



Using the Service Level View

These topics describe how to use the Service Level View:

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- [Starting the Service Level View, page 2-2](#)
- [Understanding the Layout of the Service Level View, page 2-2](#)
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- [Launching Operations Manager Tools from the Service Level View, page 2-11](#)

Understanding the Service Level View

IP Communications Operations Manager's Service Level View display a logical topology view of your IP telephony implementation. This logical view focuses on call control relationships.

The Service Level View shows all the Cisco CallManager clusters; all instances of Cisco CallManager Express (and their logical groupings); associated gateways, gatekeepers, application servers, and Cisco IP Contact Centers (and their logical groupings); and SRST-enabled devices; as well as each component's registration status with Cisco CallManager.

The Service Level View is designed so that you can set it up and leave it running, providing an ongoing monitoring tool that signals you when something needs attention. When a fault occurs in your network, Operations Manager generates an event or events that are rolled up into an alert. If the alert occurs on an element, it is shown on the Service Level View.



Note

When changing an IPT application's registration from one Cisco CallManager cluster to another, you must remove the registration of the IPT application to the old Cisco CallManager cluster in both the IPT application and the old Cisco CallManager cluster. If you do not do this, registration of the IPT application with the old Cisco CallManager cluster will continue to appear in the Service Level View in a down state.

The Service Level View is a tree-based and map-based display. It displays all the IP telephony clusters present in your network. The display uses a view (a logical grouping of device groups) to organize what you want to see. There is one default view called All IP Telephony Devices. You can also create your own user-defined views. (For details on managing views, see [Managing Views, page 6-1](#).)

The All IP Telephony Devices view contains all the Cisco CallManager clusters and all the devices associated with the clusters in your network. You cannot add to or edit this default view. The All IP Telephony Devices view is what you see the first time you launch the Service Level View.

The user-defined views that you create using group management (see [Working with User-Defined Groups, page 16-8](#)) can contain any clusters or device groups that you want.

You can specify any user-defined view as the default view, meaning you can specify what view should appear when you open the Service Level View.

You can use the Service Level View to:

- Display a logical or neighbor topology view of your IP telephony deployment. See [Starting the Service Level View, page 2-2](#).
- View and act on alerts for devices. See [Getting Alert Details Using the Service Level View, page 2-10](#).
- Run other Operations Manager tools. See [Launching Operations Manager Tools from the Service Level View, page 2-11](#).
- Launch administration pages for devices. See [Launching Administration Pages for Devices, page 2-18](#).

Starting the Service Level View

To start the Service Level View, select **Monitoring Dashboard > Service Level View**. [Figure 2-1](#) shows an example of a Service Level View.

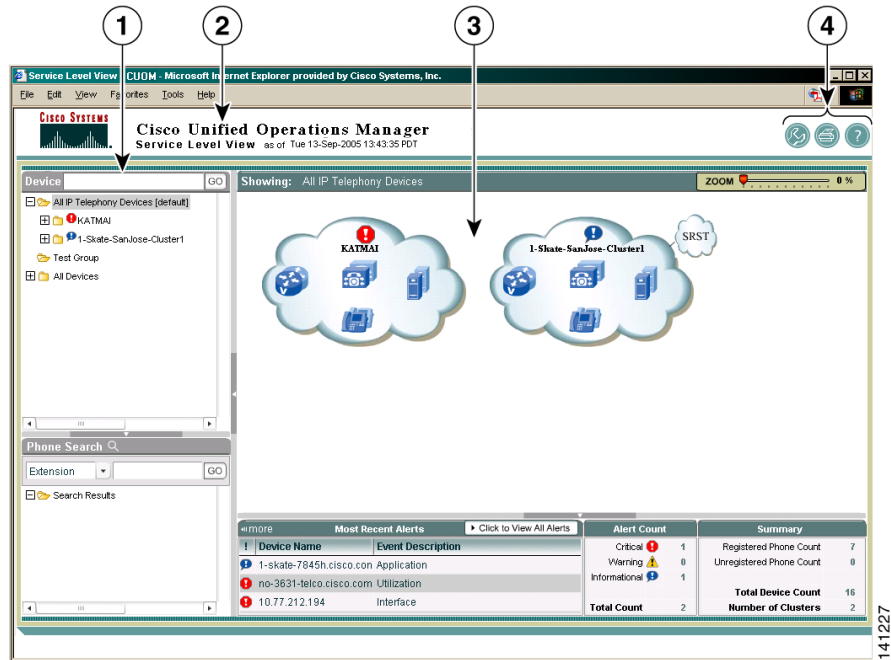
Understanding the Layout of the Service Level View

