



## Manage Inventory

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## View Inventory Details

Cisco Prime Collaboration performs continuous, real-time discovery of inventory. You need to periodically update the inventory so that you have up-to-date information about your network. You can schedule how often you want to update inventory.

When you update inventory, the inventory synchronizes with the Cisco Prime Collaboration database. The Cisco Prime Collaboration inventory reflects every addition, deletion, and modification that occurs in the network after update.

In Cisco Prime Collaboration, devices are grouped based on the device type. The Device Group pane is available in the , Diagnostics (as a filter), Endpoint Diagnostics, and Alarms and Events pages. You can select devices or endpoints from the groups you are interested in, to check inventory details.

You can hover over the device host name column in the inventory table, and click the Device 360 ° view to see device details, such as alarms, interfaces, ports, environments, modules and other device-specific capabilities of that device. For more information, see [Device 360° View](#).

In addition to the inventory table, the page contains System Information, Access Information, Interface Information, and Event Settings panes that appear below the inventory table. All of these panes are populated based on the last polled data. A device must be in the Managed state at least once for these details to be displayed.

## Inventory Pane

The current inventory table is available in the Inventory page.

Each device that is managed by Cisco Prime Collaboration is modeled to display the physical inventory of a device (interface and peripherals). To view the inventory details for a device, click on a row in the Current Inventory pane.

To select multiple devices (first 500 entries), use the check box available on the top left corner of the Current Inventory pane.

You can modify the credentials and rediscover devices using the Modify Credentials option. Click on Job Progress in the confirmation message window and cross launch to the Jobs Management page to see the details of the discovery job.

You can suspend and resume the management of the device using the Suspend and Resume options. Inventory is not updated for devices in the Suspended state.

You can use the show drop-down list on the inventory table to filter devices based on the device type and state. For example, if you want to rediscover all deleted devices in your network, select Deleted from the show drop-down list. The inventory table will list all deleted devices. Perform rediscovery to discover these devices.

There are options such as Quick Filters, Advanced Filters to filter devices based on the device criteria.

The Total field in the upper right corner of the inventory table displays the device count. To view the number of devices in a group, select the group.

For example, to view the number of phone endpoints, select the Endpoints group in Device Group. The number of endpoints will be updated in the Total field. For more information on the device count, see the Field Descriptions for the Current Inventory table.

This table describes the fields on the Inventory table. Not all columns of the inventory table appear by default. To see all the columns, click the Settings option on the top right corner. You can export the inventory table as a CSV or a PDF file by clicking the Export icon at the upper right corner of the inventory table.

**Table 1: Field Descriptions for the Current Inventory Table**

Field	Description
Endpoint Name	Name assigned to the endpoint for ease of identification.
Extension	Directory Number of endpoints. This number helps to identify a device uniquely.
Phone Description	A unique description of the endpoints that you have added during configuring the devices on Cisco Unified Communications Manager (CUCM) or Cisco TelePresence Video Communication Server (VCS).
Host Name	Name assigned to the device for ease of identification.
Model	Device model, such as Catalyst3506G48PS.

Field	Description
IP Address	IP address used for managing the device. Click on the IP address to log into the device. Click on the quick view icon to launch the Device 360 Degree View for that device. For routers and switches, you must associate a terminal client application, such as Putty, to log into the device.
Mac Address	MAC Address of the devices.
Software Type	Software running on the device, such as IOS, CatOS.
Software Version	Software version running on the device.
Device Pool	Only for CUCM registered devices.
Partition	Only for CUCM registered endpoints.
Serial Number	Applicable only for endpoints.
State	Status of the device.
Status Reason	Reason for the device status.
Type	The most applicable role or service of the device.
Capabilities	All other roles or services of the device.
Last Discovered	Date and time when the device was last discovered. The time will be according to the time zone set in the Cisco Prime Collaboration server.

## Device 360° View

You can get a concise summary information regarding any device through its 360° view. Rest your mouse over a device IP address, then click the quick view icon to launch the Device 360° View window. You can also do a global search for a device to see the device details in the Device 360° View.

In addition to viewing device information such as status, location, you can also view modules, alarms, and interfaces on the device, invoke tools like ping, and traceroute for that device.



### Note

If you are using Internet Explorer 10 and 11, ensure that you have the recommended browser settings to view the Device 360° View window. Press F12 in your browser and set the following:  
Launch the browser again to view the Device 360° view window.

