Cisco Mediatrace

admin-params

To configure adminitrator parameters for a Mediatrace performance monitoring profile, use the **admin-params**command in monitoring profile configuration mode. To return to the default setting, use the **no** form of this command.

admin-params

no admin-params

Syntax Description

This command has no arguments or keywords.

Command Modes

Monitoring profile configuration (config-mt-prof-perf)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

This command enters admin parameters configuration mode and enables you to configure administrator parameters for a performance monitoring profile. You can configure the sampling interval.

Examples

The following example shows how to configure administrator parameters for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# admin-params
Router(config-mt-prof-perf-params)#sampling-interval 10
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

clear mediatrace incomplete-sessions

To clear ongoing Mediatrace polls, use the **clear mediatrace incomplete-sessions**command in privileged EXEC mode.

clear mediatrace incomplete-sessions

Syntax Description   This command has no arguments or keywords.

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   This command clears ongoing Mediatrace polls. This command must be entered in different session.

Examples   The following example clears incomplete Mediatrace sessions:

```
Router# clear mediatrace incomplete-sessions
```

Related Commands

Command	Description
mediatrace schedule	Schedules Mediatrace sessions.

clock-rate (RTP parameters)

To configure the clock rate for samples taken of Real-Time Transport Protocol (RTP) metrics for a Mediatrace performance monitoring profile, use the **clock-rate**command in RTP parameters configuration mode. To return to the default setting, use the **no** form of this command.

clock-rate {*type-number*| *type-name*| **default**} *rate*

no clock-rate {*type-name*| **default**}

Syntax Description

type-number	An integer between 0 and 34. This value is compared with the payload type field in the RTP header. Values between 0 and 23 are reserved for audio streams, and values between 24 and 34 are reserved for video streams.
type-name	The name of the payload type field in the RTP header.
rate	Clock rate in Hz. The range is from 9600 to 124000.

Command Default

The clock rate is set to 96000 Hz

Command Modes

RTP parameters configuration (config-mt-prof-perf-rtp-params)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

Each payload type has a specific clock rate associated with it. However, because the clock rate can vary depending on the payload codec type, a keyword is provided to set the expected clock rate.

The available values for *type-name and type-number*are celb (25), cn (13), dvi4 (5) (8000 Hz as described in RFC 3551, RTP Profile for Audio and Video Conferences with Minimal Control), dvi4-2 (6) (8000 Hz as described in RFC 3551), dvi4-3 (16) (DVI4 Dipol 11025 Hz), dvi4-4 (17) DVI4 Dipol 22050 Hz), g722 (9), g723 (4), g728 (15), g729 (18), gsm (3), h261 (31), h263 (34), jpeg (26), l16 (11) (L16 channel 1), l16-2 (10) (L16 channel 2), lpc (7), mp2t (33), mpa (14), mpv (32), nv (28), pcma (8), pcmu (0), qcelp (12).

Examples   The following example shows how to configure the clock rate for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# metric-list rtp
Router(config-mt-prof-perf-rtp-params)#clock-rate gsm 10000
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

dest-ip (flow)

To configure the IP address of the destination node for the flow, use the **dest-ip**command in flow configuration mode. To remove the configuration for the destination node, use the **no** form of this command.

dest-ip *ip-address* **dest-port** *port*

no dest-ip *ip-address*

Syntax Description

ip-address	IP address of the destination node for the flow.
dest-port *port*	Specifies the port number of the destination node for the flow.

Command Default

No destination node for the flow is configured.

Command Modes

Flow configuration (config-mt-flowspec)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

When specifying the IP address of the destination node for the flow, you must also specify the port number.

Examples

The following example shows how to configure the IP address of the destination node for the flow:

```
Router(config)#
mediatrace
 flow-specifier f
low
-4
Router(config-mt-flowspec)# dest-ip 10.10.10.4 dest-port 4800
```

Related Commands

Command	Description
mediatrace flow-specifier	Configures Mediatrace flow specifier.

frequency (session parameters)

To configure the interval between samples taken of metrics, use the **frequency**command in session parameters configuration mode. To return to the default setting, use the **no** form of this command.

frequency {*frequency*| **on-demand**} **inactivity-timeout** *seconds*

no frequency

Syntax Description

frequency	Interval, in seconds, between samples taken of metrics. The range is 10 to 3000.
on-demand	Take samples only when the **mediatrace poll** command is entered.
inactivity-timeout *seconds*	Specifies the number of seconds the Mediatrace Responder will wait without any requests from the Initiator. The range is 1 to 10800.

Command Default

The frequency is set to 120 seconds The inactivity-timeout is set to 360 seconds.

Command Modes

Session parameters configuration (config-mt-sesparam)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

The value of the inactivity-timeout should be three times the value of the frequency.

Examples

The following example shows how to configure the frequency for a session parameters:

```
Router(config)#
mediatrace session-params
sess-4
Router(config-mt-sesparam)# frequency 20 inactivity-timeout 20
```

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

gsid

To configure the metadata global session identifier (GSID) for a Mediatrace flow-specifier, use the **gsid**command in flow configuration mode. To remove the GSID, use the **no** form of this command.

gsid *gsid*

no gsid *gsid*

Syntax Description

gsid	Metadata global session identifier (GSID) for a Mediatrace flow-specifier.

Command Modes   Flow configuration (config-mt-flowspec)

Command History

Release	Modification
15.2(2)S	This command was introduced.
15.2(3)T	This command was integrated into Cisco IOS Release 15.2(3)T.
Cisco IOS XE Release 3.6S	This command was integrated into Cisco IOS XE Release 3.6S.

Usage Guidelines   The GSID has a maximum length of 25 characters.

Examples   The following example shows how to configure the IP address of the source node for the flow:

```
Router(config)# mediatrace flow-specifier flow-4
Router(config-mt-flowspec)# gsid 1234
```

Related Commands

Command	Description
mediatrace flow-specifier	Configures Mediatrace flow specifier.

history (session parameters)

To configure the number of history buckets retained for metrics collected for a Mediatrace session, use the **history**command in session parameters configuration mode. To return to the default setting, use the **no** form of this command.

history data-sets-kept *buckets*

no history data-sets-kept

Syntax Description

data-sets-kept *buckets*	Number of history buckets retained. The default is 3. The maximum value is 10.

Command Default

The number of history buckets retained is set to three.

Command Modes

Session parameters configuration (config-mt-sesparam)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

The maximum number of history buckets allowed is 10.

Examples

The following example shows how to configure the number of history buckets retained for a session parameters:

```
Router(config)#
mediatrace
session-params sess-4
Router(config-mt-sesparam)# history data-sets-kept 1
```

Related Commands

Command	**Description**
mediatrace session-params	Configures parameters for Mediatrace sessions.

ip protocol (flow)

To specify which metrics are monitored for a Mediatrace flow-specifier or path-specifier profile, use the **ip-p rotocol**command in flow configuration mode. To return to the default setting, use the **no** form of this command.

ip-protocol {**tcp**| **udp**}

no ip-protocol

Syntax Description

tcp	Specifies that TCP metrics are monitored.
udp	Specifies that UDP metrics are monitored.

Command Default

The UDP metrics are monitored.

Command Modes

Flow configuration (config-mt-flowspec)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

If no protocol is specified, UDP metrics are monitored.

Examples

The following example shows how to specify that UDP metrics are monitored for a flow-specifier profile:

```
Router(config)# mediatrace flow-specifier flow-4
Router(config-mt-flowspec)# ip-protocol tcp
```

Related Commands

Command	Description
mediatrace flow-specifier	Configures Mediatrace flow specifier.

l2-params gateway

To configure the IP address and ID of the virtual LAN of the level-2 gateway for a Mediatrace path-specifier profile, use the **monitor-interval** command in path configuration mode. To remove the configuration, use the **no** form of this command.

l2-params gateway *ip-address* **vlan** *vlan-id*

no l2-params gateway *ip-address* **vlan** *vlan-id*

Syntax Description

ip-address	IP address of the level-2 gateway.
vlan *vlan-id*	ID of the virtual LAN of the level-2 gateway.

