Release Notes for the Cisco MGC Software Release 9.6(1)

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These release notes describe the features and caveats for the Cisco MGC software Release 9.6(1).

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Introduction

Interoperability between the old world TDM (Time Division Multiplexing) networks and the new world packet networks is an essential part of the technology adoption life cycle for packet networks. This release of the Cisco PGW 2200 PSTN Gateway extends its capability to provide the bridge between the

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legacy public switched telephone network (PSTN) and next-generation packet networks - supporting centralized call control and intelligent routing for both TDM-based interfaces (SS7, PRI, QSIG, and DPNSS endpoints) and IP-based interfaces (SIP and H.323 endpoints).

The Cisco PGW 2200 provides a consistent and unified interconnection that supports Cisco's Voice infrastructure and Applications (VIA) applications (Dial and Voice transit), Cisco's Business Voice Services applications (Hosted or Managed IP Telephony), and Cisco's Broadband Residential Voice applications (ETTx). The PGW 2200 allows service providers to deploy and operate multiple network solutions while maintaining a stable interconnection to the PSTN.

Platform Support

For a list of supported platforms see the following documents at:

http://www.cisco.com/en/US/partner/products/hw/vcallcon/ps2027/tsd_products_support_series_home.html

- *Cisco MGC Hardware Installation Guide* Chapter 1, Table 1-1, Cisco MGC Host Configurations.
- *Cisco MGC Software Release 9 Installation and Configuration Guide* (Chapter 1).

For a list of required software, see Chapter 1 of the *Cisco MGC Software Release 9 Installation and Configuration Guide*.

Required Swap Space

For the Cisco MGC software, you need to partition 4 GB of swap space. Setting swap space at installation is recommended; however, you can change swap space at a later date by adding a swap file or repartitioning the swap space using the format menu (for example, reassigning how many cylinders are in each partition). The swap space requirement is determined by the amount of traffic. As traffic increases, you should use the **top** command in UNIX to see how much swap space is being used; you should then decide if more is needed. You can use the MML command **rtrv-ne-health** to obtain information from the UNIX top from within MML.

Host Hardware Requirements

Host Minimum Server Requirements

See the *Cisco MGC Hardware Installation Guide* for the host minimum hardware requirements. Before using the minimum hardware configuration, consult with your Cisco representative to determine the hardware that will give you the best performance results based on your network configuration, proposed traffic, and desired processing power.

Media Gateway Hardware Requirements

Table 1 lists urls for release notes that document media gateways.

Table 1 Media Gateway Release Notes Locations

Media Gateway Release Notes	Release Notes Location
MGX8000 Voice Gateway (VISM)	http://www.cisco.com/en/US/products/hw/switches/ps1938/prod_release_notes_list.html
AS5350 Universal Gateway	http://www.cisco.com/univercd/cc/td/doc/product/software/ios121/121relnt/5350/rn5350xq.htm
AS5400 Universal Gateway	http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/122relnt/5400/rn5400xb.htm
AS5850 Universal Gateway	http://www.cisco.com/univercd/cc/td/doc/product/software/ios121/121relnt/5850/rn5850xv.htm

Local Area Network Switch

Your application might use one or more local area network (LAN) switches from the Cisco Catalyst Switch family to connect the Cisco MGC host to the MGWs and to the Cisco SLTs.

Note User documentation refers to the Cisco Catalyst 5500 switch family (NEBS-compliant). The Cisco Catalyst 2900 XL is another NEBS-compliant LAN switch that can be used for a small configuration, but current MGC user documentation does not address the Cisco Catalyst 2900 XL. See the Cisco Catalyst 2900 XL documentation for information about this switch.

Note A LAN switch is not provided with the Cisco MGC.

Supported Features

The features listed in Table 2 were inherited from earlier releases of the Cisco MGC Software, and are still supported in Release 9.6(1).

Table 2 Supported Features in Release 9.6(1)

Feature	Purpose
Long-distance service through both indirect and direct access	Replaces the need for traditional TDM equipment.
Support for domestic and international dialing plans	Provides scalable and flexible service.
Support for automatic number identification (ANI) authorization	Adds security and prevents fraudulent use of the network.
Support for toll-free and 8XX numbers through the service control point (SCP)	Allows callers to use the free phone and premium services across the Tandem/Transit network.
Centralized element manager	Provides a method to configure and monitor the network.
ISUP PSTN interconnect with full COT support	Provides verification of the voice path.

Table 2 Supported Features in Release 9.6(1) (Continued)

Feature	Purpose
Support for ISDN direct-access lines	Allows direct line access to the Cisco MGC.
Support for E-ISUP inter-MGC signaling	Provides scalable and flexible service.
Support for advanced call routing	Provides scalable and flexible service.
Support for MGCP 0.1	Allows the Cisco MGC to control media gateway connections.
Edge-to-edge security	Prevents fraudulent use of the network.
Support for carrier-grade quality of service (QoS)	Replaces the need for traditional TDM equipment.
Support for SS7-to-SS7, SS7-to-ISDN, SS7-to-SIP, SS7 -to-H.323, ISDN -to-SIP, ISDN-to-H.323, ISDN-to-ISDN, DPNSS-H323, DPNSS - SS7 call types	Provides scalable and flexible service.
Support for voice-band telephony	Provides scalable and flexible service.
Support for ISDN data calls	Provides scalable and flexible service.
Support for real-time fax relay	Provides scalable and flexible service.
Support for modem passthrough	Provides scalable and flexible service.
Support for Cisco media gateways	Protects investment in Cisco equipment.
Provides a reliable IP link between Cisco MGC and access servers with Reliable User Datagram Protocol (RUDP)	No single point of failure in connection between media gateways and the Cisco MGC.
Call detail records for PSTN billing	Meets carrier-grade PSTN requirements to migrate existing voice revenue streams to the packet environment and to create new voice service opportunities. Provides a CDR viewer to view billing records.
Facility associated signaling provided by the Cisco SLTs (T1/E1 WIC, optional with SS7)	• Grooms off the bearer channels and then delivers them to the media gateway. • Delivers MTP-3 to the MGC host over IP.
High Availability platform	Established calls are maintained when there is a switchover from the active MGC host to its paired standby host.
Sun Solaris 8	• Y2K compliant • Open computing platform
• Support for 1500+ destination point codes (DPCs) • Support for up to six origination point codes (OPCs) plus 40+ Capability Point Codes • Supports 504 PRI D channels	• Scales cost-effectively to central office size • Flexible and scalable
Quasi-associated or fully associated signaling	Ready for international markets.
Complete continuity check (two-wire and four-wire)	Meets interconnect requirements.

Table 2 Supported Features in Release 9.6(1) (Continued)

Feature	Purpose
NEBS Level 3 compliant	Telco-ready.
Several simplex or high availability platform options	Cost-effective options.

Cisco MGC Management

Table 3 provides an overview of the management components of the Cisco MGC.

Management Component	Description
Cisco Voice Service Provisioning Tool (MNM-PT)	The Cisco VSPT is a configuration/provisioning tool for the Cisco PGW 2200 and controlled media gateways. You can use its facilities to create, copy, modify, and deploy the configuration for the MGC host.
Alarms	The Cisco MGC supports a comprehensive set of alarms (in accordance with ITU X.733): • Processing errors • QoS alarms • Equipment alarms • Communications alarms • Environment alarms You can adjust the severity of alarms and thresholds to match your carrier's severity level definitions. You can also configure the system to generate real-time alarms to local or remote terminals. All alarms are written to a log file in an uncompressed format for easy retrieval.
PEG counts	You can obtain a variety of usage statistics from the Cisco MGC. The data is recorded real-time and written to a file. You can specify the statistics to be collected and the time intervals for collection and writing to file. Each PEG count record includes: • Start time • Duration • Measured value • Category • Element measured
Cisco MGC Node Manager (CMNM)	CMNM is both a software requirement and a network management tool. It provides network management for the Cisco PGW 2200 that is beyond the provisioning functionality provided by the VSPT

Related Documentation

This document contains information that is related to software release 9.6(1). The documents that contain additional information related to the Cisco PGW 2200 Softswitch are at the following url:

http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/tsd_products_support_series_home.html

You can find the Cisco PGW 2200 Softswitch documentation map at the following URL:

http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_documentation_roadmaps_list.html

Before Installation

Before you install the Cisco PGW 2200 Softswitch software, consult the following related documentation for information about hardware installation and system requirements:

- The *Overview Guide* for your solution
- *Cisco PGW 2200 Softswitch Hardware Installation Guide - Releases 7 & 9*
- *Cisco Media Gateway Controller Software Installation and Configuration Guide (Releases 9.1 through 9.6)*
- *Regulatory Compliance and Safety Information for the Cisco MGC*
- The G*ateway Installation Guide* for your solution

After Installation

After you install the Cisco PGW 2200 Softswitch software, consult the following related documentation for information on configuring and provisioning your system:

- *Cisco PGW 2200 Softswitch Release 9 Provisioning Guide (through Release 9.7)*
- *The Provisioning Guide* for your solution

Load the most recent patch set as explained in the "Installing and Upgrading the Software" and "Software Patches" sections.

Installation Notes

This section contains information and procedures you can use to remove, upgrade, or install the Cisco MGC software. It also contains information about software patches.

Acquiring the Software

The Cisco MGC software is provided to customers on CD. Before installing the software, check the Solution release notes and the web for the most current patch level. If the information on the CD matches the information provided on the web and in the Solution release notes, the software and patch information can be installed directly from the CD.

Complete the following procedure to obtain software patches from CCO:

Step 1 From the Cisco Connection Online page, select the Software Center link (located under Service and Support).

The Technical Assistance Center page displays.

Step 2 From the Technical Assistance Center page, select the Voice Software link (located under Software Products and Downloads).

The Voice Software page displays.

Step 3 From the Voice Software page, select the Login option (located across the top of the page).

A login box displays.

Step 4 Enter your CCO user name and password then press OK.

After authentication the Voice Software page displays.

Step 5 Select the link for the desired software release. Software release links are located under the Cisco Media Gateway Controller heading.

Installing and Upgrading the Software

Caution Before upgrading from a current version of Software Release 9 to a higher level, you must verify software release version compatibility by contacting Cisco TAC (see Obtaining Documentation and Submitting a Service Request, page 140) or your Cisco account representative. Software release version incompatibility may cause service disruption.

If you are installing software Release 9.6(1) for the first time, se the *Cisco MGC Software Release 9 Installation and Configuration Guide* for instructions.

Note In the *Cisco MGC Software Release 9 Installation and Configuration Guide*, observe the following change: In the "Configuring SNMP Support Resources" sections, SNMP MIB measurements are valid only on the active node. They are *not* replicated to the standby node.

Caution When upgrading a redundant system, verify that the pom.dataSync parameter (located in /opt/CiscoMGC/etc/XECfgParm.dat) is set to **false** to maintain calls and preserve your configuration.

Caution No validation is performed on the IDs you enter. If you enter an invalid ID, the utilities package does not add any accounts.

Tip If you have trouble installing the utilities package, make sure that you do not still have a transpath group in your group file (located in /etc).

Before installing the 9.6(1) software, you must remove all packages and remnants of previous releases of Cisco MGC, VSC, or SC2200 software, including drivers and utilities, because of structural changes within the executables, libraries, operating system, and packaging. You should start with a fresh system.

Software Patches

Release 9.6(1) Patch 59 and Earlier

Software files for Patch 59 and earlier are located in the following directories.

Note You must be logged into www.cisco.com to see these patches.

Patches are located in the following directory:

http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-961

Release 9.6(1) Patch 60 and Later

Use the following procedure to locate the software files for Patch 60 and later.

Step 1 From the Cisco.com page, select the Download Software link (located under Support).

The Download Software page displays.

Step 2 From the Software Center page, select the Voice and Unified Communications link.

A login box displays.

Step 3 Enter your Cisco.com user name and password and press **OK**.

After authentication, a list of Voice and Unified Communications products displays.

Step 4 Select links in the following sequence:

IP Telephony

Call Control

Cisco PGW 2200 Softswitch

Cisco PGW 2200 Software Version 9

Step 5 Select the links for the desired software release.

The protocol packaging has been improved so that you need only load and install protocols that you need. Previously, the entire protocol suite was packaged and delivered together. With the improved packaging protocol:

- The standard installation script allows you to specify which protocol set(s) are required on your platform.
- Only packages containing the desired protocols are installed as part of the standard installation.

The same number of packages available with the initial release still exists; however, they have a new nomenclature that is required to support patching later in the release life cycle and you have the option to install only the packages containing required protocols.

The protocol packages are labeled CSCOnnvvv:

nn—indicates the specific protocols you need for your environment

vvv—indicates the version level of the patch

For example, at the time of the release you are given protocol patch CSCO01000.pkg. The 01 indicates a specific protocol applicable to your environment; 000 indicates the revision level. The next time a set of protocol patches are built, the 000 is incremented by 1 (001).

Note You must always install the 00 protocol package when upgrading a protocol patch level. If the 00 protocol package is not installed, the upgrade attempt fails. The Protocol file missing alarm displays.

Use the patch script (new shell script provided with the standard installation) located in your /opt/SW directory (created during the initial base software installation) to confirm which patch packages you need to install (using the **patch status** command), and then copy these packages into your local directory (/opt/SW)from the release directory where you can use the script to install the patches.

The installation script requires one of the following options:

- Option 1—**patch status** retrieves the status of the system. Use this option to determine which set of protocol packages are currently installed on your system. The installed protocol packages are required (must be downloaded) to update the software. The exception is if you need a new protocol that was not previously delivered. In this case, you need to download an extra package (the package that the new protocol is delivered in).
- Option 2—**patch all** automatically searches the local directory (/opt/SW) and the installed system to determine the most recent available patch and automatically updates the system with that patch level. This applies to protocol and system patches. All uninstall and install activities are handled by the script. The command for this is:**patch all.** The **all** command does not require a second argument.
- Option 3—**patch system [latest |<alternate patch number>]** specifies the exact patch level for system patches you choose to install on the system. You can specify any available patch level to be installed. All uninstall and install activities are handled by this script. This option requires one of the following arguments:
  - latest —installs the most recently downloaded patch. This argument should be used with the system and protocol commands used in options 3 and 4.
  - <number> —indicates the patch number <vvv> that you want to install. This argument should be used with the system and protocol commands used in options 3 and 4.
- Option 4—**patch protocol [latest |<alternate patch number>]** specifies the exact patch level for protocol patches you choose to install on the system. You can specify any available patch level to be installed. All uninstall and install activities are handled by this script. This option requires one of the following arguments:
  - latest —installs the most recently downloaded patch. This argument should be used with the system and protocol commands used in options 3 and 4.
  - <number> —indicates the patch number <vvv> that you want to install. This argument should be used with the system and protocol commands used in options 3 and 4.

The following is sample output of option 2, **patch all** which automatically searches the local directory and the installed system to determine the most recent available patch located in /opt/SW (protocol and system) and automatically updates the system with that patch level.

```
va-butterfly:104> patch all
The following patches are about to be removed from your system:
CSCO00018
CSCO01018
CSCO02018
CSCO10018
CSCO20018
CSCO21018
CSCO30018
```

```
CSCO31018
CSCO32018
CSCO33018
CSCO40018
CSCO41018
CSCO50018
CSCO60018
CSCO70018
CSCO71018
CSCO80018
CSCOgs017
The following patches are about to be added to your system from the local directory:
The following patch(es) are about to be added to your system from the local directory:
CSCO00018.pkg
CSCO01018.pkg
CSCO02018.pkg
CSCO10018.pkg
CSCO20018.pkg
CSCO21018.pkg
CSCO30018.pkg
CSCO31018.pkg
CSCO32018.pkg
CSCO33018.pkg
CSCO40018.pkg
CSCO41018.pkg
CSCO50018.pkg
CSCO60018.pkg
CSCO70018.pkg
CSCO71018.pkg
CSCO80018.pkg
CSCOgs017.pkg

Are you sure this add/remove scenario is correct?  [y] [y,n,?,q]
```

System Level Equivalency

Table 3 provides the system level equivalency for each protocol patch. For example, after installing CSCOnn001, release 9.6(1) is equivalent to release 9.5(2) patch level CSCOnn007 (contains all patches and features included in release 9.5(2) up to patch CSCOnn007).

Table 3 System Level Equivalencies for Protocol Patches

Patch Number	System Level Equivalency
CSCOnn060	9.5(2) Patch CSCOnn068
CSCOnn059	9.5(2) Patch CSCOnn068
CSCOnn058	9.5(2) Patch CSCOnn068
CSCOnn057	9.5(2) Patch CSCOnn068
CSCOnn056	9.5(2) Patch CSCOnn068
CSCOnn055	9.5(2) Patch CSCOnn068
CSCOnn054	9.5(2) Patch CSCOnn068
CSCOnn053	9.5(2) Patch CSCOnn068
CSCOnn052	9.5(2) Patch CSCOnn068
CSCOnn051	9.5(2) Patch CSCOnn067

Table 3 System Level Equivalencies for Protocol Patches (Continued)

Patch Number	System Level Equivalency
CSCOnn050	9.5(2) Patch CSCOnn067
CSCOnn049	9.5(2) Patch CSCOnn067
CSCOnn048	9.5(2) Patch CSCOnn065
CSCOnn047	9.5(2) Patch CSCOnn065
CSCOnn046	9.5(2) Patch CSCOnn065
CSCOnn045	9.5(2) Patch CSCOnn058
CSCOnn044	9.5(2) Patch CSCOnn058
CSCOnn043	9.5(2) Patch CSCOnn058
CSCOnn042	9.5(2) Patch CSCOnn058
CSCOnn041	9.5(2) Patch CSCOnn058
CSCOnn040	9.5(2) Patch CSCOnn058
CSCOnn039	9.5(2) Patch CSCOnn058
CSCOnn038	9.5(2) Patch CSCOnn058
CSCOnn037	9.5(2) Patch CSCOnn058
CSCOnn036	9.5(2) Patch CSCOnn058
CSCOnn035	9.5(2) Patch CSCOnn058
CSCOnn034	9.5(2) Patch CSCOnn058
CSCOnn033	9.5(2) Patch CSCOnn051
CSCOnn032	9.5(2) Patch CSCOnn051
CSCOnn031	9.5(2) Patch CSCOnn051
CSCOnn030	9.5(2) Patch CSCOnn051
CSCOnn029	9.5(2) Patch CSCOnn051
CSCOnn028	9.5(2) Patch CSCOnn051
CSCOnn027	9.5(2) Patch CSCOnn050
CSCOnn026	9.5(2) Patch CSCOnn048
CSCOnn025	9.5(2) Patch CSCOnn041
CSCOnn024	9.5(2) Patch CSCOnn039
CSCOnn023	9.5(2) Patch CSCOnn037
CSCOnn022	9.5(2) Patch CSCOnn037
CSCOnn021a	9.5(2) Patch CSCOnn037
CSCOnn021	9.5(2) Patch CSCOnn037
CSCOnn020	9.5(2) Patch CSCOnn037
CSCOnn019	9.5(2) Patch CSCOnn037
CSCOnn018	9.5(2) Patch CSCOnn037
CSCOnn017	9.5(2) Patch CSCOnn034
CSCOnn016	9.5(2) Patch CSCOnn034

Table 3 System Level Equivalencies for Protocol Patches (Continued)

Patch Number	System Level Equivalency
CSCOnn015	9.5(2) Patch CSCOnn034
CSCOnn014	9.5(2) Patch CSCOnn032
CSCOnn013	9.5(2) Patch CSCOnn031
CSCOnn012	9.5(2) Patch CSCOnn030
CSCOnn011	9.5(2) Patch CSCOnn025
CSCOnn010	9.5(2) Patch CSCOnn025
CSCOnn009	9.5(2) Patch CSCOnn024
CSCOnn008	9.5(2) Patch CSCOnn024
CSCOnn007	9.5(2) Patch CSCOnn022
CSCOnn006	9.5(2) Patch CSCOnn019
CSCOnn005	9.5(2) Patch CSCOnn014
CSCOnn004	9.5(2) Patch CSCOnn013
CSCOnn003	9.5(2) Patch CSCOnn012
CSCOnn002	9.5(2) Patch CSCOnn010
CSCOnn001	9.5(2) Patch CSCOnn007

Table 4 provides the system level equivalency for each system patch. For example, after installing CSCOgs002, release 9.6(1) is equivalent to release 9.5(2) patch level CSCOgs006 (contains all patches and features included in release 9.5(2) up to patch CSCOgs006).

