



Installation Guide for QoS Policy Manager on Windows

Software Release 4.0
CiscoWorks

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Preface

This manual describes how to install and set up CiscoWorks QoS Policy Manager.

Audience

This manual is for network architects and designers, network administrators, network management consultants, and integration partners.

To use QoS Policy Manager, you should have a basic understanding of network management, TCP/IP, and the configuration of your network.

Conventions

This document uses the following conventions:

Item	Convention
Commands and keywords	boldface font
Variables for which you supply values	<i>italic font</i>
Displayed session and system information	screen font
Information you enter	boldface screen font
Variables you enter	<i>italic screen font</i>
Menu items and button names	boldface font

Item	Convention
Selecting a menu item in paragraphs	Option > Network Preferences
Selecting a menu item in tables	Option > Network Preferences

**Note**

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

**Caution**

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Product Documentation

**Note**

We sometimes update the printed and electronic documentation after original publication. Therefore, you should also review the documentation on Cisco.com for any updates.

You can find product information, including documentation, at this URL on Cisco.com:

<http://www.cisco.com/en/US/products/sw/cscowork/ps2064/index.html>

[Table 1](#) describes the product documentation that is available.

Table 1 **Product Documentation**

Document Title	Available Formats
<i>Release Notes for CiscoWorks QoS Policy Manager 4.0 on Windows</i>	<ul style="list-style-type: none"> • PDF on the product DVD. • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_release_notes_list.html
<i>Release Notes for CiscoWorks QoS Policy Manager 4.0 on Solaris</i>	<ul style="list-style-type: none"> • PDF on the product DVD. • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_release_notes_list.html
<i>Quick Start Guide for CiscoWorks QoS Policy Manager 4.0</i>	<ul style="list-style-type: none"> • Printed document included with the product. • PDF on the product DVD • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_installation_guides_list.html
<i>Installation Guide for QoS Policy Manager 4.0 on Solaris</i>	<ul style="list-style-type: none"> • PDF on the product DVD. • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_installation_guides_list.html
<i>Installation Guide for QoS Policy Manager 4.0 on Windows</i>	<ul style="list-style-type: none"> • PDF on the product DVD • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_installation_guides_list.html
<i>Getting Started Guide for CiscoWorks QoS Policy Manager 4.0</i>	<ul style="list-style-type: none"> • PDF on the product DVD and from the CiscoWorks QoS Policy Manager online help. • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_installation_guides_list.html

Table 1 **Product Documentation (continued)**

Document Title	Available Formats
<i>User Guide for CiscoWorks QoS Policy Manager 4.0</i>	<ul style="list-style-type: none"> • PDF on the product DVD and from the CiscoWorks QoS Policy Manager online help. • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/products_user_guide_list.html
<i>Readme for CiscoWorks CS 3.0.5 with QoS Policy Manager 4.0</i>	<ul style="list-style-type: none"> • PDF on the product DVD • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/prod_installation_guides_list.html
<i>Supported Devices for CiscoWorks QoS Policy Manager 4.0</i>	<ul style="list-style-type: none"> • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps2064/products_device_support_tables_list.html
Context-sensitive Online Help	<ul style="list-style-type: none"> • Select an option from the navigation tree, then click Help. • Click the Help button in the dialog box.

Related Documentation



Note

We sometimes update the printed and electronic documentation after original publication. Therefore, you should also review the documentation on Cisco.com for any updates.

[Table 2](#) describes the related documentation that is available.

Table 2 **Related Documentation**

Document Title	Available Formats
<i>Installation and Setup Guide for CiscoWorks Common Services 3.0.5 on Windows</i>	<ul style="list-style-type: none"> • PDF on the QPM 4.0 DVD. • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps3996/prod_installation_guides_list.html
<i>Installation and Setup Guide for CiscoWorks Common Services 3.0.5 on Solaris</i>	<ul style="list-style-type: none"> • PDF on the QPM 4.0 DVD • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps3996/prod_installation_guides_list.html
<i>User Guide for CiscoWorks Common Services 3.0.5</i>	<ul style="list-style-type: none"> • PDF on the QPM 4.0 DVD • On Cisco.com at: http://www.cisco.com/en/US/products/sw/cscowork/ps3996/products_user_guide_list.html

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>



CHAPTER 1

Overview of QPM 4.0

This chapter contains the following topics:

- [What is QPM?, page 1-1](#)
- [Preparing to Install QPM, page 1-2](#)
- [Further Resources, page 1-8](#)

What is QPM?

QoS Policy Manager (QPM) lets you analyze traffic throughput by application or service class, and then leverage that information to configure QoS policies. This allows you to differentiate traffic and define the QoS functions to be applied to each type of traffic flow.

By simplifying QoS policy definition and deployment, QPM makes it easier for you to create and manage end-to-end differentiated services in your network, thus making more efficient and economical use of your existing network resources.

For example, you can deploy policies that ensure that your mission-critical applications always get the bandwidth required to run your business.

QPM is suitable for large-scale enterprise deployments, and IP telephony deployments, consisting of hundreds or thousands of devices.

QPM helps you to manage large networks by providing advanced user authorization capabilities through integration with Cisco Access Control Server (ACS).

QPM runs on the CiscoWorks Common Services server. CiscoWorks Common Services provides the infrastructure required by QPM to run from the CiscoWorks desktop environment. It allows you to manage user roles and privileges, and control user access to specific tasks in QPM.

QPM stores policy and device information in a relational database. Reports generated by QPM are stored separately as XML files. Monitoring task data is also stored separately.

QPM uses the CiscoWorks Common Services server to backup all application data. All QPM application data can also be exported to a destination folder for migrating from one QPM server to another.

Preparing to Install QPM

Before you install QPM, review the installation prerequisites and available installation paths to prevent problems during installation.

- [Hardware and Software Requirements, page 1-2](#)
- [Installation Prerequisites, page 1-6](#)
- [Installation Paths, page 1-7](#)

Hardware and Software Requirements

[Table 1-1](#) shows the hardware and software requirements for the QPM server.

If the server does not meet the recommended system requirements, QPM startup and performance might be slow, or QPM might not work at all on the server.