Command Default

No level-2 gateway is configured.

Command Modes

Path configuration (config-mt-path)

Command History

Release	Modification
15.1(3)T	This command was introduced.
15.0(1)SY	This command was integrated into Cisco IOS Release15.0(1)SY.
15.2(2)T	This command was integrated into Cisco IOS Release 15.2(2)T.

Usage Guidelines

This command is available only Catalyst platforms.

Examples

The following example shows how to configure the IP address and ID of the virtual LAN of the level-2 gateway for a Mediatrace path-specifier profile:

```
Router(config)#
mediatrace path-specifier path-4
Router(config-mt-path)# l2-params gateway 10.10.10.4 vlan 22
```

Related Commands

Command	Description
mediatrace path-specifier	Configures Mediatrace path-specifier profiles.

max-dropout

To configure the maximum number of dropouts allowed when sampling Real-Time Transport Protocol (RTP) metrics for a Mediatrace performance monitoring profile, use the **max-dropout**command in RTP parameters configuration mode. To return to the default setting, use the **no** form of this command.

max-dropout *number*

no max-dropout

Syntax Description

number	Maximum number of allowed dropouts. The default is 10. The maximum value is 20.

Command Default   The maximum number of allowed dropouts is set to 10.

Command Modes   RTP parameters configuration (config-mt-prof-perf-rtp-params)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   The definition of maximum dropouts is the maximum number of packets to ignore ahead the current packet in terms of sequence number.

Examples   The following example shows how to configure the maximum number of allowed dropouts for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# metric-list rtp
Router(config-mt-prof-perf-rtp-params)# max-dropout 4
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

max-reorder

To configure the maximum number of reorders allowed when sampling Real-Time Transport Protocol (RTP) metrics for a Mediatrace performance monitoring profile, use the **max-reorder**command in RTP parameters configuration mode. To return to the default setting, use the **no** form of this command.

max-reorder *number*

no max-reorder

Syntax Description

number	Maximum number of allowed reorders. The default is 5. The maximum value is 20.

Command Default
The maximum number of allowed reorders is set to 5.

Command Modes
RTP parameters configuration (config-mt-prof-perf-rtp-params)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines
The definition of maximum rereorders is the maximum number of packets to ignore behind the current packet in terms of sequence number..The maximum value for the maximum number of allowed reorders is 20.

Examples
The following example shows how to configure the maximum number of allowed reorders for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# metric-list rtp
Router(config-mt-prof-perf-rtp-params)# max-reorder 4
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace

To configure Mediatrace sessions, use the **mediatrace**command in global configuration mode. To remove Mediatrace sessions, use the **no** form of this command.

mediatrace *session-number*

no mediatrace *session-number*

Syntax Description

session-number	ID number of the mediatrace session to configure.

Command Default   No Mediatrace sessions are configured.

Command Modes   Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   This command enters Mediatrace session configuration mode and enables you to associate the following Mediatrace profile configurations with the session:

- Path-specifier profile
- Session-params profile
- Flow-specifier profile
- System profile
- Perf-monitor profile

Examples   The following example shows how to enter Mediatrace session configuration mode:

```
Router(config)# mediatrace
 4
```

Related Commands

Command	Description
mediatrace flow-specifier	Configures the Mediatrace flow-specifier.

Command	Description
mediatrace path-specifier	Configures the Mediatrace path-specifier.
mediatrace profile perf-monitor	Configures the Mediatrace performance monitoring profile.
mediatrace profile system	Configures Mediatrace system profile.
mediatrace session-params	Configures Mediatrace session parameters.

mediatrace enable provider

To enable network devices to act as a Mediatrace Responder, use the **mediatrace enable provider** command in global configuration mode. To disable a network device acting as a Mediatrace Responder, use the **no** form of this command.

mediatrace enable provider {**snmp dcm**| **rtp**| [**perf-mon**| **vidmon**]| **tcp**| [**perf-mon**| **vidmon**]| **system mediatrace**}

no mediatrace enable provider {**snmp dcm**| **rtp**| [**perf-mon**| **vidmon**]| **tcp**| [**perf-mon**| **vidmon**]| **system mediatrace**}

Syntax Description

snmp dcm	Specifies that an SNMP MIB objects Data Collection Manager (DCM) will be enabled to act as a Mediatrace Responder.
rtp perf-mon	Specifies that a Performance Monitor node running on an ISR or ASR and capable of providing RTP video metrics will be enabled to act as a Mediatrace Responder.
rtp vidmon	Specifies that a Vidmon node running IOS-XR and capable of providing RTP video metrics will be enabled to act as a Mediatrace Responder.
tcp perf-mon	Specifies that a Performance Monitor node running on an ISR or ASR and capable of providing TCP video metrics will be enabled to act as a Mediatrace Responder.
tcp vidmon	Specifies that a Vidmon node running IOS-XR and capable of providing TCP video metrics will be enabled to act as a Mediatrace Responder.
system mediatrace	Specifies that a Mediatrace system node will be enabled to act as a Mediatrace Responder.

Command Default   No additional network devices will be enabled to act as a Mediatrace Responder.

Command Modes   Global configuration (config)

Command History

Release	Modification
15.3(1)T	This command was introduced.

Usage Guidelines   This allows you to enable addition nodes to act as Mediatrace Responder No Mediatrace services are available until you have configured at least one Mediatrace Responder. Before you can use Mediatrace, you must also issue the **mediatrace initiator**command on one of the nodes in the media path and issue this command on all nodes that you want to support Mediatrace.

Examples   The following example shows how to enable a Vidmon node running IOS-XR and capable of providing RTP video metrics to act as a Mediatrace Responder.

```
Router(config)# mediatrace enable provider rtp vidmon
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace enable tag

To enable a Mediatrace tag, use the **mediatrace enable tag** command in global configuration mode. To disable a Mediatrace tag, use the **no** form of this command.

mediatrace enable tag *name*

no mediatrace enable tag *name*

Syntax Description	

name	Specifies the name of the Mediatrace tag to enable.

Command Default No Mediatrace tags are enabled.

Command Modes Global configuration (config)

Command History

Release	Modification
15.3(1)T	This command was introduced.

Usage Guidelines Mediatrace tags are used to specify a group of metrics that will be collected when this command is used to enable the tag.

Examples The following example shows how to enable a Mediatrace tag.

```
Router(config)# mediatrace enable tag linux
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace initiator

To enable the Mediatrace Initiator, use the **mediatrace initiator**command in global configuration mode. To disable the Mediatrace Initiator, use the **no** form of this command.

mediatrace initiator source-ip *ip-address* **[force]** [**max-sessions** *number*]

no mediatrace initiator [force]

Syntax Description

source-ip *ip-address*	Specifies the IP address to use for the Mediatrace Initiator.
force	(Optional) Forces mediatrace to be disabled.
max-sessions *number*	(Optional) Sets the maximum number of Mediatrace sessions.

Command Default

The Mediatrace Initiator is disabled. When the Mediatrace Initiator is enabled, the maximum number of mediatrace sessions is set to 20.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

Mediatrace Initiator is disabled by default. Therefore, no Mediatrace services are available until you issue this command for the Mediatrace Initiator. Before you can use Mediatrace, you must issue this command on one of the nodes in the media path and issue the **mediatrace responder** command on all nodes that you want to support Mediatrace.

Tip   When you enable the Mediatrace Initiator, you must specify an address on a local interface.

You can also use this command to set the maximum sessions that can be started by the Mediatrace Initiator. The upper limit for the maximum number of mediatrace sessions is platform-dependant.