These topics provide details about the information in the Service Level View:

- [Working with the View Pane, page 2-5](#)
- [Working with the Map Display Pane, page 2-6](#)
- [Setting a Default Service Level View, page 2-7](#)
- [Starting the Connectivity Detail View, page 2-8](#)
- [Service Level View Legend, page 2-8](#)

[Figure 2-1](#) shows an example of the Service Level View.

Figure 2-1 Service Level View



1	View pane. See View Pane, page 2-3 .	3	Map display pane. See Map Display Pane, page 2-4 .
2	Launch information and view status bar area. See Launch Information and View Status Bar Area, page 2-4 .	4	Window tools area. See Window Tools Area, page 2-4 .

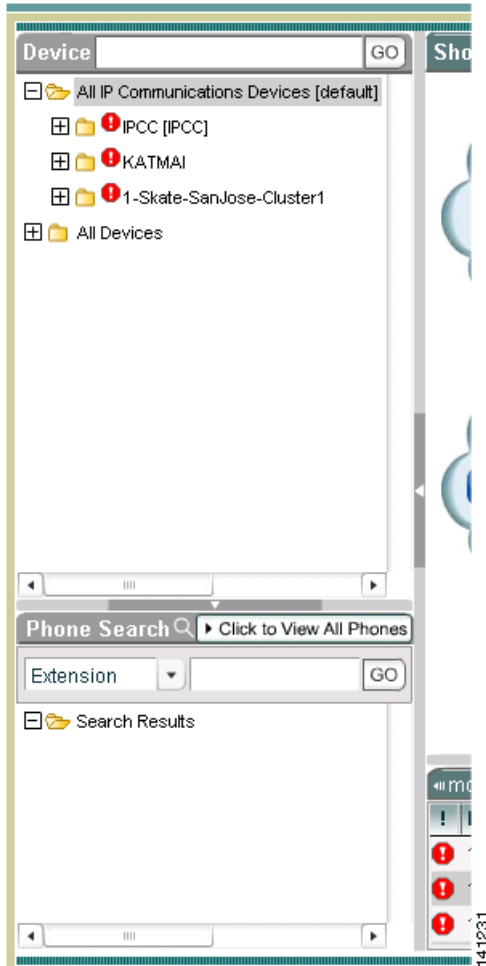
View Pane

The view pane lists the currently available views in a tree-based format. By default, the All IP Telephony Devices view is shown, and cannot be deleted from your Service Level View. You can create user-defined views that appear in the view pane. Views must be created and activated before they will be shown in the Service Level View. (To create and activate a view or remove an unwanted view from your display, see [Managing Views, page 6-1](#).)

The current view is highlighted in the view pane. The contents of the current view are shown in a map-based format in the map display pane to the right of the view pane. For details on working with the view pane, see [Working with the View Pane, page 2-5](#).

Figure 2-2 shows two active views; the current view is All IP Telephony Devices.

Figure 2-2 Service Level View—View Pane



Launch Information and View Status Bar Area

The launch information area shows the time on the server when the Service Level View was started.

The view status bar lists the selected view, which is shown in the map display pane.




Map Display Pane

The map display pane shows a map-based view of the current selected view. It also provides a summary of the view. The summary lists alert information, and the number of phones and devices in the selected view. For details on working with the map display pane, see [Working with the Map Display Pane, page 2-6](#).

