



Readme for QoS Policy Manager 4.1.3 on Windows

This Readme is for CiscoWorks QoS Policy Manager (QPM) 4.1.3 running on Windows platform. It contains the following sections:

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Description

QPM 4.1.3 is a maintenance release that enhances the functionality of QPM 4.1, QPM 4.1.1, and QPM 4.1.2 by providing:

- Additional device support
- Additional command support
- Bug fixes

QPM 4.1.3 is a patch release, and you can install it on top of QPM 4.1, QPM 4.1.1, or QPM 4.1.2.



Related Documentation

QPM 4.1.3 is a maintenance release after QPM 4.1.2. The most updated documentation for QPM 4.1.3 and QPM 4.1 can be found on Cisco.com:

- Supported Devices and Software Releases for QPM 4.1.3
http://www.cisco.com/en/US/products/sw/cscowork/ps2064/products_device_support_tables_list.html
- Installation Guide for QPM 4.1 on Windows
http://www.cisco.com/en/US/docs/net_mgmt/ciscoworks_qos_policy_manager/4.1/installation/guide/windows/QPM41WIN.html
- Getting Started Guide for QPM 4.1
http://www.cisco.com/en/US/docs/net_mgmt/ciscoworks_qos_policy_manager/4.1/getting_started/guide/qpm41gsg.html
- Quick Start Guide for QPM 4.1.
http://www.cisco.com/en/US/docs/net_mgmt/ciscoworks_qos_policy_manager/4.1/quick_start/guide/qpm41qsg.html
- Readme for CS 3.2 with QPM 4.1.
http://www.cisco.com/en/US/docs/net_mgmt/ciscoworks_qos_policy_manager/4.1/readme/CS32RMe.html
- User Guide for QPM 4.1
http://www.cisco.com/en/US/docs/net_mgmt/ciscoworks_qos_policy_manager/4.1/user/guide/qpm41ug.html

Additional Device Support

QPM 4.1.3 not only supports the devices supported in QPM 4.1, QPM 4.1.1, and QPM 4.1.2 but also the following devices:

Table 1 shows the device OIDs and names of the additional devices supported by QPM 4.1.3.

Table 1 Additional Devices Supported by QPM 4.1.3

Cisco System Device	Device OID	Device Name	Supported OS
Cisco 7200 Series	1.3.6.1.4.1.9.1.821	Cisco 7201	12.4, 12.4T
Cisco ME 6500 Series	1.3.6.1.4.1.9.1.720	Cisco ME 6524 Ethernet Switch	12.2S
Cisco Catalyst 4900 Series	1.3.6.1.4.1.9.1.917	Cisco Catalyst 4900M Switch	12.2S
Cisco Catalyst 4500 Supervisor Engine 6-E	1.3.6.1.4.1.9.1.875	Cisco Catalyst 4506-E with Sup6-E	12.1E, 12.2S
IE3000	1.3.6.1.4.1.9.1.958	Cisco IE 3000-4TC Industrial Ethernet Switch	12.1E, 12.2S
	1.3.6.1.4.1.9.1.959	Cisco IE 3000-8TC Industrial Ethernet Switch	12.1E, 12.2S
Cisco 890 Series Integrated Services Router	1.3.6.1.4.1.9.1.857	Cisco 891W Integrated Services Router	12.4, 12.4T

Table 1 *Additional Devices Supported by QPM 4.1.3*

Cisco System Device	Device OID	Device Name	Supported OS
Cisco 1900 Series Integrated Services Router	1.3.6.1.4.1.9.1.1047	Cisco 1941 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1095	Cisco 1941WAK9 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1172	Cisco 1941WEK9 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1173	Cisco 1941WPK9 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1174	Cisco 1941WNK9 Integrated Services Router ¹	12.4, 12.4T
Cisco 2900 Series Integrated Services Router	1.3.6.1.4.1.9.1.1046	Cisco 2901 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1045	Cisco 2911 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1044	Cisco 2921 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1043	Cisco 2951 Integrated Services Router ¹	12.4, 12.4T
Cisco 3900 Series Integrated Services Router	1.3.6.1.4.1.9.1.1042	Cisco 3925 Integrated Services Router ¹	12.4, 12.4T
	1.3.6.1.4.1.9.1.1041	Cisco 3945 Integrated Services Router	12.4, 12.4T

1. QPM has not been officially tested with Cisco 1900, 2900, and 3925 Integrated Services Routers.

For details regarding the QoS feature support for these devices, see the detailed Supported Devices Table for QPM 4.1.3 at http://www.cisco.com/en/US/products/sw/cscowork/ps2064/products_device_support_tables_list.html

Table 2 shows the additional line cards supported by QPM 4.1.3 for Cat6K.

