The essentials of imaging

KONICA MINOLTA

MetaConsole 2.3 including PageScope EMS Plug-Ins

User's Guide

PAGESCOPE

EMS Plug-Ins

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Using Konica Minolta PageScope EMS Plug-Ins

Introduction

Welcome to Konica Minolta's device management solution. This section includes an overview of the User's Guide and a description of the product. In order to familiarize yourself with the product, please read this section *before* attempting to install or use any of the software.

About MetaConsole™

Working closely with Netaphor software (one of Konica Minolta Business Technologies Corporation's development partners) our team of engineers have created Konica Minolta's MetaConsole™ service providers, collectively referred to as PageScope EMS Plug-Ins. These Plug-Ins interface with Netaphor's MetaConsole, thereby enabling a single client to integrate with multiple management consoles on multiple operating system platforms. Through a flexible, "many-to-many" three-tier architecture, extensive reuse of components and the use of Java and XML, MetaConsole pioneers a new paradigm. When introduced into a management console environment, Netaphor's MetaConsole interface provides the same core set of functions for managing a particular network device or service that the existing management console provides. At the same time, the PageScope EMS Plug-Ins conform to the particular console's look and feel while leveraging error handling as well as any additional functions available from within that console.

MetaConsole works with CA Unicenter, Microsoft Management Console (MMC), HP OpenView, Tivoli NetView Enterprise and a Java-enabled Web browser. You can freely add service providers (components for handling specific device types) and clients (consoles with service providers), thus addressing all enterprise management needs within a single environment.

Alarm management, normally available only in high-end consoles, is integrated within MetaConsole's MMC and browser implementations. Management centers responsible for the entire network can deploy CA Unicenter, HP OpenView or Tivoli NetView Enterprise, with MMC and browser-based solutions deployed in workgroup environments.

MetaConsole servers can run on any Java-enabled platform including Windows, HP-UX, Sun Solaris and Linux. Multiple MetaConsole servers can be deployed for load balancing in very large networks.

Downloading Additional Service Providers

Netaphor creates service providers for a variety of printers, servers and network devices, and adaptability with additional devices is currently in development. Some of these are available for download directly from Netaphor. To download these additional service providers, follow this procedure:

1. Go to the following Internet site: **www.Netaphor.com**
2. From the top menu directly below Netaphor's logo, click on **Support.**
3. Just below the **Support** page title is the hyperlink **MetaConsole support**. Click this link.
4. A new page opens. From the menu on the left side of this page, select **Downloads**.
5. Scroll down to **Service Providers**, select the required provider by clicking on it, then follow the instructions for downloading.

Key Features

1 Device Management

- IP-304, IP-411, IP-421, IP-422, IP-423, IP-424, IP-431, IP-432, IP-511, IP-511 Type A, IP-601, IP-602, Mirage 1050 PCL, Face 60, Publisher 85

2 Consoles Supported

- HP Open View NNM 6.4 or 7.01
- Microsoft Management Console (MMC)
- Tivoli NetView Enterprise 7.1.1 or 7.1.3
- CA Unicenter NSM 3.0 or 3.1
- Java-Enabled Web Browser

3 Expandability

- Support for new devices can be added at any time.

4 Protocol Support

- SNMP v1/v2c/v3

5 Addition of New Protocol

- Isolated to device-dependant code; automatic integration with all MetaConsole clients.

6 Scalability

- Multiple servers for load sharing.

7 Installation

- GUI-based installers on all platforms

Screen Resolution

PageScope EMS Plug-Ins' utilities will run with a minimum screen resolution of 800 x 600.

Server Requirements and Platform Support

The Table below lists the hardware and software requirements for the MetaConsole server.

Platform	Hardware	Software
Windows NT, 4.0 SP6; Windows 2000 Windows 2003 Windows XP	Pentium 700 MHz 256 MB available RAM 190 MB free hard disk space	
Solaris 8	Sun Ultra 5 512 MB available RAM 190 MB free hard disk space	CDE, XWindows or OSF Motif
HP-UX 11.x	HP B2000 512 MB available RAM 190 MB free hard disk space	HP VUE, CDE, XWindows or OSF Motif
Red Hat Linux 7.0, 7.2	Pentium 300 MHz 128 MB available RAM 190 MB free hard disk space	Gnome

Console-specific hardware and software requirements for the MetaConsole client can be found on the following pages:

- “MetaConsole Client Requirements for OpenView” on page 14
- “MetaConsole Client Requirements for NetView” on page 18
- “MetaConsole Client Requirements for MMC” on page 21
- “MetaConsole Client Requirements for Unicenter” on page 25
- “MetaConsole J Client Requirements” on page 28

Where to Go from Here

Chapter One: Installing MetaConsole

Chapter One describes the architecture of MetaConsole. Installation procedures are provided for MetaConsole in an HP Open View environment, a Tivoli NetView environment, an MMC environment as well as a CA Unicenter Environment. The installation procedure for MetaConsole's Konica Minolta Service Provider follows as do are instructions for using MetaConsole J. Database installation procedures are next. The Chapter ends with instructions for uninstalling MetaConsole.

Chapter Two: Configuring MetaConsole

Chapter Two provides MetaConsole Configuration and Server Configuration for OpenView, NetView, MMC and Unicenter. **Configuration .txt** files are provided for each console type. The chapter ends with Client configuration procedures that govern the interactions between the client and all Konica Minolta devices managed through the MetaConsole server. This final section applies to all console types.

Chapter Three: Using the PageScope EMS Plug-Ins

Chapter Three provides an in-depth explanation of Konica Minolta's PageScope EMS Plug-Ins as well as instructions for utilizing the functions available within the individual device's nodes and pages.

Appendix A: Glossary

This Appendix provides a glossary of many terms used in the MetaConsole User's Guide.

Appendix B: Index

This Appendix provides an index of many topics used in the MetaConsole User's Guide.

Chapter

1

Installing MetaConsole

- MetaConsole Architecture
- Planning MetaConsole Deployment
- Installing HP OpenView
- Installing NetView
- Installing MMC
- Installing Unicenter
- Using MetaConsole J
- Installing a Database
- Uninstalling MetaConsole

MetaConsole Architecture

The MetaConsole application architecture is three-tiered. Its major components are:

- **MetaConsole Client**: the front-end component that integrates with the console (or, in the case of MetaConsole J, with the browser playing the console's role).

  There is one client per console managing all supported devices.

- **MetaConsole Server**: the back-end component that communicates with both the Meta-Console clients and with the devices to be managed.

  A MetaConsole server acts as an agent collecting data from the MetaConsole clients. It can route queries and responses to and from other MetaConsole servers. A server that acts as a proxy in this way is the *preferred server* for the client.

- **MetaConsole Service Providers** (referred to as PageScope EMS Plug-Ins in this User's Guide): these contain the knowledge necessary to communicate with a managed device or service.

Figure 1.1 illustrates the relationship between the MetaConsole components and their various functions:

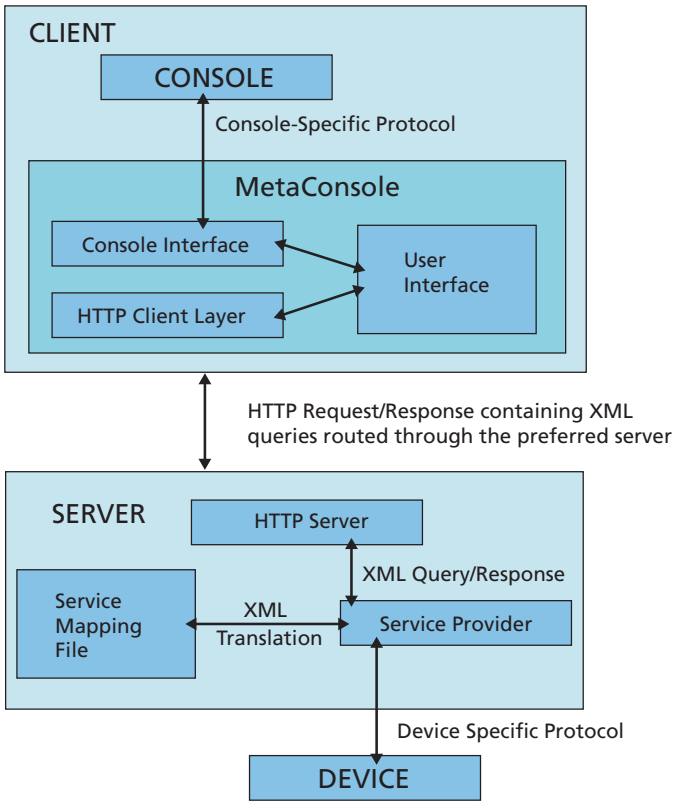

Figure 1.1: MetaConsole Architecture

Client

The client includes three primary sub-components:

1 **The Console Interface** cooperates with the host console so the client functions in a manner native to that of the console. For example, the console interface in the MetaConsole client for OpenView NNM uses the OpenView API thus ensuring that the client performs all functions expected of OpenView applications. More specifically, MetaConsole integrates with the OpenView Alarm Browser. The client makes an entry in its own log when monitored events occur, but it also provides OpenView Alarm Browser with the information needed for a standard OpenView error message. In MetaConsole J, the console interface is between a browser and HTML pages and Java applets.

2 **The Hyper Text Transfer Protocol (HTTP) Client Layer** communicates with the MetaConsole Server using HTTP. HTTP request sent by the MetaConsole client contain queries encoded in XML. The responses returned by the MetaConsole Server are also encoded in XML and contain style sheets with instructions for rendering the XML data.

3 **The User Interface** is generally common among MetaConsole clients for different management consoles. This sharing provides the same look and feel regardless of whether the user has OpenView, NetView, MMC, Unicenter or a browser. The User Interface is rendered by the client using the style sheets provided by the server.

The client might extend the common MetaConsole user interface in console-specific ways to use all the capabilities of the management console. For example, the navigation tree is usually adapted to reflect the native method used by the console to display devices.

Server

The MetaConsole Server includes two sub-components:

1 **The HTTP Server**: Controls communication with the MetaConsole client.

2 **The Service Provider Interface**: Controls communication with the various service providers.

The MetaConsole Server manages multiple Service Providers and takes care of routing client requests to the correct Service Providers.

Service Providers

Each MetaConsole Server should have a Konica Minolta service provider (referred to as PageScope EMS Plug-Ins) that can be loaded onto that server. EMS performs four main functions:

1 Translates the HTTP server's XML queries into the protocol understood by the device and translates the device's responses into XML documents.

2 Has a service mapping file that defines the translations from XML to the device-specific protocol.

3 Discovers devices in the network.

4 Polls and listens for alarms from the devices that it is communicating with for the purpose of asynchronous event notification.

Planning MetaConsole Deployment

MetaConsole was designed to be deployed in various and diverse environments. MetaConsole runs well for the small workgroup and can be scaled up, with several MetaConsole servers being deployed in a large enterprise to handle very large networks. Because of this scalable design, it is important that you consider how you would like to deploy MetaConsole to ensure that the choices you make are appropriate to your environment.

Mixing MetaConsole Versions

Ideally, you should use the latest versions of all MetaConsole server and client software.

Version 2.x clients *are not* compatible with earlier versions of the MetaConsole server and service providers (including PageScope EMS Plug-Ins). Servers configured using 2.x will only communicate with 2.x clients.

Clients older than version 2.x *are not* compatible with version 2.x of the MetaConsole server and service providers including PageScope EMS Plug-Ins.

Using Multiple MetaConsole Servers

You may install the MetaConsole server on as many computers as you would like. A MetaConsole server can service multiple clients. These clients can be of different types (browsers, Tivoli NetView, HP OpenView, MMC or CA Unicenter).

You may install the MetaConsole client on as many computers as you would like. Each client must be able to communicate with at least one MetaConsole server. The client and server can be on the same computer. Each client must be able to communicate with at least one MetaConsole server as the preferred server.

A MetaConsole client can communicate with multiple MetaConsole servers, each with its own set of service providers and devices. You should consider using multiple MetaConsole servers within a network when:

- Performance is an issue. To improve performance within a large network, multiple MetaConsole servers can be deployed such that each server has a reasonable set of devices to manage. Clients communicate with different servers depending on the devices that they will be managing.
- Logical groups of devices need to be created. This can be achieved as follows:
    - Provide each MetaConsole server with a different set of service providers to load so that each grouping reflects the different functions one might seek to segregate (such as printer management and server management).
    - Provide each MetaConsole server with a different set of sub-net ranges over which they perform discovery. For example, devices on the first floor and devices on the second floor can be managed through different servers.
- Network traffic needs to be reduced. Dividing a network into logical components and assigning each component a MetaConsole server to manage it, cuts down on network traffic.

Consider the following questions and use your answers to help you decide if multiple MetaConsole servers are appropriate for your environment.

Are You Managing Devices for Multiple Service Providers?

To manage devices for multiple service providers, you might consider dividing the management load among multiple MetaConsole servers. This would also allow you to have multiple administrators with different job functions, such as managing servers and managing printers.

Are You Managing a Large Number of Devices?

To manage many devices, you might consider dividing the management load among multiple MetaConsole servers. By decreasing the load on each MetaConsole server, you allow the server to respond more quickly to client requests and improve client performance.

Do Devices Belonging to the Same Service Provider Require Different Settings?

If different devices belonging to the same service provider require different settings, you can set up two MetaConsole servers, each with a different range for the service provider and with the appropriate alarm events selected.

Must the Tree Pane Reflect Logical Groupings of Devices?

If devices have logical groupings that need to be reflected in the client's tree pane, you can use multiple servers. For example, Marketing and Engineering might be set up with separate servers so that users from each department can easily locate appropriate devices.

Are You Running MetaConsole across a Firewall?

If you are using MetaConsole across a firewall, you might consider setting up a MetaConsole server with an address accessible outside the firewall and configure it to manage only the devices that you want the person accessing the server to be able to manage. As MetaConsole clients use HTTP to access the MetaConsole server, access to the server itself will be available; typically, HTTP access is available across a firewall.

Running MetaConsole as a Service

If you are running MetaConsole on a computer that uses Windows NT or Windows 2000, you might consider running MetaConsole as a service. Services can be started automatically after the operating system boots and do not require a user to log on. This is especially useful when you are running MetaConsole on an unattended computer.

Choosing MetaConsole Discovery: CA Unicenter Only

***Note**: If you are working in an OpenView, MMC or NetView environment, please skip this section.*

The properties file **console.properties** contains the variable **NetaphorDiscover**, which determines whether MetaConsole does device discovery.

If **NetaphorDiscover** is set to **true**, the MetaConsole server performs discovery and MetaConsole can be used to manage devices. This places all relevant devices in the same place in the map, for easy monitoring. If **NetaphorDiscover** is set to **false**, the MetaConsole server does not perform discovery, and MetaConsole cannot be used to manage devices.

Monitoring the Network and Using Alarms

MetaConsole gives you flexibility in the monitoring of network activity. MetaConsole monitors managed devices for changes in state, warnings and errors. Monitoring is done by polling as well as through asynchronous event notification via trap reception.

Each service provider has a pre-determined set of alarms that it can generate. These alarms correspond to a change in state of one or more polled variables on a device or a trap that may be received from a device. For each service provider, you select the types of events that should trigger notifications when alarms occur and select the poll rate for alarms. (For details about Konica Minolta Service Providers (referred to as PageScope EMS Plug-Ins, see Chapter 3.)

Alarms in OpenView

Configuring MetaConsole Alarms in OpenView

When an event of a selected type occurs, alarms are sent in the form of a trap generated by the MetaConsole client. These are received by Network Node Manager and added to the OpenView alarm log. The content of these traps is defined in the ***MetaConsole.Conf*** file installed with the MetaConsole client.

If you would like to change the format of the message that is written into the OpenView alarm log when a MetaConsole alarm occurs:

1. Select **Options/Event Management**
2. Select the **metaconsole** enterprise and **valueChangedAlert** event then choose **Edit/Events/Modify**.
3. Change the **Events Log Message** in the **Events Message** tab.

If you would like to change the category under which MetaConsole alarms are grouped in the OpenView alarm log:

1. Select **Options/Event Management**.
2. Select the **metaconsole** enterprise and **valueChangedAlert** event and choose **Edit/Alarm Categories**.
3. Add/remove from the category list into which the alarm will be written.

Viewing MetaConsole Alarms in OpenView

To view the MetaConsole alarms in OpenView, start the HP OpenView Alarm Browser and select the category into which you grouped the MetaConsole alarm (by default, you can always view it under **All Alarms** and **Application Alert** alarms.)

Alarms in NetView

When an event of a selected type occurs, alarms are sent in the form of a trap generated by the MetaConsole client. These alarms are received by NetView and added to the NetView Event Browser.

If you would like to change the format of the message that is written into the NetView event browser when a MetaConsole alarm occurs:

1. Select **Options/Traps** from within the NetView Event Browser.
2. Select the **metaconsole** enterprise and **valueChangedAlert** trap then choose **Properties**.
3. Change the **Events Description**.

If you would like to change the category under which MetaConsole alarms are grouped in the NetView event browser:

1. Select **Options/Traps** from within the NetView Event Browser.
2. Select the **metaconsole** enterprise and **valueChangedAlert** trap then choose **Properties**.
3. Change the **Event Category**.

Alarms in Unicenter

When an event of a selected type occurs, the MetaConsole client adds alarms by sending a message to Event Management for processing. These logged alarms can be viewed in EM Console or by launching Console Logs from the enterprise Management view of Unicenter Explorer. MetaConsole alarms are logged in orange text and all message begin with “MetaConsole” followed by the address of the device and the text information returned from the device.

Alarms in MetaConsole

When an event of a specified type occurs, MetaConsole notifies you by flashing a message in the status bar of each MetaConsole client (Browser) window launched from an OpenView/NetView terminal node. In addition, you may view lists of alarms on the **View Alarms** page within each MetaConsole server’s **Configuration** node.

You can use the **Alarm Notification Methods** page at the top level of MetaConsole configuration to select any combination of alert boxes, system beeps, email messages, and pager text messages as alarm notification methods. (See “Specifying Alarm Notification Methods in OpenView” on page 37, “Specifying Alarm Notification Methods in NetView” on page 54, “Specifying Alarm Notification Methods in MMC” on page 71, or “Specifying Alarm Notification Methods in Unicenter” on page 89.) The **Alert Box** option causes a message box to appear when a monitored event is detected. Only one alert box is visible at a time, so additional alarms that occur while an alert box is open will not generate additional alert boxes.

***Note**: If you are viewing a page that has an object selected for monitoring and a monitored event occurs for that object, one of two things will happen. If the page is not editable, it is refreshed automatically. If the page can be edited, however, a dialog box appears. The box will indicate that an alarm has occurred and will prompt you to refresh the page. If this happens, click **YES** to update the page immediately or **NO** to ignore the alarm.*

***Note:** If you have selected the Alert Box option, always make sure that a new pop-up is an Alert Box and not a request for user input or action.*

Choosing an Alarms Database

MetaConsole ships with the HSQLDB database. This database stores the alarm (event) information. The HSQLDB database is loaded into memory when the MetaConsole server starts and records alarm information in a flat file in the MetaConsole directory.

The database adds alarm information at the rate of approximately 1000 events per megabyte. Acknowledging all events increases the file size to approximately 500 events per megabyte, but the database is optimized each time the MetaConsole server is started.The optimized database stores alarm events at the rate of 2000 events per megabyte.

Performance is based largely upon the amount of RAM on your system. However, serious degradation to server performance can occur once the database file size increases beyond 50 MB. The larger the database is, the longer it takes to load into memory when the MetaConsole server starts. A 10 MB file can take several minutes to load.

You can save the HSQLDB database by copying and storing the database files **MetaConsoleDB.data, MetaConsoleDB.properties,** and **MetaConsoleDB.script.** You can create a new database by deleting the old database files and running the **runcreator.exe** application in the MetaConsole directory.

If you prefer a more familiar and robust database, you can download and install one. The MetaConsole server interfaces with Microsoft's SQL database and MySQL database.The Microsoft SQL database must be purchased and licensed but the MySQL database can be downloaded free and used under a General Public License. For details about installation, see "Installing MSSQL Database" on page 30 and "Installing MySQL Database" on page 31.

Installing MetaConsole: An Overview

The remainder of this chapter is divided into installation and/or use sections specific to different management consoles. Locate your management console (or the specific component you wish to use or install) from the list below, proceed to the specified page, then follow the instructions:

Installing HP OpenView

This section describes how to install MetaConsole for HP OpenView. Both the Meta-Console Server and the client for OpenView may be installed on a number of platforms. The devices that your client will manage need not be present on your network when you install MetaConsole.

Supported Environments

Table1.1 lists the hardware and software requirements for the MetaConsole client.

Platform	Hardware	Software
Windows 2000 Windows XP	Pentium 700 MHz 256 MB available RAM 52 MB free hard disk space	HP OpenView NNM 6.4 or 7.01; Microsoft Internet Explorer 5.5 or 6.0 OR Netscape Navigator 6.2 or 7.1; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)
Solaris 8	Sun Ultra 5 512 MB available RAM 160 MB free hard disk space	HP OpenView NNM 6.3 or 6.4; CDE, XWindows or OSF Motif; Netscape Navigator 6.2 or 7.0; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)

Table 1.1: MetaConsole Client Requirements for OpenView

Database

Table1.2 describes the databases and corresponding drivers that are supported within Meta-Console.

Database	Notes
HSQLDB HSQLDB 1.7.0	This is the default database that ships with MetaConsole.
MSSQL 2000 (version 8.0) MSSQL 2000 Driver for JDBC	For details about installing this database, see "Installing MSSQL Database" on page 30. The Microsoft MSSQL database must be purchased and licensed.
MySQL Admin 1.4 My SQL Connector/J 2.0.14 for JDBC	For details about installing this database, see "Installing MySQL Database" on page 31. The MySQL software is free and licensed under the General Public License. The software can be down-loaded at http://www.mysql.com

Table 1.2: MetaConsole Supported Databases

Placement of Components

You may install the client on as many computers as you like, as long as those clients can communicate with at least one MetaConsole Server. The client and server can be on the same computer.

You may install the MetaConsole server on as many computers as you would like. A MetaConsole server can service multiple clients. These clients can be of different types (browsers, OpenView, NetView, MMC or Unicenter).

Installing MetaConsole and the PageScope EMS Plug-Ins

An Installation program will guide you through the process of installing MetaConsole.

To use the Installation program, follow this procedure:

1 Insert the MetaConsole CD.

2 Start the program:

- **Windows**: If the Installation program does not start automatically, run ***PSEMS.exe*** from the MetaConsole directory on the CD.
- **HP-UX, Solaris, Linux**:

  a. Log in as ***root***.
  b. Execute ***sh ./install.bin*** from the MetaConsole directory on the CD

3 The **Setup Program** screen opens. Click **Next** to continue.

4 Accept the Licensing Agreement. You cannot install and use MetaConsole if you do not accept the agreement. Click **Next**.

5 Select a **Typical** or **Custom** installation from the drop-down menu. If you select **Typical**, the following components will be selected:

MetaConsole Server
MetaConsole Snap-in for MMC
MetaConsole Snap-in for HP OV
PageScope EMS Plug-Ins

***Note**: The Konica Minolta PageScope EMS Plug-Ins will always be installed. You may not customize these components.*

6 If you select **Custom** in Step Five, select the component(s) you wish to install. Click **Next**.

7 Select a **Destination Folder**. The default folders specified below are recommended:

- Windows: ***C:\Program Files\PageScope EMS Plug-Ins***
- HP-UX, Linux and Solaris: ***/opt/PageScope EMS Plug-Ins***

If you prefer a different folder, click **Choose...** and browse to the folder. When the selection has been made, click **Next**.

8 **[MetaConsole Server]** Specify a TCP/IP port number. Click **Next**.

9 **[Windows NT, 2000, 2003 and XP] [MetaConsole Server]** If MetaConsole is to run as a Windows NT, 2000, 2003 or XP service, select the **Run as Service** check box. Click **Next**.

10 If you chose to run MetaConsole as a Windows service, specify if it is to be started automatically at system startup or manually, by clicking the appropriate radio button. Click **Next**.

11 **[Client for HP OpenView]** Enter the name/address of the MetaConsole server host that the client for HP OpenView will use. Optionally, specify a port number by following the name or address with a colon and a number. For example, ***ServerMachineName:8080***. When finished, click **Next**.

12 **[Windows] [Client for HP OpenView]** Click **Choose...** then browse to the folder where the HP OpenView Network Node Manager is installed. For example, ***C\Program File\HP OV\NNM***. Select the folder then click **Next**.

13 The **Pre-Installation Summary** screen opens. This screen lists the installation options you have selected. If any options are incorrect, click the **Previous** button to return back and edit your selection(s). When you have completed this, return to the **Pre-Installation Summary** screen, reverify your new settings, then click **Install**.

14 The **Installation Progress** screen appears as MetaConsole installs.

15 When installation finishes, a final screen appears, notifying you that the installation has been successfully completed.

16 Click **Done** to exit the Installation program.

Starting the MetaConsole Server after Installation

Note*:The MetaConsole installation procedure does not start the MetaConsole server. To use the MetaConsole Server immediately after installation, you must manually start it.*

To manually start the MetaConsole Server on Windows, follow this procedure:

1 Click the **Start** button, point to **Programs** then point to **PageScope EMS Plug-Ins**.

2 Do one of the following:

- To run the MetaConsole Server as a program, click **Run PSEMS**.
- To run the MetaConsole Server as a Windows NT service, click **StartService**.

To manually start the MetaConsole Server on HP-UX, Linux and Solaris, follow this procedure:

1 Change to the installation directory.

2 Execute ***./Run PSEMS***.

Managing Devices

When the OpenView program is started, the MetaConsole OpenView snapin runs automatically. When a new OpenView map is opened, the snapin checks each symbol on the map to see if it can be managed. If the symbol represents an object that can be managed by the MetaConsole OpenView snapin, the symbol changes to an executable icon with a three-dimensional appearance.

To view information or change settings for one of these devices, double-click its icon or right-click the icon and, on the menu that appears, click **Device Management**. A browser opens and displays management information related to that device.

The browser window is divided into two panes. You use the **navigation tree** in the **navigation pane** on the left to select the information you want displayed in the **details pane** on the right.

For details about using MetaConsole to manage a particular type of device, see the client user's guide for that device.

Refreshing Displayed Information

You can manually update the MetaConsole information that is displayed in the MetaConsole client (browser) window.

To update the information that is displayed, follow this procedure:

1 In the navigation pane, right-click the node whose information you want to update.

2 In the menu that appears, click **Refresh**.

- Refreshing a service provider updates the list of discovered devices.
- Refreshing a specific page of device information updates the information on that page.

Installing Tivoli NetView

This section describes how to install MetaConsole for Tivoli NetView. Both the MetaConsole Server and the client for NetView may be installed on a number of platforms. The devices that your client will manage need not be present on your network when you install MetaConsole. NetView must be installed first before MetaConsole can be installed.

Supported Environments

Table1.3 lists the hardware and software requirements for the MetaConsole client.

Platform	Hardware	Software
Windows 2000 Windows XP	Pentium 700 MHz 512 MB available RAM 52 MB free hard disk space	Tivoli NetView 7.1.1 or 7.1.3; Microsoft Internet Explorer 5.5 or 6.0 OR Netscape Navigator 6.2 or 7.1; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)
Solaris 8	Sun Ultra 5 512 MB available RAM 160 MB free hard disk space	Tivoli NetView for UNIX 7.1.1 or 7.1.3; Tivoli Management Framework 3.6; CDE, XWindows or OSF Motif; Netscape Navigator 6.2 or 7.0; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)

Table 1.3: MetaConsole Client Requirements for NetView

Database

Table1.2 describes the databases and corresponding drivers that are supported within MetaConsole (*See Database on page 14*).

Placement of Components

You may install the client on as many computers as you like, as long as those clients can communicate with at least one MetaConsole Server. The client and server can be on the same computer.

You may install the MetaConsole server on as many computers as you would like. A MetaConsole server can service multiple clients. These clients can be of different types (NetView, browsers, OpenView, MMC or Unicenter).

Installing MetaConsole

An Installation program will guide you through the process of installing MetaConsole.

To use the Installation program, follow this procedure:

1 Insert the MetaConsole CD.

2 Start the program:

- **Windows**: If the Installation program does not start automatically, run ***PSEMS.exe***

from the MetaConsole directory on the CD.

- **HP-UX, Solaris, Linux:**

  a. Log in as ***root***.
  b. Execute ***sh ./install.bin*** from the MetaConsole directory on the CD.

3 The **Setup Program** screen opens. Click **Next** to continue.

4 Accept the Licensing Agreement. You cannot install and use MetaConsole if you do not accept the agreement. Click **Next**.

5 Select a **Typical** or **Custom** installation from the drop-down menu. If you select **Typical**, the following components will be selected:

MetaConsole Server
MetaConsole Snap-in for MMC
MetaConsole Snap-in for NetView
PageScope EMS Plug-Ins

***Note**: The Konica Minolta PageScope EMS Plug-Ins will always be installed. You may not customize these components.*

6 If you select **Custom** in Step Five, select the component(s) you wish to install. Click **Next**.

7 Specify a Destination Folder. The default folders specified below are recommended:

- Windows: ***C:\Program Files\PageScope EMS Plug-Ins***
- HP-UX, Linux and Solaris: ***/opt/PageScope EMS Plug-Ins***

If you prefer a different folder, click **Choose...** and browse to the folder. When the selection has been made, click **Next**.

8 **[MetaConsole Server]** Specify a TCP/IP port number. Click **Next**.

9 **[Windows NT, 2000, 2003 and XP] [MetaConsole Server]** If MetaConsole is to run as a Windows NT, 2000, 2003 or XP service, select the **Run as Service** check box. Click **Next**.

10 If you chose to run MetaConsole as a Windows service, specify if it is to be started automatically at system startup or manually, by clicking the appropriate radio button. Click **Next**.

11 **[Client for NetView]** Enter the name/address of the MetaConsole server host that the client for HP NetView will use. Optionally, specify a port number by following the name or address with a colon and a number. For example, ***ServerMachineName:8080***. When finished, click **Next**.

12 **[Windows] [Client for NetView]** Click **Choose...** then browse to the NetView Installation Drive. For example, ***C:\ or D:***. Click **Next**.

13 The **Pre-Installation Summary** screen opens. This screen lists the installation options you have selected. If any options are incorrect, click the **Previous** button to return back and edit your selection(s). When you have completed this, return to the Pre-Installation Summary screen, reverify your new settings, then click **Install**.

14 The **Installation Progress** screen appears as MetaConsole installs.

15 When installation finishes, a final screen appears, notifying you that the installation has been successfully completed.

16 Click **Done** to exit the Installation program.

Starting the MetaConsole Server after Installation

***Note**:The MetaConsole installation procedure does not start the MetaConsole server. To use the MetaConsole Server immediately after installation, you must manually start it.*

To manually start the MetaConsole Server on Windows, follow this procedure:

1 Click the **Start** button, point to **Programs** then point to **PageScope EMS Plug-Ins**.

2 Do one of the following:

- To run the MetaConsole Server as a program, click **Run PSEMS**.
- To run the MetaConsole Server as a Windows NT service, click **StartService**.

To manually start the MetaConsole Server on HP-UX, Linux and Solaris, follow this procedure:

1 Change to the installation directory.

2 Execute ***./Run PSEMS***.

Managing Devices

When the NetView program is started, the MetaConsole NetView snapin runs automatically. When a new NetView map is opened, the snapin checks each symbol on the map to see if it can be managed. If the symbol represents an object that can be managed by the MetaConsole NetView snapin, the symbol changes to an executable icon with a three-dimensional appearance.

To view information or change settings for one of these devices, double-click its icon. A browser opens and displays management information related to that device.

The browser window is divided into two panes. You use the **navigation tree** in the **navigation pane** on the left to select the information you want displayed in the **details pane** on the right.

For details about using MetaConsole to manage a particular type of device, see the client user's guide for that device.

Refreshing Displayed Information

You can manually update the MetaConsole information that is displayed in the MetaConsole client (browser) window.

To update the information that is displayed, follow this procedure:

1 In the navigation pane, right-click the node whose information you want to update.

2 In the menu that appears, click **Refresh**.

- Refreshing a service provider gets a new list of discovered devices.
- Refreshing a specific page of device information updates the information on that page.

Installing MMC

This section describes how to install MetaConsole for MMC. The devices that your client will manage need not be present on your network when you install MetaConsole.

Note: *MMC need not be present during MetaConsole installation. You may first install the MetaConsole Server and client and then install MMC and add the client to it.*

Supported Environments

Table1.4 lists the hardware and software requirements for the MetaConsole client.

Platform	Hardware	Software
Windows NT, 4.0 SP6; Windows 2000 Windows XP	Pentium 300 MHz 128 MB available RAM 35 MB free hard disk space	Microsoft Internet Explorer 5.5 or 6.0; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/); MMC 1.2 or 2.0

Table 1.4: MetaConsole Client Requirements for MMC

Database

Table1.2 describes the databases and corresponding drivers that are supported within MetaConsole (*See Database on page 14*).

Placement of Components

You may install the client on as many computers as you like, as long as those clients can communicate with at least one MetaConsole Server. The client and server can be on the same computer.

You may install the MetaConsole server on as many computers as you would like. A MetaConsole server can service multiple clients. These clients can be of different types (NetView, browsers, HP OpenView, MMC or Unicenter).

Installing MetaConsole

An Installation program will guide you through the process of installing MetaConsole.

To use the Installation program, follow this procedure:

1 Insert the MetaConsole CD.

2 Start the program:

- **Windows**: If the Installation program does not start automatically, run ***PSEMS.exe*** from the MetaConsole directory on the CD.
- **HP-UX, Solaris, Linux:**

  a. Log in as *root*.
  b. Execute ***sh ./install.bin*** from the MetaConsole directory on the CD.

3 The **Setup Program** screen opens. Click **Next** to continue.

4 Accept the Licensing Agreement. You cannot install and use MetaConsole if you do not accept the agreement. Click **Next**.

5 Select **Custom** installation from the drop-down menu.

6 Select the following items:

- MetaConsole Server
- MetaConsole Snap-in for MMC

***Note**:The Konica Minolta PageScope EMS Plug-Ins will always be installed. You may not customize these components.*

7 Click **Next**.

8 Specify a Destination Folder. The default folders specified below are recommended:

- Windows: ***C:\Program Files\PageScope EMS Plug-Ins***
- HP-UX, Linux and Solaris: ***/opt/PageScope EMS Plug-Ins***

If you prefer a different folder, click **Choose...** and browse to the folder. When the selection has been made, click **Next**.

9 **[MetaConsole Server]** Specify a TCP/IP port number. Click **Next**.

10 The **Pre-Installation Summary** screen opens. This screen lists the installation options you have selected. If any options are incorrect, click the **Previous** button to return back and edit your selection(s). When you have completed this, return to the Pre-Installation Summary screen, reverify your new settings, then click **Install**.

11 The **Installation Progress** screen appears as MetaConsole installs.

12 When installation finishes, a final screen appears, notifying you that the installation has been successfully completed.

13 Click **Done** to exit the Installation program.

Starting the MetaConsole Server after Installation

***Note**:The MetaConsole installation procedure does not start the MetaConsole server. To use the MetaConsole Server immediately after installation, you must manually start it.*

To manually start the MetaConsole Server on Windows, follow this procedure:

1 Click the **Start** button, point to **Programs** then point to **PageScope EMS Plug-Ins**.

2 Do one of the following:

- To run the MetaConsole Server as a program, click **Run PSEMS**.
- To run the MetaConsole Server as a Windows service, click **StartService**.

To manually start the MetaConsole Server on HP-UX, Linux and Solaris, follow this procedure:

1 Change to the installation directory.

2 Execute *./**Run PSEMS***.

Adding the MetaConsole Client to MMC

You add the MetaConsole client to MMC using the standard MMC procedure.

***Note**: When you install the client, you see all the device types for which Service Providers are present on the preferred MetaConsole server. To remove unwanted device types, see "Disabling a Service Provider in MMC" on page 79.*

To add the client to MMC, follow this procedure:

1 Start MMC.

2 On the **Console** menu, click **Add/Remove Snap-in**.

3 In the **Add/Remove Snap-in** dialog box, click **Add**.

4 In the **Add Standalone Snap-in** dialog box, select the MetaConsole client and click **Add.**

5 In the **MetaConsole MMC Snap-in** dialog box, type the following information:

- The preferred server address to which the client should connect
- The port number on the preferred server the client should use

6 Click **Finish**.

7 Click **Close** to dismiss the **Add Standalone Snap-in** dialog box

8 Click **OK**.

Client for MMC

The MetaConsole client's functions include the following:

- Maintaining a list of MetaConsole servers
- Maintaining lists of enabled and disabled service providers
- Producing alarms when device conditions change

Installing the DirectX 9.0b Update for Unicenter

If you are using CA Unicenter, you will need to download and install a Windows update for MetaConsole to work properly or uninstall completely. To download and install this update, follow this procedure:

1. From the **Start** menu, run **Windows Update**.
2. Click on **Scan for Updates** to obtain updates relevant to your Windows 2000 installation.
3. Under **Pick Updates to Install**, click on **Windows 2000** to obtain a list of **Recommended Updates** for your system.
4. Scroll down the list until you locate the **DirectX 9.0b End-User Runtime** update.
5. Click **Add**.

***Note**: This update cannot be installed with any other update.*

6. Click on **Review and Install Updates**, then **Install Now**.
7. Reboot the system after the install is complete.

Installing CA Unicenter

This section describes how to install MetaConsole for CA Unicenter. Both the MetaConsole Server and the client for Unicenter may be installed on a number of platforms. The devices that your client will manage need not be present on your network when you install MetaConsole. Unicenter must be installed first before MetaConsole can be installed.

Supported Environments

Table1.5 lists the hardware and software requirements for the MetaConsole client.

Platform	Hardware	Software
Windows NT, 4.0 SP6; Windows 2000 Windows XP	Pentium 300 MHz 256 MB available RAM 52 MB free hard disk space	CA Unicenter NSM 3.0 or 3.1; Microsoft Internet Explorer 5.5 or 6.0 OR Netscape Navigator 6.2 or 7.1; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/) Microsoft SQL Server 6.5 or later
Solaris 8	Sun Ultra 5 512 MB available RAM 160 MB free hard disk space	CA Unicenter NSM 3.0 for Solaris; CDE, XWindows or OSF Motif; Netscape Navigator 6.2 or 7.0; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)

Table 1.5: MetaConsole Client Requirements for Unicenter

Database

Table1.2 describes the databases and corresponding drivers that are supported within MetaConsole (*See Database on page 14*).

