



Cisco Virtual PGW 2200 Softswitch Support for Tel URI in SIP Diversion Header Feature Module

For Cisco Hosted Collaboration Solution 9.0

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Cisco Virtual PGW 2200 Softswitch Enhanced Generic Number Handling Feature Module

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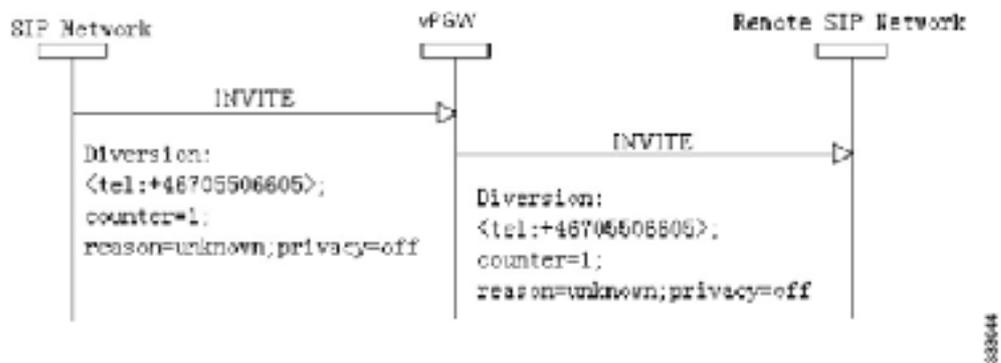
Feature description

Diversion information in incoming SIP messages, such as INVITE and 3xx, may have tel URI. The Support for Tel URI in SIP Diversion Header feature enables the Cisco Virtual PGW 2200 (VPGW) Softswitch to relay the diversion headers received with incoming SIP requests or responses to the outgoing SIP network. If multiple diversion headers are present, the Cisco VPGW relays information that pertains to all the diversion headers to the outgoing SIP network. The Cisco VPGW Softswitch also parses and handles the tel-URI-formatted diversion headers in the SIP.

The following is a summary of the different scenarios in which the Support for Tel URI in SIP Diversion Header feature is enabled:

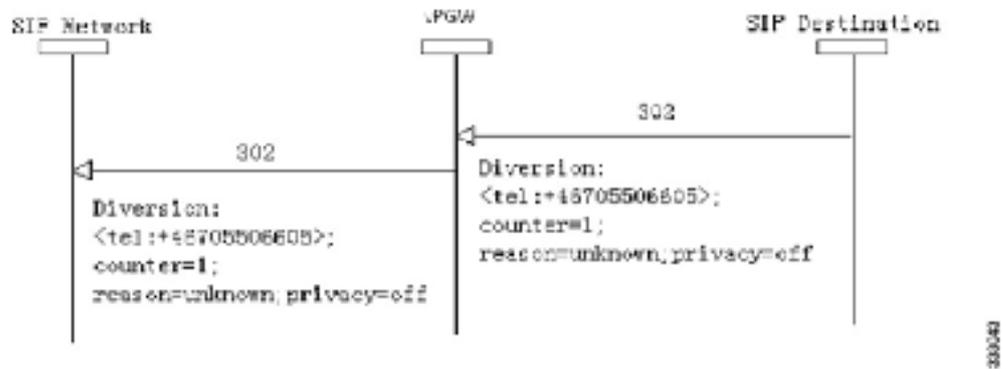
In SIP-to-SIP calls, the diversion information that is received either in the SIP URI format or in the tel URI format, gets relayed to the peer SIP network. The following figure shows a sample call flow that illustrates the relaying of the tel URI received in the Diversion header of the INVITE for the SIP-to-SIP calls.

Figure 1 *Sample Call Flow 1 for SIP-to-SIP Calls*



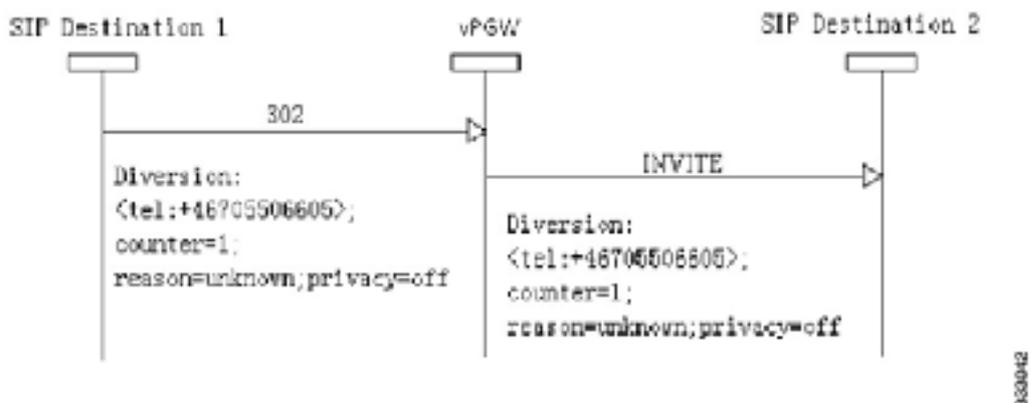
The following figure shows a sample call flow that illustrates how the Cisco VPGW Softswitch receives 302 back from a SIP destination and relays the same back to the peer SIP network.

