Monitor Sessions

For Cisco Prime Collaboration Release 11.1 and earlier
Cisco Prime Collaboration tracks the lifecycle of video collaboration sessions in your network. It correlates session data received from various sources and provides end-to-end details on the session.
Cisco Prime Collaboration receives session events from call and session control components, such as Cisco Unified CM and Cisco TelePresence Video Communication Server (VCS). It also retrieves session details from applications, such as management applications, call and session control components, conferencing components, and endpoints.
The number of sessions that can be monitored in Cisco Prime Collaboration Assurance depends on the deployment model, such as small, and medium. For information on supported active sessions on Cisco Prime Collaboration 11.0, see the System Capacity for Cisco Prime Collaboration and for 11.1, see System Capacity for Cisco Prime Collaboration wiki page.
The session data retrieved from the video collaboration applications includes both scheduled and unscheduled sessions. Cisco Prime Collaboration differentiates sessions in the following ways:

• Ad hoc—An end user dials the extension of the Cisco TelePresence system at the other end. There is no scheduling involved.

• Scheduled—Scheduled before the session through the company’s groupware application, such as Microsoft Exchange, Outlook, and so on. You can also schedule the session directly, using Cisco TelePresence Management Suite (TMS) or Cisco TelePresence Manager (CTS-Manager).

• Static—Preconfigured Cisco TelePresence session available all the time. Each static meeting has its own associated meeting number. On some applications, such as Cisco TelePresence MSE, Multipoint Control Unit (MCU), Cisco TelePresence Server (TS), these meetings are called permanent meetings.
Cisco Prime Collaboration classifies the sessions structure as follows:

• Point-to-point—Session between two endpoints.

• Multipoint—Session with more than two endpoints. Between endpoints, you may have either Cisco TelePresence Multipoint Switch or MCU.
• MultiSite—Session with more than two endpoints, without MCU. The endpoints are connected directly. Any endpoint can participate in a MultiSite call with the center endpoint being MultiSite capable. The center endpoint acts as a conferencing device (like MCU). This type of session structure is supported for MultiSite capable endpoints such as Cisco Codec C and EX Series TelePresence Systems, Cisco TelePresence MX Series, and Cisco Profile Series with a MultiSite license.

The sessions status can be:

• In-progress
• Scheduled
• Completed

• No Show, a scheduled session without any participants joining the session until the end time. The scheduled sessions are moved to No show only after the scheduled end time and after Cisco Prime Collaboration is synchronized with either Cisco TelePresence Manager (CTS-Manager) or Cisco TMS, after the scheduled end time.

If an endpoint did not join an In-Progress session, a no-show icon is displayed on the endpoint. This status is shown even after the session moves to completed state.

If an endpoint joins a session, but later disconnects from the call before the session is over, a disconnect icon is visible on this endpoint in the session topology. Disconnected could mean that there was a problem, or the caller had to leave the session early.

**Prerequisites for Session Diagnostics**

The following are required for session diagnostics:

• Unified CM and Cisco VCS must be in the Managed state.
• Endpoints and controllers, such as CTMS, MCU must be in the Managed state.
• JTAPI must be configured on Unified Communications Manager. For information on how to enable JTAPI on Unified Communications Manager, see the Setting up Devices for Prime Collaboration Assurance wiki.
• Cisco Prime Collaboration Assurance server must be registered as a feedback server in Cisco VCS.

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**Note**

Cisco Prime Collaboration does not support Session Monitoring for Cisco Jabber endpoints that are registered with Unified Communications Manager. You can view the utilization report and usage statistics of Cisco Jabber Video for TelePresence (Movi) endpoints only.

For information on data collection for video sessions, importing sessions, session workflows, and the Session Diagnostic dashboard, see:

**Data Collection for Video Sessions**

Cisco Prime Collaboration periodically polls the following video service infrastructure devices to get information on the sessions:
• Management devices (CTS-Manager and Cisco TMS)—Cisco Prime Collaboration gets information on the scheduled point-to-point and multipoint sessions. For Cisco TMS, if an unscheduled endpoint is added when the session is in progress, Cisco Prime Collaboration shows the session details for the newly added endpoint.

Cisco Prime Collaboration collects scheduled sessions data for five days (for the past one day, the current day, and for three days ahead).

Note
If you are using Cisco TMS 13.0 or 13.1 configure the Booking API feature. For Cisco TMS 13.2 and above, you need not configure the Booking API feature.

• Multipoint Switches—Cisco Prime Collaboration gets information on the multipoint sessions. It also identifies and supports cascading of multipoint sessions.

• Multipoint Control Units (MCU and Cisco TS)—Sessions that are scheduled using these systems are always listed as ad hoc sessions in Cisco Prime Collaboration. These types of sessions are listed on the Session Monitoring page only after the session is started. Cisco Prime Collaboration polls these systems after receiving an event from the endpoints.

Cisco Prime Collaboration polls MCU and Cisco TS whenever these systems receive a call. Cisco Prime Collaboration polls MCUs that are not managed by Cisco TelePresence Conductor directly.

For sessions that are hosted by MCUs controlled by Cisco TelePresence Conductor, Cisco Prime Collaboration polls only the Cisco TelePresence Conductor.

