Getting Started

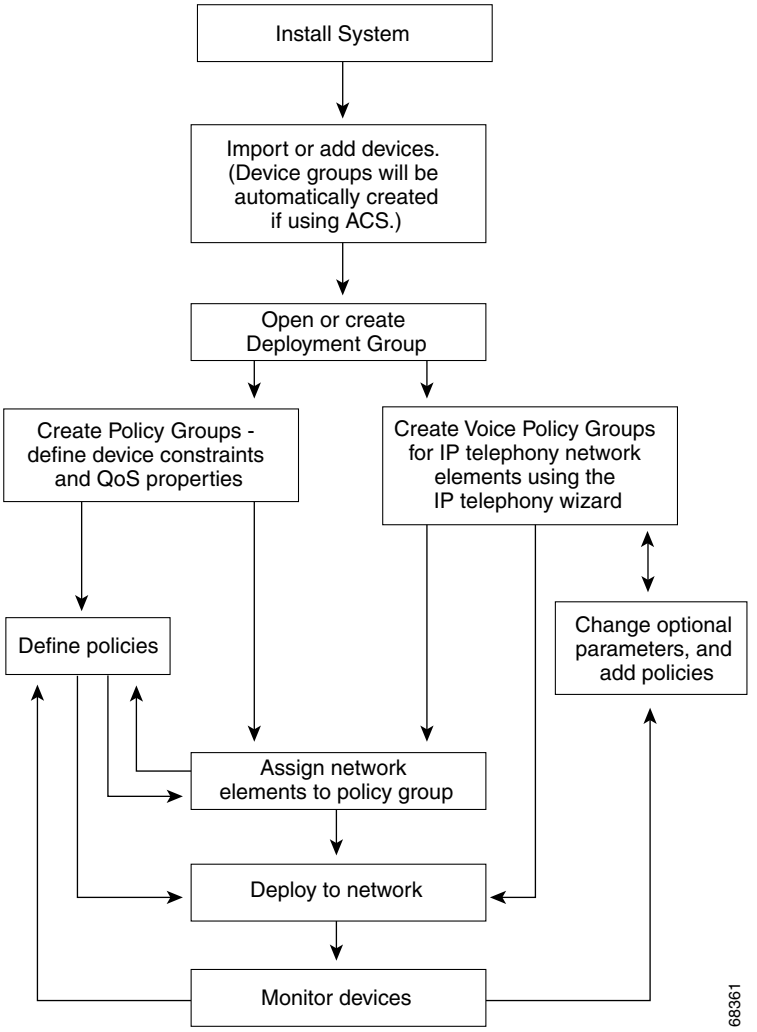
Before you begin to define your QoS policies, you should set up your QoS policy system.

The following topics describe how to start working with QPM.

Understanding the QPM Workflow

The QPM workflow is flexible and allows you to navigate between the QPM management applications. Figure 3-1 describes a common workflow for defining policies for data and IP telephony networks.

Figure 3-1 QPM Workflow



The main workflow tasks are:

- Installing QPM—QPM is installed over the Cisco Common Services application. See the *Installation Guide for QoS Policy Manager* for details.
- Adding and importing devices—You add and import devices into the QPM device inventory. You can add devices manually or from a CSV file, or you can import them directly from RME. See Chapter 4, "Managing Devices" for information about adding and importing devices.
- Open or create a deployment group—QPM QoS policies are defined within the framework of deployment groups. When you begin working with QPM, a default deployment group is automatically opened. You can create and manage multiple deployment groups for phased deployment, or for testing what-if scenarios. See Chapter 8, "Working with Deployment Groups" for more information.
- Create policy groups—Policy groups are constrained sets of QoS policies. You must define the device constraints and QoS properties for your policy groups before you can begin to define policies. See Chapter 6, "Working with Policy Groups and Policies" for information about defining policy groups. You can upload the existing QoS configuration on your devices into policy groups. See Uploading Device QoS Configurations to Policy Groups, page 6-16.
- Define policies—Policies contain filters and actions. The policy filter defines the traffic to which the policy actions will be applied. The policy actions can include marking, policing, queuing, and other traffic control techniques. (This step is optional, a policy group's properties will be deployed to the devices, even when there are no policies). See Chapter 6, "Working with Policy Groups and Policies" for information about defining policies.
- Assign network elements to policy group—You can assign network elements in the device inventory to a policy group. On deployment, the policy group's policies will be downloaded to the assigned network elements. You can assign network elements to policy groups before or after defining policies. See Chapter 6, "Working with Policy Groups and Policies" and Chapter 4, "Managing Devices" for information about assigning network elements to policy groups.
- Create voice policy groups for IP telephony networks—QPM provides an IP telephony wizard, which automatically creates the QoS policies required at each network point in your IP telephony network, according to the IP telephony network topology that you define. The QoS policies are defined

using voice policy group templates that follow the Cisco IP Telephony QoS Design Guide recommendations. See Chapter 5, "Configuring QoS for IP Telephony" for information about defining QoS for IP telephony networks.