The 360° Device View window contains the following device details:

**Table 2: Field/Buttons and their Description**

Field	Descriptions
State	You can hover on the State icon to know the state of the device. Different colors of the icon represent different states.
Status Reason	You can hover over the icon to know the status reason of the device and any additional activities you need to perform to make all features work. Different colors of the icon correspond to the state the device is in.
Host Name	—
Host IP /Global IP Address	You can click the IP address to launch the device management page. To log into routers and switches, ensure that you click on the IP address and associate a terminal client application, such as TELNET or SSH.
MAC Address	MAC address of the device.
Type	The device type or primary role or capability of the device is mentioned on the right corner below the hostname row. For example, Finesse, Unified CM or Unity Connection.
Version	Software version of the device.
Last discovered	Time stamp of last successful discovery.
Cluster ID	Cluster ID of the cluster the device belongs to. You can click on the cluster ID to launch the Cluster Details page.
—	<p>Click the support community icon to open the Cisco Support Community Dialog box which has the related posts and discussions filtered for the device. You can post a question for that device.</p> <p>You can go to the support pages of other devices, and also visit the support community page of Cisco Prime Collaboration. To visit the Cisco Prime Collaboration page, click <b>Visit the Cisco Support Community</b>, click on Navigate to a Community Topic and Post pane, then click <b>Collaboration, Voice and Video</b>. In the Collaboration, Voice and Video Communities table, click <b>Prime Collaboration Management</b>.</p> <p>You can post questions in the <a href="#">Cisco Prime Collaboration Community</a> forum, and look for related questions or information in existing discussions, videos, and additional documents for your issues.</p> <p>For business impacting technical issues, we recommend that you open a service request with Cisco TAC for timely support.</p>
—	Click the ping icon to ping the device and get ping statistics, such as the number of packets transmitted and received, packet loss (in percentage), and the time taken to reach the device by ping in milliseconds (ms).

Field	Descriptions
—	Click the traceroute icon to know the route to reach the device, the number of hops to reach the device, and the time elapsed at each hop in milliseconds (ms).
—	Click the tasks icon, and select from the drop-down list to perform multiple tasks such as launching performance graphs and managing thresholds. <b>Note</b> The options available depend on the device you have selected.

Other device-specific information is as follows:

**Table 3: Device 360° View - Tabs Description**

Tabs	Description
Alarms	It includes the following: <ul style="list-style-type: none"> <li>• Severity—Severity of the alarm</li> <li>• Status—Status of the alarm</li> <li>• Name—Name of the device</li> <li>• Component—Name of the component that has alarms</li> <li>• Last Updated—Time stamp of the last alarm generation.</li> </ul>
Interfaces	It includes details on interfaces, voice interface and port (whichever applicable for the device). It specifies the card is playing on a particular port, and the capability of the card. The following information is available for the interface, voice interface and port: <ul style="list-style-type: none"> <li>• Operation Status—Operational state of the device</li> <li>• Admin Status—Administrative status of the interface</li> <li>• Name—Description of the device</li> <li>• Address—Physical address of the device</li> <li>• Type—Device type</li> </ul>
Card/Services	It includes the following: <ul style="list-style-type: none"> <li>• Name—Description of the voice/service</li> <li>• Version—Version of the card/service</li> <li>• Status—Status of the card/service</li> </ul>
Port	—

Tabs	Description
Environment	It includes: <ul style="list-style-type: none"><li>• Power supply</li><li>• Fan</li><li>• Temperature sensor</li><li>• Voltage sensor</li></ul>
Device-specific details	—

**Note**

The fields displayed depend on the device you have selected.

**Metric Charts**

You can view metric charts for voice devices (excluding phones) and CTS. These charts appear only for devices in managed state and for which at least one polling cycle is over.

These charts display values for CPU, Memory and Hard Disk utilization etc. You can view maximum, minimum and current value (in percentage or bytes in MB) of the last hour. Each bar on the metric chart denotes a period of four minutes, thus there are 15 bars, each denoting the value for four minutes. The figures in brown represent the minimum value, and the figures in blue represent the maximum value for the last hour.

You can click **See More** to launch performance graphs for some devices.

## Global Search Options for Cisco Prime Collaboration

The following table describes the Global Search options for Cisco Prime Collaboration.

**Table 4: Global Search Options for Cisco Prime Collaboration**

Search	Variable	Sample String Format	Exceptions and Allowed Search Strings
Endpoint	DN	10002 1000*  100*  1*  *0002	Alphanumeric characters, dash, period, and underscore.
	IP	10.64.101.162   10.64.101.*   * 10.78.22.77  .   10.78.22.*  10.78.*.*  10.*.*.*  *.	Alphanumeric characters, dash, period, and underscore. The special character % does not retrieve results.  Ampersand (&) and blank space are not allowed.
	MAC	00260bd75cf8  00260bd75cf*  00260bd*  0*  00*	Dash, period, underscore, are not allowed. Alphanumeric and blank space are allowed.  <b>Note</b> When you search for phones using the MAC address in the global search option, do not use colon or hyphen or dots in between.
	Endpoint Name	San Jose	-
Device	IP	10.78.22.129  10.78.22.*  10.*	Alphanumeric characters, dash, period, underscore, and space.
	DNS	cussmtest-15.cisco.com	If the domain name is not resolvable, the IP address is displayed in the search results.
User	First Name or Last Name	HS John	Alphanumeric characters, dash, underscore, and blank space are not allowed.

