personal harm.

CAUTION Failure to follow these recommendations can result in unauthorized access to the system and consequent loss of data.

IMPORTANT An important paragraph gives decision-making information or informs you of the order in which tasks need to be completed.

NOTE A note gives additional information, provides an explanation, or indicates an exception to the information in the preceding text.

For more detailed documents, refer to the following list of references:

Table 1. References

| Document Type | Document Title |
|------------------------------|--|
| Administration Documentation | <i>System Administration Guide</i> |
| Server Documentation | <i>Dialogic and Aculab System Administrator Guide</i> |
| Software Release Notice | <i>Software Release Note</i> for the version of the MiCollab AM software you are using |

Frequently Used Terms

Table 2. Frequently Used Terms

| Terms | Description |
|----------------------|---|
| System Server | <p>Term refers to an organization's computer platform(s) that have MiCollab AM software installed and handles the core system functions such as storing messages, database.</p> <p>It can also refer generically to the System Server platform, the Call Server platform, or both. The term is most often used to describe a software or hardware installation or configuration practice where the role of the server platform is not specifically expressed.</p> |

| | |
|--------------------|---|
| Call Server | Term refers to an organization's computer platforms that have MiCollab AM software installed and serve as the interface to the system (PBX). The Call Server(s) interface with the System Server for the purpose of accessing messages, and database. |
|--------------------|---|

Overview

This document explains how to install the Perle IOLAN DS1 serial to Ethernet converter for use with a MiCollab AM serial outband integration. The information in this document pertains to platforms running MiCollab AM version 5.0 and later.

The IOLAN DS1 serial device is used to provide integrated serial data packets from the PBX COM port to multiple Call Servers. The benefits of using the IOLAN DS1 device are:

- A single serial connection from a PBX is replicated to multiple Call Servers through the Ethernet connection
- Call Servers send and receive data to the PBX serial port independently from the System Server or other Call Servers in the system
- Allows serial PBX integrations to communicate through a serial COM port, though the underlying physical connection to MiCollab AM is the Ethernet LAN
- Each integrated Call Server can set and clear MWIs or the System Server can be configured to perform all MWI operation

The IOLAN DS1 serial device converts the serial COM port integration data from a PBX into TCP/IP packets which are distributed through the Ethernet connection. The data is received by the Perle TruePort™ virtual COM port driver installed on each integrated Call Server and delivered as an integrated packet to the serial integration. All incoming data is received by each Call Server participating in the integration.

NOTE The term Call Server throughout this document also refers to the System Server with Call Services enabled.

The IOLAN DS1 sends each data packet in its entirety before transmitting another packet, ensuring that data is not mixed. MWI messages sent from each Call Server in the integration are received by the TruePort serial COM software installed on each Call Server, which then sends a complete packet to the IOLAN DS1. The IOLAN DS1 then converts the TCP/IP packet into a serial packet for delivery to the PBX.

Mitel recommends that you read this document in its entirety before beginning the installation process. Use this document in conjunction with the appropriate Integration Technical Note for the serial COM port integration you are installing.

NOTE The information in this document applies to Perle IOLAN DS1 and DS1T serial to Ethernet devices.

Before You Begin

Review this section before performing any of the procedures in this document. This section provides important information about electrostatic discharge, the tools and equipment required to complete the installation, and the system upgrades.

Electrostatic Discharge (ESD) Warning

Computer components are extremely sensitive to electrostatic discharge (ESD). Do not open the static-protective container until necessary. Before removing the DS1 from the static-protective container, touch the container to a grounded, unpainted metal surface for at least two seconds (this drains the static electricity from the container and from your body).

Gathering Tools and Equipment

Before you begin the installation, verify that you have the following required tools and equipment:

- An Mitel license (feature) key enabled for the correct integration, number of Call Server nodes, and number of lines
- MiCollab AM Call Server or Call Servers configured for the correct serial integration
- Properly configured and operational PBX or Centrex RS232 data link and cable
- One Perle IOLAN DS1 device and accompanying software CD
- One RJ-45 Ethernet network connection from the network associated with MiCollab AM
- AC power for the external IOLAN DS1 power adapter

Upgrading Platform from Older Windows Server Version

Note that if you are upgrading your MiCollab AM system platform running the Window Server version that is no longer supported by Mitel to a newer version, it is considered a new installation. For the list of supported Windows Server versions and hardware requirements for your latest MiCollab AM system, refer to the *Computer Platform Requirements* section from *Software Release Notice*.

Technical Specifications of the Perle IOLAN DS1

Table 3 lists the technical specifications for the Perle IOLAN DS1 approved for use with MiCollab AM.

Table 3. Perle IOLAN DS1 Technical Specifications

| Functionality | Specification |
|------------------------|---|
| Serial Port Interface | Software selectable RS232/422/485 on DB25M, DB25F, DB9M |
| FCC Registration (USA) | Compliant with EN 55022: 1998, for a Class A digital device, pursuant to Part 15 of the FCC rules. |
| Number of Serial Ports | 1 |
| Serial Port Speed | 50Kbps to 230 Kbps |
| Data Bits | 5,6,7,8,9-bit protocol |
| Parity | Odd, Even, Mark, Space, None |
| Flow Control | Hardware, Software, Both |
| Local Console Port | RS232 serial port |
| Network | 10-base T, 100-base T, software selectable 10/100/Auto |
| Power | 120VAC USA, 230VAC International (AC power adapter provided) (optional 9-30VDC output required from an external power source to the DC barrel connector or Pin 1 of the RS232 cable) |
| Heat Output | 5.8 BTU/Hr |
| MTBF | 124,004 hours |
| Operating Temperature | 0-55C (32-131) |
| Humidity | 5-95% non-condensing |
| Mounting | Wall or Panel mounting |

Please contact Perle Technical Support for additional technical specifications, or visit the Perle website: www.perle.com

Physical Attributes of the IOLAN DS1

The Perle IOLAN DS1 is a self-contained unit. It provides the ports necessary to connect the RS232 serial COM cable from the telephone system, the Ethernet port for connection to the network, and a connection for AC power. LED indicators on the unit provide status indication of the ports and the unit. This section discusses the various indicators and connectors of the IOLAN DS1.

DS1 Ports

- Serial Port – in Serial mode (normal) it is used for Serial COM port connection to the PBX. In Console mode it is used to communicate with a terminal device for programming.
- Ethernet Port – RJ45 connector for connection to the network
- External Power Supply – barrel connector for AC power adapter

DS1 Indicators

- Power Ready LED – the LED cycles through colors red, yellow, and then green on start-up. The boot sequence is complete when the LED is steady green. A flashing green indicator denotes the serial/console switch is in the console position.
- Ethernet Link 10T/100T LED – indicates the Ethernet connection speed.
 - A green LED indicates 10Mbps.
 - A yellow LED indicates 100Mbps.
 - An unlit LED indicates no Ethernet connection.
- LAN activity LED – the LED flashes to indicate LAN activity.
- Serial Port Activity LEDs
 - TX – flashes with transmit serial activity.
 - RX – flashes with receive serial activity.

DS1 Switches

- Console/Serial Switch – the switch determines the serial port mode. The serial mode (default) is for normal communication with the PBX COM port. The console mode can be used to communicate with a terminal service. The default port settings in console mode are: **9600**, **8**, **1**, and **None**. Flow control is disabled. The Power Ready LED blinks green in console mode.

NOTE The unit does not communicate with the PBX serial COM port in console mode.

- Reset – the reset button reboots the IOLAN device when pushed and released quickly. The IOLAN is reset to factory defaults when the button is held for more than 3 seconds.

The following illustration describes the general layout of the DS1. Note that all of the switches and ports are mounted on the side of the unit, and the LED indicators are mounted on the top face of the unit.

