Cisco Media Services Proxy

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media-proxy services

To configure a Media Proxy Services (MSP) profile and associate the corresponding service parameters, use the **media-proxy services** command in global configuration mode. To remove the MSP profile for a given flow, use the **no** form of this command.

media-proxy services {*profile-name* | **profile** *profile-name*}

no media -proxy services profile *profile-name*

Syntax Description

profile-name	The MSP profile to which corresponding service parameters are associated.
profile	Creates an MSP profile.

Command Default

MSP profiles are not created.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Usage Guidelines

You can use the **media-proxy services** command to configure MSP profiles that can then be attached to the flow. Attaching an MSP profile to a flow determines the services that have to be applied to a given flow. You can configure a maximum of 1024 MSP profiles on any device. Each profile can have corresponding service parameters associated with each service.

Configuring the **media-proxy services** command places the device in media proxy services configuration mode. Use the following commands in media proxy services configuration mode to apply metadata or Resource Reservation Protocol (RSVP) service parameters to the flow:

- **metadata**—Enters media proxy services metadata configuration mode, where the **params** *metadata-param-name* keyword-argument pair allows you to associate the metadata attributes configured in the specified template with the flow.
- **rsvp**—Enters media proxy services RSVP configuration mode, where the **params rsvp -***param-name* keyword-argument pair allows you to associate the RSVP parameters configured in the specified template with the flow.

MSP profiles can be attached to the media flow either globally or per interface. If you attach a profile globally, RSVP and metadata attributes in the MSP profile are associated to all the flows identified. If you

attach a profile to an interface, RSVP and metadata attributes that are configured in the profile are associated with each unique flow identified on that interface. Use the **media-proxy services profile** *profile-name* command in global configuration mode to attach the MSP profile globally. Use the media-proxy services profile profile-name command in interface configuration mode to attach the MSP profile on a per-interface basis.

Examples

The following example shows how to configure an MSP profile and associate the metadata and RSVP parameters with it:

```
Device(config)# media-proxy services profile p1
Device(config-ms)# metadata
Device(config-ms-md)# params m1
Device(config-ms-md)# exit
Device(config-ms)# rsvp
Device(config-ms-rsvp)# params rs1
Device(config-ms-rsvp)# exit
```

Related Commands

Command	Description
media-proxy services metadata	Configures metadata attributes that can be applied to a flow that has been automatically identified by MSP.
media-proxy services rsvp	Configures RSVP parameters that can be applied to a flow that has been automatically identified by MSP.
profile flow	Enables MSP.

media-proxy services metadata

To manually configure metadata attributes that can be applied to a flow that has been automatically identified by Media Services Proxy (MSP), use the **media services metadata** command in global configuration mode. To remove the metadata attributes that are configured manually, use the **no** form of this command.

media-proxy services metadata *metadata-param-name*

no media-proxy services metadata *metadata-param-name*

Syntax Description

metadata-param-name	Name of the template into which the metadata attributes are configured.

Command Default

Metadata attributes are not configured for any given flow.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Usage Guidelines

By default, metadata attributes are automatically gleaned with the device and flow identification. You can use the **media-proxy services metadata** command to manually configure metadata attributes. Any metadata attribute configured manually overrides the automatic method of identification.

Configuring the **media-proxy services metadata** command places the device in media proxy services metadata configuration mode. You can enter the following commands for configuring metadata attributes, as required:

- **application name** *application-name* [**vendor** *vendor-name* **version** *version-number*]—Configures the name of the application, the vendor, and the version number.
- **bandwidth** *bw-kbps*—Configures the bandwidth of the flow, in kb/s.
- **clock-frequency** bp/s—Sets the desired clock rate, in bits per second (bp/s).
- **cname** *name*—Configures the cannonical name. Consists of the user and domain name in one of the following formats: user@example.domain.com or user@10.10.10.1.
- **default** *parameter*—Sets the specified parameter to its default value.
- **domain-name** *domain*—Configures the domain name of the application.
- **email** *email-id*—Configures the email ID of the user.
- **mime-type** *type*—Configures the Multipurpose Internet Mail Extensions (MIME) type of the flow.

