



# Enable Cisco APIC-EM to Troubleshoot Conference

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This section explains the following:

- [Enable Cisco APIC-EM to Troubleshoot Conference, on page 1](#)

## Enable Cisco APIC-EM to Troubleshoot Conference

This chapter provides information about enabling Cisco APIC-EM to troubleshoot conference.

### Overview of Cisco APIC-EM

**For Cisco Prime Collaboration Release 11.6 and later**

Cisco Application Policy Infrastructure Controller Enterprise Module (APIC-EM) provides centralized automation of policy-based application profiles. Cisco APIC-EM works with existing network infrastructure and automates the deployment and compliance checking of network policies across the entire network. For more information, see [Cisco Application Policy Infrastructure Controller Enterprise Module](#). For information on deployment of Cisco APIC-EM in your network, see [Cisco Application Policy Infrastructure Controller Enterprise Module Deployment Guide](#).

Cisco Prime Collaboration Assurance integrates with Cisco APIC-EM to trace and monitor any in-progress voice or video conference media path, and automatically troubleshoots the network elements that cause quality degradation in a media path.

The following are the key features of Cisco APIC-EM:

- Monitors midpoints or enterprise network devices (routers, switches, and hosts) for media path troubleshooting.
- Relies upon 5-tuple (Source IP Address, Destination Address, Source Port, Destination Port, and Protocol) that are received from Cisco Prime Collaboration Assurance to perform Path Trace.



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**Note** For more information on Path Trace and its limitations, see the *Performing Path Traces* section in the [Cisco Application Policy Infrastructure Controller Enterprise Module Configuration Guide](#).

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- Requires both SNMP and CLI credentials to manage the devices.
- Provides media path and path statistics information (device statistics, interface statistics, and PerfMon statistics) for a given flow directly to Cisco Prime Collaboration Assurance.
- Performs on-demand PerfMon configuration on midpoints for a given flow to fetch media flow statistics. The PerfMon configuration is removed when the troubleshooting conference ends.




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**Note** For more information on the platform on which the PerfMon data can be collected, see the [http://apic-em/wiki/Category:Testing/Platform\\_Support#APIC-EM\\_PLATFORM\\_SUPPORT](http://apic-em/wiki/Category:Testing/Platform_Support#APIC-EM_PLATFORM_SUPPORT) wiki page.

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- Enables path troubleshooting for destination endpoint that is in unknown state.




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**Note** • You can upgrade to Cisco Prime Collaboration Assurance 11.5 Service Pack 1 from 11.5 release only.

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## Cisco APIC-EM Controller Integration Settings

Cisco Prime Collaboration Assurance allows you to troubleshoot the quality issues of media conference using Cisco APIC-EM Controller Integration Settings under **Alarm & Report Administration > APIC-EM & Prime Integration**.

### Before you begin

Ensure that the user is assigned with the role `ROLE_POLICY_ADMIN` in Cisco APIC-EM.

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**Step 1** Choose **Alarm & Report Administration > APIC-EM & Prime Integration**.

**Step 2** Enter the valid Cisco APIC-EM credentials in **APIC-EM Controller Integration Settings** pane and click **Save**.

a) If Cisco APIC-EM APIs are accessible with the credentials entered, Cisco Prime Collaboration Assurance saves the configuration details in the database and displays the popup message.

`APIC-EM credentials are saved successfully.`

b) If Cisco APIC-EM APIs are not accessible with the credentials entered, Cisco Prime Collaboration Assurance displays a warning message.

`APIC-EM is not accessible with the credentials provided. Please verify the credentials and try again.`

**Step 3** Click **Reset** to clear the Cisco APIC-EM configurations details in **APIC-EM Controller Integration Settings** pane.

**Note** Cisco APIC-EM version 1.2.x has been validated with Cisco Prime Collaboration Assurance Release 11.5 Service Pack 1.

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## Cisco APIC-EM Controller Integration Settings Pane - Field Descriptions

*Table 1: Field Descriptions for Cisco APIC-EM Controller Integration Settings Pane*

Field	Description
IP Address	Cisco APIC-EM Controller Management IP Address of the cluster. Enter reachable host IP address or virtual IP address address of APIC-EM cluster.
HTTP Username and Password	Login credentials of Cisco APIC-EM Server.

### Troubleshooting

**Issue:** Test connectivity fails.

### Recommendations:

- Ensure that Cisco APIC-EM APIs are accessible with the credentials provided in field of **APIC-EM Controller Integration Settings Pane**.
- Ensure that you are assigned with the role `ROLE_POLICY_ADMIN`.

## Conference Troubleshooting with Cisco APIC-EM

The following procedure contains the high-level steps to troubleshoot a conference.

### Before you begin

Ensure that Cisco Prime Collaboration Assurance is integrated with Cisco APIC-EM. For more information, see [Cisco APIC-EM Controller Integration Settings, on page 2](#).

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- Step 1** Cisco Prime Collaboration Assurance initiates SDN Path Trace by providing 5-tuple information received from endpoint for the given call leg.  
Cisco APIC-EM creates a flow to keep track of the request.
- Step 2** Cisco Prime Collaboration Assurance uses the flow to collect the media path and path statistics information.  
Cisco APIC-EM enables performance monitoring configuration on the devices (ingress or egress interface) involved in the path for a given flow. The PerfMon configuration is removed when troubleshooting ends.
- Step 3** Cisco Prime Collaboration Assurance collects the media flow statistics (for example, Packet Loss, Jitter, and CPU utilization) for each node from the Cisco APIC-EM Controller periodically.
- Step 4** Cisco Prime Collaboration Assurance continues to poll the endpoints to collect the media statistics from the endpoints.
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### Example

The following image shows the interaction between Cisco Prime Collaboration Assurance and Cisco APIC-EM to troubleshoot a conference.

Figure 1: Interaction between Cisco Prime Collaboration Assurance and Cisco APIC-EM