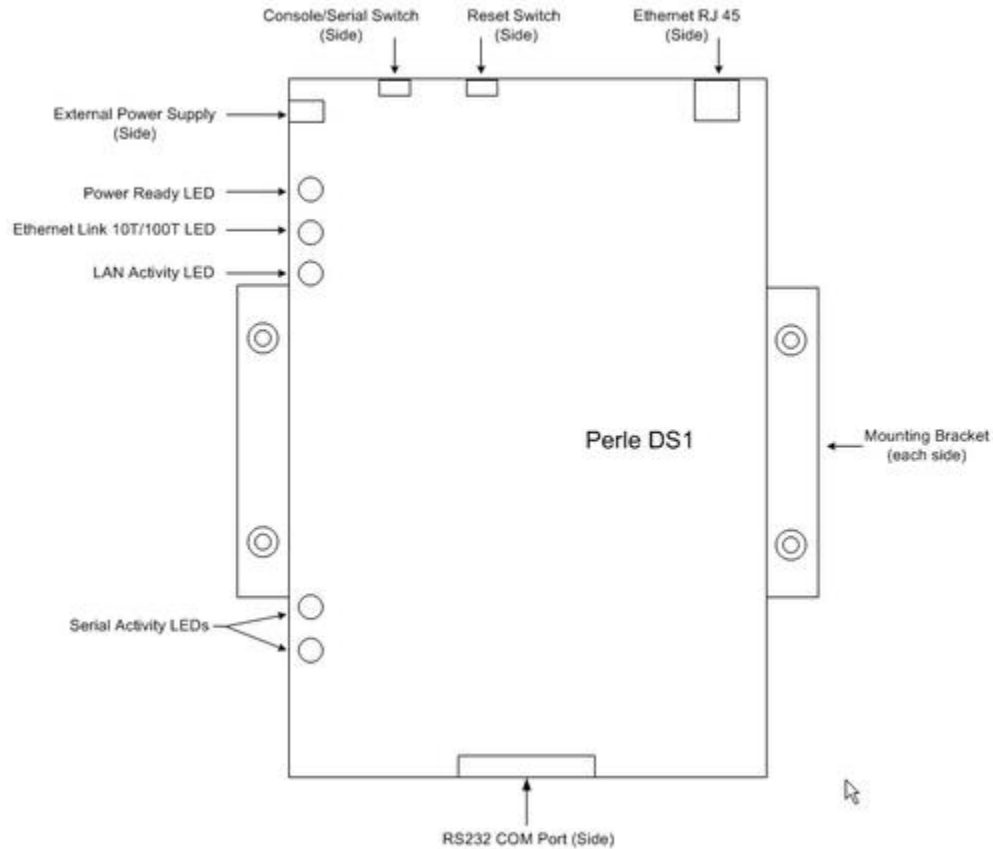


Figure 1. Top View of the Perle IOLAN DS1 serial device server

Implementation Considerations

There are several ways to implement the IOLAN DS1 device with MiCollab AM. Give careful consideration prior to implementing the device in order to gain the most benefit from its intended use.

Use an IOLAN DS1 device with MiCollab AM when:

- There are multiple Call Servers in the system sharing the same integration
- Redundant Call Servers are used in a stand-by configuration
- The integrated Call Server is not local to the RS-232 COM port of the PBX

MWI Operation

There are two ways MWI operation can be configured using the IOLAN DS1.

- Each integrated Call Server can perform MWI, or
- The System Server can be configured to perform all MWI operation. This is the preferred method.

MWI operation through the Call Servers

Each Call Server participating in the integration can be configured to perform MWI operation. This is the default method when the System Server is not participating in the integration. The MWI integration parameter of the **Switch Section Options** dialog box must have the correct PBX integration enabled.

The screenshot shows the 'Switch Section Options' dialog box. It contains several sections for configuration:

- Local Switch:** NEC NEAX 2400 cx2
- System Switch Section:** NEC NEAX 2400 Section
- System Switch Section Settings:**
 - Name: NEC NEAX 2400 Section
 - Node Code: (empty)
 - Location Code: (empty)
 - Location: DOCTEST
 - MWI Integration: NEC NEAX 2400 MCI serial port (highlighted with a red box)
- Local Switch Section Settings:**
 - View: Required Parameters
 - Set Defaults button
 - Table with Name and Value columns:

| Name | Value |
|------------------------|----------|
| Incoming Hunt Mode | Terminal |
| Hunt Group Access Code | |

Figure 2. Call Servers – Switch Section Options dialog box

The **Link Integration Mode** parameter on the **Required Parameters** view of the **Integration Options** dialog box must be set to **Normal**.

The dialog box 'Integration Options' has a 'View:' dropdown set to 'Required Parameters'. The 'Local Integration Settings' table is as follows:

| Name | Value |
|-----------------------|--------|
| Link Integration Mode | Normal |
| Serial port | 1 |
| Baud rate | 9600 |
| Word length | 8 |
| Parity | None |
| Stop bits | 1 |

Figure 3. Call Servers – Integration Options dialog box

When multiple Call Servers are sending MWI's to the same PBX serial port, it is possible to over-utilize the COM port in very high traffic environments.

If such a traffic problem exists, you can increase the default time of the parameter, *Pause Between MWI*, listed under the **Message Waiting Settings** view of the **Integrations** tab of each Call Server. Slightly increasing the pause time between each MWI operation on each integrated Call Server can give the PBX COM port the time it needs to process all of the requests.

The dialog box 'Integration Options' has a 'View:' dropdown set to 'Message Waiting Settings'. The 'Local Integration Settings' table is as follows:

| Name | Value |
|-------------------|-------|
| Pause between MWI | 500 |

Figure 4. Message Waiting View of the Integration Options dialog box

MWI operation through the System Server

The System Server can perform all of the MWI operation if Call Services is enabled, regardless of whether or not lines are configured. In a typical operation the System Server distributes the MWI information to the Call Servers, and then the Call Servers set or clear MWI.

Using the System Server to perform the MWI operation removes the Call Servers from the work, alleviates the network traffic between the System Server and the Call Servers, and allows all MWI operation to continue when a Call Server is shutdown for any reason.

If the System Server has lines associated with the IOLAN DS1 based integration, the Integration must be configured as **Normal**. If no lines are associated with the IOLAN DS1 based integration, the Integration must be configured as **MWI Only**.

The Integration must be assigned in the corresponding Switch Section of the System Server as the MWI Integration. The TruePort software must also be installed and running on the System Server.

NOTE Lines and Call Services are licensed products of Mitel. If you want to enable Lines on the System Server, the correct line allocation must be enabled on the License Key, and a Call Services node must be enabled on the License key. However, a Call Services node license is **not** required to support an **MWI Only Integration** that does not use lines, even though Call Services is enabled.

If you chose to implement this configuration, you must configure the appropriate Switch Section of each integrated Call Server to have **None** selected as the MWI Integration.

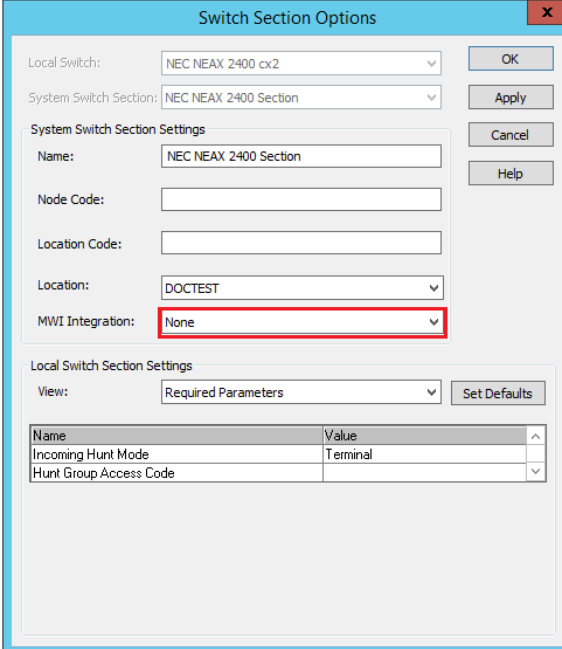
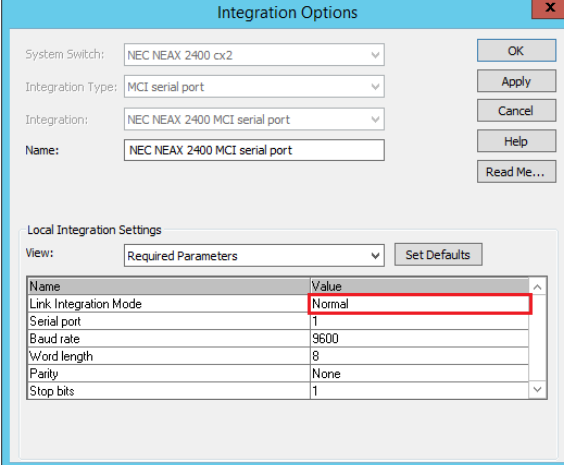
The image shows a 'Switch Section Options' dialog box. It contains several sections: 'Local Switch' with a dropdown set to 'NEC NEAX 2400 cx2'; 'System Switch Section' with a dropdown set to 'NEC NEAX 2400 Section'; 'System Switch Section Settings' with fields for Name (set to 'NEC NEAX 2400 Section'), Node Code, Location Code, Location (set to 'DOCTEST'), and MWI Integration (set to 'None', which is highlighted with a red rectangle); and 'Local Switch Section Settings' with a 'View' dropdown set to 'Required Parameters' and a 'Set Defaults' button. At the bottom, there is a table with two columns: 'Name' and 'Value'. The table contains two rows: 'Incoming Hunt Mode' with value 'Terminal', and 'Hunt Group Access Code' with a dropdown arrow. On the right side of the dialog, there are buttons for 'OK', 'Apply', 'Cancel', and 'Help'.

Figure 5. Call Servers – Switch Section dialog box

The **Link Integration Mode** parameter on the **Required Parameters** view of the **Integration Options** dialog box on Call Servers must be set to **Normal**.



