Release Notes for Nortel Enterprise Policy Manager

NØRTEL

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Contents

Release Notes for Enterprise Policy Manager version 4.1

These release notes apply to version 4.1 of the Nortel Enterprise Policy Manager[*] (EPM) product family, which includes the following products:

- EPM Policy Server
- EPM Interface Manager
- EPM Management Console
- iPlanet Directory Server 5.0
- EMANATE SNMP Agent

These release notes contain the following information:

Nortel product rebranding

Nortel transitioned to new names for many of its products over the course of 2004. The transition simplifies product naming in order to make it easier for customers to understand the Nortel product and services portfolio. Table 1 lists the names of rebranded Nortel products mentioned in this publication.

Table 1   Nortel product rebranding

Products formerly knowm as....	New Nortel Name
Optivity Policy Services (OPS)	Nortel Enterprise Policy Manager (EPM)
Passport 8600	Nortel Ethernet Routing Switch 8600
Passport 8300	Nortel Ethernet Routing Switch 8300
BayRS	Nortel Multiprotocol Router

Table 1   Nortel product rebranding

Products formerly knowm as....	New Nortel Name
Contivity	Nortel VPN Router
BayStack 5510	Nortel Ethernet Routing Switch 5510
BayStack 460/470	Nortel Ethernet Switch 460/470

Full details of the Nortel product rebranding process can be obtained from
http://www.nortel.com/products/announcements/rebranding/index.html#faqs.

New features in the EPM product family

Version 4.1 of the EPM product family introduces the following new features:

- Nortel product rebranding. For more information, refer to "Nortel product rebranding" on page 7.
- Support for the Ethernet Routing Switch 8600 version 4.0, including R module support. The R module introduces Deep Packet filter support, Layer 2 traffic condition support, traffic shaping support, and filter prioritization support.
- A newly-designed Deployment Status view replaces the old Server Reporting view. The Deployment Status view provides a dynamic display of server-device-role combination-policy relationships, as well as all information relating to policy deployment within the network, including status and error messages.
- Consolidation of Traffic Condition objects. The new Traffic Condition object combines the features of the old IP and 802 Traffic Condition objects.
- Consolidation of Shaper objects within Action objects. Traffic shaping now appears as a feature within Action objects.
- Support for Ethernet Routing Switch 8300 version 2.1, including communication through SSH.
- Support for Ethernet Routing Switch 5510/5520 version 4.1, including outbound traffic shaping.
- Incremental software support for all supported device families. For more information, refer to "Supported device software versions" on page 11.

Related publications

For a complete list of publications supplied with EPM, refer to "PDF documentation" on page 16.

Technical manuals

You can print selected technical manuals and release notes free, directly from the Internet. Go to the http://www.nortel.com/documentation URL. Find the product for which you need documentation. Then locate the specific category and model or version for your hardware or software product. Use Adobe Acrobat Reader to open the manuals and release notes, search for the sections you need, and print them on most standard printers. Go to Adobe* at the http://www.adobe.com URL to download a free copy of the Adobe Acrobat Reader*.

How to get help

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller for assistance.

If you purchased a Nortel service program, contact Nortel Networks Technical Support. To obtain contact information online, go to the www.nortel.com/cgi-bin/comments/comments.cgi URL, then click on Technical Support.

From the Technical Support page, you can open a Customer Service Request online or find the telephone number for the nearest Technical Solutions Center. If you are not connected to the Internet, you can call 1-800-4NORTEL (1-800-466-7835) to learn the telephone number for the nearest Technical Solutions Center.

An Express Routing Code (ERC) is available for many Nortel products and services. When you use an ERC, your call is routed to a technical support person who specializes in supporting that product or service. To locate an ERC for your product or service, go to the http://www.nortel.com/help/contact/erc/index.html URL.

EPM training

You can arrange for training courses in EPM. Visit the Global Knowledge Web site at http://get.globalknowledge.com/norteltraining/ and search on Enterprise Policy Manager for course information and scheduling.

System requirements

Table 2 lists the system requirements for EPM running on Windows. Table 3 lists the system requirements for EPM running on Solaris.