**Search Results**

Search Parameter	Search Result
Endpoint	<p>Endpoint Name, Directory Number, IP Address, IPv6 Address, MAC Address, Model, Cluster Name, Software Version, Registration Status, and Status Reason. When you perform an endpoint search, all phones and Cisco TelePresence endpoints are also included in the search.</p> <p>You can click on the icon next to the IP address to launch the Endpoint 360° View for that endpoint.</p>

Device	<p>Name, IP Address, Status, and Device Type. When you perform a device search, all phones and Cisco TelePresence endpoints are also included in the search.</p> <p>You can click on the icon next to the device name to launch the Endpoint or Device 360° View for that device.</p> <p><b>Note</b> The information displayed depends on the device you have searched for.</p>
User	<p>First Name, and Last Name. You can click on the icon next to the user name to launch the User 360° View for that user.</p>

**Note**

- The devices in deleted state do not appear in the search results.
- The global search option is not available in Cisco Prime Collaboration- Standard.

**Search Use Cases**

You can perform a search based on the following use cases.

**Table 5: Search Use Cases**

To search for...	Perform/Use
All devices belonging to a particular customer.	Select the customer from the global customer selection drop-down list at the top right of your screen, select Device search, and then enter the search string *.
Cisco Jabber	Endpoint Search
E20	Endpoint Search
Infrastructure devices	Device Search
IP address of a device with a partial IP address.	Device Search - For example search with a string such as 10.*
List of all users associated with a particular customer.	Select the customer from the global customer selection drop-down list at the top right of your screen, select User search, and then enter the search string *.

## Device Status Summary

The Device Status Summary lists the count of devices based on the device state. The counts does not include Phones & Unknown devices. The device count is available as a cross-launch to the Inventory table in Inventory



Management. When you click on any count, you will be directed to the Inventory table, where you can see all the devices in that particular state. You can filter count based on Customer/Assurance Domain. The Device Status Summary data is refreshed every 30 seconds.

The **Device Status Summary** is available under **Inventory > Device Status Summary**. The **Devices** column displays the total number of devices in a particular state. The **Status** column displays the status of the devices. When you click on **Discovery Jobs**, you will be directed to **Job Management** page and where you can see the status of the discovery job.

You can view the following device status. For more information on status, see [Discovery Life Cycle](#).

- Managed
- Partially Managed
- Inaccessible
- Unreachable
- Suspended
- Unsupported
- Undiscoverable

When you hover your mouse over Partially Managed, Inaccessible, or Undiscoverable states, you can view a tool tip with an explanation.

You can view Unmanaged device count in the global summary bar, adjacent to **Inventory Summary**. When you click on the count, you will be directed to **Device Status Summary** page.

**Table 6: Device Status Summary - Field Descriptions**

Field	Descriptions
Device Discovery Status	Displays the device discovery status.
Devices Discovery In-Progress <count>	Displays the number of devices for which discovery is in progress. Devices Discovery In-Progress <count> is not displayed, if there are no discovery is in progress.

## Inventory Status Error Messages

The credential verification error messages are tabulated below.

**Table 7: Credential Verification Error Messages**

Error Message	Condition	Possible Solutions
SNMP_ERROR	<p>Failed for one of the following reasons:</p> <ul style="list-style-type: none"> <li>• SNMP service is enabled in the device</li> <li>• SNMP credentials do not match.</li> <li>• Firewall settings blocking the port.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify if SNMP service is enabled in the device</li> <li>• Verify and reenter the device SNMP credentials in the credential profile.</li> <li>• Verify if firewall settings blocks the port, and unblock the port using the correct port. For more information on required port, see <a href="#">Required Ports for Prime Collaboration</a>.</li> </ul>
UNKNOWN_ERROR	Error in discovering the device.	Perform a re-discovery. If issue persists, contact TAC for assistance.
INSUFFICIENT_INV_COLLECTION	The device is taking a longer time to respond than expected, may be due to the network latency.	Verify the the SNMP/HTTP(S) response time and perform a rediscovery. If the issue persists, contact TAC for assistance.
HTTP_ERROR	<p>HTTP access has failed.</p> <p>Failed for one of the following reasons:</p> <ul style="list-style-type: none"> <li>• HTTP(S) credentials do not match</li> <li>• Firewall settings blocking the port.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify and reenter the device HTTP credentials in the credential profile.</li> <li>• Verify if firewall settings blocks the port, and unblock the port using the correct port. For more information on required port, see <a href="#">Required Ports for Prime Collaboration</a>.</li> </ul>

Error Message	Condition	Possible Solutions
JTAPI_ERROR	JTAPI access has failed. Firewall settings blocking the port.	<ul style="list-style-type: none"> <li>• Verify and reenter the device JTAPI credentials in the credential profile.               <p><b>Note</b> Password must not contain a semicolon (;) or equals symbol (=).</p> </li> <li>• Verify if firewall settings blocks the port, and unblock the port using the correct port. For more information on required port, see <a href="#">Required Ports for Prime Collaboration</a>.</li> <li>• Verify if JTAPI user is configured in Cisco Unified CM. For more information to enable JTAPI, see <a href="#">Configure Devices for Prime Collaboration Assurance</a></li> </ul>
UNSUPPORTED_DEVICE	Device is unsupported	Verify the supported devices from <a href="#">Supported Devices for Cisco Prime Collaboration Assurance</a> .
UNDISCOVERABLE	Error while persisting	Perform a re-discovery. If issue persists, contact TAC for assistance.
DISCOVERY_FAILED_TOO_MANY_DB_CONNECTIONS	Error while persisting	Perform a re-discovery. If issue persists, contact TAC for assistance.