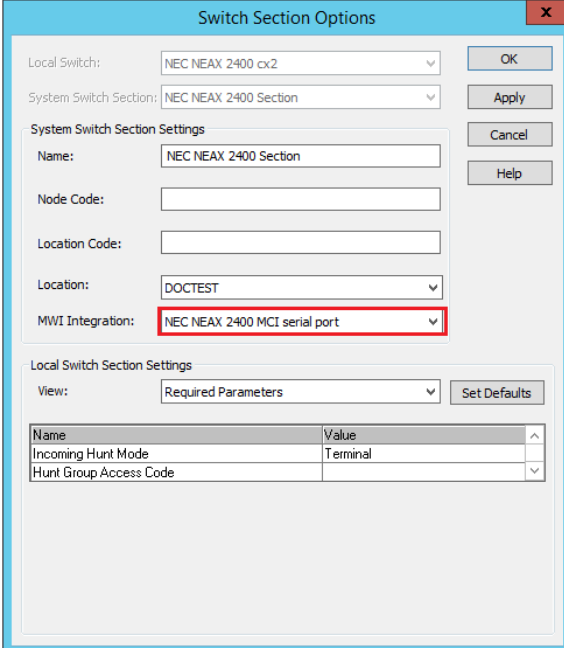
The **Integration Options** dialog box contains the following fields and controls:

- System Switch:** NEC NEAX 2400 cx2
- Integration Type:** MCI serial port
- Integration:** NEC NEAX 2400 MCI serial port
- Name:** NEC NEAX 2400 MCI serial port
- Buttons:** OK, Apply, Cancel, Help, Read Me...
- Local Integration Settings:**
 - View:** Required Parameters
 - Set Defaults** button
 - Table:**

| Name | Value |
|-----------------------|--------|
| Link Integration Mode | Normal |
| Serial port | 1 |
| Baud rate | 9600 |
| Word length | 8 |
| Parity | None |
| Stop bits | 1 |

Figure 6. Call Servers – Integration Options dialog box

On the System Server, create the corresponding Switch, Switch Section and Integration. On the **Switch Section Options** dialog box, select the appropriate integration for the **MWI Integration** parameter.



The **Switch Section Options** dialog box contains the following fields and controls:

- Local Switch:** NEC NEAX 2400 cx2
- System Switch Section:** NEC NEAX 2400 Section
- System Switch Section Settings:**
 - Name:** NEC NEAX 2400 Section
 - Node Code:**
 - Location Code:**
 - Location:** DOCTEST
 - MWI Integration:** NEC NEAX 2400 MCI serial port
- Buttons:** OK, Apply, Cancel, Help
- Local Switch Section Settings:**
 - View:** Required Parameters
 - Set Defaults** button
 - Table:**

| Name | Value |
|------------------------|----------|
| Incoming Hunt Mode | Terminal |
| Hunt Group Access Code | |

Figure 7. System Servers – Switch Section dialog box

On the System Server, the **Link Integration Mode** parameter on the **Required Parameters** view of the **Integration Options** dialog box must be set to **MWI Only** if no lines are associated with the Integration. Otherwise, it must be set to **Normal**.

IMPORTANT The integration will fail to start if this parameter is incorrect.

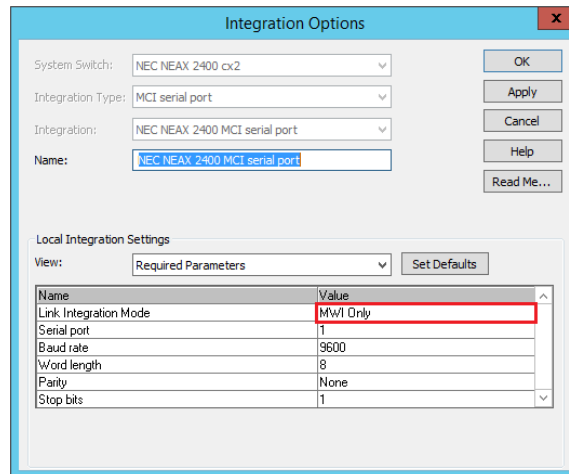


Figure 8. System Servers – Integration Options dialog box

Serial Integrations Applicability

The IOLAN DS1 is not appropriate for all Mitel serial integrations. Integrations that require ACK or NAK messages to the PBX cannot be implemented. For example, use of the IOLAN DS1 does not apply to the ITT 3100 serial integration.

PBX integrations that use Keep Alive polling require modification of their associated MiCollab AM parser definition files to function correctly.

A modified parser definition file (.pd2) is required on all but the primary Call Server. One Call Server in a multi-box environment is configured to use the primary .pd2 file for the integration. This Call Server responds to all Keep Alive messages from the PBX.

The remaining Call Servers in the system use a modified version of the PD2 file that ignores the Keep Alive messages. The primary Call Server is typically the System Server if it has Call Services enabled, otherwise any Call Server within the system can be designated as the primary Call Server.

For example:

The Aastra MX-One PBX requires a Keep Alive acknowledgement from MiCollab AM. In a multi-box environment one Call Server is configured to use the default .pd2 file *MD110Serial*, and all remaining Call Servers are configured to use the modified .pd2 file, *MD110SerialNonPrimaryIOLAN*.

The default parser definition file is selected for the integration when you initially configure the integration for MiCollab AM. You can view or change the .pd2 file from the **Integration Specific Parameters** view of the **Integrations** tab.

Integration Options

System Switch: Mitel / Aastra MIVoice MX-ONE

Integration Type: Analog RS232

Integration: Mitel / Aastra MIVoice MX-ONE Analog RS232

Name: Mitel / Aastra MIVoice MX-ONE Analog RS232

OK
Apply
Cancel
Help
Read Me...

Local Integration Settings

View: Integration Specific Parameters Set Defaults

| Name | Value |
|--------------------------------|--------------------------|
| Voice message system ID (SID) | 01 |
| T-extension length | 4 |
| D-extension length | 4 |
| V-extension length | 3 |
| Parser filename | MD1105serial |
| Offhook Required Before Packet | <input type="checkbox"/> |
| Incoming off hook delay | 500 |
| Outgoing off hook delay | 500 |
| On hook delay | 1000 |

Figure 9. Integration Specific Parameters View of the Integrations dialog box

If you have questions as to the applicability of the serial integration you are working on please contact Mitel Technical Support.

Installing the IOLAN DS1

Once the PBX is completely programmed for the serial integration, and MiCollab AM is configured for the integration with the necessary lines connected you can install the IOLAN DS1.

To install the DS1:

- 1 Make sure the **Serial/Console** switch is in the serial mode.
- 2 Connect the RS232 COM port cable from the PBX.
- 3 Connect the Ethernet LAN cable.
- 4 Connect the power adapter cable to the unit, and then plug it into the AC power source.

The Power Ready LED cycles through the boot sequence. Once the LED is a steady green, the unit is ready.

Overview of the IOLAN DS1 Programming

There are several programming methods available for the DS1. The programming examples in this document use the Perle Easy Config Wizard™. For information on other programming methods please refer to the Perle IOLAN DS1 User Guide document: www.perle.com.

The IOLAN DS1 comes out of the box completely un-programmed. In order to program it, you must give it an IP address. You can assign a specific IP address or you can use DHCP to assign one automatically.

To do so, use the Easy Config Wizard found on the CD accompanying the DS1 device. The wizard automatically detects the presence of the un-programmed IOLAN device on the Network. Perform the programming from a workstation or the MiCollab AM server that is on the same network as the DS1.

Once the IOLAN DS1 has an IP address, perform the remaining device programming using a web application on the IOLAN DS1 called WebManager™. Programming steps include: 1) matching the serial settings of the PBX, and 2) configuring the DS1 for multiple IP access.

After programming the IOLAN DS1, each Call Server participating in the integration must have the Perle TruePort software installed and configured. The TruePort software creates a virtual COM port on the Call Server that allows the MiCollab AM integration to communicate directly with the IOLAN DS1 through the network.

The TruePort software collects the data from the MiCollab AM integration and sends the data as a complete packet to the IOLAN DS1 using a feature called Packet Forwarding.

IMPORTANT You must install and configure the TruePort software on each Call Server participating in the integration.

Finally, once you have installed and configured the True Port software, you must add the correct type of integration to each participating Call Server. The COM port and the parameters you define in the MiCollab AM integration configuration is the same COM port you defined in the TruePort configuration.

Programming the IOLAN DS1

Once the IOLAN DS1 device is installed and present on the LAN you can program the IOLAN DS1 using the Easy Config Wizard. Follow the examples in this section to configure the device for your site.

Before you continue, consult with the site's network administrator to determine if the device should use DHCP to obtain an IP address or a static IP address. If you use a static IP address, write down the IP address, the Subnet Mask, and the Default Gateway addresses before proceeding. You need this information to continue with the programming.

NOTE Mitel recommends you assign a static IP address to the DS1.