Table 2   System requirements for Windows

Product	Platform/Operating System	Software Dependencies	RAM	Disk Space
EPM Management Console[1]	Windows 2003 Server, Windows* 2000 Server, SP 4, Windows XP	Microsoft Internet Explorer 6.x or equivalent with Sun JRE 5.0	not applicable	not applicable
EPM Policy Server EPM Interface Manager	Windows 2003 Server, Windows* 2000 Server, SP 4	not applicable	256 MB	20 MB (executable size)
Directory Server (iPlanet)	NTFS file system Windows 2003 Server, Windows 2000 Server, SP 4	not applicable	256 MB	96 MB plus additional space for any support files

1 Microsoft* Internet Information Server (IIS) must be installed and running on the system on which you intend to install the EPM management console. IIS is available as an install option on the Windows install CD.

Table 3 System requirements for Solaris

Product	Platform/Operating System	Software Dependencies	RAM	Disk Space
EPM Management Console[1]	Solaris 2.8, 2.9	Netscape 7.x or equivalent with Sun JRE 5.0	not applicable	not applicable
EPM Policy Server EPM Interface Manager	Solaris 2.8, 2.9	not applicable	256 MB	20 MB (executable size)
Directory Server (iPlanet)	Solaris 2.8, 2.9	not applicable	256 MB	96 MB plus additional space for any support files

1 Apache Web Server* must be installed on the same system as the EPM Management Console files.

Supported device software versions

The EPM 4.1 release has been tested with the following device software versions:

Table 4 Supported device software in EPM 4.1

Device family	Supported software version
Ethernet Switch 460 and 470	BoSS 3.0, 3.1 (3.1.1 and later required for UBP support), 3.5, 3.6 Ethernet Switch 460 v 2.3, Ethernet Switch 470 v 2.2.1
Business Policy Switch	BPS v 2.5, BoSS 3.0, 3.1 (3.1.1 required for UBP support)
Ethernet Routing Switch 8300	v 2.0, 2.1
Ethernet Routing Switch 8600	v 3.2, 3.3, 3.5, 3.7, 4.0
Multiprotocol Router	v 15.x (up to 15.6)
Ethernet Routing Switch 5510 / 5520	v 3.0, 4.0, 4.1
VPN Router	v 4.8, 4.9, 5.0
Business Communication Manager	v 2.5, 3.0, 3.5, 3.6, 3.7

Obtaining a license for Enterprise Policy Manager

A 90-day license is supplied with EPM for installation, setup, and evaluation purposes. After this license expires, you will not be able to access EPM until you renew the license. To avoid this inconvenience, you should obtain a full license immediately after installation.

> **Note:** Ethernet Routing Switch 8600 and Ethernet Routing Switch 8300 devices require five licenses each. The base 250 device license for EPM supports 50 Ethernet Routing Switch 8600 or Ethernet Routing Switch 8300 devices.
> **Note:** After completing the licensing procedure (for a new license or an upgrade license) you must log out of EPM and log back in to make the new license take effect. You must also stop and re-start the EPM Policy Server and Interface Manager.

To obtain license keys for EPM, follow these steps:

1 Open your Web browser and go to the following URL:

http://www.nortel.com/ops_netidlicense

The EPM Licensing Web page appears.

2 Type your organization name, contact information, and address information in the appropriate fields.

You should copy the organization name from the Client Organization field in the Update Policy License dialog box.

3 Type the server key value in the Server Key field.

You should copy the server key from the Server Key field in the Update Policy License dialog box.

4 Type the serial number in the Serial Number field.

The serial number appears in the License Agreement supplied with the EPM CD package.

5 Click the Send button.

A license key and an expiry date are returned.

6 Type the new license key in the Policy License Key field in the Update Policy License dialog box.

7 Type the number of devices and the expiry date of the license in the appropriate fields in the Update Policy License dialog box.

If an expiry date of `00/00/0000` is returned, enable the Unlimited option button. Otherwise, enable the Expires On option button, and type the date in the field in the format *YYYY/MM/DD*.

8 Click OK.

Guidelines in EPM

This section describes issues you may need to consider when using EPM.