Cisco Prime Collaboration does not support cascading of MCU sessions. Only Cisco TelePresence Conductor controlled MCU cascading is supported.

• Call and Session Controls (Cisco Unified CM and Cisco VCS)—Cisco Prime Collaboration gets information on the participants using call processors. It collects details, such as when a user joins the session or disconnects from it. Cisco Prime Collaboration polls call and session controllers periodically.

Cisco Prime Collaboration receives Connect or Disconnect events in real time from Cisco Unified CM and Cisco VCS. Whenever Connect or Disconnect events are missed, as a backup mechanism, Cisco Prime Collaboration polls Cisco Unified CM and Cisco VCS periodically for all In Progress calls. Hence, they are synchronized.

Note
The following browsers are supported for the session monitoring windows:

• Internet Explorer- versions 10, 11
• Mozilla Firefox- versions 31, 38
• Google Chrome- versions 39, 40

Cisco Prime Collaboration receives Connect or Disconnect events in real time from CTX. Whenever Connect or Disconnect events are missed, as a backup mechanism, Cisco Prime Collaboration polls CTX periodically for all In Progress calls. Hence, they are synchronized.
**Cisco Unified CM**

All endpoints must be added as JTAPI controlled devices in Cisco Unified CM. Otherwise, call detection for the endpoints does not happen in Cisco Prime Collaboration. The configured JTAPI user must have permission to access all endpoints that are managed in Cisco Prime Collaboration.

Cisco Prime Collaboration listens to the JTAPI events from the Cisco Unified CM. The endpoints are polled once the call is In Progress. Cisco Prime Collaboration depends on the JTAPI event to move the session to the completed status.

Cisco Prime Collaboration manages multiple Cisco Unified CM clusters. Configure unique cluster IDs as it monitors sessions within a cluster and among clusters (intracluster and intercluster sessions).

Cisco Prime Collaboration must manage the cluster publisher to monitor a cluster. The JTAPI must be configured on the cluster publisher and the Computer Telephony Integration (CTI) service must be running in at least one node in a cluster. The CTI control limits depend on the visibility (Full and Limited) that you have set on the devices. For the visibility limits, see the System Capacity for Cisco Prime Collaboration wiki page.

If JTAPI is not configured on Cisco Unified CM, then the endpoints registered to it are not shown as part of sessions. In this case, set the JTAPI configuration.

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**Note**

To view the correct Usage Status details of endpoints that are added as JTAPI controlled devices, and to make the endpoints visible in the controlled list in Cisco Unified CM, you must reset the visibility of the endpoints. Use the Edit Visibility option under Diagnose > Endpoint Diagnostics to change the visibility of the endpoint from Full Visibility to Off, and then to Full Visibility again.

You can also rediscover Cisco Unified CM to make the endpoints visible and to display the correct Usage Status on Cisco Prime Collaboration servers.

**Cisco VCS**

Cisco Prime Collaboration listens to HTTP feedback events from the Cisco VCS. The endpoints are polled once the call is In Progress. Cisco Prime Collaboration depends on the HTTP feedback event to move the session to the completed status.

Cisco Prime Collaboration manages multiple Cisco VCS clusters. You must configure unique cluster names as it monitors sessions within a cluster and among clusters (intracluster and intercluster sessions).

Cisco Prime Collaboration identifies and supports Cisco VCS Expressway traversal calls. For these calls, the media signal flows through Cisco VCS Control and Cisco VCS Expressway and the call details are displayed in the session topology.

See the Cisco TelePresence Video Communication Server Control online help for details on traversal calls.

If there is a call outside the enterprise firewall, Cisco VCS Expressway is used. This device is configured to the Cisco VCS Control device. The Cisco VCS Control and Cisco VCS Expressway are displayed in the session topology. However, the endpoints that are registered to the Cisco VCS Expressway are displayed as Unknown endpoints.

If Cisco Prime Collaboration is not subscribed to VCS through feedback subscription, VCS does not notify the PCA when a registered endpoint joins or leaves a session, or registers or unregisters to VCS. In this case, set the visibility of those endpoint(s) to full or limited as required, and contact your network administrator to check PC's feedback subscription to VCS.
Cisco Prime Collaboration ignores Cisco VCS Expressway Connect/Disconnect events.

### Import Sessions from CTS-Manager and Cisco TMS

The CTS-Manager and Cisco TMS contain details on the scheduled sessions. Cisco Prime Collaboration periodically polls these devices to retrieve the session details. You can configure the frequency of the periodic polling based on your business needs.

To enable uninterrupted monitoring of the sessions, you can manage a CTS-Manager or Cisco TMS cluster using the Manage Clusters option (Device Inventory > Inventory Management > Manage TMS Clusters).

For Cisco TMS, if an unscheduled endpoint is added when the scheduled session is in progress, Cisco Prime Collaboration shows the sessions details of that endpoint.

Cisco Prime Collaboration imports scheduled sessions data for five days (for the past one day, the current day, and for the next three days).

Note the following points when importing sessions from Cisco TMS:

- Cisco Prime Collaboration supports only the default email template for the Booking Confirm email in Cisco TMS. Sessions are not imported from Cisco TMS if the default email template is not used.
- "Reservation Only" meeting details are not imported from Cisco TMS. Cisco Prime Collaboration does not support this type of meeting because resources are not allocated for it while scheduling.