## Update and Collect Inventory Details

Updating and collecting inventory details depend on the type of network deployed: voice, video or both. It also depends on the data you want to collect at a given point. The following table recommends when to update inventory based on your network.

**Table 8: Recommendations to Update Inventory**

Description	Task
If you have both voice and video endpoints deployed in your network, and want to collect data on both.	Perform Update Inventory (choose <b>Inventory &gt; Inventory Management &gt; Update Inventory</b> ). For more information, see <a href="#">Update Inventory</a> .
If you have both voice and video endpoints deployed in your network, and you want to collect data on video endpoints only.	Perform Update Inventory (choose <b>Inventory &gt; Inventory Management &gt; Update Inventory</b> ). For more information, see <a href="#">Update Inventory</a> .
If you have both voice and video endpoints deployed in your network, and you want to collect data on voice endpoints only.	Perform IP Phone Inventory Collection and Cluster Data Discovery (choose <b>Alarm &amp; Report Administration</b> ). For more information, see <a href="#">Inventory Details Collection</a> .
If you have only a voice network	Perform IP Phone Inventory Collection and Cluster Data Discovery (choose <b>Alarm &amp; Report Administration</b> ). For more information, see <a href="#">Inventory Details Collection</a> .
If you have only a video network	Perform Update Inventory (choose <b>Inventory &gt; Inventory Management &gt; Update Inventory</b> ). For more information, see <a href="#">Update Inventory</a> .

## Update Inventory

The Update Inventory task helps you to synchronize the Cisco Prime Collaboration inventory database with the network. During this task, accessibility verification is not performed (see the Update Inventory Lifecycle chart).

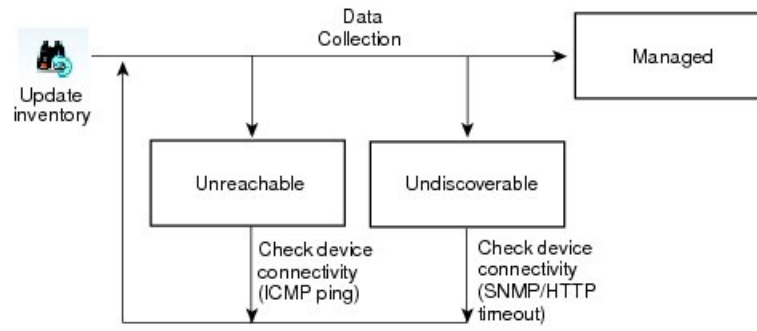
Perform the Update Inventory task when:

- You want to synchronize the database for all devices managed in your network. However, you can update the configuration details for specific devices based on the device status criteria.
- You want to define a periodic Update Inventory job to keep the Cisco Prime Collaboration database up-to-date.
- There are any changes in the network devices' interfaces.

**Note**

The new devices that are added to the network will not be identified.

**Figure 1: Update Inventory Lifecycle**



We recommend that you define a periodic Update Inventory job to keep the Cisco Prime Collaboration database up-to-date.

To update inventory:

- 
- Step 1** Choose **Inventory > Inventory Management**.
- Step 2** In the **Inventory Management** page, click **Update Inventory**.
- Step 3** If you want to update the inventory based on device status, check the Update devices based on device criteria check box in the Update Inventory window and select the desired device criteria from the drop-down list.  
If you choose to update the inventory based on device status, an accessibility information check is performed. If you do not, the inventory is updated with all devices in the Managed state. Device accessibility is not checked.  
To schedule a periodic update inventory job, go to [Step 4](#). To run the job immediately, go to [Step 5](#).
- Step 4** Enter the job name and the scheduling details. See [Job Schedule - Field Descriptions](#) for field descriptions.
- Step 5** Click **Run Now** to immediately run the update inventory job, or click **Schedule** to schedule the periodic update inventory job at a later time.
- Step 6** Check the status of your job by doing one of the following:
- If you clicked Run Now, click the progress details in the progress window that appears.
  - Click the **Discovery Jobs** button on the **Inventory Management** page.
-

## Job Schedule - Field Descriptions

**Table 9: Job Schedule - Field Descriptions**

Field	Description
Start Time	Select Start Time to enter the start date and time in the <i>yyyy/MM/dd</i> and <i>hh:mm AM/PM</i> format, respectively. Alternatively, click the date picker to select the start date and time from the calendar. The displayed time is the client browser time. The scheduled periodic job runs at this specified time.
Recurrence	Select None, Hourly, Daily, Weekly, or Monthly to specify the job period.
Settings	Details of the job period.
End Time	If you do not want to specify an end date/time, click <b>No End Date/Time</b> . Click End at to enter the end date and time in the <i>yyyy/MM/dd</i> and <i>hh:mm AM/PM</i> format respectively.

