



ISUP and SIP-I Interworking for DPNSS CBWF Relay Feature Module

Document Release History

Publication Date	Comments
April 2, 2011	Initial release of the document.

Feature History

Release	Modification
9.8(1)	The ISDN User Part (ISUP) and Session Initiation Protocol with Encapsulated ISUP (SIP-I) Interworking for Digital Private Network Signaling System (DPNSS) Call Back When Free (CBWF) Relay feature introduced on the Cisco PGW 2200 Softswitch software.

This feature is described in the following sections:

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Feature Description

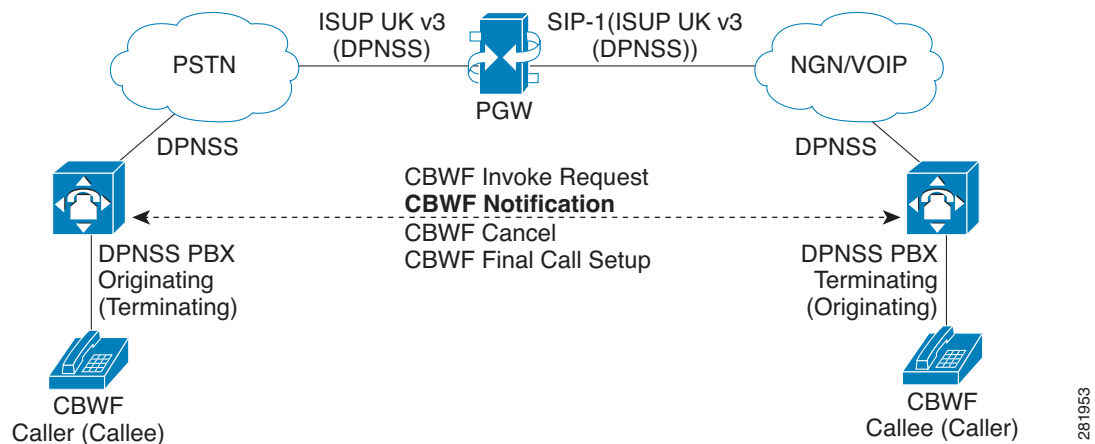
The ISUP and SIP-I Interworking for DPNSS CBWF Relay feature allows a user who receives a busy signal, such as extension busy or network congestion, to request an automatic callback when trying to make a call through a private network.

A calling party can register for the feature with the originating PBX that requests the terminating PBX to monitor the called extension. When the called extension and the transmission path across the network become free, the user who invoked the feature is notified by a ring tone that the called extension is available. The user can then call back, and a call is set up from the user to the extension that is free.

With this feature, the Cisco PGW 2200 Softswitch can transparently relay DPNSS signaling encapsulated in ISUP signaling to SIP-I and vice versa. The Cisco PGW 2200 Softswitch neither controls nor has the knowledge of the DPNSS call states and message flows, and takes decisions pertaining to call setup, processing, and release purely from the ISUP-to-SIP-I interworking perspective and vice versa. This feature supports the protocol interworking of ISUP (UK ISUP version 3 variant) with SIP-I (encapsulating UK ISUP version 3 variant) carrying DPNSS signaling for CBWF and vice versa.

Figure 1 shows the basic network topology relevant to this feature.

Figure 1 Network Topology of ISUP-to-SIP-I (and Vice Versa) Relay of DPNSS CBWF Signaling



Benefits

This feature provides the following benefits:

- Enables a user receiving a busy signal to request an automatic callback when trying to make a call through the private network.
- Transparently relays DPNSS signaling encapsulated in ISUP signaling to SIP-I and vice versa.
- Supports the protocol interworking of ISUP (UK ISUP version 3 variant) to SIP-I (encapsulating UK ISUP version 3 variant) carrying DPNSS signaling for CBWF and vice versa.

Prerequisites

The Cisco PGW 2200 Softswitch must be running software Release 9.8(1). The prerequisites for Release 9.8(1) can be found in *Release Notes for the Cisco PGW 2200 Softswitch Release 9.8(1)* at:

http://www.cisco.com/en/US/docs/voice_ip_comm/pgw/9/release/note/rn981.html

Restrictions or Limitations

Cisco PGW 2200 Softswitch currently supports only the following limited ACI values in the application transport parameter:

0, 1, and 3 ACI values

Cisco PGW 2200 Softswitch currently does not support the following:

- The ACI value 126—The DPNSS payload
- The APM message for ISUPV3_UK variant

Related Features and Technology

The following feature is related to this feature:

The SIP-I Protocol feature

This feature is available at:

http://www.cisco.com/en/US/docs/voice_ip_comm/pgw/9/feature/module/9.8_1_/SIP-I.html

Related Documents

This document contains information that is strictly related to this feature. The document that contains additional information related to SIP-I Protocol is available at:

http://www.cisco.com/en/US/docs/voice_ip_comm/pgw/9/feature/module/9.8_1_/SIP-I.html

Supported Standards, MIBs, and RFCs

This section identifies the new or modified standards, MIBs, and RFCs that are supported by this feature.

Standards

- ITU-T Q.763—Signaling System No. 7 (ISDN user part formats and codes)
- ITU-T Q.1912.5—Interworking between SIP and Bearer Independent Call Control (BICC) protocol or ISDN User Part.
- ND1008:2007/01—C7 IUP (ISUP Interworking)
- ND1301:2001/03—Digital Private Signaling System No 1 (DPNSS 1)
- ND1017:2006/07—Interworking between SIP and UK ISDN User Part (UK ISUP)

MIBs

No new or modified MIBs are supported by this feature.

For more information about the MIBs used in the Cisco PGW 2200 Softswitch, see the list of Cisco PGW 2200 Softswitch MIBs at:

http://www.cisco.com/iam/PGW_MIBS/index.html

RFCs

No new or modified RFCs are supported by this feature.

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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Glossary

Table 1 **Expansions**

Acronym	Expansion
ACM	Address Complete Message
DPNSS	Digital Private Network Signaling System
ISUP	ISDN User Part
PGW	PSTN Gateway
PSTN	public switched telephone network
SIP	Session Initiation Protocol
SIP-I	SIP with Encapsulated ISUP

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