If you have configured a session to start before the scheduled time in CTS-Manager, configure the same time in Cisco Prime Collaboration. That is, if you have configured to start a session 5 minutes before the scheduled time, configure the same time in the Session Path Threshold Settings page. Otherwise, Cisco Prime Collaboration lists two sessions for a scheduled meeting that has started before the scheduled time.

In addition to the periodic polling, if you want to import the session details immediately, you can choose (Diagnose > Session Diagnostics > Import Sessions).

Note: The Import Sessions task impacts Cisco Prime Collaboration System performance. Use Import Sessions only if it is required.

Two jobs are created for the Import Sessions task. You can monitor these jobs at System Administration > Job Management. The job type is displayed as Synch_CtsMAN-MEETING_UniqueJobID and Synch_TMS-MEETING_UniqueJobID on the Job Management page.

TMS_Session_Import regular jobs run periodically and poll complete details of all sessions.

However, the TMS_Frequent_Session_Import job runs frequently and retrieves only the changes in sessions after the previous polling. (You can change the frequency of polling on System Setup page).

If you are using CTS-Manager 1.7 or later, maintain an interval of at least 5 minutes between Import Sessions tasks. If you import sessions within 5 minutes, the job fails.
Session Workflow and Scenarios

The following chart shows the end-to-end scheduled session workflow.

**Figure 1: Scheduled Session Workflow**

The following are a few scenarios where Cisco Prime Collaboration does not contain up-to-date details on sessions or display different session structure data:

- Cisco Prime Collaboration shows a scheduled session (point-to-point, multipoint, or multisite) as an ad hoc session if the session gets scheduled and was In Progress after the last CTS-Manager or Cisco TMS poll and before the next scheduled or on-demand polling of the CTS-Manager or Cisco TMS takes place.

- For scheduled multipoint sessions, if Cisco Prime Collaboration is not synchronized with the management applications, the session is shown as an ad hoc session and it collects information from the participating Cisco TelePresence Multipoint Switch or Cisco MCU after Cisco Prime Collaboration receives a Connect event.

- If a conferencing system has moved either to the Unmanaged or Unknown state from the Managed state, then the multipoint sessions are displayed as multiple point-to-point sessions.

- Cisco TMS and Cisco MCU displays the session status as Active immediately after the scheduled time is passed. However, Cisco Prime Collaboration does not change the session status to In Progress until an endpoint joins the session.

- Cisco Prime Collaboration displays sessions that include Unmanaged endpoints. However:
  - For point-to-point sessions, one of the endpoints must be managed in Cisco Prime Collaboration.
  - For multisite sessions, the endpoints that conference the other endpoints must be managed in Cisco Prime Collaboration.
  - For multipoint sessions, the conferencing devices must be managed in Cisco Prime Collaboration.
• If you have used Cisco TMS to reserve only TelePresence rooms, then Cisco Prime Collaboration does not display these sessions. (In Cisco TMS, this conference call type is identified as Reservation Only.)

• If Cisco VCS Expressway is in the Inaccessible state, Cisco Prime Collaboration can still monitor the sessions. However, the endpoints are displayed as Unknown endpoints.

• The session diagnostic feature does not support endpoints, which are configured with multiple lines in Cisco Unified CM. However, you can manage these endpoints in the Cisco Prime Collaboration inventory database.

Note The session monitoring feature is supported only on Cisco Unified CM 8.5 and later.

• If there is a session between a TelePresence and one or more WebEx participants, the Session Diagnostics page does not display the details of the WebEx participants available in the call.

• Only the Cisco TelePresence Conductor with Cisco VCS (Policy Service) Deployment is supported. Cisco TelePresence Conductor with Cisco VCS (B2BUA) and Cisco TelePresence Conductor with Cisco Unified CM Deployment is not supported.

Session Scenarios

The various session scenarios that are monitored in Cisco Prime Collaboration are as follows:

Table 1: Session Scenarios

<table>
<thead>
<tr>
<th>Session Classification</th>
<th>Session Type</th>
<th>Session Structure</th>
<th>Session Topology Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Unified CM intracluster and intercluster sessions</td>
<td>Ad hoc, Scheduled</td>
<td>Point-to-point</td>
<td>Cisco TelePresence System 500, 1000, 3000, TX9000 Series.</td>
</tr>
<tr>
<td>Cisco Unified CM intracluster and intercluster sessions</td>
<td>Ad hoc, Scheduled Static</td>
<td>Multipoint</td>
<td>Cisco TelePresence System 500, 1000, 3000, TX9000 Series, and CTMS.</td>
</tr>
<tr>
<td>Cisco VCS intracluster and intercluster sessions</td>
<td>Ad hoc, Scheduled</td>
<td>Point-to-point</td>
<td>Cisco C series, EX Series, Cisco MX series, Cisco MXP Series, Cisco IP Video Phone E20, Cisco Cius, and Cisco Jabber. If a call is identified as a traversal call, Cisco VCS Control or Cisco VCS Expressway is displayed in the session topology.</td>
</tr>
<tr>
<td>Session Classification</td>
<td>Session Type</td>
<td>Session Structure</td>
<td>Session Topology Elements</td>
</tr>
<tr>
<td>------------------------</td>
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</tr>
<tr>
<td>Cisco VCS <em>intracluster</em> and <em>intercluster</em> sessions (with MCU)</td>
<td>Ad hoc, Scheduled</td>
<td>Multipoint</td>
<td>Cisco C series, EX Series, Cisco MCU, Cisco MSE, or Cisco TelePresence Server. If a call is identified as a traversal call, Cisco VCS Control or Cisco VCS Expressway is displayed in the session topology.</td>
</tr>
<tr>
<td>Cisco VCS <em>intracluster</em> and <em>intercluster</em> sessions (without MCU)</td>
<td>Ad hoc, Scheduled</td>
<td>Multisite</td>
<td>Cisco C series, EX Series, Cisco MX, Cisco MXP Series, Cisco IP Video Phone E20. If a call is identified as a traversal call, Cisco VCS Control or Cisco VCS Expressway is displayed in the session topology.</td>
</tr>
</tbody>
</table>
| Sessions between Cisco Unified CM and Cisco VCS clusters | Ad hoc | Point-to-point Multipoint | • Cisco C series, EX Series, Cisco MX series, Cisco MXP Series, Cisco IP Video Phone E20  
• Cisco TelePresence System 500, 1000, 3000, and TX9000 Series  
• Cisco TelePresence Server  
• IX 5000 series TelePresence endpoints |
| Cisco Unified CM (8.6(1), 8.6(2), and 9.0) *intracluster* sessions | Ad hoc | Point-to-point | • Cisco C series, EX Series, Cisco MX series  
• Cisco TelePresence System 500, 1000, 3000, and TX9000 Series  
• IX 5000 series TelePresence endpoints |
<table>
<thead>
<tr>
<th>Session Classification</th>
<th>Session Type</th>
<th>Session Structure</th>
<th>Session Topology Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Unified CM (8.6(1), 8.6(2), and 9.0) <em>intracluster sessions</em></td>
<td>Ad hoc, Scheduled</td>
<td>Multipoint</td>
<td>• Cisco C series, EX Series, Cisco MX series, Cisco IP Video Phone E20</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
<td></td>
<td>• Cisco TelePresence System 500, 1000, 3000, and TX9000 Series</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• CTMS 1.8 or Cisco TelePresence Server</td>
</tr>
<tr>
<td>Sessions outside the enterprise firewall - Cisco VCS Expressway</td>
<td>Ad hoc Permanent (displayed as static)</td>
<td>Point-to-point, Multipoint, Multisite</td>
<td>• Cisco C series, EX Series, Cisco MX series, Cisco MXP Series, Cisco IP Video Phone E20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cisco MCU or Cisco TelePresence Server</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cisco VCS Control and Cisco VCS Expressway</td>
</tr>
<tr>
<td>Endpoints in a call (with an MCU in the call) work as a conferencing bridge in Cisco Unified CM.</td>
<td>Ad hoc</td>
<td>Point-to-point</td>
<td>Multipoint conferencing devices and video endpoints. For a list of devices supported by Cisco Prime Collaboration 11.0, see Supported Devices for Prime Collaboration Assurance. For a list of devices supported by Cisco Prime Collaboration 11.1, see Supported Devices for Prime Collaboration Assurance.</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong></td>
<td></td>
<td>This scenario is applicable when in-built video bridge capability is not present in the endpoint.</td>
</tr>
<tr>
<td>Session Classification</td>
<td>Session Type</td>
<td>Session Structure</td>
<td>Session Topology Elements</td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------</td>
<td>-------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Sessions between MRA endpoints- Cisco Jabber or Cisco TelePresence MX Series or Cisco TelePresence System EX Series or Cisco TelePresence SX Series</td>
<td>Ad hoc, Scheduled</td>
<td>Point-to-point, Multipoint, Multisite</td>
<td>Cisco Jabber, Cisco TelePresence MX Series, Cisco TelePresence System EX Series, and Cisco TelePresence SX Series.</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td></td>
<td>Cisco Prime Collaboration does not monitor a Multisite session where an MRA endpoint acts as a conference bridge.</td>
<td></td>
</tr>
</tbody>
</table>

The codian software must be running on Cisco MSE.

This scenario is supported on CTS 1.7.4, and TC 4.1 to 7.0.

The troubleshooting workflow is supported on TC 4.2, 5.0, and above.

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**Note**

- Cisco Cius and Cisco Jabber devices support only ad hoc sessions.

The following image describes the session topology between two MRA endpoints.

**Figure 2: Session Topology Between MRA Endpoints**

1, 5  
MRA endpoints that connect with each other through cloud server.  
**Note**  
You cannot view the session statistics for MRA endpoints.
Internet cloud servers that connect the MRA endpoints. The MRA endpoints can connect only with the help of cloud servers. You cannot view the session statistics since the system cannot get the IP addresses of the endpoints from the cloud servers.

Cisco VCS Expressway Core that acts as the call controller device. The topology displays the Cisco VCS Expressway Core and the associated endpoints.

The various Collaboration Edge sessions involving MRA endpoints and VCS Expressway Core are as follows:

- **Point-to-point**: Session between two MRA endpoints that are connected with each other through cloud servers and Cisco VCS Expressway Core
- **Multipoint**: Session with more than two MRA endpoints that are connected through cloud servers, Cisco VCS Expressway Core, and TPS or MCU
- **Multisite**: Session with more than two MRA endpoints that are connected without TPS or MCU

Each of the above sessions may also have one non-MRA endpoint connected at either end.