Telnet timeout value on CLI devices

The Telnet timeout value specified on CLI-accessed devices (Ethernet Routing Switch 8600, 8300, 5510, 5520, Multiprotocol Router, VPN Router) must be greater than 600 seconds. Nortel recommends 900 seconds (15 minutes) for the Telnet timeout value.

iPlanet patch level for Sun Solaris

In order to install the iPlanet directory server on Sun Solaris 8, it is essential that you have the correct iPlanet patch level installed. For information on checking your patch level (as well as other troubleshooting issues around iPlanet on Solaris) refer to the following link:

http://docs.sun.com/source/816-5602-10/trouble.htm

Device software for UBP functionality

In order for the EPM user-based policy (UBP) functionality to work in conjunction with Ethernet Routing Switch 8600 and Ethernet Switch devices, the devices must be running software that supports UBP functionality.

• For Ethernet Routing Switch 8600 devices, use version 3.7 software.

- For Ethernet Switch 460, 470, and BPS devices, use BoSS 3.1.1 (and later) software.

Microsoft Virtual Machine

As of January 2004, Microsoft stopped distributing and supporting the Microsoft Virtual Machine (VM) as part of the Microsoft Internet Explorer package.

EPM requires the Sun JAVA Runtime Environment (JRE) to run its management console. EPM 4.1 does not support the Microsoft VM, so you must install the Sun JRE on any system on which you intend to run the EPM management console, regardless of which browser you are using (Netscape or Internet Explorer).

The Sun JRE is included with a full install of the Netscape browser. It can also be obtained as a stand-alone application from the Sun Microsystems Web site, or from the EPM install CD (`\Auxiliary\JRE` directory). EPM auto-detects whether or not you have the Sun JRE installed on your system.

Migration of OPS 1-series or OPS 2-series data

There is no automatic process in place to migrate OPS 1-series or OPS 2-series objects into the EPM 4-series hierarchy. Contact Technical Support for details on migrating your OPS 1-series or OPS 2-series data into the EPM 4-series of products.

OPS 3-series data is directly compatible with the EPM 4-series product.

EPM 4.1 system guidelines

Performance of the EPM system and management console will vary based on the size and complexity of your administrative domain. The numbers presented below are intended as guidelines for deployment of EPM.

Category	Optimal	Maximum
COPS-PR devices per Policy Server	100 or less	1000
Multiprotocol Router devices per Policy Server	100 or less	1000

Category	Optimal	Maximum
Ethernet Routing Switch 5510 / 5520 devices per Policy Server	100 or less	1000
VPN Router devices per Policy Server	100 or less	1000
Ethernet Routing Switch 8600 devices per Policy Server	50	200
Ethernet Routing Switch 8300 devices per Policy Server	50	200
Roles per Policy Server	100 or less	500
Policies per Policy Server	100 or less	500
Traffic conditions per Policy Server	100 or less	500
Schedules per Policy Server	10 or less	100

- With regards to the number of devices per Policy Server, the figures that appear under the Maximum column are mutually exclusive. For example, if you have 1000 COPS-PR devices connected to a Policy Server, you cannot also have 1000 Multiprotocol Router devices connected to the same Policy Server.
- The maximum number of COPS-PR devices per Policy Server is a hard system limit and assumes the minimum hardware requirements for the Policy Server.
- The other categories are intended to be viewed as deployment guidelines. There are no software limits for these categories. If the recommended maximums are exceeded, performance of the system may be reduced.

Running EPM on non-English versions of Windows

EPM is tested only on English versions of Microsoft Windows. Nortel cannot guarantee the performance of the EPM product family on non-English versions of Windows.

Documentation

Documentation for EPM is available both online (through the management console) and in Portable Document Format (PDF). PDF documentation is available on the machine on which EPM is installed (in the *<EPM_home>/docs* directory).

Viewing online help

Viewing Web sites from an online Help window in Internet Explorer causes an error in the online Help system. If you want to go to a Web site during an online Help session, open a second Internet Explorer window. This is an issue with Internet Explorer only.

If you open an online Help topic and minimize the Web browser window, and then click another Help button, a new topic appears in the Help browser window, but the Web browser window remains minimized.

PDF documentation

The following table lists the EPM information available in PDF files.