Table 4 System Level Equivalencies for System Patches

Patch Number	System Level Equivalency
CSCOgs060	9.5(2) Patch CSCOgs076
CSCOgs059	9.5(2) Patch CSCOgs076
CSCOgs058	9.5(2) Patch CSCOgs076
CSCOgs057	9.5(2) Patch CSCOgs076
CSCOgs056	9.5(2) Patch CSCOgs076
CSCOgs055	9.5(2) Patch CSCOgs076
CSCOgs054	9.5(2) Patch CSCOgs076
CSCOgs053	9.5(2) Patch CSCOgs076
CSCOgs052	9.5(2) Patch CSCOgs076
CSCOgs051	9.5(2) Patch CSCOgs076
CSCOgs049	9.5(2) Patch CSCOgs074
CSCOgs048	9.5(2) Patch CSCOgs074
CSCOgs047	9.5(2) Patch CSCOgs072
CSCOgs046	9.5(2) Patch CSCOgs072
CSCOgs045	9.5(2) Patch CSCOgs072

Table 4 System Level Equivalencies for System Patches (Continued)

Patch Number	System Level Equivalency
CSCOgs044	9.5(2) Patch CSCOgs064
CSCOgs043	9.5(2) Patch CSCOgs064
CSCOgs042	9.5(2) Patch CSCOgs064
CSCOgs041	9.5(2) Patch CSCOgs064
CSCOgs040	9.5(2) Patch CSCOgs064
CSCOgs039	9.5(2) Patch CSCOgs064
CSCOgs038	9.5(2) Patch CSCOgs064
CSCOgs037	9.5(2) Patch CSCOgs064
CSCOgs036	9.5(2) Patch CSCOgs064
CSCOgs035	9.5(2) Patch CSCOgs064
CSCOgs034	9.5(2) Patch CSCOgs064
CSCOgs033	9.5(2) Patch CSCOgs064
CSCOgs032	9.5(2) Patch CSCOgs064
CSCOgs031	9.5(2) Patch CSCOgs058
CSCOgs030	9.5(2) Patch CSCOgs058
CSCOgs029	9.5(2) Patch CSCOgs058
CSCOgs028	9.5(2) Patch CSCOgs058
CSCOgs027	9.5(2) Patch CSCOgs058
CSCOgs026	9.5(2) Patch CSCOgs058
CSCOgs025	9.5(2) Patch CSCOgs057
CSCOgs024	9.5(2) Patch CSCOgs055
CSCOgs023	9.5(2) Patch CSCOgs049
CSCOgs022	9.5(2) Patch CSCOgs047
CSCOgs021	9.5(2) Patch CSCOgs045
CSCOgs020	9.5(2) Patch CSCOgs045
CSCOgs019	9.5(2) Patch CSCOgs045
CSCOgs018	9.5(2) Patch CSCOgs045
CSCOgs017	9.5(2) Patch CSCOgs045
CSCOgs016	9.5(2) Patch CSCOgs045
CSCOgs015	9.5(2) Patch CSCOgs041
CSCOgs014	9.5(2) Patch CSCOgs041
CSCOgs013	9.5(2) Patch CSCOgs039
CSCOgs012	9.5(2) Patch CSCOgs038
CSCOgs011	9.5(2) Patch CSCOgs037
CSCOgs010	9.5(2) Patch CSCOgs031
CSCOgs009	9.5(2) Patch CSCOgs029

Table 4 System Level Equivalencies for System Patches (Continued)

Patch Number	System Level Equivalency
CSCOgs008	9.5(2) Patch CSCOgs026
CSCOgs007	9.5(2) Patch CSCOgs021
CSCOgs006	9.5(2) Patch CSCOgs016
CSCOgs005	9.5(2) Patch CSCOgs011
CSCOgs004	9.5(2) Patch CSCOgs010
CSCOgs003	9.5(2) Patch CSCOgs008
CSCOgs002	9.5(2) Patch CSCOgs006
CSCOgs001	9.5(2) Patch CSCOgs006

Patch Test Combinations

Table 5 provides a list of the patch combinations that were used when testing. Use this list to determine which protocol and system patches should be installed before you run the MGC software. It does not matter which patch (protocol or software) is installed first.

Table 5 Patch Test Combinations

Protocol Patch	System Patch
CSCOnn060	CSCOgs060
CSCOnn059	CSCOgs059
CSCOnn058	CSCOgs058
CSCOnn057	CSCOgs057
CSCOnn057	CSCOgs056
CSCOnn056	CSCOgs055
CSCOnn055	CSCOgs055
CSCOnn054	CSCOgs054
CSCOnn053	CSCOgs053
CSCOnn052	CSCOgs052
CSCOnn052	CSCOgs051
CSCOnn050	CSCOgs049
CSCOnn049	CSCOgs048
CSCOnn048	CSCOgs047
CSCOnn047	CSCOgs046
CSCOnn046	CSCOgs045
CSCOnn045	CSCOgs044
CSCOnn044	CSCOgs043
CSCOnn043	CSCOgs043
CSCOnn043	CSCOgs042

Table 5 Patch Test Combinations (Continued)

Protocol Patch	System Patch
CSCOnn042	CSCOgs041
CSCOnn041	CSCOgs040
CSCOnn040	CSCOgs039
CSCOnn039	CSCOgs038
CSCOnn038	CSCOgs037
CSCOnn037	CSCOgs036
CSCOnn036	CSCOgs035
CSCOnn035	CSCOgs034
CSCOnn035	CSCOgs033
CSCOnn034	CSCOgs032
CSCOnn033	CSCOgs031
CSCOnn032	CSCOgs030
CSCOnn031	CSCOgs029
CSCOnn030	CSCOgs028
CSCOnn029	CSCOgs027
CSCOnn028	CSCOgs026
CSCOnn027	CSCOgs025
CSCOnn026	CSCOgs024
CSCOnn025	CSCOgs023
CSCOnn024	CSCOgs022
CSCOnn023	CSCOgs021
CSCOnn022	CSCOgs020
CSCOnn021a	CSCOgs019
CSCOnn021	CSCOgs019
CSCOnn020	CSCOgs018
CSCOnn019	CSCOgs017
CSCOnn018	CSCOgs016
CSCOnn017	CSCOgs015
CSCOnn016	CSCOgs015
CSCOnn015	CSCOgs014
CSCOnn014	CSCOgs013
CSCOnn013	CSCOgs012
CSCOnn012	CSCOgs011
CSCOnn011	CSCOgs010
CSCOnn010	CSCOgs010
CSCOnn009	CSCOgs009

Table 5 Patch Test Combinations (Continued)

Protocol Patch	System Patch
CSCOnn008	CSCOgs009
CSCOnn007	CSCOgs008
CSCOnn006	CSCOgs007
CSCOnn005	CSCOgs006
CSCOnn004	CSCOgs005
CSCOnn003	CSCOgs004
CSCOnn002	CSCOgs003
CSCOnn001	CSCOgs002
N/A	CSCOgs001

CSCOnn060

Patch CSCOnn060 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCtb99896	2	mdl-pri	PGW fail to process length of NetworkID =0 when sending out SETUP to PRI
CSCta10598	3	mdl-mgcp	PGW 9.6(1) DTMFs fail when there is a hold/transfer
CSCta98633	3	mdl-dpnss	Glare on DPNSS calls hangs b_channel on PGW,v-sol

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn059

Patch CSCOnn059 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsy25876	3	mdl-lcm	9.6(1)P57 PGW fails to connect the overflow call when glare.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn058

Patch CSCOnn058 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsw16797	3	ioccc7	PGW Call is stuck when T35 expires and 31 release from OCC, v-sol.
CSCsx43092	4	mdl-ansi-ss7	16 IC_INTERWORK_UNSPEC mapped to ANSISS7 Cause 112 INTERWORKING UNSPECIF, v-sol.
CSCsx46287	6	ioccisdn13	PGW returns cause code 41 instead of 34 or 44 according to Q9.31 spec.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn057

Patch CSCOnn057 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsu79230	3	ioccsip	PGW: ID is missing in the NOTIFY EVENT header.
CSCsv09583	3	mdl-q767	Glare lead to hung CICs on PGW, v-sol.
CSCsv49690	3	engine	Call fails when a new SDP arrives before 200 for previous MDCX.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn056

Patch CSCOnn056 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsu58646	3	mdl-sip	No require header in 200OK for UPDATE leads call release.
CSCsu59046	3	engine	PGW ANM ignored when call forward with SIP REFER, v-sol.
CSCsu37004	4	mdl-dpnss	Code porting for CSCsu26337 from 9.7 to 9.6.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn055

Patch CSCOnn055 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsq45458	3	mdl-sip	961S54P54: CANCEL and ACK for 487 should not contain ROUTE header.
CSCsr27679	3	mdl-sip	PGW : Not resend Decline for 7 times, v-sol.
CSCsr42909	3	mdl-sip	PGW received 489 Bad Event on Subscribe message, v-sol.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn054

Patch CSCOnn054 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsq42161	2	design	P53: no voice when call from SIP to SS7 side when cot configured on SS7.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn053

Patch CSCOnn053 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCso28067	2	mdl-connctrl	Customized ringback tone from MoH not heard by pstn caller, 5x-fwd.
CSCsm49721	3	mdl-lcm	9.6(1)S50P51:No bidirection voice on calls from PSTN 200OK without SDP.
CSCsm99548	3	mdl-lcm	T.38 fails when re-INVITE received while awaiting MGCP ack, v-sol.

Identifier	Severity	Component	Description
CSCso00453	3	mdl-connctrl	If INVITE received without SDP, PGW sends MDCX without SDP after COT.
CSCso19712	3	ioccxgcp	9.5(2)SS77:piggy backing message of NTFY and 250 OK handled incorrectly.
CSCso52089	3	mdl-ni2	Generic number in GTD cannot be mapped to SS7 component correctly.
CSCso81886	3	mdl-connctrl	Wrong parameter in RMSetVsfStatus cause error info in platform.log.
CSCso94521	3	mdl-q761	Echo Control in IAM.
CSCso32863	6	design	PGW 961 needs to support RE-invite without SDP for call hold service.
CSCso92275	6	mdl-analysis	RMODDIG result type enhancement for incoming Rdirecting number empty.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn052

Patch CSCOnn052 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsm21726	2	mdl-pri	PGW failover with engine core.
CSCsm22952	3	mdl-pri	Incorrect behavior of CallStateCompatibilty on PRI.
CSCsm27247	3	mdl-sip	Optional CRLF causing GTD body lost.
CSCsm96856	3	mmdb	PGW prov-dply fails with TimesTen error message.
CSCsm19749	6	provision	PGW sends C7 IAM with no Cgpn.
CSCsm69288	6	mdl-sip	PGW should recognize “Refresher=uas” with upper-case characters.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn051

Patch CSCOnn051 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsl80747	2	mdl-lcm	T.38 Fax interoperability Issue with PGW and SWYX 9.6.
CSCsl02095	3	ioccxgcp	PGW does not audit and block endpoint on non ack mgcp msg for OCC side.
CSCsl02457	3	mdl-analysis	Multiple CLI_NBR_LENGTH result type support.
CSCsl05812	3	mdl-q767	SS7 call in setup progress hangs when sigpath is unstable, v-sol.
CSCsl11508	3	mdl-eisup	Need to increase the param value range for passonnotpossible - ParamComp.
CSCsl40702	3	mdl-sip	PGW v9.6 only check the SDP version id, not check the session id.
CSCsl47137	3	mdl-sip	SIP fails to check comma within callid.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn050

Patch CSCOnn050 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsj16999	3	ioccxgcp	PGW does not audit and block endpoint on non ack mgcp messages.
CSCsk40138	3	engine	Call Hung on PGW when receiving OPTIONS coming end with 0a.
CSCsk47203	3	mdl-connctrl	PGW - SIP to SS7 Hung Call.
CSCsk79980	3	ioccsip	Code merge breaking existing functionality.
CSCsk86552	3	mdl-connctrl	PGW releases 50% of Calls with re-INVITE.
CSCsj92369	6	mdl-sip	SS7-SIP mapping for GAP parameters is not RFC 3398 compliant.
CSCsk51733	6	mdl-lcm	Need option to remove Country Code from CgPN, GN-ACgPN, OCN, Redirecting, v-sol.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn049

Patch CSCOnn049 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsj98375	2	engine	PGW cores and switches to standby core engine.smartall.
CSCsj99644	2	mdl-lcm	No voice in SIP-h323 call when inbandinfo is available on terminating.
CSCsk22929	2	mdl-mgcp	PGW: Two 183 are received on PGW result in no answer.,v-sol.
CSCsi33770	3	mdl-dpnss	ST:PGW does not map the Connected Line Restriction (DPNSS->DPNSS),P47S46, HUCS1.6MR, P43S43.
CSCsj18306	3	ioccsip	Support SUBSCRIBE for telephone-event (dtmf) from SIP to EISUP.
CSCsj97205	3	mdl-pri	PGW doesn't wait for SETUP_ACK and sends INFO message.
CSCsk06517	3	other	LChan fails on PGW with INAP controlled call, v-sol.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn048

Patch CSCOnn048 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsj41464	2	mdl-mgcp	PGW: Call fail between ISUP and SIP and report prev. mess. in progress, v-sol.
CSCsj75512	2	mdl-lcm	Call is not released properly when GW does not respond correctly to DLCX.
CSCsj89139	2	mdl-sip	SIP ACK misses route set for in-dialog request failure, v-sol.
CSCsj23696	3	mdl-lcm	Inbound IAM with COT passes but PGW send REL 31,v-sol.
CSCsj37858	3	mdl-lcm	PGW not relaying DTMF in SIP INFO if there was a previous SUBSCRIBE.
CSCsj45557	3	mdl-connctrl	PGW call reroute after SIP 503 fails when receiving 400 from MGW,v-sol.
CSCsj50824	3	mdl-connctrl	CIC gets stuck when REL arrives before ack to RQNT,v-sol.
CSCsj66661	3	mdl-sip	ACK and BYE generated by PGW including <> in the Request-URI.

Identifier	Severity	Component	Description
CSCsj24853	6	mdl-q767	Enable configurable ST in called party number on Q767.
CSCsj64245	6	mdl-sip	Checkpointing - proxy mode - tags and To: port.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn047

Patch CSCOnn047 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsi74995	2	mdl-sip	No 200OK sent if Re-Invite is received straight after ACK with SDP.
CSCsj07207	2	mdl-q767	To remove ST signal for Italian ISUP specifications, v-sol.
CSCsj25087	2	mdl-cdr	PGW generating corrupt CDRs.
CSCsi08518	3	mdl-dpnss	PGW packs number twice when receiving SSRM_C with overlap and RO request.
CSCsi91178	3	mdl-sip	PGW P_A_ID SIP:invite:user=phone parameter missing, v-sol.
CSCsi97730	3	mdl-analysis	9.6(1)S45P46 makes call sip to ss7, ss7 redirect to another sip fails.
CSCsj11393	3	mdl-q767	PGW does not carry Connected Number in ANM for Q767_ITAL.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn046

Patch CSCOnn046 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsi74995	2	mdl-sip	No 200OK sent if Re-Invite is received straight after ACK with SDP.
CSCsi70229	3	engine	No Alerting or Answer timepoint in PGW CDR.
CSCsi46876	3	mdl-sip	PGW doesn't generate SIPDTMF NOTIFY when SIP is the terminating protocol.

Identifier	Severity	Component	Description
CSCsi96170	3	mdl-sip	961S45P46 : SIP transfer failed on DPNSS-PGW-SIP--TX-SIP.
CSCsi42035	6	mdl-sip	Porting: SIP Diversion header treatment in the multi-contact environment.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn045

Patch CSCOnn045 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh53557	3	mdl-eisup	ST:CCM to DPNSS - HSI does not forward connected line name,HUCS1.6.
CSCsh57500	3	mdl-cdr	Cause code is missing in CDR in certain call scenarios.
CSCsh64247	3	iocceisup	PGW/HSI maps incoming 180 Ringing w/o SDP to Alerting with PI=1, no RBT.
CSCsh77540	3	engine	MGCP call legs hanging on PGW, v-sol.
CSCsi11970	3	mdl-sip	Proxy mode does not fwd 200 OK and inserts new Via branch into Putative-sol.
CSCsi13271	3	ioccc7	BTNUP Encode error on pgw platform.log.
CSCsi27313	3	mdl-mgcp	ST:PGW sends a new MDCX before GW sends back CRCX ACK,P43S43.
CSCsi27411	3	mdl-dpnss	ST:PGW does not map the Connected Line Restriction (DPNSS->PSTN),HUCS1.6MR, P43S43.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn044

Patch CSCOnn044 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh93287	3	mdl-q761	PGW needs to generate USI with bearer capability for UK ISUP.

Identifier	Severity	Component	Description
CSCsh99936	3	mdl-lcm	ST:Call to Busy SS7 - B Number translation failure in cause analysis, P43S42.
CSCsi09790	3	mdl-lcm	Loss Of speech path when calls are diverted.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn043

Patch CSCOnn043 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh69582	3	mdl-pri	CSCsd71077 causes problems on ringback tone for PRI to EISUP calls.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn042

Patch CSCOnn042 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh54735	2	mdl-dpnss	PRI/QSIG to DPNSS with Divert Immediate (40B) causes call failure,HUCS1.6.
CSCse71714	6	mdl-callctrl	Calls forwarded by IP phone to DPNSS phone have no ringback.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn041

Patch CSCOnn041 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg63364	2	mdl-dpnss	Wrong Length for CDE tag 4228 and 4231.
CSCsg92598	3	mdl-analysis	DPNSS Call Forward Validation Fails with Protocol Conversion and BMODDIG.
CSCsh18747	3	mdl-analysis	Number mods resulting from egress trunk group props should not be re-used.
CSCsh20240	3	ioccsip	PGW uses same branch id in ACK for 200 as used in original INVITE.
CSCsh34563	3	engine	Cause code mapping.
CSCsh42675	3	engine	DPNSS Bar Timer not working for CRM msg.
CSCsd00543	6	provision	PGW 9.6 customer requirement to increase number of dial plan switches, HUCS1.6.
CSCsg37231	6	mdl-analysis	PGW 2200 Routing Based on Redirecting Number.
CSCsh16553	6	mdl-eisup	Request to Create EISUP Outbound Hop Count to Prevent Call Routing Loops.
CSCsh42715	6	mdl-lcm	PGW: More Russian ISUP CPC mapping for Analysis.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn040

Patch CSCOnn040 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse96032	3	other	LI: Intercept fails if PGW modifies intercept target number.,GLvoice1.5.
CSCsg83439	3	mdl-lcm	PGW sends BYE if re-invite quickly follows 200 OK.
CSCsg83615	3	engine	Unable to cutthrough the forward path for early media.
CSCsg90344	3	mdl-mgcp	PGW sending MDCX missing Q: field restricts for DTMF in INACTIVE mode.
CSCsg94061	3	engine	PGW core dumps when DPNSS feature transparency enabled, v-sol.
CSCsh05628	3	mdl-sip	PGW is not returning 501 upon receipt of OPTIONS method in proxy mode, v-sol.

