



# PGW Support of HSI Non-RAS Mode

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## Document Release History

Publication Date	Comments
March 12, 2007	Initial release of the document.

## Feature History

Release	Modification
9.7(3)	The PGW Support of HSI Non-RAS Mode feature was introduced on the Cisco MGC software.

This document describes support for the Non-RAS mode of operation on Cisco PGW 2200. This feature is described in the following sections:

- [Feature Overview, page 1](#)
- [Supported Platforms, page 3](#)
- [Supported Standards, MIBs, and RFCs, page 3](#)
- [Prerequisites, page 3](#)
- [Configuration Tasks, page 3](#)
- [Configuration Examples, page 5](#)
- [Reference Information, page 5](#)
- [Obtaining Documentation, Obtaining Support, and Security Guidelines, page 6](#)

## Feature Overview

The PGW Support of HSI Non-RAS Mode feature of the Cisco Media Gateway Controller (MGC) software runs on the Cisco PGW 2200 and Cisco H.323 Signaling Interface (HSI). It enables service providers to create a simplified network without a gatekeeper, for networks that do not require gatekeeper features, such as security.

In Non-RAS mode, the Cisco PGW converts called numbers into one or two IP addresses in the dial plan to support load sharing over multiple HSIs, which supports H.323 endpoints that have multiple IP addresses. With such support, when the primary IP address does not work, a subsequent attempt is made with the alternative IP address for the same endpoint.

If the Cisco PGW sends an IP address to the HSI over E-ISUP, the HSI sends a SETUP directly to the endpoint. In addition, the Cisco PGW stores the H.323 destination IP address in the Cisco PGW Call Detail Record (CDR).

PGW Support of HSI Non-RAS Mode enables a Cisco PGW 2200 to be deployed with a connected Cisco HSI without a gatekeeper in networks that do not require admission or location of the H.323 endpoint. PGW Support of HSI Non-RAS Mode is also used when selection of the endpoint does not benefit from H.323 mechanisms such as Resource Availability Indication (RAI). Examples of such deployments include Cisco CallManager (CCM), H.323 ITS, or cases in which an H.323 gateway provides the only connection to a PBX.

## CDR Tag 4236

CDR tag 4236 supports non-RAS mode by storing the H.323 destination IP address. This tag is available only when the call uses the non-RAS feature.

The information in [Table 1](#) describes the H323 destination tag created for Non-RAS mode.

**Table 1 H323 Destination Description Form**

<b>Name:</b> H323 DESTINATION		<b>Tag:</b> 4236			<b>Source:</b> MDL			
Description/Purpose: Identifies the H323 Destination Address associated with the terminal trunk group or sigPath.								
<b>Format:</b> IA5			<b>Length in Octets:</b> 1 to 29					
Data Value:								
Content:								
[IP Address]:[Port]								
Example: 64.104.173.123:1720								
ANSI/ITU Variations: None.								
Extended Data Value: No extended value.								
<b>General Information:</b> This destination IP address is the H323 address used in Non-RAS mode. This IP address is the same as the H323PriAddr:H323PriPort or H323AltAddr:H323AltPort that is defined in the sigPath/Trunkgroup property.								
MGC Release: Release 9.7.(1) and later.								
Answered (1010)	Deselected (1020)	Aborted (1030)	Release (1040)	Interrupted (1050)	Ongoing (1060)	Maintenance (1070)	External DB (1080)	End of Call (1110)
y	N	y	N	N	N	N	N	Y

## Benefits

The Non-RAS mode of operation enables you to deploy the Cisco PGW 2200 and the Cisco HSI without a gatekeeper. Such a deployment establishes a simplified network that does not require admission, location of the H.323 endpoint, or selection of an endpoint that does not benefit from H.323 mechanisms such as RAI. Examples are CCM, H.323 ITS, and an H.323 gateway that contains the only connection to a PBX.

## Restrictions

A single Cisco HSI cannot operate in both RAS and Non-RAS modes. If a network requires both modes of operation, the network must have multiple Cisco HSIs.

## Related Documents

This document contains information that is related to this feature. The documents that contain additional information related to the Cisco Media Gateway Controller (MGC) are at the following url:

[http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/tsd_products_support_series_home.html)

## Supported Platforms

The hardware platforms supported for the Cisco MGC software, Release 9.7(3), are described in the *Cisco Media Gateway Controller Hardware Installation Guide*.

The hardware platforms supported for the Cisco HSI software, Release 4.2, are described in the *Cisco H.323 Signaling Interface User Guide*.

## Supported Standards, MIBs, and RFCs

No new standards, MIBs, or RFCs are supported by the PGW Support of HSI Non-RAS Mode feature.

## Prerequisites

To implement the Non-RAS mode of operation, the feature must be enabled on both the Cisco PGW 2200 and the Cisco HSI.

The Cisco PGW 2200 must be running Cisco MGC software Release 9.7(3). Prerequisites for this release can be found in the *Release Notes for the Cisco Media Gateway Controller Software Release Cisco MGC Software Release 9.7(3)* at:

<http://www.cisco.com/univercd/cc/td/doc/product/access/sc/re19/relnote/rn973.htm>.

The Cisco HSI must be running Cisco HSI Release 4.2.

## Configuration Tasks

This section contains the steps necessary for configuration of the Cisco MGC software to support this feature.