<table>
<thead>
<tr>
<th>Session Classification</th>
<th>Session Type</th>
<th>Session Structure</th>
<th>Session Topology Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTX Including Inter-company calls through CTX.</td>
<td>Meet Me Rendezvous</td>
<td>Multipoint</td>
<td>Multipoint conferencing devices and video endpoints. For a list of devices supported by Cisco Prime Collaboration 11.0, see Supported Devices for Prime Collaboration Assurance. For a list of devices supported by Cisco Prime Collaboration 11.1, see Supported Devices for Prime Collaboration Assurance.</td>
</tr>
<tr>
<td>CTX Including Intracompany calls through CTX.</td>
<td>Meet Me Rendezvous</td>
<td>Multipoint</td>
<td>Multipoint conferencing devices and video endpoints. For a list of devices supported by Cisco Prime Collaboration 11.0, see Supported Devices for Prime Collaboration Assurance. For a list of devices supported by Cisco Prime Collaboration 11.1, see Supported Devices for Prime Collaboration Assurance.</td>
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<td>Session Classification</td>
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</tr>
<tr>
<td>------------------------</td>
<td>--------------</td>
<td>------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Optional - CTX</td>
<td>Ad hoc</td>
<td>Point-to-point</td>
<td>Video endpoints.</td>
</tr>
<tr>
<td>Including Intracompany</td>
<td></td>
<td></td>
<td>For a list of devices</td>
</tr>
<tr>
<td>calls with or without</td>
<td></td>
<td></td>
<td>supported by Cisco</td>
</tr>
<tr>
<td>CTX.</td>
<td></td>
<td></td>
<td>Prime Collaboration 11.0,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>see Supported Devices</td>
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<td>for Prime Collaboration</td>
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<td>Assurance.</td>
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<td>For a list of devices</td>
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<td>supported by Cisco</td>
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<td>Prime Collaboration 11.1,</td>
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<td>see Supported Devices</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>for Prime Collaboration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assurance.</td>
</tr>
</tbody>
</table>

| Optional - CTX         | Ad hoc       | Point-to-point    | Session Border Controller (SBC) and |
| Including Inter-company|              |                  | video endpoints.               |
| calls made using Session|              |                  | For a list of devices supported |
| Border Controller with |              |                  | by Cisco Prime Collaboration 11.0,|
| or without CTX.        |              |                  | see Supported Devices for Prime |
|                       |              |                  | Collaboration Assurance.       |
|                       |              |                  | For a list of devices supported|
|                       |              |                  | by Cisco Prime Collaboration 11.1,see |
|                       |              |                  | Supported Devices for Prime    |
|                       |              |                  | Collaboration Assurance.       |

| Customer calls in a NAT| Ad hoc | Point-to-point | Session Border Controller (SBC) and |
| environment.           |       |               | video endpoints.               |
|                       |       |               | For a list of devices supported |
|                       |       |               | by Cisco Prime Collaboration 11.0,see |
|                       |       |               | Supported Devices for Prime    |
|                       |       |               | Collaboration Assurance.       |
|                       |       |               | For a list of devices supported|
|                       |       |               | by Cisco Prime Collaboration 11.1,see |
|                       |       |               | Supported Devices for Prime    |
|                       |       |               | Collaboration Assurance.       |

The following features related to session monitoring or troubleshooting in MSP mode are not supported:

- Session monitoring and troubleshooting of TPS cascaded calls over Cisco TelePresence Conductor
- MRA Multipoint calls and Multisite calls with MCU and CTX devices over Cisco TelePresence Conductor (Other MRA calls are supported)
- Cascading of MCU sessions over Cisco TelePresence Conductor
Session Diagnostics Dashboard

To access the Session Diagnostic dashboard, choose Diagnose > Session Diagnostics.

The Session Diagnostic dashboard provides details on a session and the endpoints that are involved in that session. In addition to monitoring the session, you can troubleshoot and identify faults in the network segment.

You can monitor sessions based on device type, by selecting the desired group from the Group drop-down filter. You can further filter based on the session type using the Show filter in the Video Collaboration Sessions pane.

By default, the All Video Collaboration Sessions table contains information for the current date (24 hours). You can view sessions for the last 30 days. Rest your mouse pointer over the Import Sessions button to see details of when the data was last imported into the Cisco Prime Collaboration database.

You can select a session, and click the Troubleshoot icon to launch the Session Troubleshooting page for that session.

The following image shows the Session Diagnostics Dashboard.

**Figure 3: Session Diagnostics Dashboard**

1. Predefined Group filter drop-down list. Also includes a launch point for a calendar. By default, the All Video Collaboration Sessions table contains information for the current date (24 hours). You can view sessions for the past 30 days and the next 3 days.
2. Quick summary pane for alarms and sessions.
The summary pane displays the session details for the current day (00:00:00 hours to 23:59:00 hours). You can view the icon-based summary of the data available in the Video Collaboration Sessions table.