Table 1-1 Server Hardware and Software Requirements

Processor	<p>The processor requirement depends on the number of devices being monitored by QPM. This further further depends on the license (or the combination of licenses) you purchased for QPM.</p> <ul style="list-style-type: none"> • For around 2500 devices—2.8 GHz Intel Pentium IV or 2.8 GHz Intel Xeon processor • For around 10000 devices—Dual 2.8 GHz Intel Pentium IV or Dual 2.8 GHz Intel Xeon processor.
Monitor	Monitor with display set to High Color (16 Bit)
Memory (RAM)	<ul style="list-style-type: none"> • For around 2500 devices—2 GB RAM • For around 10000 devices—4 GB RAM
Virtual memory	<ul style="list-style-type: none"> • Double the amount of RAM
Available disk drive space	<ul style="list-style-type: none"> • A minimum of 9 GB. <p>CiscoWorks Common Services 3.0.5 requires 2 GB free disk space, therefore ensure that you have a minimum of 9 GB free disk space before you install CiscoWorks Common Services 3.0.5.and QPM.</p> <p>The available disk space required also depends on the tasks you want to do in QPM. The following are the recommendations:</p> <ul style="list-style-type: none"> • For around 2500 devices—40 GB • For around 10000 devices—80 GB

Table 1-1 **Server Hardware and Software Requirements (continued)**

Software ¹	<p>Any of the following:</p> <ul style="list-style-type: none"> • Windows 2000 Professional with SP3 or SP4 • Windows 2000 Server with SP3 or SP4 • Windows 2000 Advanced Server with SP3 and SP4 • Windows 2003 Server (Standard and Enterprise versions) • Windows 2003 Server Standard Edition with SP1 • Windows 2003 Server Enterprise Edition with SP1 • Windows 2003 R2 Server (Standard and Enterprise versions) • Windows 2003 Server Standard and Enterprise Editions with SP2 • Windows 2003 R2 Server Standard and Enterprise Editions with SP2
Browser (optional)	<p>One of the following:</p> <ul style="list-style-type: none"> • Microsoft Internet Explorer 6.0 with Service Pack 2 • Netscape 7.1

1. Common Services 3.0.5 supports only US-English and Japanese versions of Windows Operating Systems. It does not support any other language version. Installation might proceed normally in other locales but there might be problems in the functionality of CiscoWorks.

Table 1-2 shows the requirements for client systems.

Table 1-2 **Client Requirements**

System hardware and software	<ul style="list-style-type: none"> • Any of these systems: <ul style="list-style-type: none"> – IBM PC-compatible computer with 1GHz Pentium IV processor, running Windows – Sun UltraSPARC IIIi, running Solaris 8 or Solaris 9 • Monitor with display set to High Color (16 Bit) • Any of the following OS <ul style="list-style-type: none"> – Windows 2000 Professional with Service Pack 3 or Service Pack 4 – Windows 2000 Server with Service Pack 3 or Service Pack 4 – Windows 2000 Advanced Server with Service Pack 3 or Service Pack 4 – Windows XP SP1 – Windows XP SP2 – Windows 2003 Server and Enterprise Edition – Windows 2003 Server and Enterprise Edition with Service Pack 1 – Windows 2003 R2 Server (Standard and Enterprise versions) – Windows 2003 Server Standard and Enterprise Editions with SP2 – Windows 2003 R2 Server Standard and Enterprise Editions with SP2 – Solaris 8 or Solaris 9
------------------------------	--

Table 1-2 **Client Requirements (continued)**

Memory(RAM)	<ul style="list-style-type: none"> • 512 MB
Browser	<p>Any of these browsers:</p> <p>On Windows and Windows XP clients:</p> <ul style="list-style-type: none"> • Microsoft Internet Explorer 6.0 (version 6.0.2600) • Internet Explorer 6.0 with Service Pack 1 (version 6.0.2800) • Internet Explorer 6.0 with Service Pack 2 (version 6.0.2900) for Windows XP • Internet Explorer 6.0 with Service Pack 1 (version 6.0.3790.1830) for Windows 2003 R2 • Netscape Navigator 7.1 <p>On Solaris clients:</p> <ul style="list-style-type: none"> • Netscape Navigator 7.0 for Solaris 8 and Solaris 9

Installation Prerequisites

We recommend that you use a dedicated server for QPM for maximum performance.

If you cannot use a dedicated server for QPM, you can install QPM on a Common Services server with LAN Management Solution (LMS) 2.6.

Prerequisites for Installing QPM

Before you install QPM, ensure that:

- The machine on which you are going to install QPM meets the requirements for running QPM. See [Hardware and Software Requirements, page 1-2](#).
- CiscoWorks Common Services 3.0.5 must be installed on the machine before you begin to install QPM.

The QPM installation DVD contains Common Services 3.0.5 installation files. For more information, see [Chapter 2, “Installing and Uninstalling QPM.”](#)

- Set the desktop display to High Color (16 Bit). You can set the color depth under **Display Properties > Settings** on your desktop.

Prerequisites for Installing Common Services

Before you install CiscoWorks Common Services, note the following:

- Do not install CiscoWorks on a system that is configured as a primary or backup domain controller.
- Do not install CiscoWorks on Advanced Server with terminal services enabled in application server mode.
- Do not install CiscoWorks on a FAT file system.
- Do not install CiscoWorks on Windows XP server.

Installation Paths

If you have other CiscoWorks products installed on your server, review the information in [Table 1-3](#) to determine the installation path required for QoS Policy Manager to successfully operate.

Table 1-3 *Recommended Installation Paths*

If You are Installing QoS Policy Manager on a System That...	Then You Must...
Has no other CiscoWorks products	Install (from the QPM 4.0 DVD): <ol style="list-style-type: none"> 1. Common Services 3.0.5 2. QoS Policy Manager 4.0
Has LMS 2.6	Install QoS Policy Manager 4.0 (from the DVD)

Table 1-3 Recommended Installation Paths (continued)

If You are Installing QoS Policy Manager on a System That...	Then You Must...
Has QPM 3.1 with Common Services 1.0	<ol style="list-style-type: none"> 1. Export the QPM 3.1 database and configuration information if you want to use it in your QPM 4.0 installation. For this, you must use the export utility available in the QPM4.0 DVD. 2. Uninstall QPM 3.1 3. Upgrade to Common Services 3.0.5 4. Install QoS Policy Manager 4.0 5. Import the QPM 3.1 database and configuration.
Has QPM 3.2 or 3.2.x with Common Services 2.2	<ol style="list-style-type: none"> 1. Install Common Services 3.0.5 2. Install QoS Policy Manager 4.0 <p>The QPM 3.2 or 3.2.x database and configuration information is migrated automatically.</p>

Further Resources

For further information see the following:

- For information on installing CS 3.0.5 and QPM 4.0, see [Chapter 2, “Installing and Uninstalling QPM.”](#)
- For information on upgrading from QPM 3.1, QPM 3.2, or QPM 3.2.x, and the QPM export and import utilities, see [Chapter 4, “Upgrading and Migrating QPM.”](#)



CHAPTER 2

Installing and Uninstalling QPM

This chapter contains the following topics:

- [Ports Used by QPM, page 2-1](#)
- [Order of Installation on Windows, page 2-2](#)
- [Installing Common Services on Windows, page 2-2](#)
- [Installing the CS DST Patch on Windows, page 2-7](#)
- [Installing QPM on Windows, page 2-7](#)
- [Uninstalling QPM on Windows, page 2-9](#)
- [Verifying QPM Installation, page 2-11](#)
- [Re-installing QPM, page 2-11](#)

Ports Used by QPM

QPM on Windows uses the following ports, in addition to the ports used by CiscoWorks Common Services:

- 51099—JNDI lookup port
- 51199—JRMP lookup port
- 51299—Admin page port
- 43460—Database port

- 49156—EMS database port
- 51399—PDP port
- 61162—SNMP port for RMON traps

For information about the ports used by CiscoWorks Common Services, see the Installation and Setup Guide for Common Services 3.0.5 (Includes CiscoView) on Windows.