## Inventory Details Collection

Cisco Prime Collaboration supports on-demand inventory update for managed devices by collecting and updating data about the devices and the phones registered to them.

All additions, deletions, and modifications of phones, XML phones, and clusters are reflected in the inventory. There are separate inventory collection schedules for phones and clusters. For details on cluster discovery, see [Cluster Data Discovery Settings](#).

You cannot create additional schedules; you can only edit an existing schedule. For phones, you can create multiple inventory collection schedules.



### Note

You can schedule periodic discovery of Cisco Unified CM clusters only. Phones registered with other clusters are not discovered. For more information, see [Cluster Data Discovery Settings](#).

As Cisco Prime Collaboration performs inventory collection of phones and Cisco Unified CM clusters, these phones and clusters pass through various device states until they are fully recognized by Cisco Prime Collaboration. See [Discovery Life Cycle](#) for details.

You can specify how often to collect information about the phones and clusters that are managed in Inventory Collection. To schedule Inventory Collection, choose . For an overview of inventory collection tasks, see the following table.

**Table 10: Overview of Inventory Collection Tasks**

Task	Description
Schedule inventory collection of IP Phones	Choose <b>Inventory &gt; Inventory Schedule &gt; IP Phone Inventory Schedule</b> to add, edit, or delete the IP phone discovery schedules (For more information, see <a href="#">IP Phone Discovery Schedule</a> ).
Schedule inventory collection of Phone XML	Choose <b>Inventory &gt; Inventory Schedule &gt; IP Phone XML Inventory Schedule</b> to add, edit, or delete the IP phone discovery schedules (For more information, see <a href="#">IP Phone Discovery Schedule</a> ).
Schedule inventory collection of cluster devices	Choose <b>Inventory &gt; Inventory Schedule &gt; Cluster Data Discovery Schedule</b> to add, edit, or delete the cluster device discovery schedules (For more information, see <a href="#">Cluster Data Discovery Settings</a> ).

## IP Phone Discovery Schedule

When you choose **Inventory > Inventory Schedule > IP Phone Inventory Schedule**, you can perform the following tasks:

### View and Add an IP Phone Collection Status

To view IP phone collection status, choose **Inventory > Inventory Schedule > IP Phone Inventory Schedule**. The IP Phone Collection Status pane displays the information mentioned in the following table.

**Table 11: IP Phone Collection Status - Field Descriptions**

Fields	Description
Collection Status	Displays the status of the discovery process. The status could be any one of the following: <ul style="list-style-type: none"> <li>• In progress—When you start PIFServer for the first time or restart it, discovery takes place automatically and the status appears as In Progress.</li> <li>• Complete—The discovery process is complete.</li> <li>• Not available. Try after some time—Appears when you start PIFServer for the first time, or restart it, and the discovery process has not yet begun.</li> </ul>
Last Collection Start Time	Displays the start time of the last discovery.
Last Collection End Time	Displays the end time of the last discovery.

### Add an IP Phone Discovery Schedule

Cisco Prime Collaboration provides six default schedules for phone discovery. You can update or delete them; you can also add up to 10 phone discovery schedules.

To add an IP phone schedule:

**Step 1** Choose **Inventory > Inventory Schedule > IP Phone Inventory Schedule**.

**Step 2** On the IP Phone Discovery Schedule page, click **Add**.

**Step 3** Enter the required information in the Add Schedule dialog box.

**Step 4** Click **OK**.

**Note** You can also edit or delete an IP phone discovery schedule:

- To edit, select a phone discovery schedule and click **Edit**. Make the required changes, click **OK**, and then click **Apply**.
- To delete, select a phone discovery schedule and click **Delete**. In the confirmation message box, click **Yes**.

Any information collected through phone polling is not collected for Unified CMs in a NAT environment. IP phone polling does not work in the following cases:

- IP phones that are behind the NAT environment.
- IP phones that do not support a HTTP/XML interface (for example, third-party phones).

If any of these scenarios are present, the above parameters will not be collected from IP phones.

## IP Phone XML Discovery Schedule

The IP Phone XML Inventory Collection helps you get information on phone load, serial number, switch information (if applicable), device pool etc.

To schedule when phone discovery should take place, you can use the Phone XML Collection page. The default scheduled start for Phone XML discovery is daily at 3:00 p.m. Phone XML discovery collects serial number, load ID, and App ID for each phone.