Identifier	Severity	Component	Description
CSCsh15558	3	iocceisup	PGW Rejects EISUP call when CGPN IE contains no digits PI=restricted.
CSCsh18714	3	mdl-in	PGW INAP: ETC in Alerting, PGW does not del the conn after receive DFC, v-sol.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn039

Patch CSCOnn039 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg48528	2	iocceisup	ST:PGW sets wrong presentation indicator for connected number.
CSCsg48550	2	iocceisup	ST:CCM to DPNSS(CFB) to DPNSS - HSI does not forward Connected number.
CSCsg69060	2	mdl-dpnss	ST:PGW defaults the connected number presentation to restricted.
CSCsg78332	3	mdl-dpnss	ST:PGW does not map the Connected Line Restriction.
CSCsg83637	3	mdl-sip	PGW does not handle Re-Invite/BYE Race condition.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn038

Patch CSCOnn038 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg32742	3	engine	Reject_Loc_Labl and Reject_Loc_Direction CDR values not populated.
CSCsg33627	3	design	cde tag 2018/2019/2020 missed in 1030 CDB.
CSCsg37592	3	mdl-lcm	PGW MGCP Dial calls with when COT=2 get released with Temp Failure.
CSCsg42284	3	mdl-ansi-ss7	PGW sends out invalid IAM message.
CSCsg42388	3	mdl-sip	When PGW reply 200 OK for UPDATE, the SDP is not included.

Identifier	Severity	Component	Description
CSCsg55202	3	mdl-lcm	LCM gets LChanFailed signal when connection deleted causes call hangs.
CSCsg55317	3	gtd	Release Message Coded incorrectly when CPC value 4e in GTD.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn037

Patch CSCOnn037 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg18544	3	ioccc7	PGW does not process ANM with null AccessTransport.
CSCsg31944	3	mdl-cdr	Cause code is missing in CDR.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn036

Patch CSCOnn036 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg14711	2	mdl-sip	PGW misunderstand 200OK for PRACK as call answer.
CSCsf28585	3	other	SIP-to-CCM call fails when set LISupport enable in XECfgParm.dat.
CSCsg05384	3	mdl-sip	PGW adds to-tag in the CANCEL message.
CSCsg13276	3	mdl-analysis	PGW drops call attempt before exhausting all routes in a route list.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn035

Patch CSCOnn035 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse98506	3	other	LI: No QoS_Reserve sent if SDP received after ANM, Call_Answered.
CSCsf06837	3	mdl-sip	PGW one way audio when doing third party call control -RFC 3725 Flow III.
CSCsf22473	3	mdl-q761	Wrong release cause 99 due to unrecognized Generic Notification param.
CSCsf32893	6	protocol	User-To-User Info is missing in the QSIG SETUP message.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn034

Patch CSCOnn034 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf04726	2	mdl-sip	PGW doesn't ignore Contact Header in SIP 488 Not acceptable here.
CSCsf04067	3	mdl-lcm	Calls with carrier selection have postdial delay.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsd82013	2	mdl-sip	CDR record for sip-sip call longer than 4 hours.
CSCse05509	2	mdl-ansi-ss7	After LNP query, 11 digit dialed number in GAP causes all LNP calls fail.
CSCse26959	2	mdl-sip	Call transfer fails when Record-Route missing.
CSCse83894	2	mdl-sip	ACK with SDP rxd after INVITE w/out SDP causes BYE and ACK parse errors,TP106003.
CSCse86728	2	mdl-callctrl	No Ringback tone on redirected call for a ported number.
CSCsb19528	3	mdl-sip	PGW writes in CDR abnormal release for SIP-SIP calls terminated by Orig.
CSCsb24768	3	mdl-sip	PGW fails to send out response when out of sequence BYE is received.
CSCsb27752	3	mdl-q761	Wrong BlockType in CGB was sent when GRS involved.

Identifier	Severity	Component	Description
CSCsb38381	3	mdl-sip	Response code > 300 are mapped to Normal_Release in SIP-SIP proxy call.
CSCsb49472	3	mdl-cdr	Invalid CDR records when OOS a trunk.
CSCsb67247	3	mdl-q767	SAM measurement not present in Q.767 due to Incorrect string.
CSCsb68079	3	mdl	Redirecting number between ISUP-ISDN is incorrect.
CSCsb98867	3	mdl-cdr	First Release Time Stamp of CDR missing if transit calls are not answered.
CSCsc09401	3	engine	USI sent out not in certain call scenarios.
CSCsc11542	3	mdl-analysis	RedirMax release before set value.
CSCsc18090	3	mdl-cdr	Aborted SIP to SIP call resulting missing release time in CDR.
CSCsc53624	3	engine	PGW 9.3(2) CDR missing releasing time stamp due to audit after failover.
CSCsc73938	3	mdl-btnup	BTNUP to ISUP w/CPC in IFAM=0000000 passes w/ incorrect value.
CSCsc74778	3	mdl-btnup	BTNUP to ISUP w/ CPC in IFAM=0100000 passes w/ incorrect value
CSCsd06040	3	mdl-btnup	ISUPV3_UK to BTNUP - GTD - Interworking Indicator not passed correctly.
CSCsd28727	3	mdl-ni2	Redirecting number between ISUP-ISDN is incorrect.
CSCsd40532	3	mdl-analysis	PGW: Delay at call setup when number is ported.
CSCsd59403	3	gtd	PGW to map FCI.A bit both Null and Unknown to International.
CSCsd65277	3	mdl-lcm	User portion length in R-URI limited to TMaxDigits.
CSCsd68675	3	engine	PGW 9.5.2 S54 / P47 switched over to standby without any apparent cause.
CSCsd68715	3	engine	PGW should support carrierID mapping from SIP trnkgp to SS7 trnkgrp.
CSCsd70781	3	mdl-lcm	RMODDIG on RdPN also affects OCN.
CSCsd73705	3	engine	PGW shows false CDR after switchover - need new code to diagnose problem, v-sol.
CSCsd76629	3	mdl-ni2	Bad mapping from ISUP ATP to Q931 Low layer compat IE, v-sol.
CSCsd78091	3	mdl-lcm	No Ringback tone support-- QSIG/DPNSS call QSIG/DPNSS over EISUP.
CSCsd79643	3	protocol	PGW: T38 not requested for hairpin calls on VISM.
CSCsd87311	3	mdl-pri	PRI Backhaul Calls with a one octet Channel ID rejected by PGW 9.5(2).
CSCsd87366	3	mdl-analysis	CG_PN_COPY stores No A in variable instead of CC.
CSCsd92560	3	mdl-analysis	Overflow to the final overflow route list in a PERCRTE fails.

Identifier	Severity	Component	Description
CSCsd93589	3	engine	Oneway voice after blind transfer.
CSCsd95154	3	mdl-q761	Provisioned ChargeAreaInformation is not used in the call ISUPV2_JAPAN.
CSCsd95159	3	mdl-q761	Provisioned CGBA2 parameter does not work.
CSCsd98399	3	mdl-sip	after receiving reinvite, double tags inserted into TO header in 200OK.
CSCsd99724	3	mdl-lcm	No RELEASE sent on terminating call leg for call with final announcement.
CSCse00913	3	mdl-lcm	ISDN call stuck on PGW when both sides recv DISC (with final announcement).
CSCse01062	3	mdl-sip	SIP INVITE diversion header not correct.
CSCse02330	3	mdl-q761	SUSPEND should be supported in calling state for RUSSIAN ISUP(Q761).
CSCse05467	3	mdl-pri	PGW Audio path isn't established at receiving PROGRESS message w/overlap.
CSCse13109	3	mdl-sip	PGW: 9.5(2) REFER missing via header field from NOTIFY.
CSCse13603	3	ioccpriip	CICs stuck in the MATE UNAVAILABLE state clear only after reload of PGW.
CSCse15472	3	mdl-sip	PGW should correctly support UPDATE in proxy mode for call fw scenarios.
CSCse20839	3	mdl-q761	need a new sigpath property to control “charge area information”.
CSCse27801	3	engine	pgw can't response re-invite and bye after blinder transfer.
CSCse32269	3	mdl-analysis	PGW should pre-populate dw3 for RMODDIG.
CSCse40406	3	mdl-pri	Progress message not forwarded on EISUP side if received during Overlap,spvoice-bru-ddts.
CSCse41339	3	mdl-sip	PGW does not send qos_start messages to Mediation Device for SIP-SIP call.
CSCse41479	3	mdl-mgcp	PGW should send DLCX before MDCX for the new call if glare occurs.
CSCse41549	3	mdl-lcm	PGW: cutthrough at 183 w/ sdp for SS7 to sip calls.
CSCse41615	3	mdl-cdr	PGW: 9.3(2): Setup time is missed in CDR record, v-sol.
CSCse42989	3	mdl-sip	SIP RPID: SIP Headers Should be Made Case Insensitive.
CSCse44713	3	mdl-in	TCAP Into_analyzed USERID parameter needs to be mandatory in trigger.dat.
CSCse45377	3	mdl-q761	PGW: Call not released on Clear Calling Line and T6 expiry.
CSCse59585	3	mdl-analysis	Overflow to final overflow route list in a 2-route list PERCRTE fails, v-sol.

Identifier	Severity	Component	Description
CSCse80066	3	ioccc7	PGW in signalling mode sends maintenance CGB and Hardware CGU.
CSCse81045	3	engine	CIC's become blocked unexpectedly.
CSCse82218	3	engine	New invite's request line not correct when NOA was changed.
CSCsf01118	3	mdl-lcm	PGW does not send MDCX (with tSDP) to MGW if siptrnkgrp cutthrough = 2,v-sol.
CSCsc50364	6	mdl-q767	Need to send Alerting when ACM recvd no matter what the indication in BCI.
CSCsd80497	6	engine	need a new sigpath property for the digital analyze when get 302 msg.
CSCsd88791	6	mdl-sip	BTS does not pass 488 response transparently.
CSCse33871	6	other	Mexican ISUP Calling Party Category Handling to Telmex Internal Value.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn033

Patch CSCOnn033 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse55596	3	engine	B number Mod applied twice when using longest match functionality.
CSCse65124	3	mdl-q761	Wrong Forward REL CV, in case of COT Failure on Previous Circuit.
CSCse87852	3	mdl-lcm	PGW sends MGCP requests to GW when unacknowledged requests are still pending.
CSCse90729	3	ioccxgcp	Hairpin Calls on PGW 9.6.1 patch 31 failing.
CSCsf01261	3	mdl-lcm	PGW clears call when RESUME message does not have 00 at the end.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn032

Patch CSCOnn032 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse56936	3	mdl-analysis	PGW 9.6 S26 pp28 CDR fields 4207/4208 do not show codec correctly.
CSCse59753	3	mdl-cdr	BNOA unanswered call has no 3018 CDE in the 1030CDB.
CSCse62402	3	mdl-dpnss	PGW reject RO, but still sent RO_SETUP to associated call.
CSCse57137	3	mdl-eisup	Ringing not turned off when called party answers.
CSCse50748	3	mdl-ni2	PGW should try to unblock the CICs after IP flapping.
CSCsd70545	3	mdl-q761	Wrong Forward REL CV, in case of Backward release with CV=97.
CSCse05165	3	mdl-sip	PGW repeats sending PRAck if it receives 500 message.
CSCse02237	3	mdl-sip	PGW does not send 3261 compliant Branch-ID.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn031

Patch CSCOnn031 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse06857	2	mdl-eisup	RO failed through EISUP between two PGWs.
CSCse22427	3	ioccxgcp	Hairpin call after cause analysis MGCP LCO does not contain remote endpt.
CSCse40086	3	mdl-in	op code for resetTmr sent via INAP breaks call flow.
CSCse47634	3	mdl-q761	PGW: Call not released on Clear Calling Line and T6 expiry.
CSCse51717	3	mdl-q761	SUS should be supported in calling state for RUSSIAN.
CSCse41676	3	mdl-q767	PGW 9.6(1) - Suspend message not handled correctly.
CSCse05188	3	mdl-sip	PGW responses ACK to 481 response.
CSCse37724	4	mdl-lcm	duplicate ContactListOrder in cc.mdl after collapsing.
CSCse45990	6	engine	route optimized calls do not increment the call limit counter.
CSCse09346	6	mdl-sip	PGW should allow for Request and Supports 100rel be chosen separately.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn030

Patch CSCOnn030 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse09381	3	engine	PGW: DTMF tones sent as SIP NOTIFY messages cause call to drop.
CSCse37738	3	engine	Call Limiting label did not refresh in Glare environment.
CSCse25700	3	mdl-analysis	CLIPrefix Screening not taken into account when Longest dialplan match.
CSCse05179	3	mdl-connctrl	No Answer message route to Originating Side.
CSCse12861	3	mdl-eisup	T.38 FAX is not working over EISUP.
CSCsd81175	3	mdl-lcm	PGW does not include ANM attachment - SIP GTD.
CSCse19480	3	mdl-lcm	LCM-Get LChanFailed signal when connection deleted cause call hangs.
CSCse28212	3	mdl-sip	PGW can't correctly pack gea in GTD when generic number is included.
CSCsd99795	6	mdl-sip	PGW does not allow SIP Display Name mapping.
CSCsd71264	6	other	DPNSS Feature Transparency Diversion enhancements.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsd99795—PGW Does Not Allow SIP Display Name Mapping—The InhibitSipFromMapping parameter was introduced to allow the mapping of SIP invite information to ISUP. For more information, see PGW Does Not Allow SIP Display Name Mapping in the New Features in This Release section of this document.
- CSCsd71264—DPNSS Feature Transparency Diversion Enhancements—this feature adds functionality that allows modification of DPNSS diversion digits when sent in the backward direction. This is useful when the PGW 2200 is used to interconnect PBXs with different or incompatible dial plans where the diversion digits must be modified to be compatible with the Calling Party's PBX.

CSCOnn029

Patch CSCOnn029 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse06010	2	mdl-lcm	single voice path after RO.
CSCsc71861	2	mdl-sip	SIP to ISUP call hold not supported correctly.
CSCsd99591	3	mdl-callctrl	dialplan Longest match failure with overlap signalling.
CSCse09939	3	mdl-dpnss	RO fail --- connected name and sdp contained in Notification message.
CSCse13136	3	mdl-dpnss	PGW One-Way Voice after Route Optimization.
CSCse04150	3	mdl-lcm	Location label on A-Number, call limiting function do not work.
CSCse25113	3	mdl-lcm	One way voice on PRI->DPNSS->CCM.
CSCsd99496	3	mdl-q767	PGW shouldn't release call when cot required and announcement is played.
CSCsd41515	3	mdl-sip	engine core dump when SIP-GTD INFO is received.
CSCse15501	3	mdl-sip	Presentation Number PN not being restricted when SIP proxy request privacy.
CSCse05074	3	mdl-sip	SIP Refer can't work if no Record-route.
CSCse26658	3	mdl-sip	call drop when SIP INVITE retransmission.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn028

Patch CSCOnn028 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd17250	3	mdl-sip	Request-URI on generated ACK should be the Contact on received 200_OK.
CSCse00854	3	mdl-sip	after receiving reinvite, double tags inserted into TO header in 200OK.
CSCsd69542	6	mdl-mgcp	PGW: Digit sent before call connected are not passed from EISUP to MGCP.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsd94038	2	mdl-sip	PGW does not correctly populate/checkpoint Req URI:
CSCsd70781	3	mdl-lcm	RMODDIG on RdPN also affects OCN.
CSCsc28418	6	mdl-q767	Support of R-ISUP2000 Variant change request.
CSCea11645	6	mdl-sip	ATA to PSTN-pg1 sw-over to pg2-PSTN onhook-bye direct from pg2 to AT.
CSCsd03635	6	other	Support for Gateway Ring-back Tone Over MGCP Featurette.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- Support of R-ISUP2000 Variant— implements the ISUP-R-2000 variants to support Russian and other Commonwealth of Independent States (CIS) (former Soviet Union) users.
- Support for Gateway Ring-Back Tone Over MGCP—adds gateway ring-back tone over MGCP protocol support for MGCP controlled media gateway calls destined for PBXs that do not generate ring-back tones.

  This feature is not designed to handle MGCP to MGCP calls where the originating leg and terminating leg are on different PGW pairs (does not support calls transported over EISUP). The reference to EISUP is for EISUP—H323 only.

  For more information, see Support for Gateway Ring-Back Tone Over MGCP in the New Features in This Release section of this document.

CSCOnn027

Patch CSCOnn027 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd76605	3	mdl-analysis	PGW should not override the cust modified cause for DPNSS ISRM 30B param.
CSCsd49339	3	mdl-eisup	PGW does not relay COT from ISUP to EISUP.
CSCsc97523	3	mdl-lcm	CV25 should be mapped to CV31, if we initiate the HopCounter Procedure.
CSCsd66997	3	mdl-mgcp	HSI Does not Modify H225 Transport Address when call is rerouted by PGW.
CSCsd65245	3	mdl-q761	Announcement didn't play when PGW get IAM with cot on previous cic.
CSCsd71917	3	mdl-q761	PGW sends a REL(CV=16) with Diagnostic in case of CPG w UnknownParameter.

Identifier	Severity	Component	Description
CSCsd71942	3	mdl-q761	PGW sends IAM out, on receipt of 'f' digit on the incoming SAM.
CSCsd65275	3	mdl-q767	PGW no response when got IAM with cot required on this cic in overlap on.
CSCsd35188	3	mdl-sip	PGW doesn't check the Request-URI scheme.
CSCsd36758	3	mdl-sip	Header "Supported" is missing on 200 OK response.
CSCsd36684	3	mdl-sip	1xx Response for an INVITE req doesn't have Record-Route headers.
CSCsd95192	3	design	PGW send BYE with incorrect route header after switch over.
CSCsd91067	6	mdl-lcm	enhance lcm state queue length to save more state transition.
CSCee59909	6	mdl-q761	French ISUP V3 (SPIROU) support Featurette.
CSCsd79625	6	mdl-q761	PGW adding a new CPC vaule(10) into danish ISUP variant.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsd37268	2	sim_ss7	Q721,*CLIPess=2,IAI no CLI,after receive GRQ,GSM without CLI,call drop.
CSCsd44933	3	mdl-ansi-ss7	After receiving the LNP query response, PGW still does Ltrigger analysis.
CSCsd29366	3	mdl-callctrl	call got dropped after PRI->EISUP->SIP send fax from SIP side.
CSCsd41888	3	mdl-ni2	PGW 9.5.2 signaling : Redirect cause is dropped when GTD enabled.
CSCsd52020	3	mdl-pri	shouldn't send Info on terminating side after receiving call-proceeding.
CSCsd71058	3	mdl-pri	accept 0 or 1 spare bit in location field and avoid internal err 18.
CSCsd71077	3	mdl-pri	PGW does not pass ISDN progress indicator 1.
CSCsd07765	3	mdl-q761	CNF with cause 99 has incorrect diagnostic field.
CSCsd07928	3	mdl-q761	CNF message with unrecognized parameter not transited after discard.
CSCsd53869	3	mdl-sip	PGW SIP 181 triggering wrong MDCX with 'M: sendrecv'.
CSCsd60636	3	mdl-sip	Blind transfer reinvite with no SDP PGW send back 200OK with no SDP.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee59909—French ISUP V3 (SPIROU) Support—adds support for the French ISUP V3 (SPIROU) protocol. This feature is available for Signaling and Call Control.
- CSCsd79625—PGW adding a new CPC vaule(10) into danish ISUP variant—a new value of 10 has been added to the Danish SS7 ISUP parameter. The value is used for International CPC.