Placement of Components

You may install one client per data repository. Each client must be able to communicate with at least one MetaConsole Server. The client and server can be on the same computer.

You may install the MetaConsole server on as many computers as you would like. A MetaConsole server can service multiple clients. These clients can be of different types (Unicenter, NetView, browsers, HP OpenView or MMC).

Installing MetaConsole

An Installation program will guide you through the process of installing MetaConsole.

To use the Installation program, follow this procedure:

1 Insert the MetaConsole CD.

2 Start the program:

- **Windows**: If the Installation program does not start automatically, run ***PSEMS.exe*** from the MetaConsole directory on the CD.

- **HP-UX, Solaris, Linux:**

  a. Log in as ***root***.
  b. Execute ***sh ./install.bin*** from the MetaConsole directory on the CD.

3 The **Setup Program** screen opens. Click **Next** to continue.

4 Accept the Licensing Agreement. You cannot install and use MetaConsole if you do not accept the agreement. Click **Next**.

5 Select a **Typical** or **Custom** installation from the drop-down menu:

- If you select **Typical**, the following components will be selected:

  MetaConsole Server
  MetaConsole Snap-in for MMC
  MetaConsole Snap-in for Unicenter
  PageScope EMS Plug-Ins

***Note**: The Konica Minolta PageScope EMS Plug-Ins will always be installed. You may not customize these components.*

- Click **Custom** to choose which components to install.

6 If you select **Custom** in Step Five, select the component(s) you wish to install. Click **Next**.

7 Specify a Destination Folder. The default folders specified below are recommended:

- Windows: ***C:\Program Files\MetaConsole***
- HP-UX, Linux and Solaris: ***/opt/MetaConsole***

If you prefer a different folder, click **Choose...** and browse to the folder. When the selection has been made, click **Next**.

8 **[MetaConsole Server]** Specify a TCP/IP port number. Click **Next**.

9 **[Windows NT, 2000, 2003 and XP] [MetaConsole Server]** If MetaConsole is to run as a Windows NT, 2000, 2003 or XP service, select the **Run as Service** check box. Click **Next**.

10 If you chose to run MetaConsole as a Windows service, specify if it is to be started automatically at system startup or manually, by clicking the appropriate radio button. Click **Next**.

11 **[Client for Unicenter]** Enter the name/address of the MetaConsole server host that the client for HP NetView will use. Optionally, specify a port number by following the name or address with a colon and a number. For example, ***ServerMachineName:8080***. When finished, click **Next**.

12 **[Windows] [Client for Unicenter]** Click **Choose...** then browse to the Unicenter Installation Folder. For example, **C:\TND** or **C:\NSM**. Click **Next**.

13 Enter the **Repository Name** for the Unicenter snap-in. The Repository Name can be located by following this path: ***Programs\UniCenter TND\Worldview\Discovery Monitor***.

After entering the name, click **Next**.

14 The **Pre-Installation Summary** screen opens. This screen lists the installation options you have selected. If any options are incorrect, click the **Previous** button to return back and edit your selection(s). When you have completed this, return to the Pre-Installation Summary screen, reverify your new settings, then click **Install**.

15 The **Installation Progress** screen appears as MetaConsole installs.

16 When installation finishes, a final screen appears, notifying you that the installation has been successfully completed.

17 Click **Done** to exit the Installation program.

Starting the MetaConsole Server after Installation

***Note**:The MetaConsole installation procedure does not start the MetaConsole server. To use the MetaConsole Server immediately after installation, you must manually start it.*

To manually start the MetaConsole Server on Windows, follow this procedure:

1 Click the **Start** button, point to **Programs** then point to **PageScope EMS Plug-Ins**.

2 Do one of the following:

- To run the MetaConsole Server as a program, click **Run PSEMS**.
- To run the MetaConsole Server as a Windows NT service, click **StartService**.

To manually start the MetaConsole Server on HP-UX, Linux and Solaris, follow this procedure:

1 Change to the installation directory.

2 Execute ***./Run PSEMS***.

Using MetaConsole J

MetaConsole J allows a browser to function as the console for MetaConsole. This section describes the supported environments for MetaConsole J. It also explains how to use MetaConsole J.

***Note**:MetaConsole must first be installed before you can use MetaConsole J.*

Supported Environments

Table1.6 lists the hardware and software requirements for the MetaConsole client.

Platform	Hardware	Software
Windows NT, 4.0 SP6; Windows 2000 Windows XP	Pentium 300 MHz 256 MB available RAM 52 MB free hard disk space	Microsoft Internet Explorer 5.5 or 6.0 OR Netscape Navigator 6.2 or 7.1; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)
Solaris 8	Sun Ultra 5 512 MB available RAM 160 MB free hard disk space	CDE, XWindows or OSF Motif; Netscape Navigator 6.2 or 7.1; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)
HP-UX 11.x	HP B2000 512 MB available RAM 52 MB free hard disk space	HP VUE, CDE, XWindows or OSF Motif; Netscape Navigator 6.2 or 7.1; Sun's Java Plug-In 1.4 (http://java.sun.com/products/plug-in/)

Table 1.6: MetaConsole J Client Requirements

Database

Table1.2 describes the databases and corresponding drivers that are supported within MetaConsole (*See Database on page 14*).

Starting the MetaConsole Server after Installation

***Note**:The MetaConsole installation procedure does not start the MetaConsole server. To use the MetaConsole Server immediately after installation, you must manually start it.*

To manually start the MetaConsole Server on Windows, follow this procedure:

1 Click the **Start** button, point to **Programs** then point to **PageScope EMS Plug-Ins**.

2 Do one of the following:

- To run the MetaConsole Server as a program, click **Run PSEMS**.
- To run the MetaConsole Server as a Windows service, click **StartService**.

To manually start the MetaConsole Server on HP-UX, Linux and Solaris, follow this procedure:

1 Change to the installation directory.

2 Execute ***./Run PSEMS***.

Starting the MetaConsole J Client

Point your browser to the name or IP address of the computer running the MetaConsole server. Examples:

- ***http://MyMetaConsoleServer***
- ***http://190.190.0.0***

If necessary, specify the port number:

- ***http://MyMetaConsoleServer:80***

Installing MSSQL Database

A simple database for storing alarm information is automatically installed with MetaConsole. The Microsoft SQL Server 2000 database can be used by the MetaConsole server to store alarm information.

To configure the MetaConsole server to log alarms to a MSSQL database, follow this procedure:

1. From **http://www.microsoft.com/sql/downloads,** download the JDBC driver for SQ Server 2000 for Windows.
2. Install the JDBC driver by executing the downloaded file. The installation program create a **lib** subdirectory that contains the jar files **mssqldriver.jar, msutil.jar,** and **msbase.jar.**
3. Copy the three jar files listed in step 2 into the **MetaConsole/lib** directory.
4. Modify the **local.xml** file so that the MetaConsole tables can be configured in the database. The example below shows the contents of the dataStore element in the **local.xml** file. Modify the data shown in ***bold italics*** to connect to your MSSQL server.

   <dataStore>

   DATABASE_NAME = “MSSQL”
   DATABASE_DRIVER=”com.microsoft.jdbc.sqlserver.SQLServerDriver”
   CONNECTION_URL=”jdbc:microsoft:sqlserver:***//10.0.0.200***:1433;
   DatabaseName=***MetaConsoleDB***;SelectMethod=cursor”
   USER_NAME=”***root***”
   PASSWORD=”***password***”>

   </dataStore>

5. Save and close the **local.xml** file.
6. Make sure the database specified in the **local.xml** file is running and the MetaConsole database has been created.
7. Execute the **runcreator** file in the MetaConsole directory. This program creates the tables in your MetaConsole database.
8. Modify the **configuration.txt** file (located in the MetaConsole directory) to indicate the alarm database. (Chapter 2 explains the **configuration.txt** file.) The database parameter values entered in the configuration.txt file should be the same as those entered in the **local.xml** file.
9. Start the MetaConsole server.

Installing MySQL Database

A simple database for storing alarm information is automatically installed with MetaConsole. The MySQL database can be used by the MetaConsole server to store alarm information.

To configure the MetaConsole server to log alarms to a MySQL database, follow this procedure:

1. From **http://www.mysql.com**, download MySQL Connector/J.
2. Extract the **mysql-connector-java-version#.jar** file, and rename it **mysql.jar**.
3. Copy mysql.jar into the **MetaConsole/lib** directory.
4. Modify the **local.xml** file so that the MetaConsole tables can be configured in the database. The example below shows the contents of the dataStore element in the **local.xml** file. Modify the data shown in ***bold italics*** to connect to your MSSQL server.

   <dataStore>

   DATABASE_NAME = “MySQL”
   DATABASE_DRIVER=”org.gjt.mm.mysql.Driver”
   CONNECTION_URL=” jdbc:mysql:***//10.0.0.207/ks***”
   USER_NAME=”***root***”
   PASSWORD=”***password***”>

   </dataStore>

5. Save and close the **local.xml** file.
6. Make sure that the database specified in the **local.xml** file is running and that the MetaConsole database has been created.
7. Execute the **runcreator** file in the MetaConsole directory. This program creates the tables in your MetaConsole database.
8. Modify the **configuration.txt** file (located in the MetaConsole directory) to indicate the alarm database. Chapter 2 explains the **configuration.txt** file. The database parameter values entered in the **configuration.txt** file should be the same as those entered in the **local.xml** file.
9. Start the MetaConsole server.

Uninstalling MetaConsole Components

On Windows platforms, you can uninstall MetaConsole components using **Add/Remove Programs** in the **Control Panel** (the MetaConsole components are listed under MetaConsole). Or you may use the **Uninstaller** command by following these steps:

1 Click the **Start** button, point to **Programs** and then point to **PSEMS**.

2 Click **Uninstaller**.

On HP-UX, Solaris and Linux, you uninstall MetaConsole components by executing the **Uninstaller** command following these steps:

1 Change to **Uninstall** directory under the installation directory. **Uninstall** is case sensitive.

2 Execute **./Uninstaller.**

Note: *If your management console is CA Unicenter, you must download and install the DirectX 9.0b Update for a complete uninstall of MetaConsole. See "Installing the DirectX 9.0b Update for Unicenter" on page 24 for complete details.*

Chapter

2

Configuring MetaConsole

- Configuring MetaConsole for OpenView
- Configuring MetaConsole for NetView
- Configuring MetaConsole for MMC
- Configuring MetaConsole for Unicenter
- Configuring the Client

Configuring MetaConsole for OpenView

You can change settings that apply to:

- **All of MetaConsole**

  To change these settings (that include which other MetaConsole servers are visible and how alarms are presented), right-click a map node that is managed by the MetaConsole OpenView snapin and, on the menu that appears, click **MetaConsole Configuration**.

- **A MetaConsole Server**

  To change these settings, right-click a map node that is managed by the MetaConsole OpenView snapin and, on the menu that appears, click **Server Configuration**.

- **A Service Provider**

  To change these settings, right-click a map node that is managed by the MetaConsole OpenView snapin and, on the menu that appears, click **Service Provider Configuration**. For information about configuration at the service provider level, see Chapter 3.

The MetaConsole client window has two panes. You use the **navigation tree** in the **navigation pane** on the left to select the information you want displayed in the **details pane** on the right.

Configuring Using a Browser Window

You can also perform MetaConsole configuration in a browser window that you open manually by entering the name or IP address of the computer running the MetaConsole server. Examples:

- **http://MyMetaConsoleServer**
- **http://190.190.0.0**

If the MetaConsole server is running on a port other than 80, specify the port number:

- **http://MyMetaConsoleServer:80**

When you use the manual method, the navigation tree includes the following:

- A **Help** node for access to MetaConsole online help
- A **Configuration** node for configuring the preferred server's settings

  These are the settings you would see if you followed the instructions under the "All of MetaConsole" bullet item above.

- A node for each MetaConsole server, which in turn contains the following:
  - A **Version Information** node for displaying component version numbers
  - A **Service Providers** node for enabling and disabling service providers
  - A **View Alarms** node for displaying and acknowledging alarm information
  - A node for each enabled service provider.

All configuration settings for the server or a service provider are maintained by the MetaConsole server and are not client-specific. All clients use the same values; if any client changes a particular setting, the change affects all clients that use that setting.

Refreshing Displayed Information in OpenView

You can manually update the MetaConsole information that is displayed in OpenView and in the MetaConsole client (browser) window.

MetaConsole Client

To update displayed information, follow this procedure:

1 In the navigation pane, right-click the node whose information you want to update.

2 In the menu that appears, click **Refresh.**

- Refreshing a service provider gets a new list of discovered devices.
- Refreshing a specific page of device information updates the information on that page.

Configuring the Server List in OpenView

Adding a MetaConsole Server

To add to the list of MetaConsole servers, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snap-in. On the menu that appears, click **MetaConsole Configuration**. A MetaConsole client browser window opens (Figure 2.1).

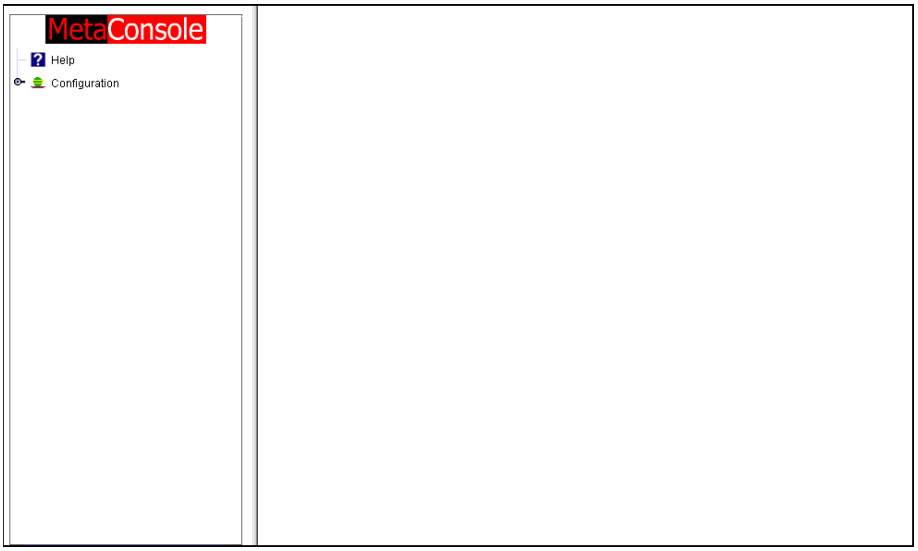

Figure 2.1: MetaConsole Client Browser Window

2 In the navigation pane, expand the **Configuration** node and click **Server Discovery.** The

Server Discovery screen opens (Figure 2.2).

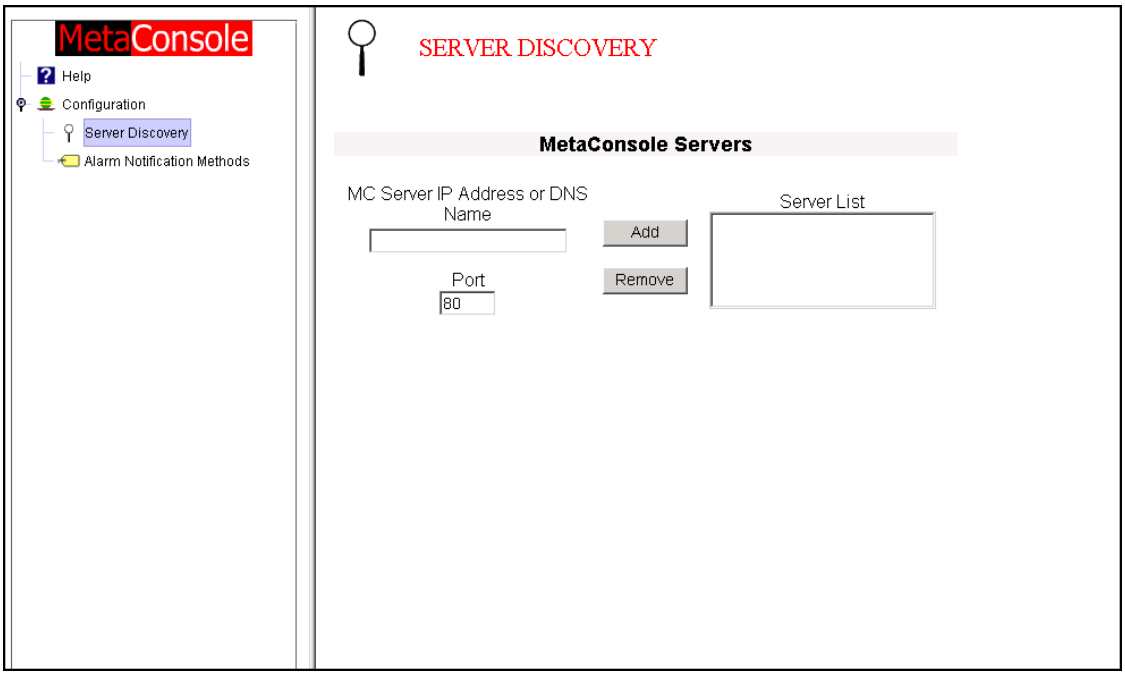

Figure 2.2: OpenView Server Discovery Screen

3 In the **MC Server Address** box, type the IP address of the MetaConsole server you are adding to the list.

4 In the **Port** box, type the port number where the MetaConsole server is found.

5 Click **Add**. The new server appears in the **Server List** box and in the navigation tree.

Removing a MetaConsole Server

To remove a MetaConsole server from the list, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin, and on the menu that appears, click **MetaConsole Configuration**. A MetaConsole client browser window opens (Figure 2.1).

2 In the navigation pane, expand the **Configuration** node and click **Server Discovery**.

3 In the **Servers** box, click the address of the MetaConsole server you are removing from the list.

4 Click **Remove**. The server is removed from the list and from the navigation tree.

Specifying Alarm Notification Methods in OpenView

The list of events you want to trigger alarm notifications is configured individually for each service provider at each MetaConsole server. How MetaConsole presents those alarms is determined at the highest level of MetaConsole configuration.

To specify how MetaConsole notifies you of alarms, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin, and on the menu that appears, click **MetaConsole Configuration**. A MetaConsole client browser window opens (Figure 2.1).

2 In the navigation pane, expand the **Configuration** node and click **Alarm Notification Methods**. The **Alarm Notification Methods** screen opens (Figure 2.3).

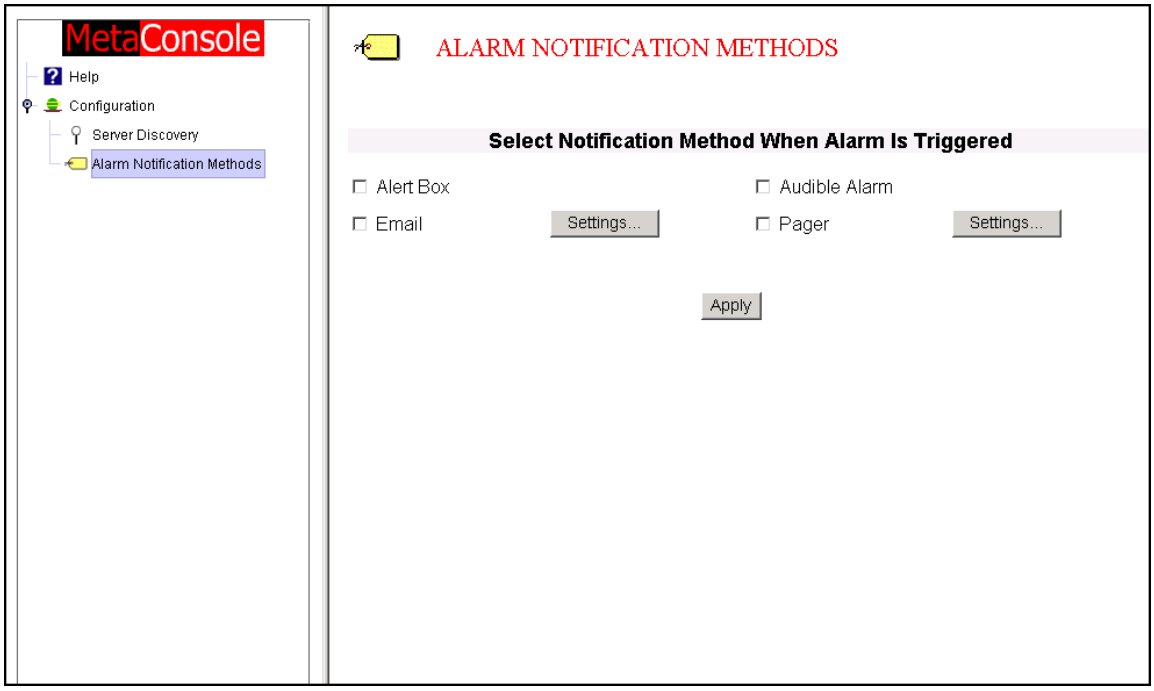

Figure 2.3: OpenView Alarm Notification Methods Screen

3 Select the check box for each notification method you want MetaConsole to use. A brief description of each follows:

- **Alert Box** when an alarm occurs, a message will appear on screen, indicating the device name or IP address where the alarm originated.
- **Audible Alarm** when an alarm occurs, a audible beep will sound.
- **Email** when an alarm occurs, a formatted email providing information about the alarm will be sent to specified recipients. (See “Specifying Email Notification Settings” on page 38.)
- **Pager** when an alarm occurs, a formatted text page providing information about the alarm will be sent to specified pagers.(See “Specifying Pager Notification Settings” on page 40).

For information about viewing alarm details, see “Viewing Alarms in OpenView” on page 44.

4 Click **Apply**.

Specifying Email Notification Settings

To specify settings for email notification, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin, and on the menu that appears, click **MetaConsole Configuration**. A MetaConsole client browser window opens (Figure 2.1).

2 In the navigation pane, expand the **Configuration** node and click **Alarm Notification Methods**. The **Alarm Notification Methods** screen opens (Figure 2.3).

3 Click the **Settings . . .** button next to the **Email** check box. The **Email Notification Settings** appear at the bottom of the details pane (Figure 2.4).

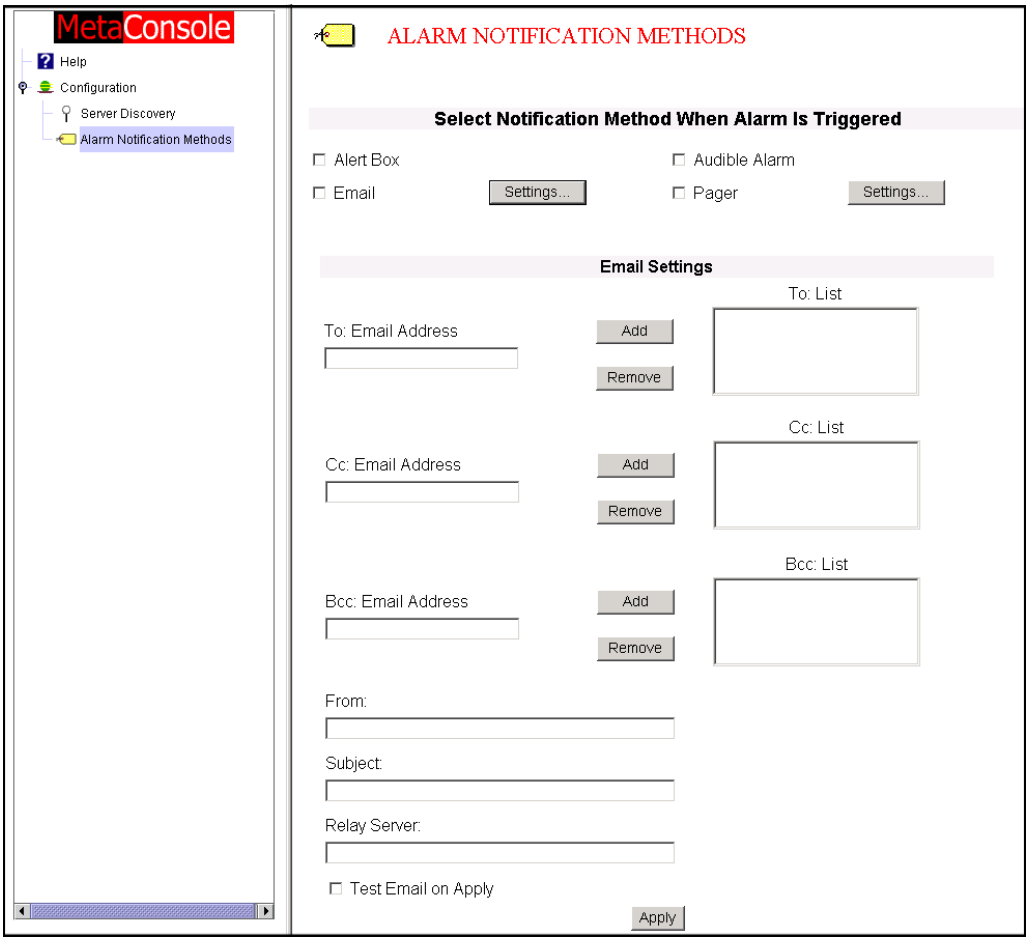

Figure 2.4: OpenView Email Notification Settings

4 Specify the primary recipients by doing one or both of the following:

- **To add a recipient to the To: List:** In the **To: Email Address** box, type an email address then click the adjacent **Add** button.
- **To remove an address from the To: List:** Click the address then click the adjacent **Remove** button.

5 Specify the **Cc** (carbon copy) recipients by doing one or both of the following:

- **To add a recipient to the Cc: List:** In the **Cc: Email Address** box, type an email address then click the adjacent **Add** button.
- **To remove an address from the Cc: List:** Click the address then click the adjacent **Remove** button.

6 Specify **Bcc** (blind carbon copy) recipients by doing one or both of the following:

- To add a recipient to the **Bcc: List**: In the **Bcc: Email Address** box, type an email address then click the adjacent **Add** button.
- To remove an address from the **Bcc: List**: Click the address then click the adjacent **Remove** button.

7 In the **From** box, type the name that will appear in the **From** field of all alarm email messages sent by MetaConsole. Typically, this is a network administrator's name.

8 In the **Subject** box, type the text that will appear in the **Subject** field of all alarm email messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

9 In the **Relay Server** box, type the name or IP address of the local network's email (SMTP) server.

Note: *Email notification cannot be delivered if this information is missing or incorrect.*

10 To send a test email message to the recipients specified in steps 4, 5, and 6, select the **Test Email on Apply** check box.

Note: *If the Test Email on Apply checkbox is selected, then every time the Apply button is clicked, a test email will be sent to all the recipients. The test email is not sent out at any other time. To deactivate this, deselect the checkbox.*

11 Click **Apply**.

Specifying Pager Notification Settings

To specify settings for pager notification, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin, and on the menu that appears, click **MetaConsole Configuration**. A MetaConsole client browser window opens (Figure 2.1).

2 In the navigation pane, expand the **Configuration** node and click **Alarm Notification Methods**. The **Alarm Notification Methods** screen opens (Figure 2.3).

3 Click the **Settings . . .** button next to the **Pager** check box. The **Pager Notification Settings** appear at the bottom of the details pane (Figure 2.5).

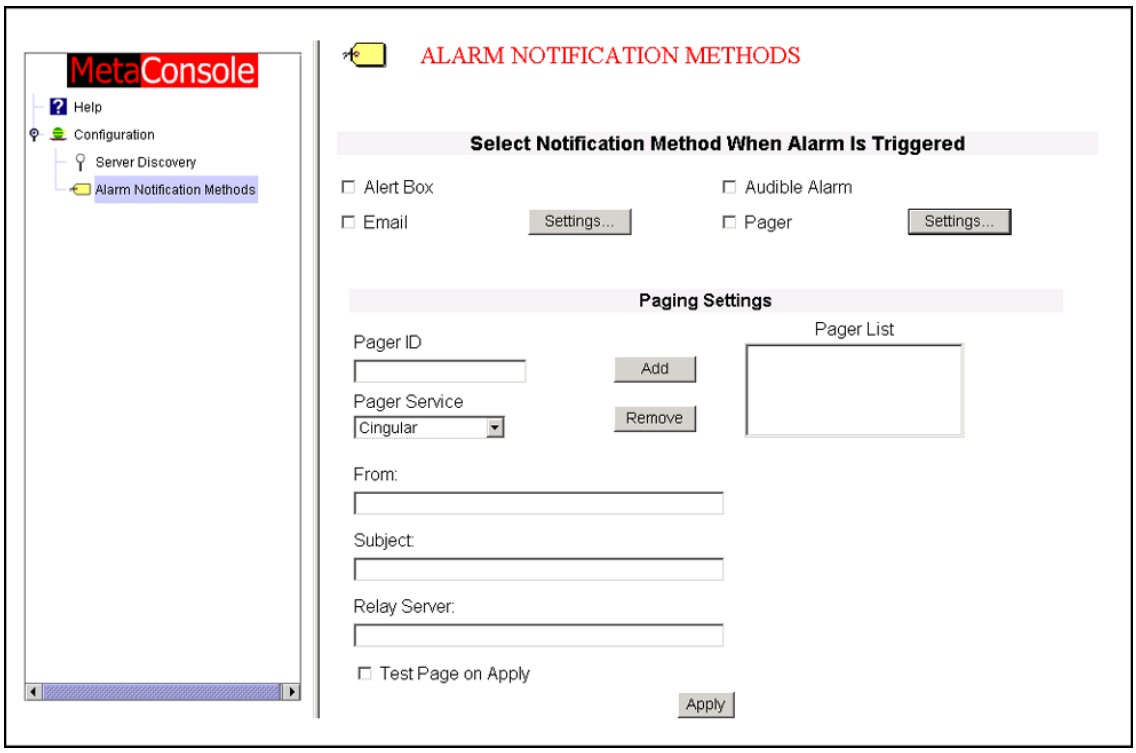

Figure 2.5: OpenView Pager Notification Settings

4 Specify primary recipients by doing one or both of the following:

- To add a recipient to the **Pager List**:

  a. In the **Pager ID** box, type a pager ID (typically a 10- or 11-digit phone number).
  b. In the **Pager Service** list, click the name of the paging service to be used.
  c. Click the adjacent **Add** button.

- To remove a recipient from the **Pager List**: Click the pager ID; then click the adjacent **Remove** button.

5 In the **From** box, type the email address that will appear as the originator of all alarm page messages sent by MetaConsole. Typically, this is a network administrator's email address.

6 In the **Subject** box, type the text that will appear in the **Subject** field of all page messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

7 In the **Relay Server** box, type the name or IP address of the local network's pager terminal.

Note: *An alarm notification page cannot be delivered if this information is missing or incorrect.*

8 To send a test page to the recipients specified in steps 4, 5, and 6, select the **Test Page on Apply** check box.

Note: *If the Test Page on Apply checkbox is selected, then every time the Apply button is clicked, a test page will be sent to all the recipients. The test page is not sent out at any other time. To deactivate this, deselect the checkbox.*

9 Click **Apply**.

Accessing MC Component Version Information in OpenView

To help you with support issues, technicians sometimes must know the version numbers of your MetaConsole components (server, service providers, and client).

MetaConsole Server and Service Provider Version Information

To determine version numbers for the MetaConsole server and service providers, follow this procedure:

1 In the navigation pane, expand the MetaConsole server node, and click **Version Information**.The Version Information screen opens (Figure 2.6).

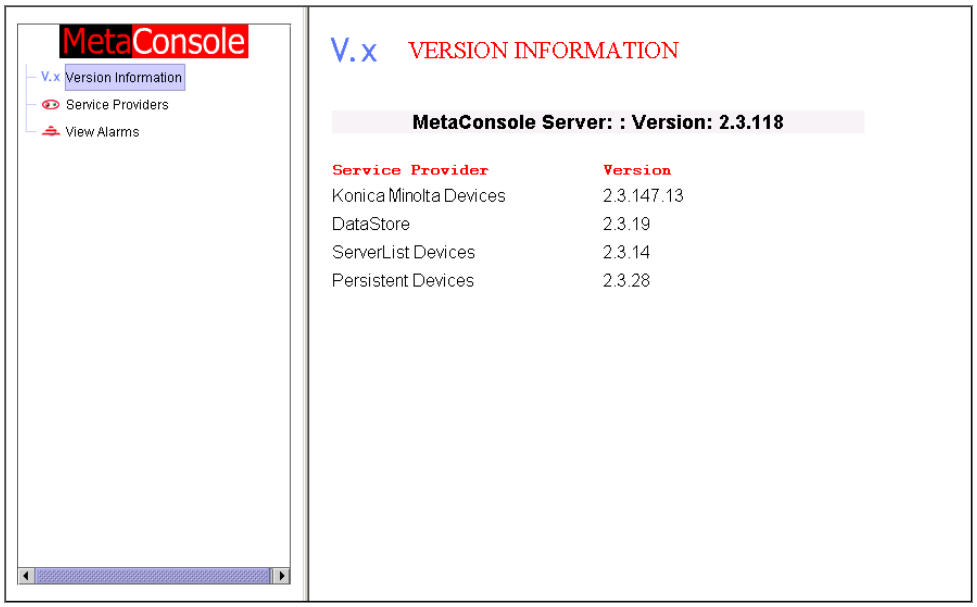

Figure 2.6: OpenView Version Information Screen

The version number of the MetaConsole server software is shown at the top of the page. Below it are version numbers for all service providers, including the following:

- **Persistent Devices** a special service provider that manages persistent data
- **ServerList Devices** a special service provider that manages the list of MetaConsole servers
- **DataStore Devices** a special service provider that manages communication between the service provider and alarm database.

MetaConsole Client Version Information

To get the version number of the MetaConsole client, follow this procedure:

1 In the main OpenView window, on the **Help** menu, click **About HP OpenView**. The **About HP OpenView** window opens.

2 Click **Applications...**. The **Application Index** window opens (Figure 2.7).

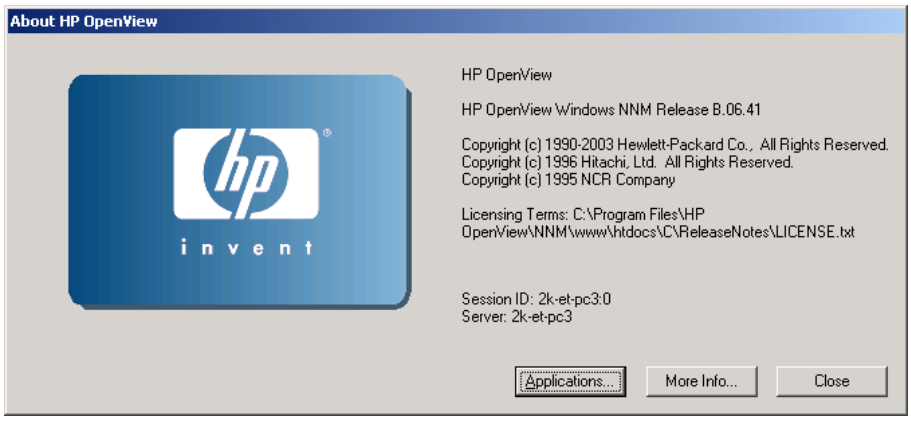

Figure 2.7: OpenView Application Index Window

3 In the **Applications** list, click **MetaConsole**. The MetaConsole client version number is displayed.

Enabling a Service Provider in OpenView

To enable a service provider, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin. On the menu that appears, click **Server Configuration**. A MetaConsole client browser window opens (Figure 2.8).

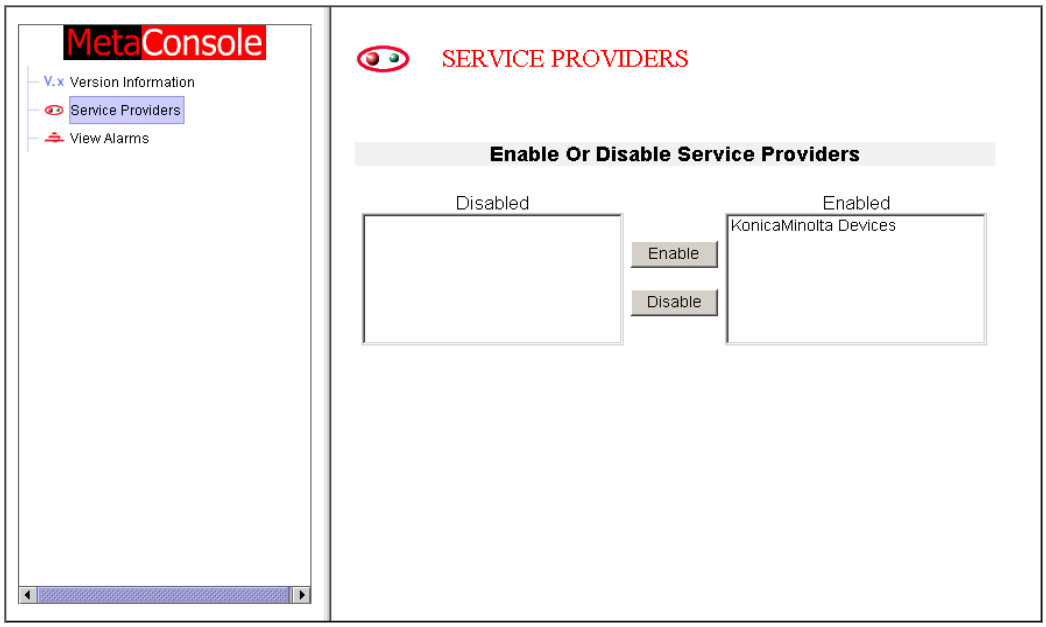

Figure 2.8: OpenView Server Configuration: Service Providers

2 In the navigation pane, click **Service Providers**.

3 In the **Disabled** list, click the name of the service provider you want to enable.

4 Click **Enable**.

5 To manually update discovered information in the map or the navigation pane, see “Refreshing Displayed Information in OpenView” on page 35.

Disabling a Service Provider in OpenView

To disable a service provider, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin. On the menu that appears, click **Server Configuration**. A MetaConsole client browser window opens (Figure 2.8).

2 In the navigation pane, click **Service Providers**.

3 In the **Enabled** list, click the name of the service provider you want to disable.

4 Click **Disable**.

5 To manually update discovered information in the map or the navigation pane, see “Refreshing Displayed Information in OpenView” on page 35.

Viewing Alarms in OpenView

Note: *The time that is displayed for each alarm is the time the MetaConsole server logged that alarm, and is based on the MetaConsole server's time.*

To view alarms, follow this procedure:

1 In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin, and on the menu that appears, click **Server Configuration**. A MetaConsole client browser window opens (Figure 2.1).

2 In the navigation pane, click **View Alarms**. If the database is not configured, a message indicates that fact. Otherwise, the **View Alarms** screen opens (Figure 2.9). Alarm log information for up to 50 alarms is displayed.