Table 2 *Additional Line Cards Supported by QPM 4.1.3 for Cat6K*

Card Name	Supported QoS Output Scheduling
WS-SUP32-10GE-3B	1P3Q8T
WS-X6716-10G-3C	1P7Q4T
WS-X6716-10G-3CXL	1P7Q4T
VS-S720-10G-3C	1P7Q4T

Table 3 shows the additional line cards supported by QPM 4.1.3 for Cisco 7600.

Table 3 *Additional Line Cards Supported by QPM 4.1.3 for Cisco 7600*

Card Name	Supported QoS Output Scheduling
WS-F6K-MSFC3	1P2Q2T
WS-F6K-PFC3B	1P2Q2T
SIP-200	-
SIP-400	-
SIP-600	-

Table 4 shows the additional Shared Port Adapters (SPAs) supported in QPM 4.1.3.

Table 4 Additional SPAs supported by QPM 4.1.3

SPA Product ID	SPA Type
SPA-8XCHT1/E1	Ethernet SPA
SPA-10X1GE-V2	Ethernet SPA
SPA-4X1FE-TX-V2 ¹	Ethernet SPA
SPA-2X1GE ¹	Ethernet SPA
SPA-1XOC192POS/RPR	POS SPA
SPA-4XOC48POS/RPR	POS SPA

1. QPM has not been officially tested with SPA-4X1FE-TX-V2 and SPA-2X1GE.

Additional Command Support

QPM provides a web-based, intuitive user interface to define QoS policies for network devices. It translates those policies into command line interface (CLI) commands. (For more information about policy configuration, see [Chapter 8 in CiscoWorks QoS Policy Manager 4.1 User Guide](#).)

When you deploy these QoS policies on the network devices, QPM automatically configures the devices using these commands. You need not manually enter these commands to deploy the QoS policies.

If you want to preview the commands that are used to configure the network devices:

- Choose **Provisioning > Policy Management > Policy Preview > Local Preview**
- Or
- Choose **Provisioning > Policy Management > Policy Preview > Online Preview**.

The following sections describe the commands that are additionally supported in QPM 4.1.3:

- [Configuration on CRS Device with IOS XR Software, page 4](#)
- [Configuration on Cisco ME 6524 Ethernet Switch, page 5](#)
- [Configuration on Cisco 1900, 2900, 3900 Series Integrated Services Router, page 6](#)
- [Configuration for Cisco IE 3000 Switch, page 6](#)

Configuration on CRS Device with IOS XR Software

To identify IP precedence values as match criteria, the following command is used in class map configuration mode:

```
match [not] precedence [ipv4 | ipv6] precedence-value [precedence-value ... precedence-value]
```

To identify a specific IP differentiated service code point (DSCP) value as a match criterion, the following command is used in class map configuration mode:

```
match [not] dscp [ipv4 | ipv6] dscp-value [dscp-value0 ... dscp-value6]
```

To change the minimum and maximum packet thresholds for the DSCP value, the following command is used in interface or policy-map class configuration mode:

```
random-detect dscp dscp-value min-threshold max-threshold
```

To configure the WRED parameter for packets marked with MPLS Experimental (EXP) bit values, the following command is used in policy-map class configuration mode:

```
random-detect exp exp-value min-threshold max-threshold
```

To configure the WRED and distributed WRED (DWRED) parameters for a particular IP Precedence, the following command is used in interface configuration mode:

```
random-detect precedence precedence-value min-threshold max-threshold
```

To configure the WRED parameters for a discard-class value in a policy map, the following command is used in policy-map class configuration mode:

```
random-detect discard-class discard-value min-threshold max-threshold
```

Configuration on Cisco ME 6524 Ethernet Switch

To configure the match criteria as the successful match criteria for all packets, the following command is used in class-map configuration mode:

```
match any
```

To match the experimental (EXP) value in the topmost label header, the following command is used in class-map configuration mode:

```
match mpls experimental topmost exp-value
```

To enable serial mode for ingress and egress policers on the PFC3C or PFC3CXL, the following command is used in global configuration mode:

```
mls qos police serial
```

To turn on access control list (ACL)-redirected packet policing, the following command is used in global configuration mode:

```
mls qos police redirected
```

To allocate bandwidth for the standard transmit queues on the port, the following command is used:

```
wrr-queue [bandwidth | shape] percent low_priority_queue_percentage  
medium_priority_queue_percentage high_priority_queue_percentage
```

To set the value of the MPLS experimental (EXP) field on all imposed label entries or in the topmost label on either an input or an output interface, the following command is used in policy-map class configuration mode:

```
set mpls experimental imposition | topmost mpls-exp-value
```