Table 5 Documentation in PDF format

File Name	Manual Title	Product and Topics
installguide.pdf	*Installing Enterprise Policy Manager*	How to install the entire Enterprise Policy Manager product family.
policyguide.pdf	*Managing Policy Information in Enterprise Policy Manager*	The EPM user's guide. All procedures relating to the management console and policy management. How to use the EPM Policy Server.
relnotes.pdf	*Release Notes for Enterprise Policy Manager Version 4.1*	Release notes for Enterprise Policy Manager Version 4.1 (this document).
getstart.pdf	*Getting Started with Enterprise Policy Manager*	Basic introduction to EPM and sample policy implementations for new users.
ERS8600config.pdf	*Policy management on the Nortel Ethernet Routing Switch 8600 routing switch*	Device configuration information for policy management on the Ethernet Routing Switch 8600 device.

Table 5 Documentation in PDF format (continued)

File Name	Manual Title	Product and Topics
ERS8300config.pdf	*Policy management on the Nortel Ethernet Routing Switch 8300 routing switch*	Device configuration information for policy management on the Ethernet Routing Switch 8300 device.
ERS5510config.pdf	*Policy management on the Nortel Ethernet Routing Switch 5510*	Device configuration information for policy management on the Ethernet Routing Switch 5510 / 5520 device.
VPNConfig .pdf	*Policy management on the Nortel VPN Router*	Device configuration information for policy management on the VPN Router device family.
MultiProConfig.pdf	*Policy management on Multiprotocol Router devices*	Device configuration information for policy management on the Multiprotocol Router device family.
BPSConfig .pdf	*Policy management on the Nortel Ethernet Switch 460, Ethernet Switch 470, and Business Policy Switch*	Device configuration information for policy management on the Ethernet Switch 460, 470, and BPS devices.
CommServConfig. pdf	*Policy management on the Nortel Business Communication Manager*	Device configuration information for policy management on the Business Communication Manager.
UBP_setup.pdf	*Setting Up User-Based Policies with Enterprise Policy Manager*	Basic steps to set up a user-based policy (UBP) system using EPM, a RADIUS server, and a Nortel device which supports Extensible Access Protocol (EAP).

The PDF documentation can be accessed from the Windows Start menu of the machine on which the EPM Policy Server is installed.

Accessing device documentation

A complete set of documentation for the Business Policy Switch (BPS), Ethernet Switch 460 and 470, Business Communication Manager, Ethernet Routing Switch 8600, Ethernet Routing Switch 8300, VPN Router, Ethernet Routing Switch 5510 / 5520, and Multiprotocol Router devices, including configuration manuals, user manuals, release notes, and known anomalies, are available on the Nortel web site at:

http://www.nortel.com

Follow the link for Technical Documentation and then choose a device as the product family.

Troubleshooting

This section discusses commonly encountered problems in configuring and implementing the EPM product family. Solutions and/or workarounds are provided for each issue.

Device Import utility runs out of memory on large import

The Device Import utility has been shown to generate the following error when importing a large number of device interfaces:

```
Exception in thread "main" java.lang.OutOfMemoryError
```

This problem could be caused by the low default setting for the Sun Java Runtime Environment (JRE) maximum heap size. This setting is user-definable, using the –Xmx parameter.

➡ **Note:** You must have the Sun JRE installed on your system in order to apply this solution. The JRE is installed by default with Netscape Communicator. If you do not have Netscape installed (i.e., if you are running EPM through Microsoft Internet Explorer), you can obtain the Sun Java Plug-in from the Sun Microsystems website and install it as a stand-alone application.

To set the -Xmx parameter for the Device Import Wizard on Windows, do the following:

1 Open the Windows Control Panel and then launch the Java Plug-in.

2 In the Java Plug-in Control Panel, click the Basic tab and type the following in the Java Runtime Parameters field:

–Xmx<_mem_**>m**

Where **<*mem*>** is a number of megabytes of memory. For example, **-Xmx1024m** would allow the JRE to use 1024 megabytes for its heap.

3   If you are running EPM through Microsoft Internet Explorer, click the Browser tab and ensure that the Microsoft Internet Explorer check box is enabled.