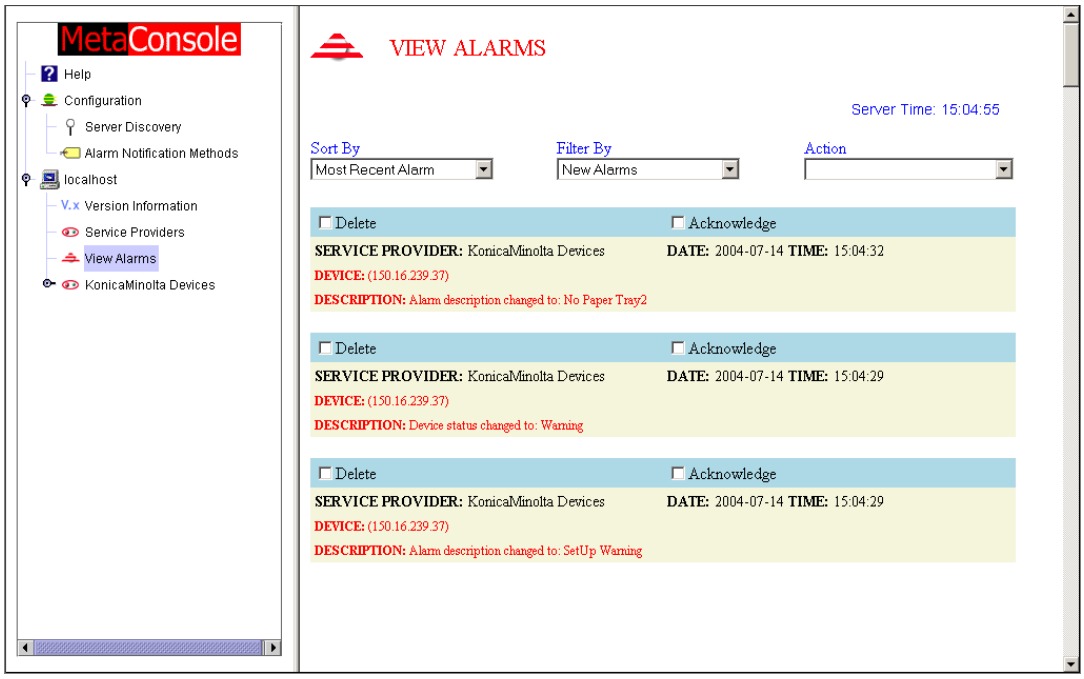

Figure 2.9: OpenView: View Alarms Screen

3 To view more alarms, click one of the following in the **Action** list:

- **Get Next 50 Alarms**
- **Get Previous 50 Alarms**
- **View All Alarms**

If there are a number of alarms in the database, display time will increase.

4 In the **Sort by** list, click **Most Recent Alarm** or **Device** to sort the alarms.

- **Most Recent Alarm** shows the most recent alarms at the top of the page and older alarms at the bottom.

- **Device** shows alarms by device, with numbers in ascending order (for example, 10.0.0.1, 10.0.0.2) followed by letters in alphabetical order (for example, Alpha, Beta).

5 In the **Filter by list**, click an option to determine which alarms are shown.

- **New Alarms** limits the display to log entries that have not been acknowledged.
- **Show All Alarms** shows all acknowledged and unacknowledged log entries.

The name of a service provider shows all alarms, both acknowledged and unacknowledged, for that service provider.

To Acknowledge an Alarm Has Been Read:

Select the **Acknowledge** check box for that alarm, and select **Update Current View** from the **Action** list box.

To Acknowledge All Alarms Have Been Read:

Select the **Acknowledge All Alarms** from the **Action** list box. When you acknowledge an entry, its red text changes to gray and the alarm does not display when you click **New Alarms** in the **Filter by** list.

To Delete All Entries from the Alarm Log:

Select **Delete All Alarms** from the **Action** list box.

To Acknowledge or Delete Specific Entries:

Select the **Acknowledge** or **Delete** check box for each alarm entry and select the **Update Current View** from the **Action** list box.

Accessing Help Files in OpenView

To access the help file, follow this procedure:

1. In the OpenView map, right-click a node that is managed by the MetaConsole OpenView snapin. On the menu that appears, click **Server Configuration**. A MetaConsole client browser window opens (Figure 2.8).
2. In the navigation pane, click **Help**. The Help file opens (Figure 2.10).

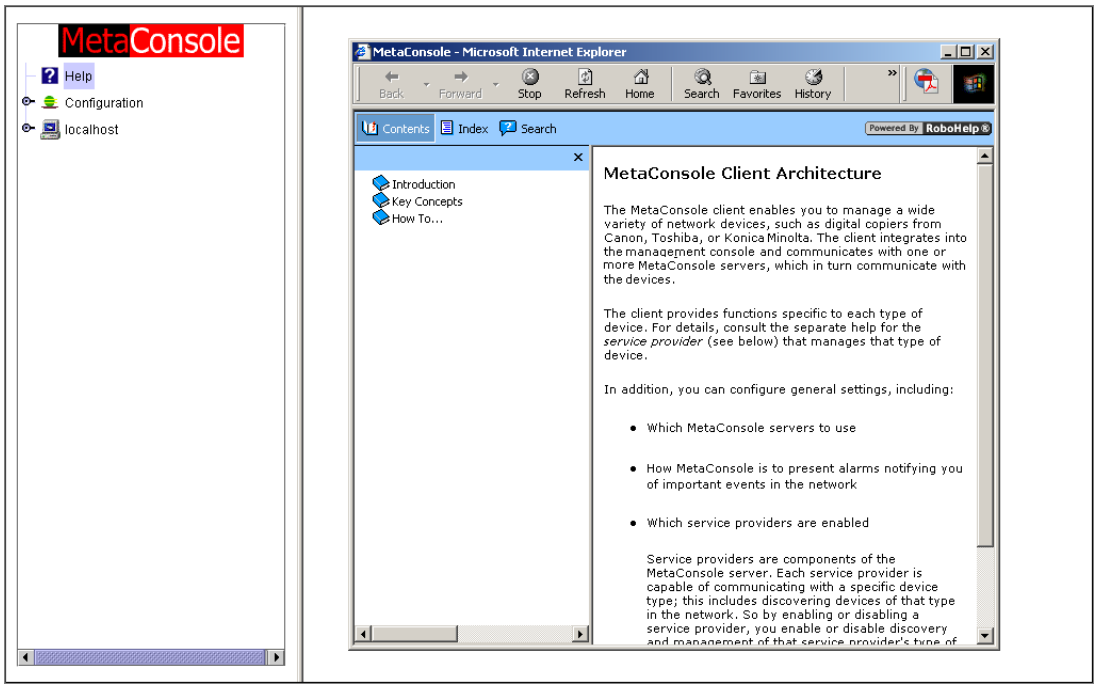

Figure 2.10: OpenVIew Help File

Configuration Text Files for OpenView

Configuration of MetaConsole server properties is governed by entries in a text file, **configuration.txt**. The MetaConsole client has a corresponding properties file, **OVImp.properties**.

***Note**: Changes in OVImp.properties do not take effect until you stop and restart Network Node Manager.*

OpenView Configuration.txt

The **configuration.txt** file is created during installation and resides in the top-level installation directory. If the file is not present, MetaConsole uses the default values, originally set at installation time.

Configuration file entries have the form **keyword=value**. This section includes an example file and a description of each keyword (including the keyword's value when MetaConsole is shipped).

Example File

```
#HTTP server port
Port=80

#HTTP server root directory
Root=root

#SNMP Providers - disabling/enabling sets
AllowWrites=True

#Service providers folder
ServiceProviderDirectory=mcsps

# whether logging to console is needed
LogToConsole=true

# whether logging to a stream (file) is needed
LogToFile-false

# file to log to
LogFile=MetaConsole.log

#whether file logged to is appended or rewritten
AppendToFile=false

# start page for the MetaConsole server, start page must
#be in the root for the server
StartPage=start.html

# will log HTTP query type and client IP address for all
#connections
LogClientIP=false
```

ALARM DATABASE PROPERTY

```
# The alarm database driver
DataBaseDriver=org.hsqldb.jdbcDriver

# The URL for the alarm database
URLConnection=jdbc:hsqldb:MetaConsoleDB

# The username for the alarm database
Username=sa

# The password for the alarm database
Password=#
```

OpenView Configuration Keywords

Keyword	Description	Comments
Port	HTTP server port number.	Original value is 80.
Root	HTTP server root directory name.	Original value is root. Do not change this value.
AllowWrites	Indicates the server will allow sets.	Original value is true.Do not change this value.
ServiceProviderDirectory	Name of the service provider directory.	Original value is mcsps. Do not change this value.
LogToConsole	Indicates whether or not status and error information generated by the MetaConsole server are displayed on the user's screen.	Valid values are true and false.
LogToFile	Indicates whether or not status and error information generated by the MetaConsole server are written to a file.	Valid values are true and false. See next entry (LogFile).
LogFile	File to which status and error information is written if previous entry (LogToFile) is true.	
AppendToFile	Indicates whether or not new status and error information is appended to existing information in the log file instead of overwriting it.	Valid values are true (append) and false (overwrite). Original value is false.
StartPage	File name of the server start page.	Original value is start.html. Do not change this value.
LogClientIP	Indicates whether or not HTTP query type and IP Address information are logged for each connection.	Valid values are true (log) and false (do not log). Original value is false.
DataBaseDriver	Indicates the driver used for the alarm database.	Valid values are JDBC drivers.
URLConnection	Indicates the information required to connect to the alarm database.	Valid values are JDBC URL connections.
Username	Indicates the user who is authorized to connect to the alarm database.	Valid values are database user names.
Password	Indicates the password for the authorized user.	Valid values are dictated by the database.

Table 2.1: OpenView Configuration Keywords

OpenView OVImp.properties

In this file, keywords and values are separated by white space.

Example File

LogToFile	True
LogToScreen	True
LogFile	OVImp.log
HostName	100.0.0.99
PortNumber	8080
MetaConsoleConfiguration	MetaConsole Configuration
MetaConsoleConfigurationPage	/start.html
ServerConfigurationPage	/start.html
ServiceProviderConfigurationPage	/start.html
DeviceConfigurationPage	/start.html

OpenVIew OVImp.Properties Keywords

Keyword	Description	Comments
LogToFile	Indicates whether or not errors generated by the client for OpenView are sent to the file named in LogFile (see below).	True or False.
LogToScreen	Indicates whether errors generated by the client for OpenView are displayed on the user's screen.	
LogFile	File to which information is written if LogToFile (see above) is true.	
HostName	The host name of the MetaConsole server, specified as an IP address (such as 100.0.0.99).	
PortNumber	The port number (such as 8080).	If you do not specify a port, 80 is assumed.
MetaConsole-Configuration	The string used by the client for OpenView for MetaConsole configuration.	Do not change this value.
MetaConsole-ConfigurationPage	The start page for MetaConsole configuration.	Do not change this value.
ServerConfiguration-Page	The start page for server configuration.	Do not change this value.
ServiceProvider-ConfigurationPage	The start page for service provider configuration.	Do not change this value.
DeviceConfiguration-Page	The start page for device configuration.	Do not change this value.

Table 2.2: OVImp.Properties Keywords

FAQs: OpenView

With the HP OpenView client running, how do I know whether the MetaConsole snapin is installed and running?

Open the **Legend** option in the **Help** menu. In the **Legend** list, select **Icon Symbol Types**. If the snapin is installed, MetaConsole icon symbols are present.

The snapin runs automatically when the HP OpenView client runs. Icons for objects that the snapin manages have a 3-D appearance. If you right-click these icons, MetaConsole menu options are displayed. If you double-click the icons, the default web browser is launched.

How can I manage the symbols in the HP OpenView client using an alternative MetaConsole server?

The **configuration.txt** file in the MetaConsole/HPOV directory indicates which server the HP OpenView client uses to manage its symbols. You should modify this file when the MetaConsole server address or port number changes. For details, see “Configuration Text Files for OpenView” on page 46.

When does MetaConsole manage symbols in the device map?

MetaConsole manages symbols for the devices it discovers. The snapin periodically scans all devices discovered by MetaConsole service providers and compares these with the HP OpenView symbols to determine whether to manage the symbols.

Why isn’t MetaConsole managing a symbol in the HP OpenView map?

MetaConsole manages only those symbols that correspond to devices MetaConsole has discovered.

Why does the MetaConsole J (browser client) tree display devices that are not in the HP OpenView device maps?

HP OpenView and MetaConsole have separate discovery mechanisms and can discover different devices. Both can be configured to discover devices on remote networks and both allow the manual addition of devices/symbols. You should configure MetaConsole service providers to discover devices in the same networks as the HP OpenView client. For details, see Chapter 3.

MetaConsole allows me to manually add devices that are not discovered automatically. Why don’t these devices appear in the HP OpenView device maps?

The MetaConsole snapin does not add symbols to the HP OpenView client maps. If you want to manage a device using HP OpenView and the OpenView client did not discover the device, you must manually add it to the map. Be sure that the added symbol has the same IP address as the device you added to MetaConsole.

If multiple service providers discover a device, how can I control which one manages the corresponding symbols in the HP OpenView map?

MetaConsole uses an internal scheme to determine which service provider manages OpenView symbols. To ensure that a certain provider manages a symbol, you can block other providers from discovering the device. For details, see Chapter 3.

When does a provider on a manually added server manage a symbol in the HP OpenView device map?

In two instances:

- When a service provider on both the preferred server and the manually added server discover the same device and the provider of the manually added server has a higher priority than the provider on the preferred server.
- When no provider on the preferred server discovers the device.

How can I manage devices on networks other than the local subnet?

the HP OpenView client must be configured to discover devices on the local subnet and the other networks. For details about adding a server to the server list, see Chapter 3.

Another approach is to run an additional MetaConsole server on the remote network and add the server. For details about adding a server to the list, see Chapter 3.

When the MetaConsole snapin is installed and the HP OpenView client is running but no symbols are managed by the snapin, how should I configure the MetaConsole environment?

Point a browser to the MetaConsole server (for example, **http://myserver:8080**). If the MetaConsole snapin manages symbols in the HP OpenView maps, right-clicking the symbol displays menu options for configuring the MetaConsole environment.

When I double-click on a managed device in the HP OpenView, why doesn't the browser launch on HPUX?

The MetaConsole snapin for HP OpenView will launch the default browser when a managed device is double-clicked. You must make sure the browser is your PATH.

Why doesn't HP OpenView receive traps from my device?

If the MetaConsole server is running on the same machine as HP OpenView, the traps will be intercepted by the MetaConsole server. If you want both HP OpenView and MetaConsole to receive traps, they should be installed on different machines.

Configuring MetaConsole for NetView

You can change settings that apply to:

- **All of MetaConsole**
- **A MetaConsole Server**
- **A Service Provider**

You can access these settings from outside or inside NetView. Procedures for each follow:

From outside NetView: Enter the name or IP address of the computer running the MetaConsole server. Examples:

- **http://MyMetaConsoleServer**
- **http://190.190.0.0**

If the MetaConsole server is running on a port other than 80, specify the port number:

- **http://MyMetaConsoleServer:8080**

From inside NetView: When a managed device is selected, click **MetaConsole** on the **Tools** menu, and then the appropriate configuration option (as described later in this section).

Either action opens a MetaConsole client window with two panes. You use the **navigation tree** in the **navigation pane** on the left to select the information you want displayed in the **details pane** on the right.

If you open the MetaConsole client window from outside NetView, the full navigation tree is displayed. If you open the window from inside NetView, only the portion of the tree relevant to your menu selection is displayed.

The full navigation tree includes the following:

- A **Help** node for access to MetaConsole online help
- A **Configuration** node for configuring which MetaConsole servers are visible and how alarms are presented.
- A node for each MetaConsole server which, in turn, contains the following:
    - A **Version Information** node for displaying component version numbers
    - A **Service Providers** node for enabling and disabling service providers
    - A **View Alarms** node for displaying and acknowledging alarm information
    - A node for each enabled service provider

All configuration settings for the server or a service provider are maintained by the MetaConsole server and are not client-specific. All clients use the same values; if any client changes a particular setting, the change affects all clients that use that setting.

Refreshing Displayed Information in NetView

You can manually update the MetaConsole information that is displayed in NetView and in the MetaConsole client (browser) window.

To update displayed information, follow this procedure:

1 In the navigation pane, right-click the node whose information you want to update.

2 In the menu that appears, click **Refresh.**

- Refreshing a service provider updates the list of discovered devices.
- Refreshing a specific page of device information updates the information on that page.

Configuring the Server List in NetView

Adding a MetaConsole Server

To add to the list of MetaConsole servers, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Server Discovery**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Server Discovery**.

The **Server Discovery** screen opens (Figure 2.11).

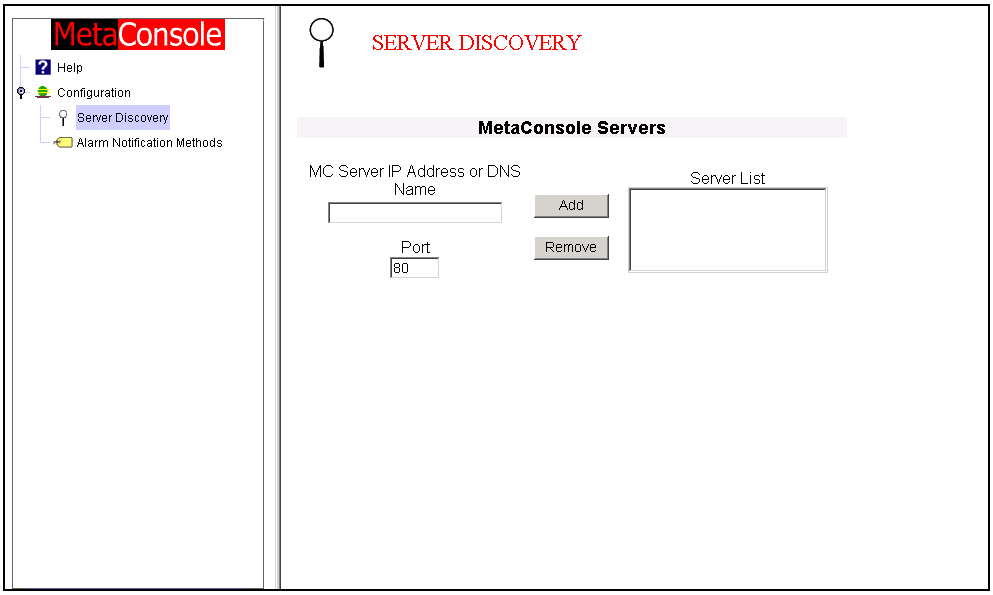

Figure 2.11: NetView Server Discovery Screen

2 In the **MC Server Address** box, type the IP address of the MetaConsole server you are adding to the list.

3 In the **Port** box, type the port number where the MetaConsole server is found.

4 Click **Add**.

The new server appears in the **Server List** box and in the navigation tree.

Removing a MetaConsole Server

To remove a MetaConsole server from the list, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Server Discovery**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Server Discovery**.

The **Server Discovery** screen opens (Figure 2.11).

2 In the **Server's** box, click the address of the MetaConsole server you wish to remove from the list.

3 Click **Remove**.

The server is removed from the list and from the navigation tree.

Specifying Alarm Notification Methods in NetView

The list of events that will trigger alarm notifications is configured individually for each service provider at each MetaConsole server. How MetaConsole presents those alarms is determined at the highest level of MetaConsole configuration.

To specify how MetaConsole notifies you of alarms, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Alarm Notification Methods**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Alarm Notification Methods**.

The **Alarm Notification Methods** screen opens (Figure 2.12).

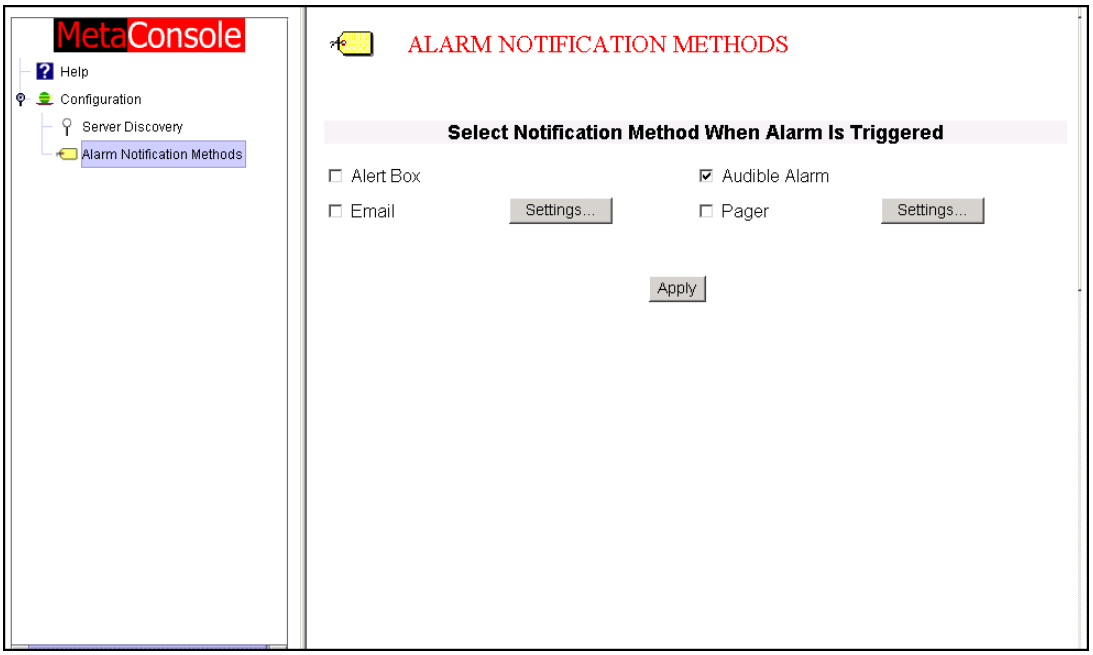

Figure 2.12: NetView Alarm Notification Methods Screen

2 Select the check box for each notification method you want MetaConsole to use. A brief description of each follows:

- **Alert Box** when an alarm occurs, a message will appear on screen, indicating the device name or IP address where the alarm originated.
- **Audible Alarm** when an alarm occurs, a audible beep will sound.
- **Email** when an alarm occurs, a formatted email providing information about the alarm will be sent to specified recipients. (See “Specifying Email Notification Settings” on page 55.)
- **Pager** when an alarm occurs, a formatted text page providing information about the alarm will be sent to specified pagers.(See “Specifying Pager Notification Settings” on page 58).

For information about viewing alarm details, see “Viewing Alarms in NetView” on page 63.

3 Click **Apply**.

Specifying Email Notification Settings

To specify settings for email notification, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Alarm Notification Methods**.

- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Alarm Notification Methods**.

2 Click the **Settings . . .** button next to the **Email** check box. The **Email Notification Settings** appear at the bottom of the details panel (Figure 2.13).

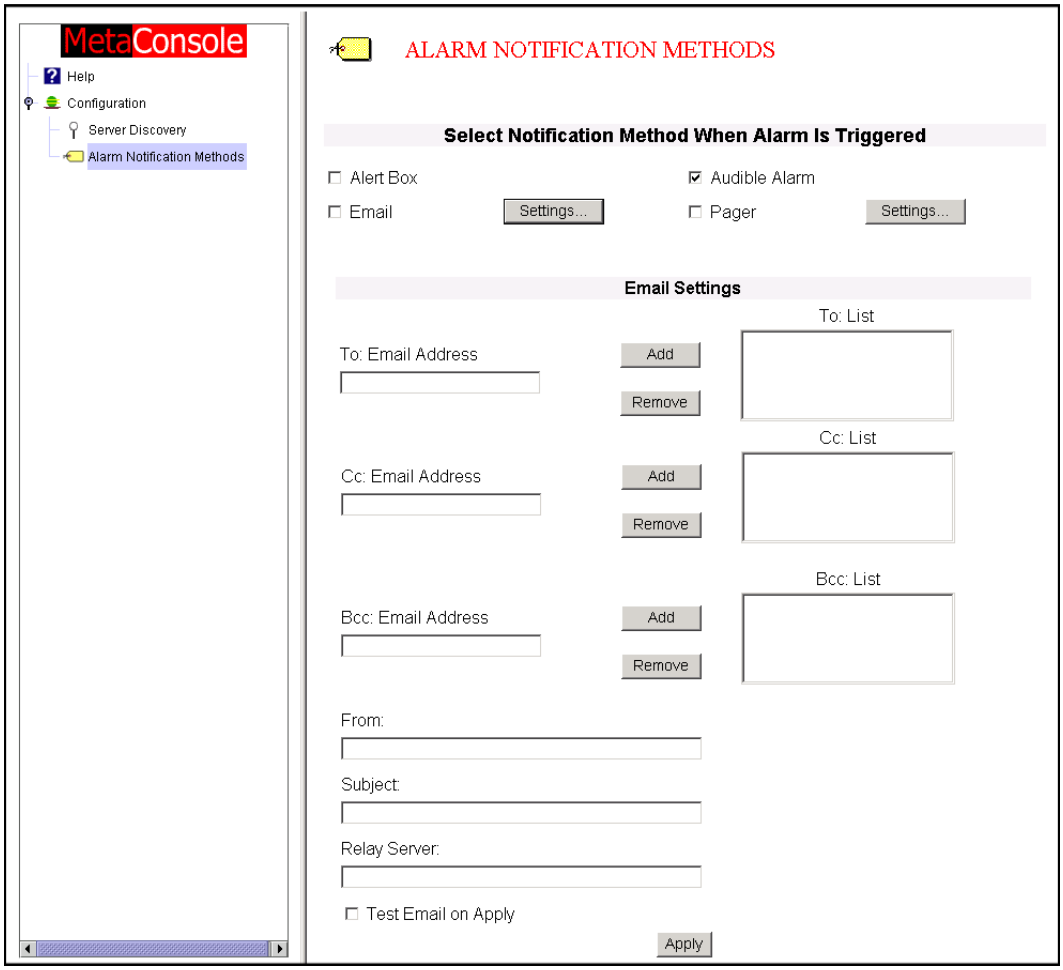

Figure 2.13: NetVIew Email Notification Settings

3 Specify the primary recipients by doing one or both of the following:

- **To add a recipient to the To: List:** In the **To: Email Address** box, type an email address then click the adjacent **Add** button.
- **To remove an address from the To: List:** Click the address then click the adjacent **Remove** button.

4 Specify the **Cc** (carbon copy) recipients by doing one or both of the following:

- **To add a recipient to the Cc: List:** In the **Cc: Email Address** box, type an email address then click the adjacent **Add** button.

- **To remove an address from the Cc: List:** Click the address then click the adjacent **Remove** button.

5 Specify **Bcc** (blind carbon copy) recipients by doing one or both of the following:

- To add a recipient to the **Bcc: List**: In the **Bcc: Email Address** box, type an email address then click the adjacent **Add** button.
- To remove an address from the **Bcc: List**: Click the address then click the adjacent **Remove** button.

6 In the **From** box, type the email address that will appear in the **From** field of all alarm email messages sent by MetaConsole. Typically, this is a network administrator's email address.

7 In the **Subject** box, type the text that will appear in the **Subject** field of all alarm email messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

8 In the **Relay Server** box, type the name or IP address of the local network's email (SMTP) server.

Note: *Email notification cannot be delivered if this information is missing or incorrect.*

9 To send a test email message to the recipients specified in steps 4, 5, and 6, select the **Test Email on Apply** check box.

Note: *If the Test Email on Apply checkbox is selected, then every time the Apply button is clicked, a test email will be sent to all the recipients. The test email is not sent out at any other time. To deactivate this, deselect the checkbox.*

10 Click **Apply**.

Specifying Pager Notification Settings

To specify settings for pager notification, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Alarm Notification Methods**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Alarm Notification Methods**.

2 Click the **Settings . . .** button next to the **Pager** check box. The **Pager Notification Settings** appear at the bottom of the details pane (Figure 2.14).

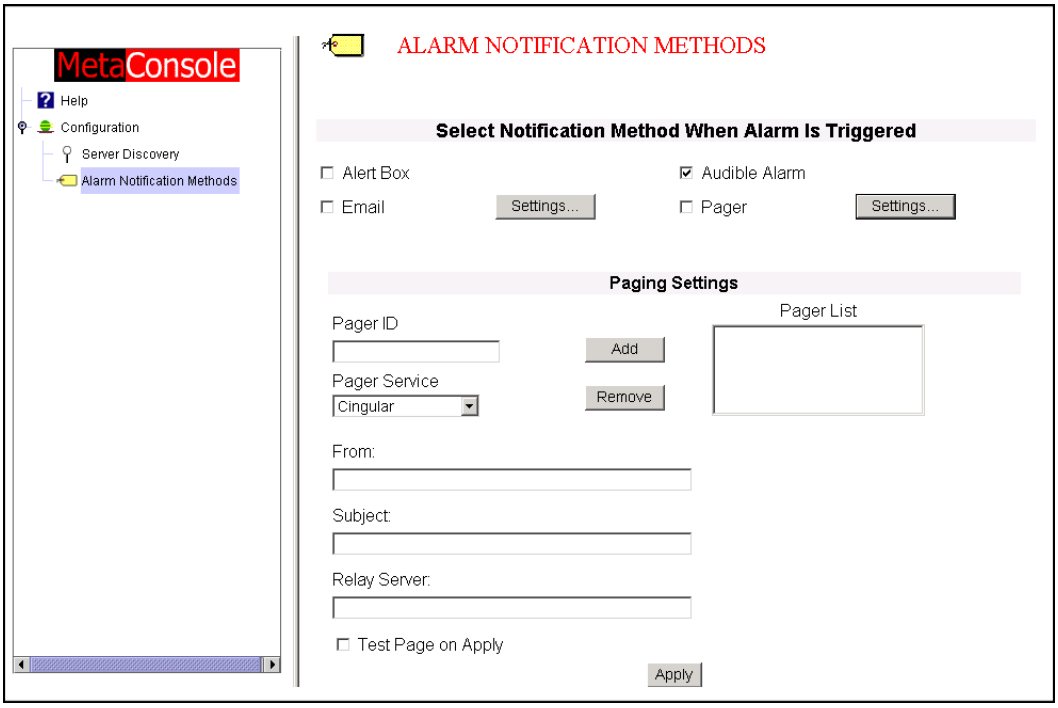

Figure 2.14: NetView Pager Notification Settings

3 Specify primary recipients by doing one or both of the following:

- To add a recipient to the **Pager List**:

  a. In the **Pager ID** box, type a pager ID (typically a 10- or 11-digit phone number).
  b. In the **Pager Service** list, click the name of the paging service to be used.
  c. Click the adjacent **Add** button.

- To remove a recipient from the **Pager List**: Click the pager ID; then click the adjacent **Remove** button.

4 In the **From** box, type the name that will appear as the originator of all alarm page mes-

sages sent by MetaConsole. Typically, this is a network administrator's name.

5 In the **Subject** box, type the text that will appear in the **Subject** field of all page messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

6 In the **Relay Server** box, type the name or IP address of the local network's pager terminal.

Note: *An alarm notification page cannot be delivered if this information is missing or incorrect.*

7 To send a test page to the recipients specified in steps 4, 5, and 6, select the **Test Page on Apply** check box.

Note: *If the Test Page on Apply checkbox is selected, then every time the Apply button is clicked, a test page will be sent to all the recipients. The test page is not sent out at any other time. To deactivate this, deselect the checkbox.*

8 Click **Apply**.

Accessing MC Component Version Information in NetView

To help you with support issues, technicians sometimes must know the version numbers of your MetaConsole components (server, service providers, and client).

MetaConsole Server and Service Provider Version Information

To determine version numbers for the MetaConsole server and service providers, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Version Information**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Version Information**.

The **Version Information** screen opens (Figure 2.15).

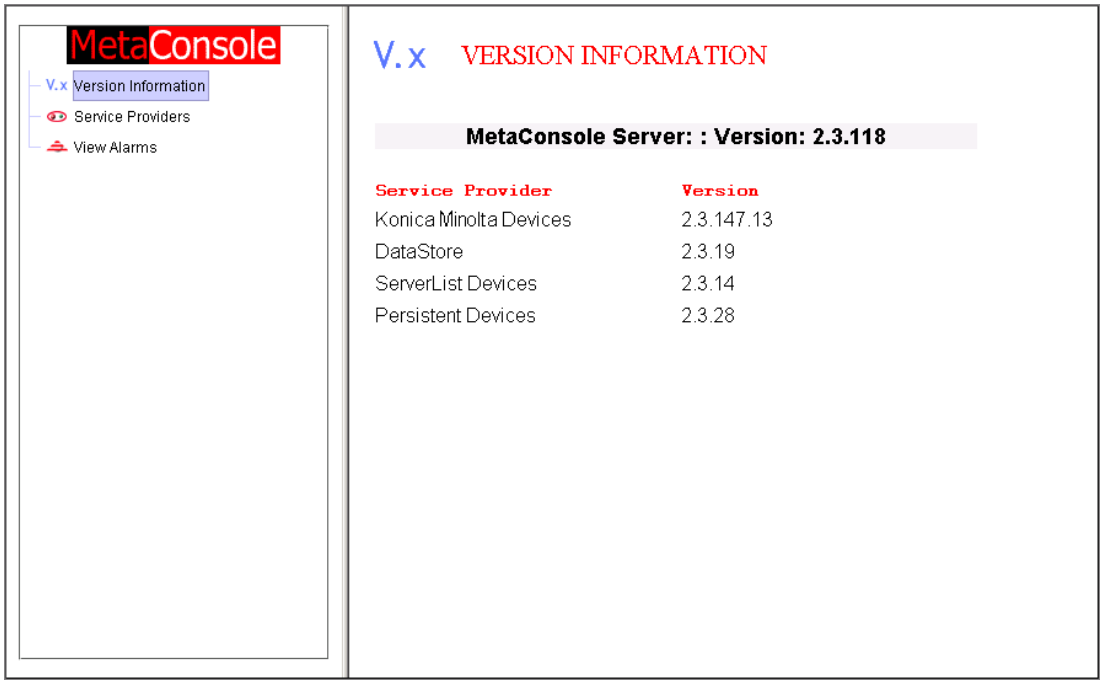

Figure 2.15: NetView Version Information Screen

The version number of the MetaConsole server software is shown at the top of the page. Below it are version numbers for all service providers, including the following:

- **Persistent Devices** a special service provider that manages persistent data
- **ServerList Devices** a special service provider that manages the list of MetaConsole servers
- **DataStore Devices** a special service provider that manages communication between the service provider and alarm database.

MetaConsole Client Version Information

To get the version number of the MetaConsole client, follow this procedure:

1 In the main NetView window, select the **Help** menu, then click **About Applications**. The **About Applications** window opens (Figure 2.16).

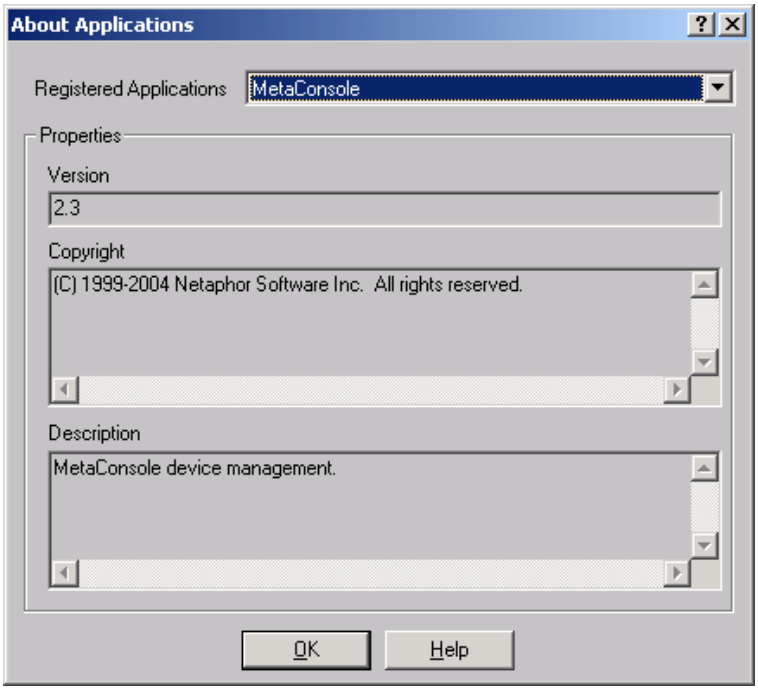

Figure 2.16: NetView: About Applications Window

2 In the **Registered Applications** list, click **MetaConsole**. The MetaConsole client version number is displayed.

Enabling a Service Provider in NetView

To enable a service provider, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the **MetaConsole Server** node and click **Service Providers**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**.

The **Service Providers** screen opens (Figure 2.17).

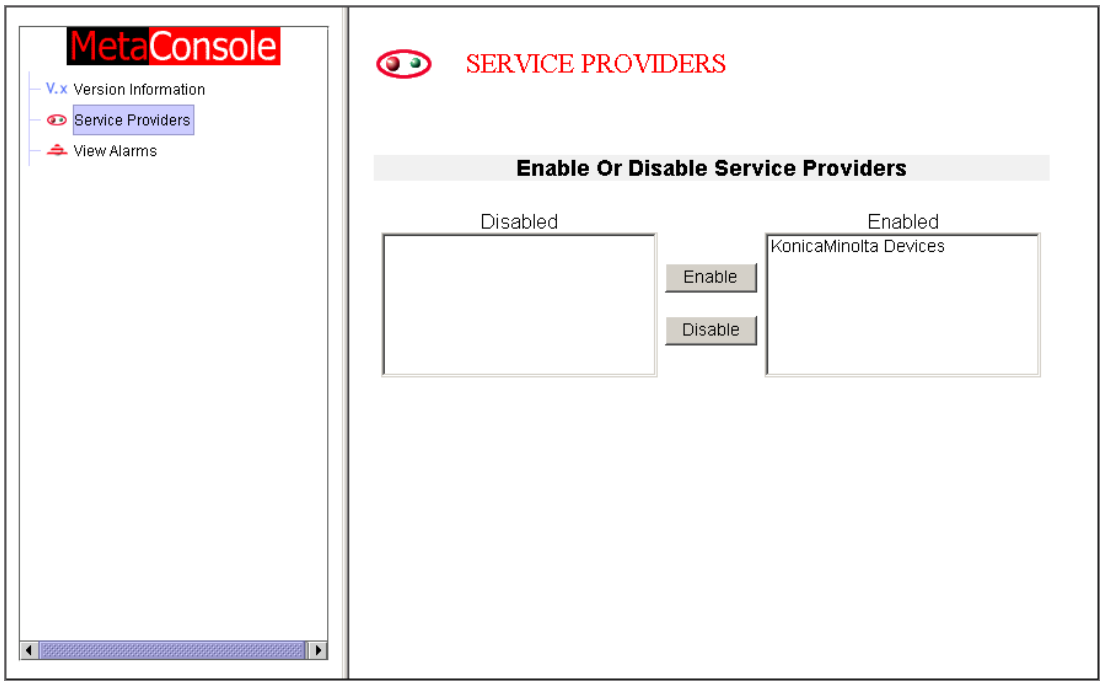

Figure 2.17: NetView Server Configuration: Service Providers

2 In the **Disabled** list, click the name of the service provider you want to enable.

3 Click **Enable**.

4 To manually update discovered information in the map or the navigation pane, see “Refreshing Displayed Information in NetView” on page 53.