You can also go to:

http://www.cisco.com/en/US/products/sw/cscowork/ps3996/products_installation_guide_chapter09186a00806ab7ee.html

Order of Installation on Windows

The CiscoWorks Common Services and QPM applications must be installed in the following order:

1. CiscoWorks Common Services 3.0.5
2. Common Services DST patch for Windows
3. QoS Policy Manager 4.0

Installing Common Services on Windows

For information regarding the prerequisites for installing Common Services 3.0.5, see [Installation Prerequisites, page 1-6](#).

Installation Notes for Common Services 3.0.5

You should take note of the following points before you install Common Services 3.0.5:

- Close all applications before running Common Services installation.
- Run the installation from a local DVD or a local hard drive to avoid errors due to slow network performance.
- Install Common Services on a system that has a static IP address.

- Ensure that Windows Management Instrumentation (WMI) services are not running. If they are running they may lock some CiscoWorks processes and may terminate the installation.
- Ensure that the IIS services are disabled. If IIS services are enabled, the application cannot be installed.
- Do not install Common Services and CiscoSecure Access Control Server (ACS) on the same machine. This is because ACS mandates CiscoWorks to be configured as an AAA client in it for CiscoWorks to avail AAA service.
- At the same time, you cannot configure ACS as an AAA client as required when ACS and CiscoWorks co-exist. Hence the configuration required for ACS integration will fail.
- Disable the virus scan software on your system. You can restart it after installation is complete.
- Disinfect your system and end any Internet Explorer processes that are not responding. If you run the Common Services installer or uninstaller on a system that is infected with a virus or has an Internet Explorer process that has stopped responding, the installation or uninstallation process might stop unexpectedly.
- If you are running HP OpenView Network Node Manager or NetView, the installation might take significantly longer to complete. Stop all HP OpenView Network Node Manager or NetView services before installing Common Services.
- If your system does not have enough disk space, you will see an error message that the installation system is running out of disk space. You can choose to abort the installation and free up some disk space on the system and restart the installation, or click Cancel to exit the installation.
- Do not select an encrypted directory. Common Services does not support directory encryption.
- Do not install from a Network Drive as this will take a longer time to install CiscoWorks applications

Installing Common Services 3.0.5.

To install Common Services 3.0.5 on Windows:

-
- Step 1** Insert the QPM 4.0 DVD into the DVD drive.
- Step 2** Select **Start>Run**, and enter
`d:\QPM4_0\CS_3_0_5_installation\Windows_K9\CS_3_0_5_K9.exe`,
where *d* is your DVD drive.
- The Installer window appears
- Step 3** Click **Install** to continue.
- The Welcome screen appears.
- Step 4** Click **Next** to continue.
- The Software License Agreement dialog box appears.
- Step 5** Click **Accept** to accept the license agreement and proceed with the installation
or
Click **Do Not Accept** to deny the agreement and stop the installation,
- If you select **Accept**, and continue with the installation, the installation program checks the name lookup and Dynamic Host Configuration Protocol (DHCP).
 - If static IP address is not configured on your system, the DHCP-Enabled Network Adapters dialog box appears. Click **Yes** to continue installation.
- The Setup Type dialog box appears.
- Step 6** Click **Next** to continue after you select the desired installation mode as Typical.
- The installation program checks dependencies and component requirements.
- The System Requirements dialog box appears with the system requirements, available space in the drive and Temp Directory (%TEMP%), and available memory.

- If your system does not meet the requirements, a warning appears:
System memory is less than the minimum requirement, which may affect performance.
- If the drive does not have enough space, an error message appears:
There is not enough space in drive drive name.
Please free some space on drive name.
- If your system does not have the minimum CPU speed, a warning appears:
Warning: Current CPU speed is less than the minimum requirement, which may affect performance.
- If your system does not have the minimum swap space, a warning appears:
Warning: Current swap space is less than the minimum requirement, which may affect performance.

Step 7 Click **Next** to continue installation.

The Change Admin Password dialog box appears.

Step 8 Enter the user admin password and confirm it.

Step 9 Click **Next** to continue installation.

The Change System Identity Account Password dialog box appears.

Step 10 Enter the System Identity Account password and confirm it.

In a multi-server environment, you must configure all systems part of your multi-server setup with the same System Identity Account password.

Step 11 Click **Next** to continue installation.

If you are installing Common Services 3.0.5 on a system for the first time, the Create casuser dialog box appears after you enter the System Identity Account password.

- Click **No** to exit the installation and create casuser yourself and rerun the installation. Casuser is the user who administers and maintains CiscoWorks Server, without having administrative privileges.
- Click **Yes** to allow the installation program to create the local user casuser.
If you select **Yes** and continue with the installation, the Summary dialog box appears, displaying the summary of settings for the installation.

- If you want to view passwords and other security sensitive data, click **Show Details**. The Show Details button is visible only if Common Services has been installed as one of the options.

If you click Show Details, the Security Alert dialog box appears.

- Click **Yes** in the Security Alert dialog box to view the Summary page with the passwords and other security sensitive data.

You can select and copy the data from the Summary page.

- Click **Hide Details** to hide the details.

If you want to change any settings, click **Back**.

Step 12 Click **Next** to continue.

The installation proceeds.

If you are installing from a network drive, the installation might take longer to complete. This happens especially for CiscoView device packages.

The Restart dialog box appears after installation completes.

Step 13 Select **Yes** and click **Finish**.

Your Windows machine has CS 3.0.5 installed successfully.

For more information on installing Common Services 3.0.5 on Windows, see the Installation and Setup Guide for Common Services 3.0.5 (Includes CiscoView) on Windows.

You can also go to:

http://www.cisco.com/en/US/products/sw/cscowork/ps3996/products_installation_guide_chapter09186a00806ab7ee.html

Installing the CS DST Patch on Windows

The Common Services Daylight Saving Time (DST) patch will update the JRE and JPI that are shipped with Common Services. The DST patch can be installed on a server that has CS 3.0.5 already installed.

QPM 4.0 product DVD contains the CS DST patch as an executable called **cwdst3_0_x_win_k9.exe**, in the folder *QPM4_0\US_DST_Patch\cwdst3_0_x_win_K9*. You can directly run this installation program, without the need to download and unzip the CS DST patch from Cisco.com

Please refer the pdf file *cwdst3_0_x_win.readme.pdf* in the same folder, to know more about performing the DST patch installation on Windows.

Installing QPM on Windows

QPM is automatically installed in the CiscoWorks Common Services installation folder. The default location is *SystemDrive:\Program Files\CSCOpX*, where *SystemDrive* is the Windows operating system installed directory.