Window Tools Area

The top-right corner of the Service Level View contains available tools buttons. All buttons are described in [Table 2-1](#).

Table 2-1 Service Level View—Window Tool Buttons

Icon	Meaning	Described in...
	Opens additional tools. Like the following: <ul style="list-style-type: none"> Alert History. Campus Manager. 	Getting All Stored Information on an Alert, page 11-3 Launching Campus Manager, page 2-19
	Opens a printer-friendly version for printing.	Printing Displays or Reports, page 1-18
	Opens the Operations Manager online help.	Using Help, page 1-16

Working with the View Pane

The view pane lists the current active views. The first time you open the Service Level View, the All IP Telephony Devices view is displayed. If you do not want All IP Telephony Devices to be your default view, you can change it. (See [Setting a Default Service Level View, page 2-7](#).)

If you have created any user-defined groups and enabled the views for the Service Level View, they will also appear in the view pane. (For details on managing views, see [Managing Views, page 6-1](#).)

To drill down to an object in the view pane, click the object, and the devices under the object are displayed.

You can also see the neighbor connectivity of devices, by using the right-click menu. For every selected device, the next-hop devices physically connected are displayed. See [Starting the Connectivity Detail View, page 2-8](#).

If you want to locate a specific device or phone you can use the search options available in the view pane. [Figure 2-2](#) shows an example of the view pane.

Using the Search Tool to Locate a Device

In the Service Level View you can search for a specific device.

-
- Step 1** In the search field at the top of the view pane, enter a name or IP address.
- Step 2** Click **Go**.
-

Using the Search Tool to Locate a Phone

In the Service Level View you can search for a specific phone.

When you click on a phone from the phone search results, the map display pane displays a drilled-down view, with the phone highlighted. The phone will have a logical link to the Cisco CallManager to which it is registered.

-
- Step 1** In the search field located at the bottom of the view pane, select whether you want to search by extension number, IP address, or MAC address.
- Step 2** Enter the appropriate number for the phone.
- Step 3** Click **Go**.
-

Working with the Map Display Pane

The map display pane shows the registration status of IP telephony devices as well as the SRST status of SRST-enabled devices. This information is displayed in a map-based view. You can drill down to an object in the display pane by clicking the object. The devices under the object are then displayed.

The top view shows Cisco CallManager clusters, Cisco CallManager Express, and Cisco IP Contact Center (IPCC) solution groups. When you drill down on these objects, you will see the IP telephony devices registered in the group along with registration status.

For Cisco CallManager Express, if there are more than ten groups, you will see only one Cisco CallManager Express cloud in the top level view. You can drill down to see the individual Cisco CallManager Express.

For IPCC, the top-level view displays only one IPCC cloud. This is to let you know that the system has an IPCC solution. When you drill down on this cloud, the individual IPCCs appear again as clouds. Drilling down on these clouds show the individual devices with relevant information.

You can also see the neighbor connectivity of devices, by using the right-click menu. For every selected device, the next-hop devices physically connected are displayed. See [Starting the Connectivity Detail View, page 2-8](#).



Note

To enlarge or reduce the size of the map display, use the size slider at the top of the pane. The size slider can be used in either the logical topology view, or the connectivity detail view.

From within the map display pane, you can launch several Operations Manager tools, external applications, and device administration pages.

To access these tools and applications, right-click on an object in the map display and the available options are displayed in a menu box. For details on starting the Operations Manager tools, see [Launching Operations Manager Tools from the Service Level View, page 2-11](#). For details on launching administration pages, see [Launching Administration Pages for Devices, page 2-18](#).

The map display pane also provides a summary of the alerts for the current view at the bottom of the pane (see [Working with the Map Display Pane, page 2-6](#)).

[Figure 2-3](#) provides an example of a Service Level View map display.