Disabling a Service Provider in NetView

To disable a service provider, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the **MetaConsole Server** node and click **Service Providers**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**.

The **Service Providers** screen opens (Figure 2.17).

2 In the **Enabled** list, click the name of the service provider you want to disable.

3 Click **Disable**.

4 To manually update discovered information in the map or the navigation pane, see “Refreshing Displayed Information in NetView” on page 53.

Viewing Alarms in NetView

Note: *The time that is displayed for each alarm is the time the MetaConsole server logged that alarm, and is based on the MetaConsole server's time.*

To view alarms, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the node of the MetaConsole server whose alarms you want to check. Click **View Alarms**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **View Alarms**.

2 In the navigation pane, expand the node for the MetaConsole server whose alarms you want to check. Click **View Alarms**. If the database is not configured, a message indicates that fact. Otherwise, the **View Alarms** screen opens (Figure 2.18). Alarm log information for up to 50 alarms is displayed.

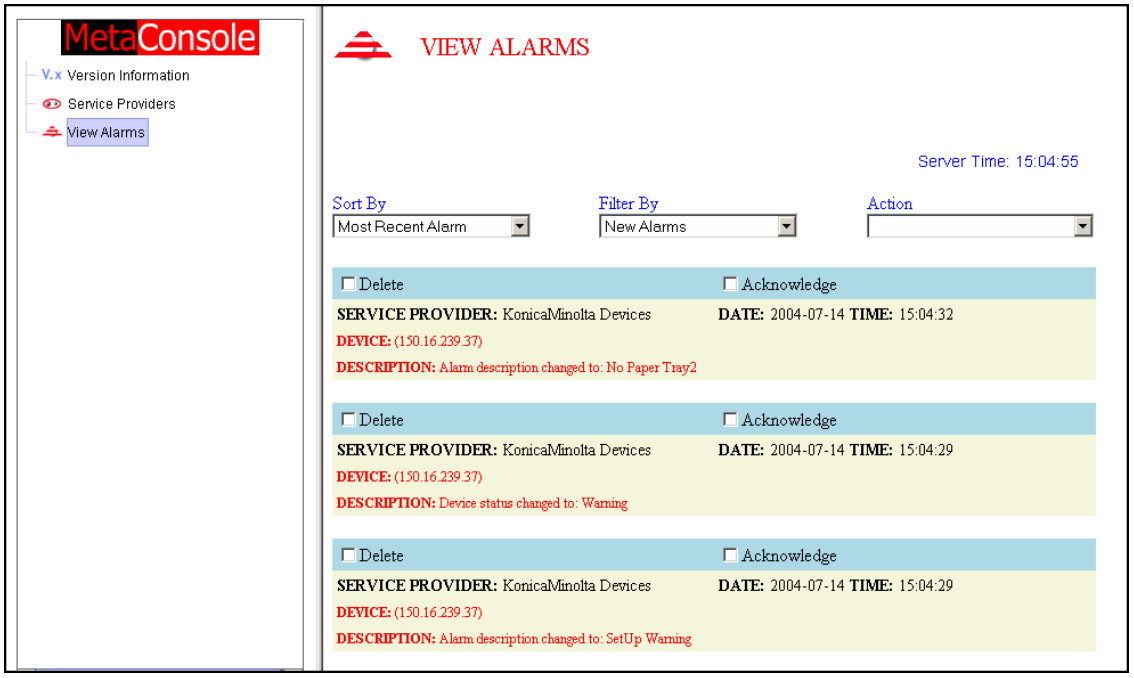

Figure 2.18: NetView View Alarms Screen

3 To view more alarms, click one of the following in the **Action** list:

- **Get Next 50 Alarms**
- **Get Previous 50 Alarms**
- **View All Alarms**

If there are a number of alarms in the database, display time will increase.

4 In the **Sort by** list, click **Most Recent Alarm** or **Device** to sort the alarms.

- **Most Recent Alarm** shows the most recent alarms at the top of the page and older alarms at the bottom.
- **Device** shows alarms by device, with numbers in ascending order (for example, 10.0.0.1, 10.0.0.2) followed by letters in alphabetical order (for example, Alpha, Beta).

5 In the **Filter by list**, click an option to determine which alarms are shown.

- **New Alarms** limits the display to log entries that have not been acknowledged.
- **Show All Alarms** shows all acknowledged and unacknowledged log entries.

The name of a service provider shows all alarms, both acknowledged and unacknowledged, for that service provider.

To Acknowledge an Alarm Has Been Read:

Select the **Acknowledge** check box for that alarm and click the **Update** (clock) icon.

To Acknowledge All Alarms Have Been Read:

Click the **Acknowledge All** (check box) icon. When you acknowledge an entry, its red text changes to gray and the alarm does not display when you click **New Alarms** in the **Filter by** list.

To Delete All Entries from the Alarm Log:

Click the **Delete All** (X) icon.

To Acknowledge or Delete Specific Entries:

Select the **Acknowledge** or **Delete** check box for each alarm entry and click the **Update** (clock) icon.

Accessing Help Files in NetView

To access the help file, follow this procedure:

1 Display the appropriate MetaConsole client page in one of these ways:

- Point your browser to the MetaConsole server. In the navigation pane, expand the top-level **Configuration** node and click **Help**.
- When a managed device is selected in NetView, select **MetaConsole** from the **Tools** menu, then select **MetaConsole Configuration**. In the MetaConsole client's navigation pane, click **Help**.

The **Help** screen opens (Figure 2.19).

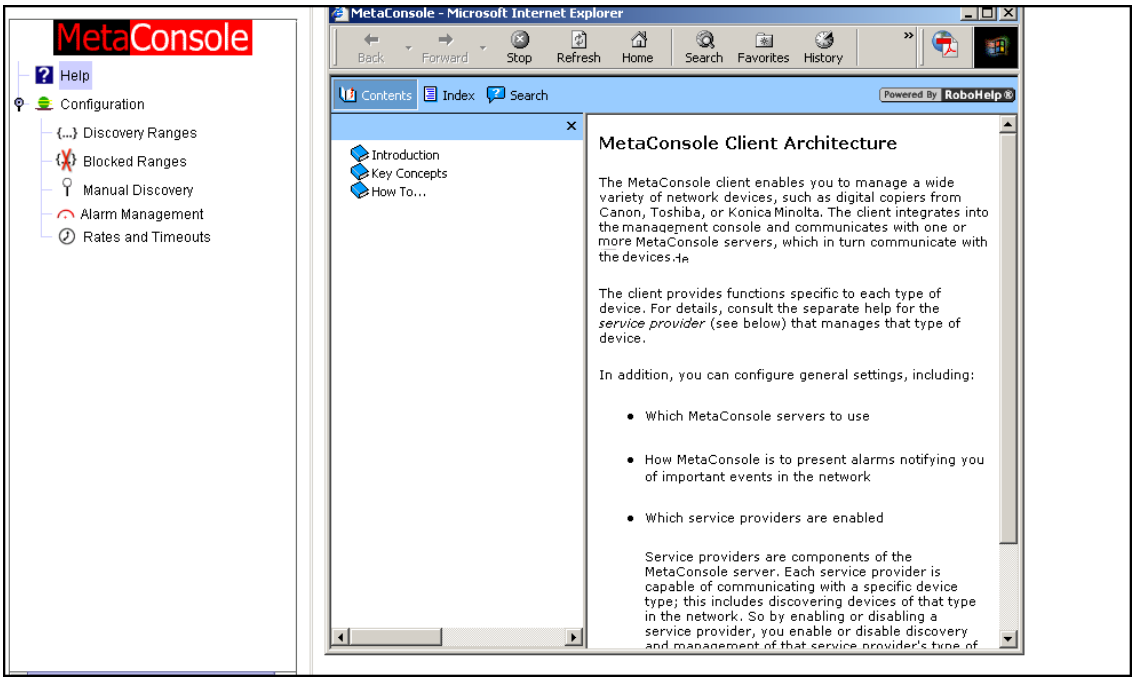

Figure 2.19: NetView Help File

Configuration Text Files for NetView

Configuration of MetaConsole server properties is governed by entries in a text file, **configuration.txt**. The MetaConsole client has a corresponding properties file,**NVImp.properties**.

***Note**: Changes in NVImp.properties do not take effect until you stop and restart the NetView console.*

NetView Configuration.txt

The **configuration.txt** file is created during installation and resides in the top-level installation directory. If the file is not present, MetaConsole uses the default values, originally set at installation time.

Configuration file entries have the form **keyword=value**. This section includes an example file and a description of each keyword (including the keyword's value when MetaConsole is shipped).

Example File

```
#HTTP server port
Port=80

#HTTP server root directory
Root=root

#SNMP Providers - disabling/enabling sets
AllowWrites=True

#Service providers folder
ServiceProviderDirectory=mcsps

# whether logging to console is needed
LogToConsole=true

# whether logging to a stream (file) is needed
LogToFile-false

# file to log to
LogFile=MetaConsole.log

#whether file logged to is appended or rewritten
AppendToFile=false

# start page for the MetaConsole server, start page must
#be in the root for the server
StartPage=start.html

# will log HTTP query type and client IP address for all
#connections
LogClientIP=false
```

ALARM DATABASE PROPERTY

```
# The alarm database driver
DataBaseDriver=org.hsqldb.jdbcDriver

# The URL for the alarm database
URLConnection=jdbc:hsqldb:MetaConsoleDB

# The username for the alarm database
Username=sa

# The password for the alarm database
Password=#
```

NetView Configuration Keywords

Keyword	Description	Comments
Port	HTTP server port number.	Original value is 80.
Root	HTTP server root directory name.	Original value is root. Do not change this value.
AllowWrites	Indicates the server will allow sets.	Original value is true.Do not change this value.
ServiceProviderDirectory	Name of the service provider directory.	Original value is mcsps. Do not change this value.
LogToConsole	Indicates whether or not status and error information generated by the MetaConsole server are displayed on the user's screen.	Valid values are true and false.
LogToFile	Indicates whether or not status and error information generated by the MetaConsole server are written to a file.	Valid values are true and false. See next entry (LogFile).
LogFile	File to which status and error information is written if previous entry (LogToFile) is true.	
AppendToFile	Indicates whether or not new status and error information is appended to existing information in the log file instead of overwriting it.	Valid values are true (append) and false (overwrite). Original value is false.
StartPage	File name of the server start page.	Original value is start.html. Do not change this value.
LogClientIP	Indicates whether or not HTTP query type and IP Address information are logged for each connection.	Valid values are true (log) and false (do not log). Original value is false.
DataBaseDriver	Indicates the driver used for the alarm database.	Valid values are JDBC drivers.
URLConnection	Indicates the information required to connect to the alarm database.	Valid values are JDBC URL connections.
Username	Indicates the user who is authorized to connect to the alarm database.	Valid values are database user names.
Password	Indicates the password for the authorized user.	Valid values are dictated by the database.

Table 2.3: NetView Configuration Keywords

NetView NVImp.properties

In this file, keywords and values are separated by white space.

Example File

LogToFile	True
LogToScreen	True
LogFile	OVImp.log
HostName	100.0.0.99
PortNumber	8080
MetaConsoleConfiguration	MetaConsole Configuration
MetaConsoleConfigurationPage	/start.html
ServerConfigurationPage	/start.html
ServiceProviderConfigurationPage	/start.html
DeviceConfigurationPage	/start.html

NetVIew NVImp.Properties Keywords

Keyword	Description	Comments
LogToFile	Indicates whether or not errors generated by the client for NetView are sent to the file named in LogFile (see below).	True or False.
LogToScreen	Indicates whether errors generated by the client for NetView are displayed on the user's screen.	
LogFile	File to which information is written if LogToFile (see above) is true.	
HostName	The host name of the MetaConsole server, specified as an IP address (such as 100.0.0.99).	
PortNumber	The port number (such as 8080).	If you do not specify a port, 80 is assumed.
MetaConsole-Configuration	The string used by the client for NetView for MetaConsole configuration.	Do not change this value.
MetaConsole-ConfigurationPage	The start page for MetaConsole configuration.	Do not change this value.
ServerConfigura-tion-Page	The start page for server configuration.	Do not change this value.
ServiceProvider-ConfigurationPage	The start page for service provider configuration.	Do not change this value.
DeviceConfigura-tion-Page	The start page for device configuration.	Do not change this value.

Table 2.4: NVImp.Properties Keywords

Configuring MetaConsole Client for MMC

The MetaConsole client functions include the following:

- **Maintaining a List of MetaConsole Servers**
- **Maintaining Lists of Enabled and Disabled Service Providers**
- **Producing Alarms when Device Conditions Change**

About the Client

The MMC window contains two panes. You use the **navigation tree** in the **navigation pane** on the left to select the information you want displayed in the **details pane** on the right.

Within the **MetaConsole Root** node, the navigation pane includes the following:

- A **Help** node for access to MetaConsole online help
- A **Configuration** node for configuring the preferred server's settings
- A node for each MetaConsole server, which in turn contains the following:
    - A **Version Information** node for displaying component version numbers
    - A **Service Providers** node for enabling and disabling service providers
    - A **View Alarms** node for displaying and acknowledging alarm information
    - A node for each enabled service provider

All configuration settings for the server or a service provider are maintained by the MetaConsole server and are not client-specific. All clients use the same values; if any client changes a particular setting, the change affects all clients that use that setting.

Refreshing Displayed Information in MMC

The navigation tree in the navigation pane is not automatically updated when its contents change. You may update the navigation pane by right-clicking a node and clicking the **Refresh** command that appears. The following points describe the various affects of clicking **Refresh**:

- Refreshing the MetaConsole root updates all associated server, service provider and device information.
- Refreshing a server updates all associated service provider and device information.
- Refreshing a service provider updates information for all of that service provider's devices.
- Refreshing a specific page updates the contents of that page.
- Using the **Refresh** command for a device has no effect on the device.

Configuring the Server List in MMC

Adding a MetaConsole Server

To add to the list of MetaConsole servers, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Server Discovery**.

The **Server Discovery** screen opens (Figure 2.20).

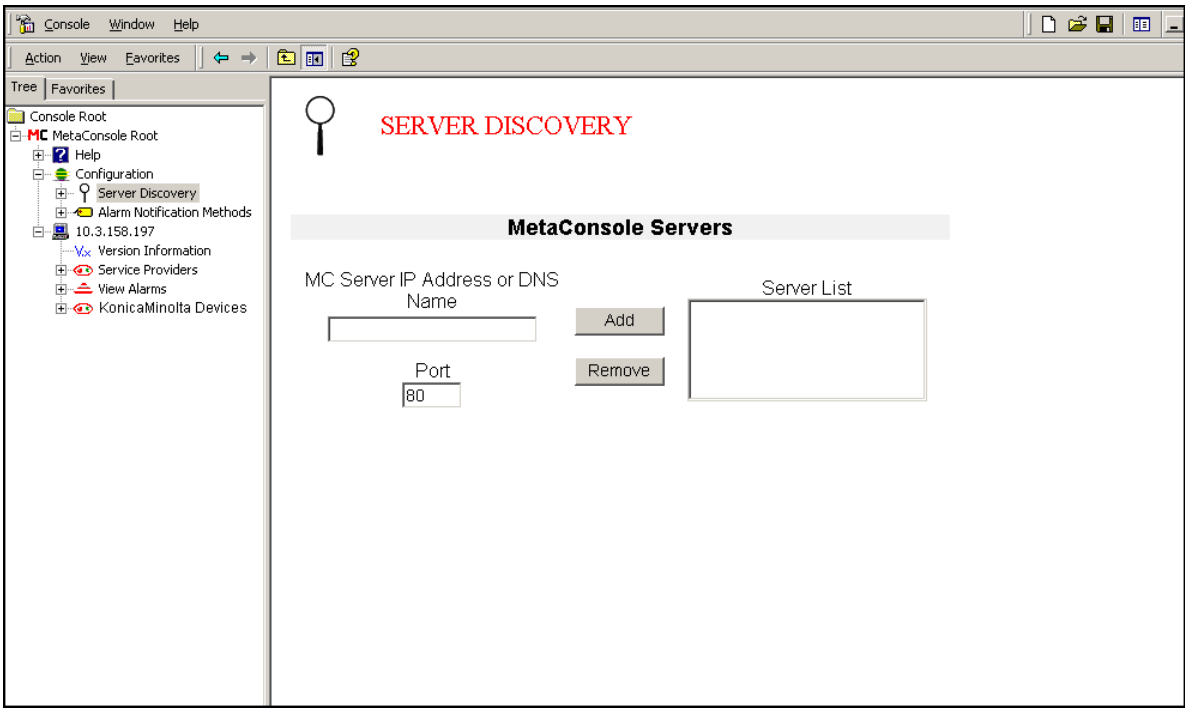

Figure 2.20: MMC Server Discovery Screen

2 In the **MC Server Address** box, type the IP address of the MetaConsole server you are adding to the list.

3 In the **Port** box, type the port number where the MetaConsole server is found.

4 Click **Add**.

5 In the **Warning** dialog box, click **Yes** to refresh the navigation pane to include the new server information. If you click **No**, you must manually refresh the navigation pane information. For instructions see “Refreshing Displayed Information in MMC” on page 69.

The new server appears in the **Server List** box and in the navigation tree.

Removing a MetaConsole Server

To remove a MetaConsole server from the list, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Server Discovery**.

The **Server Discovery** screen opens (Figure 2.20).

2 In the **Server's** box, click the address of the MetaConsole server you wish to remove from the list.

3 Click **Remove**.

4 In the **Warning** dialog box, click **Yes** to refresh the navigation pane to include the new server information. If you click **No**, you must manually refresh the navigation pane information. For instructions see "Refreshing Displayed Information in MMC" on page 69.

The server is removed from the list and from the navigation tree.

Specifying Alarm Notification Methods in MMC

The list of events that trigger alarm notifications is configured individually for each service provider at each MetaConsole server. How MetaConsole presents those alarms is determined at the highest level of MetaConsole configuration.

To specify how MetaConsole notifies you of alarms, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Alarm Notification Methods**.

The **Alarm Notification Methods** screen opens (Figure 2.21).

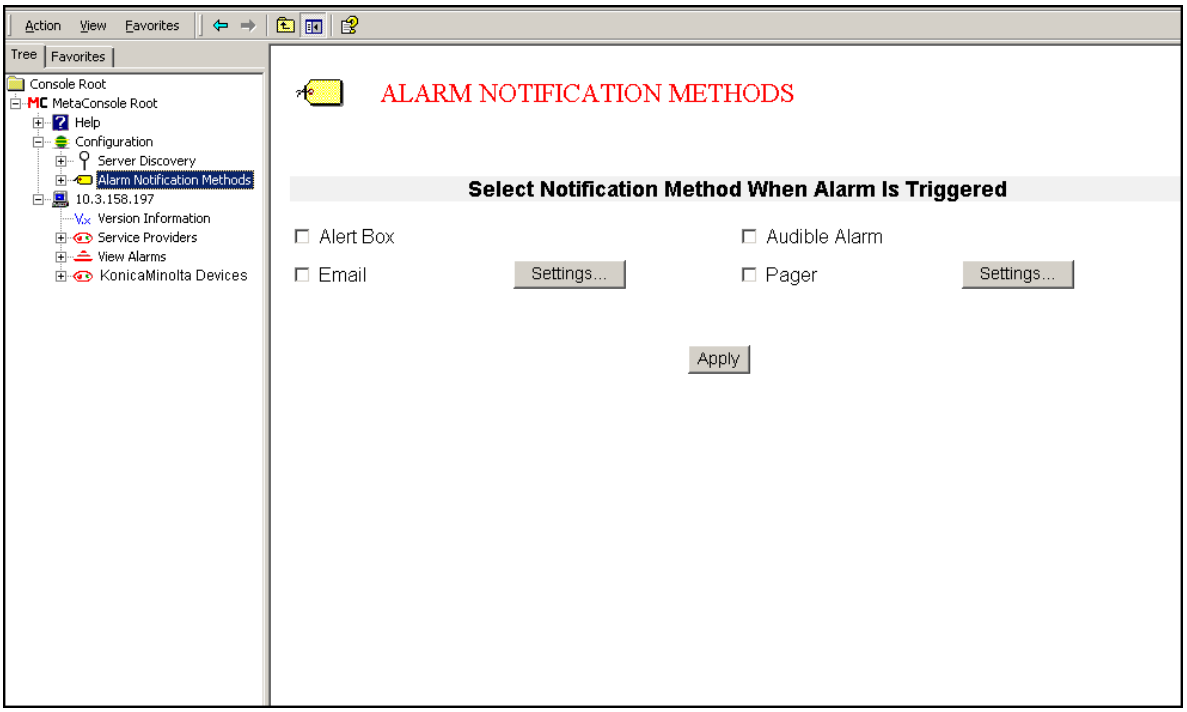

Figure 2.21: MMC Alarm Notification Methods Screen

2 Select the check box for each notification method you want MetaConsole to use. A brief description of each follows:

- **Alert Box** when an alarm occurs, a message will appear on screen, indicating the device name or IP address where the alarm originated.
- **Audible Alarm** when an alarm occurs, a audible beep will sound.
- **Email** when an alarm occurs, a formatted email providing information about the alarm will be sent to specified recipients. (See “Specifying Email Notification Settings” on page 72.)
- **Pager** when an alarm occurs, a formatted text page providing information about the alarm will be sent to specified pagers.(See “Specifying Pager Notification Settings” on page 75).

For information about viewing alarm details, see “Viewing Alarms in MMC” on page 80.

3 Click **Apply**.

Specifying Email Notification Settings

To specify settings for email notification, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Alarm Notification Methods**.

2 Click the **Settings . . .** button next to the **Email** check box. The **Email Notification Settings** appear at the bottom of the details panel (Figure 2.22).

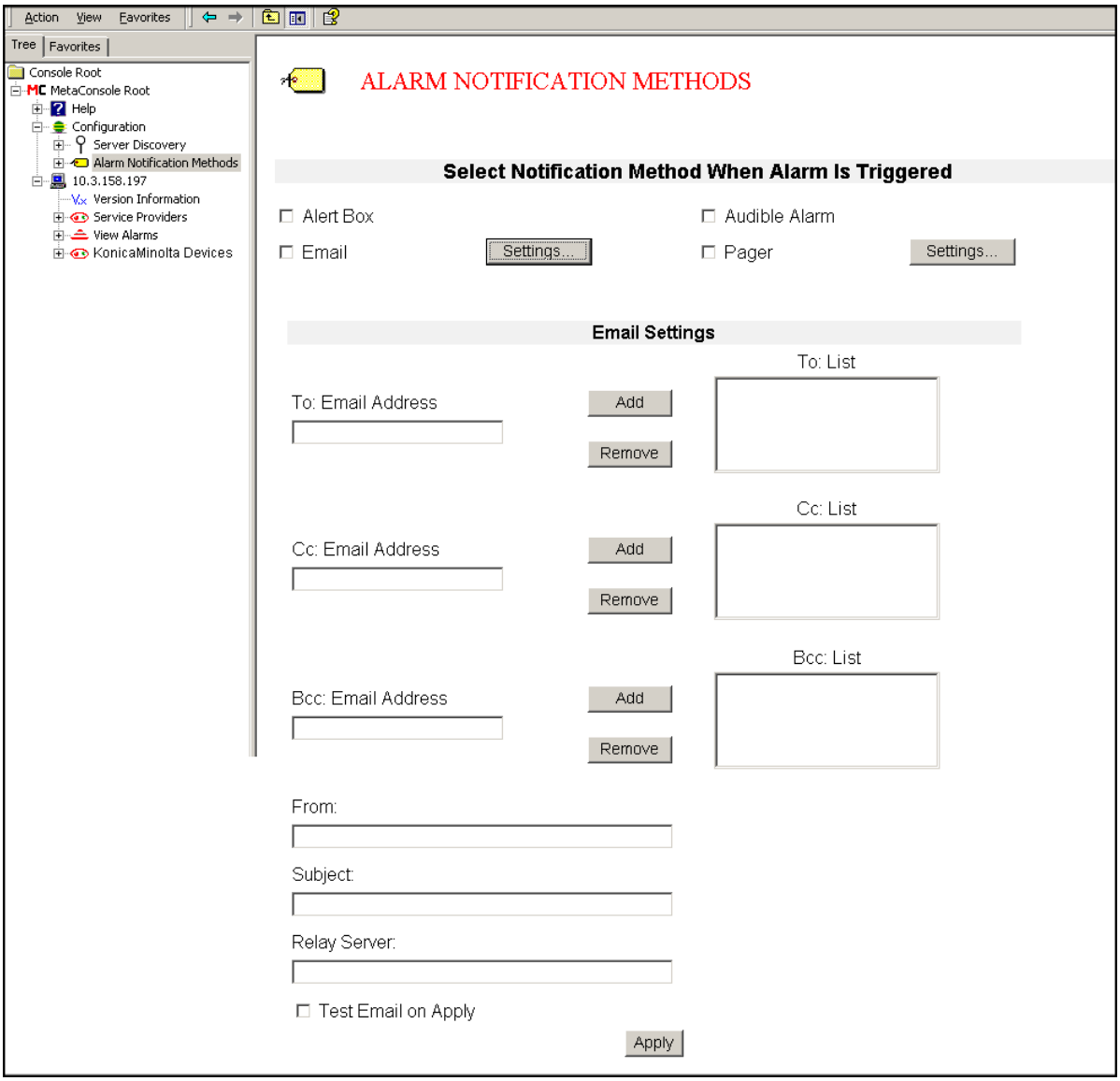

Figure 2.22: MMC Email Notification Settings

3 Specify the primary recipients by doing one or both of the following:

- **To add a recipient to the To: List:** In the **To: Email Address** box, type an email address then click the adjacent **Add** button.
- **To remove an address from the To: List:** Click the address then click the adjacent **Remove** button.

4 Specify the **Cc** (carbon copy) recipients by doing one or both of the following:

- **To add a recipient to the Cc: List:** In the **Cc: Email Address** box, type an email address then click the adjacent **Add** button.

- **To remove an address from the Cc: List:** Click the address then click the adjacent **Remove** button.

5 Specify **Bcc** (blind carbon copy) recipients by doing one or both of the following:

- To add a recipient to the **Bcc: List**: In the **Bcc: Email Address** box, type an email address then click the adjacent **Add** button.
- To remove an address from the **Bcc: List**: Click the address then click the adjacent **Remove** button.

6 In the **From** box, type the email address that will appear in the **From** field of all alarm email messages sent by MetaConsole. Typically, this is a network administrator's email address.

7 In the **Subject** box, type the text that will appear in the **Subject** field of all alarm email messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

8 In the **Relay Server** box, type the name or IP address of the local network's email (SMTP) server.

Note: *Email notification cannot be delivered if this information is missing or incorrect.*

9 To send a test email message to the recipients specified in steps 4, 5, and 6, select the **Test Email on Apply** check box.

Note: *If the Test Email on Apply checkbox is selected, then every time the Apply button is clicked, a test email will be sent to all the recipients. The test email is not sent out at any other time. To deactivate this, deselect the checkbox.*

10 Click **Apply**.

Specifying Pager Notification Settings

To specify settings for pager notification, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Alarm Notification Methods**.

2 Click the **Settings . . .** button next to the **Pager** check box. The **Pager Notification Settings** appear at the bottom of the details pane (Figure 2.23).

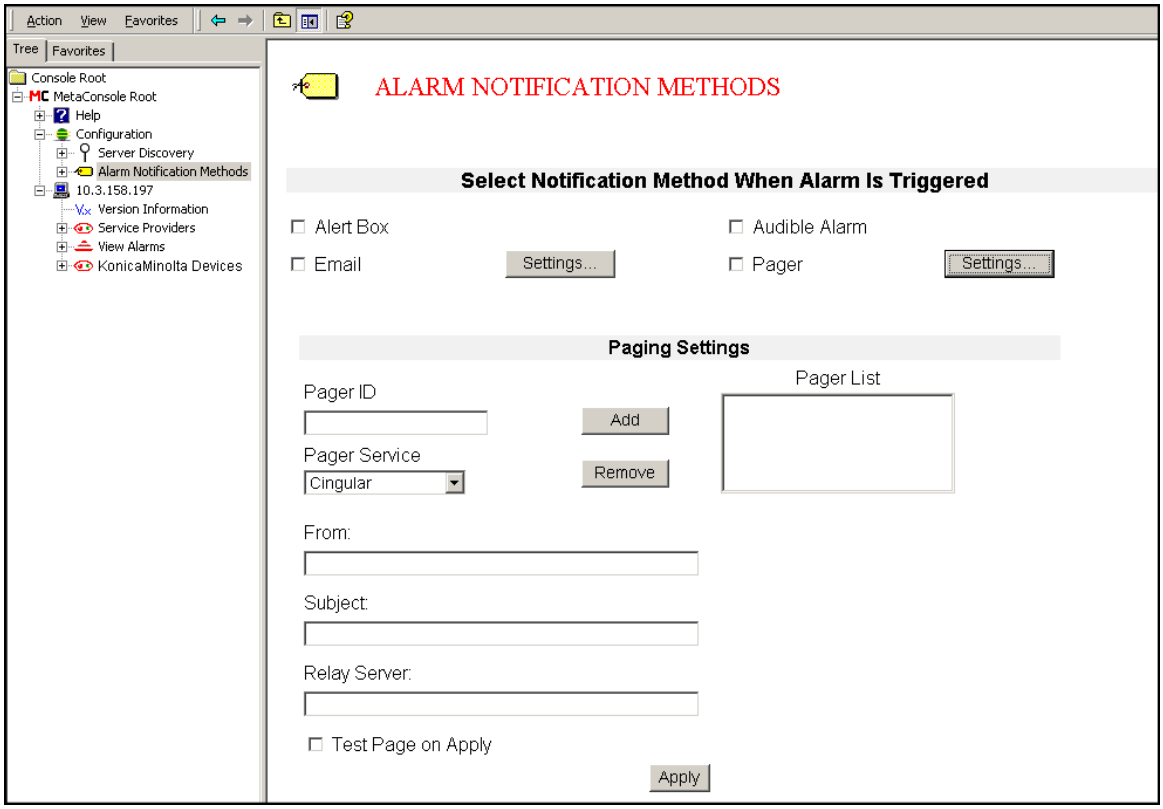

Figure 2.23: MMC Pager Notification Settings

3 Specify primary recipients by doing one or both of the following:

- To add a recipient to the **Pager List**:

  a. In the **Pager ID** box, type a pager ID (typically a 10- or 11-digit phone number).
  b. In the **Pager Service** list, click the name of the paging service to be used.
  c. Click the adjacent **Add** button.

- To remove a recipient from the **Pager List**: Click the pager ID; then click the adjacent **Remove** button.

4 In the **From** box, type the name that will appear as the originator of all alarm page messages sent by MetaConsole. Typically, this is a network administrator's name.

5 In the **Subject** box, type the text that will appear in the **Subject** field of all page messages

sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

6 In the **Relay Server** box, type the name or IP address of the local network's pager terminal.

Note: *An alarm notification page cannot be delivered if this information is missing or incorrect.*

7 To send a test page to the recipients specified in steps 4, 5, and 6, select the **Test Page on Apply** check box.

Note: *If the Test Page on Apply checkbox is selected, then every time the Apply button is clicked, a test page will be sent to all the recipients. The test page is not sent out at any other time. To deactivate this, deselect the checkbox.*

8 Click **Apply**.

Accessing MC Component Version Information in NetView

To help you with support issues, technicians sometimes must know the version numbers of your MetaConsole components (server, service providers, and client).

MetaConsole Server and Service Provider Version Information

To determine version numbers for the MetaConsole server and service providers, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Version Information**.

The **Version Information** screen opens (Figure 2.24).

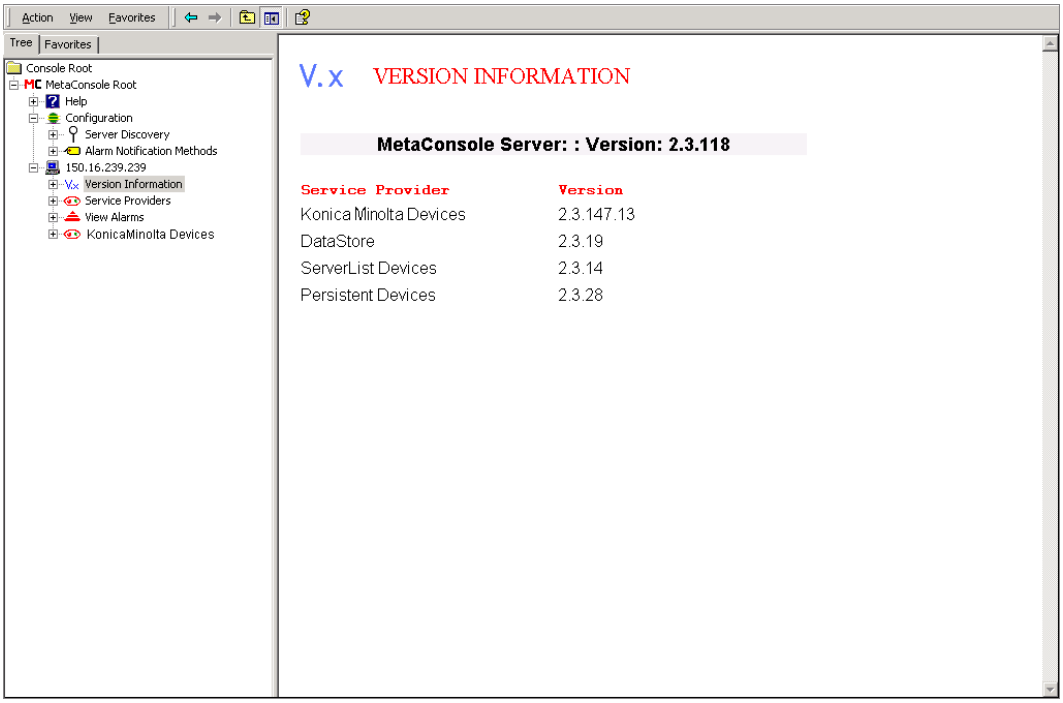

Figure 2.24: MMC Version Information Screen

The version number of the MetaConsole server software is shown at the top of the page. Below it are version numbers for all service providers, including the following:

- **Persistent Devices** a special service provider that manages persistent data
- **ServerList Devices** a special service provider that manages the list of MetaConsole servers

MetaConsole Client Version Information

To get the version number of the MetaConsole client, follow this procedure:

1 On the **Console** menu, click **Add/Remove Snap-In** and add the snap-in (skip this step if the snap-in has been added).

Note: *For instructions about adding a snap-in see See "Adding the MetaConsole Client to MMC" on page 23.*

In the Add/**Remove Snap-In** dialog box, select **MetaConsole Root** and click **About . . .** . The **MetaConsole SnapIn Properties** box appears. The Client's version number is listed here (Figure 2.25).

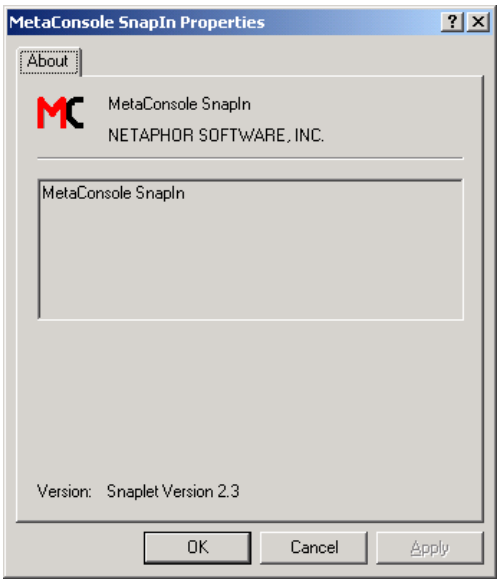

Figure 2.25: MMC: MetaConsole Snap-In Properties Box

Enabling a Service Provider in MMC

To enable a service provider, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Service Providers**.

The **Service Providers** screen opens (Figure 2.26).

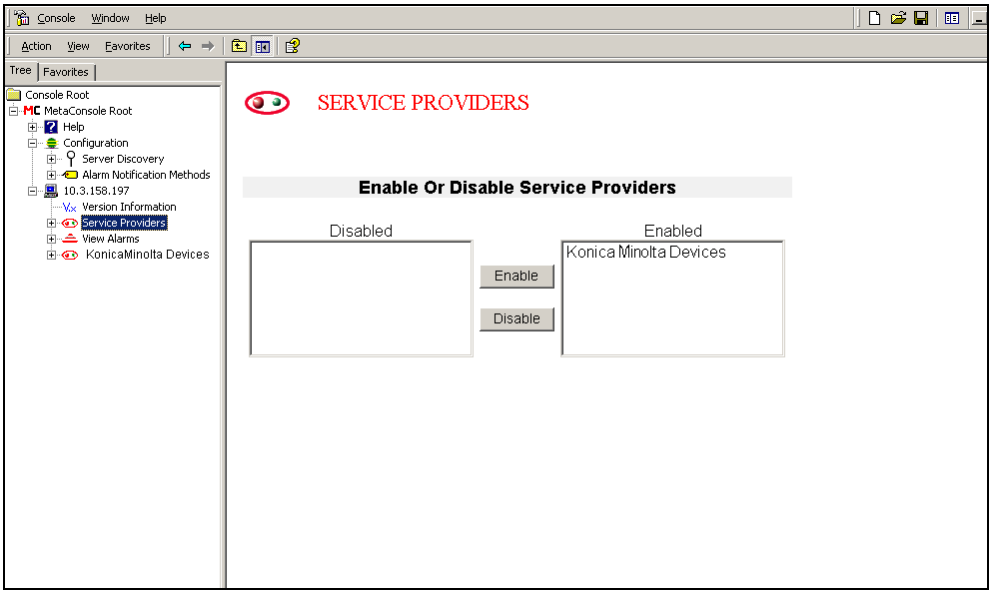

Figure 2.26: MMC Server Configuration: Service Providers

2 In the **Disabled** list, click the name of the service provider you want to enable.

3 Click **Enable**.

4 In the **Warning** dialog box, click **Yes** to refresh the navigation pane to include the new service provider information. If you click **No**, you must manually refresh the navigation pane information. For instructions see “Refreshing Displayed Information in MMC” on page 69.