The installation process also copies the QPM 4.0 export and import utilities to the QPM server. For more information about these utilities, see [Chapter 4, “Upgrading and Migrating QPM.”](#)

Before You Begin

- Ensure that CiscoWorks Common Services 3.0.5 is installed on your computer before you begin to install QPM.
- Verify the TCP ports that QPM uses and check for conflicts with existing applications. See [Ports Used by QPM, page 2-1](#).
- If you are upgrading from QPM 3.2 or QPM 3.2.x, see [Chapter 4, “Upgrading and Migrating QPM.”](#)

To install QPM 4.0 on Windows:

-
- Step 1** Insert the QoS Policy Manager DVD into your DVD drive.
- We recommend that you do not install QPM from a network DVD drive.

- Step 2** Select **Start>Run**, and enter
`d:\QPM4_0\QPM_4_0_installation\windows_K9\QPM_4_0_K9.exe`,
where *d* is your DVD drive.
The Installer window appears.
- Step 3** Click **Install** to continue.
The Welcome window appears.
- Step 4** Click **Next** to continue.
The Software License Agreement window appears.
- Step 5** Click either:
- **Yes** to accept the license agreement and proceed with the installation,
- Or
- **No** to deny and stop the installation.
- The System Requirements window appears.
- Step 6** Check whether your system meets the requirements and click **Next** to continue.
The Summary window appears with the summary of settings for the installation.
- Step 7** Click **Next** to continue.
The Licensing Information dialog box appears (Please minimize all other windows if you do not find this dialog box).
- If you have a license for QPM, click **License File Location** and specify the location of the license file.
 - If you want to evaluate the product before purchasing a license, click **Evaluation Only**.
- Step 8** Click **Next** to continue.
The Details of Licenses Installed popup appears.
- Step 9** Click either:
- **Yes** if you want to add incremental license packs,
- Or
- **No** if you have completed adding licenses.
- The Setup Complete window appears.

Step 10 Click **Finish** to complete the installation.

You must restart your computer before you begin to work with QPM. The QPM services start automatically whenever you start your computer.



Note Remove the QPM DVD before you restart your computer.

Notes

- Before you begin to work with QPM, ensure you have the correct user permissions. If you intend to work with ACS device groups and user permissions, configure settings in ACS and CiscoWorks as described in [Chapter 3, “Setting Up the QPM Server.”](#)
- After setup is complete, verify the QPM installation. See [Verifying QPM Installation, page 2-11](#) for details.
- If you encounter problems while installing QPM, stop the installation and reinstall the product using the QPM 4.0 installation DVD. Also see [Appendix A, “Troubleshooting QPM Installation.”](#)

Uninstalling QPM on Windows

Uninstalling QPM does not remove your deployed policies from the network devices.



Note The license details will get deleted during QPM 4.0 uninstallation. You should add the license file again during the subsequent installation.

If you want the current QPM 4.0 application data to be used after uninstallation, you should run the export.pl utility before you proceed with the uninstallation. See [Exporting QPM Application Data, page 4-5](#) for details.

To uninstall QPM you can use either of these two methods:

Method 1

Step 1 Select **Start > Programs > Cisco QoS Policy Manager> Uninstall CiscoQoS Policy Manager**.

The Uninstalling Cisco QoS Policy Manager window appears.

Step 2 Deselect all checkboxes except QoS Policy Manager, in the list of applications

Step 3 Click **Change/Remove**.

The QPM uninstallation process starts, and QPM is removed from your computer.

Step 4 Restart your computer.

Step 5 Ensure that the QPM directory under the CiscoWorks Common Services install directory, that is, *Common Services-install-directory\MDC\qpm*, has been completely deleted.

Method 2

Step 1 Select **Start > Settings > Control Panel > Add/Remove Programs**.

The Add/Remove Programs window opens.

Step 2 Select **Cisco QoS Policy Manager** and click **Change/Remove**.

Step 3 Go to the Uninstallation dialog box and deselect the check boxes for the applications you do not want to uninstall. Leave **QoS Policy Manager** selected.

Step 4 Click **Next**.

The QPM uninstallation process starts, and QPM is removed from your computer.

Step 5 Restart your computer.

Step 6 Ensure that the QPM directory under the CiscoWorks Common Services install directory, that is, *Common Services-install-directory\MDC\qpm*, has been completely deleted.

Verifying QPM Installation

QoS Policy Manager is accessed from the CiscoWorks Homepage.

To verify QPM installation:

-
- Step 1** Go to your web browser and start CiscoWorks.
- The default URL is *http://QPMinstall:1741*, where *QPMinstall* is the name of the computer with the QPM installation.
- The CiscoWorks homepage appears.
- Step 2** Verify that the browser you are using is a supported version, and that JavaScript and cookies are enabled.
- If they are not enabled, change your browser preferences to enable them.
- Step 3** Log into CiscoWorks with your username and password.
- The CiscoWorks homepage appears.
- Step 4** Click **QoS Policy Manager** in the QoS Policy Management panel.
- QPM opens in a separate browser window.
- If you encounter problems starting QPM, see [Appendix A, “Troubleshooting QPM Installation”](#) for possible causes and solutions.
-

Re-installing QPM

QPM 4.0 supports re-installation. This allows you to troubleshoot any accidental corruption of files during installation.

Please make note of the following points before you perform re-installation:

- No additional license is required to perform re-installation of QPM 4.0
- The already existing license will get restored during re-installation
- QPM data gets backed up automatically (at the location *Common Services-install-directory\MDC\qpm\install*) during re-installation. You should run the *import.pl* utility to import this data back to QPM 4.0. See [Importing QPM Application Data, page 4-6](#) for details.



CHAPTER 3

Setting Up the QPM Server

This chapter contains the following topics:

- [User Permissions for QPM, page 3-1](#)
- [CiscoWorks User Permissions, page 3-2](#)
- [ACS User Permissions, page 3-7](#)
- [Working with ACS Device Groups and User Permissions, page 3-10](#)

User Permissions for QPM

CiscoWorks Common Services provides management of QPM user roles and privileges. QPM can work with either CiscoWorks user permissions or Cisco Secure Access Control Server (ACS) user permissions.

QPM permissions for authentication and authorization are mapped to CiscoWorks permission roles or ACS permission roles, as specified.



Note

To use ACS authentication and authorization, ACS must be installed on the network.

Before you begin to work with QPM, you should ensure that you have the appropriate permissions.

ACS and CiscoWorks permissions in QPM rely on the usergroup or username, the command set or privileges associated with the usergroup or username, and the device or device group for which privileges are requested.

If your username or usergroup is not authorized for certain QPM actions, the related menu items, TOC items, and buttons will be hidden or disabled.

CiscoWorks User Permissions

QPM uses a separate set of permissions for each type of task.

Table 3-1 shows how QPM permissions are mapped to CiscoWorks roles.