Examples

The following example shows how to enable the Mediatrace Initiator on the local interface with an IP address of 10.10.2.2:

```
Router(config)# mediatrace
 initiator source-ip 10.10.2.2
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace flow-specifier

To configure the flow-specifier profile for Mediatrace, use the **mediatrace flow-specifier** command in global configuration mode. To remove the flow-specifier profile, use the **no** form of this command.

mediatrace flow-specifier *name*

no mediatrace flow-specifier *name*

Syntax Description

name	Name of the flow-specifier profile.

Command Default

No flow-specifier profile is configured.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

The command defines the source IP address, destination IP address, source port, destination port, and protocol that identifies a flow. You can then associate a profile with one or more Cisco Mediatrace sessions later when you configure it.

Examples

The following example shows how to configure the flow-specifier profile for Mediatrace:

```
Router(config)# mediatrace file-specifier fs-4
Router(config-mt-flowspec)# source-ip 10.1.1.2 source-port 600
Router(config-mt-flowspec)# dest-ip 10.2.2.2 dest-port 400
Router(config-mt-flowspec)# ip-protocol tcp
```

Related Commands

Command	Description
mediatrace	Configures Mediatrace sessions.

mediatrace path-specifier

To configure the path-specifier profile for Mediatrace, use the **mediatrace path-specifier**command in global configuration mode. To remove the path specifier profile, use the **no** form of this command.

mediatrace path-specifier *name* [**disc-proto rsvp**]{**gsid** *gsid*| **destination-ip** *ip-address*[**port** *number*]}

no mediatrace path-specifier *name*

Syntax Description

name	Name of the path-specifier profile.
disc-proto rsvp	(Optional) Specifies that RSVP is used as the discovery protocol for the path.
destination -ip *ip-address*	Specifies on the destination address for the path.
port *number*	(Optional) Specifies on the destination port for the path.
gsid *gsid*	Specifies on the Global Session Identifier (GSID) for the path.

Command Default

No path-specifier profile is configured.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.
15.2(3)T	This command was integrated into Cisco IOS Release 15.2(3)T with the addition of the **gsid** keyword.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S with the addition of the **gsid** keyword.
Cisco IOS XE Release 3.6S	This command was integrated into Cisco IOS XE Release 3.6S with the addition of the **gsid** keyword.

Usage Guidelines   After using this command to enter path configuration mode, you can configure the source address and port of the path.

You can associate a path-specifier profile with one or more actual Mediatrace sessions when they are configured.

Examples   The following example shows how to configure a path-specifier profile with a destination address of 10.10.2.8:

```
Router(config)# mediatrace
 path-specifier path-2 destination ip 10.10.2.8
```

Related Commands

Command	Description
mediatrace	Configures Mediatrace sessions.

mediatrace poll

To perform an on-demand fetch of data, use the **mediatrace poll** command in privileged EXEC mode.

mediatrace poll {**no-traceroute**| **session** *number*| [**timeout** *value*] **path-specifier** {**name** *path-name*| **gsid** *gsid*| [**disc-proto rsvp**] **destination** *ip-address* [**port** *number*]| **source** *ip-address* [**port** *number*]**destination** *ip-address* [**port** *number*] [**ip-protocol** {**tcp**| **udp**}]}} {**app-health**| **hops**| **system** [**profile** *system-profile-name*]| [**configless**] **perf-monitor** [**profile** *profile-name*]} {**flow-specifier** *name*| **source-ip** *ipaddress* **source-port** *number* **dest-ip** *ipaddress* **dest-port** *numbern* **ip-protocol** {**tcp**| **udp**}}

Syntax Description

no-traceroute	Disables trace route for the Mediatarce poll.
session *number*	Specifies the session for which to fetch data.
timeout *value*	(Optional) Specifies the amount of time to wait for a reply.
path-specifier	Fetches data for a specific path.
name *path-name*	Specifies the path-specifier name for the path for which data is fetched.
gsid *gsid*	Specifies the metadata global session indentifier (GSID) for the path for which to fetch data.
disc-proto rsvp	(Optional) Uses the RSVP transport protocol to perform hop discovery. This is currently the only protocol supported and the default.
destination *ip-address*	Specifies the destination address for the path for which data is fetched.
port *number*	Specifies the destination or source port for the path for which data is fetched.
source *ip-address*	Specifies the source address for the path for which data is fetched.
ip-protocol	(Optional) Specifies the protocol for the path for which data is fetched.
tcp	Fetches data for a TCP flow.
udp	Fetches data for a UDP flow.
app-health	Fetches data on application health.

hops	Fetches data on hops.
system	Fetches data on a system profile
profile *system-profile-name*	(Optional) Specifies the system profile for which data is fetched.
configless	(Optional) Fetch data from the nodes along a media path, which have existing Performance Monitor policies configured.
perf-monitor	Fetches data on a perf-monitor profile.
flow-specifier *-name*	Fetches data for a specific flow.
source-ip *ipaddress*	Specifies the source address of the flow for which data is fetched.
source-port *number*	(Optional) Specifies the source port of the flow for which data is fetched.
dest-ip *ipaddress*	Specifies the destination address of the flow for which data is fetched.
dest-port *number*	(Optional) Specifies the destination port of the flow for which data is fetched.
ip-protocol	(Optional) Specifies the protocol for which data is fetched.

Command Default   The timeout is 60 seconds.

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.
15.2(3)T	This command was integrated into Cisco IOS Release 15.2(3)T with the addition of the **gsid** keyword.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S with the addition of the **gsid** keyword.

Release	Modification
Cisco IOS XE Release 3.6S	This command was integrated into Cisco IOS XE Release 3.6S with the addition of the **gsid** keyword.

Usage Guidelines

For existing Performance Monitor profiles, the minimum value of the timeout allowed will depend on the sampling-interval configured in profile. If default perf-monitor profile is used then default value of sampling-interval is 30 second so minimum timeout value is 60 seconds.

The following examples show some ways you can use the **mediatrace poll** command to perform an on-demand fetch of data from the hops on a specific path:

- To retrieve data using a pre-configured session. In this case, no other parameters have to be specified inline. The pre-configured session must be have the frequency type set to on-demand.

- To retrieve the system data, hop or video monitoring information from hops along the specified path. You can specify the path as a pre-configured path-specifier or an inline path specification, in case you do not have config mode privileges. Note that by default, Cisco Mediatrace tries to configure nodes along the path to report passive monitoring metrics, and then waits for a configurable amount of time before going out again to collect the data.

- The **configless** keyword can be used to fetch data from the nodes along a media path, which already have Performance Monitor policies configured using the Performance Monitor commands. Some key things to keep in mind when fetching data using this method are that:

  - The default perf-monitor profile or associated perf-monitor profile will have a sampling interval. If the sampling interval of the static policy does not match the one in the associated perf-monitor profile, no data is returned.

  - If there is no Performance Monitor policy configured on a Responder node, the Cisco Mediatrace Responder does not try to configure Performance Monitor and simply reports error to the Mediatrace Initiator.

If Cisco Mediatrace is not collecting all of the data that you want:

- Use the show mediatrace session command to verify that the intended values are set for the parameters for a specific session or all sessions.

- Use the **show mediatrace responder app-health** command and the show mediatrace responder sessions command to determine the status of the nodes being monitored.

- Use the debug mediatrace command to view error messages.

Examples

> **Note**   For examples of poll output, see the end of this section.

The following example shows how to fetch the default system metrics when the source IP address, source port, and destination port are not known. Cisco Mediatrace uses the best local IP address as source IP address to find which hops are using RSVP.

mediatrace poll path-specifier destination *ip-address* **system**

The following example shows how to fetch the default system metrics when the source and destination port numbers are not known. RSVP finds the hop between the specified source and destination.

mediatrace poll path-specifier source *ip-address* **destination** *ip-address* **system**

The following example shows how to fetch the default system metrics when the source and destination port numbers are known. RSVP finds the hop using this information.

mediatrace poll path-specifier source *ip-address* **port** *number* **destination** *ip-address* **port** *number* **ip-protocol udp system**

The following example shows how to fetch the default set of RTP metrics. Cisco Mediatrace uses the path parameters to discover hops and uses the inline flow specifier profile as a filter for Performance Monitor data.

mediatrace poll path-specifier source *ip-address* **destination** *ip-address* **perf-monitor source-ip** *ip-address* **source-port** *number* **dest-ip** *ip-address* **dest-port** *number* **ip-protocol udp**

The following example shows how to fetch the default set of TCP metrics. Cisco Mediatrace uses the path parameters to discover hops and uses the inline flow-specifier profile as a filter for Performance Monitor data.

mediatrace poll path-specifier source *ip-address* **destination** *ip-address* **perf-monitor source-ip** *ip-address* **source-port** *number* **dest-ip** *ip-address* **dest-port** *number* **ip-protocol tcp**

The following example shows how to fetch the default set of RTP metrics. Cisco Mediatrace uses the best local IP address as source IP address for finding hops on the path and uses the inline flow specifier profile as a filter for Performance Monitor data.

mediatrace poll path-specifier destination *ip-address* **perf-monitor source-ip** *ip-address* **source-port** *number* **dest-ip** *ip-address* **dest-port** *number* **ip-protocol udp**

The following example shows how to fetch the default set of TCP metrics. Cisco Mediatrace uses the best local IP address as source IP address for finding hops on the path and uses the inline flow-specifier profile as a filter for Performance Monitor data.

mediatrace poll path-specifier destination *ip-address* **perf-monitor source-ip** *ip-address* **source-port** *number* **dest-ip** *ip-address* **dest-port** *number* **ip-protocol tcp**

The following example shows how to fetch the default set of RTP metrics from an existing static policy configured on the Responders. This command does not configure the Performance Monitor, so for more information, see Configuring Performance Monitor . Cisco Mediatrace uses the path parameters to discover hops and use the inline flow specifier profile as a filter for Performance Monitor data.

mediatrace poll path-specifier source *ip-address* **destination** *ip-address* **configless perf-monitor flow-specifier source** *ip-address* **port** *number* **dest** *ip-address* **port** *number* **ip-protocol udp**

This example shows the output is produced by the following hops poll command:

```
mediatrace poll path-specifier source 10.10.130.2 destination 10.10.132.2 hops
Started the data fetch operation.
Waiting for data from hops.
This may take several seconds to complete...
Data received for hop 1
Data received for hop 2
Data fetch complete.
Results:
Data Collection Summary:
  Request Timestamp: 22:47:56.788 PST Fri Oct 29 2010
  Request Status: Completed
  Number of hops responded (includes success/error/no-record): 2
  Number of hops with valid data report: 2
  Number of hops with error report: 0
  Number of hops with no data record: 0
Detailed Report of collected data:
    Number of Mediatrace hops in the path: 2
    Mediatrace Hop Number: 1 (host=responder1, ttl=254)
```

```
        Reachability Address: 10.10.12.3
        Ingress Interface: Gi0/1
        Egress Interface: Gi0/2
   Mediatrace Hop Number: 2 (host=responder2, ttl=253)
        Reachability Address: 10.10.34.3
        Ingress Interface: Gi0/1
        Egress Interface: Gi0/2
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace profile perf-monitor

To configure a Mediatrace performance monitoring profile, use the **mediatrace profile perf-monitor**command in global configuration mode. To remove a performance monitoring profile, use the **no** form of this command.

mediatrace profile perf-monitor *name*

no mediatrace profile perf-monitor *name*

Syntax Description

name	Name used to identify the profile.

Command Default   No Mediatrace performance monitoring profile is configured.

Command Modes   Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   After using this command to enter perf-prof configuration mode, you can configure the following optional parameters:

- Sampling interval
- Clock rate
- Maximum number of dropouts
- Maximum number of reorders
- Minimum number of sequential errors

You can associate a performance monitoring profile with one or more actual Mediatrace sessions when they are configured.

The following example shows how to configure a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# metric-list rtp
Router(config-mt-prof-perf-rtp-params)# clock-rate 84
Router(config-mt-prof-perf-rtp-params)# max-dropout 2
Router(config-mt-prof-perf-rtp-params)# max-reorder
```

```
 4
Router(config-mt-prof-perf-rtp-params)# min-sequential 2
Router(config-mt-prof-perf-rtp-params)# exit
Router(config-mt-prof-perf)# admin-params
Router(config-mt-prof-perf-params)# sampling-interval 20
```

Related Commands

Command	Description
mediatrace flow-specifier	Configures Mediatrace flow specifier.

mediatrace profile snmp

To configure an SNMP profile, use the **mediatrace profile snmp**command in global configuration mode. To remove an SNMP profile, use the **no** form of this command.

mediatrace profile snmp *name*

no mediatrace profile snmp *name*

Syntax Description

name	Name used to identify the profile.

Command Default

No Mediatrace SNMP profile is configured.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.3(1)T	This command was introduced.

Usage Guidelines

After using this command to enter system-data profile configuration mode and you can configure a list of SNMP objects to be monitored:

You can associate an SNMP profile with one or more actual Mediatrace sessions when they are configured.

Examples

The following example shows how to configure an SNMP profile:

```
Router(config)# mediatrace profile snmp snmp-2
Router(config-mt-prof-snmp)# object-list tag ios
Router(config-mt-prof-obj-list)# add ifDescr
Router(config-mt-prof-obj-list)# add ifType
Router(config-mt-prof-obj-list)# exit
Router(config-mt-prof-snmp)# instance-list
Router(config-mt-prof-inst-list)# range start 1 end 5
Router(config-mt-prof-inst-list)# range 7 end 10
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace profile system

To configure a system-data monitoring profile, use the **mediatrace profile system**command in global configuration mode. To remove a system profile, use the **no** form of this command.

mediatrace profile system *name*

no mediatrace profile system *name*

Syntax Description

name	Name used to identify the profile.

Command Default

No Mediatrace system-data profile is configured.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

After using this command to enter system-data profile configuration mode, you can configure which of the following types of system data are monitored:

- Interface

- CPU

- Memory

You can associate a system-data monitoring profile with one or more actual Mediatrace sessions when they are configured.

Examples

The following example shows how to configure a sysem-data monitoring profile:

```
Router(config)# mediatrace profile system system-8
Router(config-sys-prof)# metric-list CPU MEMORY
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace responder

To enable the Mediatrace Responder, use the **mediatrace responder source-ip** *ip-address* command in global configuration mode. To disable the Mediatrace Responder, use the **no** form of this command.

mediatrace responder source-ip *ip-address* [**max-sessions** *number*]

no mediatrace responder source-ip *ip-address*

Syntax Description

source-ip *ip-address*	Specifies on which node to enable the mediatrace initiator.
max-sessions *number*	(Optional) Sets the maximum number of Mediatrace sessions.

Command Default   The Mediatrace Responder are disabled. The maximum number of mediatrace sessions is set to 20.

Command Modes   Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   Mediatrace Responder is disabled by default. Therefore, no Mediatrace services are available until you issue this command for the Mediatrace Responder. Before you can use Mediatrace, you must issue the **mediatrace initiator** command on one of the nodes in the media path and issue this command on all nodes that you want to support Mediatrace.

You can also use this command to set the maximum sessions that can be used by the Mediatrace Responder. The upper limit for the maximum number of mediatrace sessions is platform-dependant.

Examples   The following example shows how to enable the Mediatrace Responder on a node with an IP address of 10.10.10.4:

```
Router(config)# mediatrace
 responder max-sessions 12
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

mediatrace schedule

To configure when a Mediatrace session will occur, use the **mediatrace schedule**command in global configuration mode. To remove a Mediatrace schedule, use the **no** form of this command.

mediatrace schedule *session ID* [**life** {**forever**| *seconds*}] [**start-time** {*hh* **:** *mm* [**:** *ss*] [*month day*| *day month*]| **pending**| **now**| **after** *hh* **:** *mm* **:** *ss*}] [**ageout** *seconds*] [**recurring**]

no mediatrace schedule *session ID*

Syntax Description

session ID	ID number of the session to schedule.
life	Specifies how long the session schedule will last.
forever	(Optional) Specifies that the session schedule will last forever.
seconds	(Optional) Number of seconds the session schedule will last.
start-time	(Optional) Specifies when the session schedule will start.
hh :*mm*:*ss*	(Optional) Time of day the session schedule will start.
month day	(Optional) Date that the session schedule will start.
day month	(Optional) Date that the session schedule will start.
pending	(Optional) Specifies that the start time of the session schedule is pending.
now	(Optional) Specifies that the session schedule will start now.
after	(Optional) Specifies that the session schedule will end at the specified time.
ageout	(Optional) Specifies that the session schedule will stop after the specified number of seconds.
recurring	(Optional) Specifies that the session schedule will recur.