Figure 2-3 Service Level View Map Display Pane

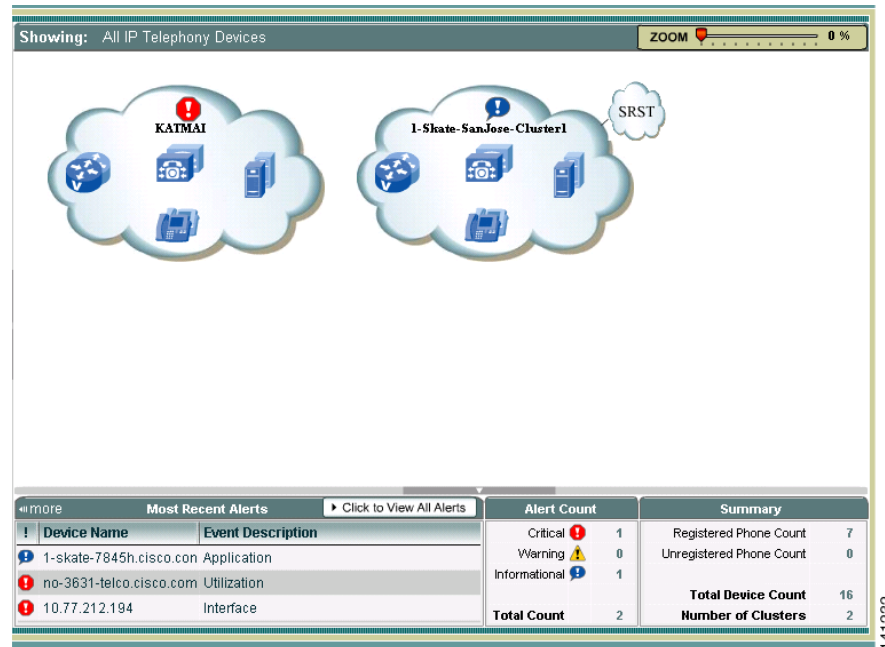


Table 2-2 Map Display Pane—Summary

Button/Heading	Description
Most Recent Alerts	Device name and description.
Click to View All Alerts	Opens the Alerts and Events display.
Alert Count	Lists the number of each type of alert and a total count.
Summary	Lists the number of phones, devices, and clusters.

Setting a Default Service Level View

You can specify any user-defined group as the default view.

- Step 1** The user-defined group must be enabled as a view for the Service Level View. For details on enabling views, see [Creating a View, page 6-2](#).
- Step 2** In the view pane, locate the user-defined view that you want to make the default view.
- Step 3** Right-click on the view.
- Step 4** From the menu, select **Set As Default View**.
- Step 5** In the information box, click **OK**.

Starting the Connectivity Detail View

The Connectivity Detail View provides a topology view of the neighboring connectivity for the selected devices. For every selected device, the next-hop devices that are physically connected appear. You can change the number of hops you want displayed (between one and five).

-
- Step 1** In either the view pane or the map display pane, right-click on the device for which you want to view the connectivity detail.
- Step 2** From the menu, select **Connectivity Details**.
The Connectivity Detail View appears.
-

Working with the Connectivity Detail View

You can use the Connectivity Detail View the same way you use the Map Display Pane (see [Working with the Map Display Pane, page 2-6](#)). The one additional function the Connectivity Detail View provides is the ability to change the number of hops using the Hop Count field.

Service Level View Legend

[Table 2-3](#) and [Table 2-4](#) describe the icons and the link status that can appear in the Service Level View.

Table 2-3 Device Icons for the Service Level View









Icon (Monitored)	Icon (Not Monitored)	Description
		Cisco CallManager
		Cisco CallManager Express/SRST
		Cisco Unity Express
		Voice Gateway

Table 2-3 Device Icons for the Service Level View (continued)















Icon (Monitored)	Icon (Not Monitored)	Description
		IP phone and group of IP phones
		Switch
		Voice application server
		Application server/IPCC
		Cisco Unity
		Router
		Gatekeeper

Table 2-4 Link Type Description for the Service Level View










Link	Description
	Physically connected, but the connection is down.