Disabling a Service Provider in MMC

To disable a service provider, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Service Providers**.

The **Service Providers** screen opens (Figure 2.26).

2 In the **Enabled** list, click the name of the service provider you want to disable.

3 Click **Disable**.

4 In the **Warning** dialog box, click **Yes** to refresh the navigation pane to include the new service provider information. If you click **No**, you must manually refresh the navigation pane information. For instructions see “Refreshing Displayed Information in MMC” on page 69.

Viewing Alarms in MMC

Note: *The time that is displayed for each alarm is the time the MetaConsole server logged that alarm, and is based on the MetaConsole server's time.*

To view alarms, follow this procedure:

1 In the navigation pane, expand the node for the MetaConsole server whose alarms you want to view. Click **View Alarms**. If the database is not configured, a message indicates that fact. Otherwise, the **View Alarms** screen opens (Figure 2.27). Alarm log information for up to 50 alarms is displayed.

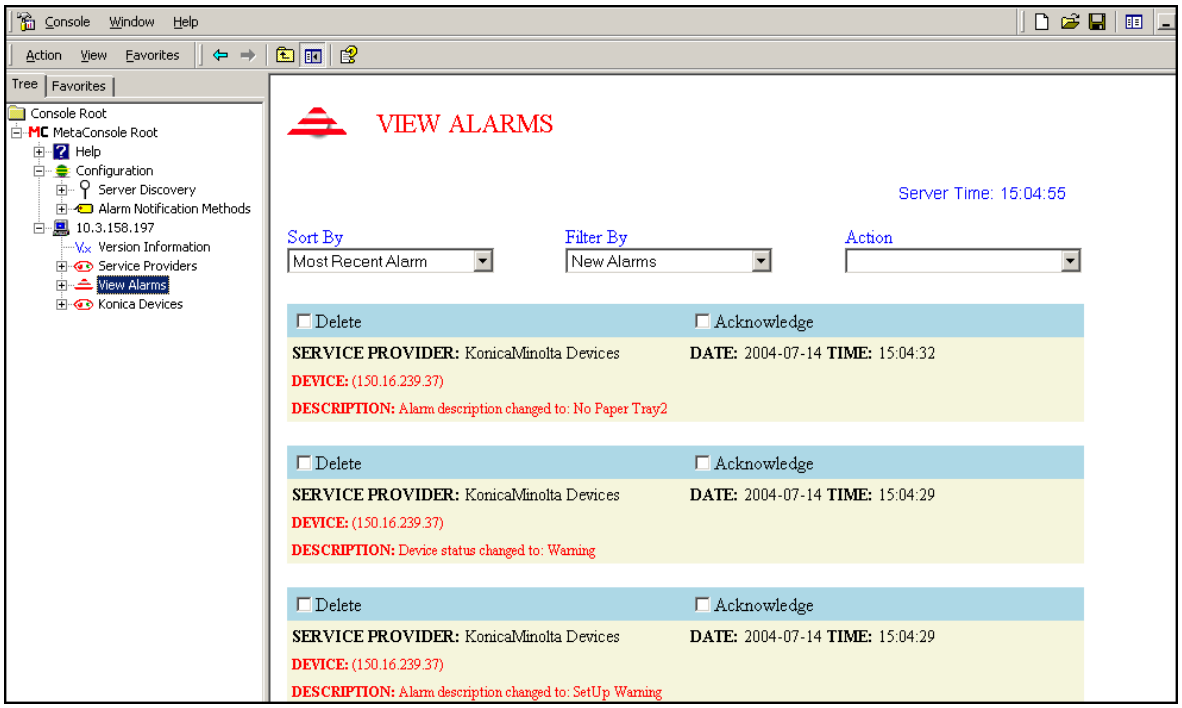

Figure 2.27: MMC View Alarms Screen

2 To view more alarms, click one of the following in the **Action** list:

- **Get Next 50 Alarms**
- **Get Previous 50 Alarms**
- **View All Alarms**

If there are a number of alarms in the database, display time will increase.

3 In the **Sort by** list, click **Most Recent Alarm** or **Device** to sort the alarms.

- **Most Recent Alarm** shows the most recent alarms at the top of the page and older alarms at the bottom.

- **Device** shows alarms by device, with numbers in ascending order (for example, 10.0.0.1, 10.0.0.2) followed by letters in alphabetical order (for example, Alpha, Beta).

4 In the **Filter by list**, click an option to determine which alarms are shown.

- **New Alarms** limits the display to log entries that have not been acknowledged.
- **Show All Alarms** shows all acknowledged and unacknowledged log entries.

The name of a service provider shows all alarms, both acknowledged and unacknowledged, for that service provider.

To Acknowledge an Alarm Has Been Read:

Select the **Acknowledge** check box for that alarm and click the **Update** (clock) icon.

To Acknowledge All Alarms Have Been Read:

Click the **Acknowledge All** (check box) icon. When you acknowledge an entry, its red text changes to gray and the alarm does not display when you click **New Alarms** in the **Filter by** list.

To Delete All Entries from the Alarm Log:

Click the **Delete All** (X) icon.

To Acknowledge or Delete Specific Entries:

Select the **Acknowledge** or **Delete** check box for each alarm entry and click the **Update** (clock) icon.

Accessing Help Files in MMC

To access the help file, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Help**.

The **Help** screen opens (Figure 2.28).

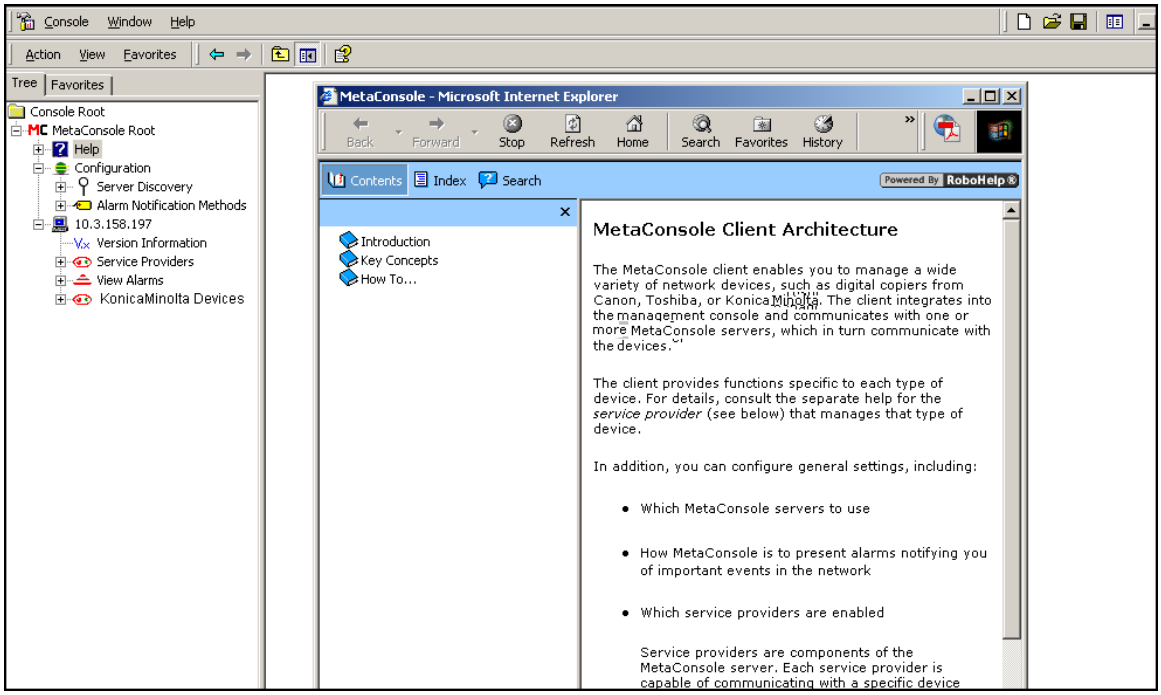

Figure 2.28: MMC Help Screen

Saving and Loading Client Configuration Information in MMC

To save the current preferred server information for the client, follow this procedure:

1. On the **Console** menu, click **Save As**.
2. Enter a file name for the configuration you are saving.
3. Click **Save**. The file is saved using the same assigned in step 2 and includes the extension ***.msc***.

To load the preferred server information from a configuration file, follow this procedure:

1. On the **Console** menu, click **Open**.
2. Locate and select the desired configuration (***.msc***) file.
3. Click **Open**. MMC loads the client that is connected to the preferred server selected in step 2.

Configuration Text File for MMC

Configuration of MetaCOnsole server properties is governed by entries in the text file **configuration.txt**. This file is created during installation and resides in the top-level installation directory. If the file is not present, MetaConsole uses the default values, originally set at installation time.

Configuration file entries have the form **keyword=value**. This section includes an example file and a description of each keyword (including the keyword's value when MetaConsole is shipped).

Example File

```
#HTTP server port
Port=80

#HTTP server root directory
Root=root

#SNMP Providers - disabling/enabling sets
AllowWrites=True

#Service providers folder
ServiceProviderDirectory=mcsps

# whether logging to console is needed
LogToConsole=true

# whether logging to a stream (file) is needed
LogToFile-false

# file to log to
LogFile=MetaConsole.log

#whether file logged to is appended or rewritten
AppendToFile=false

# start page for the MetaConsole server, start page must
#be in the root for the server
StartPage=start.html

# will log HTTP query type and client IP address for all
#connections
LogClientIP=false
```

MMC Configuration Keywords

Keyword	Description	Comments
Port	HTTP server port number.	Original value is 80.
Root	HTTP server root directory name.	Original value is root. Do not change this value.
AllowWrites	Indicates the server will allow sets.	Original value is true.Do not change this value.
ServiceProviderDirectory	Name of the service provider directory.	Original value is mcsps. Do not change this value.
LogToConsole	Indicates whether or not status and error information generated by the MetaConsole server are displayed on the user's screen.	Valid values are true and false.
LogToFile	Indicates whether or not status and error information generated by the MetaConsole server are written to a file.	Valid values are true and false. See next entry (LogFile).
LogFile	File to which status and error information is written if previous entry (LogToFile) is true.	
AppendToFile	Indicates whether or not new status and error information is appended to existing information in the log file instead of overwriting it.	Valid values are true (append) and false (overwrite). Original value is false.
StartPage	File name of the server start page.	Original value is start.html. Do not change this value.
LogClientIP	Indicates whether or not HTTP query type and IP Address information are logged for each connection.	Valid values are true (log) and false (do not log). Original value is false.

Table 2.5: MMC Configuration Keywords

Configuring MetaConsole Client for Unicenter WorldView

Starting and Stopping the Client

On Windows

The MetaConsole Client for Unicenter WorldView is run as a service on Windows. The service is called **MetaConsole Unicenter SnapIn**. During installation, the option to automatically start the service is presented. If you select this option, then once Windows is up and running, so too will be the service. If you do not select this option, the service may be started (and stopped) manually from the **Services** program. This is found in either and **Control Panel** or the **Administrator Tools** sections, depending upon which version of Windows you are running. Even if you have selected the automatic option, you can still control the service from the **Control Panel/Administrator Tools** section.

On Solaris

The MetaConsole Client for Unicenter WorldView is a program on Solaris. It is called **RunUniSnapIn** and is located in the **Uni** directory, which is inside the installation directory. It can be started from a console window by changing directories into the **Uni** directory and typing **. / RunUniSanpIn** to start the client. To determine if the client is running, use the **ps** command. For example, if it is running, the command **ps -Af l grep Uni** will produce output similar to this:

```
      root 10050  9949  0  10:42:34    pts/6    0:00    grep Uni
      root 9909    809  0  10:41:26    pts/7    0:00    /bin/sh./RunUniSnapIn
      root 9944   9909  1  10:41:28    pts/7   0:09    opt/MetaConsole/jre/bin/java
com.zerog.lax.LAX / opt /MetaConsole / Uni / . / RunUniSn
```

If the client is running, the same command will produce output similar to this:

```
root 10050      9949    0    10:42:34       pts/6      0:00    grep Uni
```

Once running, the client can be stopped using **control-C** in the console window, by closing the console window, or by killing the process. To kill the process, you need to know its PID. This can be found using the the **ps command** (as noted above). In that example, the PID is 9944. In that case, the command **kill 9944** should stop the **runUniSnapIn** program.

Client UI on Unicenter WorldView

The MetaConsole Client for Unicenter WorldView integrates with the Unicenter 2-D Map and with Unicenter Explorer. Both are supported on Windows, but only Unicenter Explorer is supported on Solaris.

MetaConsole adds a MetaConsole Devices folder to the Unicenter 2-D Map and a MetaConsole Devices node to the repository's node in the Topology view in Unicenter Explorer (this discussion assumes that MetaConsole discovery is used. See "console.properties" on page 101.

In Unicenter 2-D, Map folders have nodes, some of which reveal sub-folders. There are four levels of MetaConsole-related nodes. In Unicenter Explorer, the Topology view shows a hierarchy of nodes (Figure 2.29).

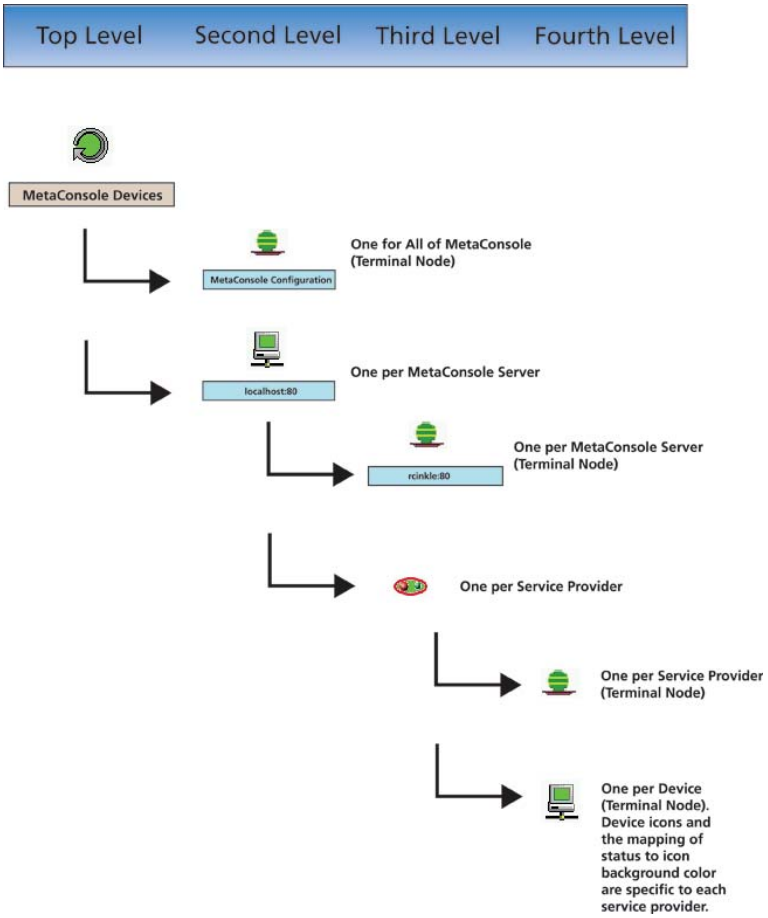

Figure 2.29: Unicenter Hierarchy of Nodes

A node with no sub-folders (or sub-nodes) is a terminal node that you can use to open a browser displaying the MetaConsole client.

Note: *The browser does not open until the submap or parent node is fully populated. This may cause a delay.*

General Configuration Guidelines

To view information or change settings for MetaConsole, a MetaConsole server or a service provider, right-click the appropriate configuration node and, on the menu that appears, click **Configure**.

All configuration settings for the server or a service provider are maintained by the MetaConsole server and are not client-specific. All clients use the same values. If any client changes a particular setting, the change affects all clients that use that setting.

To view information or change settings for a device, right-click a device node and, on the menu that appears, click **Show device details**.

Use the navigation tree in the navigation pane on the left to select the information you want displayed in the details pane on the right.

Refreshing Displayed Information in Unicenter

You can update the MetaConsole information that is displayed in Unicenter and in the MetaConsole client (browser) window. When you update the information in Unicenter, anything manually added to the submap is gone.

Unicenter WorldView

To update displayed information for a service provider in the 2-D Map, follow this procedure:

1. Double-click **MetaConsole Devices**.
2. In the submap that opens, double-click the server's icon.
3. In the submap that opens, right-click the service provider's icon and, on the menu that appears, click **Refresh.**

To update displayed information for a service provider in the Topology view of Unicenter, follow this procedure:

1. Double-click **MetaConsole Devices** node to expand it.
2. Double-click the server's node to open it.
3. Right-click the service provider's node and, on the menu that appears, click **Refresh.**

MetaConsole Client

To update a page of device information, follow this procedure:

1. In the navigation pane, right-click the node whose information you want to update.
2. On the menu that appears, click **Refresh**.

Configuring the Server List in Unicenter

To display the server list in the 2-D Map, follow this procedure:

1. Double-click **MetaConsole Devices**.
2. In the sub-map that opens, right-click **MetaConsole Configuration** and, on the menu that appears, click **Configure**.
3. The MetaConsole client opens.

To display the server list in the Topology view of Unicenter Explorer, follow this procedure:

1. Double-click **MetaConsole Devices** node to expand it.
2. Right-click **MetaConsole Configuration** and, on the menu that appears, click **Configure**.
3. The MetaConsole client opens.

Adding a MetaConsole Server

1 In the navigation pane, expand the top-level **Configuration** node and click **Server Discovery**. The **Server Discovery** screen opens (Figure 2.30).

2 In the MC Server Address box, type the IP address of the MetaConsole server you are adding to the list.

3 In the **Port** box, type the port number where the MetaConsole server is found.

4 Click **Add**.

The new server appears in the **Server List** box and in the navigation tree.

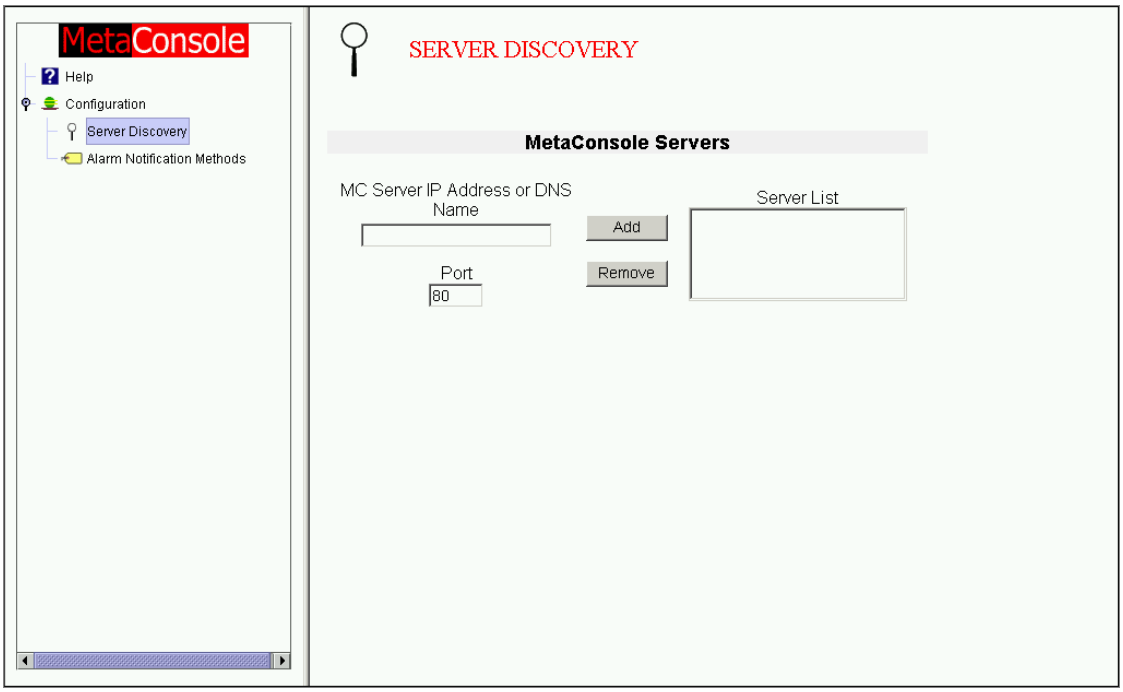

Figure 2.30: MetaConsole Client Browser Window

5 In the navigation pane, expand the **Configuration** node and click **Server Discovery.** The **Server Discovery** screen opens (Figure 2.2).

Removing a MetaConsole Server

To remove a MetaConsole server from the list, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Server Discovery**. The **Server Discovery** screen opens (Figure 2.30).

2 In the **Server's** box, click the address of the MetaConsole server you wish to remove from the list.

3 Click **Remove**.

The server is removed from the list and from the navigation tree.

Specifying Alarm Notification Methods in Unicenter

The list of events you want to trigger alarm notifications is configured individually for each service provider at each MetaConsole server. How MetaConsole presents those alarms is determined at the highest level of MetaConsole configuration.

To display alarm notification settings in the 2-D Map, follow this procedure:

1 Double-click **MetaConsole Devices**.

2 In the sub-map that opens, right-click **MetaConsole Configuration** and, on the menu that appears, click **Configure**.

3 The MetaConsole client opens.

To display alarm notification settings in the Topology view of Unicenter Explorer, follow this procedure:

1 Double-click **MetaConsole Devices** node to expand it.

2 Right-click **MetaConsole Configuration** and, on the menu that appears, click **Configure**.

3 The MetaConsole client opens.

To specify how MetaConsole notifies you of alarms, follow this procedure:

4 In the navigation pane, expand the top-level Configuration node and click **Alarm Notification Methods**. The **Alarm Notification Methods** screen opens (Figure 2.31).

.

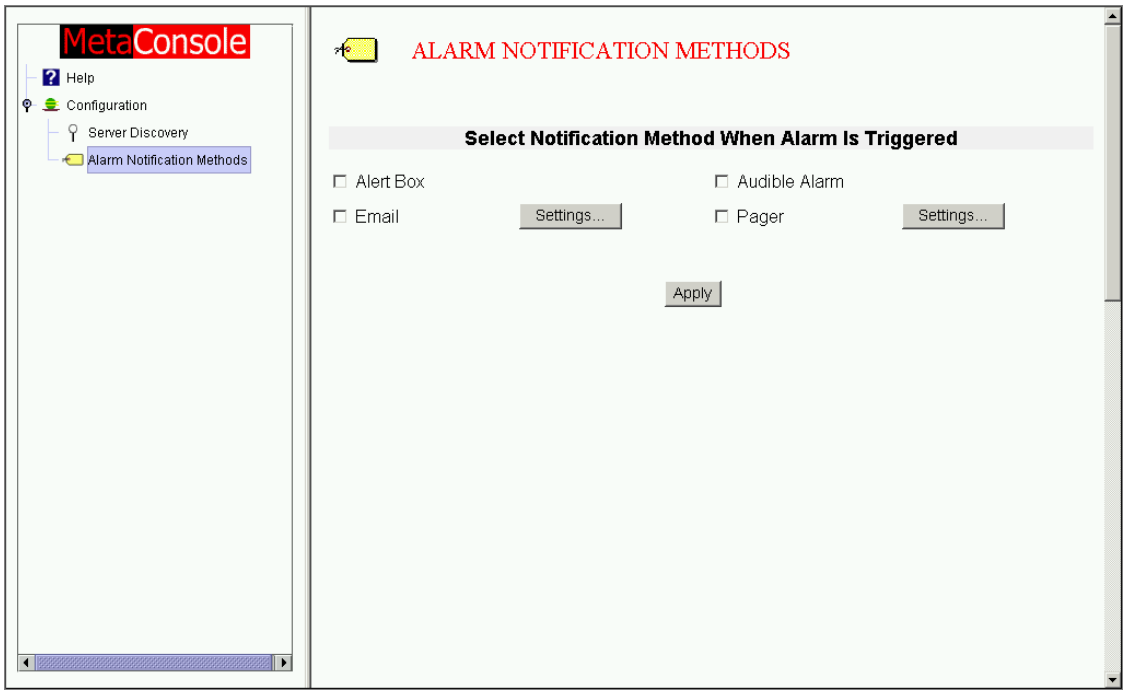

Figure 2.31: Unicenter Alarm Notification Methods Screen

5 Select the check box for each notification method you want MetaConsole to use. A brief description of each follows:

- **Alert Box** when an alarm occurs, a message will appear on screen, indicating the device name or IP address where the alarm originated.
- **Audible Alarm** when an alarm occurs, a audible beep will sound.
- **Email** when an alarm occurs, a formatted email providing information about the alarm will be sent to specified recipients. (See “Specifying Email Notification Settings” on page 90.)
- **Pager** when an alarm occurs, a formatted text page providing information about the alarm will be sent to specified pagers.(See “Specifying Pager Notification Settings” on page 92).

For information about viewing alarm details, see “Viewing Alarms in Unicenter” on page 96.

6 Click **Apply**.

Specifying Email Notification Settings

To specify settings for email notification, follow this procedure:

1 In the navigation pane, expand the **Configuration** node and click **Alarm Notification Methods**. The **Alarm Notification Methods** screen opens (Figure 2.31).

2 Click the **Settings . . .** button next to the **Email** check box. The **Email Notification Settings** appear at the bottom of the details pane (Figure 2.32).

3 Specify the primary recipients by doing one or both of the following:

- **To add a recipient to the To: List:** In the **To: Email Address** box, type an email address then click the adjacent **Add** button.
- **To remove an address from the To: List:** Click the address then click the adjacent **Remove** button.

4 Specify the **Cc** (carbon copy) recipients by doing one or both of the following:

- **To add a recipient to the Cc: List:** In the **Cc: Email Address** box, type an email address then click the adjacent **Add** button.
- **To remove an address from the Cc: List:** Click the address then click the adjacent **Remove** button.

5 Specify **Bcc** (blind carbon copy) recipients by doing one or both of the following:

- To add a recipient to the **Bcc: List**: In the **Bcc: Email Address** box, type an email address then click the adjacent **Add** button.
- To remove an address from the **Bcc: List**: Click the address then click the adjacent **Remove** button.

6 In the **From** box, type the email address that will appear in the **From** field of all alarm email messages sent by MetaConsole. Typically, this is a network administrator’s email address.

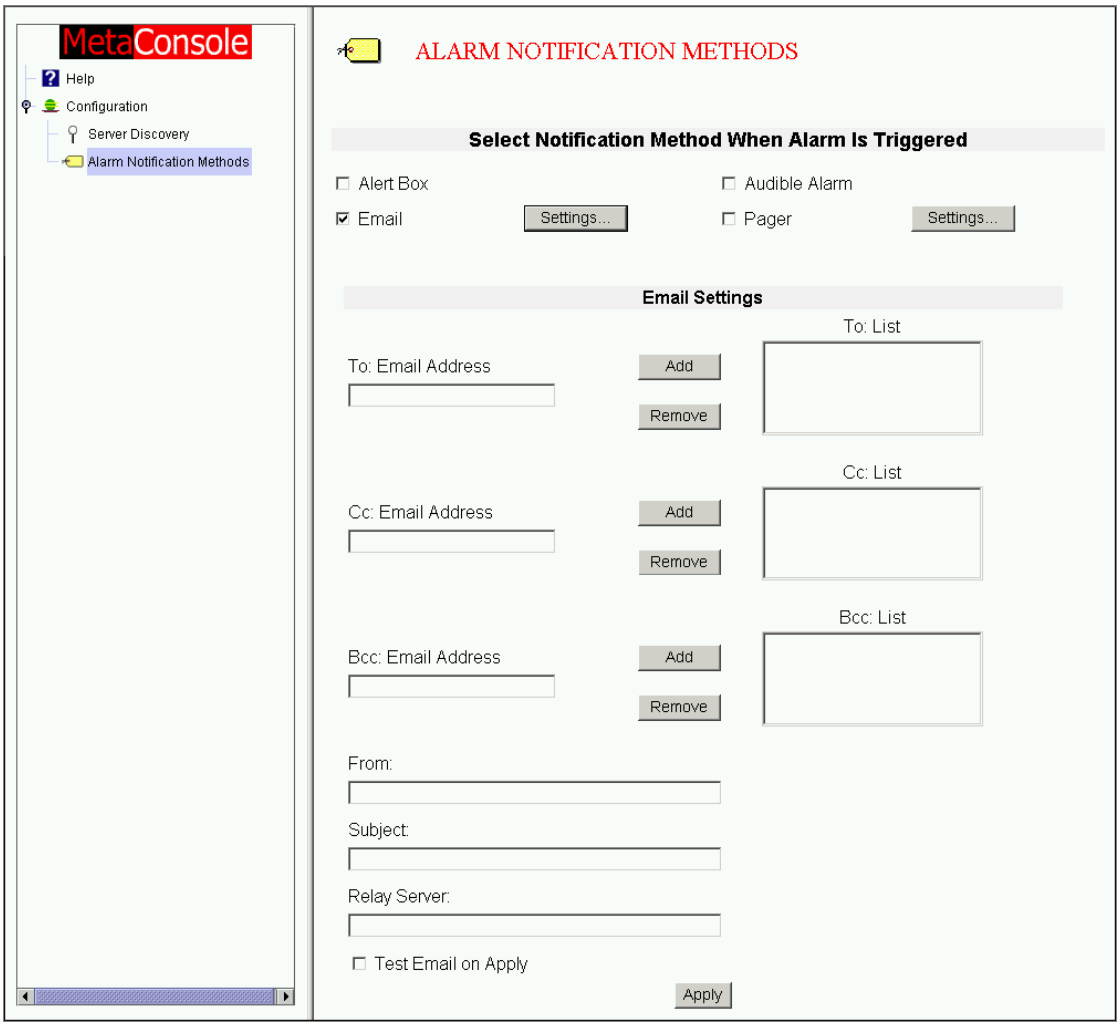

Figure 2.32: Unicenter Email Notification Settings

7 In the **Subject** box, type the text that will appear in the **Subject** field of all alarm email messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

8 In the **Relay Server** box, type the name or IP address of the local network's email (SMTP) server.

Note: *Email notification cannot be delivered if this information is missing or incorrect.*

9 To send a test email message to the recipients specified in steps 4, 5, and 6, select the **Test Email on Apply** check box.

Note: *If the Test Email on Apply checkbox is selected, then every time the Apply button is clicked, a test email will be sent to all the recipients. The test email is not sent out at any other time. To deactivate this, deselect the checkbox.*

10 Click **Apply**.

Specifying Pager Notification Settings

To specify settings for pager notification, follow this procedure:

1 In the navigation pane, expand the **Configuration** node and click **Alarm Notification Methods**. The **Alarm Notification Methods** screen opens (Figure 2.31).

2 Click the **Settings . . .** button next to the **Pager** check box. The **Pager Notification Settings** appear at the bottom of the details pane (Figure 2.33).

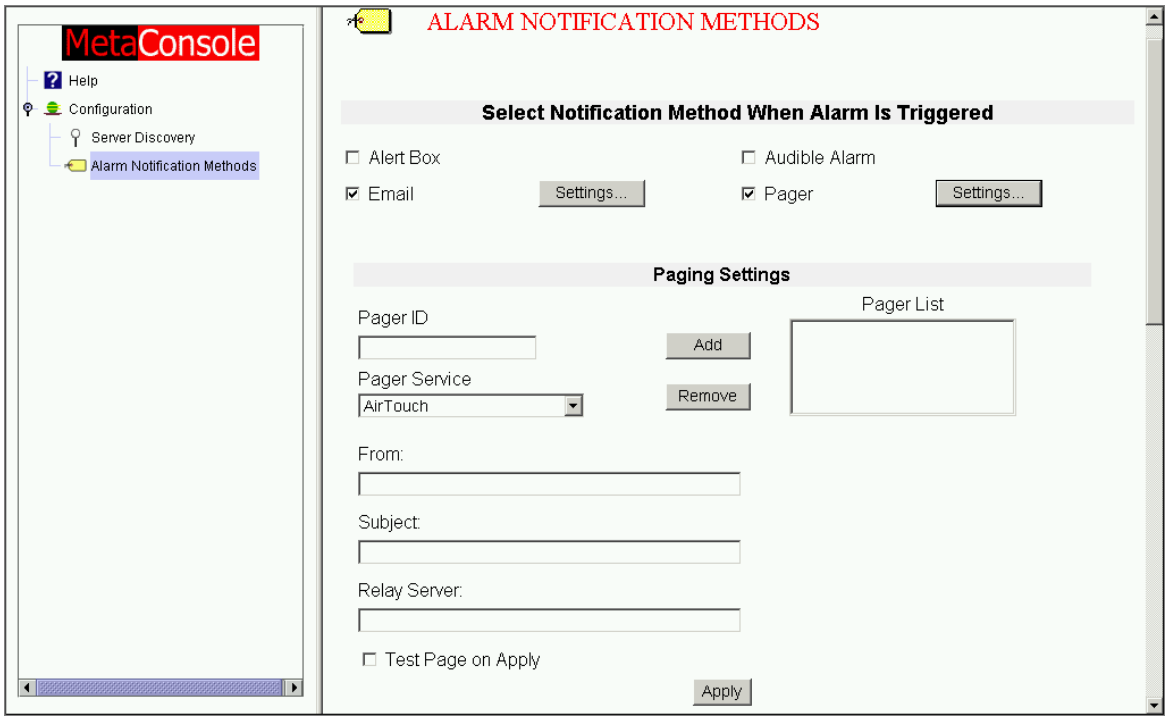

Figure 2.33: Unicenter Pager Notification Settings

3 Specify primary recipients by doing one or both of the following:

- To add a recipient to the **Pager List**:

  a. In the **Pager ID** box, type a pager ID (typically a 10- or 11-digit phone number).
  b. In the **Pager Service** list, click the name of the paging service to be used.
  c. Click the adjacent **Add** button.

- To remove a recipient from the **Pager List**: Click the pager ID; then click the adjacent **Remove** button.

4 In the **From** box, type the name that will appear as the originator of all alarm page messages sent by MetaConsole. Typically, this is a network administrator's name.

5 In the **Subject** box, type the text that will appear in the **Subject** field of all page messages sent by MetaConsole. Typically, this text should indicate the type of message (e.g., **Device Alert**).

6 In the **Relay Server** box, type the name or IP address of the local network's pager terminal.

Note: *An alarm notification page cannot be delivered if this information is missing or incorrect.*

7 To send a test page to the recipients specified in steps 4, 5, and 6, select the **Test Page on Apply** check box.

Note: *If the Test Page on Apply checkbox is selected, then every time the Apply button is clicked, a test page will be sent to all the recipients. The test page is not sent out at any other time. To deactivate this, deselect the checkbox.*

8 Click **Apply**.

Accessing MC Component Version Information in Unicenter

To help you with support issues, technicians sometimes must know the version numbers of your MetaConsole components (server, service providers, and client).

To determine version numbers for the MetaConsole server and service providers in the 2-D Map, follow this procedure:

1 Double-click **MetaConsole Devices**.

2 In the sub-map that opens, double-click the icon for the individual server.

3 In the sub-map that opens, right-click the configuration node and, on the menu that appears, click **Configure**.

4 The MetaConsole client opens.

To determine version numbers for the MetaConsole server and service providers in the Topology view of Unicenter Explorer, follow this procedure:

1 Double-click **MetaConsole Devices** node to expand it.

2 Double-click the icon for the individual server to expand it.

3 Right-click the configuration node and, on the menu that appears, click **Configure**.

4 The MetaConsole client opens.

To determine version numbers for the MetaConsole server and service providers, expand the MetaConsole server node and click **Version Information**. The **Version Information** screen opens (Figure 2.34).

The version number of the MetaConsole server software is shown at the top of the page. Below it are version numbers for all service providers including the following:

- **Persistent Devices** a special service provider that manages persistent data
- **ServerList Devices** a special service provider that manages the list of MetaConsole servers

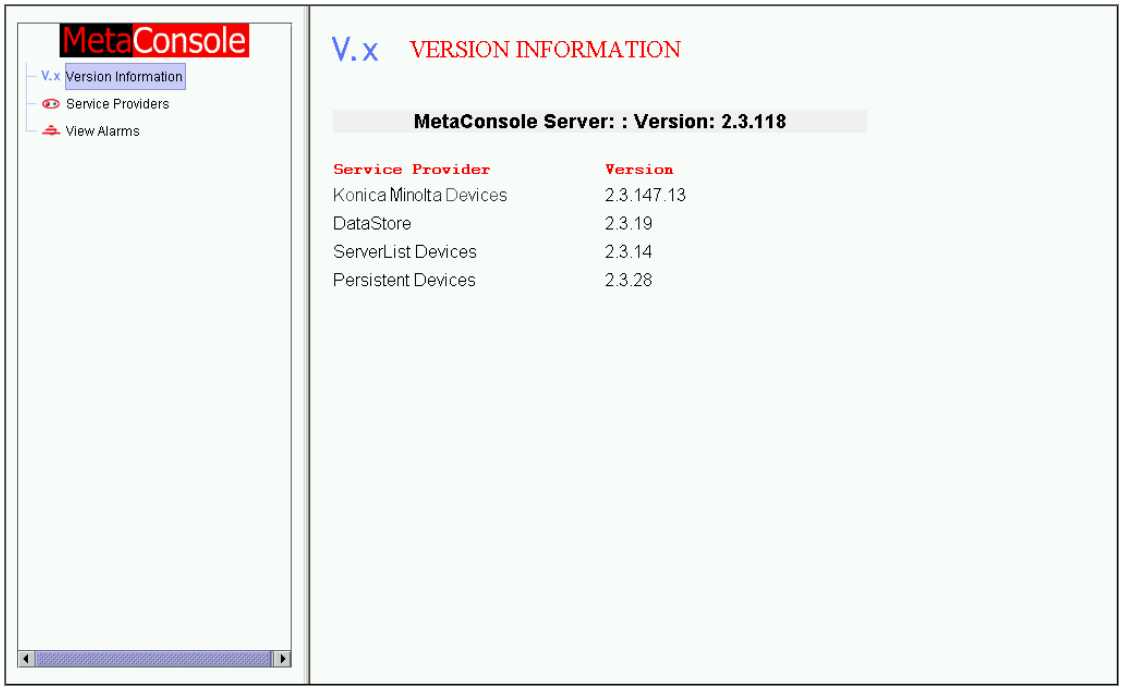

Figure 2.34: Unicenter Version Information Screen

Enabling a Service Provider in Unicenter

To display service provider settings in the 2-D Map, follow this procedure:

1. Double-click **MetaConsole Devices**.
2. In the sub-map that opens, double-click the icon for the individual server.
3. In the sub-map that opens, right-click the configuration node and, on the menu that appears, click **Configure**.
4. The MetaConsole client opens.