To schedule an IP Phone XML discovery:

**Step 1** Choose

**Step 2** In the XML Collection tab, make the desired changes.

**Step 3** Click **Apply**, then click **OK** in the confirmation message box.

**Note** IP Phone XML Inventory Schedule is applicable only for phones that are registered to Cisco Unified CM Express.



# Suspend and Resume Managed Devices

You can suspend a device that is in the Managed state. After the device is moved to the Suspended state, Cisco Prime Collaboration does not monitor this device. That is, conference, endpoint, and inventory details are not updated and alarms are not triggered for this device.

The following are behaviors for a device in the Suspended state:

- If a device is in the Suspended state, Cisco Prime Collaboration does not poll the devices.
- If a suspended endpoint joins a new conference, the endpoint is shown as Unknown in the Conference Topology pane.
- If a suspended endpoint is already in an in-progress conference, the endpoint icon (in the Conference Topology pane) changes to Unknown immediately after the endpoint state is changed to Suspended.
- If Cisco Unified CM publisher is suspended, Cisco Prime Collaboration does not poll the registered endpoints that belong to that corresponding Cisco Unified CM cluster.
- If there are any active alarms, they are not cleared immediately. You can either manually clear the alarms; otherwise, they are cleared automatically after they expire (by default, in 24 hours). No new alarms are triggered for a suspended device.
- If a device is suspended, the Endpoint Utilization report does not contain any data for this device.

To suspend or resume managed devices:

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | Choose <b>Inventory &gt; Inventory Management</b> .                    |
| <b>Step 2</b> | From the Current Inventory table, select managed or suspended devices. |
| <b>Step 3</b> | Click <b>Suspend</b> or <b>Resume</b> .                                |
| <b>Step 4</b> | In the confirmation message box, click <b>OK</b> .                     |
- 

## Delete Devices

You can delete devices that are in the Unknown, Unreachable, Inaccessible, Undiscoverable, Suspended, and Unsupported states. You cannot delete devices in the Managed state.

After a device is deleted, it is not listed in the Current Inventory table, but the details are available in the Cisco Prime Collaboration server. To rediscover a deleted device, see [Rediscover Devices](#). You can access the deleted device's details as part of the past conference data.

To delete a device:

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | Choose .   |
| <b>Step 2</b> | From the Current Inventory table, select devices to delete.<br>You can use the quick filter to get a list of devices in the desired state. |

**Step 3** Click **Delete**.

**Step 4** In the confirmation message box, click **OK**.

**Note** You cannot delete phones directly from the inventory using the delete option. Phones are deleted automatically when the clusters with which they are registered are deleted. The inventory is updated only after a rediscovery is performed.

### Troubleshooting

**Issue:** Unable to delete a device that is in Managed state.

**Recommended Action:** Ensure that you suspend the device first, and then delete the device.

## Performance Graphs

Cisco Prime Collaboration enables you to select and examine changes in network performance metrics. You can select, display, and chart network performance data using real time, as well as collected data.

You can access the performance graphs through the Alarm & Events page, Device 360° view, and Diagnostic Summary pages. You can create performance graphs from the current or real-time data when:

- Voice utilization polling is enabled for devices.
- Device is in managed state.



**Note** You can view performance graphs for voice devices (excluding phones) only. These graphs appear only for devices in managed state and for which at least one polling cycle is over.

### Performance Graphing Notes

This section contains information you should be aware of when working with performance graphs.

Summary	Explanation
Cisco recommends following these guidelines for optimal performance graph viewing.	<p>The following guidelines are recommended:</p> <ul style="list-style-type: none"> <li>• No more than five metrics be selected for one graph.</li> <li>• No more than ten graphs on the user interface.</li> <li>• No more than ten items selected for merge.</li> </ul>
An MGCP gateway on a Catalyst 6000 switch. When you have all three capabilities (voice gateway, switch, and MGCP) performance graphing cannot graph all the data. Only the common metrics are available for graphing.	When graphing performance metrics for a device that has these three capabilities (voice gateway, switch, and MGCP) you will only be able to graph the common metrics. In the Event Details page you cannot graph HighUtilization events.

Summary	Explanation
A voice gateway, MGCP, and H323 on a router. When you have all these capabilities on one device, each metric displays two graphs.	When graphing performance metrics for a device that has these capabilities (voice gateway, MGCP, H323, and router), each metric displays two graphs. Also, when graphing multiple devices or devices that have multiple polling intervals, the least common multiple is used to plot the x axis. Real-time graphs will refresh at this common polling interval.
Cisco Unity Express servers (CUES) graph real-time data and update in real-time. You can switch from line to bar charts and zoom in on specific data to troubleshoot and find peak utilization periods.	Ensure Cisco Prime Collaboration is collecting data and is configured properly to receive this data.

### Launch a Performance Graph

The performance graphs are available through the following:

- Device 360° View - Click on the Launch Tools icon, and then click on Performance Graph.
- Event Details page
- Diagnostics views—UCM Cluster Call Usage Summary in Server and Cluster views, UCM Resource Utilization Summary and UCM Cluster Location Summary in Cluster view, and trunk utilization can be accessed through the UCM Resource Utilization Summary portlet. in the Cluster view.