Table 2-4 Link Type Description for the Service Level View (continued)

Link	Description
	Physically connected, but one of the multiple connections is down.
	Physically connected and the connection is up.
	Logically connected, but registration status is down.
	Logically connected, but registration status is down.
	Logically connected and registration status is up.
	A WAN link connecting a remote SRST to a central Cisco CallManager site is down.
	A WAN link connecting a remote SRST to a central Cisco CallManager site is up.
	Logically related, but the registration status is unavailable.




Getting Alert Details Using the Service Level View

In the Service Level View, as shown in [Figure 2-1](#), an alert icon appears next to the device when an alert is generated on the device. The alert severities are critical, warning, or informational. [Table 2-5](#) shows the alert icons.

When an alert is generated, it remains in the Service Level View until it expires. Operations Manager sets an alert state to Expired when Operations Manager performs its normal polling and determines that the alarm has been in the Cleared state for 30 minutes or longer (from the time of polling). While the alert is in the display, if any of its events recur, the alert is updated.

[Table 2-5](#) shows the alert icons.

Table 2-5 Alert Icons

Icon	Description
	Critical
	Warning
	Informational: Unidentified Trap alert

The Service Level View also lists the number of alerts in the map display pane for the current view (see [Working with the Map Display Pane, page 2-6](#)).

How Do I Get Alert Details Using the Service Level View?

You can right-click on the device that has the alert icon displayed next to it, and open an Alert Details page. See [Viewing Alert Information, page 2-12](#).

If you want to see all the alerts for a view, you can open an Alert and Events display by clicking the **Click to View All Alerts** button at the bottom of the map display pane. You can then locate the devices for which you want to view the alert information. See [Getting Alert Details Using the Alerts and Events Display, page 3-4](#).

Launching Operations Manager Tools from the Service Level View

The Service Level View can be a central launching point for using Operations Manager. You can access several Operations Manager tools as well as external applications through the Service Level View.



Note

You will have access to these tools only if you have proper authorization, according to either the CiscoWorks security model or CiscoSecure Access Control Server security model, depending on which your system is using. See [Configuring Users \(ACS and Non-ACS\), page 19-19](#).

You can do the following from the Service Level View:

- View alert information for a device (see [Viewing Alert Information, page 2-12](#)).
- View alert and event history for a device (see [Viewing Alert History, page 2-12](#)).
- View device information (see [Viewing Device Information, page 2-12](#)).
- View associated phones for a Cisco CallManager (see [Viewing Associated Phones, page 2-13](#)).
- Launch the Path Analysis tool (see [Launching the Path Analysis Tool, page 2-13](#)).
- View performance monitoring (see [Viewing Performance Monitoring, page 2-15](#)).
- Set up synthetic tests on a device (see [Setting Up Synthetic Tests, page 2-15](#)).

- Set up node-to-node tests on a device (see [Setting Up Node-To-Node Tests, page 2-16](#)).
- Set up SRST monitoring for a device (see [Setting Up SRST Monitoring, page 2-16](#)).
- Edit polling and threshold settings (see [Configuring Threshold Settings, page 2-17](#) and [Configuring Polling Settings, page 2-17](#)).
- Create user-defined groups (see [Creating User-Defined Groups, page 2-17](#)).
- Launch administration pages for devices (see [Launching Administration Pages for Devices, page 2-18](#)).
- Launch external applications (see [Launching External Applications, page 2-18](#)).

Viewing Alert Information

-
- Step 1** In either the view pane or the map display pane, right-click on the device for which you want to view alert information.
- Step 2** From the menu, select **Alert Details**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Alert Details page for the selected device appears. For a description of the Alert Details page, see [Starting the Alert Details Page, page 3-9](#).

Viewing Alert History

-
- Step 1** In either the view pane or the map display pane, right-click on the device for which you want to view alert history.
- Step 2** From the menu, select **Alert History**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

An Alert History report for the selected device appears. For a description of the Alert History report, see [Understanding the Alert History Report, page 11-10](#).