See the following sections for configuration tasks for the PGW Support of HSI Non-RAS Mode feature:

- [MGC Configuration](#)
- [HSI Configuration](#)

## MGC Configuration

To enable NON-RAS mode on the Media Gateway Controller, you must configure the sigPath/Trunkgroup property identified as H323Destination. Non-RAS mode supports configuring two destination addresses, a primary IP address and an alternative IP address.



### Note

The sigPath property H323adjunct link must be set to 1 to indicate the EISUP sigPath is between the PGW 2200 and the HSI.

```
mml> prov-add:SIGSVCPROP:name="eisupsvc1",h323adjunctlink="1"
```

## Configuring a Primary Destination Address

In the following MML command example, a primary destination IP address is configured, but no alternative address. In this example, a port number is provided, the default port 1720.

```
mml> prov-add:TRNKGRPPROP:name="111",H323Destination="192.168.80.2:1721"
```

## Configuring Primary and Alternative Destination Addresses

In the following MML command example, two IP addresses are configured. The primary destination IP address is 192.168.80.2:1720; the alternative destination IP address is 192.168.80.3.

```
mml> prov-add:TRNKGRPPROP:name="111",H323Destination="192.168.80.2;192.168.80.3"
```



### Note

When two destinations are used for a route trunk group, the reattempts value must be set to 1, as in the following MML command.

```
mml> prov-add:rttrnkgrp:name="111",type=4,reattempts=1,queuing=0,cutthrough=2,resincperc=0
```

## Configuring Gatekeeper Mode for the Trunk Group

In the following MML command example, the gatekeeper mode is configured for the trunk group:

```
mml> prov-add:TRNKGRPPROP:name="111",H323Destination="0.0.0.0"
```

## HSI Configuration

For the Cisco HSI software configuration required to support the Non-RAS Mode of operation, refer to the *Cisco H.323 Signaling Interface User Guide*, for Release 4.2.

To enable Non-RAS mode on the Cisco HSI, enter the following MML command:

```
prov-add:name=RAS,manualRAS
```

## Troubleshooting Tips

For information on troubleshooting the rest of the Cisco MGC software, refer to the *Cisco Media Gateway Controller Software Release 9 Operations, Maintenance, and Troubleshooting Guide*.

## Configuration Examples

To enable Non-RAS mode, one must configure new properties identified as sigPath/Trunkgroup. Non-RAS mode supports configuring two destination addresses, a primary IP address and an alternative IP address.



### Note

The sigPath property H323adjunct link must be set to 1 to indicate the EISUP sigPath is between the PGW 2200 and the HSI.

```
mml> prov-add:SIGSVCPROP:name="eisupsvc1",h323adjunctlink="1"
```

In the following MML command example, two IP addresses are configured. The primary destination IP address is 192.168.80.2:1720; the alternative destination IP address is 192.168.80.3.

```
mml> prov-add:TRNKGRPPROP:name="111",H323Destination="192.168.80.2;192.168.80.3"
```



### Note

When two destinations are used for a route trunk group, the reattempt value must be set to 1, as in the following MML command.

```
mml> prov-add:rttrnkgrp:name="111",type=4,reattempts=1,queuing=0,cutthrough=2,resincperc=0
```

In the following MML command example, a primary destination IP address is configured, but no alternative address. In this example, a port number is provided, the default port 1720.

```
mml> prov-add:TRNKGRPPROP:name="111",H323Destination="192.168.80.2:1721"
```

In the following MML command example, the gatekeeper mode is configured for the trunk group:

```
mml> prov-add:TRNKGRPPROP:name="111",H323Destination="0.0.0.0"
```

## Reference Information

The following sections contain reference material related to this feature. Information is included on the following area:

- [New and Modified Properties, page 5](#)

## New and Modified Properties

The property in this section is used for the PGW Support of HSI Non-RAS Mode feature. For information on other properties for the Cisco MGC software, refer to the *Cisco Media Gateway Controller Software Release 9 Provisioning Guide*.

[Table 2](#) lists the parent objects for the property involved in this feature.

**Table 2** Software Properties Related to this Feature

Property Name	Parent Object																	
	AVM	DPNSS	EISUP	IOCC	ISDNPRI	MGCP	RLM	SESSION	SGCP	SS7-ANSI	SS7-China	SS7-ITU	SS7-Japan	SS7-UK	TALI-IOCC	TCAPOverIP	TrunkGroup	VSI
H323Destination			X														X	

Table 3 lists the new and modified properties used for the PGW Support of HSI Non-RAS Mode feature.

**Table 3** New and Modified Properties Used for the Support of Non-RAS Mode Feature

Property	Definition
H323Destination	<p>Identifies the primary and alternative IP Address and Port of the H323 destination.</p> <p>Valid Values: xxx.xxx.xxx.xxx[:port][xxx.xxx.xxx.xxx:port]—the primary and the alternative IP address and port of the H323 destination.</p> <p>Default value: NULL—indicates the Non-RAS feature is inactive on this trunkgroup.</p> <p>Property domain: Sigpath, Trunkgroup</p> <p>Dynamically reconfigurable: Yes</p> <p>This property is added in software Release 9.7(3).</p>

## Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly What's New in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

## Glossary

Table 4 lists the expansion of acronyms and technical terms used in this feature module.

**Table 4 Acronym Expansions**

<b>Acronym</b>	<b>Expansion</b>
CCM	Cisco CallManager
CDB	Call Detail Block
CDR	Call Detail Record
HSI	H.323 Signaling Interface
MGC	Media Gateway Controller
PGW	PSTN Gateway
PSTN	public switched telephone network
RAS	Registration, Admission and Status
RAI	Resource Availability Indication

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