### Before you Begin

- Verify that Cisco Prime Collaboration is monitoring the devices for which you want to collect utilization statistics. This includes the Cisco Unified Communications Manager that the ports are registered to.
- Verify that voice utilization polling settings are enabled. Cisco Prime Collaboration uses the statistics gathered during voice utilization polling for charting network performance.
- Review the Performance Graphing Notes.

### Performance Graph Window

Performance graphs provide real-time information and historical information.

When you launch a performance graph, one line graph is displayed for each metric that you select. Each line graph contains 16 data points displayed in real time. The following table provides details on the data options.

Graph Data Option	Description
Real Time	When you launch a performance graph, it shows real time data by default.
Hourly Average	When you select Hourly Average, the performance graph shows average data for the hour.
Hourly Max	When you select Hourly Max, the performance graph shows peak data for the hour.

Graph Data Option	Description
Hourly Min	When you select Hourly Min, the performance graph shows minimum data for the hour.
History	When you select History, the performance graph shows hourly average data for seven days.
All	Displays all data. Graphs display up to a maximum of 130 points. If data ranges in the Zoom/Pan view contain more than 130 points, then Cisco Prime Collaboration selects points at regular intervals and plots them in the graph.

### Troubleshooting Performance Graphs

This section contains information that will help you if you encounter problems generating performance graphs. If you encounter an error, it will likely appear either when you select Performance Graphing from the menu, or when Cisco Prime Collaboration is checking for the data file to graph. In the first case (when selecting Performance Graphing), you will see an error message that describes the problem and an action to take. The following table describes the errors and their possible causes, for both of these types of cases.

Error	Possible Causes
Cannot collect data.	<ul style="list-style-type: none"> <li>• Account and credentials are not the same on all Cisco Unified Communications Managers in the cluster.</li> <li>• HTTP server problems: <ul style="list-style-type: none"> <li>◦ HTTP server on the device is down.</li> <li>◦ HTTP server is operational, but the Cisco Unified Communications Manager is down.</li> </ul> </li> <li>• Device unreachable because of a network problem.</li> <li>• The Cisco Unified Communications Manager that the MGCP gateway is registered to, is not in Cisco Prime Collaboration inventory.</li> <li>• Device capability is not supported. Performance graphing supports the following: Cisco Unity Express, Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, H.323 devices, and Voice Mail Gateways.</li> <li>• Device is suspended or deleted.</li> <li>• Device platform is not support.</li> </ul> <p>For a list of devices supported by Cisco Prime Collaboration Assurance and Analytics—Business 11.5, see <a href="#">Supported Devices for Prime Collaboration Business 11.5</a></p>
<p>Cannot collect data because of the following:</p> <ul style="list-style-type: none"> <li>• The username or password for the device is empty.</li> <li>• The system has the wrong credentials for the device.</li> <li>• The device does not have credential information.</li> </ul>	<ul style="list-style-type: none"> <li>• No credentials in Cisco Prime Collaboration.</li> <li>• Incorrect credentials in Cisco Prime Collaboration.</li> </ul>

Error	Possible Causes
<p>Cannot collect data from the device because of the following:</p> <ul style="list-style-type: none"> <li>• A processing error occurred.</li> <li>• Parsing or processing errors occurred.</li> <li>• Internal initialization errors occurred.</li> <li>• Initialization problems occurred in the device data collector.</li> </ul>	<p>Incorrect Cisco Unified Communications Manager version. Check the following:</p> <ul style="list-style-type: none"> <li>• The version of the Cisco Unified Communications Manager that is running on the device.</li> <li>• The Cisco Unified Communications Manager version number that is stored in Prime Collaboration.</li> <li>• If the Cisco Unified Communications Manager version number that is stored in Cisco Prime Collaboration is incorrect, add the device again.</li> </ul> <p>For a list of devices supported by Cisco Prime Collaboration Assurance and Analytics—Business 11.5, see <a href="#">Supported Devices for Prime Collaboration Business 11.5</a></p>
<p>Cannot collect data from the device. The certificate hostname/IP Address cannot be mapped to the URL hostname/IP Address.</p>	<p>The device is not in DNS.</p>
<p>Incomplete data collected because an error occurred in communicating with the device.</p>	<p>Incorrect Cisco Unified Communications Manager version. Check the following:</p> <ul style="list-style-type: none"> <li>• The version of the Cisco Unified Communications Manager that is running on the device.</li> <li>• The Cisco Unified Communications Manager version number that is stored in Prime Collaboration.</li> <li>• If the Cisco Unified Communications Manager version number that is stored in Cisco Prime Collaboration is incorrect, add the device again.</li> </ul> <p>For a list of devices supported by Cisco Prime Collaboration Assurance and Analytics—Business 11.5, see <a href="#">Supported Devices for Prime Collaboration Business 11.5</a></p>