Command Default   No schedule is specified for the session and it is in the pending state.

Command Modes   Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Examples   The following example shows how to configure a session schedule that will start now and last 60 seconds:

```
Router(config)# mediatrace schedule 22 life 60 now
```

Related Commands

Command	Description
mediatrace *session-number*	Configures a Mediatrace session.

mediatrace session-params

To configure session-parameters, use the **mediatrace session-params**command in global configuration mode. To remove the session-parameters configuration, use the **no** form of this command.

mediatrace session-params *name*

no mediatrace session-params *name*

Syntax Description

name	Name used to identify the profile.

Command Default

No session-parameters profile is configured.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

After using this command to enter session-parameters configuration mode, you can configure the following parameters:

- Sampling frequency

- Inactivity timeout

- Number of historical data sets kept

- Response timeout

- Route change reaction time

You can associate a session-parameters profile with one or more actual Mediatrace sessions when they are configured.

Examples

The following example shows how to configure a session-parameters profile:

```
Router(config)# mediatrace session-params session-4
Router(config-mt-sesparam)# frequency 20 inactivity-timeout 40
Router(config-mt-sesparam)# history data-sets-kept 2
Router(config-mt-sesparam)# response-timeout 20
Router(config-mt-sesparam)# route-change reaction-time 4
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

metric-list (monitoring profile)

To specify monitoring parameters for a Mediatrace performance monitoring profile, use the **metric-list**command in monitoring profile configuration mode. To return to the default setting, use the **no** form of this command.

metric-list {**tcp**| **rtp**}

no metric-list {**tcp**| **rtp**}

Syntax Description

tcp	Configures monitoring parameters for TCP packets.
rtp	Configures monitoring parameters for Real-Time Transport Protocol (RTP) packets.

Command Default

The RTP metrics are monitored.

Command Modes

Monitoring profile configuration (config-mt-prof-perf)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

This command specifies whether TCP packet or RTP packet are monitored and enters monitoring parameters configuration mode for a performance monitoring profile. For RTP, you can configure the following parameters:

- Clock rate

- Maximum number of dropouts allowed

- Maximum number of packet allowed to be received out of order

- Minimum number of packets in a sequence used to classify a RTP flow

Examples

The following example shows how to configure monitoring parameters for RTP packets:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# metric-list rtp
Router(config-mt-prof-perf-rtp-params)# clock-rate 84
Router(config-mt-prof-perf-rtp-params)# max-dropout 2
Router(config-mt-prof-perf-rtp-params)# max-reorder
```

```
 4
Router(config-mt-prof-perf-rtp-params)# min-sequential 2
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

metric-list (system profile)

To specify which metrics are monitored for a Mediatrace system-data profile.use the **metric-list**command in system profile configuration mode. To return to the default setting, use the **no** form of this command.

metric-list {**intf**| **cpu**| **memory**}

no metric-list {**intf**| **cpu**| **memory**}

Syntax Description

intf	(Optional) Monitor interface metrics.
cpu	(Optional) Monitor CPU metrics.
memory	(Optional) Monitor memory metrics.

Command Default   The interface metrics are monitored.

Command Modes   System profile configuration (config-mt-prof-sys)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   If no metric list is specified, Interface metrics are monitored.

Examples   The following example shows how to specify that CPU metrics are monitored:

```
Router(config)#
mediatrace profile
system sp-4
Router(config-mt-prof-sys)# metric-list cpu
```

Related Commands

Command	Description
mediatrace profile system	Configures Mediatrace system profiles.

min-sequential

To configure the minimum number of packets in a sequence used to classify a Real-Time Transport Protocol (RTP) flow for a Mediatrace performance monitoring profile, use the **min-sequential**command in RTP parameters configuration mode. To return to the default setting, use the **no** form of this command.

min-sequential *number*

no min-sequential *number*

Syntax Description

number	Minimum number of packets in a sequence used to classify a RTP flow.

Command Default   The minimum number of packets in a sequence is set to 5.

Command Modes   RTP parameters configuration (config-mt-prof-perf-rtp-params)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.
15.2(2)T	This command was integrated into Cisco IOS Release 15.2(2)T with a behavior change for Phase 2 of Performance Monitor.
Cisco IOS XE Release 3.5S	This command was integrated into Cisco IOS Release 12.2(58)SE with a behavior change for Phase 2 of Performance Monitor.

Usage Guidelines   For releases that have Phase 2 of Performance Monitor, when the min-sequential value is set to X, a flow is validated as a RTP flow once X packets are received in sequence. For releases that have Phase 1 of Performance Monitor, when the min-sequential value is set to X, a flow is validated as a RTP flow once X+1 packets are received in sequence.

The maximum value for the minimum number of packets in a sequence used to classify a RTP flow is 10.

Examples   The following example shows how to configure the minimum number of packets in a sequence used to classify a RTP flow for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
```

```
Router(config-mt-prof-perf)# metric-list rtp
Router(config-mt-prof-perf-rtp-params)# min-sequential 4
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

monitor-interval

To configure the interval, in seconds, between samples taken of metrics for a Mediatrace performance monitoring profile, use the **monitor-interval** command in admin parameters configuration mode. To return to the default setting, use the **no** form of this command.

monitor-interval *seconds*

no monitor-interval *seconds*

Syntax Description

seconds	Number of seconds between samples taken of metrics.

Command Default

The sampling interval is set to 30 minutes.

Command Modes

Admin parameters configuration (config-mt-prof-perf-params)

Command History

Release	Modification
15.2(3)T	This command was introduced.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
Cisco IOS XE Release 3.6S	This command was integrated into Cisco IOS XE Release 3.6S.

Usage Guidelines

The sampling interval can be set to a maximum of 30 minutes.

Examples

The following example shows how to configure the sampling interval for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor v-mon-4
Router(config-mt-prof-perf)# admin-params
Router(config-mt-prof-perf-params)# monitor-interval 10
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

path-specifer

To associate a Mediatrace path-specifier profile with a Mediatrace session, use the **path-specifier** command in session configuration mode. To remove the association, use the **no** form of this command.

path-specifier {*path*| **forward** *path*| **reverse** *path*| **bi** *f-path* r-path}

no path-specifier {*path*| **forward** *path*| **reverse** *path*| **bi** *f-path* r-path}

Syntax Description

path	Name used to identify the path-specifier profile.
forward *path*	Specifies the name of the forward path-specifier profile to associate with a Mediatrace session.
reverse *path*	Specifies the name of the reverse path-specifier profile to associate with a Mediatrace session.
bi *f-path r-path*	Specifies the name of the forward and reverse path-specifier profiles to associate with a Mediatrace session.

Command Default

No path-specifier profile is configured.

Command Modes

Session configuration (config-mt-session)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.
15.3(1)T	This command was modified. The **forward** , **reverse** , and **bi** keywords were added.

Usage Guidelines

You can associate a path-specifier profile with one or more actual Mediatrace sessions.

Examples

The following example shows how to associate a Mediatrace path-specifier profile to a Mediatrace session:

```
Router(config)# mediatrace 4
Router(config-mt-session)# path-specifier ps
-4
```

Related Commands

Command	Description
mediatrace	Configures a Mediatrace session.

profile perf-monitor

To associate a performance monitoring profile and a flow-specifier profile with a Mediatrace session, use the **profile perf-monitor**command in session configuration mode. To remove the association, use the **no** form of this command.

profile perf-monitor *pm-name* **flow-specifier** {*spec*| **forward** *spec*| **reverse** *spec*| **bi** *f-spec* r-spec}

no profile perf-monitor *pm-name* **flow-specifier** {*spec*| **forward** *spec*| **reverse** *spec*| **bi** *f-spec* r-spec}

Syntax Description

pm-name	Name used to identify the performance monitoring profile to associate with a Mediatrace session.
flow-specifier *spec*	Specifies the name of the flow-specifier profile to associate with a Mediatrace session.
forward *spec*	Specifies the name of the forward flow-specifier profile to associate with a Mediatrace session.
reverse *spec*	Specifies the name of the reverse flow-specifier profile to associate with a Mediatrace session.
bi *f-spec r-spec*	Specifies the name of the forward and reverse flow-specifier profiles to associate with a Mediatrace session.

Command Default

No performance monitoring profile is configured.

Command Modes

Session configuration (config-mt-session)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.
15.3(1)T	This command was modified. The **forward** , **reverse** , and **bi** keywords were added.

Usage Guidelines

You can associate a performance monitoring profile with one or more actual Mediatrace sessions.

Examples

The following example shows how to associate a Mediatrace performance monitoring profile to a Mediatrace session:

```
Router(config)# mediatrace 4
Router(config-mt-session)# profile perf-monitor pm-4 flow-specifier fs-2
```

Related Commands

Command	Description
mediatrace	Configures a Mediatrace session.

profile system

To associate a Mediatrace system profile to a Mediatrace session, use the **profile system**command in session configuration mode. To remove the association, use the **no** form of this command.

profile system *name*

no profile system *name*

Syntax Description	*name*	Name used to identify the profile.

Command Default

No system profile is configured.

Command Modes

Session configuration (config-mt-session)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

You can associate a system profile with one or more actual Mediatrace sessions.

Examples

The following example shows how to associate a Mediatrace system profile to a Mediatrace session:

```
Router(config)# mediatrace 4
Router(config-mt-session)# profile system sprofile-4
```

Related Commands

Command	Description
mediatrace	Configures a Mediatrace session.

response-timeout (session parameters)

To configure the number of seconds the Mediatrace Initiator will wait for the Responder to provide metrics, use the **response-timeout**command in session parameters configuration mode. To return to the default setting, use the **no** form of this command.

response-timeout *seconds*

no response-timeout *seconds*

Syntax Description

seconds	The number of seconds the Mediatrace Initiator will wait for the Responder to provide metrics.

Command Default

The response-timeout is set to 60 seconds.

Command Modes

Session parameters configuration (config-mt-sesparam)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

The maximum value for the response-timeout is 65535 seconds. The response timeout should be less than the frequency.

Examples

The following example shows how to configure the response-timeout for a session parameters:

```
Router(config)#
mediatrace session-params
sess-4
Router(config-mt-sesparam)# response-timeout 20
```

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

route-change reaction-time

To configure the number of seconds the Mediatrace Initiator will wait for a response to a route change notification, use the **route change**command in session parameters configuration mode. To return to the default setting, use the **no** form of this command.

route-change reaction-time *seconds*

no route-change reaction-time *seconds*

Syntax Description

seconds	Number of seconds the Mediatrace Initiator will wait for a response to a route change notification.

Command Default

The route change reaction time is set to 5 seconds.

Command Modes

Session parameters configuration (config-mt-sesparam)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

The maximum value for the route change reaction time is 60 seconds.

Examples

The following example shows how to configure the route change reaction time for a session parameters:

```
Router(config)#
mediatrace session-params
sess-4
Router(config-mt-sesparam)# route-change reaction-time 20
```

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

sampling-interval

To configure the interval, in seconds, between samples taken of metrics for a Mediatrace pre-packaged performance monitoring profile, use the **sampling-interval**command in admin parameters configuration mode. To return to the default setting, use the **no** form of this command.

sampling-interval *seconds*

no sampling-interval *seconds*

Syntax Description

seconds	Number of seconds between samples are taken of metrics.

Command Default

The sampling interval is set to 30 minutes.

Command Modes

Admin parameters configuration (config-mt-prof-perf-params)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

The sampling interval can set to a maximum of 30 minutes.

Examples

The following example shows how to configure the sampling interval for a performance monitoring profile:

```
Router(config)#
mediatrace profile perf-monitor
v-mon-4
Router(config-mt-prof-perf)# admin-params
Router(config-mt-prof-perf-params)#sampling-interval 10
```

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

session-params

To associate a Mediatrace session-params profile to a Mediatrace session, use the **session-params**command in session configuration mode. To remove the association, use the **no** form of this command.

session-params *name*

no session-params *name*

Syntax Description

name	Name used to identify the profile.

Command Modes

Session configuration (config-mt-session)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

You can associate a session-params profile with one or more actual Mediatrace sessions.

Examples

The following example shows how to associate a Mediatrace session-params profile to a Mediatrace session:

```
Router(config)# mediatrace 4
Router(config-mt-session)# session-params sp
-4
```

Related Commands

Command	Description
mediatrace	Configures a Mediatrace session.

show mediatrace flow-specifier

To display the parameters configured for flow-specifier profiles, use the **show mediatrace flow-specifier**command in privileged EXEC mode.

show mediatrace flow-specifier [*name*]

Syntax Description

name	(Optional) Name used to identify the profile.

Command Default   All flow-specifierprofiles are displayed.

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   If no flow-specifier profile name is entered with this command, all profiles are displayed.

Examples   The following example displays flow-specifier profiles:

```
Router# show mediatrace
 flow-specifier flow-1
Flow Specifier: flow-1
    Source address/port:
    Destination address/port:
    Protocol: udp
```
The table below describes the significant fields shown in the display.

Table 1: show mediatrace flow-specifier Field Descriptions

Field	Description
Flow Specifier	Name assigned to the profile.
Source address/port	Address of the source node.
Destination address/port	Address of the destination node.
Protocol	Whether metrics are collected for TCP or UDP.

Related Commands

Command	Description
mediatrace flow-specifier	Configures Mediatrace monitoring flow specifier.

show mediatrace initiator

To display the parameters configured for the Mediatrace Initiator profile, use the **show mediatrace initiator**command in privileged EXEC mode.

show mediatrace initiator

Syntax Description   This command has no arguments or keywords.

Command Modes   Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines   There is only one Mediatrace Initiator profile that can be displayed.

Examples   The following example displays the Mediatrace Initiator profile:

```
Router# show mediatrace
 initiator
Version: Mediatrace 1.0
Mediatrace Initiator status: enabled
Source IP: 1.1.1.1
Number of Maximum Allowed Active Session: 127
Number of Configured Session: 1
Number of Active Session    : 0
Number of Pending Session   : 0
Number of Inactive Session  : 1
Note: the number of active session may be higher than max active session
      because the max active session count was changed recently.
```
The table below describes the significant fields shown in the display.

Table 2: show mediatrace initiator Field Descriptions

Field	Description
Verion	Version of the Mediatrace software.
Mediatrace Initiator status	Whether the Initiator is enabled.
Source IP	IP address of the Initiator.
Number of Maximum Allowed Active Session	Maximum number of active sessions allowed on the Initiator.

Field	Description
Number of Configured Session	Number of sessions configured on the Initiator.
Number of Active Session	Number of sessions active on the Initiator.
Number of Pending Session	Number of sessions pending on the Initiator.
Number of Inactive Session	Number of inactive sessions on the Initiator.

Related Commands

Command	Description
mediatrace path-specifier	Configures Mediatrace monitoring path specifier.

show mediatrace path-specifier

To display the parameters configured for path-specifier profiles, use the **show mediatrace path-specifier**command in privileged EXEC mode.

show mediatrace path-specifier [*name*]

Syntax Description

name	(Optional) Name used to identify the profile.

Command Default

All path-specifierprofiles are displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

If no path-specifier profile name is entered with this command, all profiles are displayed.

Examples

The following example displays path-specifier profiles:

```
Router# show mediatrace
 path-specifier flow-1
Path Configuration: ps1
    Destination address/port: 10.10.10.1
    Source address/port: 10.10.10.4
    Gateway address/vlan:
    Discovery protocol: rsvp
```
The table below describes the significant fields shown in the display.

Table 3: show mediatrace path-specifier Field Descriptions

Field	Description
Path Configuration	Name of the path-specifier configuration.
Destination address/port	Address of the node at the end of the flow.
Source address/port	Address of the node at the beginning of the flow.

Field	Description
Gateway address/port	Address of the gateway.
Discovery protocol	Protocol used for path discovery.

Related Commands

Command	Description
mediatrace path-specifier	Configures Mediatrace monitoring path specifier.

show mediatrace profile system

To display the parameters configured for system-data profiles, use the **show mediatrace profile system**command in privileged EXEC mode.

show mediatrace profile system [*name*]

Syntax Description

name	(Optional) Name used to identify the profile.

Command Default

All system-data profiles are displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

If no system-data profile name is entered with this command, all profiles are displayed.

Examples

The following example displays system-data profiles:

```
Router# show mediatrace profile
system

System Profile: sys-1
Metric List: intf
```

The table below describes the significant fields shown in the display.

Table 4: show mediatrace profile system Field Descriptions

Field	Description
System Profile	Name assigned to the profile.
Metric List	Whether metrics are collected for interfaces, CPUs, or memory.

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

show mediatrace profile perf-monitor

To display the parameters configured for performance monitoring profiles, use the **show mediatrace profile perf-monitor**command in privileged EXEC mode.

show mediatrace profile perf-monitor [*name*]

Syntax Description

name	(Optional) Name used to identify the profile.

Command Default

All performance monitoring profiles are displayed.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

If no performance monitoring profile name is entered with this command, all profiles are displayed.

Examples

The following example displays performance monitoring profiles:

```
Router# show mediatrace profile perf-monitor
Perf-monitor Profile: vprof-4
Metric List: rtp
RTP Admin Parameter:
  Max Dropout: 5
  Max Reorder: 5
  Min Sequential: 5
Admin Parameter:
  Sampling Interval (sec): 30
```
The table below describes the significant fields shown in the display.

Table 5: show mediatrace profile perf-monitor Field Descriptions

Field	Description
Perf-monitor Profile	Name assigned to the profile.
Metric List	Whether metrics are collected for TCP or Real-Time Transport Protocol (RTP).

Field	Description
Max Dropout	Maximum number of packets to ignore ahead the current packet in terms of sequence number.
Max Reorder	Maximum number of packets to ignore behind the current packet in terms of sequence number.
Min Sequential	Minimum minimum number of packets in a sequence used to classify a RTP flow.
Sampling Interval	Duration of the sampling interval in seconds.

Related Commands

Command	Description
mediatrace profile perf-monitor	Configures Mediatrace performance monitoring profiles.

show mediatrace responder app-health

To display application health information for the Mediatrace Responder, use the **show mediatrace responder app-health**command in privileged EXEC mode.

show mediatrace responder app-health

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Examples

The following example displays application health information for the Mediatrace Responder:

```
Router# show mediatrace responder app-health
Mediatrace App-Health Stats:
   Number of all requests received: 0
   Time of the last request received:
   Initiator ID of the last request received:  0
   Requests dropped due to queue full: 0
   Responder current max sessions: 45
   Responder current active sessions: 0
   Session down or tear down requests received: 0
   Session timed out and removed: 0
   HOPS requests received: 0
   VM dynamic polling requests received: 0
   VM dynamic polling failed: 0
   VM configless polling requests received: 0
   VM configless polling failed: 0
   SYSTEM data polling requests received: 0
   SYSTEM data polling requests failed: 0
   APP-HEALTH polling requests received: 0
   Route Change or Interface Change notices received: 0
   Last time Route Change or Interface Change:
   Unknown requests received: 0
```
The table below describes the significant fields shown in the display.

Table 6: show mediatrace respnder app-health Field Descriptions

Field	Description
Number of all requests received	Number of requests received by the Responder.
Time of the last request received	When the last request received by the Responder.

Field	Description
Initiator ID of the last request received	ID of the Initiator that sent the last request received by the Responder.
Requests dropped due to queue full	Number of requests dropped because the queue was full.
Responder current max sessions	Number of current max sessions on the Responder.
Responder current active sessions	Number of current active sessions on the Responder.
Session down or tear down requests received	Number of session down or tear down requests received by the Responder.
Session timed out and removed	Number of sessions that timed out and were removed by the Responder.
HOPS requests received	Number of HOPS requests received by the Responder.
VM dynamic polling requests received	Number of VM dynamic polling requests received by the Responder.
VM dynamic polling failed	Number of VM dynamic polls that failed.
VM configless polling requests received	Number of VM configless polling requests received by the Responder.
VM configless polling failed	Number of VM configless polls that failed.
SYSTEM data polling requests received	Number of SYSTEM data polling requests received by the Responder.
SYSTEM data polling requests failed	Number of SYSTEM data polling requests that failed.
APP-HEALTH polling requests received	Number of APP-HEALTH polling requests received by the Responder.
Route Change or Interface Change notices received	Number of Route Change or Interface Change notices received by the Responder.
Last time Route Change or Interface Change	When the last time Route Change or Interface Change occurred.
Unknown requests received	Number of Unknown requests received by the Responder.

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

show mediatrace responder sessions

To display session information for the Mediatrace Responder, use the **show mediatrace responder sessions**command in privileged EXEC mode.

show mediatrace responder sessions [*global-session-id*| **brief**| **details**]

Syntax Description

global-session-id	ID of the Mediatrace session for which to display information.
brief	Displays only the destination and source address/port of the path, their role as either Initiator or Responder, and some state information.
details	Displays all session information.

Command Default

The detailed session information is displayed for the Mediatrace Responder

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

If no session ID is entered with this command, inforamtion for all sessions is displayed.

Examples

The following example displays brief session information for the Mediatrace Responder:

```
Router# show mediatrace responder sessions brief
Local Responder configured session list:
Current configured max sessions: 45
Current number of active sessions: 0
session-id initiator-name     src-ip         src-port  dst-ip         dst-port
  2   host-18      10.10.10.2    200   10.10.10.8     200
```
The table below describes the significant fields shown in the display.

Table 7: show mediatrace responder breif sessions Field Descriptions

Field	Description
Current configured max sessions	Number of maximum sessions curerntly configured on the Responder.
Current number of active sessions	Number of sessions curerntly active on the Responder.
session-id	ID of each active session.
initiator-name	Host name of the Initiator for each session.
src-ip	IP address of the source of the flow for each session.
src-port	Port of the source of the flow for each session.
dst-ip	IP address of the destination of the flow for each session.
dst-port	Port of the destination of the flow for each session.

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

show mediatrace session

To display information for Mediatrace sessions, use the **show mediatrace session**command in privileged EXEC mode.

show mediatrace session [**config**| **data**| **hops**| **stats**]

Syntax Description

config	(Optional) Display configuration information for Mediatrace sessions.
data	(Optional) Display data collected for Mediatrace sessions.
hops	(Optional) Display hop information for Mediatrace sessions.
stats	(Optional) Display statistics for Mediatrace sessions.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.
15.2(3)T	This command was integrated into Cisco IOS Release 15.2(3)T with the expansion of the output to include trace route data.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S with the expansion of the output to include trace route data.
Cisco IOS XE Release 3.6S	This command was integrated into Cisco IOS XE Release 3.6S with the expansion of the output to include trace route data.

Usage Guidelines

You must have at least one active session before most session information can be displayed.

Examples

The following example displays session configuration information:

```
Router# show mediatrace session config
Session Index: 1
Global Session Id: 0
```