4   Click the Apply button and close the Java Plug-in Control Panel.

When running the Device Import utility from the command line, you can add the -Xmx parameter at the beginning of the command string, right after the java command. In the following example, the JRE heap size is increased to 1024 megabytes for stage one of the device import process:

```
java -Xmx1024m -cp OPSdeviceimport31.jar
com.nortelnetworks.ops.deviceimport
-1 -na 10.10.10.5 -nn 80 -nu Administrator -np password
-o stage1Alone.xml -l errorLogFile.log
```

Non-authorized CLI devices appear as authorized on Policy Server

All CLI-accessed networking devices (such as the Passport 8600 and BayRS devices) that appear in the EPM management console will appear to be authorized on all Policy Servers, regardless of their authorization settings in the Devices Authorized on Policy Server dialog box.

This occurs because authorizations for CLI devices are set through Interface Managers (which, in turn, are authorized on one or more Policy Servers). The appearance of CLI devices in the Devices Authorized on Policy Server dialog box is not relevant.

Device Import utility - slow data extraction

In some cases, the Device Import utility may require a lengthy period of time to complete the data extraction stage of the import process. This is usually because a device or interface (as defined in the ENMS database) is unreachable through Telnet as a result of a configuration issue or a network connectivity problem. In

such cases, the Device Import utility pauses until the Telnet session times out, and then moves on to the next device. If the utility encounters the same problem with more than one device during a data extraction session, it could take a very long time for the data extraction stage to finish.

High SNMP Retries or Timeout settings result in slow performance

EPM features that make use of SNMP communication can perform very slowly if the SNMP Number of Retries and/or Timeout values (in the EPM user preferences) are set too high. The features that might be affected include the Device Import Wizard and the Device Status Reporting feature.

If there is a problem establishing an SNMP connection with a device *and* the SNMP Number of Retries and/or Timeout values are set too high, EPM could wait a very long time before abandoning the connection attempt. This could result in a long delay (possibly several minutes) in opening a Device Status dialog box, or during the Device Query stage of a Device Import process.

The default settings for SNMP Number of Retries and Timeout are zero (0) and 2000 ms, respectively. If you find it necessary to increase one or both of these values to compensate for slow network performance, you should be aware that doing so could result in slow performance in the above-mentioned features if there is a connection error with a device. A better solution to this problem might be to apply the "Mark SNMP Traffic as Network" policy to your devices, thereby ensuring high bandwidth for SNMP communications.

"Number of filters..." error message

You may encounter the following error message as you attempt to send policies to device interfaces:

```
The maximum allowable number of filters has been exceeded.
Possible reasons vary according to device type, interface
location, and/or filter type.
```

This message can appear for any of the following reasons, depending on the type of device you are working with:

All device types

- Maximum allowable number of filters for the filter table.
- Maximum allowable number of actions (including shaping or metering) for the device.

Business Policy Switch

- Maximum allowable number of filters for a source IP address or address range.

Ethernet Routing Switch 8600

- Maximum allowable number of filters per filterset: 8-global or 32-traffic
- Maximum allowable number of global filters per octapid (set of 8 interfaces): 8
- Maximum allowable number of filter sets (any type): 128
- Maximum allowable number of global filter sets: 100
- Maximum allowable number of filter sets per port: 32
- Maximum allowable number of filters per port: 1024
- Maximum allowable number of filters per device: 3071

You must refer to your device's documentation for up-to-date filter limit information.

Finding errors through logging

If you are encountering problems sending policy filters to your networking devices, you may find it useful to turn on the Logging feature in EPM. The Logging feature can track a variety of activities, involving the various components of EPM (Policy Server, Interface Manager, directory server, SNMP agent, management console).

You can turn on logging for the Policy Server or Interface Manager through its Properties dialog box (right-click the object in the management console and choose Properties from the menu). You can turn on management console logging through the User Preferences dialog box (accessed from the Edit menu in the management console).

Management console messages can be viewed through the Message Log window (accessed from the Tools menu). Policy server and Interface Manager messages are stored in the opspsd.log and opsimd.log files, respectively. These files are stored at the *<EPM_home>*\log\ directory on the system on which EPM is installed.

Users should be aware that the log files can grow to a considerable size over time if the Logging feature is left on. The Log File Rollover feature in EPM can be used to control log file size (for more information, refer to *Managing IP Addressing in Enterprise Policy Manager*).

Hardware changes on a policy-enabled device

Making hardware changes to a device that is enabled for policy management (for example, switching off and changing blades) will cause the Policy Server to generate errors when the device is disconnected. To avoid these errors, disable the device for policy management through EPM before making the hardware changes. After you have completed the hardware changes and reconfigured the device, you can re-enable the device for policy management.