Viewing Device Information

-
- Step 1** In either the view pane or the map display pane, right-click on the device for which you want to view information.
- Step 2** From the menu, select **Detailed Device View**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Detailed Device View for the selected device appears. For a description of the Detailed Device View, see [Understanding the Layout of the Detailed Device View, page 3-19](#).

Viewing Associated Phones

You can view an associated phones report. If you are viewing an associated phones report for a switch, the report displays the phones that are connected to the switch. If you are viewing an associated phones report for a Cisco CallManager or Cisco CallManager Express the report displays all the phones that are registered to the Cisco CallManager or Cisco CallManager Express.



Note The Associated Phones report can be launched from either the Alert Details page, or from the Detailed Device View page using the Tools Launch menu. (See [Understanding the Layout of the Alert Details Page, page 3-10](#), or [Understanding the Layout of the Detailed Device View, page 3-19](#).)

Step 1 In either the view pane or the map display pane, right-click on the phone, Cisco CallManager, or Cisco CallManager Express for which you want to view associated phones.

Step 2 From the menu, select **Phone Details**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

An Associated Phones report for the selected device appears. For a description of the IP Phone Detail reports, see [Understanding IP Phone Reports, page 12-8](#).

Launching the Path Analysis Tool

The Path Analysis tool provides hop-by-hop latency information for all the Layer 3 devices. It uses the ping path echo operation of IP SLA. The Path Analysis tool can be launched for any IP SLA-enabled device.

You can select an IP SLA-enabled source and/or a destination device from either the view pane or the map display pane and launch the tool.



Note The Path Analysis tool can also be launched from the Service Quality Alert Detail page using the Tools Launch menu. (See [Using the Service Quality Alert Details Display, page 4-7](#).)

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to run the Path Analysis tool.



Note To select multiple devices, use the Ctrl-click operation to select the devices, and then Ctrl-right click to open the menu.

Step 2 From the menu, select **Path Analysis Tool**. The Path Analysis Tool page appears.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

Step 3 Verify that the source and destination devices are correct.

Step 4 Click **Start Trace**. The Credentials for Source Device dialog box appears.

Step 5 Enter source devices' credentials.

Step 6 Click **OK**. The tool runs and the results are displayed on the Path Analysis Tool page. [Figure 2-4](#) shows an example of a Path Analysis tool.

Figure 2-4 Path Analysis Tool

Path Analysis Tool

Source and Destination Details

Source IP Address:

Destination IP Address:

Path Information

Showing 16 records

Hop Id	Device IP Address	Device Type	Status	Latency from Source	Tools
1. 1	10.76.93.9			2 ms	- Select -
2. 2	10.76.93.1			1 ms	- Select -
3. 3	10.76.75.77			1 ms	- Select -
4. 4	10.76.75.69			1 ms	- Select -
5. 5	10.76.64.5			1 ms	- Select -
6. 6	10.76.2.185			1 ms	- Select -
7. 7	10.76.0.2			2 ms	- Select -

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Heading	Description
Hop ID	Hop ID.
Device IP Address	Device's IP address.
Device Type	Icon representing the type of device.
Status	Icon representing the status of the device.
Latency from Source	Latency in milliseconds.
Tools	Other Operations Manager tools that you can run on the device. This list will vary depending on the device. Some examples are: <ul style="list-style-type: none"> • Node-to-Node tests • SRST tests

Viewing Performance Monitoring

You can select and examine changes in network performance metrics. You can select, display, and chart network performance data in real time.

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to view performance.

Step 2 From the menu, select **Performance**. The Select Metrics dialog box appears.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

Step 3 Select the metrics you want to graph. The metrics must have the same units.

Step 4 Click **View Graph**. A performance and capacity planning graph appears. For details about working with the performance graphs, see [How to Use Performance Graphs, page 7-1](#).

Setting Up Synthetic Tests

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to set up a synthetic test.

Step 2 From the menu, select a synthetic test. Your choices will vary depending on the device. For synthetic test details, see [Getting Started with Synthetic Tests, page 9-1](#).