Figure 2 *Sample Call Flow 2 for SIP-to-SIP Calls*



The following figure shows a sample call flow that illustrates how the Cisco VPGW Softswitch receives 302 back from a SIP destination and sends an INVITE to a new SIP destination.

Figure 3 *Sample Call Flow 3 for SIP-to-SIP Calls*

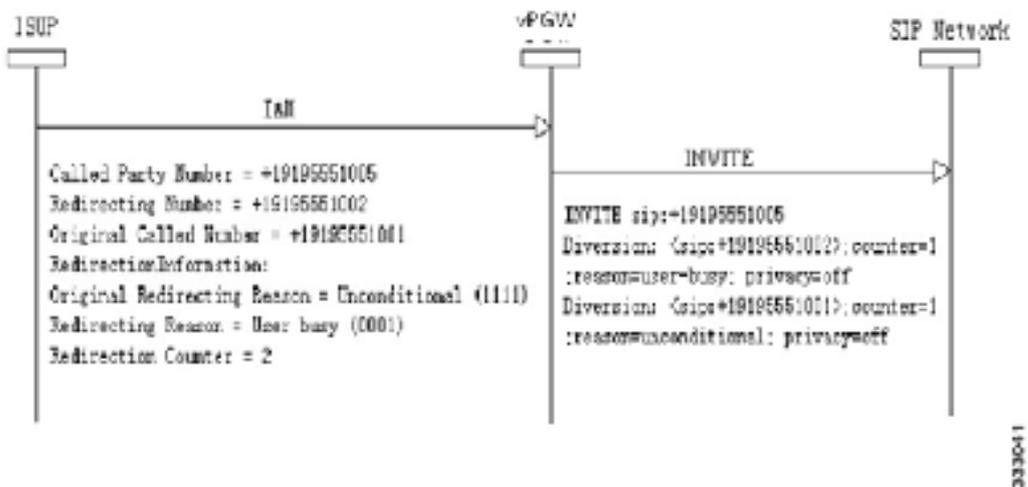


NOTE

- In SIP-to-ISUP or SIP-to-ISDN calls, the Diversion information only with SIP URI that is received from the SIP end will be relayed to the ISUP or ISDN end.
- In ISUP-to-SIP or ISDN-to-SIP calls, if the Redirection or Diversion information is received from ISUP or ISDN, and it has to be relayed to the peer SIP end, the Cisco VPGW Softswitch will always encode, and send the SIP-URI-formatted Diversion header in such outgoing SIP messages. This behavior is already available for Cisco VPGW Softswitch and will not change with the introduction of the Support for Tel URI in SIP Diversion Header feature.

The following figure shows a sample call flow illustrating an ISUP-to-SIP interoperation.

Figure 4 Sample Call Flow showing ISUP-to-SIP Interoperation



NOTE

- Call scenarios without SIP, such as ISUP or ISDN to ISUP or ISDN, gets handled with the existing logic of Cisco VPGW Softswitch and nothing changes with the introduction of this feature.
- For SIP-I or SIP-GTD, the exiting behavior of Cisco VPGW Softswitch continues and will not change with the introduction of this feature.

Benefits

This feature provides the following benefits:

- Supports the relay of diversion headers for SIP-to-SIP calls.
- Supports the relay of diversion headers for SIP-to-ISUP or SIP-to-ISDN interoperations.

Prerequisites

The Cisco VPGW Softswitch must be running Cisco VPGW Softswitch software Release 9.9(1). The prerequisites for this release of Cisco VPGW Softswitch can be found in *Release Notes for the Cisco Virtual PGW 2200 (VPGW) Softswitch Release 9.9(1)*.

Restrictions or limitations

The Support for Tel URI in SIP Diversion Header feature has the following limitations:

The Cisco VPGW Softswitch will relay all the information mentioned in this document to the outgoing SIP network. This does not cover the local processing of tel URI received in the diversion header.

Supported standards, MIBs, and RFCs

This section identifies the new or modified standards, MIBs, and RFCs that are supported by the Support for Tel URI in SIP Diversion Header feature.

Standards

No new or modified standards are supported by this feature.

MIBs

No new or modified MIBs are supported by this feature.

RFCs

No new or modified RFCs are supported by this feature.

Provisioning examples

For provisioning examples for the Cisco VPGW Softswitch, see *Cisco Virtual PGW 2200 (VPGW) Softswitch Release 9.9 Provisioning Guide*. For dial plan examples, see *Cisco Virtual PGW 2200 (VPGW) Softswitch Release 9.9 Dial Plan Guide*.

Glossary

Table 1 *Acronym Expansions*

Acronym	Expansion
ISUP	ISDN User Part
MML	Man-Machine Language
VPGW	Virtual PGW 2200
SIP	Session Initiation Protocol
Tel URI	Telephone Uniform Resource Identifier

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, 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>

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