To configure traffic policing using the committed information rate and the peak information rate, the following command is used in policy-map configuration mode:

```
police cir police-rate [police-bc] [pir pir] [be police-be] conform-action action  
[exceed-action action [violate-action action]]
```

where *action* is

```
{transmit | continue | set-prec-transmit precedence | set-dscp-transmit dscp |  
set-prec-continue precedence | set-dscp-continue dscp | set-qos-transmit qos |  
set-qos-continue qos | policed-dscp-transmit dscp | set-clp-transmit clp |  
set-mpls-exp-transmit mpls-exp-value | drop}
```

Configuration on Cisco 1900, 2900, 3900 Series Integrated Services Router

To configure traffic policing using the committed information rate and the peak information rate, the following command is used in policy-map configuration mode:

```
police cir police-rate [police-bc] [pir pir] [be police-bc] conform-action action
[exceed-action action [violate-action action]]
```

where *action* is

```
{transmit | continue | set-prec-transmit precedence | set-dscp-transmit dscp |
set-prec-continue precedence | set-dscp-continue dscp | set-qos-transmit qos |
set-qos-continue qos | policed-dscp-transmit dscp | set-clp-transmit clp |
set-mpls-exp-transmit mpls-exp-value | drop}
```

To configure the match criteria as the successful match criteria for all packets, the following command is used in class-map configuration mode:

```
match any
```

To configure CoS, Precedence, DSCP, or DSCP Markdown mapping settings on Cisco 1900, 2900, and 3900 Series Integrated Services Routers, the following commands are used:

- `mls qos map cos-dscp dscp dscp dscp dscp dscp dscp dscp dscp`
- `mls qos map dscp-cos dscp dscp dscp dscp dscp dscp dscp dscp to cos`

Configuration for Cisco IE 3000 Switch

The following command is used to apply a DSCP-to-DSCP-mutation map to a DSCP-trusted port:

```
mls qos dscp-mutation dscp-mutation-name
```

The following command is used to define the DSCP-to-DSCP-mutation map:

```
mls qos map dscp-mutation dscp-mutation-name in-dscp to out-dscp
```

The following command is used to configure the switch to change (rewrite) the DSCP field of an incoming IP packet:

```
no mls qos rewrite ip dscp
```

Ports Used by QPM

QPM on Windows platform 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

- 57001—RMI port for EMS
- 57002—RMI port for Collector Services

For information about the ports used by CiscoWorks Common Services, see [Installing and Getting Started With CiscoWorks LAN Management Solution 3.1](#).

Hardware and Software Requirements

QPM 4.1.3 requires that you have installed QPM 4.1, QPM 4.1.1, or QPM 4.1.2. All of these applications run on Common Services 3.2 server.

The hardware and software requirements for QPM 4.1.3 are the same as for QPM 4.1, QPM 4.1.1, and QPM 4.1.2.

For detailed list of requirements and instructions to install CiscoWorks Common Services 3.2 and QPM 4.1 on Windows, see http://www.cisco.com/en/US/docs/net_mgmt/cisoworks_qos_policy_manager/4.1/installation/guide/windows/QPM41WIN.html

Downloading and Installing QPM 4.1.3

You can download the QPM 4.1.3 installer file, qpm4_1_3_win.zip, from Cisco.com, and install it on a machine that has QPM 4.1, QPM 4.1.1, or QPM 4.1.2 already installed.



Note

You should have a valid Cisco.com username and password to download the installer file.

The following topics describe the download and installation process of QPM 4.1.3:

- [Downloading from Cisco.com, page 7](#)
- [Installing QPM 4.1.3, page 8](#)

Downloading from Cisco.com

To download the QPM 4.1.3 installer file from Cisco.com:

-
- Step 1** Go to <http://www.cisco.com/public/sw-center/index.shtml>.
 - Step 2** Enter your Cisco.com credentials to access this page.
 - Step 3** Locate the file, qpm4_1_3_win.zip from the list of files to be downloaded.
 - Step 4** Right-click the file, choose **Save Target As** or **Save Link As**, and specify the location to download the file to your machine.
-

Installing QPM 4.1.3

To install QPM 4.1.3 on a machine that has QPM 4.1, QPM 4.1.1, or QPM 4.1.2 already installed:

-
- Step 1** Go to the folder where you have downloaded the installer file, `qpm4_1_3_win.zip`.
- Step 2** Unzip the file `qpm4_1_3_win.zip`.
This extracts a folder called `qpm4_1_3_win`, which contains an executable file, `qpm4_1_3_win.exe`.
- Step 3** Go to `qpm4_1_3_win`.
- Step 4** Launch the installer. Either:
- Double click the executable file, `qpm4_1_3_win.exe`.
Or
 - Choose **Start > Run**, and enter `path\qpm4_1_3_win.exe` where *path* is the location of the file in your hard drive.
- The Installer window appears.
- Step 5** Click **Install** to continue.
The Welcome window appears.
- Step 6** Click **Next** to continue.
The Software License Agreement window appears.
- Step 7** Click either:
- **Accept** to accept the license agreement and proceed with the installation
Or
 - **Do not Accept** to deny and stop the installation.
- The System Requirements window appears.
- Step 8** 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 9** Click **Next** to continue.
The Daemons Restart Options window appears.
- Step 10** Click either:
- **Yes** to restart the CiscoWorks daemon after this installation
Or
 - **No** to deny restart of CiscoWorks daemon after this installation (to allow installation of any other CiscoWorks applications).
- The Setup Complete window appears.