- Deploy to network—After you have defined devices, policy groups, and policies, you can distribute the policies to devices in the network. See Chapter 7, "Deploying QoS Policies" for more information.
- Perform QoS Monitoring—After you have deployed your QoS configuration to the network, you can validate the effectiveness of your policies. Based on the monitoring results, you can refine your QoS policies to achieve optimum performance. See Chapter 9, "Using QoS Analysis" for more information.

Note You can use QoS monitoring, as a starting point for defining QoS policies, to profile traffic by critical applications, or DiffServ classes.

Related Topics

- Starting QPM, page 3-4

Starting QPM

QoS Policy Manager is accessed from the CiscoWorks desktop.

Procedure

Step 1 In your web browser, start CiscoWorks. The default URL is http://<*QPMinstall*>:1741, where <*QPMinstall*> is the name of the computer with the QPM installation.

The CiscoWorks desktop is displayed.

Note The first time you start CiscoWorks on a CiscoWorks server or a client machine, the Java Runtime Environment is automatically installed.

Note Verify on the front page that Java, JavaScript, and cookies are enabled. If they are not enabled, change your browser preferences to enable them, then continue to the next step.

Step 2 Log into CiscoWorks with your user name and password.

The CiscoWorks navigation tree appears in the left pane.

Step 3 Click **QoS Policy Manager** in the navigation tree.

Step 4 Click **QPM** under the QoS Policy Manager drawer.

A Security Alert window opens. Click **Yes** to proceed.

QPM opens in a separate browser window.

Related Topics

- Working with the QPM User Interface, page 3-5
- User Permissions, page 3-11
- Exiting QPM, page 3-12
- Problems Starting QoS Policy Manager, page 11-4

Working with the QPM User Interface

The following topics familiarize you with the QPM user interface:

- Understanding the QPM User Interface, page 3-6
- Using QPM Tables, page 3-8
- Using QPM Wizards, page 3-10
- Working with Multiple Users, page 3-11

Related Topics

- Starting QPM, page 3-4
- Exiting QPM, page 3-12
- Troubleshooting User Interface Problems, page 11-6

Understanding the QPM User Interface

All the pages in the web-based QPM user interface have a consistent look and feel. Figure 3-2 shows an example of a QPM page.

Figure 3-2 Example of a QPM Page

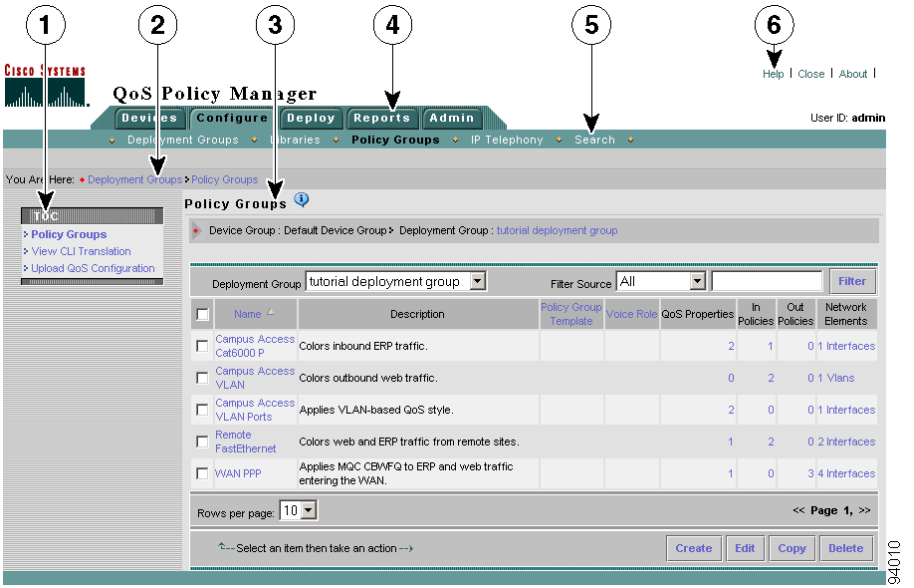


Table 3-1 describes the common elements in each page.

Table 3-1 Common GUI Elements in a QPM Page

Number	Area	Description
1	TOC	Provides up to two additional levels of navigation, if required: • A submenu for the selected option. • In a wizard context, this area displays the wizard steps.
2	Path bar	Provides a context for the displayed page. Indicates from which tab and option the current page is derived.