To program the IOLAN DS1:

NOTE The programming examples in this section assume you are using a Call Server to perform the following steps.

- 1 At the workstation or MiCollab AM server, insert the IOLAN DS1 Setup CD into the disc drive.
- 2 If the autorun feature is disabled, open **My Computer**, double-click the disc drive, and then double-click **Setup**. The IOLAN Setup home page displays.



- 3 Click **EasyConfig**. The **IOLAN EasyConfig** page displays.



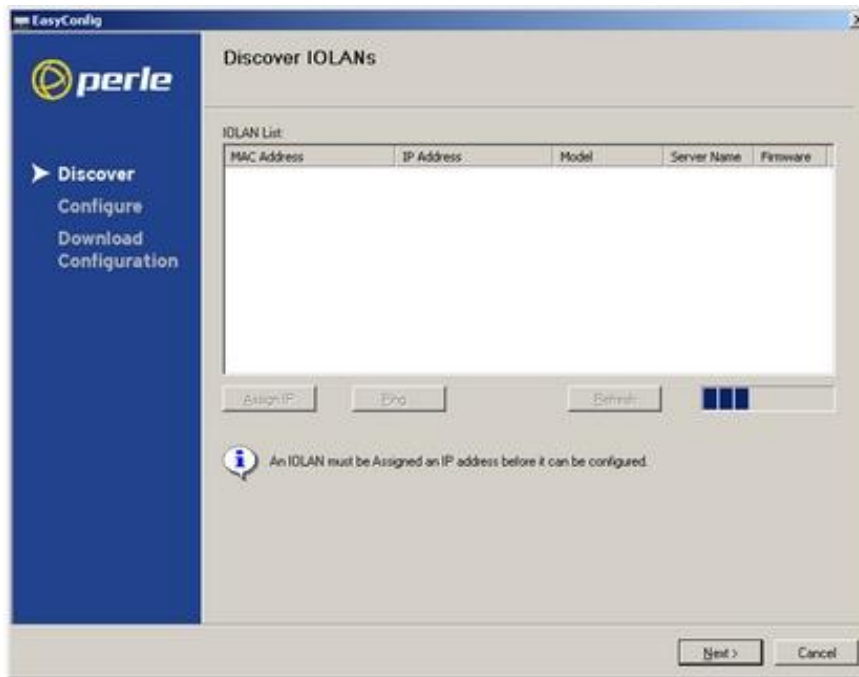
- 4 Click **Launch EasyConfig Wizard**. The **File Download** dialog box displays.



- 5 Click **Run**. The **Welcome to EasyConfig** page displays.



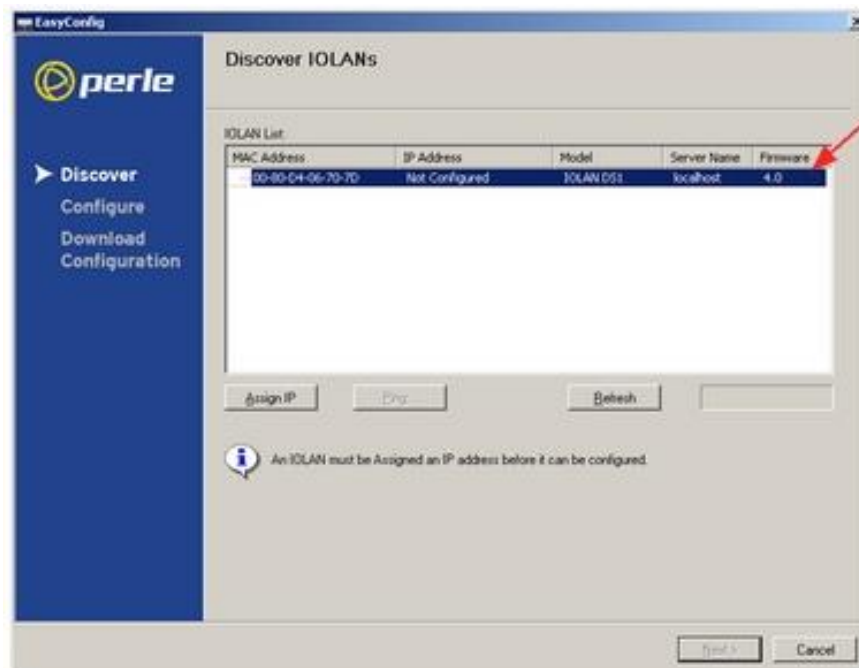
- 6 Click **Next**. The **Discover IOLANs** page displays.



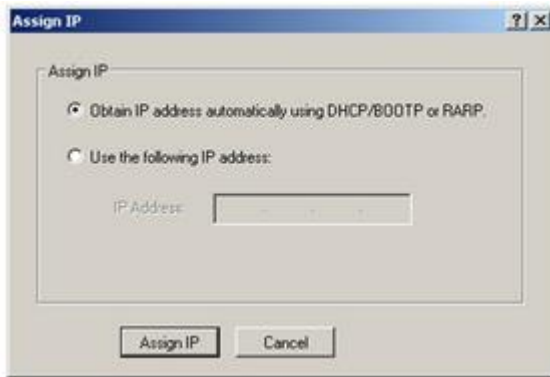
- 7 The blue scanning boxes indicate the software is searching for a new DS1 device. If scanning stops before the device is discovered, click **Refresh** to begin the scan again.

You may need to click **Refresh** multiple times before the device is discovered. Once the device is discovered, it is automatically entered into the IOLAN list table.

IMPORTANT If the device cannot be discovered, make sure the DS1 device is powered up, and the LAN connection is active before trying the Discovery process again.

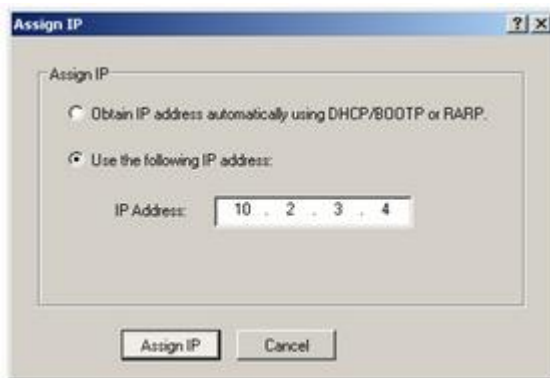


- 8 Highlight the IOLAN device in the table, and then click **Assign IP**. The Assign IP dialog box displays.



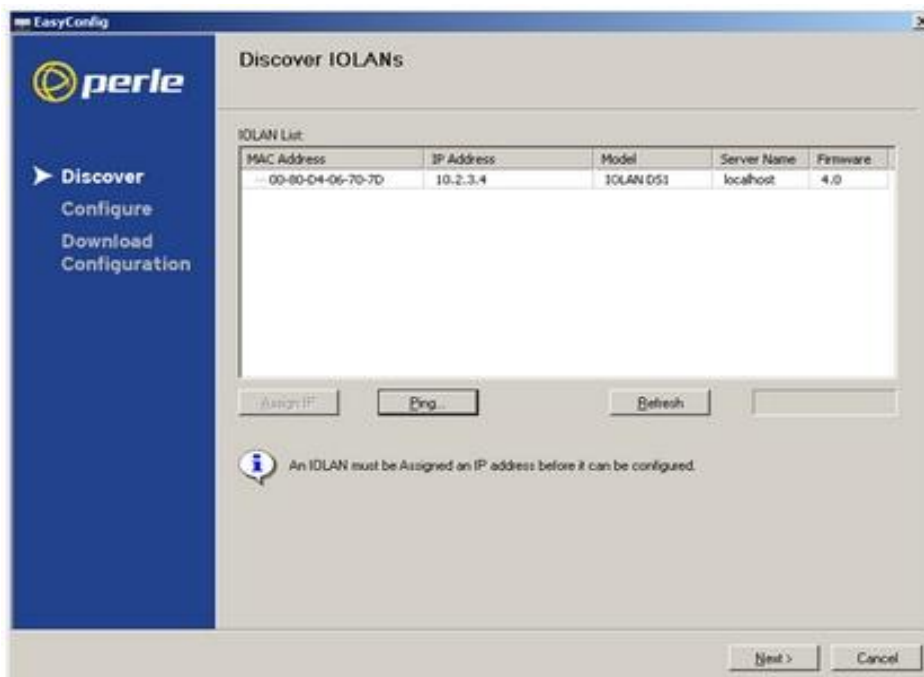
The 'Assign IP' dialog box is shown. It has a title bar with a question mark and a close button. Inside, there are two radio buttons under the heading 'Assign IP'. The first radio button is selected and is labeled 'Obtain IP address automatically using DHCP/BOOTP or RARP'. The second radio button is labeled 'Use the following IP address:'. Below the second radio button is a text field labeled 'IP Address' which is currently empty. At the bottom of the dialog box are two buttons: 'Assign IP' and 'Cancel'.