CSCOnn026

Patch CSCOnn026 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd63679	2	engine	coredump during BCMOD/HLCMOD call after PGW upgrade from 9.5(2) to 9.6(1).
CSCsc81774	3	mdl-eisup	wrong dirvertion value sent out when DPNSS RNMOD via EISUP.
CSCsd53829	3	mdl-mgcp	PGW modify connection (MDCX) missing Q: field restricts out of band DTMF.
CSCsd58833	3	mdl-ni2	SIP->PRI PROGRESS MESSAGE IS MISSING MANDATORY PROGRESS INDICATOR.
CSCsd41878	3	mdl-q761	PGW doesn't pass over the COT indication 2 in IAM.
CSCsd47563	3	mdl-sip	CliSelectionForCodeOfPractice3 = 3 not work.
CSCsa98765	6	mdl-cdr	IOS DSP Stats in CDR (K-Factor) Feature.
CSCsb97983	6	mdl-sip	PGW 2200 SIP Overload Feature.
CSCsd57002	6	mdl-sip	PGW: give more flexibility to the mapping with InhibitSipFromMapping.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsc76201	2	mdl-eisup	SIP T.38 fall back to Pass-Through and Voice do not work for EISUP call.
CSCsd34987	2	mdl-sip	SIP to ISUP: P-asserted ID privacy tag not mapped correctly.
CSCsc81233	3	engdoc	4081 tag in 1040 release message on CDR record is wrong.
CSCsc90720	3	engine	PGW opens audio path when it receives a DISCONNECT with PI=8.
CSCsc62129	3	mdl-callctrl	Incorrect SDP sent in CRCX for hairpin call with COT on both call legs.
CSCsc96887	3	mdl-callctrl	SIP to PRI call using G729, after T38 fax, back to voice, call get drop.

Identifier	Severity	Component	Description
CSCsd32939	3	mdl-callctrl	After INAP Query, the analysis loses previous BMODDIG result type.
CSCsb55654	3	mdl-cdr	No value for CDR-Tag 4016 (Terminating Member) after CDB-1110 sw-over.
CSCsc79524	3	mdl-cdr	4081 tag in 1040 release message on CDR record is not right for fax.
CSCsc51209	3	mdl-in	PGW: INAP: Problem interaction analysis result for overlap send.
CSCsc82919	3	mdl-mgcp	PGW should always send G/rt toward the MGW side.
CSCsd44516	3	mdl-pri	doesn't send all digits out on terminating side when toverlap is on.
CSCsc77297	3	mdl-q761	Q761 OCC side receiving Segmentation CPG function wrong and missing.
CSCsd10185	3	mdl-q761	PGW (with Patch 42/49) discards TMR upon receiving invalid USI in IAM.
CSCsc91916	3	mdl-sip	InforXfrCapability in IAM USI is not passed to SIP GTD parm correctly.
CSCsd00196	3	mdl-sip	SIP/Consulted Call Transfer, PGW should send BYE to initial call leg.
CSCsc93037	3	mdl-sip	PGW should use GTD instead SIP Native if getting cause from REQUEST.
CSCsd20298	3	mdl-sip	when second URI in the BYE,route header is not enclosed in angle bracket.
CSCsd17091	3	mdl-sip	ISUP FACILITY maps to SIP INFO and call drops upon SIP 501 reply.
CSCsd49319	3	mdl-sip	SIP/Consulted Call Transfer, PGW should send CANCEL to the correct leg.
CSCsd24053	3	mdl-sip	No ANM sent because SIP response is received too soon.
CSCsd40629	6	engine	Allow PGW to derive Span when Explicit id not provided in ISDN message.
CSCeg39985	6	mdl	SIP to MGCP T.38 Fax Fallback to Pass-through and Voice.
CSCsc81117	6	mdl-sip	Support for SIP UPDATE (RFC3311) Phase 1.
CSCsc83636	6	mdl-sip	PGW: Omitting CgPN on receipt of From: Unavailable SIP header.
CSCsd03592	6	other	CLI Handling for Mexican ISUP Feature.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

- CSCsa98765—IOS DSP Stats in CDR (K-Factor)—enables the receipt of additional DSP Voice Quality statistics from the IOS media gateways (GWs using C5510 DSPs that run Santa Barbara dspware) in the MGCP DLCX message that will be captured in the PGW's 4098 and 4099 CDR tags.

  For more information, see IOS DSP Stats in CDR (K-Factor) in the New Features in This Release section of this document.

- CSCsb97983—PGW 2200 SIP Overload—supports measures to protect the PGW 2200 when it is in a SIP Overload situation. These measures include sending messages earlier in the call flow, responding to unexpected messages, and improved MML queries.

  For more information, see PGW 2200 SIP Overload in the New Features in This Release section of this document.

- CSCeg39985—SIP to MGCP T.38 Fax Fallback to Pass-through and Voice—provides support on the Cisco MGC 2200 of T.38 FAX calls in the event a T.38 fax setup on a SIP call fails due to lack of T.38 fax support on a SIP endpoint, such as the Cisco SIP Analog Telephone Adaptor (ATA). Further, after the fax call is completed, the MGC is able to fallback to a voice call, if the original call event was voice.

  For more information, see SIP to MGCP T.38 Fax Fallback to Pass-through and Voice in the New Features in This Release section of this document.

- CSCsc81117—Support for SIP UPDATE (RFC3311) Phase 1— adds SIP Update (RFC3311) Phase 1 to this software release.

  For more information, see Support for SIP Update (RFC3311) Phase 1 in the New Features in This Release section of this document.

- CSCsd03592—CLI Handling for Mexican ISUP—modifies the Calling Line Identifier (CLI) handling in Mexican ISUP to allow for call completion when the CLI is requested using Information Request (INR) and Information Message (INF), but is not provided by the originating switch.

  For more information, see CLI Handling for Mexican ISUP in the New Features in This Release section of this document.

CSCOnn025

Patch CSCOnn025 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd18891	2	engine	One way voice after RO, dpns-dpns call on hold, ccm calls in.
CSCsd17085	3	ioccisdnl3	PRI Backhaul Calls with a one octet Channel ID rejected by PGW.
CSCsd41825	3	mdl-analysis	ss7-to-sip302, call limiting orig active counter increase twice.
CSCsd43207	3	mdl-analysis	CL reject analysis cause orig active counter inactive.
CSCsc86772	3	mdl-dpnss	PGW Route Optimization for DPNSS Loop Back Calls Fails.
CSCsd11668	3	mdl-lcm	PGW H323 Call to Busy ISDN30 with early ACM Doesn't Play Announcement.
CSCsd25023	3	mdl-lcm	LCM disconnects call on COT test check.

Identifier	Severity	Component	Description
CSCsd23463	3	mdl-lcm	Call Limiting counters may be wrong after call re-route.
CSCsd13230	3	mdl-q761	Anumnormalise sets NOA to Int'l & Bnumnormalise does not work with CC 44.
CSCsd59343	4	mdl-sip	merged code of CSCsc52618 from 9.5 cause CSCsd57346.
CSCsd60064	2	iocceisup	No ring back tone--- ss7 call DPNSS through EISUP CFU to SS7.
CSCsd25023	3	mdl-lcm	LCM disconnects call on COT test check.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsc63850	2	mdl-sip	PGW goes to MCL=3 situation when SIP packet is received.
CSCsc51201	3	mdl-analysis	PGW: Calling number digit modification lost after return from INAP Query.
CSCsc74766	3	mdl-analysis	B#analysis in new dp fails if overdec is different in old and new dp.
CSCsc58856	3	mdl-eisup	Msg_Cot gets dropped on SS7->EISUP call scenario.
CSCsc45565	3	mdl-in	PGW 9.5(2)INAP, missing RDN and OCA parameters in outgoing IAM.
CSCsc52618	3	mdl-sip	sipto ss7 and ss7 redirect to sip will block.
CSCsc66604	3	mdl-sip	PGW 9.5(2) : call is not release after blind transfer.
CSCsc81713	3	mdl-sip	PGW do not respond ACK to 503 message.
CSCsc68104	3	mdl-sip	PGW should use GTD values instead of SIP Native for Rel/Location Cause.
CSCsc66577	3	mdl-sip	PGW 9.5(2) : 487 is not forwarded for bridge transfer.
CSCsc64221	6	mdl-ansi-ss7	No alerting for wrong SCCP Method Indicator in ACM BackwardCallIndicator change request.
CSCsc73299	6	mdl-ansi-ss7	No alerting for wrong SCCP Indicators in ACM Backward Call Indicators.
CSCsb30733	6	mdl-callctrl	Fax & Data Call Translation Feature.
CSCsc68358	6	mdl-lcm	PGW: Additional Russian ISUP CPC mapping for Analysis change request.
CSCsa62907	6	other	Support of DNS SRV and SIP Load-sharing Feature.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

- CSCsb30733—Fax & Data Call Translation—this feature translates ISUP calls to data/fax calls by changing the Calling Party Category, Bearer Capability, and High Layer Compatibility IEs in outgoing IAMs based on the dialed Called Party Number.

  For more information, see Fax and Data Call Translation in the New Features in This Release section of this document.

- CSCsa62907—Support of DNS SRV and SIP Load-sharing—this feature implements DNS SRV and SIP load-sharing in compliance with the RFC2782 specification. When the PGW 2200 is connected to multiple SIP entities that offer a service, it does loadsharing among multiple SIP entities when provisioned so in the DNS server. The PGW 2200 loadshares the initiation of SIP sessions (INVITE messages) between these entities. The entities can be SIP Proxy servers and/or SIP Back to Back User Agents.

  For more information, see Support of DNS SRV and SIP Load-Sharing in the New Features in This Release section of this document.

CSCOnn024

Patch CSCOnn024 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc53606	3	mdl-dpnss	number still show up even if number restricted for DPNSS to CCM call.
CSCsc81911	3	mdl-eisup	QSIG CFU across EISUP could not work when Feature transparency enabled.
CSCsc70762	3	mdl-lcm	SIP to SS7 call PGW sent RemoteHold CPG upon Rec Session Renewal INVITE.
CSCsc87295	3	mdl-lcm	CSCeg67066 conflict with CSCsc13401.
CSCsd02820	3	mdl-pri	QSIG: CustomerVPNOnNetTblNum 7 for OCC could not work.
CSCsc41806	3	mdl-q761	PGW Missing support for NOA 112, 113, 114 in DK ISUP.
CSCsd07089	3	mdl-q761	CLI Restriction not working for SIP calls.
CSCsc83481	3	mdl-sip	PGW sends BYE before 200OK(INVITE) has been ACKed.
CSCsd25793	3	mdl-sip	PGW ITU-ISUP Release Code 25 incorrectly maps to SIP message 483.
CSCsd07138	3	toolkit	simWriter fails to read dialplan base table.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsc35318	3	ioccisdnl3	PGW releases call due to mismatched call state for ETS_300_102.
CSCsc52959	3	ioccisdnl3	PGW ISDN Network Call States are inversed for incoming/outgoing.

Identifier	Severity	Component	Description
CSCsc27775	3	mdl-analysis	E911 release message with retry_action map to trkgrpadv is not occurring.
CSCsc28278	3	mdl-analysis	E911 release cause value are not map correctly if set is not define.
CSCsc37449	3	mdl-sip	PGW : 9.5.2 gs039/p032 not ack the 487 SIP response message.
CSCsa76563	6	mdl-in	IN636108: PGW releases incoming call when Continue message received.
CSCeg67066	6	mdl-sip	Multiple IP Addresses in SIP Contact Header Feature.
CSCsb21289	6	mdl-sip	PRACK not supported in Proxy mode Neurolink.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn023

Patch CSCOnn023 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd14141	2	mdl-dpnss	Call failures on Dx to Dx calls on VPCS.
CSCsd16926	3	mdl-callctrl	Call fails after signalling link bouncing when trkgrp has call limiting.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn022

Patch CSCOnn022 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsd09153	3	ioccxgcp	PGW T.38 Fax issue with 9.6.1.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn021a

Patch CSCOnn021a resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsd14141	2	mdl-dpnss	Call failures on Dx to Dx calls on VPCS.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn021

Patch CSCOnn021 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsd07297	2	flovr	PGW - High CPU and MCL=3 on failover with large amount of DPNSS TRKS.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn020

Patch CSCOnn020 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc71834	2	mdl-sip	SIP to ISUP: P-asserted ID privacy tag not mapped correctly.
CSCsc71842	2	mdl-sip	Incorrect address in SIP header if restricted APRI received from ISUP.
CSCsc91881	3	mdl-analysis	PGW ignores last received RLC if mid-announcement is configured.
CSCsc47661	3	mdl-dpnss	NIM with textual display is not relayed in DPNSS to DPNSS overEISUP.
CSCsc80563	3	mdl-dpnss	Update Call Context with a new REDIR enum for DVG.
CSCsc86289	3	mdl-eisup	Msg_Cot gets dropped on SS7->EISUP call scenario.
CSCsc84605	3	mdl-lcm	PGW 9.6 - SIP One way voice on Call Back Unconditional.

Identifier	Severity	Component	Description
CSCsc83766	3	mdl-q761	PGW SIP Originated Call Results in Multiple Generic Numbers in ISUP IAM.
CSCsc49910	3	mdl-sip	UK-ISUP PN pref indicator not acted on in ISUP-SIP call.
CSCsc79327	3	mdl-sip	Repeated INVITE causes 409 Conflict response.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn019

Patch CSCOnn019 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc44758	3	mdl-analysis	RTRN_START_ANAL Returns to A number Analysis instead of B number analysis.
CSCsc51004	3	mdl-dpnss	dpnss and QSIG call diversion reason map error toward DPNSS.
CSCsc39806	3	mdl-eisup	Charge Number in ANSI SS7 IAM message can't transparency over EISUP.
CSCsc42236	3	mdl-lcm	BCI Parameters on ACM/CON for ISUP to SIP Interworking Calls.
CSCsc60579	3	mdl-lcm	PGW - IP Phone Xfer to another PSTN Phone Holds Up Call.
CSCsc46477	3	mdl-mgcp	PGW does not wait for mgcp transaction to finish.
CSCsc42949	3	mdl-q761	T3: SIP-ISUP: Supplementary Services "TP", timer T2 should not started.
CSCsc66530	3	mdl-sip	PGW 9.5(2) No ringback heard on ISUP->EISUP->SIP overlap sending call.
CSCsc57348	4	mdl-lcm	LCM merge error.
CSCsc73290	3	mdl-dpnss	Duplicate DPNSS messages produced on PGW.
CSCsc77032	3	mdl-dpnss	PGW No support for DPNSS string *32 (DIV-BY).

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn018

Patch CSCOnn018 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc35063	3	mdl-analysis	Change Behavior of CLI_NUMBER_LENGTH result type.
CSCsc43166	3	mdl-analysis	Unable to Modify Empty Calling Party Number Element from PRI Backhaul.
CSCsc30927	3	mdl-cdr	After failover 1040CDB for call release is not written for eisup to dpns.
CSCsc34834	3	mdl-dpnss	No text IE when relay NAM/CCM in FeatureTransparencyDisable scenario.
CSCsc38814	3	mdl-dpnss	DPNSS: ConnectedName display interworking with QSIG could not work.
CSCsb85294	3	mdl-lcm	SS7 to SIP call is released when COT is performed on the circuit.
CSCsc34030	3	mdl-lcm	SIP -> ISUP Call requires the IAM to have Satellite Indicator set to 1.
CSCsc41699	3	mdl-q767	PGW fail to send out Q767 IAM if cgpnForceIncomplete is set to "1".
CSCsc33952	3	mdl-sip	SIP -> ISUP Call on Hold is released after 5 minutes.
CSCsc44719	4	sim_sip	regression script from sip to isup need to be changed.
CSCsa75611	6	mdl-analysis	Dial Plan Longest Match Feature.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb27709	2	mdl-q761	Wrong BlockType in CGB was sent when GRS in involved.
CSCsb64679	3	ioccc7	PGW 9.4(1) : reset-cic changes cic blocked by far end to idle state.
CSCsb00298	3	ioccsip	100 Trying should not have To TAG.
CSCsc03695	3	ioccsip	PGW does not preserve original CdPN/cgPN NOA with SIP/GTD change request.
CSCsc16963	3	mdl-analysis	PGW: INAP call across the advanced screening feature failed.
CSCsc07861	3	mdl-callctrl	G/rt should not be inserted on local looped calls.
CSCsc29695	3	mdl-cdr	Tag 3017/2017 store incorrect Ingress RDN NOA for SIP originated calls.
CSCsc21490	3	mdl-in	PGW : TCAP timer never get reset.
CSCsc27707	3	mdl-mgcp	(e:on) and Codec Preference (a:) included in MGCP hairpin message.

Identifier	Severity	Component	Description
CSCsb97281	3	mdl-pri	Incorrect cause value Nr. 31 inside STATUS message.
CSCsb01592	3	mdl-q761	No mapping Call progress 183 SIP to Q761.
CSCsb22427	3	mdl-q761	BCI indicator parameters not transparently passed for Q761_BASE / JAPAN.
CSCsc20286	3	mdl-q767	PGW should not drop first RELEASE from other side in case of collision.
CSCsc16997	3	mdl-sip	PGW : Incoming SIP 480, the MGC send wrong inap report to the IN.
CSCsb28289	6	engine	SIP OPTIONS method outside dialog for 9.4(1).
CSCsa82848	6	mdl-q767	Improper Forward Call Indicator in Brazil ISUP change request.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsa75611—Dial Plan Longest Match—This feature provides support for using the longest match in a dial plan even when a new dial plan matches a shorter digit string. Previously, with various result types, like ROUTE, CAUSE, ANNOUNCEMENT, the dial plan changeover is forced, and so the longest match is ignored. With the introduction of the new Dial Plan Longest Match feature, the PGW 2200 uses the longest dial plan match to select the best result type. Consequently, it will not jump to a new dial plan if there is another terminal result that has a potentially longer match.

  For more information, see Dial Plan Longest Match in the New Features in This Release section of this document.