To display service provider settings in the Topology view of Unicenter Explorer, follow this procedure:

1. Double-click **MetaConsole Devices** node to expand it.
2. Double-click the icon for the individual server to expand it.
3. Right-click the configuration node and, on the menu that appears, click **Configure**.
4. The MetaConsole client opens.

To enable a service provider, follow this procedure:

1. In the navigation pane, expand the **MetaConsole Server** node and click **Service Providers**. The **Service Providers** screen opens (Figure 2.35).

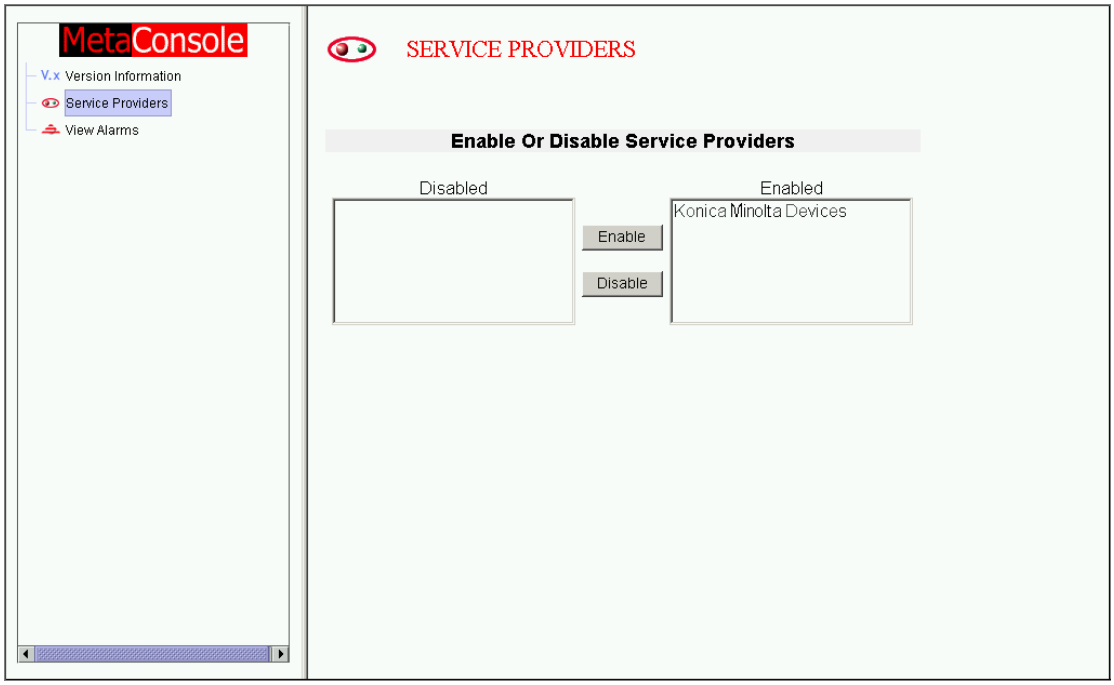

Figure 2.35: Unicenter Server Configuration: Service Providers

2 In the **Disabled** list, click the name of the service provider you want to enable.

3 Click **Enable**.

4 To manually update discovered information in the map or the navigation pane, see “Refreshing Displayed Information in Unicenter” on page 87.

Disabling a Service Provider in Unicenter

To disable a service provider, follow this procedure:

1 In the navigation pane, expand the **MetaConsole Server** node and click **Service Providers**. The **Service Providers** screen opens (Figure 2.35).

2 In the **Enabled** list, click the name of the service provider you want to disable.

3 Click **Disable**.

4 To manually update discovered information in the map or the navigation pane, see “Refreshing Displayed Information in Unicenter” on page 87.

Viewing Alarms in Unicenter

Note: *The time that is displayed for each alarm is the time the MetaConsole server logged that alarm, and is based on the MetaConsole server's time.*

To display alarm information in the 2-D Map, follow this procedure:

1. Double-click **MetaConsole Devices**.
2. In the sub-map that opens, double-click the icon for the individual server.
3. In the sub-map that opens, right-click the configuration node and, on the menu that appears, click **Configure**.
4. The MetaConsole client opens.

To display alarm information in the Topology view of Unicenter Explorer, follow this procedure:

1. Double-click **MetaConsole Devices** node to expand it.
2. Double-click the icon for the individual server to expand it.
3. Right-click the configuration node and, on the menu that appears, click **Configure**.
4. The MetaConsole client opens.

To view alarms, follow this procedure:

1. In the navigation pane, expand the node of the MetaConsole server whose alarms you want to check. Click **View Alarms**. If the database is not configured, a message indicates that fact. Otherwise, the **View Alarms** screen opens (Figure 2.36). Alarm log information for up to 50 alarms is displayed.

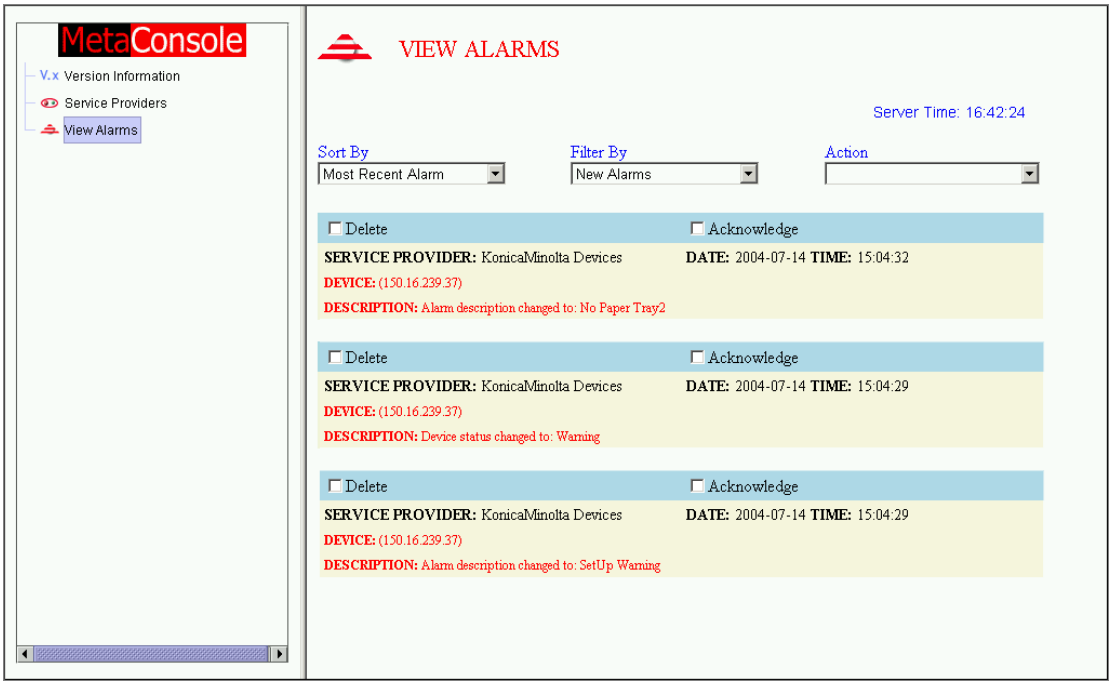

Figure 2.36: Unicenter View Alarms Screen

2 To view more alarms, click one of the following in the **Action** list:

- **Get Next 50 Alarms**
- **Get Previous 50 Alarms**
- **View All Alarms**

If there are a lot of alarms in the database, display time will increase.

3 In the **Sort by** list, click **Most Recent Alarm** or **Device** to sort the alarms.

- **Most Recent Alarm** shows the most recent alarms at the top of the page and older alarms at the bottom.
- **Device** shows alarms by device, with numbers in ascending order (for example, 10.0.0.1, 10.0.0.2) followed by letters in alphabetical order (for example, Alpha, Beta).

4 In the **Filter by list**, click an option to determine which alarms are shown.

- **New Alarms** limits the display to log entries that have not been acknowledged.
- **Show All Alarms** shows all acknowledged and unacknowledged log entries.

The name of a service provider shows all alarms, both acknowledged and unacknowledged, for that service provider.

To Acknowledge an Alarm Has Been Read:

Select the **Acknowledge** check box for that alarm and click the **Update** (clock) icon.

To Acknowledge All Alarms Have Been Read:

Click the **Acknowledge All** (check box) icon. When you acknowledge an entry, its red text changes to gray and the alarm does not display when you click **New Alarms** in the **Filter by** list.

To Delete All Entries from the Alarm Log:

Click the **Delete All** (X) icon.

To Acknowledge or Delete Specific Entries:

Select the **Acknowledge** or **Delete** check box for each alarm entry and click the **Update** (clock) icon.

Accessing Help Files in Unicenter

To access the help file, follow this procedure:

1 In the navigation pane, expand the top-level **Configuration** node and click **Help**. The **Help** screen opens (Figure 2.37).

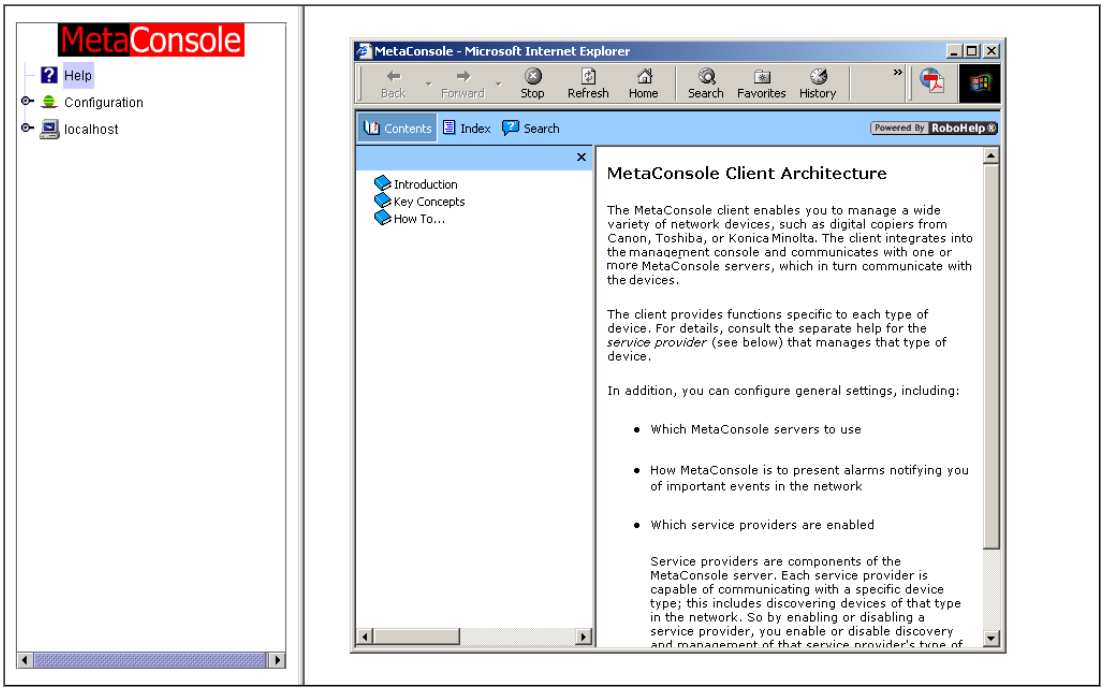

Figure 2.37: Unicenter Help File

Configuration Text Files for Unicenter

Configuration of MetaConsole server properties is governed by entries in a text file, **configuration.txt**. The MetaConsole client has a corresponding properties file,**console.properties**.

***Note**: Changes in console.properties do not take effect until you stop and restart the Unicenter client.*

Unicenter Configuration.txt

The **configuration.txt** file is created during installation and resides in the top-level installation directory. If the file is not present, MetaConsole uses the default values, originally set at installation time.

Configuration file entries have the form **keyword=value**. This section includes an example file and a description of each keyword (including the keyword's value when MetaConsole is shipped).

Example File

```
#HTTP server port
Port=80

#HTTP server root directory
Root=root

#SNMP Providers - disabling/enabling sets
AllowWrites=True

#Service providers folder
ServiceProviderDirectory=mcsps

# whether logging to console is needed
LogToConsole=true

# whether logging to a stream (file) is needed
LogToFile-false

# file to log to
LogFile=MetaConsole.log

#whether file logged to is appended or rewritten
AppendToFile=false

# start page for the MetaConsole server, start page must
#be in the root for the server
StartPage=start.html

# will log HTTP query type and client IP address for all
#connections
LogClientIP=false
```

Unicenter Configuration Keywords

Keyword	Description	Comments
Port	HTTP server port number.	Original value is 80.
Root	HTTP server root directory name.	Original value is root. Do not change this value.
AllowWrites	Indicates the server will allow sets.	Original value is true.Do not change this value.
ServiceProviderDirectory	Name of the service provider directory.	Original value is mcsps. Do not change this value.
LogToConsole	Indicates whether or not status and error information generated by the MetaConsole server are displayed on the user's screen.	Valid values are true and false.
LogToFile	Indicates whether or not status and error information generated by the MetaConsole server are written to a file.	Valid values are true and false. See next entry (LogFile).
LogFile	File to which status and error information is written if previous entry (LogToFile) is true.	
AppendToFile	Indicates whether or not new status and error information is appended to existing information in the log file instead of overwriting it.	Valid values are true (append) and false (overwrite). Original value is false.
StartPage	File name of the server start page.	Original value is start.html. Do not change this value.
LogClientIP	Indicates whether or not HTTP query type and IP Address information are logged for each connection.	Valid values are true (log) and false (do not log). Original value is false.

Table 2.6: Unicenter Configuration Keywords

console.properties

In this file, keywords and values are separated by white space. The file is located in the Uni directory, which is in the installation directory.

Example File

Version	3.0
LogToFile	true
LogToScreen	true
LogFile	console.log
HostName	100.0.0.99
PortNumber	8080
Repository	SQLServer
NetaphorDiscover	true
MetaConsoleConfiguration	MetaConsole Configuration
MetaConsoleConfigurationPage	/start.html
ServerConfigurationPage	/start.html
ServiceProviderConfigurationPage	/start.html
DeviceConfigurationPage	/start.html

Unicenter console.properties Keywords

Keyword	Description	Comments
Version	The version of the client that this properties file is designed to run with.	Do not change this value.
LogToFile	Indicates whether or not errors generated by the client for NetView are sent to the file named in LogFile (see below).	True or False.
LogToScreen	N/A	Do not change this value.
LogFile	File to which information is written if LogToFile (see above) is true.	
HostName	The host name of the MetaConsole server, specified as an IP address (such as 100.0.0.99).	
PortNumber	The port number (such as 8080).	If you do not specify a port, 80 is assumed.
Repository	Repository name for Unicenter WorldView data object store.	
NetaphorDiscover	Indicates whether the system uses Netaphor discovery.	If **true**, MetaConsole does discovery and the MetaConsole Devices submap appears with the appropriate submap. If **false**, MetaConsole does no discovery and devices will not be manageable with MetaConsole.
MetaConsole-Configuration	The string used by the client for Unicenter for MetaConsole configuration.	Do not change this value.
MetaConsole-ConfigurationPage	The start page for MetaConsole configuration.	Do not change this value.
ServerConfigura-tion-Page	The start page for server configuration.	Do not change this value.
ServiceProvider-ConfigurationPage	The start page for service provider configuration.	Do not change this value.
DeviceConfigura-tion-Page	The start page for device configuration.	Do not change this value.

Table 2.7: console.properties Keywords

Toubleshooting Unicenter

To Enable Logging

To help solve problems with MetaConsole for Unicenter, it can be helpful to capture a log of what the snapin is doing. This is especially the case if Technical Support must be contacted for assistance. To determine what is wrong, Technical Support will require a log from the MetaConsole Unicenter SnapIn server (on Windows) or the **RunUniSnapIn** program (on Solaris). To obtain this log, change the **LogToFile** option in **console.properties** (see “Configuration Text Files for Unicenter” on page 99) from **false** to **true** and then stop and restart the MetaConsole server and the MetaConsole Unicenter SnapIn service/RunUniSnapIn program. (For details, see “Starting and Stopping the Client” on page 85.) After the client has been running for a few minutes, open the **file console.log** using a text editor and see if anything has been logged. Make a copy of this file to provide to Technical Support. Both **console.properties** and **console.log** are in the **Uni** directory which is in the installation directory.

Discovered Devices Is Not in the Service Provider’s Submap in 2-D (Windows Only)

To ensure that all devices on the server provider’s submap are visible, right-click the background of the service provider’s window and, on the **Arrange Objects** menu that appears, click an arrangement type.

When a device is added to a service provider while the 2-D Map is running, the service provider’s window is open and there is already a device in the window. For this reason, the new device maybe placed on top of the existing device icon and the old device may no longer be seen. Resizing the window, zooming in and out or closing and reopening the window will not reveal the hidden icon. You must use the **Arrange Objects** procedure (see above) in order to remedy this situation.

The MetaConsole Devices Icon Is Not in the 2-D Map (Windows Only)

Depending upon your version of Windows, access either the Control Panel or Administrator’s Tools. From there, verify that the MetaConsole for Unicenter SnapIn service exists and is running. If the service is missing, uninstalling and reinstalling MetaConsole is the safest way to remedy the problem. Be sure to explicitly select the MetaConsole for Unicenter SnapIn during installation. If the service exists but is not running, stop and restart it.

If the 2-D Map is already up when MetaConsole for Unicenter adds the root MetaConsole object, the object is not shown nor are any of its subordinate objects. Stop and restart the 2-D Map to view the root MetaConsole object.

The 2-D Map does not show instances of any classes that are added after the 2-D Map is already running. If any operation takes place that involves classes while the 2-D Map is running, the 2-D Map must be stopped and restarted. The 2-D Map should be started after the MetaConsole server and the MetaConsole Unicenter SnapIn.

If the 2-D Map is run after you stop and restart the MetaConsole server and the MetaConsole Unicenter SnapIn and the MetaConsole Devices icon still do not appear, obtain a log and contact Technical Support (see “To Enable Logging” above).

The MetaConsole Devices Node Is Not in the Topology View of Unicenter Explorer (Windows)

Depending upon your version of Windows, access either the Control Panel or Administrator’s Tools. From there, verify that the MetaConsole for Unicenter SnapIn service exists and is running. If the service is missing, uninstalling and reinstalling MetaConsole is the safest way to remedy the problem. Be sure to explicitly select the MetaConsole for Unicenter SnapIn during installation. If the service exists but is not running, stop and restart it.

If the 2-D Map is run after you stop and restart the MetaConsole server and the MetaConsole Unicenter SnapIn and the **MetaConsole Devices** icon still do not appear, obtain a log and contact Technical Support (see “To Enable Logging” above).

The MetaConsole Devices Node Is Not in the Topology View of Unicenter Explorer (Solaris)

Determine if the **RunUniSnapIn** program is running by using the **ps** command. If it is running, stop it and restart it. For details, see “Starting and Stopping the Client” on page 85.

If it is not running, change directories to the **Uni** directory (located in the MetaConsole directory) and type **./RunInoSnapIn**. If there is no **Uni** directory or the program is not in the directory, uninstalling and reinstalling MetaConsole is the safest way to remedy the problem. Be sure to explicitly select the MetaConsole for Unicenter SnapIn during installation. If, after running the program from the command line, the process still does not show up, obtain a log and contact Technical Support (see “To Enable Logging” above).

If the Unicenter Explorer is run after you stop and restart the MetaConsole server and the **RunUniSnapIn** program and the **MetaConsole Devices** node still do not appear in the Topology view, obtain a log and contact Technical Support (see “To Enable Logging” above).

The Wrong Icons Appear for Nodes in the Topology View of Unicenter Explorer

If Unicenter Explorer is already running when the snapin is started, the default icons many show for some MetaConsole nodes. Topping and restarting Unicenter Explorer may correct this.

Old MetaConsole Classes or Objects Exist

If you upgrade from an earlier version of MetaConsole for unicenter, you should uninstall the old version of MetaConsole first then recreate the repository before installing the new version of MetaConsole. Ordinarily, uninstalling MetaConsole removes the old MetaConsole classes and objects from the repository, but recreating the repository guarantees that no old classes or objects, that might cause a conflict, remain.

The Browser Fails to Run for “Configure” or “Show Device Details” Menu Items

The **Configuration** and **Show Service Details** menu items are acted upon by launching a web browser with the appropriate URL. This is implemented by calling a script file called **launchurl.bat**. This script file is installed where it can be found on the path. On windows, the script file is a batch file that runs a program called **rundll32.exe** to call a function in a DLL call url.dll. This call starts the default browser if it is not running and passes the URL to the default browser. On Solaris, the script file assumes that the browser is compatible with Netscape 6.2.3. It looks to see if a process is running that includes the text “netscape” and if there is one it uses the “-remote” command line option supported by newer versions of Netscape. If there is not such a process, then the script starts netscape. In both cases, it assumes that Netscape can be run by calling the version of netscape found first on the path. If these assumptions are not correct, then the **launcurl.bat** script needs to be changed to adapt. Of course, care must be taken in changing the script file, though no copied code should need to change.

Configuring the Client

This chapter presents procedures for configuring the client's behavior regarding Konica Minolta devices managed through a MetaConsole server. At this level, you can configure the following:

- **Device Discovery**
- **Events that Trigger Alarms**
- **Rates and Timeouts**

The Konica Minolta service provider's configuration settings are maintained by the MetaConsole server and are not client-specific. All clients use the same values. If any client changes a particular setting, the change affects all clients that use that setting.

Specifying a Device Discovery Range

For each MetaConsole server, you specify ranges of IP addresses for automatic device discovery.

Adding a Discovery Range

To add a range of IP addresses for device discovery, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Discovery Ranges**.

The **Discovery Ranges** screen opens (Figure 2.38).

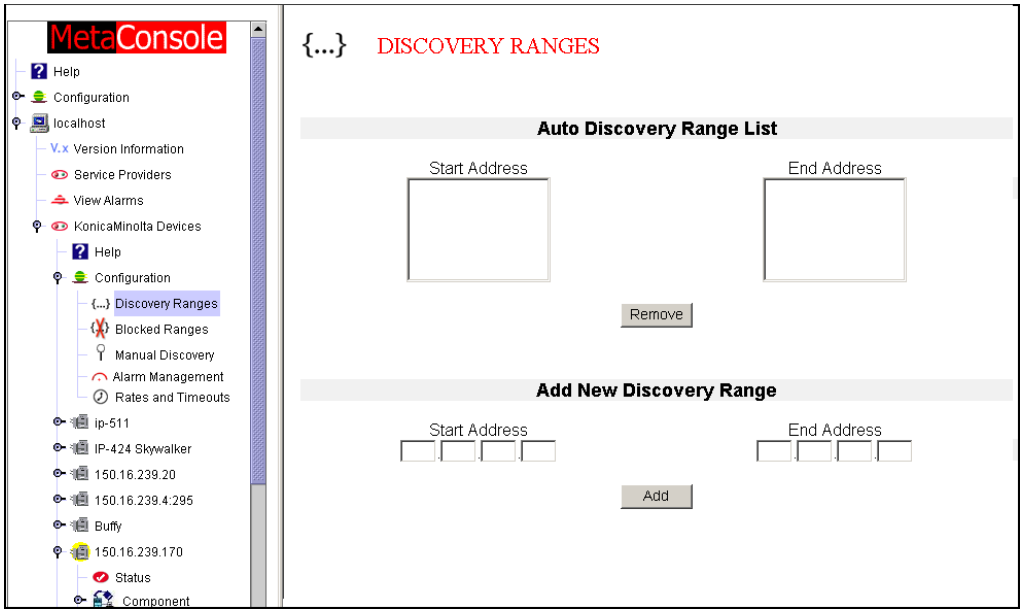

Figure 2.38: Discovery Ranges Screen

3 Locate the **Add New Discovery Range** field. Enter the lowest IP address of the range in the **Start Address** box.

4 Enter the highest IP address of the range in the **End Address** box.

5 Click **Add**.

Deleting a Discovery Range

To remove a range of IP addresses, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the Configuration node.

2 Click **Discovery Ranges**.

The **Discovery Ranges** screen opens (Figure 2.38).

3 Locate the **Auto Discovery Range List** field. Click the start or end address of the range to be removed.

4 Click **Remove**.

Specifying IP Address Ranges to Exclude from Device Discovery

It is not necessary to explicitly exclude a range of addresses since MetaConsole will not discover devices outside of the user-specified ranges. However, manually excluding a range can sometimes be useful. For example, if you want MetaConsole to discover devices between 10.0.0.40 and 10.0.0.80 except for 10.0.0.52 through 10.0.0.56, you can include the large range but exclude the small range.

Excluding a Discovery Range

To exclude a range of addresses from device discovery, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Blocked Ranges**.

The **Blocked Ranges** screen opens (Figure 2.39).

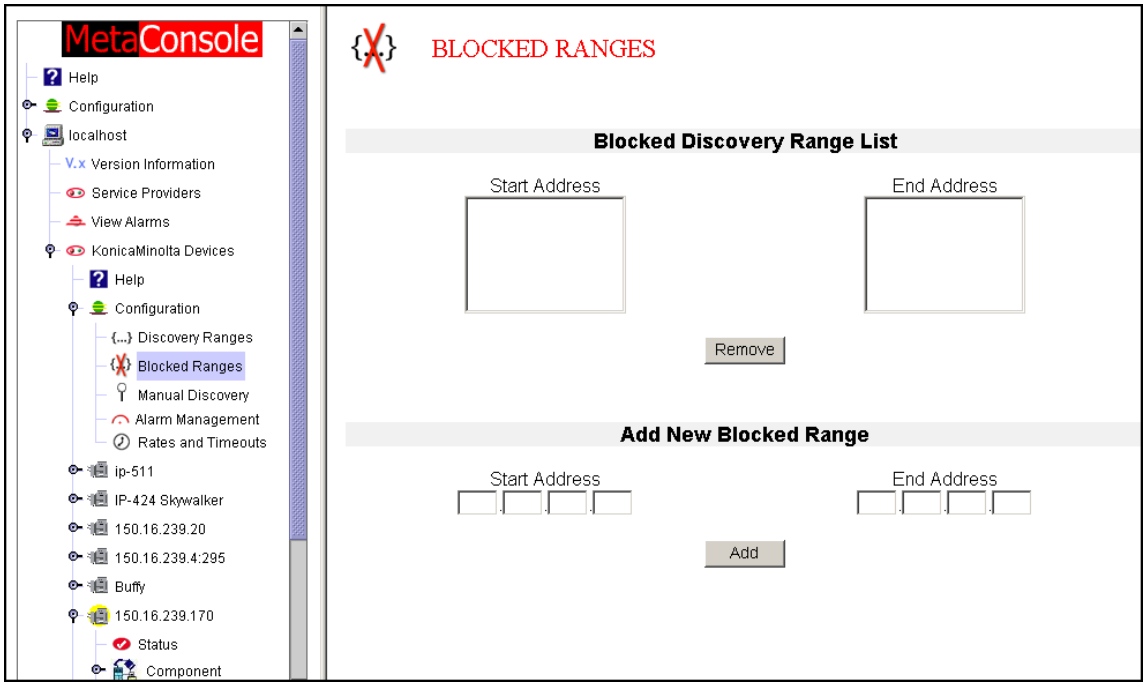

Figure 2.39: Blocked Ranges Screen

3 Locate the **Add New Blocked Range** field. Enter the lowest IP address of the range in the **Start Address** box.

4 Enter the highest IP address of the range in the **End Address** box.

5 Click **Add**.

Deleting an Excluded Range

To remove a range from the list of excluded ranges, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Blocked Ranges**.

The **Blocked Ranges** screen opens (Figure 2.39).

3 Locate the **Blocked Discovery Range List** field. Click the start or end address of the range to be removed.

4 Click **Remove**.

Manually Adding or Removing Individual Devices

In addition to specifying address ranges for automatic device discovery, you can manually add addresses to the list of discovered devices.

Manually Adding a Device

To manually add a device to the device list, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Manual Discovery**.

The **Manual Discovery** screen opens (Figure 2.40).

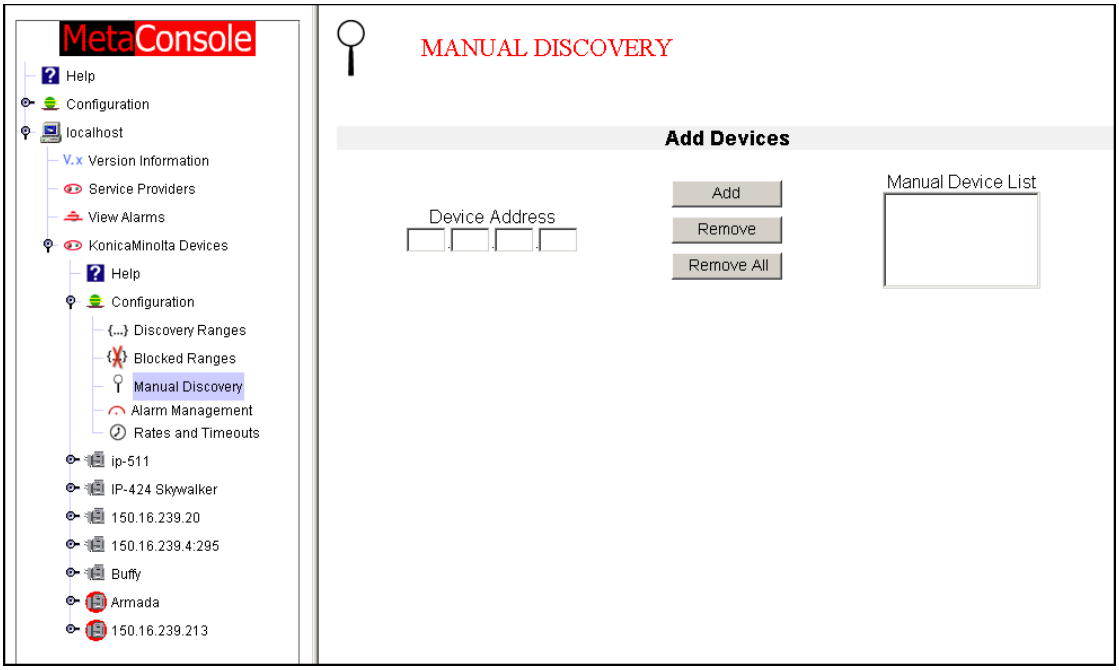

Figure 2.40: Manual Discovery Screen

3 Enter the device's IP address in the **Device Address** box.

4 Click **Add**.

Deleting a Manually Added Device

To delete a manually added device from the device list, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Manual Discovery**.

The **Manual Discovery** screen opens (Figure 2.40).

3 Locate the **Manual Device List** field. Click the IP address you want to delete.

4 Click **Remove**.

Deleting All Manually Added Devices

To delete all manually added devices from the device list, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Manual Discovery**.

The **Manual Discovery** screen opens (Figure 2.40).

3 Click **Remove All**.

Specifying Events to Raise Alarms

MetaConsole enables you to select events that will result in alarms. An event is just a change in information of the selected type. For details about the form that the actual alarm takes, see the getting started guide for your console.

To select events that will raise alarms, follow this procedure:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Alarm Management**.

The **Alarm Management** screen opens (Figure 2.41).

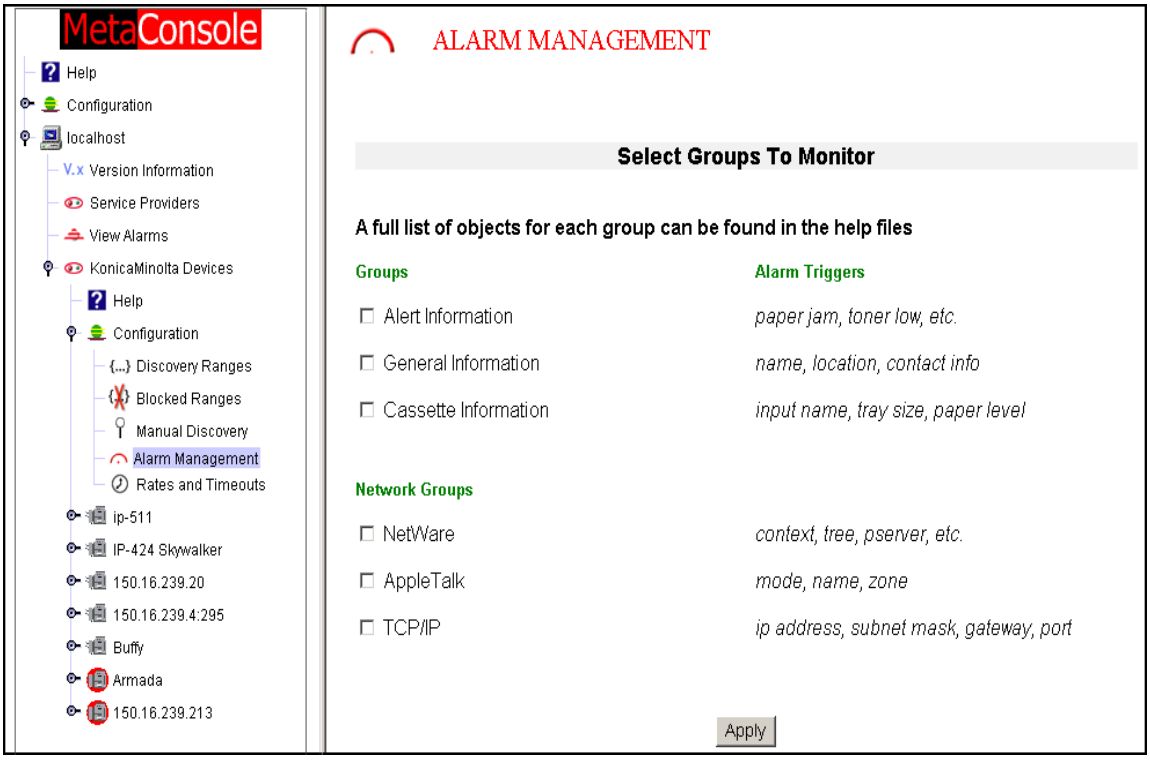

Figure 2.41: Alarm Management Screen

3 Select the check box for each alarm type you would like MetaConsole to generate.

4 Click **Apply**.

Specifying Rates and Timeouts

To set rate and timeout values:

1 In the navigation pane, expand the Konica Minolta Devices node and the **Configuration** node.

2 Click **Rates and Timeouts**.

The **Rates and Timeouts** screen opens (Figure 2.42).

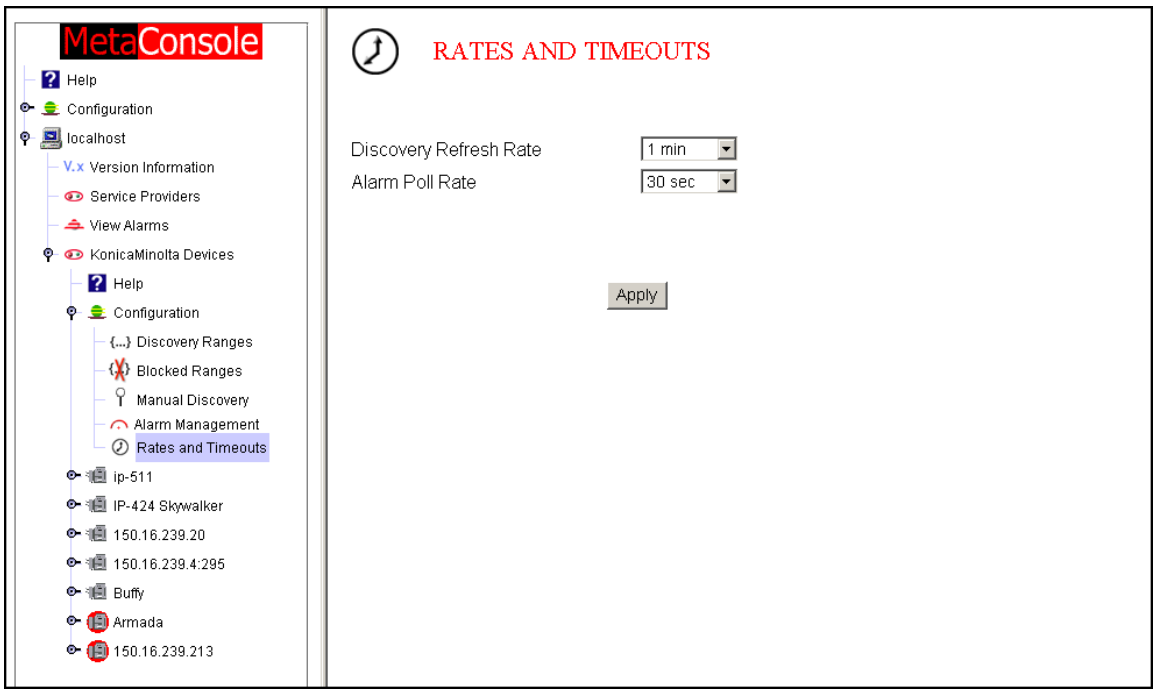

Figure 2.42: Rates & Timeouts Screen

3 Locate the **Discovery Refresh Rate** list. Specify how often the client will refresh the navigation pane's list of discovered devices by selecting an option from the drop-down menu.

4 Locate the **Alarm Poll Rate** list. Specify how often the client should poll for alarms by selecting an option from the drop-down menu. Greater numbers of devices require a greater **Alarm Poll Rate** value, due to the increased network traffic.

5 Click **Apply**.

Chapter

3

Using Konica Minolta PageScope EMS Plug-Ins

- About the Plug-Ins
- Device Pages & Nodes

About the Konica Minolta PageScope EMS Plug-Ins

The Konica Minolta PageScope EMS Plug-Ins provide management for devices connected to an Image Processor. Their main functions are:

- Search the network to discover supported devices
- Report status and alerts for each device
- Allow the user to view and change device settings
- Allow the user to view and change network settings

The console window has two panes. You use the **Console Tree** in the **Tree Pane** on the left to select the information you want displayed in the **Details Pane** on the right.

The **Tree Pane** includes:

- A **Help** node for instructions about using the Client to manage devices
- A node for each individual device

Depending upon the console environment, the **Tree Pane** might also include:

- A **Manual Discovery** node to configure additional IP address discovery

Figure 3.1 shows an example of a MetaConsole window. A Konica Minolta device node has been opened.

