



Extension of H.248 Termination Wildcarding

H.248 termination wildcarding now supports partially wildcarded termination names, allowing a single command to replace one or more elements of a termination name by use of the wildcard character (*).

The media gateway controller (MGC) can issue H.248 commands, using wildcarding at any level of the nine-tier-termination-name hierarchy. Refer to the [“Nine-Tier Termination Name Hierarchy”](#) module for more information. The following wildcarded termination names are valid:

```
cisco/sip/*/0/1023/0/**/*  
cisco/sip/*/0/1023/0/4094/**/*  
**/*/0/1023/0/**/*
```

Feature History for Extension of H.248 Termination Wildcarding

Release	Modification
Release 3.5.0	This command was first introduced on the Cisco CRS-1.
Release 3.6.0	No modification.

Contents

This module contains the following sections:

- [Restrictions for Extension of H.248 Termination Wildcarding](#), page SBC-359
- [Information About Extension of H.248 Termination Wildcarding](#), page SBC-360
- [Additional References](#), page SBC-361

Restrictions for Extension of H.248 Termination Wildcarding

Wildcarded terminations may only be used in the cases illustrated in the following table, all other cases are rejected by the data border element (DBE).

Command	Context ID
subtract	specific
w-subtract (with empty audit descriptor)	all (*)
auditvalue	specific

Command	Context ID
auditvalue	all (*)
modify (<i>ServiceState</i> only)	specific
w-modify (<i>ServiceState</i> only)	all (*)

The following rules apply:

- H.248 commands supporting wildcarded termination names are limited to the **auditvalue**, **modify** (**servicestate** only) and **subtract** commands. In the event that both the termination ID and context ID are wildcarded, **modify** and **subtract** commands must include an empty **audit** descriptor, and must request a wildcarded response.
- DBE does not extract any meaning from any elements of the terminationID.
- Only the final element may contain the CHOOSE (\$) attribute.
- Multi-tier prefixes must have the same depth.
- The **w-subtract** and **w-modify** commands request a wildcarded response.
- Partial wildcards that omit one or more tiers of the termination name are unsupported.

Example of Unsupported Wildcarding

name/sip/*

Example of Correct Wildcarding

name/sip/**/**/**/**/**

Exception

Full wildcard:

*

Information About Extension of H.248 Termination Wildcarding

You can construct transactions with multiple overlapping `Subtract` and `AuditValue` wildcarded commands (but not a mixture of both). When a single transaction contains multiple commands, referencing the same terminations, the commands operate in order. However, when a termination is subtracted, any other commands affecting it are ignored.

For example, suppose a media gateway (MG) has a single termination `a/b/1`. The following are examples of overlapping wildcarded commands and their returns:

- **audit value** `a/**`, **audit value** `*/b/*` returns `a/b/1` in the response twice.
- **modify** `a/**`, **modify** `*/b/*` modifies termination `a/b/1`, with the second **modify** overwriting the first, and returns a successful response to both commands.
- **subtract** `a/**`, **subtract** `*/b/*` subtracts `a/b/1` as part of the first **subtract** command and ignores the second **subtract** command.
- **subtract** `a/**`, **modify** `*/b/*` subtracts termination `a/b/1` and ignores the **modify** command.
- **modify** `a/**`, **subtract** `*/b/*` modifies **termination** `a/b/1`, while **subtract** subtracts `a/b/1`, and returns a successful response to both commands.

If a wildcarded command is ignored under these circumstances, the response to that command is the following: 431 - No Termination ID matched a wildcard.

When a *non*-wildcarded command is ignored, the response is the following: 430 - Unknown Termination ID.

In a multi-command transaction, and in adherence to H.248v3, only the contexts affected by the first command take any subsequent commands.



Note

No configuration is required on the DBE.

Additional References

The following sections provide references related to extension to H.248 termination wildcarding.

Related Documents

Related Topic	Document Title
Cisco IOS XR master command reference	Cisco IOS XR Master Commands List
Cisco IOS XR SBC interface configuration commands	<i>Cisco IOS XR Session Border Controller Command Reference</i>
Initial system bootup and configuration information for a router using the Cisco IOS XR Software	<i>Cisco IOS XR Getting Started Guide</i>
Cisco IOS XR command modes	<i>Cisco IOS XR Command Mode Reference</i>

Standards

Standards	Title
H.248	<i>Media Gateway Control (Megaco) Protocol Standard</i>

MIBs

MIBs	MIBs Link
—	To locate and download MIBs using Cisco IOS XR software, use the Cisco MIB Locator found at the following URL and choose a platform under the Cisco Access Products menu: http://cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

Technical Assistance

Description	Link
The Cisco Technical Support website contains thousands of pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/techsupport