Step 11 Click **Finish** to complete the installation.

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



Note The monitoring tasks will be resumed after you install QPM 4.1.3 and restart the CiscoWorks daemon.

Known Problems

Table 5 describes the known problems in QPM 4.1.3.

Table 5 Known Problems in QPM 4.1.3

BugID	Summary	Explanation
CSCta05484	CLASS-BASED-QOS MIB does not return traffic statistics in packets per second for Catalyst 6000 series devices in VSS mode.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Choose Monitoring > QoS Monitoring > Real Time. 2. Select a device interface of Catalyst 6000 series device in VSS mode. 3. Click the Show Real Time Chart button. <p>No graphs are displayed for the device interface, when the unit for data flow rate is in packets per second.</p> <p>Workaround:</p> <p>Select the unit for data flow rate as bits per second in the Real Time Charts window. In this way, graphs will be displayed for the device interface.</p>
CSCta68469	Dynamic ports and protocols are not unregistered in QPM 4.1.x.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Install Common Services 3.0.5 and QPM 4.0, and move to the HTTPS mode. 2. Upgrade to the QPM 4.1 release and install the QPM 4.1.1 patch. 3. Launch the Common Services application. <p>Two QPM links are displayed in the Common Services home page.</p> <p>Work around:</p> <p>None.</p>

Table 5 Known Problems in QPM 4.1.3

BugID	Summary	Explanation
CSCta08532	Cannot launch the QPM Dashboard, if a hyphen is included in the install folder name of the Common Services application.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Install Common Service 3.2 from an install folder that has a hyphen in its name. 2. Install QPM 4.1. 3. Launch QPM from the Common Services home page. HTTP Status 404 error is displayed. <p>Workaround:</p> <p>You can directly launch the QPM application by using the URL: <code>http://Server IP Address:1741/qpm/qpm.jsp</code></p>
CSCtd15616	When CRS device has more than one class in a policy map, only the first class in the policy map is imported to QPM.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Create a policy map with more than one class for a CRS device. 2. Choose Provisioning > Policy Management > Import QoS. 3. Check the check box next to the CRS device, and click the Import Policies button. 4. View the Import Report. <p>Only the first class in the policy map is imported. The other classes in the policy map are not imported.</p> <p>Workaround:</p> <p>You can configure different policy maps for each class and import them into QPM.</p>
CSCsy47850	Catalyst 4500: QPM does not import the policy successfully, if two <code>match ip dscp</code> conditions are specified in the policy.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Create a policy with two <code>match ip dscp</code> conditions for a Catalyst 4500 series switch. 2. Choose Provisioning > Policy Management > Import QoS. 3. Check the check box next to the Catalyst 4500 series switch, and click the Import Policies button. 4. View the Import Report. <p>Import Report shows the following error: <code>Unsupported multiple argument values in filter.</code></p> <p>Workaround: None.</p>

Table 5 Known Problems in QPM 4.1.3

BugID	Summary	Explanation
CSCtc69323	QPM does not allow you to edit the AutoQoS policy templates.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Choose Provisioning > Pre-Configuration > Policy Templates. 2. Check the check box next to the AutoQoS policy template that you want to edit, and click Edit. <p>An error message appears.</p> <p>Workaround: None.</p>
CSCtd18538	No CLI is generated for H-QoS service policy configured on a 7600 series router.	<p>This occurs when you:</p> <ol style="list-style-type: none"> 1. Create a policy with H-QoS service for a 7600 series router. 2. Choose Provisioning > Policy Management > Policy Preview > Local Preview. <p>No CLI is generated for H-QoS service.</p> <p>Workaround: None.</p>

Resolved Problems

[Table 6](#) describes some of the problems resolved since the last release of QPM.

Table 6 Resolved Problems in QPM 4.1.3

BugID	Summary	Additional Information
CSCsw81927	QPM did not consistently display the CLI changes made after the job was deployed. Because of this, monitorable policies were not displayed in the Report Card.	This problem has been resolved.
CSCta39745	IE Browser—Script error was displayed at the bottom of the window, when you filtered the IP aliases displayed on the Application Alias page.	This problem has been resolved.

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