➡ To disable a device for policy management, right-click its object in the EPM management console and then choose Disable For Policy Management from the menu.

➡ To enable a device for policy management, right-click its object in the EPM management console and then choose Enable For Policy Management from the menu.

Policy filters reappear on device after policy management disabled

If you disable policy management on a device that has the Save Device Configuration option enabled, all EPM policy filters are removed from the device's interfaces, but the policy filters will be re-added to the device's interfaces if the device is ever rebooted. This is because the device's configuration file retains the policy configuration that was in place before policy management was disabled. To avoid this situation, you must perform a Save Device Configuration function with no roles associated with the device's interfaces *before* you disable the device for policy management. This will save a policy configuration of no policy filters (except the default interface action) to the device's configuration file. After this is accomplished, you can disable the device for policy management.

Known Limitations and Considerations

Open issues

This section covers know issues and limitations with the 4.1 release of Enterprise Policy Manager. When applicable, workarounds are suggested for each issue. This section is organized under the following categories:

General/GUI issues

- (Q00785556) A new browser window is spawned every time a Help button is clicked. This could lead to several Help windows being open on the desktop at one time.

- (Q00885876) If policy management is disabled on a device, and all EPM policies are removed, a Save Device Configuration function cannot be completed to save this new configuration (with no EPM policy filters). However, if the roles are removed from the device's interfaces before the interfaces are deleted, policy management is still enabled and a Save Device Configuration command is possible. The new configuration is saved with only the default action and no EPM policy filters.

- (Q00774187) A cursor set on a modal dialog does not affect the cursor on the management console. If a modal dialog box is displaying an hourglass cursor (for example, during a long delete function), and you move back to the management console, the cursor will change back to a normal cursor, but the management console will not respond until the "hourglass" function is complete in the modal dialog box.

- (Q00771590) Device Import utility appears to have saved file to a read-only path, but did not. If you are running the Device Import utility from a Windows 2003 or Windows XP platform and specify a read-only folder on the Select Destination page, the utility will not be able to write to the folder, but you will receive no warning of this fact.

- (Q00765792) Message boxes and modeless windows (such as the Device Report window) are sent to the background when a tooltip is displayed in the management console.

- (136597-1) A user who logs in to the host on which the Policy Server is installed, but does not have administrative access privileges to that host, can start the Policy Server using the `opspsd -f` command. The same user would not be able to start the Policy Server from the Windows services window.

- (Q00075581) If the user performs a data export from iPlanet* using the iPlanet management console, all branches of the directory are locked. The EPM data cannot be modified (through the EPM management console) until the directory is unlocked.

  Workaround: Refer to the iPlanet documentation for information on unlocking the directory or reboot the system on which the directory server is running.

- (Q00083621) If you launch EPM locally in Netscape*, you may encounter the following error message:
  ```
  Cannot find file <file path> (or one of its components).
  ```
  If you click OK in the message window, the application should launch normally.

  Workaround: The Microsoft* support website has instructions on how to eliminate this problem at:
  http://support.microsoft.com/support/kb/articles/Q166/3/89.asp

- (Q00089738-01) The user may encounter the following message during a Windows installation of EPM:
  ```
  could not find entry point in MSVRT.dll
  ```
  This is followed by a message that the registry is in use. This does not represent a real problem to the install process. The user should reboot the system upon completion.

- (Q00247936, Q00247942) If you log into a Windows 2000 Server as a non-administrative user and attempt to install or uninstall EPM, you will encounter unexpected error messages.

On installation:

```
Setup has detected that unInstallShield is in use. Please
close unInstallShield and restart setup. Error 432.
```

On un-installation:

```
Unable to locate/process internal binary resource. Please
contact your software vendor.
```

- (Q00418343) If the user learns a COPS-PR device into the management console and configures it with a policy, then deletes the device without clicking the Deploy Changes button, and then re-creates the same device at a different location in the hierarchy, the device object appears in the management console as disconnected from the Policy Server. In spite of this, the actual device remains connected to the Policy Server and continues to receive policy configuration.

  Workaround: To correct the display error, the user must disable and then re-enable the device, or restart the Policy Server.