Table 3-1 QPM Permissions Mapped to CiscoWorks Roles

QPM Permissions	CiscoWorks Roles				
	System Admin	Network Admin	Network Operator	Approver	Help Desk
Device Inventory					
View	X	X	X	X	X
Add/Modify	X	X			
Policy Configuration					
View	X	X	X	X	X
Modify		X	X	X	
Deployment					
View	X	X	X	X	X
Deploy		X			
Delete jobs and logs	X				

Table 3-1 QPM Permissions Mapped to CiscoWorks Roles (continued)

QPM Permissions	CiscoWorks Roles				
	System Admin	Network Admin	Network Operator	Approver	Help Desk
Monitor					
Real Time Status					
View Report Card	X	X	X	X	X
Launch Real Time Chart	X	X	X	X	X
Launch Event browser	X	X	X	X	X
Historical Trends					
View	X	X	X	X	X
Delete	X				
Create Analysis Tasks		X	X	X	
Threshold Configuration					
View	X	X	X	X	X
Create Threshold Sets		X			
Assign Threshold Sets		X			
Delete Threshold Jobs	X				

Table 3-1 QPM Permissions Mapped to CiscoWorks Roles (continued)

QPM Permissions	CiscoWorks Roles				
	System Admin	Network Admin	Network Operator	Approver	Help Desk
Admin					
View Audit logs	X	X	X	X	X
Delete Audit logs	X				
Backup/Retrieve Backup	X				
SNMP Configuration Rights	X	X			
License	X				

To view the QPM tasks allowed for each CiscoWorks role in QPM, select **Administration > User Permissions Report**.

CiscoWorks roles have the following permissions in QPM:

- System Admin
 - View all information in QPM
 - Make changes to devices in the QPM device inventory
 - Delete policy deployment jobs and logs
 - Launch Real Time Charts and Event Browsers
 - Delete Monitoring Tasks (under Historical Trends)
 - Delete Threshold Assignment jobs
 - Delete Audit logs
 - Create and retrieve backups of the QPM database
 - Configure SNMP Configuration Rights
 - Add/remove licenses

System admin is the only user role that can delete logs, jobs, and reports in QPM.

- Network Admin
 - View all information in QPM
 - Make changes to devices in the QPM device inventory
 - Create and edit policies
 - Deploy policies on devices
 - Launch Real Time Charts and Event Browsers
 - Create Monitoring Tasks (under Historical Trends)
 - Create Threshold Sets and assign Threshold Sets to interfaces
 - Configure SNMP Configuration Rights

Network admin is the only user role that can deploy QoS policies on the devices in the network.

- Network Operator
 - View all information in QPM
 - Create and edit policies
 - Launch Real Time Charts and Event Browsers
 - Create Monitoring Tasks (under Historical Trends)
 - Create and run monitoring tasks
- Approver
 - View all information in QPM
 - Create and edit policies
 - Launch Real Time Charts and Event Browsers
 - Create Monitoring Tasks (under Historical Trends)
- Help Desk
 - View all information in QPM
 - Launch Real Time Charts and Event Browsers

Setting Up CiscoWorks Usernames and Permissions for QPM

You can add your username for CiscoWorks authentication from the CiscoWorks Homepage.

To select a role or a number of roles:

-
- Step 1** Select **Common Services > Server > Security** in the CiscoWorks homepage. The Security Settings page appears.
- Step 2** Click **Local User Setup** in the TOC. The Local User Setup page appears.
- Step 3** Click **Add**. The User Information dialog box appears.
- Step 4** Enter the username in the Username field.
- Step 5** Enter the password in the Password field.
- Step 6** Re-enter the password in the Verify Password field.
- Step 7** Enter the E-mail ID in the Email field, if the user has an Approver role.
- Step 8** Go to the Roles pane and select the check box corresponding to the role(s) to be assigned to the user.

See the *User Guide for CiscoWorks Common Services 3.0.5* for more information about setting CiscoWorks usernames and permissions.

CiscoWorks permissions cannot be customized. However, you can create a role for a user with the permissions of more than one CiscoWorks role. For example, a user can have both System Admin and Approver roles.

**Tip**

You can create a superuser (permissions for everything) by giving both system administrator and network administrator roles to a user.

ACS User Permissions

When you configure CiscoWorks Common Services to use ACS authorization and authentication, QPM adds permissions in ACS.

Table 3-2 shows the default mapping of QPM permissions to ACS roles. This is the same as for the CiscoWorks roles. However, when using ACS authorization and authentication, you can modify the default roles.

Table 3-2 QPM Permissions Mapped to ACS Roles

QPM Permissions	ACS Roles				
	System Admin	Network Admin	Network Operator	Approver	Help Desk
Device Inventory					
View	X	X	X	X	X
Add/Modify	X	X			
Policy Configuration					
View	X	X	X	X	X
Modify		X	X	X	
Deployment					
View	X	X	X	X	X
Deploy		X			
Delete jobs and logs	X				
Monitor					
Real Time Status					
View Report Card	X	X	X	X	X
Launch Real Time Chart	X	X	X	X	X
Launch Event browser	X	X	X	X	X

Table 3-2 QPM Permissions Mapped to ACS Roles (continued)

QPM Permissions	ACS Roles				
	System Admin	Network Admin	Network Operator	Approver	Help Desk
Historical Trends					
View	X	X	X	X	X
Delete	X				
Create Analysis Tasks		X	X	X	
Threshold Configuration					
View	X	X	X	X	X
Create Threshold Sets		X			
Assign Threshold Sets		X			
Delete Threshold Jobs	X				
Admin					
View Audit logs	X	X	X	X	X
Delete Audit logs	X				
Backup/Retrieve Backup	X				
SNMP Configuration Rights	X	X			
License	X				

To modify global components, such as library components, global device settings, and so on, you must have appropriate permissions for the device group that contains the CiscoWorks Common Services server.

ACS roles have the following default permissions in QPM:

- System Admin
 - View all information in QPM
 - Make changes to devices in the QPM device inventory
 - Delete policy deployment jobs and logs
 - Launch Real Time Charts and Event Browsers
 - Delete Monitoring Tasks (under Historical Trends)
 - Delete Threshold Assignment jobs
 - Delete Audit logs
 - Create and retrieve backups of the QPM database
 - Configure SNMP Configuration Rights
 - Add/remove Licenses

System admin is the only user role that can delete logs, jobs, and reports in QPM.

- Network Admin
 - View all information in QPM
 - Make changes to devices in the QPM device inventory
 - Create and edit policies
 - Deploy policies on devices
 - Launch Real Time Charts and Event Browsers
 - Create Monitoring Tasks (under Historical Trends)
 - Create Threshold Sets and assign Threshold Sets to interfaces
 - Configure SNMP Configuration Rights

Network admin is the only user role that can deploy QoS policies on the devices in the network.

- Network Operator
 - View all information in QPM
 - Create and edit policies
 - Launch Real Time Charts and Event Browsers
 - Create Monitoring Tasks (under Historical Trends)
 - Create and run monitoring tasks
- Approver
 - View all information in QPM
 - Create and edit policies
 - Launch Real Time Charts and Event Browsers
 - Create Monitoring Tasks (under Historical Trends)
- Help Desk
 - View all information in QPM
 - Launch Real Time Charts and Event Browsers

If you intend to work with ACS device groups and user permissions, you must perform the setup configuration described in [Working with ACS Device Groups and User Permissions](#), page 3-10.

ACS allows you to modify the default permission roles. For details about modifying permissions in ACS, see the ACS Online help.