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Create Synthetic Test page appears. For details on creating synthetic tests, see [Creating Synthetic Tests, page 9-5](#).

Setting Up Node-To-Node Tests

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to set up a node-to-node test.

Step 2 From the menu, select **Node-To-Node Test**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Node-To-Node Test Configuration page appears. For details on creating node-to-node tests, see [Creating a Single Node-To-Node Test, page 10-2](#).

Setting Up Node-To-Node Test Graphs

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to set up a node-to-node test graph.

Step 2 From the menu, select **Node-To-Node Test Graphs**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Node-To-Node Test Configuration page appears. For details on creating node-to-node tests, see [Creating a Single Node-To-Node Test, page 10-2](#).

Setting Up SRST Monitoring

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to set up SRST monitoring.

Step 2 From the menu, select **SRST Test**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The SRST Test Configuration page appears. For details on creating SRST tests, see [Configuring a Single SRST Test as Needed, page 18-9](#).

Configuring Threshold Settings

- Step 1** In either the view pane or the map display pane, right-click on the device for which you want to change the threshold settings.
- Step 2** From the menu, select **Threshold Parameters**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Managing Thresholds: Edit page appears. For details on editing thresholds, see [Editing Thresholds, page 17-25](#).

Configuring Polling Settings

- Step 1** In either the view pane or the map display pane, right-click on the device for which you want to change the polling settings.
- Step 2** From the menu, select **Polling Parameters**.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The Polling Parameters: Edit page appears. For details on editing polling parameters, see [Editing Polling Parameters, page 17-13](#).

Creating User-Defined Groups

The Service Level View provides you with a quick way to create a new user-defined group, by selecting either devices or groups. You cannot edit existing user-defined groups or create rules for populating groups through this page. Administrative grouping activities is performed in the Group Administration and Configuration page (for details, see [Managing Groups, page 16-1](#).)

- Step 1** In either the view pane or the map display pane, select the devices or groups (use Ctrl-click to select the objects) that you want to group.
- Step 2** Press Ctrl and right-click to open the menu.
- Step 3** From the menu, select **Group Devices**. The Create Group menu appears.



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

- Step 4** Do the following:
- Enter a group name
 - (Optional) Enter a description
 - Select which dashboard displays you want the group to appear in as a view
- Step 5** Click **Create**.
-

Launching Administration Pages for Devices

The Service Level View provides you with links to the administration pages of the monitored devices. The availability of these pages depends on the device type. For example, Cisco CallManager and Cisco Unity devices provide access to their administration pages.

Step 1 In either the view pane or the map display pane, right-click on the device whose administration page you want to open.

Step 2 From the menu, select the administration page link.

The following list shows the possible options you may see (depending on the device):

- Gateway Administration
- CallManager Administration
- CallManager Serviceability
- Unity Administration



Note If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

The administration page opens.

Launching External Applications

The Service Level view provides you with launching points for several external applications. From the Service Level view you can launch the following external applications:

- [Launching RME, page 2-19](#)
- [Launching Campus Manager, page 2-19](#)
- [Launching CiscoView, page 2-19](#)

**Note**

Before you can launch any of these applications, you must register them with Operations Manager (through Administration > Preferences). See [Setting System-Wide Parameters Using System Preferences, page 19-12](#).

Launching RME

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to open CiscoWorks Resource Manager Essentials (RME).

Step 2 From the menu, select one of the following:

- CiscoWorks Device Center
- RME Detailed Device Report
- RME Software Image Management

**Note**

If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

RME opens.

Launching Campus Manager

Step 1 Click the tool icon in the Window Tools Area. The Tools dialog box appears.

Step 2 Select one of the following:

- Campus Path Analysis
- Campus Topology

CiscoWorks Campus Manager opens.

Launching CiscoView

Step 1 In either the view pane or the map display pane, right-click on the device for which you want to open CiscoView.

Step 2 From the menu, select CiscoView.

**Note**

If the tool or application you want to launch does not appear in the menu, click the **More Tools** menu item. This launches a secondary menu.

CiscoView opens.