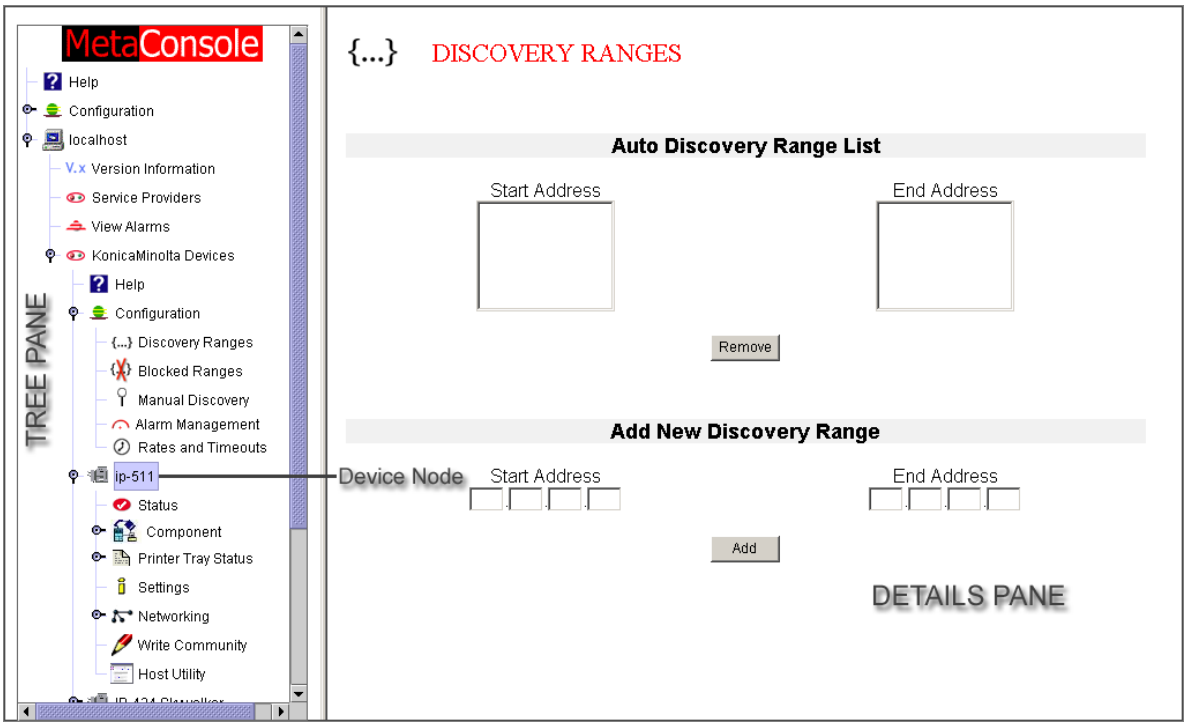

Figure 3.1: Service Provider Main Screen

Device Pages & Nodes

By expanding the node for a selected device, the user may monitor the following functions:

- **Status**: This node provides a quick overview of the selected Konica Minolta system.
- **Component**: This node provides information about the controller and the engine.
- **Printer Tray Status**: This node provides information about the input and output paper options.
- **Settings**: From this node, an administrator may enter and/or modify information specific to a device.
- **Networking**: Network settings can be entered from this node.
- **Protocol Diagnostics**: Protocol diagnostic information may be viewed from this node.
- **Write Community**: From this node a user may change the password for the write community.
- **Host Utility**: From this node a user may access a link that will launch a web page. The host utility specific to the device will open on this page.

Descriptions about each of these functions follow.

Note: *The examples that follow list all the variables that may appear on a Device Page or Node. Since devices vary, the device you are viewing may only have a portion of the information presented in these discussions. For this reason, the screen images used as examples in this section may not be identical to the screens you see when accessing information for your particular device.*

Status Page

The **Status Page** provides the user with a quick overview of the selected Konica Minolta system.

To access this page, follow this procedure:

1 In the **Tree Pane**, expand the device's node then click **Status**. The **Status** page will open in the right pane (Figure 3.2).

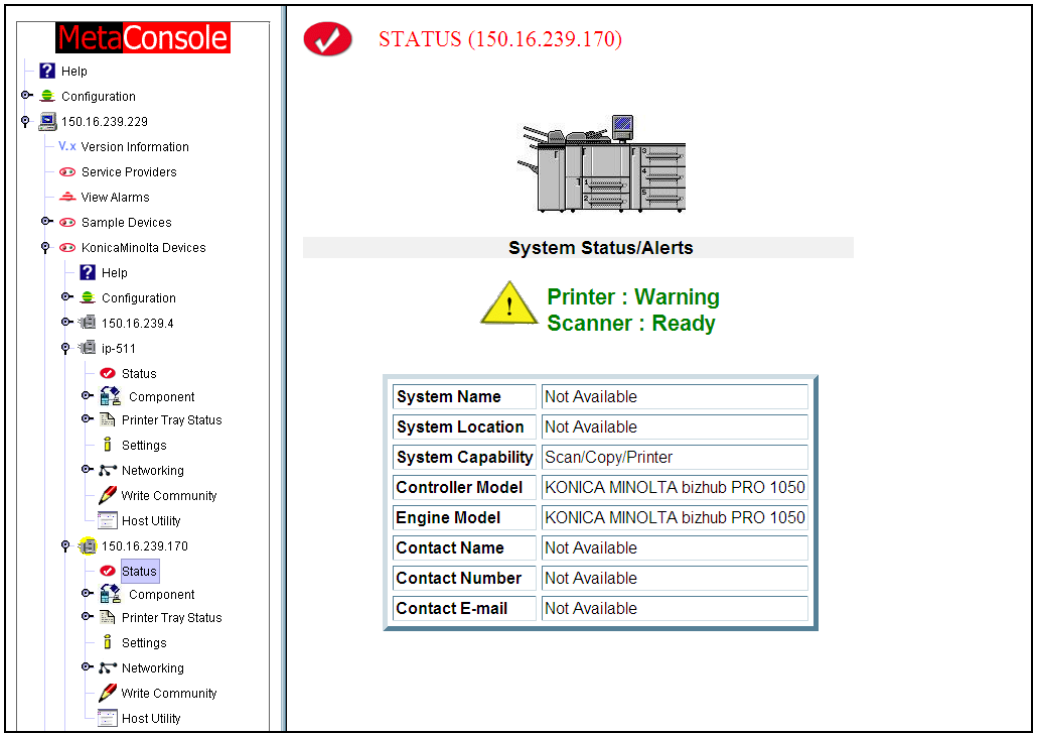

Figure 3.2: Status Page

Once the **Status** page opens, it provides the user with an illustration of the Konica Minolta device. It's current status will also be listed. As in the example above, some devices may display two status messages, one for printer and one for the scanner. Additional information also appears on this page. This information is input by the System Administrator via the Settings Selection window or via a Web Utilities application. A brief description of each field follows.

System Name

The name of the system is displayed here.

System Location

A description of the physical location of the device is displayed here.

System Capability

The available functions of the device (printing, copying, scanning) are displayed here.

Controller Model

The model number of the controller is displayed here.

Engine Model

The number of the engine model is displayed here.

Contact Name

The name of the person responsible for the device is displayed here.

Contact Number

The number at which the person responsible for the device can be reached is displayed here.

Contact Email

***Note**:If a field has not been set, the display will read **Not Available**.*

Component Node

When opened, the **Component Node** contains the **Controller Information** page and the **Printer Information Node**.

Controller Information Page

The Controller Information page provides the user with specific information about the selected device's controller.

To access this page, follow this procedure:

1 In the **Tree Pane**, expand the device's node. Expand the **Component** node then click the **Controller Information** icon. The Controller Information page will open in the right pane (Figure 3.3).

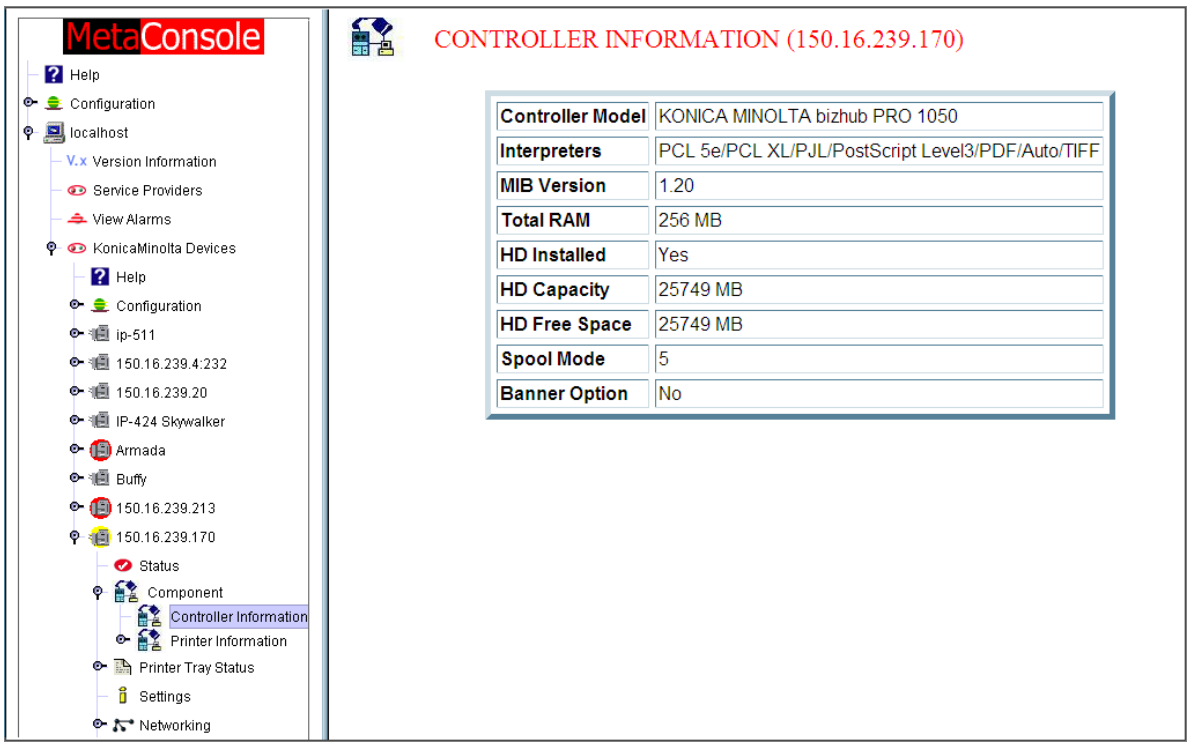

Figure 3.3: Controller Information Page

Once the Controller Information page opens, the following information will be displayed:

Controller Model

The model number of the IP controller is displayed here.

Interpreters

The supported PDL interpreters are displayed here.

MIB Version

The version of the Konica Minolta MIB is displayed here.

Total RAM

The total amount of installed RAM is displayed here in MBs.

HD Installed

If a hard drive is installed **Yes** will be displayed here; if a hard drive is not installed, **No** is displayed here.

HD Capacity

If a hard drive is installed, its total capacity is displayed here in MBs.

HD Free Space

If a hard drive is installed, its remaining free space is displayed here in MBs.

Spool Mode

The spool mode setting of the controller is displayed here.

Banner Option

The banner option setting of the controller is displayed here.

Printer Information Node

When opened, the **Printer Information Node** contains five pages: the **Engine Component Information** page, the **Input Options** page, the **Output Options** page, the **Scanner Information** page and the **Engine Counter Information** page.

Engine Component Information Page

The **Engine Component Information** page provides the user with specific information about the selected device's engine.

To access this page, follow this procedure:

1. In the **Tree Pane**, expand the device's node. Expand the **Component** node then click the **Engine Information** node to expand it.
2. Click the **Engine Component Information** icon. The **Engine Component Information** page will open in the right pane (Figure 3.4).

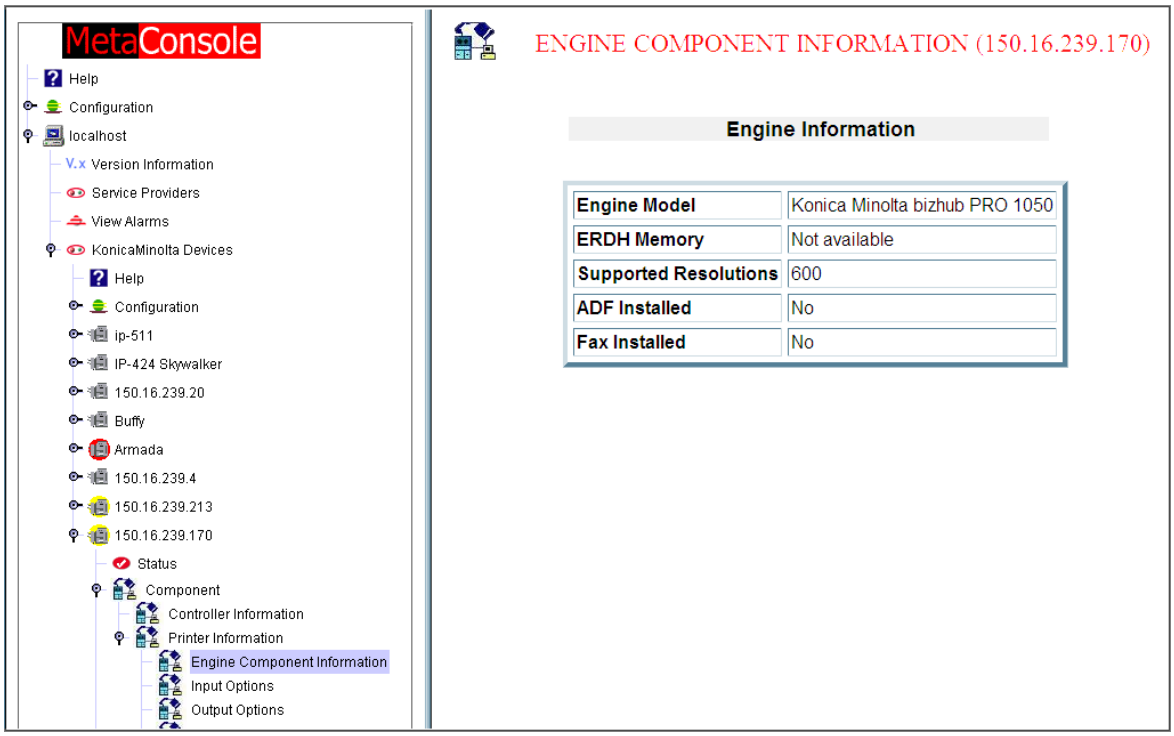

Figure 3.4: Engine Component Information Page

Engine Component Information

The **Engine Component Information** page contains the following information:

- **Engine Model**: The engine model number
- **ERDH Memory**: The size of the ERDH memory (in MBs)
- **Supported Resolutions**: Supported resolutions of the engine
- **ADF Installed**: If an Automatic Document Feeder is installed, **Yes** appears; if not, **No** appears here
- **Fax Installed**: If a fax is installed, **Yes** appears; if not, **No** appears here

Input Options Page

The **Input Options** page provides the user with specific information about the selected device's engine.

To access this page, follow this procedure:

1. In the **Tree Pane**, expand the device's node. Expand the **Component** node then click the **Engine Options** node to expand it.
2. Click the **Input Options** icon. Depending upon the device, one of two **Input Options** pages will open in the right pane (Figure 3.5 or Figure 3.6).

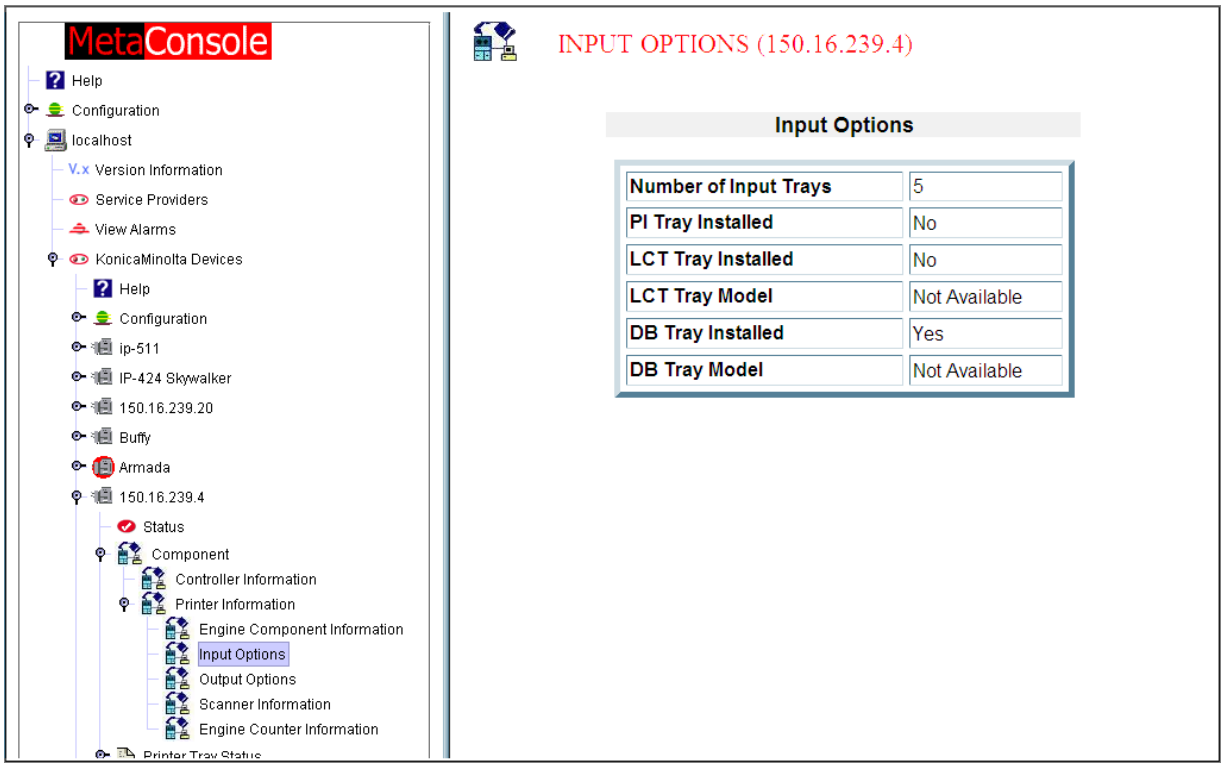

Figure 3.5: Input Options Page (Type I)

Input Options (Type I)

This **Input Options** page contains the following information:

- **Number of Input Trays**: The number of input trays installed
- **PI Tray Installed**: If a Paper Insertion Tray is installed, **Yes** appears; if not, **No** appears here
- **LCT Tray Installed**: If a Large Capacity Tray is installed, Yes appears; if not, **No** appears here
- **LCT Tray Model**: If a Large Capacity Tray is installed, its model number appears here
- **DB Tray Installed**: If a Drawer Base Tray is installed, Yes appears; if not, **No** appears here
- **DB Tray Model**: If a Drawer Base Tray is installed, its model number appears here

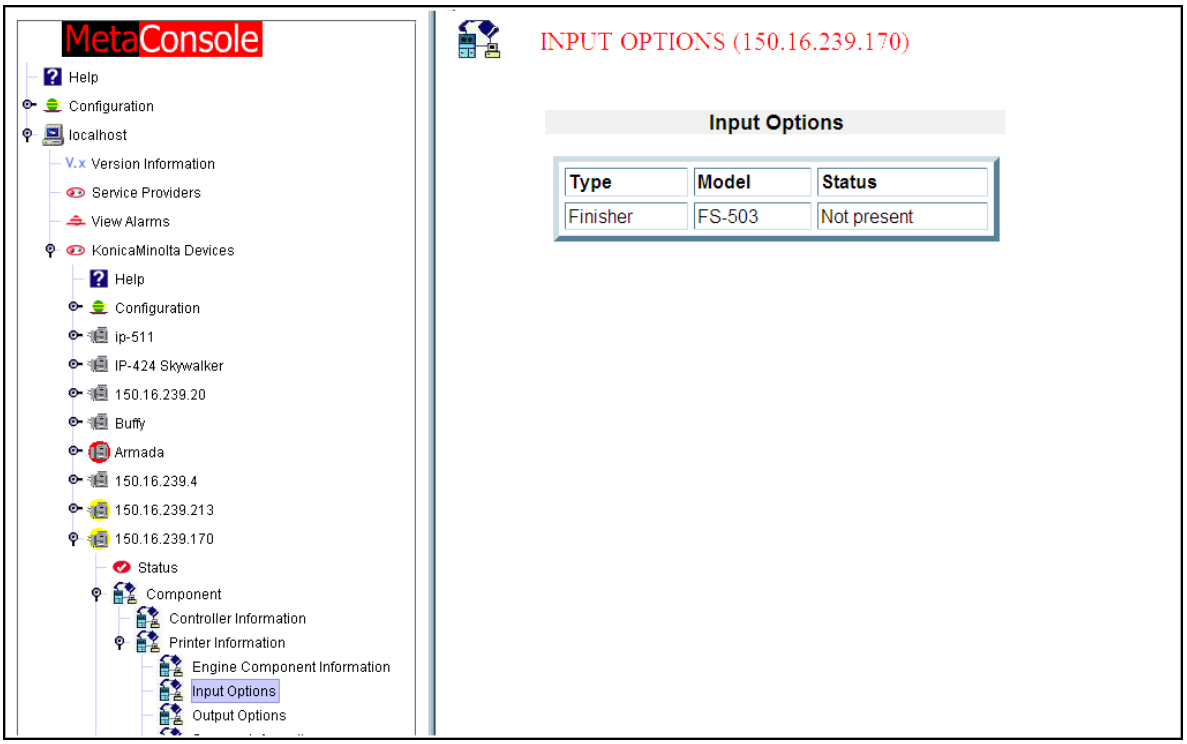

Figure 3.6: Input Options Page (Type II)

Input Options (Type II)

This **Input Options** page contains the following information:

- **Type**: All supported options appear here. Check the **Status** column to see if the option is actually installed and available for use.
- **Model**: The model number of the option appears here
- **Status**: The installation status of each option is listed here

Output Options Page

The Output Options page provides the user with specific information about the selected device's engine.

To access this page, follow this procedure:

1 In the Tree Pane, expand the device's node. Expand the **Component** node then click the **Engine Information** node to expand it.

2 Click the **Output Options** icon. The following page will open in the right pane (Figure 3.7).

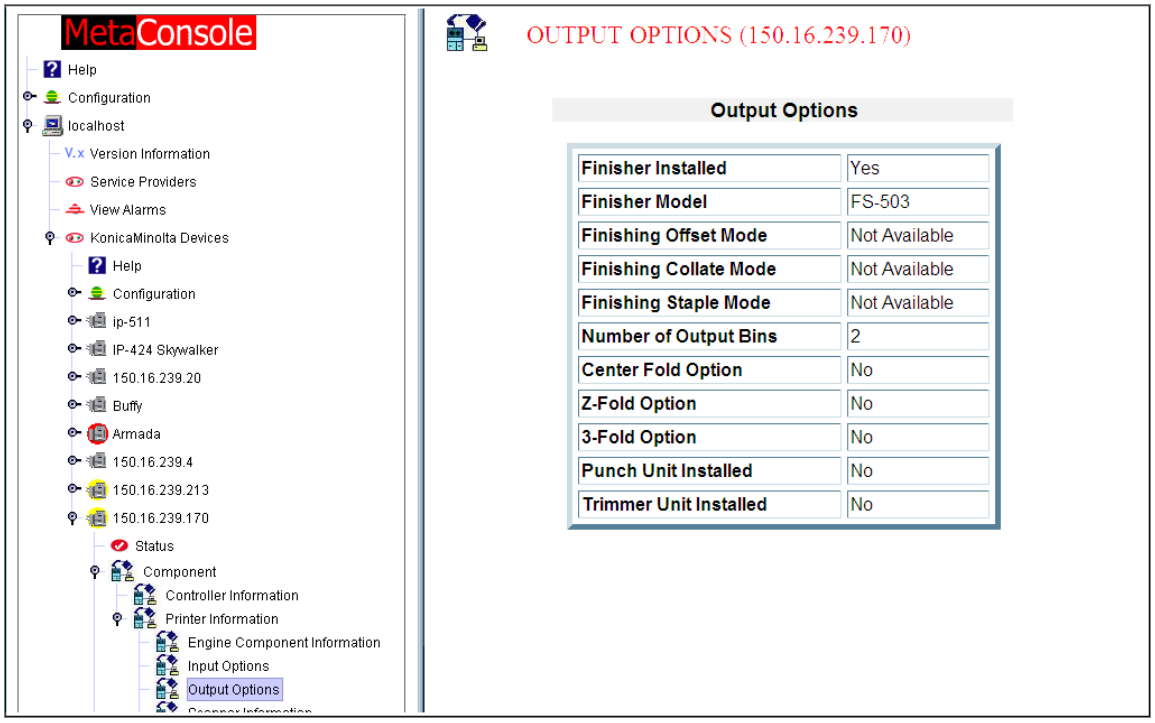

Figure 3.7: Output Options Page

Output Information

This Output Information page contains the following information:

- **Finisher Installed**: If a Finisher is installed, **Yes** appears; if not, **No** appears here
- **Finisher Model**: If a Finisher is installed, its Model number appears here
- **Finishing Offset Mode**: If the Offset Mode is enabled, **On** appears; if not,**Off** appears here
- **Finishing Collate Mode**: If the Collate Mode is enabled, **On** appears; if not,**Off** appears here
- **Finishing Staple Mode**: If the Staple Mode is enabled, **On** appears; if not,**Off** appears here
- **Number of Output Bins**: The number of Output Bins appears here

- **Center Fold Option**: If a Center Fold option is installed, **Yes** appears; if not, **No** appears here
- **Z-Fold Option**: If a Z-Fold option is installed, **Yes** appears; if not, **No** appears here
- **Three-Fold Option**: If a Three-Fold option is installed, **Yes** appears; if not, **No** appears here
- **Punch Unit Installed**: If a Punch Unit is installed, **Yes** appears; if not, **No** appears here
- **Trimmer Unit Installed**: If a Trimmer Unit is installed, **Yes** appears; if not, **No** appears here

Scanner Information Page

The **Scanner Information** page provides the user with specific information about the selected device's engine.

To access this page, follow this procedure:

1 In the Tree Pane, expand the device's node. Expand the **Component** node then click the **Engine Information** node to expand it.

2 Click the **Scanner Information** icon. The **Scanner Information** page will open in the right pane (Figure 3.8).

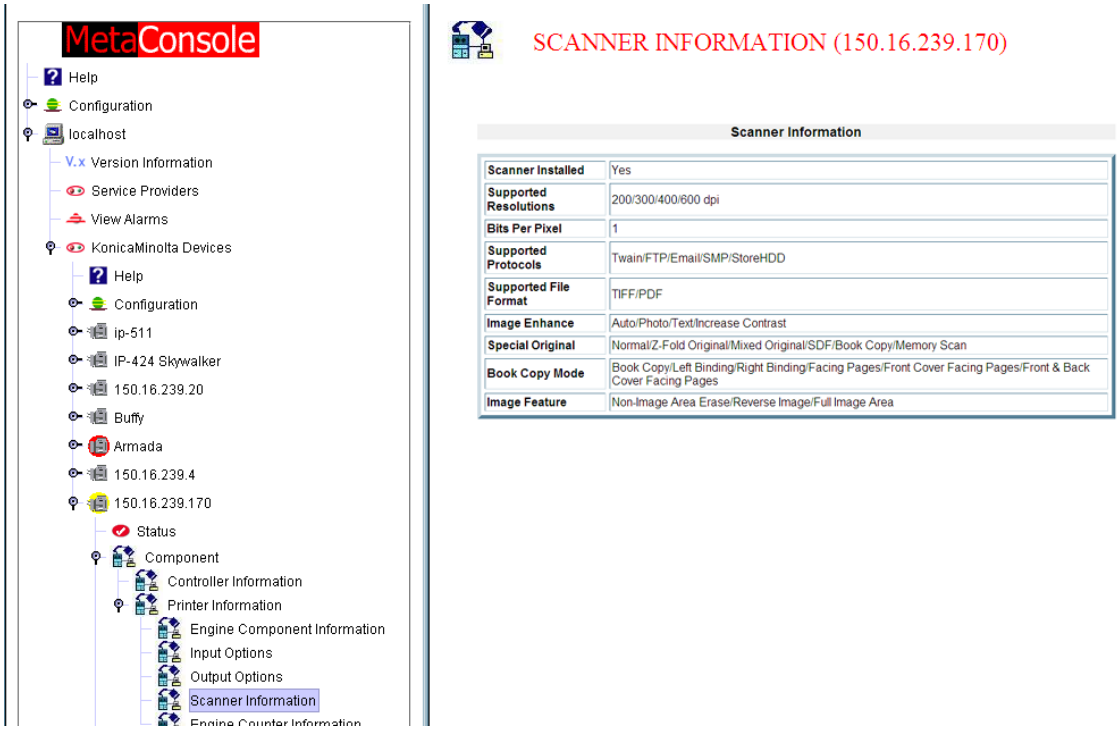

Figure 3.8: Scanner Information Page

Scanner Information

The **Scanner Information** page contains the following information:

- **Scanner Installed**: If a Scanner is installed, **Yes** appears; if not, **No** appears here
- **Supported Resolution**: If a Scanner is installed, its supported resolution of appears here
- **Bits Per Pixel**: If a Scanner is installed, its bits per pixel setting appears here
- **Supported Protocols**: If a Scanner is installed, the protocols supported for transferring documents appear here
- **Supported File Format**: If a Scanner is installed, the supported scan file format appears here

- **Image Enhance**: If Image Enhance is installed, the image enhance settings available appear here
- **Special Original**: If Special Original is installed, the original settings available appear here
- **Book Copy Mode**: If Book Copy Mode is installed, the book copy modes available appear here
- **Image Feature**: If Image Feature is installed, **Yes** appears; if not, **No** appears here

Engine Counter Information Page

The Engine Counter Information page provides the user with specific information about the selected device's engine.

To access this page, follow this procedure:

1 In the Tree Pane, expand the device's node. Expand the **Component** node then click the **Engine Information** node to expand it.

2 Click the **Engine Counter Information** icon. The **Engine Counter Information** page will open in the right pane (Figure 3.9).

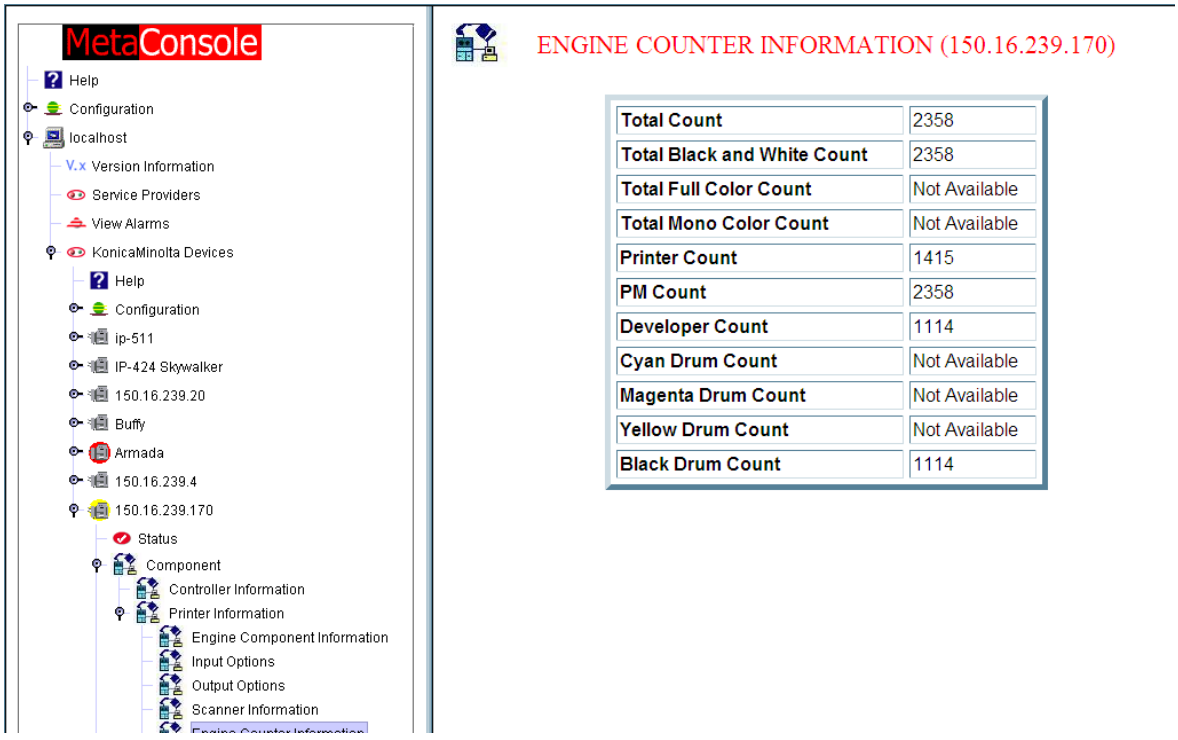

Figure 3.9: Engine Counter Information Page

Engine Counter Information

The **Engine Counter Information** page contains the following copy count information:

- **Total Count**: The total count

- **Total Black & White Count**: The total black and white count
- **Total Full Color Count**: The total full color count
- **Total Mono Color Count**: The total mono color count
- **Printer Count**: The printer count
- **PM Count**: The PM count
- **Developer Count**: The developer count
- **Cyan Drum Count**: The cyan drum count
- **Magenta Drum Count**: The magenta drum count
- **Yellow Drum Count**: The yellow drum count
- **Black Drum Count**: The black drum count

Printer Tray Status Node

When opened, the **Printer Tray Status Node** contains two pages: the **Paper Input Tray** page and the **Paper Output Tray** page.

Paper Input Tray Page

The **Paper Input Tray** page provides the user with specific information about all the paper trays of the selected device.

To access this page, follow this procedure:

1 In the Tree Pane, expand the device's node. Expand the **Printer Tray Status** node then click the **Paper Input Tray** icon. The **Paper Input Tray** page will open in the right pane (Figure 3.10).

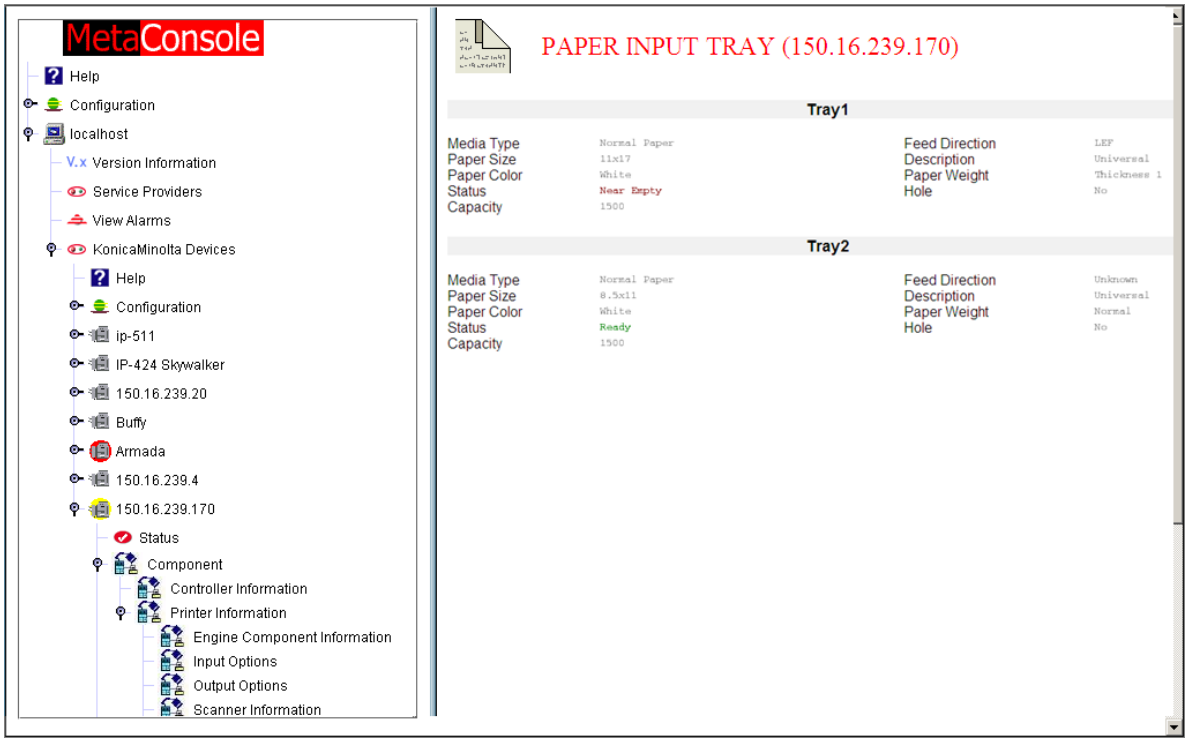

Figure 3.10: Paper Input Tray Page

Once the **Paper Input Tray** page opens, the following information is provided for each input tray installed:

Media Type

The type of paper in the tray is displayed here.

Paper Size

The size of paper in the tray is displayed here.

Paper Color

The size of paper in the tray is displayed here.

Status

The paper status is displayed here.

Capacity

The per-sheet capacity of the tray is displayed here.

Feed Direction

The paper feed orientation is displayed here.

Description

A description of the cassette (Manual Feed, Universal or Standard) is displayed here. The location of the printer may also be specified.

Paper Weight

The weight of the paper is displayed here.

Hole

If prepunched paper is in the tray, **Yes** appears here; if prepunched paper is not in the tray, **No** appears here.

Paper Output Tray Page

The **Paper Output Tray** page provides a list of the output trays. Tray Name and Usage sections are provided for each tray. These sections clarify the function and/or the physical location of the tray on the device.

To access this page, follow this procedure:

1 In the **Tree Pane**, expand the device's node. Expand the **Printer Tray Status** node then click the **Paper Output Tray** icon. The **Paper Output Tray** page will open in the right pane (Figure 3.11).