- (Q00432741) If a COPS-PR device is deleted from the EPM management console after it has been set as Denied on All Servers and has had its policy agent disabled, it continues to appear as "Denied" in the Server Reporting view for the duration of the Denied Client Expiration Time.

- (Q00572178) If you run the Filter Verification feature and then disable it, filter verification error messages are not cleared from the Device tree in the Server Reporting view. You can clear the messages for individual devices by right-clicking the device and choosing Refresh Branch from the menu.

Browser-related issues

- (Q00245740) When running the EPM management console through Netscape on Solaris, the user may occasionally encounter a situation in which the Common Desktop Environment (CDE) seizes. The user must kill the Netscape process remotely. The following Java exception message is generated:

```
java.lang.NullPointerException: trying to call virtual
method at sun.awt.motif.MpopupMenuPeer.disposeItems
(MPopupMenuPeer.java:109)
```

The problem cannot be reproduced consistently. It is under investigation by Netscape.

- (Q00245715) If a user runs the EPM management console through Netscape on Solaris, several operations can produce the following error message:

```
Netscape: subprocess diagnostics (stdout/stderr)

Name: scrollbar

Class: XmScrollBar

The scrollbar page increment is less than 1
```

  Workaround: For Solaris 2.8 and 2.9, you can use the following solution:

  Add the following lines to your .Xdefaults file in your home directory:

  Netscape*useStderrDialog: false

  Netscape*useStdoutDialog: false

  Then reboot the system, or use the xrdb command to load the new .Xdefaults file into the current environment.

- (Q00577632) The Device Report dialog box freezes when launched from a device object in the Show Authorized Devices dialog box for a Policy Server. This problem has been linked to a problem with the Java Runtime Environment (JRE). The problem should be fixed in a future release of the JRE. To close the dialog box, you must log out of the application and then log back in, *however* you can continue using the application without closing the dialog box.

Device-related issues

- (Q00949024) Inactive mode non-EPM filters are not reported in the Interface Report dialog box for ERS 8300 devices.
- (Q01113057) Meter action conflict on ERS 8600 R-module if E module meter action is different. If you are creating a metering action that specifies meter settings for both ERS 8600 pre-E, E and M modules, as well as ERS 8600 R modules, you must ensure that the action type is consistent between the two meters.
- (Q00925332) If you assign a policy that specifies multiple 802 User Priority values to a Ethernet Routing Switch 8300 device interface, the Filter Preview window in EPM will show a single filter on the interface. In fact, individual filters for each User Priority value are created on the interface.
- (Q00829828) The PRC Support table in EPM does not accurately report what is on a Ethernet Routing Switch 5510 device.

- (Q00845151) Ethernet Routing Switch 5510 telnet activity timer is not being reset by EPM keep-alive messages. After successfully deploying EPM filters to a Ethernet Routing Switch 5510 device interface, the device continues to re-attempt policy configuration on the interface. This does not happen in all cases.

- (140656-1) If more than 24 policies specifying the same source IP address or subnet are sent to a single BPS unit, the unit will not install the excess policies. A default source address of 0.0.0.0 is assigned to any policy that does not specify a source address in its traffic pattern. Therefore, if more than 24 policies with no source address specified are sent to a single BPS unit, the unit will not install the excess policies.

- (141370-1) After a cascade port is added to a BPS, it may return a class-provisioning error when it connects to the Policy Server.

  Workaround: The user should reset the BPS using the Reset to Default option.

- (Q00047383) If a Business Communication Manager is rebooted after receiving policy configuration from the Policy Server, the dynamic setting for Policy Agent may be disabled after the reboot. The solution to this problem is to increase the Retry Count and Polling Time settings on the Business Communication Manager unit.

- (Q00067831) If a client connects to a Policy Server on which it is not authorized, it will appear in the Server Reporting view under that Policy Server as a denied client. The Show Details command will display any possible authorized Policy Servers that are available (assuming there are any) in the Redirect field. The client should contact the authorized server to get its policy configuration.

- (Q00080764) If more than one policy is installed on a BPS unit with a priority value of 999, the BPS will report an error, stating that its priority table is full.