- 9 Use the radio buttons to select whether to obtain an IP address automatically or to enter a static IP address. In this example, the IP address 10.2.3.4 is used. Click **Assign IP** after you have entered the address.



The 'Assign IP' dialog box is shown again. This time, the second radio button, 'Use the following IP address:', is selected. The 'IP Address' text field now contains the value '10 . 2 . 3 . 4'. The 'Assign IP' and 'Cancel' buttons are still at the bottom.

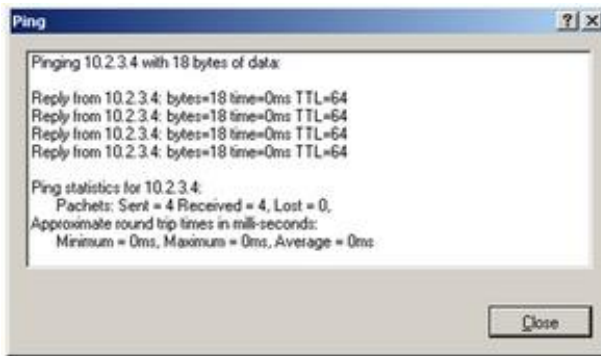
- 10 Once the IP address is assigned to the device, click **Refresh**.



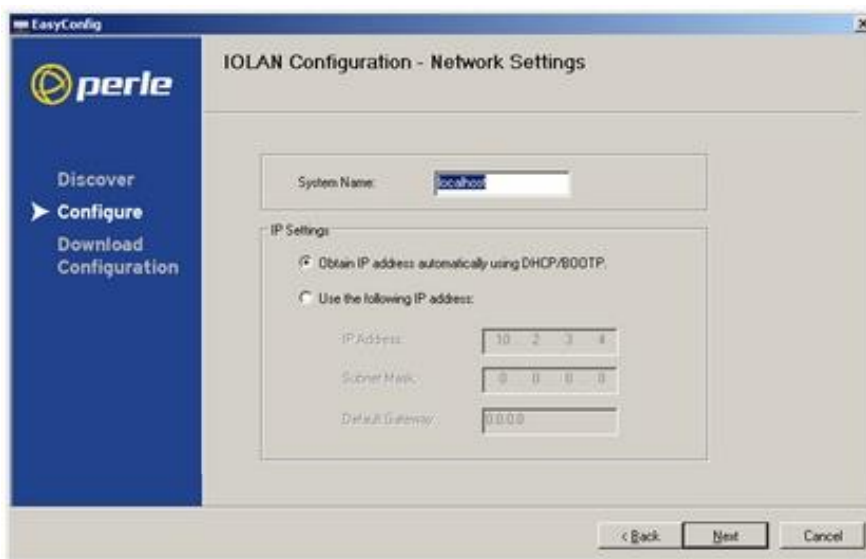
The 'EasyConfig' window is shown with the 'Discover IOLANs' tab selected. On the left is a blue sidebar with the 'perle' logo and a menu with 'Discover', 'Configure', 'Download', and 'Configuration'. The main area has a title 'Discover IOLANs' and a table titled 'IOLAN List'. The table has five columns: 'MAC Address', 'IP Address', 'Model', 'Server Name', and 'Firmware'. There is one row of data. Below the table are buttons for 'Assign IP', 'Ping...', 'Refresh', and an empty button. At the bottom of the main area is a message icon and the text 'An IOLAN must be Assigned an IP address before it can be configured.' At the very bottom of the window are 'Next >' and 'Cancel' buttons.

| MAC Address | IP Address | Model | Server Name | Firmware |
|-------------------|------------|-----------|-------------|----------|
| 00-80-04-06-70-7D | 10.2.3.4 | IOLAN DS1 | localhost | 4.0 |

- 11 Highlight the device, and then click **Ping** to verify the IP address configuration.



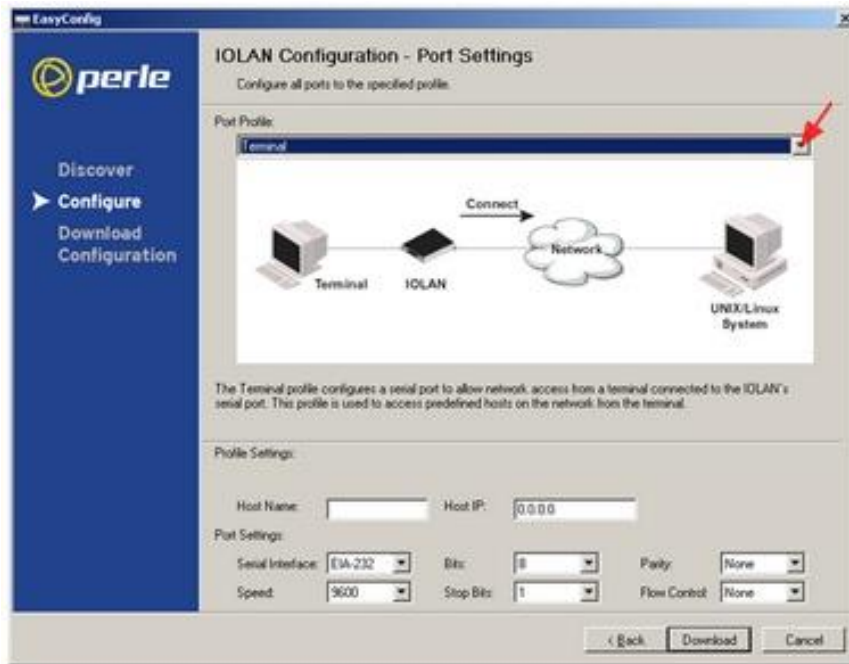
- 12 Click **Close**, and then click **Next**. The **IOLAN Configuration – Network Settings** page displays.



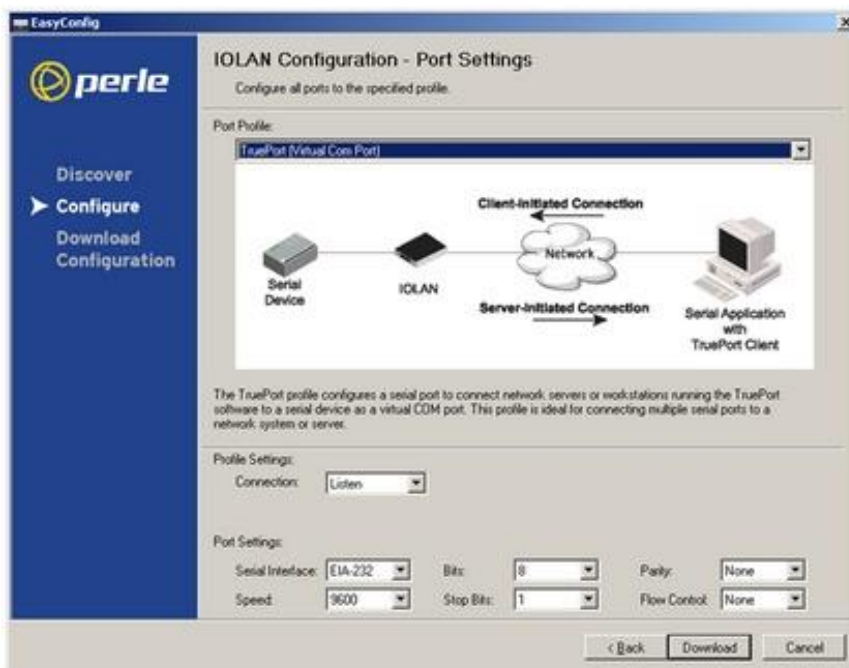
- 13 Select **Use the Following IP address**, verify the IP address, and then enter the correct **Subnet Mask**, and then the **Default Gateway** addresses.



14 Click **Next**. The **IOLAN Configuration – Port Settings** page displays.



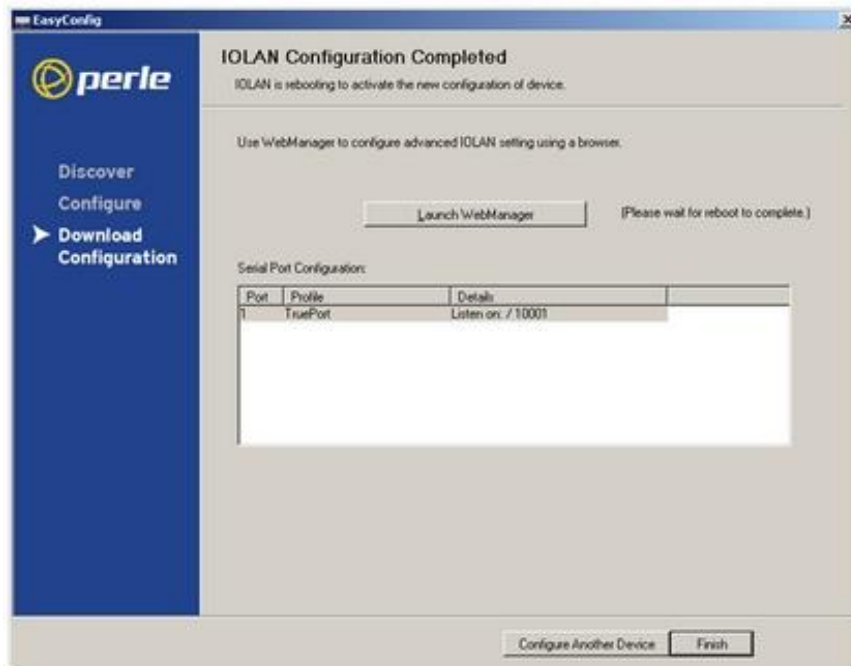
15 Click the **Port Profile** dropdown box, and then select **TruePort**. The page automatically refreshes with the TruePort parameters.