Table 3-1 Common GUI Elements in a QPM Page (continued)

Number	Area	Description
3	Content area	Displays the pages in which you perform application tasks.
4	QPM tabs	Contains tabs that provide access to QPM functionality. Click a tab to access its options: • Devices—Contains options for managing devices and device groups in the QPM inventory. • Configure—Contains options for defining policy groups and policies, and configuring QoS for IP telephony. This tab also includes options for working with global library policy components. • Deploy—Contains options for deploying QoS policies, and for previewing the CLI configuration on the devices. You can also view and restore previously deployed jobs through this tab. • Reports—Provides access to QPM reports, and to the Performance Analysis application. • Admin—Contains additional administration options.
5	Option bar	Displays the options available for the selected tab.
6	QPM banner	Contains the Help, Close, and About buttons: • Click **Help** to open a window that displays context-sensitive help for the currently displayed page. The Help page also contains help contents, so that you can use this button to access any online help topic. • Click **Close** to close the QPM window. • Click **About** to display details about the version of the application.

Note It is not recommended to use the browser Back button to navigate in QPM.

Related Topics

- Using QPM Tables, page 3-8
- Using QPM Wizards, page 3-10
- Working with Multiple Users, page 3-11

Using QPM Tables

In QPM, lists of items are displayed in tables. A table consists of a table header with filtering criteria, column headers with the column titles, a table footer with the table action buttons, and one or more table pages containing the table contents.

In general, you must select a table item before you click an action button. (Some actions do not require any item selection, for example, creating a new item.)

When an action can apply to more than one item, for example, deleting items, you can select multiple items in a single page, and then click the action button. You can select all items in a table by selecting the check box in the column header row.

Note If you select items in a table page, and then attempt to open another table page without clicking an action button, a warning message appears.

You can change the table display in the following ways:

- Change the number of rows you want to appear on a table page. Select the number of rows in the Rows per page list box in the table footer. Select **All** to display all table rows in a single page.
- Display a subset of items using the Data Source list box in the table header. Choose a category in the Data Source list box. Items in the selected category only, are displayed.
- Display a subset of items using the filtering option in the table header:
  - Choose the item by which you want to filter in the Filter Source list box.
  - Enter the matching string in the field.
  - Click **Filter**.

  The filtering option operates on all pages in the table.
- Sort items in the entire table by clicking the column headers.

Related Topics

- Understanding the QPM User Interface, page 3-6
- Using QPM Wizards, page 3-10
- Working with Multiple Users, page 3-11

Using QPM Wizards

QPM wizards guide you through the steps required to complete configuration tasks in QPM.

Each step in a wizard can consist of one or more pages and dialog boxes. A step can also contain substeps. You can navigate through the wizard steps using either the Next and Back buttons, or the wizard navigation TOC in the left pane.

Note It is recommended not to use the browser Refresh button when working in a wizard. Using the browser Refresh button might result in loss of data.

When you open a wizard, some steps might be disabled depending on previous configurations you have made. As you progress through a wizard, some steps might become disabled depending on the choices you make in each step.

The configuration settings that you define in a wizard are saved only when you complete the wizard by clicking the Finish button. If you click the Cancel button in the wizard, or if you choose another QPM option while in the wizard, your wizard settings will not be saved.

Note In the IP Telephony wizard, new policy groups are saved when you complete each step.

Related Topics

- Understanding the QPM User Interface, page 3-6
- Using QPM Tables, page 3-8
- Working with Multiple Users, page 3-11

Working with Multiple Users

Multiple users can work with QPM at the same time. Whenever you save changes, for example, when you complete a wizard, or edit an item, QPM checks whether you are modifying the latest version of that item. An item might be a policy group, policy, global library item, and so on.

If you are not editing the latest version, meaning another user has saved changes to the item since you accessed it for editing, QPM displays a message informing you that you are not working with the latest version of the item, and will not let you save the changes. This mechanism prevents a user from unintentionally overwriting changes made by another user working at the same time.

Related Topics

- Understanding the QPM User Interface, page 3-6
- Using QPM Tables, page 3-8
- Using QPM Wizards, page 3-10

User Permissions

QPM can work with either Cisco Access Control Server (ACS) permissions or CiscoWorks permissions. QPM permissions for user authorization are mapped to CiscoWorks permission roles or ACS permissions as specified.

User permissions and authentications for QPM are handled by the Cisco Common Services application. Before you begin to work with QPM, you should ensure that you have the appropriate permissions. Verify your user permissions in the CiscoWorks desktop (**Server Configuration > Setup > Security**), or in ACS (depending on the method you are using for user authentication).

To view the types of tasks allowed for each user type in QPM, select **Admin > User Permissions Report**. See User Permissions Report Page, page E-15, for detailed explanations of each user type.

See the *Installation Guide for QoS Policy Manager* for more information about user permissions.

Exiting QPM

When you finish working with QPM, you must log out of CiscoWorks to close the application.

Procedure

Step 1 Click **Close** in any open QPM windows to close them.

Step 2 Click **Logout** in the CiscoWorks desktop window.

The CiscoWorks session ends.