You can view the DSCP value for Cisco Unified IP Phones 8941 and 8945, Cisco DX Series, and Cisco TelePresence TX Series. Select the session (Diagnose > Session Diagnostics) with the preceding endpoint(s). In the Session Statistics pane, the DSCP In field displays the DSCP value received from the endpoint in the session.

For Cisco Unified IP Phones 8941 and 8945, you can view the DSCP values only if the MSI Highgate feature is enabled for these phones.

The Video Collaboration Sessions table displays the details of in-progress sessions for the current date (00:00:00 hours to 23:59:59 hours). The latest session detail is listed at top of the table.

If you want to view details for the previous or the next day, you can choose the date, using the calendar. You can choose any of the filters from the Show drop-down list to view other session details.

Cisco Prime Collaboration keeps session details for the last 30 days.

You can get session statistics between audio-only IP Phones or Software Clients. If there are any alarms for the session, you can cross launch from the Alarms page to the Session Troubleshooting page and see the session statistics and trigger a path trace. Even after the alarm is cleared, you can cross launch to the troubleshooting page, to see the session information, session topology, and troubleshooting status. You cannot perform path assessment for these sessions. These sessions do not appear in the Session Diagnostics Dashboard.

Apart from video collaboration sessions, you can see sessions between an IP Phone or Software Client and TelePresence Endpoint in the Session Diagnostics Dashboard. Ensure that you set the visibility of these devices to Full Visibility. To know more about visibility, see Realtime Visibility of an Endpoint. You can cross launch to the Session Troubleshooting page and see the session statistics and trigger a path trace.
If you have deployed Cisco Prime Collaboration in MSP mode, you see the In-progress sessions shown as Ad Hoc Sessions when the call was scheduled in TMS or CTS MAN was made by selecting MCU as a conferencing device.

If you have deployed Cisco Prime Collaboration in MSP mode, you see the details of a point-to-point call between two customers (through phones registered to different Unified CMs) using Session Border Controller(s). Ensure that the Session Border Controller(s) is or are in managed state in Inventory Management to get the details of such calls.

Support for a New Method of Conferencing - Ad hoc Calls

This feature provides monitoring of new ad hoc conference calls on the Session Diagnostics page (Diagnose > Session Diagnostics).

Prerequisite - The Multipoint Control Unit (MCU) and endpoints must be in a Managed state in Cisco Prime Collaboration.

When a call is put in a conference mode (by pressing the conference button) or when merged with another call, it becomes a Multipoint ad hoc call. Cisco Unified CM allocates the MCU that behaves as a conferencing device for the call. In this case, the session topology displays the MCU. When the first participant leaves the call, the second and third participant continues in the same call which becomes a Point-to-Point ad hoc call. In this case, the session topology does not display the MCU.

When the Multipoint Control Unit (MCU) is in Suspended state in Cisco Prime Collaboration and a conference is made, instead of a single ad hoc call, Cisco Prime Collaboration shows two Point-to-Point calls with the second call leg between the endpoint and Multipoint Control Unit (MCU). After a few minutes, the call is connected between the endpoint that triggered the call and the Multipoint Control Unit (MCU). Other endpoints are not shown in the topology. This scenario is applicable when inbuilt video bridge capability is not present in the endpoint.

Monitoring of Cisco Unified Communications Manager—Cisco TelePresence Conductor Integrated Sessions

This feature enables you to monitor sessions that are created by a Cisco Unified CM that is integrated with a Cisco TelePresence Conductor.

Prerequisites:

- Cisco TelePresence Conductor, and Multipoint Control Unit (MCU) should be in Managed state in Cisco Prime Collaboration.

- The conference bridges on the Cisco TelePresence Conductor should be discovered as part of the Logical discovery of the conductor. If you are using the Add Device or Import feature to discover the Cisco TelePresence Conductor, ensure that you perform a subsequent rediscovery using the Rediscover feature with the Enable Logical discovery check box selected.

- Configure Cisco Unified CM to use a Cisco TelePresence Conductor to manage the conference bridge resources for ad hoc and rendezvous conferences. For information, see Cisco TelePresence Conductor with Cisco Unified CM Deployment Guide (XC2.3).

For a call that includes conferencing device - Multipoint Control Unit (MCU), you can view the details of the associated conductor from the Endpoints Quick View of the conferencing device (MCU) under the Session topology pane on the Session Diagnostics page (Diagnose > Session Diagnostics).

Cascading of Cisco TelePresence Server

This feature allows you to monitor Cisco TelePresence servers during ad hoc conference calls on the Session Diagnostics page ().
Prerequisite -

- The Cisco TelePresence Server (TPS), Cisco TelePresence Conductor, and endpoints should be in a Managed state in Cisco Prime Collaboration.
- Ensure that you set the visibility of the devices to Full Visibility.

During an ad hoc session, when a primary TPS server is unable to respond to a call over a Cisco TelePresence Conductor, it cascades the call to a secondary TPS server. Cascading occurs when multiple TPS servers share the load during a conference call. The session topology creates link between the primary and secondary TPS servers with associated participants and displays all the cascaded TPS servers as conference bridges.

**Note**
Session monitoring or troubleshooting of TPS cascaded calls over Cisco TelePresence Conductor is not supported in MSP mode.