```
                         -------------------------
Session Details:
    Path-Specifier: ps1
    Session Params: sp1
    Collectable Metrics Profile: s1
    Flow Specifier: fs1
Schedule:
    Operation frequency (seconds): 120  (not considered if randomly scheduled)
    Next Scheduled Start Time: Pending trigger
    Group Scheduled : FALSE
    Randomly Scheduled : FALSE
    Life (seconds): 3600
    Entry Ageout (seconds): never
    Recurring (Starting Everyday): FALSE
    Status of entry (SNMP RowStatus): notInService
```

The table below describes the significant fields shown in the display.

Table 8: show mediatrace session config Field Descriptions

Field	Description
Session Index	Local ID number of the Mediatrace session.
Global Session Id	Global ID number of the Mediatrace session.
Path-Specifier	Name of the Mediatrace path-specifier associated with this session.
Session Params	Name of the Mediatrace session parameters profile associated with this session.
Collectable Metrics Profile	Name of the Mediatrace collectable metrics profile associated with this session.
Flow Specifier	Name of the Mediatrace flow-specifier associated with this session.
Operation frequency (seconds)	Interval between sessions/
Next Scheduled Start Time	Time that the next session will start.
Group Scheduled	Whether this session is part of a group of scheduled sessions.
Randomly Scheduled	Whether this session is part of a regularly occurring schedule of sessions.
Life (seconds)	Duration of the session.
Entry Ageout (seconds)	Amount of time before entries are removed.
Recurring (Starting Everyday)	Whether this session is part of a recurring schedule of sessions.
Status of entry (SNMP RowStatus)	Status of the SNMP entry.

The following example displays session statistics:

```
Router# show mediatrace session stats
Session Index: 1
Global Session Id: 0
Session Operation State: Inactive
Operation time to live: 0
Data Collection Summary:
  Request Timestamp: *22:32:45.991 IST Tue May 3 2011
  Request Status: Completed
  Trace route status: Completed
  Number of hops responded (includes success/error/no-record): 1
  Number of Non Mediatrace hops responded: 0
  Number of hops with valid data report: 0
  Number of hops with error report: 1
  Number of hops with no data record: 0
Detailed Report of collected data:
  Last Route Change Timestamp:
  Route Index: 0
    Number of Mediatrace hops in the path: 1

    Hop Number: 1 (Mediatrace, host=rt2, ttl=254)
      Metrics Collection Status: Fail (16, Responder missing snmp community string error)
      Reachability Address: 10.1.2.21
      Ingress Interface: Et0/0
      Egress Interface: None
      Metrics Collected:
        <other mediatrace metrics>
      Traceroute data:
        Address List: 10.1.2.21,10.3.4.5  (Note: max 3 nodes)
        Round Trip Time List (msec): 8,6 msec (Note: max 3 RTT)

 Hop Number: 2 (TracerouteNon Mediatrace, host=10.1.4.78, ttl=253)
      Traceroute data:
        Address List: 1.2.2.3
        Round Trip Time List (msec): 12 msec

 Hop Number: 3 (Mediatrace, host=rt2, ttl=252)
      Traceroute data:
        Address List: 1.2.2.4
        Round Trip Time List (msec): 20 msec
```
The table below describes the significant fields shown in the display.

Table 9: show mediatrace session stats Field Descriptions

Field	Description
Session Index	Local ID number of the Mediatrace session.
Global Session Id	Global ID number of the Mediatrace session.
Session Operation State	Whether the Mediatrace session is active.
Operation time to live	Timeout value for the Mediatrace session.

Field	Description
Data Collection Summary	Session data, such as: • Request Timestamp • Request Status • Trace route status • Number of Mediatrace hops responding, Non Mediatrace hops responding, hops with a valid data report, hops with error report, and hops with no data record.
Detailed Report of Collected Data	General trace data, such as: • Last Route Change Timestamp • Route Index • Number of Mediatrace hops in the path Data for the first hop, including: • Metrics Collection Status • Reachability Address • Ingress Interface • Egress Interface • Metrics Collected Trace soute data for each hop, including: • Address List • Round Trip Time List (msec)

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

show mediatrace session-params

To display the parameters configured for Mediatrace sessions, use the **show mediatrace session-params**command in privileged EXEC mode.

show mediatrace session-params [*name*]

Syntax Description

name	(Optional) Name used to identify the profile.

Command Default
All session profiles are displayed.

Command Modes
Privileged EXEC (#)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines
If no session profile name is entered with this command, all profiles are displayed.

Examples
The following example displays session profiles:

```
Router# show mediatrace session-params
Session Parameters: s-1
    Response timeout (sec): 60
    Frequency: On Demand
    Inactivity timeout (sec): 300
    History statistics:
      Number of history buckets kept: 3
    Route change:
      Reaction time (sec): 5
```
The table below describes the significant fields shown in the display.

Table 10: show mediatrace session-params Field Descriptions

Field	Description
Session Parameters	Name assigned to the session profile.
Response timeout	Number of seconds the Mediatrace Initiator will wait for the Responder to provide metrics for a Mediatrace session.

Field	Description
Frequency	Amount of time between samples taken for a Mediatrace session.
Inactivity timeout	Number of seconds the Mediatrace Initiator will wait without any activity from the Responder for a Mediatrace session.
Number of history buckets	Number of history buckets retained for metrics collected for a Mediatrace session.
Reaction time	Number of seconds the Mediatrace Initiator will wait for a response to a route change notification for a Mediatrace session.

Related Commands

Command	Description
mediatrace session-params	Configures parameters for Mediatrace sessions.

source-ip (flow)

To configure the IP address of the source node for the flow, use the **source-ip**command in flow configuration mode. To remove the configuration for the source node, use the **no** form of this command.

source-ip *ip-address* [**source-port** *port*]

no source-ip *ip-address* [**source-port** *port*]

Syntax Description

ip-address	IP address of the source node for the flow.
source-port *port*	Port number of the source node for the flow.

Command Modes

Flow configuration (config-mt-flowspec)

Command History

Release	Modification
Cisco IOS XE Release 3.6S	This command was introduced.
15.2(3)T	This command was integrated into Cisco IOS Release 15.2(3)T.

Usage Guidelines

When specifying the IP address of the source node for the flow, the port number is optional.

Examples

The following example shows how to configure the IP address of the source node for the flow:

```
Router(config)# mediatrace flow-specifier flow-4
Router(config-mt-flowspec)# source-ip 10.10.10.4
```

Related Commands

Command	Description
mediatrace flow-specifier	Configures Mediatrace flow specifier.

source ip (path)

To configure the IP address of the source node for the path, use the **source-ip**command in path configuration mode. To remove the configuration for the source node, use the **no** form of this command.

source ip *ip-address* [**port** *port*]

no source ip *ip-address* [**port** *port*]

Syntax Description

ip-address	IP address of the source node for the path.
port *port*	Port number of the source node for the path.

Command Modes

Path configuration (config-mt-path)

Command History

Release	Modification
15.1(3)T	This command was introduced.
12.2(58)SE	This command was integrated into Cisco IOS Release 12.2(58)SE.

Usage Guidelines

When specifying the IP address of the source node for a path, the port number is optional.

Examples

The following example shows how to configure the IP address of the source node for the path:

```
Router(config)#
mediatrace
 path-specifier path-4
Router(config-mt-path)# source ip 10.10.10.4
```

Related Commands

Command	Description
mediatrace path-specifier	Configures Mediatrace path specifiers

trace-route

To enable the running of a trace route for a Mediatrace session, use the **trace-route** command in session configuration mode. To disable the running of a trace route, use the **no** form of this command.

trace-route

no trace-route

Syntax Description   This command has no arguments or keywords

Command Default   The running of a trace route is enabled for Mediatrace sessions.

Command Modes   Session configuration (config-mt-session)

Command History

Release	Modification
15.2(3)T	This command was introduced.
15.2(2)S	This command was integrated into Cisco IOS Release 15.2(2)S.
Cisco IOS XE Release 3.6S	This command was integrated into Cisco IOS XE Release 3.6S.

Usage Guidelines   Trace route is enabled by default.

Examples   The following example shows how to disable the running of a trace route for a Mediatrace session:

```
Router(config)#
mediatrace 4
Router(config-mt-session)# no trace-route
Router(config-mt-session)# path-specifier path-4
Router(config-mt-session)# profile perf-monitor pm-4 flow-specifier fs-4
Router(config-mt-session)# profile system sprofile-4
Router(config-mt-session)# session-params params-4
```

Related Commands

Command	Description
mediatrace	Configures Mediatrace sessions.