CSCOnn017

Patch CSCOnn017 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsc48111	6	mdl-dpnss	PGW Call to 'personal No.' to a VM Server result in redirect 154 not 37F.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn016

Patch CSCOnn016 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc21498	3	mdl-analysis	Incorrect number as a result of merge from 9.5 to 9.6.
CSCsc12405	3	mdl-dpnss	PGW No Calling Name Display for DPNSS-DPNSS Transparent Calls.
CSCsc28924	3	mdl-dpnss	DPNSS: PGW doesn't send Called Name back to the caller.
CSCsc25880	3	mdl-dpnss	PGW Call Failing to DPNSS Personal numbers - RDNIS.
CSCsb94453	3	mdl-pri	QSIG: Wrong tag value definition for SSCT invoke.
CSCsb78512	3	mdl-sip	PGW send 422(Session Interval Too Small) with GTD parm REL.
CSCsc01987	4	sim_sip	adding SIP RPID/PAID SIM files into regression.
CSCsc13401	6	mdl-sip	PGW SIP 302 Redirect Not Correctly Supported Change Request.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn015

Patch CSCOnn015 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb65884	3	mdl-mgcp	Duplicate COT request in MGCP message.
CSCsb81794	6	mdl-lcm	SIP and ISUP Interworking for Call Hold.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb01597	3	mdl-sip	PGW failed to release sip call when no calling# in INVITE From field.
CSCsb67600	3	mdl-sip	Proxy SIP Refer call.
CSCsb68508	3	mdl-lcm	PGW : MGCP 1.0, DTMF package:D/[0-9#*A-D] instead of R: D/[0-9*#].
CSCsb75381	3	mdl-mgcp	PGW does not send SDP in the MDCX when receives re-invite.
CSCsb77207	3	protocol	Missing ESRK in the CHGN.

Identifier	Severity	Component	Description
CSCsb78670	3	protocol	In-correct bit mapping with E911 SR (CBN and ESRD Delivery).
CSCsb86333	3	mdl-analysis	E911 call that enter cause analysis are not re-routed.
CSCsa90421	3	mdl-q761	Wrong Q761SG release cause (102) upon T6 expiry.
CSCef91233	3	mdl-q761	Ghost call generated.
CSCsa96633	3	mdl-q761	BCI for HK is not working properly.
CSCsa97294	3	mdl-q761	Duplicate block of code in q761.mdl.
CSCsb09408	6	mdl-lcm	E911 SR Mapping Table.
CSCsa62910	6	other	Support for GTD and Derived FCI/BCI Interworking on Japan ISUP.
CSCee65340	6	protocol	GTD and FCI/BCI support for BTNUP ISUP.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn014

Patch CSCOnn014 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee82966	3	mdl-sip	SIP:Incorrect ROUTE format in ACK message.
CSCsb85802	4	mdl-analysis	GA always set A_CC_OrigCDNum to NEW when redirect.
CSCsa73325	6	mdl-sip	NL:PGW must not send 2nd rel100 until 1st is ACKed.
CSCsb85790	3	mdl-dpnss	DPNSS will be only allowed to redirect 4 times when the MAXRedirection=5.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn013

Patch CSCOnn013 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa79810	3	mdl-sip	NL: PGW should set NOC value to 0 when COT performed on previous link.
CSCsb28115	3	mdl-lcm	DCE: Call Back Call Set-up from PBX to CCM causes booked party to ring.
CSCsb29133	3	mdl-eisup	DCE: EST result is not right if IP phone has callforward all or no reply.
CSCsb30000	3	mdl-sip	NL:PGW doesn't always send PRACK to 183 requires 100rel.
CSCsb32257	3	mdl-eisup	DCE: Extension status busy and callwaiting can not pass across EISUP.
CSCsb33540	3	mdl-eisup	DCE: MWI call ring the CCM IP phone when B_NBR_MOD_MWI not configured.
CSCsb33551	3	mdl-dpnss	DCE: PGW does not support ISRM with CSUD and ENQ.
CSCsb35833	3	mdl-eisup	EISUP Property InhibitOutgoingCallingNameDisplay does not take effect.
CSCsb37887	3	mdl-cdr	CDE 4221 is missing in CDB 1110 for the call back service virtual call.
CSCsb53761	3	mdl-sip	SIP-T INVITE changes to SIP INVITE when PGW receives 422 ERROR.
CSCsb59630	3	mdl-ansi-ss7	ANSI ISUP Timer T34's value differs from GR246CORE.
CSCsb60056	3	mdl-sip	PGW doesn't pass some cause value in GTD to SS7.
CSCsb65956	3	mdl-pri	QSIG: Connected name mapping error between DPNSS and QSIG.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn012

Patch CSCOnn012 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb65219	2	mdl-callctrl	T38 Fax Reject is sent whenever a HSI fax call is made.
CSCsb42015	3	mdl-callcontext	QSIG:call release procedure is different between normal and switchover.
CSCsb33680	3	mdl-q761	UK CLI COP feature working incorrectly when NFCI CBI=0 ss7pgw.
CSCsa79810	3	mdl-sip	NL: PGW should set NOC value to 0 when COT performed on previous link Neurolink.
CSCsb22166	3	mdl-sip	PGW shouldn't put GTD information in 100Trying Neurolink.
CSCsb31911	3	mdl-sip	PGW does not check screening data in GTD message Neurolink.
CSCsa65742	3	mdl-sip	NL: PGW doesn't pass along Location Value in SIP-GTD Release messages Neurolink.
CSCsb35133	3	mdl-sip	PGW puts incorrect GTD information in BYE Neurolink.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb23897	6	ioccsip	Update SIP To and From Header conform to RFC 3261 tag-param definition change request.
CSCsa75634	6	mdl-analysis	Increase AoC per day tarriff ranges Feature.
CSCeg33908	6	mdl-in	Russian INAP Support feature.
CSCsb07919	6	mdl-lcm	AOC over PRI tariff based on call duration Feature.
CSCsb13048	6	mdl-lcm	PGW: Specific Russian ISUP CPC mapping for Analysis change request.
CSCsb08374	6	mdl-q767	Need support for TNS in Q767 RUSS v-sol.
CSCeh01785	6	mdl-sip	PGW should reject a re-INVITE for an unsupported SIP-H323 call flow v-sol feature.
CSCsa84411	6	other	Support for GTD and Derived FCI/BCI Interworking on HK and ANSI 92 feature.
CSCsa86282	6	other	Improve overall PGW performance.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn011

Patch CSCOnn011 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb03065	3	dumper	CDR sequence number reset to 0.
CSCsb28329	3	ioccc7	PGW Code of Practice 3 - GN is overwritten when Screen ind = N/A.
CSCsb32328	3	mdl-lcm	No Ring tone on PSTN transfer call.
CSCsb32363	3	mdl-lcm	Call PARK transmission problem.
CSCsa69970	3	mdl-sip	NL:PGW does not map GTD REL CAI value correctly in Call Forwarding Case.
CSCsb02942	3	mdl-sip	NL: PGW doesn't map NOA received in SIP GTD correctly to SS7 Neurolink.
CSCsb06671	3	mdl-sip	NL:PGW does not pass through the CAI value in GTD to ISUP Neurolink.
CSCsa65742	3	mdl-sip	NL: PGW doesn't pass along Location Value in SIP-GTD Release messages Neurolink.
CSCsb22166	3	mdl-sip	PGW shouldn't put GTD information in 100Trying Neurolink.
CSCsb31958	3	mdl-sip	PGW doesn't pass CPG to SS7 when CFU encounter CW Neurolink.
CSCsb24401	3	mdl-sip	PGW sends 400 to Correct INFO message Neurolink.
CSCsb19574	4	engdoc	Value specified for EXTNODE, TYPE invalid in EDCS-261735.
CSCee46489	6	mdl-callctrl	Fax call will fail if Route Optimization is performed prior to setup.
CSCsb13297	6	mdl-sip	NL: GTD Attachment should be removed from CANCEL Neurolink.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn010

Patch CSCOnn010 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb01506	2	mdl-pri	speech path is not connected when announcement is configured for Qsig.
CSCsa65931	2	mdl-sip	NL: PGW release the call when BTS endpoint puts call on hold.
CSCsa75576	2	mdl-sip	NL: Engine heartbeat timeout when a SIP call access DB or to a BLK CIC.
CSCed08159	3	mdl-dpnss	PGW should redirect calls when requested by terminating PBX.
CSCsa81794	3	mdl-lcm	connected name/number restriction happens after answer only.
CSCsb01450	3	mdl-lcm	Hung call when Announcement is configured with multiple cause values.
CSCsb19534	3	mdl-lcm	DPNSS Feature Transparency across EISUP doesn't work.
CSCsa63712	3	mdl-q761	NL: PGW doesn't decode GTD parameters it receives in the INVITE message.
CSCsa72160	3	mdl-q761	NL:PGW doesn't map GNO correctly into/from SIP GTD.
CSCsa64004	3	mdl-sip	NL: When call is CANCELLED from BTS, PGW sends 405 Method Not Allowed.
CSCsa65742	3	mdl-sip	NL: PGW doesn't pass along Location Value in SIP-GTD Release messages.
CSCsa65942	3	mdl-sip	NL: PGW does not pass EVI information transparently.
CSCsa66828	3	mdl-sip	NL:PGW doesn't send CPG HOLD/RETRIEVE before/after ANM in SIP-GTD.
CSCsa67490	3	mdl-sip	NL: PGW should remove the limitation for empty quote in From field.
CSCsa68009	3	mdl-sip	NL:After sw-over, held call is released due to PGW sends incorrect 200OK.
CSCsa68197	3	mdl-sip	NL:Ring back tone when call is made from PGW to BTS.
CSCsa68237	3	mdl-sip	NL:PGW does not pass EVI in ACM for CFU call from BTS.
CSCsa68739	3	mdl-sip	NL: PGW doesn't pass along EVI in CPG for CFNA case.
CSCsa69226	3	mdl-sip	NL: PGW doesn't pass on OCN, RGN, etc parameter in the IAM from BTS.
CSCsa69330	3	mdl-sip	NL: CFNA after sw-over, PGW puts invalid tag number in BYE.
CSCsa69970	3	mdl-sip	NL:PGW does not map GTD REL CAI value correctly in Call Forwarding Case.

Identifier	Severity	Component	Description
CSCsa70757	3	mdl-sip	NL:PGW does not pass CPG w/ Conference Established to BTS through SIP/GTD.
CSCsa70995	3	mdl-sip	NL:PGW create incorrect INVITE/GTD when receiving IAM with redirect info.
CSCsa99855	3	mdl-sip	NL: PGW doesn't resend all the information for 180 and 200.
CSCsa90175	3	mdl-sip	Incorrect mapping of release cause code on SIP side.
CSCsa79810	3	mdl-sip	NL: PGW should set NOC value to "0" when COT performed on previous link.
CSCsa72116	3	mdl-sip	NL:PGW does not send RNN received in CPG to SIP GTD.
CSCsa73282	3	mdl-sip	NL:PGW does not pass EVI, CDI in CPG to 18x SIP GTD message.
CSCsa72449	3	mdl-sip	NL: PGW sends mismatched release cause location to SS7 and SIP.
CSCsa72103	3	mdl-sip	NL:PGW does not pass RGN received in IAM to SIP GTD.
CSCsa72131	3	mdl-sip	NL:PGW sends additional EVI and RNN to SIP GTD.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn009

Patch CSCOnn009 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsb04909	3	mdl-lcm	terminating resources is used while announcement.
CSCsb09414	3	mdl-q761	SIP CLI unavailable when interworking to ISUPV3_UK.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn008

The following features were propagated into this release from release 9.4(1):

Identifier	Severity	Component	Description
CSCef74928	6	gtd	Q767_SINGAPORE needs to support GTD FDC for CGN and CPC.
CSCeg80870	6	ioccm3ua	Support for ITP Signaling GW with Distributed MTP3.

The following features were propagated into this release from release 9.5(2):

Identifier	Severity	Component	Description
CSCeg61238	6	mdl-lcm	A-Number Mods triggered by CLIP/CLIR .
CSCsa83579	6	ioccm3ua	Support for ITP Signaling GW with Distributed MTP3.

Patch CSCOnn008 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef27719	2	mdl-dpnss	RO:OrigMaster-NAM is not sent for indirectly connected SS7 calls.
CSCsb01194	2	mdl-lcm	Announcement is not working when call is released from OCC.
CSCsa97226	2	mdl-mgcp	VXSM Hairpin call with nt:LOCAL.
CSCee89793	3	mdl-cdr	RO:new CDR tags are not populated.
CSCef26455	3	mdl-lcm	RO:PGW is not sending ROP-CON for indirectly connected SS7 calls.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCef74928—Q767_SINGAPORE needs to support GTD FDC for CGN and CPC—This feature implements the following:
  - The PGW now uses the GTD FDC parameter for out-of-range fields for the CPC and CGN parameters in Q767_SINGAPORE.
  - The PGW now implements a GTD override for CAI.loc (cause location) to override the NI2 > SS7 mapping.
- CSCeg80870—Support for ITP Signaling GW with Distributed MTP3 Feature—this feature adds support for the following configurations:
  - Mated pair of ITPs with a single OPC in front of a single PGW node with the same OPC (Distributed MTP3)
  - Mated pair of ITPs with a single OPC in front of multiple PGW nodes with the same OPC (Point Code Consolidation)

- CSCeg61238—A-Number Mods triggered by CLIP/CLIR Feature—This feature introduces the ability to modify the A-number based on the Presentation Indicator in the Initial Address Message (IAM) message or its equivalent. In this feature, A-numbers encountering this result in analysis are modified with a user-defined prefix when the value of the stored presentation restriction data indicates that the number is restricted or unavailable. If this is not the case, the A-number is not modified and analysis continues.

CSCOnn007

The following feature/fix was propagated into this release:

Identifier	Severity	Component	Description
CSCeg89855	6	provision	VXSM support.
CSCeg39436	2	iocm	Dyn prov of mgcp ver is not working.

Patch CSCOnn007 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg45913	2	mdl-callctrl	MGCPsc, on caller release call is not cleared on net5 switch.
CSCuk55502	2	mdl-in	No cdr for agent that does not answer nv32e.
CSCsa61208	3	mdl-analysis	SCREENING resulttype dw3 and dw4 need opening to bdigtree.
CSCsa72057	3	mdl-callctrl	No Ringback when Call is Forwarded on no Answer.
CSCeg45419	3	mdl-cdr	CDE 4049 is the wrong length in the 1080CDB Feature.
CSCeg45423	3	mdl-cdr	4050 CDE in the wrong length in the 1080 CDB.
CSCsa81788	3	mdl-dpnss	Name from Siemans PBX is incorrect.
CSCuk54896	3	mdl-in	IPCC INAP functionality needs sync comparing to 9.5 release.
CSCuk48249	3	mdl-pri	QSIG:PBX clears call on receipt of PROGRESS + Cause I.E.
CSCsa85624	3	mdl-sip	PGW 9.6 - not sending SIP invite to second IP address.
CSCsa74109	3	mdl-tools	MDL dpnss regression test failed.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg89855—VXSM support—this feature provides interoperability between the MGC8850 and the PGW 2200 regarding the SIP interface as part of the VXSM 1.5MR project.
- CSCeg39436—Dyn prov of mgcp ver is not working—The new mgcp version property is picked up after editing the iplink. Editing the iplink causes sigChanDev.dat or sigChanDevIp.dat to change and forces the ioChanMgr to reload properties.dat and download to the MGCP IOCC.

For more information, see Dynamic Provisioning of MGCP Version Now Supported in the Known Issues and Operational Recommendations section of this document.

CSCOnn006

Patch CSCOnn006 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCuk55491	2	mdl-cdr	Wrong number in cdr record for calls to agent no-answer.
CSCuk54948	2	mdl-lcm	SS7 - DPNSS CA controlled T.38 Fax call fails.
CSCuk56099	2	mdl-tools	Translation Verification Tool fails to locate working egress trnkgrp.
CSCeb53557	3	mdl-callctrl	LI:Inconsistent call flow for SS7 and PRI call.
CSCee89793	3	mdl-cdr	RO:new CDR tags are not populated.
CSCuk49337	3	mdl-eisup	NV3. EISUP includes F (end of digits) in the A number.
CSCef45291	3	mdl-lcm	CL:MDL fails to decrement the counter in a reattempt scenario.
CSCuk56143	3	mdl-q761	PGW sends ACM with charge for local announcements.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn005

The following feature was propagated into this release:

Identifier	Severity	Component	Description
CSCuk55148	3	mdl-in	wrong inservice.dat file in installation.

Patch CSCOnn005 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCuk55139	1	mdl-eisup	NV3. One way transmission on calls flows to H-IPCC via two PGW.
CSCuk54948	2	mdl-lcm	SS7 - DPNSS CA controlled T.38 Fax call fails.
CSCef13918	3	mdl-analysis	Incorrect Diversion Number in INVITE after blind transfer.
CSCeg33079	3	mdl-callctrl	IPCC Call is not cleared if incoming PRI sw-type is net5.
CSCed34371	3	mdl-qbe	No alarm generated for missing QBE trunk group in rttrnk.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn004

The following feature was propagated into this release:

Identifier	Severity	Component	Description
CSCeg26781	2	mdl-dpnss	Incoming overlap calls to DPNSS may timeout.

Patch CSCOnn004 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg18223	2	mdl-callctrl	IPCC After oNoAnswer event PGW ignores RRB-CONnect from ICM.
CSCee73141	3	mdl-sip	PGW does not send Notify to SIP when receives Out-of-Band DTMF signal.
CSCeg03966	3	mdl-sip	PGW Needs to support MWI from SIP to H323 direct for IPUnity interop.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn003

The following feature was propagated into this release:

Identifier	Severity	Component	Description
CSCee54208	6	other	Call Agent Controlled SIP T.38 Fax Relay SIP <-> H323 feature.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee54028—Call Agent Controlled SIP T.38 Fax Relay SIP<-> H323 Feature— the PGW 2200 to support call agent controlled T.38 fax relay between SIP and other networks, which includes ISUP, ISDN, and H323.

For more information, se Call Agent Controlled SIP T.38 Fax Relay in the New Features in This Release section of this document.