### Realtime Visibility of an Endpoint

The visibility feature for a managed endpoint determines to what level Cisco Prime Collaboration monitors the operations of the endpoint. Only endpoints in the Managed state can be edited for visibility. If you edit the visibility settings for endpoints whose visibility level exceeds the maximum visibility, the changes are not updated. Visibility setting controls the polling of endpoints in addition to session monitoring. Polling is performed only for devices that are configured for real-time full visibility and not all devices.

Cisco Prime Collaboration supports the following types of visibility:

- **Full Visibility**—Call detection using JTAPI/HTTP feedback and realtime monitoring information such as session statistics, session information, and troubleshooting is supported.
- **Limited Visibility**—Automatic call detection using JTAPI/HTTP feedback takes place, but realtime monitoring information such as session statistics, session information, and troubleshooting is not supported. Endpoints with limited visibility are indicated with a half-dimmed icon in the Session Topology.
- **Off**—Call detection using JTAPI/HTTP feedback and realtime monitoring information are not supported. These endpoints are displayed on the Session Monitoring page with a fully dimmed icon.

The following table lists the default and maximum visibility details for the endpoints:

<table>
<thead>
<tr>
<th>Endpoint Type</th>
<th>Default Visibility</th>
<th>Maximum Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS 500, 1000, and 3000 Series</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Cisco Codec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisco TelePresence SX20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisco TelePresence MXP Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisco IP Video Phone E20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endpoint Type</td>
<td>Default Visibility</td>
<td>Maximum Visibility</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>• Cisco Jabber Video for TelePresence (Movi)</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>• Polycom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisco Cius</td>
<td>Off</td>
<td>Full</td>
</tr>
<tr>
<td>Cisco IP Phones (89xx, 99xx)</td>
<td>Off</td>
<td>Full</td>
</tr>
<tr>
<td>Cisco Desktop Collaboration Experience DX650 and DX630</td>
<td>Off</td>
<td>Full</td>
</tr>
<tr>
<td>• Cisco SX80 and Cisco SX10</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>- Cisco MX200 G2, Cisco MX300 G2, Cisco MX700, and Cisco MX800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisco DX70 and DX80</td>
<td>Off</td>
<td>Full</td>
</tr>
<tr>
<td>MRA Endpoints:</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>• Cisco Jabber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cisco TelePresence MX Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cisco TelePresence System EX Series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cisco TelePresence System SX Series</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is full visibility (default and maximum) for Total Endpoints (except Polycom). There is no visibility for IP Phones and Software Clients by default. The maximum visibility for IP Phones and Software Clients is full.

For a point-to-point ad hoc session, if visibility is Off for one endpoint and Limited or Full for the other, the endpoint with Off visibility is shown with a fully dimmed icon in the session topology.

For a Multipoint session, an endpoint with Off visibility is not displayed in the session topology.

For scheduled point-to-point or multipoint sessions, endpoints with Off visibility are shown with a fully dimmed icon in the session topology.

To view the visibility of an endpoint, choose **Device Inventory > Inventory Management** and then view the Visibility column in the inventory table for the corresponding endpoint.
If you are not able to view this column, click the Settings button, click **Columns**, and then click **Visibility** in the list that appears.

To change the visibility of an endpoint, choose **Device Inventory > Inventory Management** and select an endpoint, and then click **Edit**. You can see the current visibility of the endpoint. If you have any made any changes, click **Save**.

**Note**
If you select more than one endpoint, you cannot view the current visibility of the endpoints.

Any changes to the visibility settings are implemented from the next session onward.

The visibility feature is applied on the Session Diagnostics page only. That is, even if you have set visibility to either Limited or Off, the endpoint is listed in the Endpoint Diagnostics and Device Inventory pages.

### 360° Session View

The 360° Session View provides a complete view of pertinent data about endpoint, infrastructure devices, alarms, and call records. It also enables you to cross launch other Cisco Prime Collaboration features. To see the 360° session View for a session, rest your mouse pointer over the Session Subject column in the Video Collaboration Sessions table and click the 360° Session View icon.

The 360° Session View contains the following tabs:

- **Alarms**—Displays the alarm severity, the source that triggered the alarm, the description of the generated alarm, and the time stamp.
- **Endpoints**—Displays the endpoint name, IP address, physical location, session duration, and device model.
- **Infrastructure**—Displays the details of the infrastructure devices in use. You can launch the Infrastructure Devices login page using the IP address link. You can also launch the Device Inventory page to view the inventory details of the device by clicking the Device Name.

The following table lists the actions that you can perform in the 360° Session View:

**Table 3: Actions Performed in 360° Session View**

<table>
<thead>
<tr>
<th>Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click the Troubleshoot Session icon to launch the Session Troubleshooting page for the selected session, where you can select the direction for troubleshooting.</td>
</tr>
</tbody>
</table>
Click the Add to Watch list icon to add a session to the watch list. It is enabled for scheduled and in-progress sessions.

If you have added an in-progress session to the watch list, the troubleshooting workflow starts immediately between endpoints for a point-to-point session and between an endpoint and a Multipoint Switch, for a multipoint session.

If you have added a scheduled session to the watch list, the troubleshooting workflow starts after the session starts.

If you have scheduled a recurring session, add each instance of the recurring session to the watch list. For example, if you have scheduled a recurring session for every day over 5 days, add the session to the watch list for every day (5 days).