- (Q00283224) If a user opens a configuration session (through Telnet) with a Multiprotocol Router device using BCC, then exits BCC without closing config session, the user can then re-enter the config session even if a Policy Server has engaged the device in the meantime. The BCC user should receive a warning in this situation, but does not. Re-entering the configuration session through BCC breaks the connection with the Policy Server. The user does not have to use the `-force` command to re-enter the session. This problem is being investigated by the Multiprotocol Router group.

- (Q00288169) If a policy specifying more than 32 VLAN ID values (either as a range of values or as distinct values) is sent to a BPS unit, the unit will crash. This condition applies to some versions of BPS 2.0 software. As of version 2.0.5.12, the BPS has been verified to accept a maximum of 64 VLAN ID values.

- (Q00592987) The Device Report feature does not display packet matching statistics for BPS or Ethernet Routing Switch device interfaces with a metering action applied. It does, however, display statistics for octet matches.

- (Q00631280-01) It is not possible to send policy filters to an ISDN interface on a Multiprotocol Router device.

- (Q00644258) If you attempt to send policy filters to an interface that appears in the EPM management console but does not physically exist on the device, the device generates an error message, preventing configuration of the other interfaces on the device. This scenario could occur if the interface card fails or is removed from the device after the device reported the interface to EPM.

  Workaround: Determine which interface on the device is problematic, delete the non-existent interface object from the management console, and reload policies to the device.

- (Q00619388) After a number of Interface Manager restarts, a Multiprotocol Router device cannot load the BCC module because of a lack of memory available on the device. The shortage of memory appears to be due to a memory leak. This issue is related to the device software.

Server-related issues

- (136601-1) It is possible to run two instances of the same Policy Server application, starting one from the Services window and one from the command line. Avoid this scenario, as it will result in unpredictable policy behavior at the device level.

- (Q00423187) If the user deletes a device interface object through the EPM management console while the Interface Manager is not running, the associated policy filters are not deleted from the device. To delete the filters from the device, the user must restart the Interface Manager, relearn the interface, and then reconfigure the interface with a role. The user can then delete the interface object and the associated filters will be removed from the device.

- (Q00596142) Early releases of the Ethernet Routing Switch 460 (software version 2.3.0.02) may experience intermittent connections to the Policy Server if the number of installed policy filters on the device is close to the prescribed limits for the device.
- (Q00649574, Q00647694) If you rename a CLI device and then rename it a second time within the same dirsync cycle, the Interface Manager could detect two separate devices with the same IP address, neither of which would function properly.

  If, within the same dirsync cycle, you delete a CLI device and then create a new device with the same IP address but different policies, the Interface Manager detects the original device and the old policy set is reloaded.

Filter Import utility-related issues

- (Q00576180) If you import a policy filter from a Multiprotocol Router device that specifies a range of DSCP values, only one traffic condition (specifying the first value in the range) is created in association with the filter.

Issues resolved in EPM 4.1 series

This section lists issues and limitations that have been found by customers and corrected since the EPM 4.1 release:

- (Q01255721) - ERS 8600 (legacy) - Cannot create port range from 1 to 65535, inclusive. Fixed in build 1188.
- (Q01255727) - Invalid Shaper message reported when no shaper applied (related to Q01255721). Fixed in build 1188.
- (Q01247730-03) - Policy Server stops when COPS message is larger than 32 Kb. Fixed in build 1188.
- (Q01171863-01) – Can configure VLAN on pre-4.0 ERS 8600 under certain conditions. Fixed in build 1186.
- (Q01221843) - Migration problems with DPF when no name specified. Fixed in build 1186.
- (Q01230329) - Multi Update of Devices does not encrypt password/SNMP community string. Fixed in build 1186.
- (Q01230337) - Connection thread deadlock. Fixed in build 1186.

- (Q01197996) - Interface Manager stops after initial policy load. Fixed in build 1185.
- (Q01195208) - Solaris: EPM 4.1 install upgrade - passwords and SNMP strings encryption does not work. Fixed in build 1184.
- (Q01181535) - Interface Manager stops on configuring ERS 5520 stack with 288 interfaces. Fixed in build 1183.
- (Q01147127) - Can't manage ERS 5500 4.2.0.50+ devices. Interfaces not learned properly. Fixed in build 1183.
- (Q01273107) - Unable to establish Telnet session on ERS 8600 (R module) when using custom banner.