16 Under the **Profile Settings**, click the **Connection** dropdown box, and then select **Listen**.

17 Use the **Port Settings** dropdown boxes to set the serial port characteristics to match those of the PBX to which you are integrating.

- 18 When you have correctly entered all of the parameters, click **Download**. The **IOLAN Configuration Completed** page displays.



- 19 The DS1 automatically reboots after the configuration completes. Wait until the Power Ready LED on the DS1 is solid green before continuing to the next step.
- 20 Click **Launch WebManager**. The localhost Login page displays.



- 21 Enter the username and password, and then click **Login**. (The default username is *admin*, and the default password is *superuser*.) The **WebManager Configuration Services** page displays.

IMPORTANT If you chose to change the default username and password, be sure to write it down for safe keeping. If you lose the username and password, you must reset the device to factory settings, and then re-program the device.



22 Click **Serial**. The **Serial Configuration** page displays.



23 Click **Serial Ports**. The **Serial Ports** page displays.



24 Click **Edit**. The **Serial Port #1** page displays.



25 Click the **General** tab, select **Allow Multiple Connections**, and then click **Apply**. The default TCP port 10001 may be changed if necessary.

26 Click the **Hardware** tab. The **Hardware** tab displays.



27 Verify the hardware settings match those of the PBX interface, and then click **Apply** if you have made any changes.

28 Click the **Packet Forwarding** tab. The **Packet Forwarding** tab displays.



- 29 Select the **Minimize Latency** option, and then click **Apply**.
- 30 Click the **Reboot IOLAN** button on the lower right-hand side of the page. A pop-up dialog box displays to confirm the reboot process.



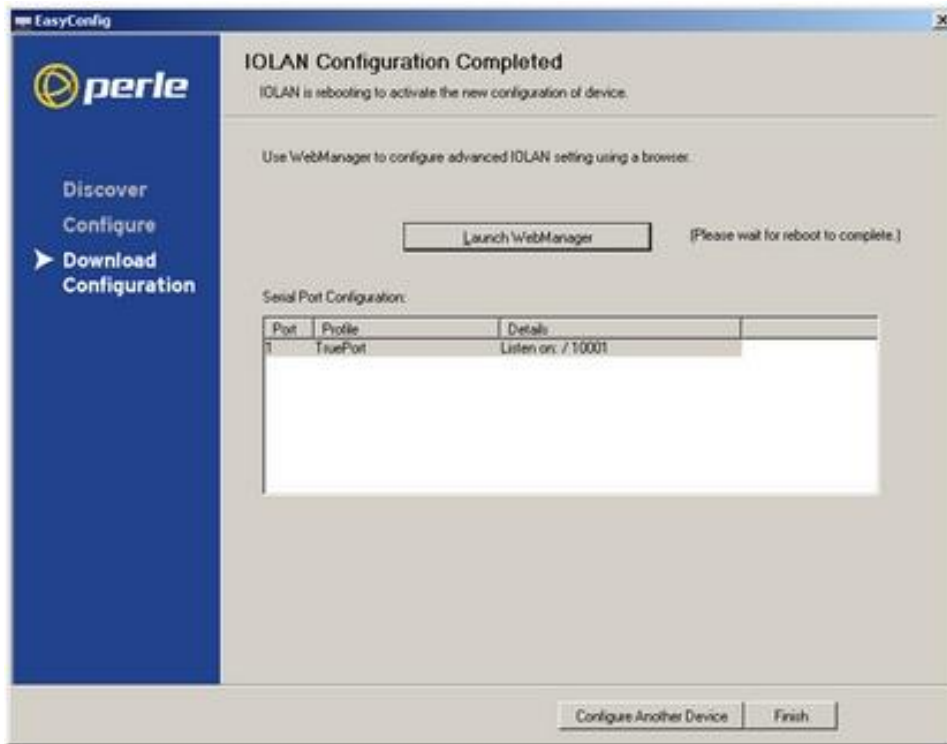
- 31 Click **OK** to reboot the device. The DS1 reboots after the configuration completes. The **Reboot Unit** page displays the reboot progress.



- 32 The reboot process takes approximately a minute to complete. Afterwards, the **Login** page displays.



- 33 Close the **Login** dialog box. You do not need to log in at this time.



- 34 Click **Finish**. The application returns to the IOLAN Setup home page. If the IOLAN Setup home page does not display, locate the running program on the system taskbar, or re-launch it by repeating steps 1 and 2.
- 35 Continue on to the next section, [Installing and Configuring the TruePort Software](#).

Installing and Configuring the TruePort Software

Follow the steps in this section to install and program the TruePort virtual COM port software on each MiCollab AM server participating in the integration.

IMPORTANT You must complete the following TruePort configuration and software installation procedures physically at each MiCollab AM server participating in the serial integration.

To install and program the TruePort software:

NOTE If you are configuring other MiCollab AM servers for use with the DS1, follow steps 1 and 2 to re-launch the IOLAN program from each server platform. Otherwise continue at step 3.

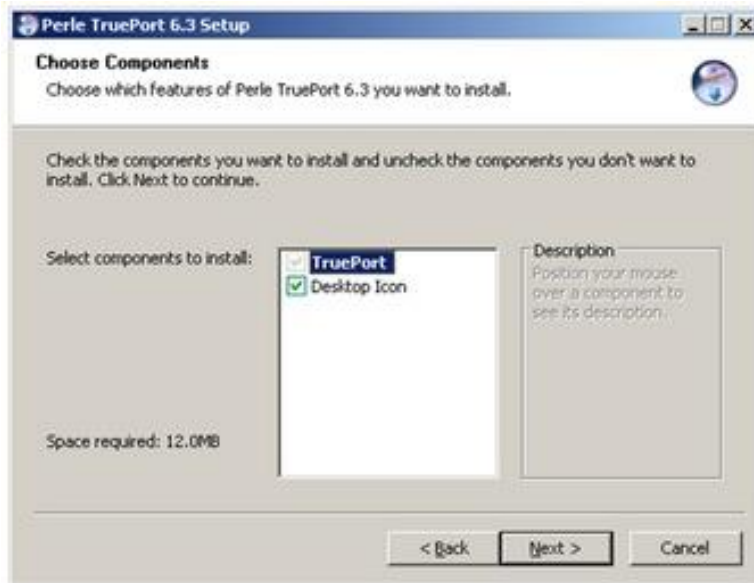
- 1 At the workstation or MiCollab AM server, insert the IOLAN DS1 Setup CD into the disc drive.
- 2 If the autorun feature is disabled, open **My Computer**, double-click the disc drive, and then double-click **Setup**. The **IOLAN Setup** home page displays.



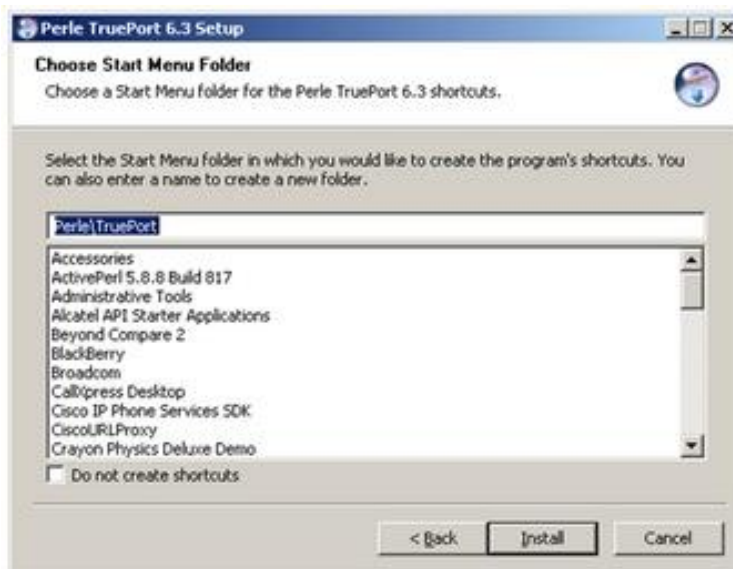
- 3 Click **TruePort**. The **TruePort** page displays.