To monitor troubleshooting, click the icon in the 360° Session View.

View the troubleshooting report. The link is displayed for a completed session only if you performed troubleshooting, either manually or automatically.

View the troubleshooting report. The link is displayed for a completed session only if you performed troubleshooting, either manually or automatically.

Click the See Alarms icon to launch the Alarm browser. The Alarm browser lists all alarms for the selected session (includes both session and endpoints alarms).

Click the Monitor Endpoint icon to launch the Endpoint Diagnostics page.

### Session Topology

The session topology displays the endpoints that are part of a session. If it is a multipoint session, the conferencing devices are displayed along with the endpoints. Also, if the call is a traversal call, Cisco VCS is displayed.

To launch the session topology, select a session in the Video Collaboration Sessions table.

The alarm badge displayed on the link and endpoints indicates a fault in the delivery of packets and the peripherals, respectively.
The following figure shows the different statuses displayed in the session topology.

**Figure 4: Session Topology**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An endpoint with a limited visibility icon that participates in the session.</td>
</tr>
<tr>
<td>2</td>
<td>A No-Show icon associated with an endpoint.</td>
</tr>
<tr>
<td>3</td>
<td>An active link between an endpoint and a Multipoint Switch without alarms.</td>
</tr>
<tr>
<td>4</td>
<td>An endpoint with a major alarm that participates in the session. The problem is in peripheral devices.</td>
</tr>
<tr>
<td>5</td>
<td>An active link between an endpoint and a Multipoint Switch with a major alarm.</td>
</tr>
<tr>
<td>6</td>
<td>A Disconnect icon associated with an endpoint.</td>
</tr>
</tbody>
</table>
Unknown endpoint; an endpoint that is not currently managed in Cisco Prime Collaboration. The inventory details for these endpoints may not be available in the Cisco Prime Collaboration database. The endpoints and controllers must be in the Managed state also the registration status should be available in the Device 360° view.

The endpoints that are registered to the Cisco VCS Expressway are also displayed as Unknown endpoints.

A managed endpoint in Cisco Prime Collaboration can make a call to an unsupported endpoint.

<table>
<thead>
<tr>
<th>Unknown endpoint</th>
<th>—</th>
</tr>
</thead>
</table>

If there is a fault in the network, the alarm badge is displayed on the network line. You can launch a quick view on the topology to identify the network link direction where the fault has occurred.

**Network Link Quick View**

To launch the quick view, rest your mouse pointer over the alarm badge and click the quick view icon. The network link quick view contains the following tabs:

- **Link Summary**—Displays the alarm status between the endpoints for point-to-point sessions and between an endpoint and Multipoint Switch for multipoint sessions.
- **Alarms Summary**—Displays the alarm severity, the source that triggered the alarm, and the description of the generated alarm.
- **Call Details**—Displays the endpoint name, phone number, and protocol. These details are displayed for the endpoints connected through the selected network link.

**Endpoints Quick View**

You can launch a quick view for endpoints in the Managed and Unknown states. To launch the quick view, rest your mouse pointer over an endpoint and click the quick view icon.

For devices in Managed state, the following details are displayed:

- **Endpoint Summary**—Displays the endpoint details such as system type, IP address (IPv4 or IPv6), physical location, usage status, directory number (SIP URI or H323 ID), cluster ID, and so on.

  If you have deployed Cisco Prime Collaboration in MSP mode, you can see the customer to which that endpoint belongs to, and the Private IP and Public IP addresses respectively. You can click the Public IP address to launch the endpoint's Management Application.

- **Alarms Summary**—Displays the Alarm Severity, the Category of the alarm, and the Description of the generated alarm.

  From the quick view, you can add an endpoint to the watch list, launch the Endpoint Diagnostics page, and view the alarms for the selected endpoint.
Conferencing Resource - Cisco Prime Collaboration also lets you view information about the region that the MCU belongs to.

**Endpoint Statistics**

You can monitor the Quality of Service (QoS) of the endpoints in this pane. Endpoint statistics are displayed for in-progress and past sessions. Also, the peripheral status and system information are available for the scheduled sessions.

This page displays information on the peripheral status, endpoint system details, session details, and session statistics for a selected endpoint in the session topology pane.

In a Multisite session, the session statistics (audio and video) and session information are displayed for each connected endpoint when the center endpoint (conferencing device) is selected.

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**Note**

Session statistics details (present and past) are not displayed for Cisco Cius and Cisco IP Phones.

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**Session Statistics**

The Session Statistics pane displays the statistics information, such as packet loss, latency, jitter, and so forth, for:

- **Audio**—Primary codec, secondary codec 1 and 2, auxiliary and primary legacy.
- **Video**—Primary codec and secondary codec 1 and 2.

The information displayed varies, based on the endpoint type that you have selected.

A black vertical line indicates the threshold value. You can define the threshold value for Rx packet loss, average period jitter, and average period latency using the **Assurance Administration > Event Customization > Threshold Rules** option.

Red indicates that the value has exceeded the defined threshold. Gray indicates the current value. This color is used for those parameters that do not contain threshold values.

An alarm badge indicates the actual fault in the network. For past sessions, Cisco Prime Collaboration does not display the threshold value or alarm badge-in session statistics.

All session and endpoint statistics data older than one day are purged.