- **payload-type** *type*—Configures the payload type for a given flow.
- **session-id** *id*—Configures an identifier for the established session.
- **ssrc** *value*—Configures the synchronization source (SSRC) value for a given flow. Valid range is from 0 to 4294967295.
- **username** *name*—Configures the user name.

Examples

The following example shows how to manually configure metadata attributes that can be applied to a flow:

```
Device> enable
Device# configure terminal
Device(config)# media-proxy services metadata mt1
Device(config-ms-md)# application name app1
Device(config-ms-md)# bandwidth 10000
Device(config-ms-md)# payload-type 7
Device(config-ms-md)# session-id 23
```

Related Commands

Command	Description
media-proxy services	Enters media services rsvp configuration mode and configures RSVP parameters that must be applied for a given flow

media-proxy services rsvp

To manually configure Resource Reservation Protocol (RSVP) parameters that can be applied to a flow that has been automatically identified by Media Services Proxy (MSP), use the**media-proxy services rsvp** command in global configuration mode. To remove the manually configured RSVP parameters, use the **no** form of this command.

media-proxy services rsvp *rsvp-param-name*

no media-proxy services rsvp *rsvp-param-name*

Syntax Description

rsvp-param-name	Name of the template into which the RSVP parameters are configured.

Command Default

RSVP parameters are not configured for any given flow.

Command Modes

Global configuration (config)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Usage Guidelines

By default, RSVP parameters are automatically gleaned with the device and flow identification. You can use the **media-proxy services rsvp** command to manually configure RSVP parameters. The RSVP parameters that are signaled from the endpoints are overridden by the manually configured RSVP parameters.

Configuring the **media-proxy services rsvp** command places the device in media proxy services RSVP configuration mode. You can enter the following commands for configuring RSVP parameters, as required:

- **bandwidth** *bw*—Configures the bandwidth, in kilobits per second (kb/s).
- **max-burst** *burst-rate*—Configures the largest amount of data allowed in a flow, in kilobytes (KB). Valid range is from 1 to 65535.
- **peak-rate** *rate*—Configures the peak rate, in kbps, for a given flow.
- **priority** {**defending** *defend-value* | **premption** *prempt-value*}—Configures the defending and the preemption priority for the flow.

Defending priority is the priority that overtakes the preemption priority. After a flow has been admitted, the preemption priority becomes irrelevant. Instead, the defending priority of the flow is compared with with the preemption priority of new flows. The valid range is from 1 to 7.

Preemption priority is the priority of the new flow that is compared with the defending priority of previously admitted flows. Higher values represent higher priority. The valid range is from 1 to 7.

Examples

The following example shows how to configure a template containing RSVP parameters that can be applied for a given flow:

```
Device(config)# media-proxy services rsvp rs1
Device(config-ms-rsvp)# bandwidth 1012
Device(config-ms-rsvp)# max-burst 3000
Device(config-ms-rsvp)# priority defending 2
```

Related Commands

Command	Description
media-proxy services	Configures an MSP profile for a given flow and associates corresponding service parameters with each service.
profile flow	Enables MSP.

profile flow

To enable Media Services Proxy (MSP), use the **profile flow** command in global configuration mode. To disable MSP, use the **no** form of this command.

profile flow [**protocol** [*protocol-name*] | **source limit** *max-entries*]

no profile flow

Syntax Description

protocol	(Optional) Specifies the flow identification protocol.
protocol-name	(Optional) Name of the protocol. Enter one of the following keywords to enable the respective protocol: • **h323**–H.323 protocol • **rtsp**–Reliable Signaling Transport Protocol (RSTP) • **sip**–Session Initiation Protocol (SIP)
source limit	(Optional) Specifies a limit for the number of flows originating from the source.
max-entries	(Optional) Maximum number of flows allowed. Valid range is from 1 to 10000.

Command Default

MSP is disabled.

Command Modes

Global configuration (global)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Usage Guidelines

Enabling MSP facilitates the automatic identification of media endpoints. If you configure the **profile flow** command without any keywords, all protocols are enabled by default. To enable an individual protocol, use the **profile flow** command with the required protocol in the *protocol-name* argument.