CSCOnn002

Patch CSCOnn002 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCuk52985	2	mdl-pri	NV3 QSIG PRI to DPNSS CFU to DPNSS fails in PGW.
CSCef55264	3	mdl-lcm	CL: Reattempt is not working for cause value 171.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOnn001

Patch CSCOnn001 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef12993	2	engine	IP-DPNSS-RNR-Unity Call is not checkpointed correctly.
CSCee67418	2	mdl-dpnss	RO should not invoke for blind transfer call.
CSCef27719	2	mdl-dpnss	RO:OrigMaster-NAM is not sent for indirectly connected SS7 calls.
CSCef17803	2	mdl-lcm	Local announcement s with cause codes do not work.
CSCee82966	2	mdl-sip	SIP:Incorrect ROUTE format in ACK message.
CSCee87816	3	mdl-analysis	RedirMax release before set value.
CSCee89302	3	mdl-analysis	OCN is missing when call is re-directed.
CSCed31176	3	mdl-callctrl	RO: second rop-r should be rejected.
CSCee62602	3	mdl-cdr	CDEs 4034 4035 4036 and 4037 are missing from 1010 and 1030 CDB.
CSCef26455	3	mdl-lcm	RO:PGW is not sending ROP-CON for indirectly connected SS7 calls.
CSCee73141	3	mdl-sip	PGW does not send Notify to SIP when receives Out-of-Band DTMF signal.
CSCee87988	3	mdl-sip	CL:wrong release cause is sent to SIP side when CL is reached.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs060

Patch CSCOgs060 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCta48982	2	replicator	Standby PGW reloads when replicator link is unstable

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs059

Patch CSCOgs059 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsz22964	3	ioccqbe	SOAP link disconnection will cause huge amount of Error message.
CSCsz60410	3	ioccsip	SIP process coredump due to race condition.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs058

Patch CSCOgs058 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsu01828	3	iocm	961S55:master IOCM stuck oos after switch over.
CSCsv00791	6	xe	measMgr process is busy in poll loop sometimes.
CSCsw30482	6	enhancement	rtrv-virt-cic and troubleshooting for virtual dpnss cic.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs057

Patch CSCOgs057 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsw29123	2	engine	9.6(1) S56 Engine core in setupGlareCall.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs056

Patch CSCOgs056 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsv35829	2	engine	Hung Proc in map result in call failing.
CSCsv48015	2	upgrade	PRI Tariff Table gets lost after migration.
CSCsv16270	3	sun	PGW switched over from active to standby and IUA core dumped.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs055

Patch CSCOgs055 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsq91261	2	performance	Multiple MGCP NOTIFY in short time cause memory leak.
CSCsr13628	2	iocm	9.6(1): standby iocm oos with IP recovery after network outage.
CSCsr93405	2	ioccc7	961S55: Standby is struck in OOS when provision from new.
CSCsq23822	3	ioccasn	961S53P53: unknown checkpoint Transition in iocc when PGW switch over.
CSCsq42504	3	dumper	9.6(1) CDR sequence number was changed unexpectedly.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs054

Patch CSCOgs054 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsq22044	3	replicator	100 trying sent to incorrect IP address occasionally, v-sol.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs053

Patch CSCOgs053 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsk50076	3	ioccsip	9.6(1)S48P49:SIP link and service cannot recover if SIP process crashed.
CSCso03846	3	engine	9.6(1)S51P52: engine coredump in standby PGW after change config-lib.
CSCso52329	3	engine	Engine cores dump in PGW 9.6(1).
CSCso70556	3	mdl-sip	9.6(1):The dnsMgr failed to resolve and use the source IP address, v-sol.
CSCso92275	6	mdl-analysis	RMODDIG result type enhancement for incoming Rdirecting number empty.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs052

Patch CSCOgs052 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCso24998	2	mdl-mgcp	Hairpin call fails caused by CRCX sent failure.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs051

Patch CSCOgs051 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsm21726	2	mdl-pri	PGW failover with engine core.
CSCsm75583	2	ioccsip	SIP IOCC enhancement for overload control.
CSCsl87374	3	ioccc7	Trillium: SS7 congestion not cleared correctly even if traffic is low, v-sol.
CSCsl94909	3	engine	9.6(1)S50P51:callim not work in SIP_IN trnkgrp.
CSCsm96856	3	mmdb	PGW prov-dply fails with TimesTen error message.
CSCso08593	3	ioccxgcp	Change the behavior of sending Notified Entity (N:) in CRCX.
CSCsm19749	6	provision	PGW sends C7 IAM with no Cgpn.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs050

Patch CSCOgs050 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsl17091	2	provision	Obsolete dial plan not deleted from standby PGW next to a provisioning.
CSCsl25640	2	ioccisdn13	Dual switchover - ISDNL3 Coredump when switchover happened.
CSCsl71696	2	mml	MML proving fail when import mml file.
CSCsk92194	3	ioccsip	PGW-SIP 9.6(1) will switch to next IP in the 5th retransmission, v-sol.
CSCsk96344	3	iocceisup	9.6(1) p49 s48 PGW cores on EISUP, v-sol.
CSCsl08607	3	iocm	PGW - crash after switch over.
CSCsl49898	3	sun	IUA cored due to provision, tac-repro.
CSCsl56512	3	mdl-cdr	PGW use wrong cause code when call limit reached.
CSCsj93144	4	design	961 S47P48: Q767 parameter stdigitforcdpn can be configured on Q761.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs049

Patch CSCOgs049 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsk60002	2	engine	PGW MCL Overload, Call Setup Delay & Call Processing Thread Suspension.
CSCsk88689	2	ioccm3ua	PGW crashed and failed over.
CSCsk35498	4	toolkit	CDR viewer should default to directory in the dmprSink.dat file, v-sol tac-repro.
CSCsk51733	6	mdl-lcm	Need option to remove Country Code from CgPN, GN-ACgPN, OCN, Redirecting, v-sol.
CSCsk86511	6	mml	Enhancement to mml command rtrv-callinfo.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs048

Patch CSCOgs048 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsk00277	3	iocceisup	Process EISUP has crashed.
CSCsj93526	3	provision	POM not operational on Active.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs047

Patch CSCOgs047 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsj73936	2		PGW prov-dply failed with unknown status.
CSCsj84046	2	mml	PGW error in post provisioning processing. Codecstring name must be 20, v-sol,
CSCsj87377	2	engine	VPCS2 flipping OOS // Standby Repeatable.
CSCsj91361	2	ioccc7	C7DPC can get out of congestion after being OOS, v-sol.
CSCsi90650	3	iocciua	PGW cannot connect with On board E1/T1 on GW 2811/3845 etc by DPNSS.

Identifier	Severity	Component	Description
CSCsj50692	3	engine	PGW 9.6(1) coredumped.
CSCsj67959	3	procm	POM down, cannot bring Standby up with pom.dataSync=true.
CSCsj83645	3	ioccc7	MSO refused error during sw-over.
CSCsj24853	6	mdl-q767	Enable configurable ST in called party number on Q767.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs046

Patch CSCOgs046 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsi93406	2	engine	Engine smartall core in CMG adapter.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs045

Patch CSCOgs045 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsi54819	2	ioccisdnl3	ISDNL3 Coredump when switchover happened.
CSCsh72544	3	engine	platform.log flooded when linexlate partly defined,v-sol.
CSCsi48345	3	ioccm3ua	M3UA coredump happens when starting M3UA signalling link on 9.6(1).
CSCsi83215	3	ioccxgcp	Free Buffer error on MGCP when customer upgrade latest patch P45.
CSCsi60065	5	mml	PGW faulty help:kill-call:, v-sol.
CSCsg92564	6	engine	PGW Preferred master operation for failover reversion.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs044

Patch CSCOgs044 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh20423	3	protocol	PGW treats NTFY messages as multiple digits when late sending ACK to GW.
CSCsh24260	3	iocm	ioChanMgr CoreDumps when start standby PGW.
CSCsh94732	3	ioccm3ua	PGW m3ua links cannot get up, configure 2 itp extnode each with 3 sgp.
CSCsi13168	3	mml	prov-add:DNSPARAM should prompt for MGC restart, v-sol.
CSCsi14068	3	mdl-sip	SIP call failing DNS lookup: no output in platform.log/MDL trace, v-sol.
CSCsi19051	3	snmp	snmp demon not running after first installation.
CSCsi47975	3	engine	Calls Hung on Standby PGW Box and Pushing PGW into Mem Addr MCL.
CSCsh78218	4	flovr	GEN_ERR_FOD_CXN_INIT_FAIL when only 1 interface configured.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs043

Patch CSCOgs043 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsi03010	3	sun	PGW switching and back because of IUA core, tac-repro.
CSCsi11633	3	sun	IUA core due to thread race condition, tac-repro.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs042

Patch CSCOgs042 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh21613	3	engine	Engine coredumps when start standby PGW then retrv-ne-health::callp.
CSCsh68926	3	ioccm3ua	PGW m3ua keeps coredumping when config 6 associations to the same ITP.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs041

Patch CSCOgs041 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh13297	3	other	The max number of ip interface on PGW is limited in 10.
CSCsh47778	3	iocceisup	EISUP Coredump When Shutting Down PGW.
CSCsh56059	3	provision	POM timeout - lost heartbeat - no curPeerPlatformState-PROV-DPLY fails.
CSCsh58227	3	toolkit	MGC_Toolkit cdrconvert broken for -follow, tac-repro.
CSCsh60755	3	engine	The PGW coredump when engine debug is set on.
CSCsh62270	3	engine	Port back from CSCsh42848 PGW Engine issue: Memory leak:, v-sol.
CSCsh65877	3	ioccisdnl3	Rudp log message conflict between eisup and isdnbsm.
CSCsh72487	3	provision	PROV-DPLY failed after upgrade to S40.
CSCsd73734	6	configlib	Enhance config-lib to automatically copy propSet.xml.dat.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs040

Patch CSCOgs040 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh02319	2	iocceisup	PGW EISUP link failure to carry traffic after receiving old packet.
CSCsg90137	3	engine	PGW core on UNKNOWN process.
CSCsh13705	3	design	Server with 2 network interfaces remains OOS after switchover.
CSCsh23286	3	mml	numan-dlt of Cause Analysis corrupt ANOA w/CSCOADRST1 CSCOADRST2 values, v-sol.
CSCsh27513	3	ioccc7	PGW might coredump under glare conditions.
CSCsh28186	3	iocceisup	PGW EISUP IPlnk stuck in OOS.
CSCsh43111	3	m3ua	Core dump when making inap calls.
CSCsh44860	3	engine	PGW 9.6(1) core dump / memory corruption in endpoint removing, v-sol.
CSCsh37944	4	toolkit	Upgrade cdr toolkit for CSCsg63364.
CSCsg92564	6	engine	PGW Preferred master operation for failover reversion.

Additional information:

See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs039

Patch CSCOgs039 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg84168	3	mml	Invalid switch trunk provision allowed.
CSCsg88854	3	flovr	Foverd core due to wrong inftNum.
CSCsg90839	3	mml	PGW - newly added CIC's remain OOS until first sw-over, v-sol.
CSCsh02225	3	provision	Prov-exp does not work when an existing config is re-used as target prov.
CSCsh05232	3	mdl-mgcp	MGCP core dumps for Showtime 9.6.1 S38P39 Rebulid1x.
CSCsg13879	4	ioccsip	Discarded 0 new INVITE messages in the last 30 minutes in platform.log.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs038

Patch CSCOgs038 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg85759	2	mdl-sip	No VIA field in SIP 100; Trying SIP Header.
CSCsf99207	3	ioccc7	When congestion, process SS7 put backhaul messages on the wrong queues.
CSCsg58075	3	toolkit	CDE 4232 4233 can't be found via CDRVIEW tool.
CSCsg60250	3	mml	PGW: implementing MML-Code / DB corrupted/inconsistent.
CSCsg72303	3	pkg	Plenty of .newfile generated under CONFIG_LIB/new/ and local.
CSCsg75845	3	provision	Standby PGW sync all provisions under CONFIG_LIB during the start up.
CSCsg86921	3	mml	Support 16 ss7 links per sessionset.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs037

Patch CSCOgs037 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg48235	3	other	Reconstruct diskmonitor's clean task.
CSCsg60164	3	mml	PGW long codec string can be configured but not deleted.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs036

Patch CSCOgs036 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg03582	2	engine	973EST:Engine core dump during dpnss to dpnss transfer to unity.
CSCsf19346	3	engine	Slave PGW always OOS.
CSCsg04735	3	install	Multiple occurrences of a same line in /etc/inittab.
CSCsg14760	3	mmlhelp	The tab help for prov-rtrv:sippath is not correct.
CSCsg22853	3	other	PGW diskmonitor process is deleting CDR files when threshold is reached.
CSCsg29071	3	engine	PGW 9.6(1) cored after receiving a message with invalid transaction ID.
CSCsg40385	3	iocm	PGW can not sw-over when the provisioning is new or only config sip.
CSCsg50047	3	pkg	9.6.1.S36P37, version-check has failed.
CSCsf95950	6	engine	Support for the endpoint name with four terms.

CSCOgs035

Patch CSCOgs035 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg08453	3	ioccsip	PGW core dumps if two virtual IPs receive packet simultaneously in heavy load.
CSCsf31811	6	sun-tools	Enhancement for coredump collection. (This is a featurette/change request.)

CSCOgs034

Patch CSCOgs034 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsg11901	2	configlib	Unexpected switchover when SS7 glare.

CSCOgs033

Patch CSCOgs033 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf01177	3	engine	foverd coredump on 9.6.1S31P33.
CSCsf17663	3	provision	PGW POM Message timeout.
CSCsf20838	3	ioccm3ua	m3ua coredump when stopping PGW.
CSCsf22085	3	alrmm	almM coredump on both side of PGW.
CSCsf26985	3	configlib	Special character like - in config name been removed when using save.
CSCsg00529	3	engine	PGW core when making glare call.
CSCsg08353	3	flovr	Urgent fix for ANC 93->96 upgrade.

CSCOgs032

Patch CSCOgs032 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf23483	2	m3ua	9.6(1) S32P24 m3ua continuous core dump.
CSCsf25385	2	iocciua	IUA coredump on 9.6(1) S32P34.
CSCse95977	3	engine	Checksum error when LI path added to PGW with no MGCP gateway.
CSCsf08846	3	mdl-sip	Gratuitous arp sent due to ethernet link flaps regardless of pgw status.
CSCsf20890	3	mdl-sip	PGW: Coredump on SIP for its call-id in abbreviation pattern (I).

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsa59971	3	m3ua	PGW doesn't initiate CVT testing when receives UPU with unknown cause.
CSCsa67716	3	alrmm	Replic ALM=PEER LINK A FAILURE does not clear automatically.
CSCsb04467	3	ioccsctp	Compiler Warnings in Sigtran Libraries.
CSCsb49472	3	mdl-cdr	Invalid CDR records when OOS a trunk.
CSCsb67247	3	mdl-q767	SAM measurement not present in Q.767 due to Incorrect string.
CSCsc20364	3	snmp	SNMP traps contain wrong component name after dynamic reconfig.
CSCsc66392	3	engine	PGW sudden switchover due to busy call clean up.

Identifier	Severity	Component	Description
CSCsd64628	3	ioccc7	Trillium issue ccpu00064020 C7 link congestion.
CSCsd66194	3	alrmm	Change default severity of all ISDN IP conn Fail from major to critical.
CSCsd73705	3	engine	PGW shows false CDR after switchover - need new code to diagnose problem, v-sol.
CSCsd76478	3	mml	the iplnk port/peerport should be prohibited to modify.
CSCsd89956	3	engine	PGW using To: field to send the Response to new Request after transfer.
CSCsd94308	3	ioccc7	SS7 core at snRtrDatInd with patch P47/s54.
CSCsd95154	3	mdl-q761	Provisioned ChargeAreaInformation is not used in the call ISUPV2_JAPAN.
CSCsd95159	3	mdl-q761	Provisioned CGBA2 parameter does not work.
CSCsd99942	3	mml	Incorrect duplicate entry for LINEXLATE when provisioning NOA conversion.
CSCse00872	3	mml	Help text for mml command rtrv-ss7-slt is wrong.
CSCse01443	3	provision	Prov-Cpy/Prov-EXp fails to complete with large number or rtlist config'd.
CSCse05581	3	engine	PGW core related to LNP.
CSCse06463	3	mdl-analysis	simWriter fails with: Invalid Parameter Range.
CSCse12574	3	mdl-sip	Gratuitous arp sent due to ethernet link flaps regardless of pgw status.
CSCse13603	3	ioccpriip	CICs stuck in the MATE UNAVAILABLE state clear only after reload of PGW.
CSCse16991	3	engine	PGW: Rel 9.6(1):During MML provisioning the engine core dump.
CSCse17006	3	engine	INAP ETC Call failed, after kill call, counter and rtrv-lics cannot show right.
CSCse18019	3	ioccc7	Porting code from 9.5(2) to 9.3(2) for PGW coredump on cmHashListDelete.
CSCse18162	3	engine	Coredump found when SysConnectDataAccess set to false.
CSCse19592	3	engine	Endless EFail messages from engine to mdl if ether link down.
CSCse20839	3	mdl-q761	need a new sigpath property to control “charge area information”.
CSCse22085	3	mml	mml core dump of 9.7 on Opteron platform.
CSCse40406	3	mdl-pri	Progress message not forwarded on EISUP side if received during Overlap, spvoice-bru-ddts.
CSCse42861	3	engine	Routing table information becomes corrupted when adding more trnkgrps.
CSCse44713	3	mdl-in	TCAP Into_analyzed USERID parameter needs to be mandatory in trigger.dat.

Identifier	Severity	Component	Description
CSCse64814	3	ioccm3ua	PGW: M3ua DPC state had not been updated to OOS and reported up layer.,v-sol.
CSCse66081	3	engine	Need to have ways to disable MCL calculations,v-sol.
CSCse74478	3	iocm	PGW needs to delete .sigChanDSS.dat entry when deleting IPROUTE, v-sol.
CSCse79979	3	mdl-lcm	PGW MGCP transient error when glare option 2/3 is used, v-sol.
CSCse80066	3	ioccc7	PGW in signalling mode sends maintenance CGB and Hardware CGU.
CSCse89059	3	mdl-mgcp	PGW does not properly populate SDP for SS7 -> EISUP fallback, v-sol.
CSCse37883	4	mdl-tools	The sip-sip MDL trace in 9.3(2) can not simprint in less.
CSCsc50364	6	mdl-q767	Need to send Alerting when ACM recvd no matter what the indication in BCI.
CSCsd80497	6	engine	need a new sigpath property for the digital analyze when get 302 msg.
CSCsd93624	6	design	Validate and support PRI Backup-D channel in Call Control Mode Featurette.
CSCse48839	6	mml	Generate a Warning message if there is a non-zero stPort value.
CSCse51145	6	other	Update check inventory program to recognize SunFire V440.
CSCse51175	6	performance	Update MGC start script regarding performance to recognize SunFire V440.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs031

Patch CSCOgs031 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse50367	3	measm	measMgr core on 9.6(1) S28P30 active side.
CSCse75665	3	engine	During high CPS, the heartbeat between ProcM and Engine may lost.
CSCse93406	3	engine	prov-dply issues when processing a large number of dial plans.
CSCse93467	3	engine	PGW stuck in loading dial plan and can not come up.
CSCse98372	3	ioccsip	SIP Security Enhancements in sip iocc.

Identifier	Severity	Component	Description
CSCsf07857	3	iocciua	Enhancement: make bri tcp keepalive configurable.
CSCsf11875	3	engine	Engine coredump when making 10cps call at thousands dial plan.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs030

Patch CSCOgs030 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse46573	2	engine	PGW engine core dumps on 9.6(1) S28P30.
CSCse02237	3	mdl-sip	PGW does not send 3261 compliant Branch-ID.
CSCse50748	3	mdl-ni2	PGW should try to unblock the CICs after IP flapping.
CSCse51918	3	engine	PGW race between destruct the rmgConfigManager and loadProperties.
CSCse74469	3	install	install,enable per-process setid core.
CSCse16699	6	mml	PGW: Enhancement on MML command prov-sync/prov-dply.
CSCse37673	6	mml	Enhancement MML command on rtrv-ne-health.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs029

Patch CSCOgs029 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse09346	6	mdl-sip	PGW should allow for Request and Supports 100rel be chosen separately.
CSCse28136	6	engine	Call limiting usability issues.
CSCse34668	6	engine	Call Limiting Enhancement by double check in engine.
CSCse47762	3	configlib	prov-sync failed when file CFG_yyy.zip exist in CONFIG_LIB folder.
CSCse57087	3	mml	rtrv-localabel:all:percent behavior strange for no-cac label 99999999.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs028

Patch CSCOgs028 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse23726	2	iocceisup	EISUP is going OOS in seldom manner.
CSCsd97436	3	design	mml command set-ctimgr:ctimgr-7845:foos failed.
CSCse33534	3	design	PGW send 100 trying incorrectly.
CSCse23658	3	engine	PGW 9.6.1 switches over and deletes dial plans.
CSCse37738	3	engine	Call Limiting label did not refresh in Glare environment.
CSCse22229	3	ioccisdnl3	tcpLnk still in IS after BRIGW break its communication to PGW.
CSCsd99795	6	mdl-sip	PGW does not allow SIP Display Name mapping.
CSCsd71264	6	other	DPNSS Feature Transparency Diversion enhancements.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsd99795—PGW Does Not Allow SIP Display Name Mapping—The InhibitSipFromMapping parameter was introduced to allow the mapping of SIP invite information to ISUP. For more information, see PGW Does Not Allow SIP Display Name Mapping in the New Features in This Release section of this document.
- CSCsd71264—DPNSS Feature Transparency Diversion Enhancements—this feature adds functionality that allows modification of DPNSS diversion digits when sent in the backward direction. This is useful when the PGW 2200 is used to interconnect PBXs with different or incompatible dial plans where the diversion digits must be modified to be compatible with the Calling Party's PBX.