After you change the permission roles, you must restart the ACS server.

If QPM is open, log out and log in again to QPM for the changes to take effect.

Working with ACS Device Groups and User Permissions

The following topics describe how to configure CiscoWorks Common Services to use ACS authorization and authentication on a new QPM installation, and after upgrading from QPM 3.2.x.

- [Setting up ACS Device Groups and User Permissions for QPM](#), page 3-11
- [Updating QPM 3.2.x User Permissions in ACS](#), page 3-15

Setting up ACS Device Groups and User Permissions for QPM

If you want to use ACS device groups, user groups, and permissions, for QPM, ACS must be installed on the network.

To work with ACS device groups, user groups, and permissions, you must register the QPM server with ACS and configure CiscoWorks Common Services to use ACS authorization and authentication.

The following steps describe the process:

Step	Task	Procedure
Step 1	Register the QPM server with ACS.	<ol style="list-style-type: none"> 1. Login to ACS server. 2. In the navigation bar of the ACS home page, click Network Configuration. The Network Configuration page appears with a list of the Network Device Groups (NDGs). You can create your own QPM server Network Device Group, and add the QPM server as AAA client in it. The following steps describe this process. 3. Under the Network Device Groups table, click Add Entry. 4. In the Network Device Group Name box, type the name of the new NDG, for using QPM 5. In the Key box, enter a key for the Network Device Group. The maximum length is 32 characters 6. Click Submit. The Network Device Groups table displays the new NDG. 7. Click the name of the new NDG, and click Add Entry below the AAA Clients table 8. In the Add AAA Client page, enter the QPM client details like Hostname, IP Address, and Key. 9. Click Submit + Apply. <p>If you do not want to create a new NDG for QPM, you can click the Not Assigned link in the NDG table (instead of Step 3 and the subsequent steps above), and click Add Entry to define the QPM client in ACS.</p> <p>For details about all these steps, see the chapter <i>Network Configuration</i>, in the ACS User Guide.</p>

Step	Task	Procedure
Step 2	Register ACS with QPM.	<ol style="list-style-type: none"> 1. Login to CiscoWorks in the CMF Mode. 2. In the CiscoWorks homepage, select Common Services > Server > Security > AAA Mode Setup. 3. Click the TACACS+ radio button 4. Click Change. The Login Module Options window appears. 5. Enter the ACS server IP/Name and Key (the same Key that you entered in Step 1) in the corresponding fields, and click OK. The Login Module Change Summary page appears. 6. Click OK. 7. In the AAA Mode Setup page, click the ACS radio button. 8. Enter the ACS sever details. 9. Enter the login details including the Shared Secret Key (the same key that you entered in Step 1). 10. Check the Register all installed applications with ACS checkbox. 11. Click the HTTP or HTTPS radio button to specify the current ACS administrative protocol. 12. Click Apply. The Login Module Change Summary page appears with the following message: <i>ACS Server Credentials updated successfully</i> 13. Close down all the QPM and CS Windows, restart the deamon manager. <p>For details about these steps, see the section <i>Setting up the AAA mode</i> in the chapter <i>Configuring the Server</i>, in the User Guide for CiscoWorks Common Services 3.0.5.</p>

Step	Task	Procedure
Step 3	Synchronize device groups in ACS Server with QPM	<ol style="list-style-type: none"> 1. In QPM, select Devices > Device Grouping > Sync Privileges. The Sync Privileges page appears. 2. Check whether the Server mode is set to ACS, and click Sync.
Step 4	Define usernames and user groups and permissions, in ACS.	<ol style="list-style-type: none"> 1. In the navigation bar of the ACS homepage, click User Setup, and define usernames. 2. In the navigation bar of the ACS homepage, click Group Setup, and define user groups and their permissions. <p>For details about these steps, see the chapters <i>User Management</i> and <i>User Group Management</i>, in the ACS User Guide.</p>

To change the authorization and authentication mode back to CiscoWorks permissions, you must configure CiscoWorks Common Services to use local authorization and authentication.

For details of this procedure, see the *User Guide for CiscoWorks Common Services 3.0.5*.

Updating QPM 3.2.x User Permissions in ACS

If you are upgrading from QPM 3.2.x on the same QPM server, and you worked with ACS user groups and permissions, you must update ACS with the new QPM user permissions.



Note

If you are upgrading to a different server from QPM 3.2.x, follow the procedure in [Setting up ACS Device Groups and User Permissions for QPM, page 3-11](#).

Step	Task	Procedure
Step 1	Remove the old QPM permission roles from the ACS server.	<ol style="list-style-type: none"> 1. In the ACS server, select Shared Profile Components > CiscoWorks QPM. 2. Select the QPM user roles and delete them <p>For details about these steps, see the chapter <i>Shared Profile Components</i>, in the ACS User Guide.</p>
Step 2	Unregister the old QPM from ACS.	<ol style="list-style-type: none"> 1. In the CiscoWorks homepage, select Common Services > Server > Security > AAA Mode Setup. 2. Click the ACS radio button. 3. Uncheck the Register all installed applications with ACS checkbox. 4. Click Apply. 5. Logout of CiscoWorks desktop.

Step	Task	Procedure
Step 3	Reregister the new QPM in ACS	<ol style="list-style-type: none"> 1. Log into the CiscoWorks. 2. In the CiscoWorks Homepage, select Common Services > Server > Security > AAA Mode Setup. 3. Click the ACS radio button. 4. Check the Register all installed applications with ACS checkbox. 5. Click the HTTP or HTTPS radio button to specify the current ACS administrative protocol. 6. Click Apply. <p>For details about these steps, see the section <i>Setting up the AAA mode</i> in the chapter <i>Configuring the Server</i>, in <i>User Guide for CiscoWorks Common Services 3.0.5</i>.</p>
Step 4	Synchronize device groups in ACS Server with QPM	<ol style="list-style-type: none"> 1. In QPM, select Devices > Device Grouping > Sync Privileges. The Sync Privileges page appears. 2. Check whether the Server mode is set to ACS, and click Sync
Step 5	Define device groups, usernames, and user groups and permissions, in ACS.	<ol style="list-style-type: none"> 1. In the navigation bar of the ACS home page, click Network Configuration, and define Network Device Groups 2. In the navigation bar of the ACS homepage, click User Setup, and define usernames. 3. In the navigation bar of the ACS homepage, click Group Setup, and define user groups and their permissions. <p>For details about these steps, see the chapters <i>Network Configuration</i>, <i>User Management</i> and <i>User Group Management</i>, in the ACS User Guide.</p>



CHAPTER 4

Upgrading and Migrating QPM

This chapter contains the following topics:

- [Upgrading QPM 3.2 or QPM 3.2.x to QPM 4.0, page 4-2](#)
- [Migrating to a New QPM Server, page 4-3](#)
- [Migrating QPM 3.2.x Data to a Remote QPM 4.0 Server, page 4-4](#)
- [Exporting and Importing QPM Application Data, page 4-5](#)

Upgrading QPM 3.2 or QPM 3.2.x to QPM 4.0

QPM 4.0 supports upgrade from QPM 3.2 or QPM 3.2.x.