- 4 Select the appropriate firmware version for the operating system of the Call Server. The **File Download** dialog box displays.
- 5 Click **Run**. The **Setup Welcome** dialog box displays.
- 6 Click **Next**. The **Choose Components** dialog box displays.



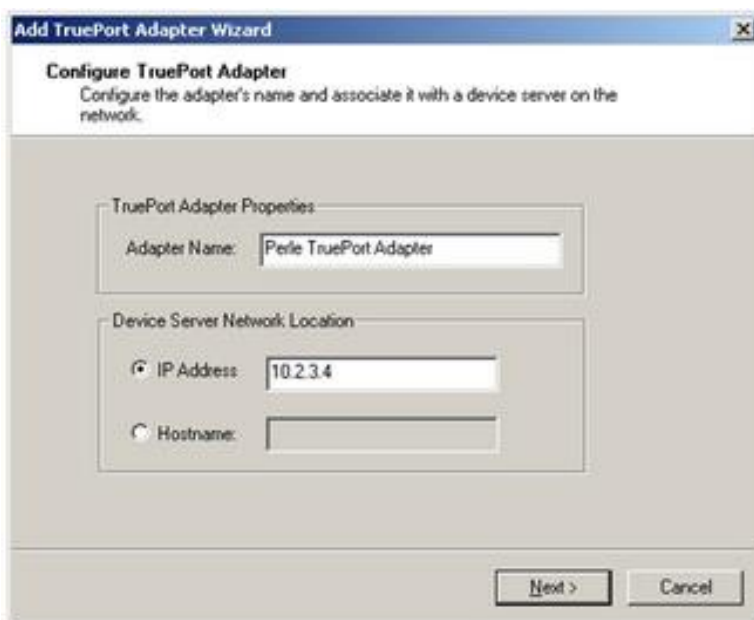
- 7 Verify **TruePort** is selected, and then click **Next**. The **Choose Install Location** dialog box displays.
- 8 Accept the default location, and then click **Next**. The **Choose Start Menu Folder** dialog box displays.



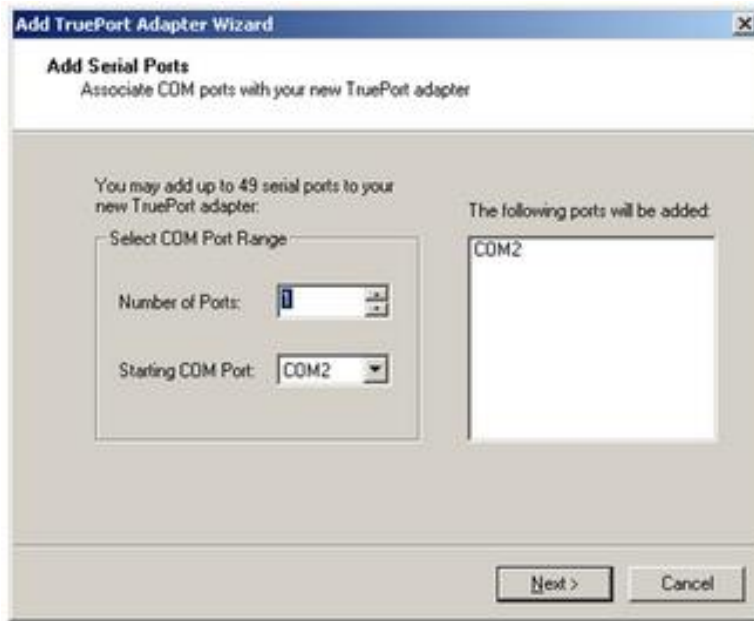
- 9 Click **Install**. The installation process starts.
- 10 Once the TruePort driver installation completes, the **Completing the Perle TruePort 6.3 Setup Wizard** dialog box displays.



- 11 Uncheck the **View Readme File** box, and then click **Finish**. The **Configure TruePort Adapter** dialog box displays.

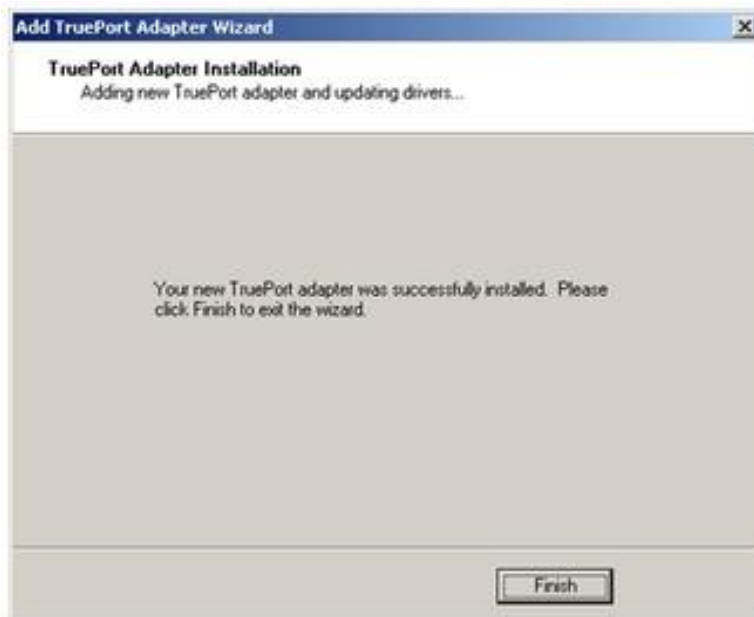


- 12 Enter the IP Address of the DS1 that was configured on step 8 of the previous section, and then click **Next**. The **Add Serial Ports** dialog box displays.



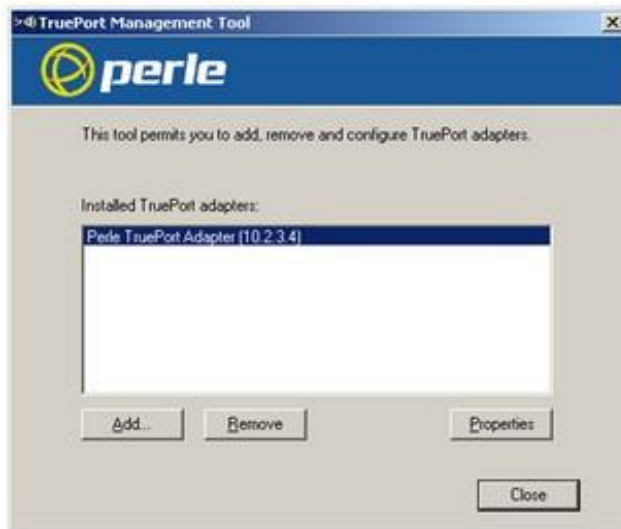
- 13 The software automatically selects the next available COM port. Click **Next**. The **TruePort Adapter Installation** dialog box displays. The server may also display a pop-up message advising you that new hardware has been found.

IMPORTANT The COM port selected in this step is the COM port you must assign to the integration in MiCollab AM.



- 14 Click **Finish**. The **TruePort Management Tool** dialog box displays.

NOTE The following dialog box displays whenever the TruePort Management Tool is run from the list of Programs or the Desktop icon.



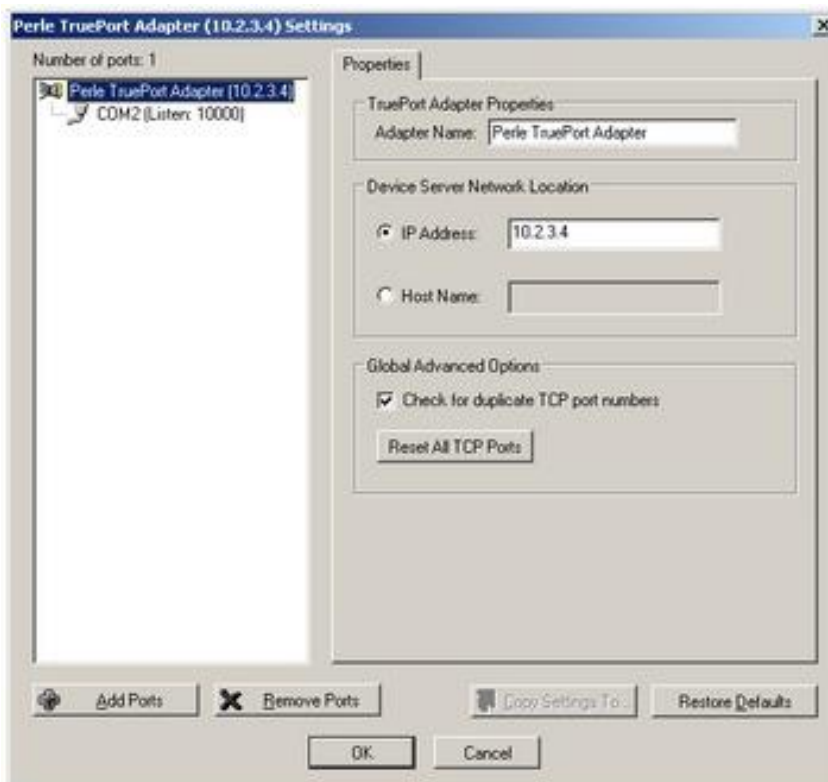
15 Select **Properties**. The **TruePort Adapter Properties** dialog box displays.