CSCOgs027

Patch CSCOgs027 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse12353	3	engine	engine core --- running call limiting on SS7 trunk and doing RO calls.
CSCse01039	3	ioccisdnl3	PGW BRI-Backhaul TCP Connections hung.
CSCsd53839	3	provision	PROV-SYNC: timed-out error during transferring data files.

Identifier	Severity	Component	Description
CSCse10281	3	provision	PROV-SYNC fail due to mkdir fail.
CSCsc82440	4	install	Feature Branch Packaging include new SNMP binaries and startcia.sh.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs026

Patch CSCOgs026 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsd89196	3	ioccqbe	core dump in stand by PGW after made some change on ctimgr in active PGW.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsc28418	6	mdl-q767	Support of R-ISUP2000 Variant change request.
CSCsd03635	6	other	Support for Gateway Ring-back Tone Over MGCP Featurette.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- Support of R-ISUP2000 Variant— implements the ISUP-R-2000 variants to support Russian and other Commonwealth of Independent States (CIS) (former Soviet Union) users.
- Support for Gateway Ring-Back Tone Over MGCP—adds gateway ring-back tone over MGCP protocol support for MGCP controlled media gateway calls destined for PBXs that do not generate ring-back tones.

  This feature is not designed to handle MGCP to MGCP calls where the originating leg and terminating leg are on different PGW pairs (does not support calls transported over EISUP). The reference to EISUP is for EISUP—H323 only.

  For more information, see Support for Gateway Ring-Back Tone Over MGCP in the New Features in This Release section of this document.

CSCOgs025

Patch CSCOgs025 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc81342	2	ioccisdnl3	ISDN BRI core dump during 9.6.1 S17 P19 patch installation.
CSCsd49086	3	install	wrong CustomerVPNon/offnettblnum value after migrating to 9.6(1).
CSCsd69179	3	mml	set-association oos confirm can not be table for help.
CSCsd88898	3	provision	Prov-Cpy/Prov-EXp fails to complete with large number or rtlist config'd.
CSCsc69482	3	snmp	config-snmp tool not creating snmpd.cnf.backup.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsd52304	3	flovr	PGW 9.5(2) : Platform stay OOS until second cable is inserted.
CSCsd64449	3	ioccc7	Trillium issue ccpu00064020 C7 link congestion.
CSCsd44535	3	mml	PGW :Nbr of redun IP links using same port for same sign. can't exceed 2.
CSCsd47209	3	mml	S54P47:rtrv-rssn incorrectly when dynamically editing the REMOTESSN to 0.
CSCsd35855	3	mmlhelp	Help text for mml command rtrv-ss7-srt is wrong.
CSCsd81084	3	other	PGW remains stuck at /etc/rc3.d/S71startcia script after reboot.
CSCsd31517	3	provision	prov-add:trnkgrpprop allows GWDefaultcodecstring with spaces.
CSCsd42674	3	provision	MML help description needs separator between ranges (if >1 range).
CSCsd50625	3	provision	Rel 9.5(2) coredump on POM process for tftp_dataReceived().
CSCsd57900	3	pxelogger	9.5(2) S54/P47--Core Dump when doing ANSI TCAP regression test.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs024

Patch CSCOgs024 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd15763	3	iocm	Trillium issue ccpu00064020 C7 link congestion.
CSCsd44601	3	iocm	add eisup/rudp log to monitor fd fail.
CSCsd53839	3	provision	PROV-SYNC: timed-out error during transferring data files.
CSCsd81842	3	other	remove S71startcia packing line in g/s/024/prototype.
CSCsd80796	3	replicator	PGW 9.6 High CPU process load for replicator introduced by S18.
CSCsb97983	6	mdl-sip	PGW 2200 SIP Overload.
CSCsa98765	6	mdl-cdr	IOS DSP Stats in CDR (K-Factor) Featurette.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsd30835	1	ioccc7	PGW does not launch TCAP query if the remote SSN is set to 0.
CSCsc59340	2	other	STBY needs two CiscoMGC start commands to come up.
CSCsd09970	2	other	ISDNBRI coredump after setting interface hme1 down.
CSCsb95787	3	engine	PGW ceased to handle call after fail over.
CSCsc69326	3	engine	PGW sends SIP traffic with wrong interface after INT failover.
CSCsd45914	3	engine	Core dump found when receiving INVITE with GTD and SDP no CRLF.
CSCsc77498	3	flovr	multiple same virtual ip addresses produced when foverd process killed.
CSCsd13429	3	ioccc7	PGW coredump in 9.5(2) on cmHashListDelete.
CSCsd47312	3	ioccxgcp	MGCP IOCC trace buffer too small and string copy does not check size.
CSCsb55654	3	mdl-cdr	No value for CDR-Tag 4016 (Terminating Member) after CDB-1110 sw-over.
CSCsc76502	3	mdl-mgcp	PGW sometimes put same codec twice in the codec string.
CSCsd06325	3	mdl-sip	# sign in Via header, branch field causes CSPS to ignore the BYE message.
CSCsd10203	3	mdl-sip	PGW discard DNS SRV records with weight 0.
CSCsc20974	3	mdl-tools	trace file can't be got completely after call forward.
CSCsc84568	3	mml	mml test harnesses can not pass.

Identifier	Severity	Component	Description
CSCsd10088	3	other	when killed, procM not be awaken automatically, just after host reboot.
CSCsc93077	3	provision	Batch file provisioning needs performance improvement for routes files.
CSCsd40149	3	provision	S53P46:CLIPess =2 protocol EISUP missing on provision.
CSCsd29972	3	toolkit	simWriter fails to read dialplan base table.
CSCsd40629	6	engine	Allow PGW to derive Span when Explicit id not provided in ISDN message.
CSCeg39985	6	mdl	SIP to MGCP T.38 Fax Fallback to Pass-through and Voice.
CSCsc83636	6	mdl-sip	PGW: Omitting CgPN on receipt of From: Unavailable SIP header.
CSCsd01025	6	other	Sun Fire V210 / Netra 210 platform for MGC feature.
CSCsd03592	6	other	CLI Handling for Mexican ISUP Feature.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb97983—PGW 2200 SIP Overload—supports measures to protect the PGW 2200 when it is in a SIP Overload situation. These measures include sending messages earlier in the call flow, responding to unexpected messages, and improved MML queries.

  For more information, see PGW 2200 SIP Overload in the New Features in This Release section of this document.
- CSCeg39985—SIP to MGCP T.38 Fax Fallback to Pass-through and Voice—provides support on the Cisco MGC 2200 of T.38 FAX calls in the event a T.38 fax setup on a SIP call fails due to lack of T.38 fax support on a SIP endpoint, such as the Cisco SIP Analog Telephone Adaptor (ATA). Further, after the fax call is completed, the MGC is able to fallback to a voice call, if the original call event was voice.

  For more information, see SIP to MGCP T.38 Fax Fallback to Pass-through and Voice in the New Features in This Release section of this document.
- CSCsd03592—CLI Handling for Mexican ISUP—modifies the Calling Line Identifier (CLI) handling in Mexican ISUP to allow for call completion when the CLI is requested using Information Request (INR) and Information Message (INF), but is not provided by the originating switch.

  For more information, see CLI Handling for Mexican ISUP in the New Features in This Release section of this document.
- CSCsd01025—Sun Fire V210/Netra 210 platform for MGC— introduces the Sun Fire V210/Netra 210 platform support for the MGC application.
- CSCsa98765—IOS DSP Stats in CDR (K-Factor)—enables the receipt of additional DSP Voice Quality statistics from the IOS media gateways (GWs using C5510 DSPs that run Santa Barbara dspware) in the MGCP DLCX message that will be captured in the PGW's 4098 and 4099 CDR tags.

  For more information, see IOS DSP Stats in CDR (K-Factor) in the New Features in This Release section of this document.

CSCOgs023

Patch CSCOgs023 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc34759	2	snmp	snmpd.cnf is not same as snmpd.cnf.tmpl.
CSCsc90074	3	engine	PGW: Rel 9.6(1):During MML provisioning the engine core dump.
CSCsd40252	3	mdl-eisup	PGW :Nbr of redun IP links using same port for same sign. can't exceed 2.
CSCsd49104	3	mdl-sip	PGW discard DNS SRV records with weight 0.
CSCsc98517	3	mml	It will take a long time to show mml help for command in large provision.
CSCsd38803	3	mml	disable Fax & Data Call Translation for PGW in 9.6(1).
CSCsc28210	3	snmp	PGW: The config-snmp actually corrupts the 9.6(1) PGW snmpd.cnf file.
CSCsc69469	3	snmp	PGW does not stop if add comm-string with config-snmp.
CSCsc69472	3	snmp	config-snmp cannot add ReadWriteAll Comm String.
CSCsd20010	3	toolkit	simWriter ignores setting of analysisCapabilityLevel property.
CSCsd03879	3	upgrade	Add delete_replication.sh to 9.6 patch.
CSCsc46136	4	iocm	Errors printed on platform.log during stopping or switching over PGW.
CSCsd61025	3	ioccsip	PGW send message to 255.255.255.255 when cache do not have proxy addr.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsc81713	3	mdl-sip	PGW do not respond ACK to 503 message.
CSCsc34764	3	mml	IOS style help not autocompleting for help:<tab>.
CSCsc60846	3	other	chk_inv does not read specific hw patch files.
CSCsc70234	3	provision	PGW/VXSM in NFAS Mode. Calculation of [Sigchan+sigport] is incorrect.
CSCsc63629	3	toolkit	Toolkit Translation Verification Screen Hangs.
CSCsb28982	4	configlib	tab key doesn't work when execute mml command:prov-add:sippath.
CSCsb28989	4	configlib	mml command set-dest:all /set-c7lnk:all/set-dchan:all/ doesn't work.
CSCsc77446	4	mmlhelp	wrong mml help for siprttrnk:sipproxyport.
CSCsb30733	6	mdl-callctrl	Fax & Data Call Translation Feature.

Identifier	Severity	Component	Description
CSCsa62907	6	other	Support of DNS SRV and SIP Load-sharing Feature.
CSCsb53849	6	performance	I/O performance improvements for routeAnalysis.dat file.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb30733—Fax & Data Call Translation—this feature translates ISUP calls to data/fax calls by changing the Calling Party Category, Bearer Capability, and High Layer Compatibility IEs in outgoing IAMs based on the dialed Called Party Number.

  For more information, see Fax and Data Call Translation in the New Features in This Release section of this document.
- CSCsa62907—Support of DNS SRV and SIP Load-sharing—this feature implements DNS SRV and SIP load-sharing in compliance with the RFC2782 specification. When the PGW 2200 is connected to multiple SIP entities that offer a service, it does loadsharing among multiple SIP entities when provisioned so in the DNS server. The PGW 2200 loadshares the initiation of SIP sessions (INVITE messages) between these entities. The entities can be SIP Proxy servers and/or SIP Back to Back User Agents.

  For more information, see Support of DNS SRV and SIP Load-Sharing in the New Features in This Release section of this document.
- CSCsd38803—If HLCMOD or BCMOD related dial plan provisioning is done in release 9.5(2), when the PGW is upgraded to release 9.6(1) patches CSCOgs023 and CSCOnn025, you must change your PGW configuration to one that does not contain a HLCMOD and BCMOD dial plan. Caveat number CSCsd63679 has been submitted for this known issue; the fix will be included in release 9.6(1) patch CSCOnn026.

CSCOgs022

Patch CSCOgs022 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc92804	3	engine	access unpredictable memory when initializing hardware address.
CSCsc96250	3	engine	9.6(1) PGW runs out of memory.
CSCsd21759	3	iocceisup	EISUP protection for timing between closing connection and incoming mess.
CSCsd01256	3	ioccxgcp	MGCP IOCC trace buffer too small for MGCP message.
CSCsc29464	3	measm	gs15/nn16 measMgr cores.
CSCsc62252	3	mml	No entry at mml> prompt returns error.
CSCsc95260	3	provision	Clean up coding for identifying if dialplans need to be written.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb62848	2	engine	Engine core dumps.
CSCsc43798	2	engine	PGW core.smartall on recv/xmit SDP info > 1000 bytes.
CSCsc20966	3	configlib	redirmax can't be provisioned on sip path.
CSCeh01715	3	engine	PGW stays in OOS after eri0 cable is removed/inserted.
CSCsc54729	3	flovr	PGW 952 stays in OOS after eri0 cable is removed and inserted.
CSCsc47858	3	mdl-q761	PGW: CGU Status bits mismatch on CGB retransmissions.
CSCee77624	3	mml	Error Message / Validation Code for dws in NEW_DIALPLAN for mml.
CSCsb76391	3	mml	PGW - Allows More than 20 Trunks in Routing.
CSCsc53049	3	mml	MML does not check the new MetaTariff Table.
CSCsc57402	3	mml	digmodstring value can exceed its max length 32.
CSCsc18866	3	mmlhelp	mml help for sta-sc-trc:ss7svc1:prd= is wrong.
CSCsc42392	3	provision	Validation of EISUP trunk group takes too long in provisioning phase.
CSCsb14217	3	sim	PGW : Simwriter failed with No suitable trunk group found.
CSCsc38969	3	toolkit	Toolkit CDR viewer does not display 4213 and 4214 tags in 1060 CDB.
CSCsb65433	6	m3ua	Support for M3UA Priority Routes Feature.
CSCeg67066	6	mdl-sip	Multiple IP Addresses in SIP Contact Header Feature.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs021

Patch CSCOgs021 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsd09387	6	other	Sun Fire V210 / Netra 210 platform for MGC feature.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsd09387—this feature introduces the Sun Fire V210/Netra 210 platform.

CSCOgs020

Patch CSCOgs020 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsd11918	3	engine	GS19 call from eisup to dpnss doesn't replicate or checkpoint.

This patch provides updates to all protocols.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs019

Patch CSCOgs019 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsc86716	3	engine	PGW : 9.6(1) Engine core dump when call limit is activated.
CSCsd07297	2	flovr	PGW - High CPU and MCL=3 on failover with large amount of DPNSS TRKS.

This patch provides updates to the following protocols:

- librmg.so
- libcmg.so

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs018

Patch CSCOgs018 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc62254	2	replicator	dest-state of nassvc1 (IUA) incorrect after sw-over.
CSCsc96114	2	mml	trnkgrpprop ACCRespCatName.
CSCsb88855	3	alarm	PGW 9.6 alarm on standby failed to find trunkGroup 0.
CSCsc64425	3	engine	query-cic for rng larger than span does not work.
CSCsc59610	3	flovr	manually switch over sometimes fail.
CSCsc88665	3	iocm	release 9.7.(2)T ioChanMgr core.

Identifier	Severity	Component	Description
CSCsc84994	3	provision	Batch file provisioning needs performance improvement for routes files.
CSCsc92718	3	provision	PGW/VXSM in NFAS Mode. Calculation of [Sigchan+sigport] is incorrect.
CSCsc62463	3	replicator	coredump while stop standby PGW.
CSCsc41625	4	replicator	Active replicator link health timer interval error.
CSCsc92733	4	sim	HopCounter to Maxforward Mapping: the sim files run failed when integrated.
CSCsb65493	6	mdl-eisup	ISUP HOP Counter and SIP Max Forwards Feature.
CSCsc86151	6	mml	Implement DP cache to speed up the rtlist provision in large provision.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb65493—ISUP HOP Counter and SIP Max Forwards—The Support of ISUP Hop Counter and SIP Max-Forwards Mapping feature supports mapping of the ISDN User Part (ISUP) hop counter parameter and the Session Initiation Protocol (SIP) Max-Forwards field to prevent loops when calls are made between the Public Switched Telephone Network (PSTN) and SIP domains on the Cisco MGC 2200.

  This feature provides the following:

  - The option to apply mapping between the SIP Max-Forwards and the ISUP hop counter.
  - Supports both ITU ISUP and ANSI ISUP ISUP hop counter and SIP Max-Forwards.
  - Supports mapping between SIP-to-ISUP and SIP-to-EISUP.
  - Adds two sigPath property values: SipToIsupRatio, for mapping from SIP to ISUP or EISUP and IsupToSipRatio, for mapping from ISUP or EISUP to SIP.

  For more information, see ISUP HOP Counter and SIP Max Forwards in the New Features in This Release section of this document.

CSCOgs017

Patch CSCOgs017 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc52647	3	engine	engine process coredump.
CSCsc61820	3	engine	rtrv-tc can't get correct result.
CSCsc70746	3	engine	PGW core.smartall on recv/xmit SDP info > 1000 bytes.
CSCsc63981	3	mml	Faulty prov-dlt:switchtrnk removes entire trunkgrp.
CSCsc61230	3	procm	Potential Memory Leak In ProcM.
CSCsc34769	3	xe	9.6 XECfgParm.dat has incorrect .subSysCompVer.
CSCsc66410	4	sim	Sim files should be updated according to CSCsc42236.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs016

Patch CSCOgs016 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc30664	1	ioccisdnl3	ISDNBRI core after failover.
CSCsc58687	2	engine	when stop and start PGW ,the core.engine accure.,Dial Plan Longest Match.
CSCsc60417	3	installation	di script is not adding *.analysisCapabilityLevel=0 parm in XECfgParm.
CSCsc25521	3	alarm	Alarm Manager re-initialize error.
CSCsc37342	3	engine	when engine initializes, log file is not accurate.
CSCsb97276	3	ioccsip	sip-process no reply.
CSCsc52521	3	m3ua	PGW: M3UA goes OOS.
CSCsc33952	3	mdl-sip	SIP -> ISUP Call on Hold is released after 5 minutes.
CSCsb47500	3	mml	wiretap-rtrv:subscriber:"ALL" doesn't work if two targets configured.
CSCsc14667	3	mml	Only SIGSLOT numbers between 0-15 are allowed when adding a dchan.
CSCsb31589	3	provision	prov-rtrv:trnkgrp shows wrong string for location lables.
CSCsb70755	3	provision	unable to prov-add:association:... when hme0 is down.
CSCsc54494	3	provision	Validation of EISUP trunk group takes too long in provisioning phase.
CSCsc38912	3	provision	Data Access Library caching is broken in 9.6.
CSCsc12711	3	snmp	PGW: critApp traps not sent.
CSCsa75611	6	mdl-analysis	Dial Plan Longest Match Feature.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb99178	2	engine	PGW cores and switches to standby core engine.smartall.
CSCsb54047	2	mml	PGW Routes in resultset corrupted after dial plan change.
CSCsb89411	2	mml	PGW allows user to provision more Nodes in A/B digit trees than allowed.
CSCee96264	2	provision	Deleting a dialplan prevents further configuration.
CSCsc00336	2	provision	Same visual ip addresses for sip occur when STANDBY synchronize provision.