To perform upgrade, make sure that you have purchased the upgrade license for QPM 4.0, and also the additional incremental device pack licenses for QPM 4.0 (in case QPM 3.2.x already has the the device limit of more than 500 devices).

Before upgrading to QPM 4.0, it is recommended that you export the QPM application data from QPM 3.2 or QPM 3.2.x, by copying and running the export.pl utility (available in the QPM 4.0 product DVD), in the MDC\qpm\bin folder in the QPM 3.2 or QPM 3.2.x server.

For this, you can follow the steps mentioned in [Migrating QPM 3.2.x Data to a Remote QPM 4.0 Server](#), page 4-4.

To upgrade QPM 3.2 or QPM 3.2.x to QPM 4.0, use the following installation sequence:

Step 1 Install CiscoWorks Common Services 3.0.5 over QPM 3.2 or QPM 3.2.x. See [Installing Common Services on Windows](#), page 2-2.

The CS 2.2 data is migrated automatically to CS 3.0.5 during this process. You can also back up the CS 2.2 data to a location you specify during this install process.

Step 2 Install QPM 4.0. See [Installing QPM on Windows](#), page 2-7 for details.

QPM application data is migrated automatically when upgrading QPM 3.2 or QPM 3.2.x to QPM 4.0.

Before you begin to work with QPM, ensure that you have the appropriate permissions. See [Chapter 3, “Setting Up the QPM Server”](#) for details.

If you are working with ACS user permissions, register the new QPM user permissions in CiscoWorks and ACS, if required. See [Working with ACS Device Groups and User Permissions](#), page 3-10 for details.

Migrating to a New QPM Server

You can migrate QPM information from one QPM 4.0 server to another. This section describes the sequence of tasks for migrating QPM 4.0 information to a new QPM 4.0 server running Windows.

**Note**

You need to buy a new license for remote migration because QPM license is a node-lock license. Also, the device limit with the new license should be equal to or more than the device limit supported in the old server.

To migrate QPM data from one QPM 4.0 server to another:

-
- Step 1** Take a backup of the CS 3.0.5 data using the Common Services Backup utility (available in QPM 4.0 under **Administration > Configuration Backup**).
 - Step 2** Export all QPM 4.0 application data from the old QPM server using the export.pl utility, either in the QPM DVD or in the MDC\qpm\bin folder.
See [Exporting QPM Application Data, page 4-5](#) for details.
 - Step 3** Copy the CS backup data and the QPM export data to the new server.
 - Step 4** Install CiscoWorks Common Services 3.0.5. on the new server.
See [Installing Common Services on Windows, page 2-2](#). for details.
 - Step 5** Install QPM 4.0 on the new server.
See [Installing QPM on Windows, page 2-7](#) for details.
 - Step 6** Execute the restorebackup.pl script (in CS 3.0.5) to restore the CS data in the new server.
 - Step 7** Import the QPM 4.0 application data using the import.pl utility in the MDC\qpm\bin folder in the new server.
See [Importing QPM Application Data, page 4-6](#) for details.
-

Before you begin to work with QPM, ensure that you have the appropriate permissions. See [Chapter 3, “Setting Up the QPM Server”](#) for details.

If you are working with ACS user permissions, register the new QPM server in CiscoWorks and ACS. See [Setting up ACS Device Groups and User Permissions for QPM, page 3-11](#) for details.

Migrating QPM 3.2.x Data to a Remote QPM 4.0 Server

You can migrate QPM data alone from a QPM 3.2.x server to a remote QPM 4.0 server, and use that data in the QPM 4.0 server

**Note**

To migrate QPM data, you should have obtained the relevant license for QPM 4.0 to support the device limit in QPM 3.2.x.

To migrate QPM 3.2.x data alone to a remote QPM 4.0 server:

-
- Step 1** Copy the export.pl script from the QPM 4.0 DVD (or from the QPM 4.0 server) to the MDC\qpm\bin folder in the QPM 3.2.x machine.
 - Step 2** Export the QPM data from the QPM 3.2.x machine using this export.pl script. See [Exporting QPM Application Data, page 4-5](#) for details.
 - Step 3** Copy the exported QPM 3.2.x data to the QPM 4.0 server.
 - Step 4** Import the copied data into QPM 4.0 using the import.pl script. See [Importing QPM Application Data, page 4-6](#) for details.
-

Exporting and Importing QPM Application Data

The following topics describe how to use the QPM export and import utilities:

- [Exporting QPM Application Data, page 4-5](#)
- [Importing QPM Application Data, page 4-6](#)

**Note**

The export utility is available on the QPM DVD, and is also copied to the QPM server during the installation process. The import utility will be available in the QPM server after the installation.

Exporting QPM Application Data

You can export the following QPM application data during an upgrade:

- QPM database containing device and policy information
- QPM monitoring task information
- QPM reports
- QPM configuration information

Use the export utility when you want to migrate and upgrade QPM 3.2 or QPM 3.2.x application data to QPM 4.0, or when you want to migrate QPM 4.0 from one server to another.

You need to specify the destination folder to which you want to export the application data.

To export QPM application data:

Step 1

Open a Command window:

- a. Select **Start > Run**.
The Run dialog box opens.
- b. Enter `cmd`, and click **OK**.
The Command window opens.

To run the export utility from the QPM server, in Windows Explorer go to the installation folder. Right-click the MDC\qpm\bin folder, and select **Cmd prompt here**. The Command window opens in the folder containing the export utility.

Step 2 Run the export utility:

- To start the utility from the QPM installation DVD, in the Command window, enter

```
cd d:\QPM4_0\QPM_4_0_installation\Windows_K9
```

where *d* is your DVD drive, and then enter

```
NMSROOT\bin\perl export.pl destination folder,
```

where *NMSROOT* is the CS installation folder and *destination folder* is the full path of an existing folder to which you want to export the data.

- To start the utility from the QPM server, in the Command window:
 - If necessary, change to the drive on which QPM is installed and then change directory to the *NMSROOT\MDC\qpm\bin* folder in the Common Services installation folder.
 - Enter *NMSROOT\bin\perl export.pl destination folder*, where *NMSROOT* is the CS installation folder, and *destination folder* is the full path of an existing folder to which you want to export the data.

Step 3 Press **Enter**.

The utility stops CiscoWorks services, and exports the QPM information to the specified destination folder.

After the export process has completed, the CiscoWorks services are restarted.

Importing QPM Application Data

Use the import utility to import any QPM application data, which was exported using the QPM 4.0 export utility, into QPM 4.0.



Note

The exported data is platform dependent. Therefore you cannot import the QPM data onto a Windows server if this data was exported from a Solaris server.

When you use the import utility, any existing QPM data is overwritten.

To import QPM application data:

Step 1 Open a Command window:

a. Select **Start > Run**.

The Run dialog box opens.

b. Enter **cmd**, and click **OK**.

The Command window opens.