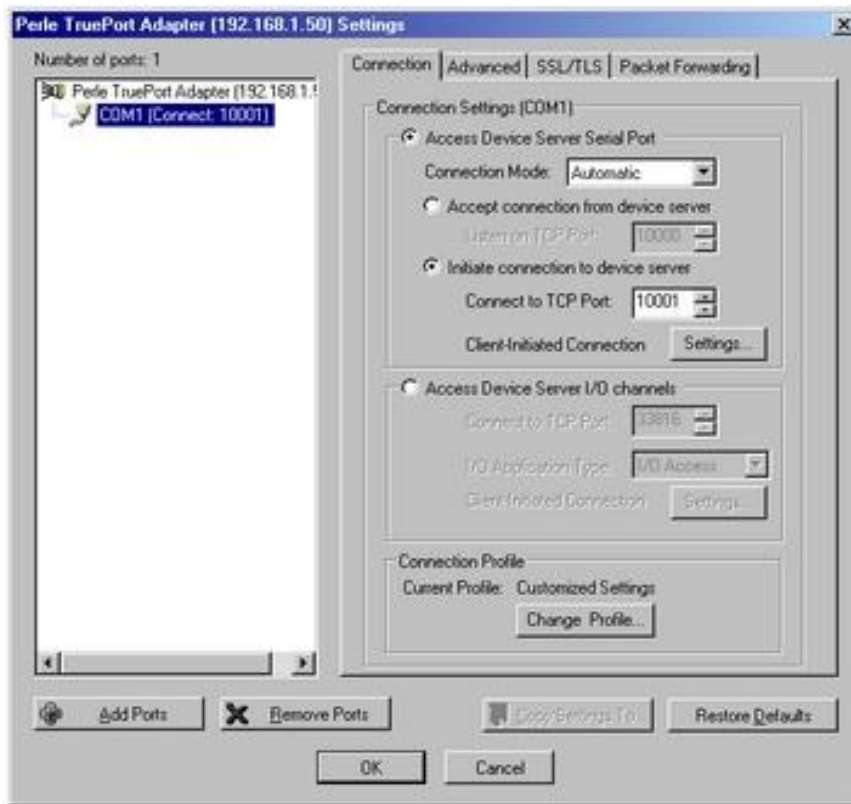
16 Select the **Configuration** tab. The **Configuration** tab displays.



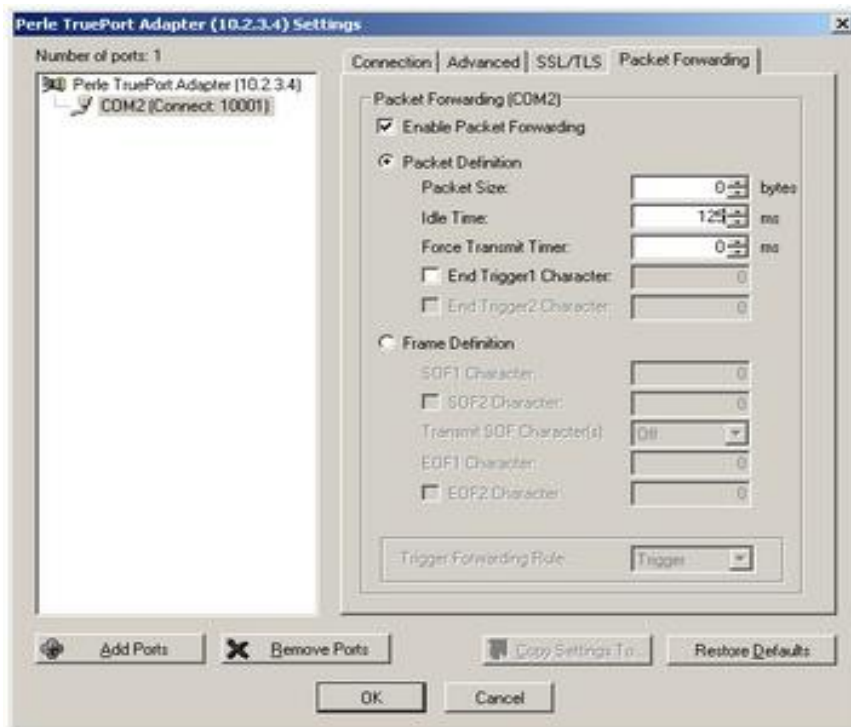
17 Click **Settings**. The **TruePort Adapter Settings** dialog box displays.



- 18 Highlight the COM port in the left pane to open the corresponding configuration tabs. The configuration property tabs display.



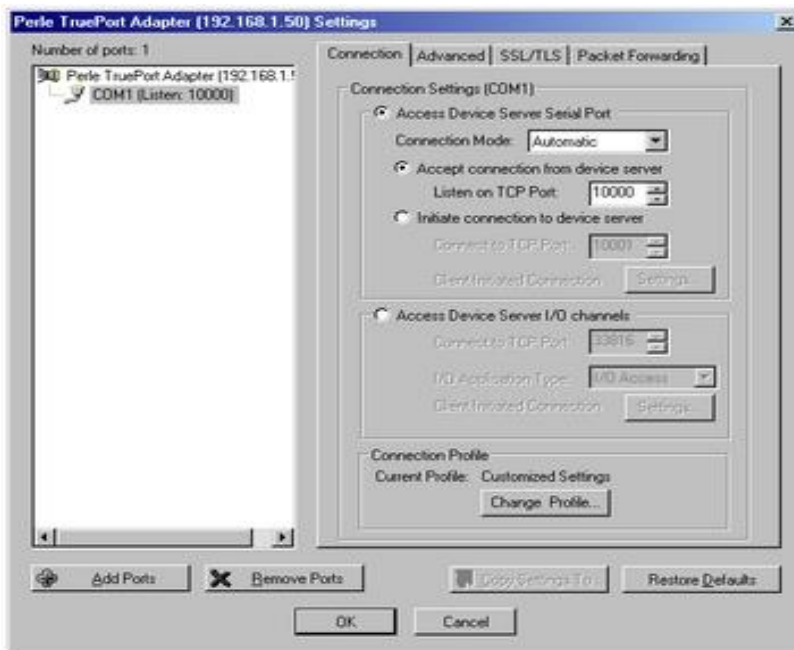
- 19 Select the **Packet Forwarding** tab. The **Packet Forwarding** tab displays.



- 20 Select **Enable Packet Forwarding**, change the Idle Time to 125ms, and then click the **Connection** tab. The **Connection** tab displays.

IMPORTANT Do not enable Packet Forwarding unless there are two or more servers performing MWI operation. Packet forwarding is required only when multiple Call Servers are configured to perform MWI operation. This ensures the DS1 is receiving complete MWI data packets from the TruePort software on each Call Server.

When packet forwarding is enabled the TruePort software must send the entire data packet before another data packet can be sent to the DS1. This prevents the PBX from receiving simultaneous MWI packets of intermingled characters.



- 21 On **Connection Settings** for the COM port, select **Initiate connection to device server**. The **Settings** button becomes enabled.
- 22 Click **Settings**. The **Settings** dialog box displays.



- 23** On the **Connection Management Options** area, select **Connect at system startup**, and then unselect **Close TCP connection when COM**.



- 24** Click **OK** to close the dialog box. You are taken back to the **TruePort Adapter Settings** dialog box.
- 25** Click **OK** again to close the dialog box. You are taken back to the **TruePort Adapter Properties** dialog box.
- 26** Click **OK** to close the dialog box. are taken back to the **TruePort Management Tool** dialog box.

NOTE If the server displays a message that the system must be restarted, you may do so now, or any time before you start MiCollab AM.

- 27** Click **Close** to close the dialog box. The DS1 and TruePort configuration are complete.
- 28** Repeat **Steps 1** through **27** for each MiCollab AM server participating in the integration.

Completing the IOLAN DS1 Installation

Configure the MiCollab AM integration using the same COM port that was assigned in the TruePort configuration during **Step 13** in the section, [Installing and Configuring the TruePort Software](#). Use the same COM port parameters you configured in **Step 17** in the section, [Programming the IOLAN DS1](#).

For more information, refer to the specific Integration Technical Note for the integration you are installing. See the *System Installation and Configuration Guide* and the *System Administration Guide*, or refer to the MiCollab AM online help system, for additional instructions.

For general information on integrations, you may also wish to consult the chapter, *Integrating MiCollab AM with the Telephone System*, in the *System Installation and Configuration Guide*; and the topic, *Integrate the System Server with the telephone system*, in the online help system.