Examples

The following example shows how to enable the required protocol for MSP:

```
Device> enable
Device(config)# profile flow protocol sip
```

Related Commands

Command	Description
show profile flow	Displays information pertaining to media flow that has been automatically identified by MSP.

profile flow port-map

To configure user-defined port numbers for flow and device identification protocols in Media Services Proxy (MSP), use the **profile flow port-map** command in global configuration mode. command in global configuration mode. To disable user-defined port numbers for flow and device identification protocols in MSP, use the **no** form of this command.

profile flow port-map *protocol-name* [**tcp**|**udp**] *port-number*

no profile flow port-map *protocol-name* [**tcp**|**udp**] *port-number*

Syntax Description

protocol-name	Name of the protocol known to the Network-Based Application Recognition (NBAR) classification engine. Use one of the following keywords to specify the respective protocol: • **h323**–H.323 protocol • **ras-h323**–Registration, Admission, and Status H.323 protocol • **rtsp–**Real Time Streaming Protocol (RTSP) • **sip–**Session Initiation Protocol (SIP)¡
tcp	(Optional) Configures a TCP port to be searched for the specified protocol.
udp	(Optional) Configures a User Datagram Protocol (UDP) port to be searched for the specified protocol.
port-number	Port assigned for the specified protocol. Valid range is from 0 to 65535.

Command Default

Standard port numbers for the static protocols are as follows:

- H.323—1718, 1719, 1720
- mDNS—5353
- RTSP—554
- SIP—5060/5061

Command Modes

Global configuration (global)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Usage Guidelines

The port-number argument is either a UDP or TCP port number depending on the protocol specified in the command. You can specify up to 16 port numbers in one command line.

Examples

The following example shows how to configure user-defined port numbers for device and flow identification protocols in MSP:

```
Device> enable
Device# configure terminal
Device(config)# profile flow port-map sip udp 1679
```

Related Commands

Command	Description
profile flow	Enables MSP.

show profile device

To display details pertaining to endpoints that are automatically identified by Media Services Profile (MSP), use the **show profile device** command in privileged EXEC mode.

show profile device

Syntax Description

This command has no arguments or keywords.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Examples

The following is sample output from the **show profile device** command:

```
Device# show profile device

MAC Address     Interface      Device class            Device Name         Device
Vendor
==============  ==========   ==================        ============
==============
0040.8ca7.bfb6   Gi2/23     Surveillance-Camera        AXIS-Camera            AXIS
COMMUNICATIONS
=============================================================================================
```

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

Table 1 show profile devices Field Descriptions

Field	Description
MAC Address	The MAC address of the device connected to the endpoint.
Interface	Interface to which the device is connected.
Device class	Type of device.
Device Name	Name of the device.
Device Vendor	Name of the vendor of the device.

Related Commands

Command	Description
media-proxy services	Configures an MSP profile for a given flow and associates the corresponding service parameters.
profile flow	Enables MSP.
show profile flow	Displays information pertaining to media flow that have been automatically identified by MSP.

show profile flow

To display information pertaining to media flow that has been automatically identified by Media Services Proxy (MSP), use the **show profile flow** command in privileged EXEC mode.

show profile flow [*statistics* [*protocol*]]

Syntax Description

statistics *protocol*	(Optional) Displays profile statistics for a given protocol to identify packet drops associated with the protocol, if any.

Command Modes

Privileged EXEC (#)

Command History

Release	Modification
15.2(3)T	This command was introduced.

Examples

The following is sample output from the **show profile flow** command:

```
Device# show profile flow

Source-IP sPort Dest-IP  dPort protocol Media Services profile
10.1.1.1  2000  10.2.2.2 2001  UDP       msp_service_A
10.1.1.4  3000  10.2.2.4 2001  UDP       msp_service_B

Device# show profile flow statistics

Input Packets:

SIP   : 0   RTSP  : 0
H323  : 0   H245  : 0
```

Table below describes significant fields in the display:

Table 2 show profile flow Field Descriptions

Field	Description
Source-IP	IP address of the device from where the flow is identified.
sPort	Source port of the device from where the flow is identified.

Field	Description
Dest-IP	Destination IP address of the device to where the flow is targeted.
dPort	Destination port of the device to where the flow is targeted.
protocol	Transport protocol in use–TCP or UDP.
Media Services Profile	MSP profile associated with the flow.
Input Packets	Number of input packets for each protocol.

Related Commands

Command	Description
profile flow	Enables MSP.
show profile device	Displays details pertaining to endpoints that are automatically identified by MSP.