Error	Possible Causes
<p>Cannot collect data because of the following:</p> <ul style="list-style-type: none"> <li>• The device returned no data from a required MIB.</li> <li>• The device received no MIB data.</li> </ul>	<ul style="list-style-type: none"> <li>• No data from a required MIB.</li> <li>• A required MIB is not populated on the device.</li> <li>• No MIBs returned data.</li> <li>• Device is unreachable due to a network problem.</li> <li>• Device credentials do not contain a valid SNMP community read string.</li> <li>• SNMP response slow; data collection timed out.</li> </ul>
<ul style="list-style-type: none"> <li>• The rate of queries on the Cisco Unified Communications Manager exceeds the limit.</li> <li>• An error has occurred in the data processing stage.</li> </ul>	<p>Too many queries on a Cisco Unified CM 6.0 or later.</p> <p>Check the polling settings; they should not be less than three minutes.</p>
<ul style="list-style-type: none"> <li>• The Cisco Unified Communications Manager did not have enough time to handle the query requests.</li> <li>• An error has occurred in the data processing stage.</li> </ul>	<p>Query exceeded time limit on Cisco Unified CM 6.0 or later.</p>
<p>Cisco Unity Express trunk utilization graphs are not working.</p>	<p>Cisco Prime Collaboration must be configured properly using the maximum capacity.</p>

When working with performance graphs, remember the following:

- If you are not able to collect performance data and you do not see an error message (either a popup message or a message in the log file) indicating the problem, you should verify the status of the device. To do so, use the View/Rediscover/Delete Devices page. If the device is in the Unreachable state, verify that the device's credentials are correct and rediscover the device.
- If a gray line or a gray area appears in a graph, hover your mouse over it to obtain a tool tip with an explanation.

## Unified CM Device Search

You can search for devices within a cluster, based on the search criteria you specify.

To perform a device search, go to . You can view the devices based on the saved search criteria you select from the Saved Search drop-down list.

**Note**

The table displays only 200 entries. Therefore, we recommend that you use the filter criteria to the best use to ensure that you get the desired result.

To create a new search criteria:

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- Step 1** Choose .
- Step 2** Click **New Search**.
- Step 3** Enter the Criteria Name, Device Type, and Polling Interval  
If you choose the devices only configured in the DB option, you cannot specify the polling interval or the other parameters, except the device type. This option displays the devices in the Unknown state.  
The same user cannot use the same search criteria name for the same cluster. The same user can have the criteria name for a different cluster.
- Step 4** For Custom Search, specify the status within call Manager, Device Model, and the Search with Name parameters.  
The search criteria available vary based on the device type you chose.
- Step 5** Click **Search**.  
The search results are displayed in the page. The results get refreshed based on the polling interval you specify. You can launch the Unified CM from the IP address link available in the IP Address column.  
The search results also provides the following information:
- App Info— The information about the application.
  - Configuration— This applies to H.323 Gateways.
  - Port/Channel Status— Shows all the configured port or channels and their status. You can set the polling interval to refresh this view.
- This search does not get saved in the database and cannot be retrieved after you log out, unless you save the search. To save the search, click the save icon.
- You can also edit a search that you had saved. You can delete a search that you had created, even if it is unsaved. Use the edit or delete icon to edit/delete the search. Fields that you cannot edit are disabled.
- Note** If you want to save the search criteria in Internet Explorer , you must enable Always Refresh from Server option in the browser. To enable this option, press the F12. In the Internet Explorer tool bar menu, choose **Cache > Always refresh from server**.
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## SNMP Query

The SNMP query feature helps you to troubleshoot devices in your network.

You should perform SNMP query when:

- Devices in your network do not get into a managed state in Cisco Prime Collaboration.
- Devices in your network are not listed in .



- SNMP Polling is not happening successfully.

Prerequisite - Devices should be supported by Cisco Prime Collaboration.

For a list of devices supported by Cisco Prime Collaboration Assurance and Analytics—Business 11.5, see [Supported Devices for Prime Collaboration Business 11.5](#).

To perform SNMP query:

- 1 Choose .
- 2 Enter the IP Address, select and OID type from the OID drop-down list, and then do one of the following:
  - Click the GET button - To know the return value of a particular OID. For example to know the Interface Name or Interface Status.  
  
Credentials are required to perform this task. If the device information is available in the Cisco Prime Collaboration database, the details are auto-populated on the screen. Else, check the Enter the Credentials check box, select an SNMP version from the version drop-down list, and enter the details on the fields that appear.
  - Click the Walk button - To get detailed information on the MIB of that device.  
  
Credentials are required to perform this task. If the device information is available in the Cisco Prime Collaboration database, the details are auto-populated on the screen. Else, check the Enter the Credentials check box, select an SNMP version from the version drop-down list, and enter the details on the fields that appear.

The information about the IOD appears as a table on the page.

**Troubleshooting** - SNMP credentials are not auto populated when:

- Discovery is not completed so credentials may not have been added in the Cisco Prime Collaboration database yet.
- If device is in Unknown or Inaccessible state in .
- SNMP Credentials have not been configured on the device.