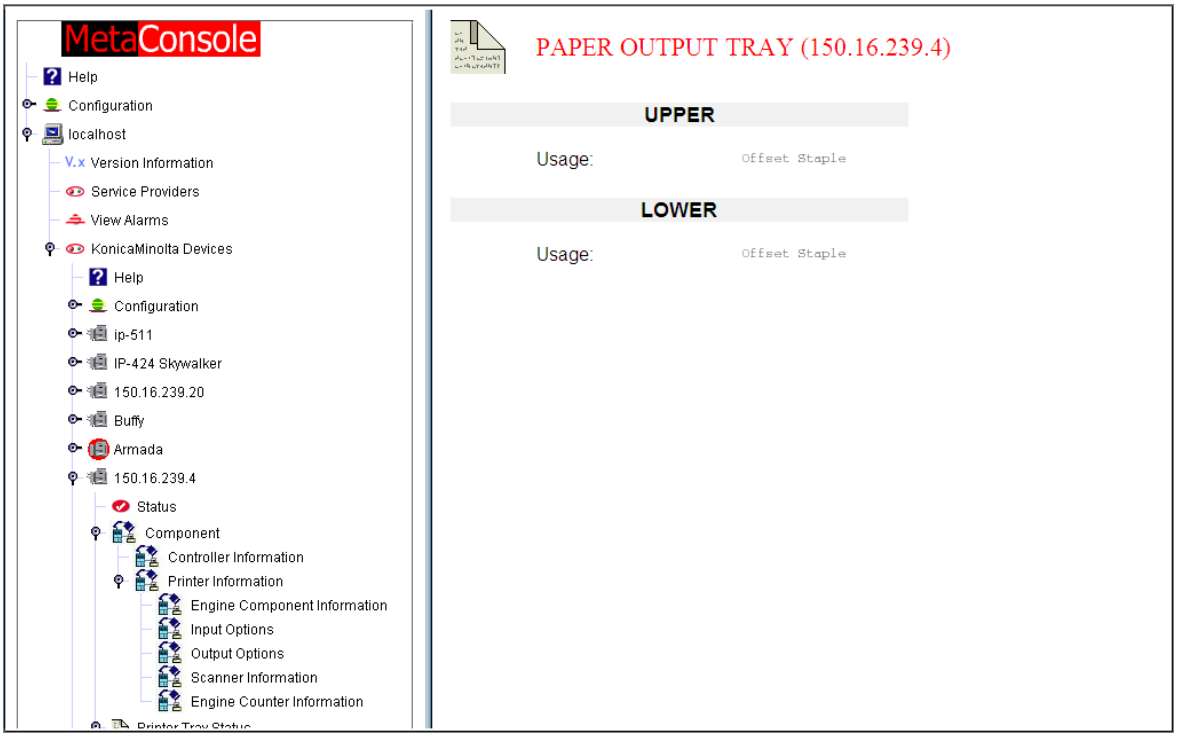

Figure 3.11: Paper Output Tray Page

Settings Page

From the **Settings** page a user may input or modify specific Device settings for the selected device. Certain devices may also display selected Finisher Settings (as shown in Figure 3.12).

***Note**: Modification of values on this page requires that the user has set up the Write Community String for this device correctly on the Write Community Page.*

To access this page, follow this procedure:

1 In the Tree Pane, expand the device's node.

2 Click on **Settings**. The **Settings** page will open in the right pane (Figure 3.12).

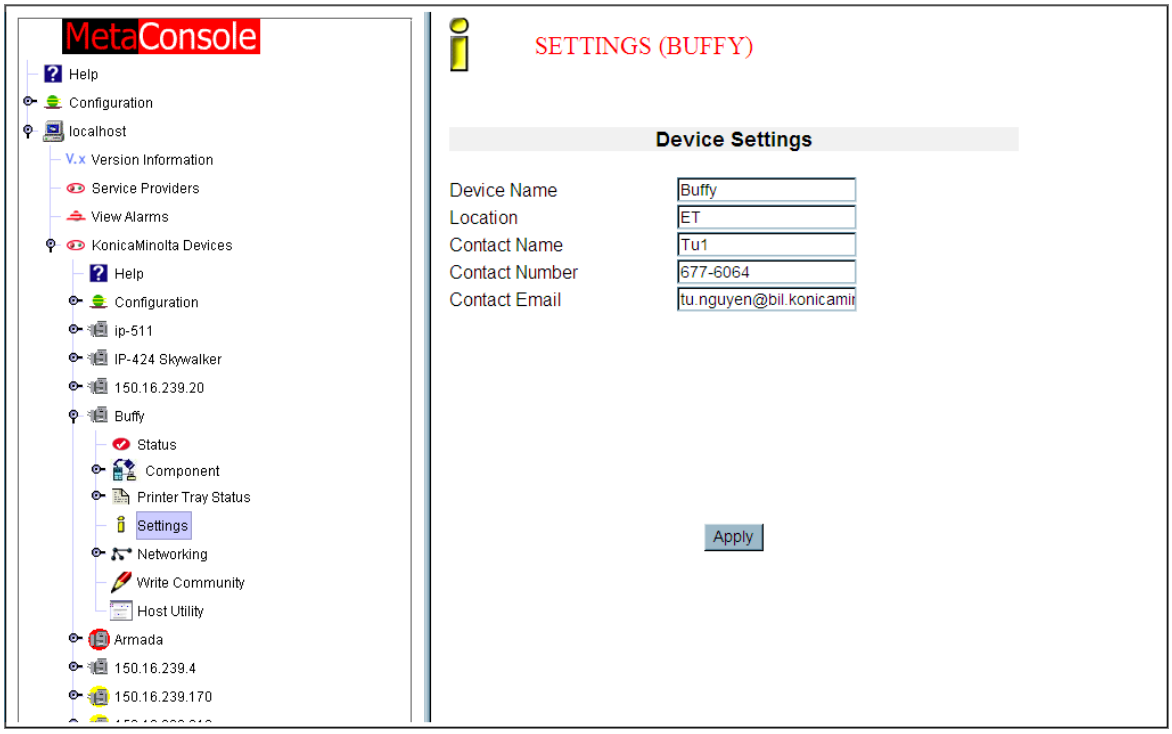

Figure 3.12: Settings Page

Changing Device Settings

To modify a device's settings, follow this procedure:

1 In the Tree Pane, expand the device's node.

2 Click on **Settings.**

3 In the **Device Name** field, enter a name for the device.

4 In the **Location** field, enter a description of the device's location.

5 In the **Contact Name** field, enter the name of the person who is in charge of the device.

6 In the **Contact Number** field, enter the phone number of the contact person.

7 In the **Contact Email** field, enter the email address of the contact person.

8 Click **Apply**. Clicking on the **Apply** button causes all the entries to be set to the values you have entered. The page refreshes itself so check to make sure that your entries were changed successfully.

Note: *This procedure differs if you are using Web Utilities. See the User's Guide for PMU2 for specifics.*

Networking Node

When opened, the **Networking Node** contains four pages: **AppleTalk**, **TCP/IP**, **NetWare** and **Interface**. It also contains another Sub-Node: the **Protocol Diagnostics Node**. Network settings, network interface information and protocol details are all accessible from these sections.

To access any of this information, follow this procedure:

1 In the Tree Pane, expand the device's node.

2 Click on the **Networking** node.

Instructions for accessing or managing the functions included under this node follow.

AppleTalk Page: Managing the Properties

To display and change **AppleTalk**-related properties for a device, follow this procedure:

1 In the Tree Pane, click the **Network** node to expand it.

2 Click **AppleTalk**. The **AppleTalk** page will open in the right pane (Figure 3.13).

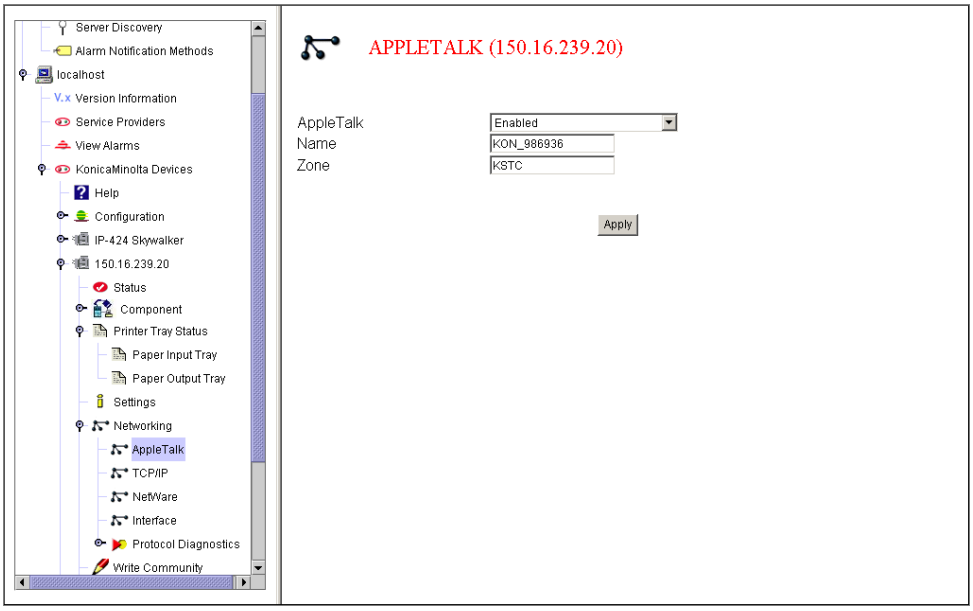

Figure 3.13: AppleTalk Page

3 In the **AppleTalk** field, click **Enabled** or **Disabled**, depending upon your preference.

4 In the **Name** field, enter an AppleTalk printer name for the device.

5 In the **Zone** field, enter the name of the device's AppleTalk zone.

6 Click **Apply**.

TCP/IP Page: Managing the Properties

To display and change TCP-IP-related properties for a device, follow this procedure:

1 In the Tree Pane, click the **Network** node to expand it.

2 Click **TCP/IP**. The **TCP/IP** page will open in the right pane (Figure 3.14)

.

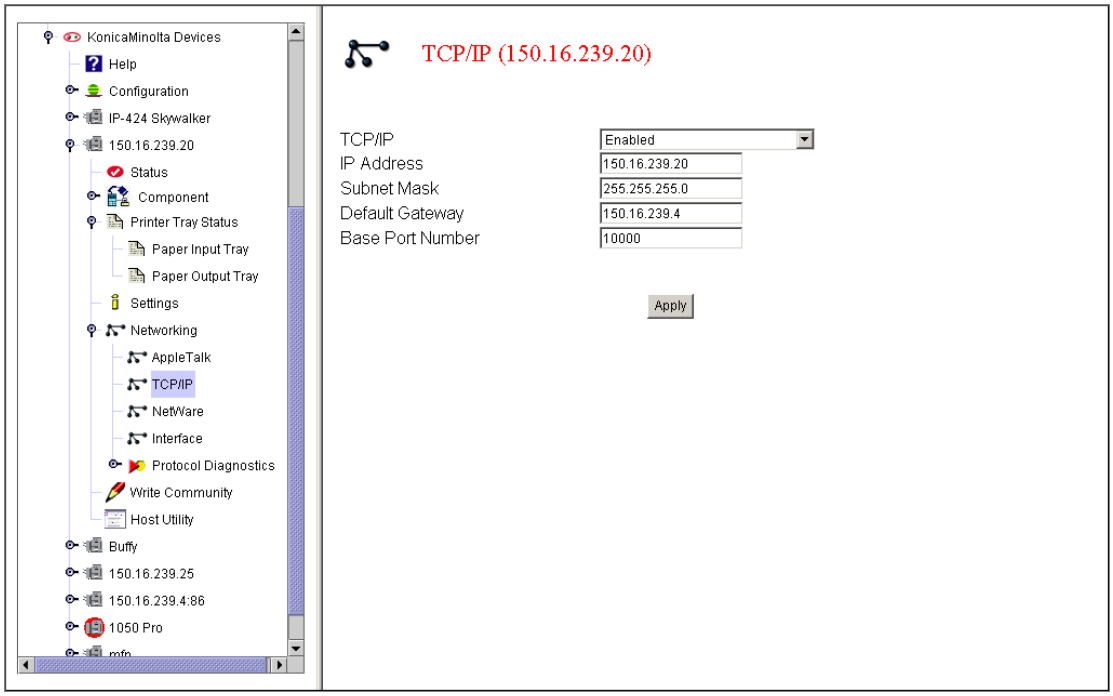

Figure 3.14: TCP/IP Page

3 In the **TCP/IP** field, click **Enabled** or **Disabled**, depending upon your preference.

4 In the **IP Address** field, enter the device's IP address.

5 In the **Subnet Mask** field, enter the device's subnet mask.

6 In the **Default Gateway** field, enter the device's gateway.

7 In the **Base Port Number** field, enter the device's base port number.

8 Click **Apply**.

NetWare Page: Managing the Properties

To display and change NetWare-related properties for a device, follow this procedure:

1 In the Tree Pane, click the **Network** node to expand it.

2 Click **NetWare**. The **NetWare** page will open in the right pane (Figure 3.15).

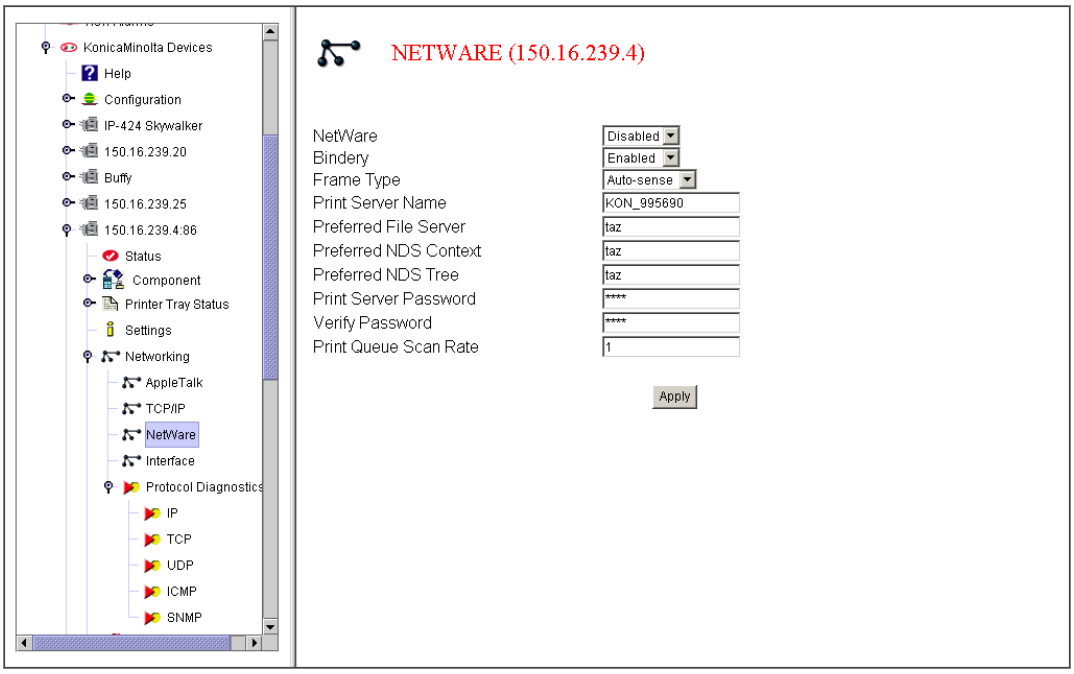

Figure 3.15: NetWare Page

3 In the **NetWare** field, click **Enabled** or **Disabled**, depending upon your preference.

4 Depending on the device, one of two different options will appear in the second position: **Bindery** or **Print Server Mode**. Instructions for both follow:

- In the **Bindery** field, click **Enabled** or **Disabled**, depending upon your preference.
- In the **Print Server Mode** field, select **NDS**, **Bindery** or **Both** from the drop-down menu.

5 In the **Frame Type** field, click a frame type to select it.

6 In the **Print Server Name**, **Preferred File Server**, **Preferred NDS Context** and **Preferred NDS Tree** fields, enter the appropriate names.

7 In the **Print Server Password** and **Verify Password** fields, enter the password for the print server.

8 In the **Print Queue Scan Rate** field, enter the interval (in seconds) at which queues are to be checked for jobs.

9 Click **Apply.**

Network Interface Information Page

This page provides facts about the network interfaces.

To display information about the network interface, follow this procedure:

1 In the Tree Pane, expand the device's node.

2 Click on **Network** to expand the node.

3 Click **Interfaces**. The **Interfaces** page will open in the right pane (Figure 3.16).

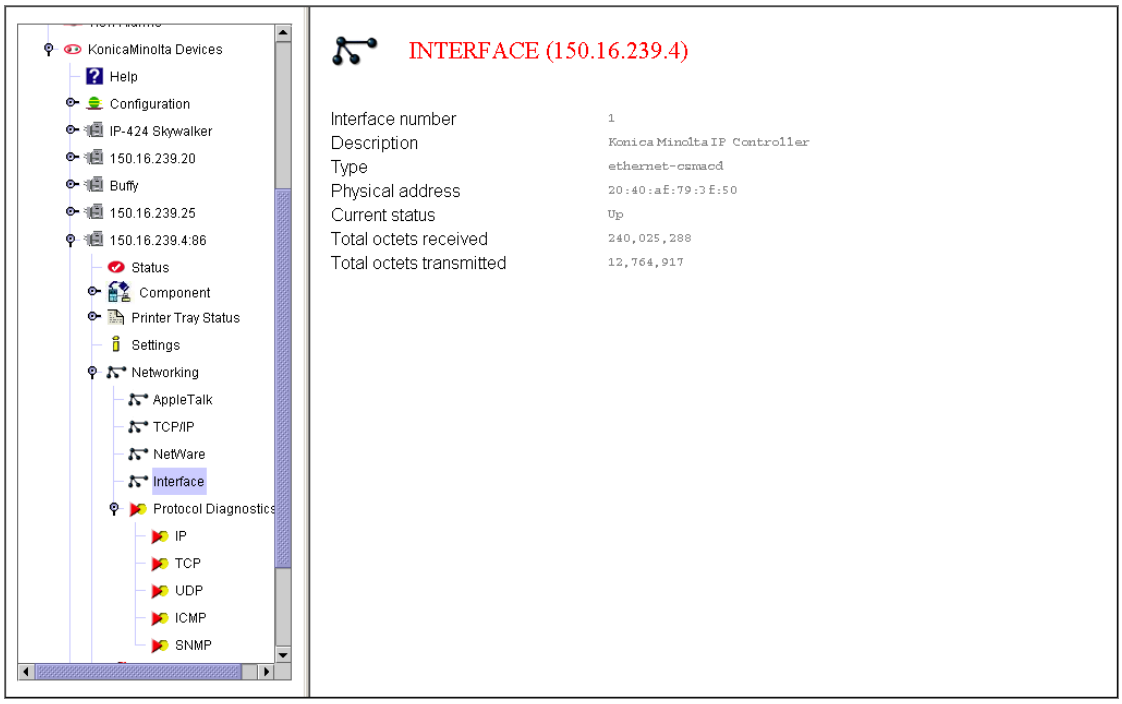

Figure 3.16: Interfaces Page

The following information appears on the **Interfaces** page:

Interface Number

The number of the interface

Description

Description of the interface

Type

Type of interface

Physical Address

Physical address of the interface

Current Status

Up or down

Total Octets Received

Total number of octets received

Total Octets Transmitted

Total number of octets transmitted

Protocol Diagnostics Node

This sub-node allows you to access diagnostic details about network settings and activities.

To display diagnostic details, follow this procedure:

1 In the Tree Pane, expand the device's node.

2 Click on **Network** to expand the node.

3 Click on **Protocol Diagnostics** to expand the sub-node.

4 Click on **IP**, **TCP**, **UDP**, **ICMP** or **SNMP** to access the required information.

Examples of each of these pages follows, in order to identify the information these pages provide.

IP Diagnostics Page

***Note**: Not all devices will display ARP Table Entries.*

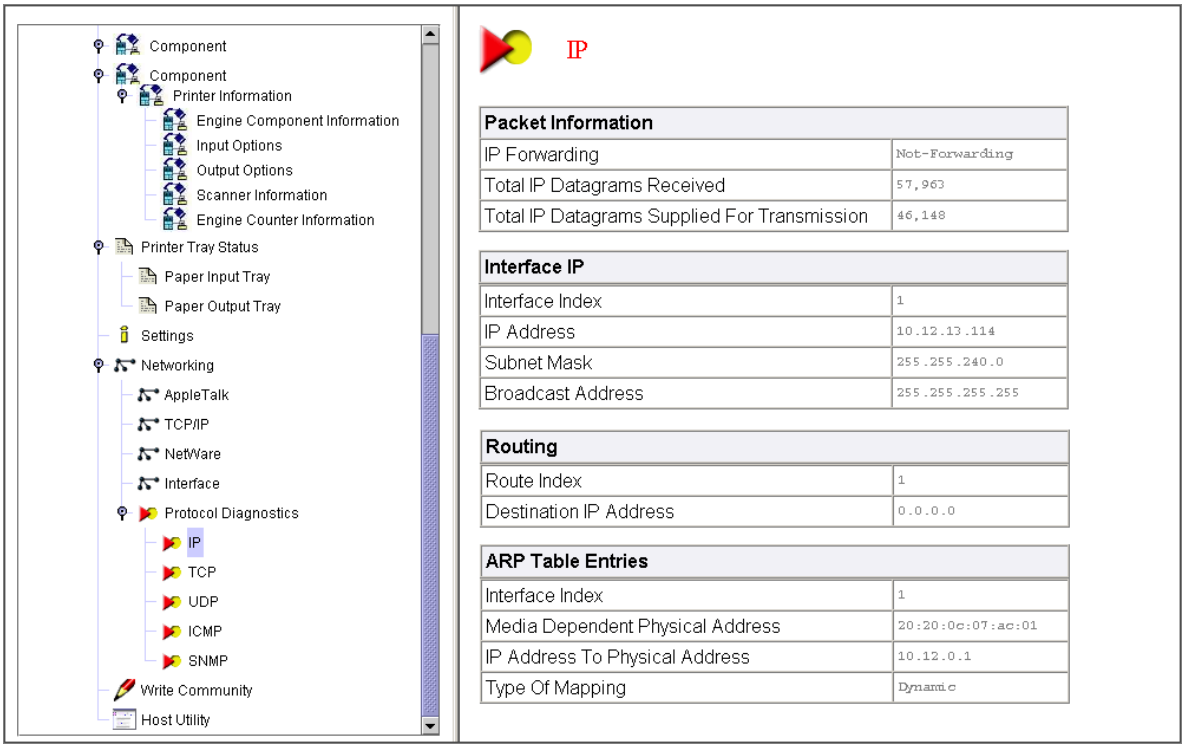

Figure 3.17: IP Diagnostics Page

TCP Diagnostics Page

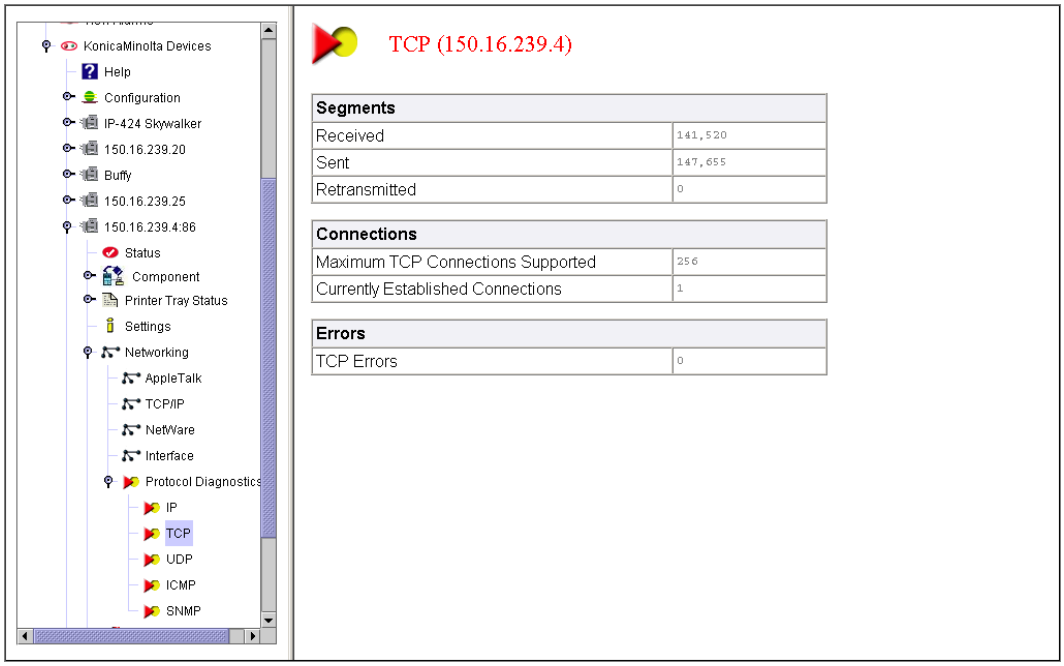

Figure 3.18: TCP Diagnostics Page

UDP Diagnostics Page

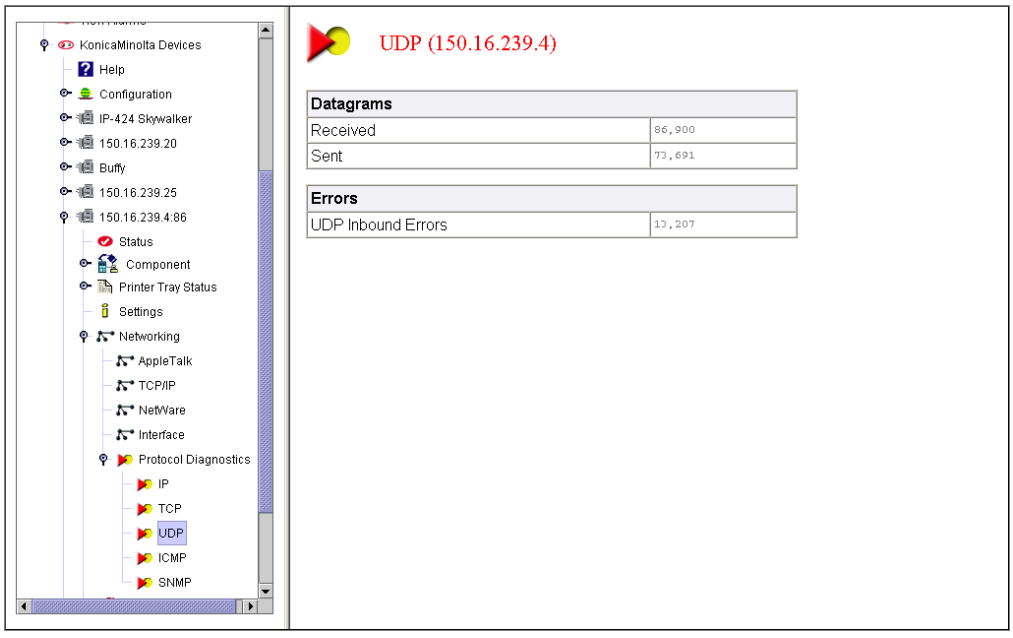

Figure 3.19: UDP Diagnostics Page

ICMP Diagnostics Page

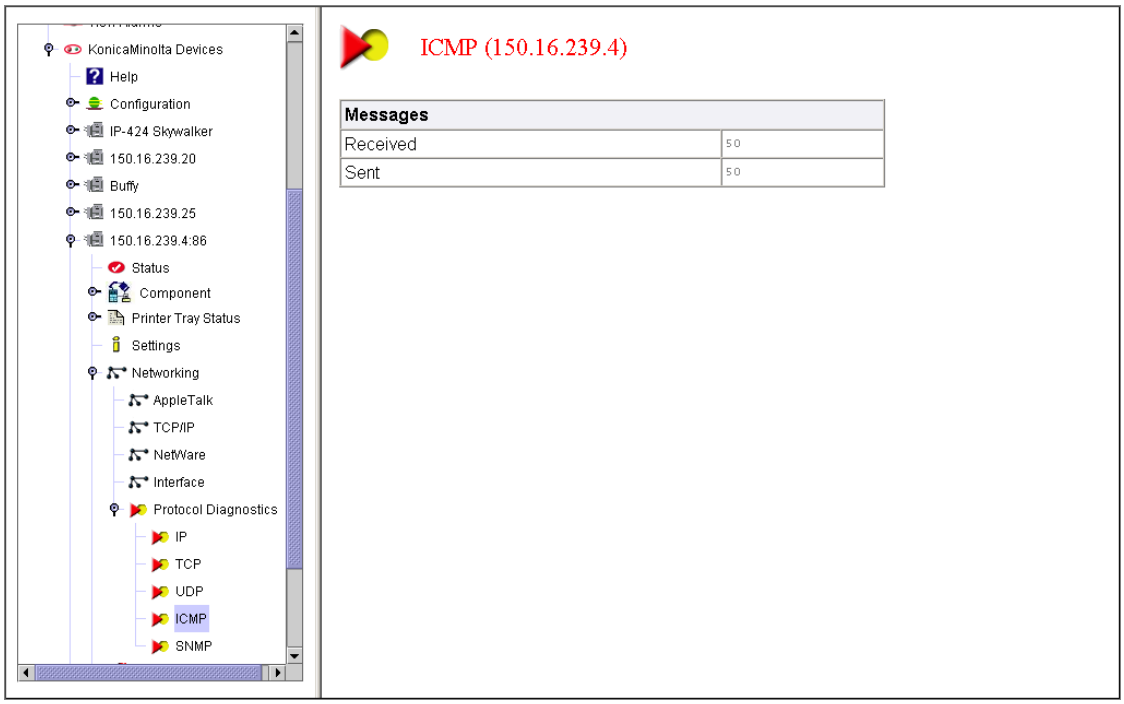

Figure 3.20: ICMP Diagnostics Page

SNMP Diagnostics Page

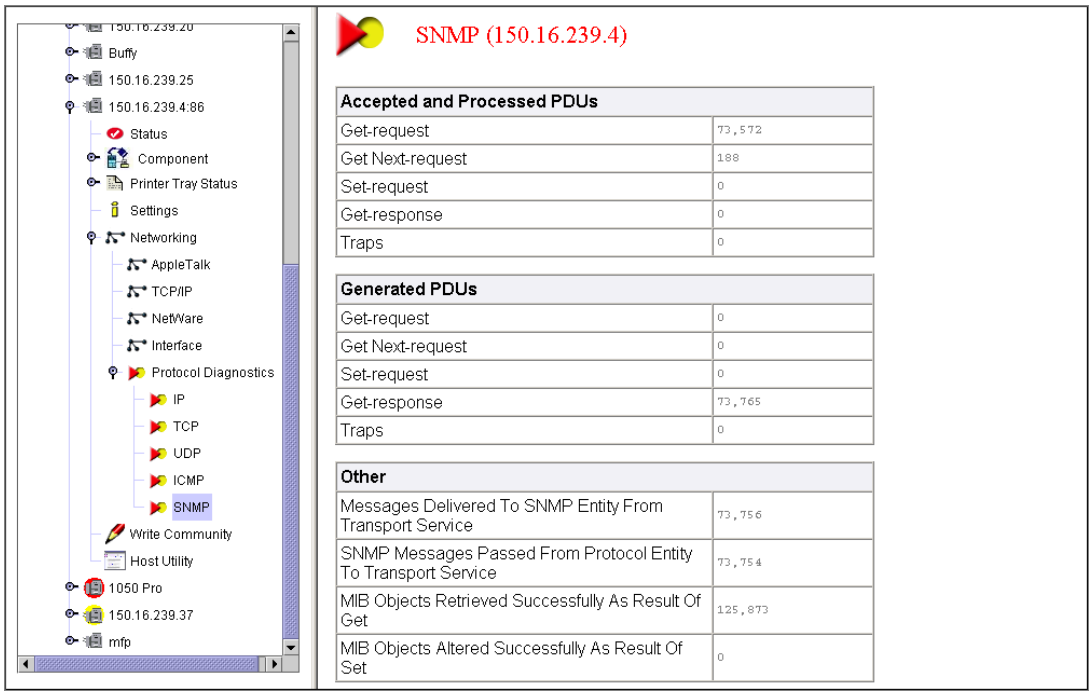

Figure 3.21: SNMP Diagnostics Page

Write Community Page

The **Write Community** string is used while writing SNMP data to a device. You must set it correctly in order to change any device information. This can be done from the **Write Community** page.

To set the device's **Write Community** string, follow this procedure:

1 In the Tree Pane, expand the device's node then click **Write Community**. The **Write Community** page will open in the right pane (Figure 3.22).

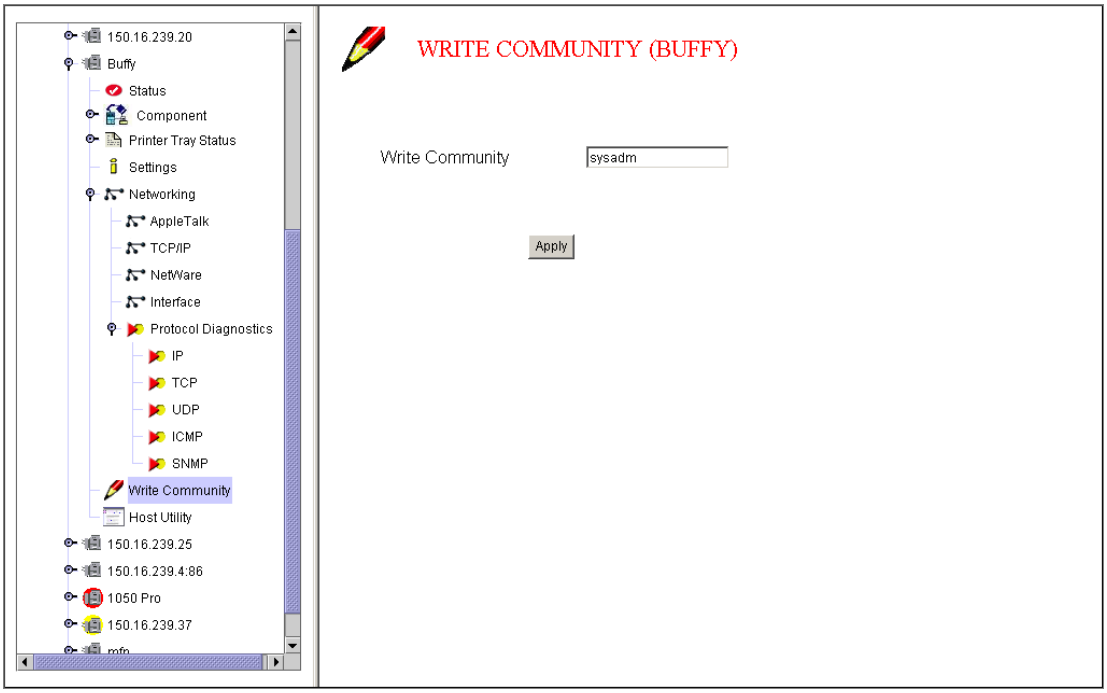

Figure 3.22: Write Community Page

2 In the **Write Community** field, select one of the following options:

a. If the Konica Minolta device is black and white, the default Write Community string **sysadm** should automatically appear in the field. If not, enter it.

b. If you have a Konica Minolta color machine, the default Write Community string **sysadm** cannot be used since it will then prevent you from seeing all the data on the **Settings** and **Networking** pages/nodes. If this occurs with a color printer, change the Write Community string to **public**. This should remedy any omitted data.

Note: *Read/Write privileges granted by the Write Community string may only work locally for color devices. In other words, any device changes you make will only be stored locally on the server. If you access MetaConsole from any other browser, the default settings will still apply.*

3 Click **Apply**.

Host Utility Page

When applicable, open this page to launch the device's embedded Web application. A web page provides the user with a more in-depth look at the selected device and may also allow the user to change some of the default settings, e.g., printing, finishing, scanning, etc.

To launch the Web application, follow this procedure:

1 In the Tree Pane, expand the device's node.

2 Click on **Host Utility**. A new window will launch. The **Host Utility** page will open in this window.

Appendix

A

Glossary

Glossary

Browser

Software that allows a user to view and read documents over the Internet or World Wide Web, e.g., Microsoft Internet Explorer and Netscape Navigator.

CA Unicenter

Computer Associate's comprehensive network management solution.

Configurations.txt File

Configuration of a MetaConsole server are governed by entries in this file.

Details Pane

In MetaConsole, the right pane of the display in which you enter configuration and function specifics.

DNS

Domain Name Service. A service that maps TCP/IP numbers to a name, e.g. 123.12.4.245 becomes www.Konica Minolta.com.

Firewall

A form of Internet security used to prevent unwanted traffic between a private network and the Internet.

HDD

Hard Disk Drive. A computerís hard drive.

HTML

Hyper Text Markup Language. A language used for creating documents that are accessed on the World Wide Web.

Internet

The global network of networks.

IP

Internet Protocol. The part of the TCP/IP protocol responsible for providing addressing and routing services.

IP Address

The specific address of a computer on a network that uses TCP/IP as its network protocol.

IP Controller

Image Processor Controller. The Engine that enables communication between a Konica Minolta device and a PC, either via a network or a direct connection.

JVM

Java Virtual Machine. A program that runs under an operating system and interprets Java programs.

LAN

Local Area Network. A small, isolated network of computers, usually located in one office.

LCT

Large Capacity Tray. A tray that holds multiple reams of paper.

LPT Port

Line Print Terminal Port. A 25-pin parallel port on a PC.

MB

Megabyte. Approximately one million bytes of data.

MetaConsole Snap-In

The front-end component that integrates with the console.

MetaConsole Server

The back-end component that communicates with both the MetaConsole clients and with the devices to be managed.

MetaConsole Service Providers

These contain the knowledge necessary to communicate with a managed device or service.

MIB

Management Information Base. When SNMP devices send SNMP messages to the management console, the information is stored in the MIB.

MMC

Microsoft Management Console. Microsoft's comprehensive network management solution.

Network

A group of interconnected computers that are able to transfer data back and forth.

Node

One computer / machine or address on a network. In MetaConsole, maps have nodes, some of which then have submaps and contain their own nodes. A node with no submap is a *terminal* node.

Octet

A group of eight bits, also called a byte.

OpenView Network Node Manager (NNM)

HP's comprehensive network management solution.

OS

Operating System. The software on a computer that enables the user to communicate with the hardware.

OVImp.properties File

Configuration of a MetaConsole client are governed by entries in this file.

RAM

Random Access Memory. The place on a computer where programs reside when they are running.

Server

A computer on a network that supplies data so that other computers may use it.

SNMP

Simple Network Management Protocol. A protocol used to manage network devices.

TCP

Transmission Control Protocol. The part of the TCP/IP protocol suite that ensures reliable task delivery of packets to destinations.

TCP/IP

Transmission Control Protocol/Internet Protocol. A catchall term used to describe the protocol suite upon which the Internet runs.

Tivoli NetView

IBM's comprehensive network management solution.

Tree Pane

In MetaConsole, the left pane of the display which contains configuration, service provider and functionality nodes.

WAN

Wide Area Network. A larger network that usually spans more than one office.

Windows NT

Microsoftís enterprise operating system.

XML

Extensible Markup Language. A language similar to HTML used for creating documents that are accessed on the World Wide Web.

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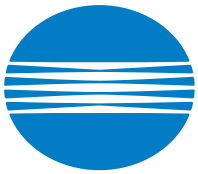

KONICA MINOLTA

http://konicaminolta.com