To run the import utility from the QPM server, in Windows Explorer go to the installation folder. Right-click the MDC\qpm\bin folder, and select **Cmd prompt here**. The Command window opens in the folder containing the import utility.

Step 2 Run the import utility:

- To start the utility from the QPM server, in the Command window:
 - If necessary, change to the drive on which QPM is installed and then change directory to the CSCOPx\MDC\qpm\bin folder in the Common Services installation folder.
 - Enter *NMSROOT\bin\perl import.pl export folder*, where *NMSROOT* is the QPM installation folder, *export folder* is the full path of the folder to which you exported the data.

Step 3 Press **Enter**.

The utility stops CiscoWorks services, and imports the QPM information.

After the import process has completed, the CiscoWorks services are restarted.



APPENDIX **A**

Troubleshooting QPM Installation

The following topics can help you troubleshoot problems you might encounter while installing QPM, or starting QPM:

- [Troubleshooting Problems During Installation, page A-2](#)
- [Troubleshooting Problems Starting Common Services, page A-3](#)
- [Troubleshooting Problems Starting QPM, page A-4](#)
- [Obtaining System Status Information for Troubleshooting, page A-6](#)

Troubleshooting Problems During Installation

Table A-1 describes the error messages, their probable reasons, and the action to be taken by the user to resolve each problem.

Table A-1 **Installation Error Messages**

Message	Reason for Message	User Action
License Validation Failed Or No Valid License Found	The license file you selected during installation is not valid.	Quit the current installation, and reinstall with proper license file.
Evaluation license expired.	The QPM 4.0 Evaluation License expired.	Apply the new license in QPM through the Administration > License > Install License option
Getting License Device Limit Failed	The license file you selected during installation is not valid.	Quit the current installation, and reinstall QPM 4.0.
Upgrade only allowed for QPM_Combined License	Upgrade is supported only for QPM Combined license, and not for QPM Monitoring or QPM Restricted licenses	Obtain the QPM Combined license, and perform the upgrade installation.

Troubleshooting Problems Starting Common Services

Common Services might not start for any of the following reasons:

- [Terminal Services is Enabled, page A-3](#)
- [Port Conflict, page A-3](#)

Terminal Services is Enabled

Problem—If Terminal Services is enabled on Windows Advanced Server, Common Services will not work. If you installed Common Services on a Windows Advanced Server where Terminal Services was enabled, and then disabled before you uninstalled Common Services, Common Services might still not work.

Recommended Action—Do not enable Terminal Services on a Windows Advanced Server before or after installation of Common Services.

Port Conflict

Problem—You cannot start Common Services because port 1741, which is used by Common Services, is in use by another application.

Recommended Action—Try the following:

- Restart the QPM server.
- To run CiscoWorks, enter `http://QPMinstall:1741`, where *QPMinstall* is the name or IP address of the QPM server.

If ports are still in use, open the JbossStdout.log file and look for the error “java.rmi.server.ExportException:Port already in use:<port-number>”. Check whether the listed port is in use by another application. If so, stop the other application or change the port it is using.

Troubleshooting Problems Starting QPM

QPM might not start for any of the following reasons:

- [QPM Server Does Not Meet System Requirements, page A-4](#)
- [Incorrect User Permissions, page A-4](#)
- [Changed Database Password, page A-4](#)
- [Different HTTP/HTTPS Port in Common Services and QPM, page A-5](#)
- [Unknown Cause, page A-5](#)

QPM Server Does Not Meet System Requirements

Problem—QPM startup and performance might be slow, or QPM might not work at all.

Recommended Action—Install QPM on a server that meets system requirements.

Incorrect User Permissions

Problem—Many buttons in the user interface are grayed out because you might not have the correct user permissions to perform those tasks.

Recommended Action—Verify your user permissions in the CiscoWorks desktop (**Server > Security**), or in ACS (depending on the method you are using for user authentication).

For more information about working with ACS user permissions, see [Working with ACS Device Groups and User Permissions, page 3-10](#).

You might also encounter display problems if the browser version on the client system does not meet the client system requirements.

Changed Database Password

Problem—If you change the QPM database password in CiscoWorks Common Services, and then try to start QPM without restarting the QPM server, the connection to the database is lost.

Recommended Action—After changing the QPM database password, restart the QPM server.

Different HTTP/HTTPS Port in Common Services and QPM

Problem—If the HTTP/HTTPS port number used by CiscoWorks Common Services is different from the HTTP/HTTPS port number configured in QPM, you will not be able to launch QPM.

Recommended Action—Update QPM with the Common Services port number, using the `updateSSLPort` utility. This utility updates QPM with the new port and restarts the services.

To start the utility from the QPM server, in the Command window:

Step 1 Change directory to the `CSCOPx\MDC\qpm\bin` folder in the QPM installation folder.

Step 2 Enter `updateSSLPort new port number`

Unknown Cause

Problem—You are not able to launch QPM for any reasons other than those mentioned above

Recommended Action—Restart the QPM server.

Obtaining Information for Troubleshooting and Cisco Technical Support

The following topics describe how to obtain information for troubleshooting and Cisco Technical Support:

- [Obtaining System Status Information for Troubleshooting, page A-6](#)
- [Obtaining Debug Information for Cisco Technical Support, page A-6](#)

Obtaining System Status Information for Troubleshooting

To send the diagnostics results to a TAC representative, you can run the MDCSupport utility, which collects configuration and system information in a zip file, called MDCSupportInformation.zip.

The MDCSupportInformation file includes any problems that occurred during the installation or the running of QPM. You can send this file to the Cisco Technical Assistance Center (TAC) support staff to assist in diagnosing the problems.

To send the diagnostics results to a TAC representative:

Step 1 From the *CS-install-directory\CSCOPx\MDC\bin* directory (where *CS-install-directory* is the directory in which you installed CS), enter **MDCSupport.exe** and press **Enter**.

A zip file named MDCSupportInformation.zip is created under *CS-install-directory\CSCOPx\MDC\etc*.

Step 2 Email this file to the TAC representative.

Obtaining Debug Information for Cisco Technical Support

If Cisco Technical Support requests that you gather additional debug information in the trace files, you can set the QPM logger mode to collect the information.

Since collecting debug information will reduce the performance of your server, and the collected data can only be interpreted by Cisco, do not collect debug information unless requested.

After you have collected the information, reset the logging mode to only collect informational messages.

To collect the debug information:

Step 1 From the *CS-install-directory*\CSCOpX\MDC\qpm\bin directory (where *CS-install-directory* is the directory in which you installed CS), enter this command to begin collecting debug information:

setqpmloggermode -debug

Wait for five minutes before proceeding to the next step. This is to allow time for the system to prepare for collecting debug messages.

Step 2 Repeat the activities you were doing in QPM that led to the problems you encountered.

Step 3 When sufficient debug information has been collected under CSCOpX\MDC\log\, compress the *log* folder (to .zip or .tar), and email it to your Cisco Technical Support representative.

Step 4 Enter the following command to reset the logging mode so that only informational messages are collected (the default behavior):

setqpmloggermode -info



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