CHAPTER 5

Trace Configuration

The Trace Configuration window allows you to specify the parameters that you want to trace for troubleshooting Cisco Unified Presence problems. You can configure the level of information that you want traced (debug level), what information you want to trace (trace fields), and information about the trace files (such as number of files per service, and size of file). You can configure trace for a single service or apply the trace settings for that service to all servers in the cluster.

After you have configured which information you want to include in the trace files for the various services, you can collect trace files by using the trace and log central option in the Real-Time Monitoring Tool (RTMT). For more information on collecting traces, see the "Trace Collection and Log Central in RTMT" section on page 10-1.

Note Enabling Trace decreases system performance; therefore, enable Trace only for troubleshooting purposes. For assistance in using Trace, contact Cisco TAC.

This chapter contains the following topics:

Configuring Trace Parameters

This section describes how to configure trace parameters for Cisco Presence services.

Procedure

Step 1 Choose **Trace > Configuration**.

The Trace Configuration window displays.

Step 2 From the Server drop-down list box, choose the server that is running the service for which you want to configure trace; then, click **Go**.

Step 3 From the Service Group drop-down list box, choose the service group for the service that you want to configure trace; then, click **Go**.

Step 4 From the Service drop-down list box, choose the service for which you want to configure trace; then, click **Go**.

Note The drop-down list box displays all services (active and inactive).

The trace parameters display for the service that you chose.

Note If you configured Troubleshooting Trace for this service, a message displays at the top of the window that indicates that Troubleshooting Traces have been set. The system disables all fields on the window except the Output Settings. To configure the Output Settings, go to Step 10. To reset Troubleshooting trace, see the "Troubleshooting Trace Setting Configuration" section on page 6-1.

Step 5 If you want trace to apply to all Cisco Unified Presence servers in the cluster, check the **Apply to All Nodes** check box.

Step 6 Check the **Trace On** check box.

Step 7 From the Debug Trace Level drop-down list box, choose the level of information that you want traced as described in "Debug Trace Level Settings" section on page 5-3.

Step 8 Check the Trace Fields check box for the service that you chose; for example, Cisco UPS SIP Proxy Trace Fields.

Step 9 If the service that you chose has multiple trace fields, such as the Cisco UP SIP Proxy service, check the check boxes next the trace fields that you want to enable. For a description of the Cisco UP SIP Proxy service trace filter setting, see Table 5-1.

Step 10 To limit the number and size of the trace files, specify the trace output setting. See Table 5-3 for descriptions and default values.

Step 11 To save your trace parameters configuration, click the **Save** button.

The changes to trace configuration take effect immediately for all services except Cisco Messaging Interface. The trace configuration changes for Cisco Messaging Interface take effect in 3 to 5 minutes.

Note To set the default, click the **Set Default** button.

Table 5-1 Cisco UP SIP Proxy Service Parameter Trace Filter Settings

Parameter	Description
Enable CTI Gateway Trace	This parameter enables tracing for the CTI Gateway.
Enable Parser Trace	This parameter enables tracing of parser information related to the operation of the per-sipd child SIP parser.
Enable SIP TLS Trace	This parameter enables tracing for information related to the TLS transport of SIP messages by TCP services.
Enable Privacy Trace	This parameter enables tracing for information about processing of PAI, RPID, and Diversion headers in relation to privacy requests.
Enable Routing Trace	This parameter enables tracing for the Routing module.
Enable IPPM Trace	This parameter enables tracing for IP Phone Messenger.

Table 5-1 Cisco UP SIP Proxy Service Parameter Trace Filter Settings

Parameter	Description
Enable SIPUA Trace	This parameter enables tracing for the SIP UA application module.
Enable SIP Message and State Machine Trace	This parameter enables tracing for information related to the operation of the per-sipd SIP state machine.
Enable SIP TCP Trace	This parameter enables tracing for information related to the TCP transport of SIP messages by TCP services.
Enable Authentication Trace	This parameter enables tracing for the Authentication module.
Enable Enum Trace	This parameter enables tracing for the Enum module.
Enable Registry Trace	This parameter enables tracing for the Registry module.
Enable Method/Event Routing Trace	This parameter enables tracing for the Method/Event routing module.
Enable CALENDAR Trace	This parameter enables tracing for the Calendar module.

Additional Information

See the Related Topics, page 5-5.

Debug Trace Level Settings

Table 5-2 describes the debug trace level settings for services.

Table 5-2 Debug Trace Levels for Services

Level	Description
Arbitrary	Traces all Entry/Exit conditions plus low-level debugging information. **Note** Do not use this trace level with the Cisco UPS Presence Engine service or the Cisco IP Voice Media Streaming Application service during normal operation.
Debug	Traces all State Transition conditions plus media layer events that occur during normal operation. Trace level that turns on all logging
Detailed	Traces all Arbitrary conditions plus detailed debugging information. **Note** Do not use this trace level with the Cisco UPS Presence Engine service or the Cisco IP Voice Media Streaming Application service during normal operation.
Entry/Exit	Traces all Significant conditions plus entry and exit points of routines. Not all services use this trace level (for example, Cisco Presence does not).

Table 5-2 Debug Trace Levels for Services (continued)

Level	Description
Error	Traces alarm conditions and events. Used for all traces that are generated in abnormal path. Uses minimum number of CPU cycles.
Fatal	Traces very severe error events that may cause the application to abort.
Info	Traces the majority of servlet problems and has a minimal effect on system performance.
Significant	Traces all State Transition conditions plus media layer events that occur during normal operation.
Special	Traces all Error conditions plus process and device initialization messages.
State Transition	Traces all Special conditions plus subsystem state transitions that occur during normal operation.
Warn	Traces potentially harmful situations.

Additional Information

See the Related Topics, page 5-5.

Trace Output Settings Descriptions and Defaults

Table 5-3 contains the trace log file descriptions and defaults.

Caution When you change either the Maximum No. of Files or Maximum File Size parameter, the system deletes all the service log files except the current file if the service is running, or, if the service has not been activated, the system will delete the files when the service is initially activated. If you want to keep a record of the log files, make sure that you download and save the service log files to another server before changing the Maximum No. of Files parameter or the Maximum File Size parameter.

Table 5-3 Trace Output Settings

Field	Description
Maximum number of files	This field specifies the total number of trace files for a given service. Cisco Unified Presence automatically appends a sequence number to the file name to indicate which file it is; for example, esp000005. When the last file in the sequence is full, the trace data begins writing over the first file. The default varies by service.
Maximum file size (MB)	This field specifies the maximum size of the trace file in megabytes. The default varies by service.

Additional Information

See the Related Topics, page 5-5.

Related Topics

- Configuring Trace Parameters, page 5-1
- Trace Output Settings Descriptions and Defaults, page 5-4
- Debug Trace Level Settings, page 5-3