Identifier	Severity	Component	Description
CSCeh03380	3	engine	Dynamically add/delete Nailed bear channels failed.
CSCsc09383	3	engine	PGW 9.5(2) patch 34 replication script returns wrong status.
CSCsb34763	3	m3ua	Update sigtran stacks to latest version.
CSCsa88354	3	mdl-cdr	PGW sets ACM_Alert_tm(4004): to Epoch time in CDR when no ACM present.
CSCsa79601	3	mml	CPC mod result against NOA/NPI tables in prefix analysis allowed in mml.
CSCsb48531	3	mml	MML TAB key does not retrieve certain sigsvcprop entries.
CSCsb70044	3	mml	mml -b batchfile fails while deleting a gateway.
CSCsb76391	3	mml	PGW - Allows More than 20 Trunks in Routing.
CSCsc29252	3	mml	mml help integer range of unsigned 32-bit is not supported.
CSCsc07114	3	mml	MML Tab help for prov-exp incorrect.
CSCsc18866	3	mmlhelp	mml help for sta-sc-trc:ss7svc1:prd= is wrong.
CSCsb13092	3	provision	STP linksets on different IOCC's should not point to the same DPC.
CSCsc13181	3	provision	PGW support of more than 32 EISUP links.
CSCsb83634	3	provision	resulttype E911PROF display for DW1 range value.
CSCsb39284	3	provision	9.4(1) allows more than 8 IPLNK per gateway to be configured.
CSCsa90863	3	toolkit	The message under CDR viewer of MGC Viewer Toolkit is not right.
CSCsa81150	4	mmlhelp	the parameter m3uakey is not accepting for prov-add:ss7route - mml help.
CSCsb88904	5	mmlhelp	MML help for query-cic lists range instead of rng as a valid parameter.
CSCsb28289	6	engine	SIP OPTIONS method outside dialog for 9.4(1).
CSCsa82848	6	mdl-q767	Improper Forward Call Indicator in Brazil ISUP change request.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsa75611—Dial Plan Longest Match—This feature provides support for using the longest match in a dial plan even when a new dial plan matches a shorter digit string. Previously, with various result types, like ROUTE, CAUSE, ANNOUNCEMENT, the dial plan changeover is forced, and so the longest match is ignored. With the introduction of the new Dial Plan Longest Match feature, the PGW 2200 uses the longest dial plan match to select the best result type. Consequently, it will not jump to a new dial plan if there is another terminal result that has a potentially longer match.

For more information, see Dial Plan Longest Match in the New Features in This Release section of this document.

CSCOgs015

Patch CSCOgs015 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc28856	2	flovr	PGW Standby Side can't release Sip Ip Binding.
CSCsb72050	3	configlib	mml command 'prov-add:files:action=export,...' error.
CSCsb79521	3	iocm	false DCHAN status after switchover to OOS BSM and STBY is up.
CSCsb94571	3	iocm	Errors on SIP Virtual_IP printed on platform.log during app startup.
CSCsc08088	3	mdl-qbe	PGW does not handle Call Back When Free for busy IP phone.
CSCsc36067	3	mdl-qbe	QBE coredump on active PGW when active PGW sw-over and CCM restart.
CSCsc35005	3	mml	BRI coredump occur when we are provisioning interworking.
CSCsb57629	3	mmlhelp	Incorrect or Redundant mml help info when prov-add/ed isup timer (ANSI).
CSCed20548	6	engine-sj	RO: rtrv-ne-health should display adjusted call count RO success.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs014

Patch CSCOgs014 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc01912	2	procm	core.dump occur when STANDBY synchronize provision.
CSCsb85931	3	ioccc7	No presentation number sent in out going UK ISUP IAM.
CSCsb90103	3	sim	run sip_isupv3uk_pcli_switched_001.sim failed.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsc00336	2	provision	Same visual ip addresses for sip occur when STANDBY synchronize provision.
CSCsc06805	2	engine	Intermittent PGW fail-over.
CSCsb63024	2	engine	Incorrect computation of input CPS rate when PGW is in overload state.
CSCsa90863	3	toolkit	The message under CDR viewer of MGC Viewer Toolkit is not right.
CSCsa91234	3	mmdb	PGW : Rel 9.4(1) MMDB bounce when race condition occurs.
CSCsa92928	3	iocciua	Compiler warnings: IUA and M3UA compiler warnings need to be corrected.
CSCsb67059	3	other	CPU data not collected with rtrv-ne-health command for single CPU.
CSCsb67600	3	mdl-sip	Proxy SIP Refer call.
CSCsb51867	3	mmlhelp	M3uakey component - no mmhelp for opc parameter.
CSCsb75468	3	mml	PGW allows more than two ITP in same group to be provisioned.
CSCsb75474	3	engine	Load sharing does not work between TWO ITP configured in same group.
CSCsb75477	3	m3ua	Only Destinations of the 1st 2 m3uaroutes are associated with m3uakey.
CSCsb81504	3	engine	rtrv-cic show SS7 CIC Idle, but it is not used for outbound call.
CSCsb82020	3	provision	Unable to provision more than 50 D-channels.
CSCef24791	4	toolkit	MGC_Setup displays empty IP Addr.
CSCsb27839	4	replicator	replication_status.sh returns blank screen if replication is not setup.
CSCsb34465	4	mml	mml command TAB help can not provide help for sipproxyport.
CSCsb74767	4	mml	Mml-help enhancement required for E911 resultype at the DW1.
CSCsb09408	6	mdl-lcm	E911 SR Mapping Table.
CSCsb62621	6	engine	Enhance MCL log message to include cps and source of CPU Utilization.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs013

Patch CSCOgs013 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb75366	3	engine	The group id to cancel channel management commands is wrong.
CSCsb53009	3	mml	"rtrv-spc" mml help shows wrong options.
CSCsb57629	3	mmlhelp	Incorrect or Redundant mml help info when prov-add/ed isup timer (ANSI).
CSCeg73933	3	replicator	Call Cutoff Timer (dial plan) is reset after 1 failover.
CSCsb83320	3	engine	Memory leak:After allocate memory with new,do not free it with delete.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs012

Patch CSCOgs012 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb82126	3	alarm	Errors on platform.log during application startup.
CSCeg66096	3	engine	PRI dest mismatch on Active and Stby.
CSCsb31154	3	mml	Properties MWIStringOn and MWIStringOff are allowed to be same value.
CSCsb32143	3	engine	Missing alarm category entrees in the alarmCats.dat.
CSCsb36567	3	ioccqbe	CallBack Free notification rejected by CCM after PGW switch-over.
CSCsb38744	3	mml	PRI Dchan shows IS after switchover even sessionset for IPFAS is OOS.
CSCsb40551	3	mml	Alarm Severity not displayed with the rtrv-alms::cont command.
CSCsb40025	3	engine	cxnMgcpIOHdlr::putCxnIdCallSide, entry in Platform.log.
CSCsb48716	3	ioccqbe	QBE_V6 crashed and core after a switchover.
CSCsb53792	3	flovr	BRI dest mismatch on Active and Stby.
CSCsb58825	3	ioccqbe	Multiple callbacks from the same calling line failed.
CSCsb61389	3	configlib	no prompt for ipaddrfile when execute mml command prov-add:file:name.

Identifier	Severity	Component	Description
CSCsb74095	3	ioccqbe	CallBack failure for extension mobility.
CSCsa65267	6	other	DPNSS to CCM across EISUP.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsa65267—DPNSS to CCM across EISUP—this feature adds support for properly handling all DPNSS features supported between a DPNSS PBX connected to a PGW 2200 which in turn is connected using EISUP to another PGW 2200 connected to Cisco Call Manager.

  For more information, see DPNSS to CCM across EISUP in the New Features in This Release section of this document.

CSCOgs011

Patch CSCOgs011 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb38638	2	iocciua	the IOCC process will stop with multiple SCTP associations provisioned.
CSCsb23819	2	mml	ISDN PRI ooverlap provisioning for QSIG,NET-5, etc is disabled GLSS iGLvoice.
CSCsb11435	3	configlib	ctimgr/axlserver modify peeradd incorrect mml generated.
CSCsb15977	3	engine	TNS Pre analysis failed Mistral9.6.1.
CSCsb37646	3	ioccqbe	PGW should run only one QBE process for one CTIMGR ctiversion.
CSCsb42201	3	ioccqbe	CTI core dump if call back pressed too often iGLvoice GLSS.
CSCsb27297	3	other	Remove the code change of another bug which is closed.
CSCsb59628	3	provision	PGW Routes in resultset corrupted after dial plan change.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb03774	6	install	Convert Data Interrogation Script to Perl to allow easier Sync to 9.6(1).
CSCsa75634	6	mdl-analysis	Increase AoC per day tarriff ranges Feature.
CSCeg33908	6	mdl-in	Russian INAP Support feature.
CSCsb07919	6	mdl-lcm	AOC over PRI tariff based on call duration Feature.
CSCee66527	6	other	Starry Night Support for BRI Backhaul feature.

Identifier	Severity	Component	Description
CSCsa86282	6	other	Improve overall PGW performance.
CSCsa75624	6	provision	Relaxed Provisioning Integrity Rules change request.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs010

Patch CSCOgs010 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa75529	1	ioccxgcp	PGW sends 528 Incompatible protocol version to some piggyback messages.
CSCsb07924	2	upgrade	the propagation of DI from 9.5 to 9.6 is manual.
CSCsb01207	3	alarm	CTIMGR link shows OOS state.
CSCsb11435	3	configlib	ctimgr/axlserver modify peeradd incorrect mml generated.
CSCsa94712	3	engine	Missing alarm entrees in the alarmCats.dat log.
CSCsb20722	3	ioccc7	PGW One way speech after rejected call routes to next TG in RL.
CSCsb04151	3	iocciua	Unrecognized parameter type is logged to platform could impact perf.
CSCsb03976	3	iocm	PRI and DPNSS destinations go back to IS after provisioning.
CSCeg27993	3	iua	IUA error is logged but not sure what it means and what impact it ha.
CSCsa87408	3	replicator	Standby PGW's Replicator couldn't create alarms when peer ip link fails.
CSCsa95305	4	ioccsip	PGW completes partially completes incoming SIP call.
CSCsb06855	4	mml	mml test_scripts may not pass because of IP address.
CSCed20548	6	engine-sj	RO: rtrv-ne-health should display adjusted call count RO success.
CSCeg84917	6	other	ISUP Transparency across the BTS-PGW Interface (PGW/Neurolink) Feature.

The following features were propagated into this release from earlier versions of release 9:

Identifier	Severity	Component	Description
CSCsb00382	2	engine	PGW crashes when receives very long Diversion Header in SIP message psirt.
CSCsa70583	3	engine	On cancel graceful RSIP all the SS7 cics are not unblocked.
CSCsa85322	3	engine	DLCX send on GW idle endpoints.
CSCsa87767	3	engine	PGW endpoints on bulk audit are idle when not provision on GW.
CSCsa98816	3	engine	MCL printout in platform.log for every message during congestion.
CSCef57930	3	measm	clr-meas or deleting components are not clearing the measurements.
CSCeg49361	3	measm	Compiler Warnings: measM when compiled optimized.
CSCuk51864	3	mml	NV3 Dchans are shown IS in mml, while TCPlink and MGCP link are down.
CSCsb02236	3	mml	MML exports profile commands twice.
CSCsa95263	3	performance	PGW report false queue length congestion.
CSCsa72059	4	other	PGW Start-up Script should ensure it is using .so MDL code.
CSCsa65830	6	engine	VXSM Bulk Audit Support for Endpoint-based Restart Change Request.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs009

The following features were propagated into this release from release 9.4(1):

Identifier	Severity	Component	Description
CSCeg80870	6	ioccm3ua	Support for ITP Signaling GW with Distributed MTP3.
CSCsa83579	6	ioccm3ua	Support for ITP Signaling GW with Distributed MTP3.
CSCeg44843	6	mml	Verif. of ipaddr1/2 & peeraddr1/2 in M3UA assoc. when prov-dply/cpy.

The following features were propagated into this release from release 9.5(2):

Identifier	Severity	Component	Description
CSCeg61238	6	mdl-lcm	A-Number Mods triggered by CLIP/CLIR .

Patch CSCOgs009 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa97359	1	provision	eisup and sip links stay OOS after sigpath update.
CSCsa77794	2	ioccqbe	unable to take cti-qbe destination OOS.
CSCee75757	3	engine	CL:new alarm, locLabelNotFound is not generated.
CSCsa78852	3	ioccqbe	XECfgparam does not contain entry for cti-qbe logs.
CSCsa97000	3	mml	PGW IOS mml help support needed for set-log:all:err.
CSCsa84941	3	toolkit	Add static analysis tool to PGW.
CSCsa68241	4	mml	Range error message is required for invalid sigslot value.
CSCsa81944	6	provision	call limiting does not provide system-wide usage of labels.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg80870—Support for ITP Signaling GW with Distributed MTP3 Feature—this feature adds support for the following configurations:
  - Mated pair of ITPs with a single OPC in front of a single PGW node with the same OPC (Distributed MTP3)
  - Mated pair of ITPs with a single OPC in front of multiple PGW nodes with the same OPC (Point Code Consolidation)
- CSCeg61238—A-Number Mods triggered by CLIP/CLIR Feature—This feature introduces the ability to modify the A-number based on the Presentation Indicator in the Initial Address Message (IAM) message or its equivalent. In this feature, A-numbers encountering this result in analysis are modified with a user-defined prefix when the value of the stored presentation restriction data indicates that the number is restricted or unavailable. If this is not the case, the A-number is not modified and analysis continues.

CSCOgs008

Patch CSCOgs008 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa77807	2	provision	Timesten does not create tables for Callback feature.
CSCeg74297	3	engdoc	9.6 Updates missing from Data Dictionary.
CSCeg88114	3	engine	PGW returns Callid with 250 OK in response to VXSM initiated DLCX R2.0,R2.0-slt.
CSCee75757	3	engine	CL:new alarm, locLabelNotFound is not generated.
CSCef70633	3	engine-sj	CL is not working properly when call is hairpinned.
CSCee68834	3	engine-sj	CL: engine is not decrementing CL counters after kill-call.

Identifier	Severity	Component	Description
CSCea07957	3	flovr	remove ipAddrLocalA and ipAddrLocalB, use IP_Addr1 and IP_Addr2.
CSCeg60716	3	ioccqbe	CTIMGR link OOS indication.
CSCsa78852	3	ioccqbe	XECfgparam does not contain entry for cti-qbe logs.
CSCsa66375	3	iocm	Compiler Warnings: ioChanMgr when compiled optimized.
CSCeg27993	3	iua	IUA error is logged but not sure what it means and what impact it ha.
CSCsa74363	3	mdl-ni2	NI2 calls hung if orig side is sending overlap digits.
CSCsa74109	3	mdl-tools	MDL dpnss regression test failed.
CSCsa69597	3	mml	prov-rtrv and prov-dlt:siplnk offer non-SIP links as options in mml help.
CSCsa74281	3	other	perf_script on 9.6(1) sets inaccurate CPU TimerInterval to 1000.
CSCef47844	3	provision	Importing a version 9.5 trunk group problem corrupts trunkGroup.dat.
CSCsa79333	3	provision	Incorrect default password for AXLServer.
CSCsa87413	3	replicator	After several times switch-over, no linkA failure reported on active.
CSCsa75163	3	sim	Run regression.msl with gen_analysis_ann_final_ovl_001.sim failed.
CSCsa69059	4	mml	MML guidance missing for sippath creation.
CSCsa69600	4	mml	prov-add:siprtrtnkgrp:? does not offer sipproxyport as a parameter.
CSCsa69592	4	mml	prov-rtrv does not offer sippath as an option.
CSCsa69594	4	mml	prov-add:siplnk mml guidance does not offer virtual IP addresses.
CSCsa82415	6	provision	Add support for up to 8 Call Manager clusters.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs007

Patch CSCOgs007 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee88517	2	engine-sj	CL:location labels are not read for SIP.
CSCeg37863	2	ioccqbe	QBE periodically core dumps.

Identifier	Severity	Component	Description
CSCef53481	3	engine	Compiler Warnings: libeng.so when compiled optimized.
CSCsa64114	3	other	perf-script is not executing properly all parms are not being set.
CSCsa66380	3	other	Compiler Warnings: chk_inv when compiled optimized.
CSCeg60266	6	other	Need on-line documentation for MGC 9.6.

This patch provides updates to the following:

- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- dump-prov
- CiscoMGC
- di
- migrateTKGFile
- update XECfgParm.sh
- mml
- ISDNIP
- M3UA
- QBE_V5
- QBE_V6
- ioChanMgr
- TCAP
- foverd
- libpolcomp.so
- libpolnuman.so
- libqbe.so
- libxe.so
- diskmonitor
- pom
- procM

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs006

Patch CSCOgs006 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCeg51761	3	provision	prov-cpy core dumps on CTI manager processing.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs005

Patch CSCOgs005 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef60886	3	iocm	updating sigpath causes destination to go IS when manually set OOS.
CSCef62419	3	iocm	need to delete .sigChanDSS.dat entry when deleting IPROUTE.
CSCef33256	3	mml	CL:mml shows wrong data during location lable provisioning.
CSCeg15685	3	pkg	chk_inv fails on the most recent build w/error on N440.
CSCee66403	3	provision	CL:numan-rtrv shows wrong label name in dw1 field.
CSCef47844	3	provision	Importing a version 9.5 trunk group problem corrupts trunkGroup.dat.

This patch provides updates to all binaries and libraries.

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs004

Patch CSCOgs004 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef60720	2	mdl-tools	Unable to convert btr file to trc.

The following feature was propagated into this release:

Identifier	Severity	Component	Description
CSCee30532	6	other	Netra 240 and Netra 440 platform introduction for MGC host feature.

This patch provides updates to the following:

- libpom.so
- libconvutil.so
- libengif.so
- libinf.so
- libpolcomp.so
- libpolnuman.so
- libpolroute.so
- libpolfiles.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- almM
- pom
- replicator
- sagt
- mmSAgt
- sp
- ca
- sim
- SS7
- ioChanMgr
- engine.no_smartalloc
- engine.smartalloc
- mml
- migrate_cpp_4_5
- migrate_cpp_5_6
- propSet.xml.dat
- propVal.xsd.dat
- extNodeTypes.dat
- critagt.cnf
- starcia.sh

- perf_setup.sh
- new SNMP research binaries

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee30532—Netra 240 and Netra 440 Platform Introduction for MGC Host—This feature introduces the Netra 240 and Netra 440. This feature offers:
  - Upgrade to new 16.1.0.23 CIAgent
  - New ALOM support in alarm manager

  For more information, se Netra 240 and Netra 440 Platform Introduction for MGC Host in the New Features in This Release section of this document.

CSCOgs003

Patch CSCOgs003 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef61965	2	m3ua	cics in MATE_UNAVAIL after IUA gateway reloaded.
CSCee48426	2	xe	numberOfThreads entry not getting filled in XECfgParm.dat.
CSCee81458	3	ioccpriip	Compiler Warnings: ISDNIP channel controller when built optimized.

This patch provides updates to the following:

- libxe.so
- libengif.so
- libpolcomp.so
- libpolnuman.so
- libpolroute.so
- libpolfiles.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- pom
- replicator
- sagt
- mmSAgt
- sp
- ISDNIP

- mml
- migrate_cpp_4_5
- migrate_cpp_5_6
- QBE_V5
- M3UA
- SUA
- propSet.xml.dat
- propVal.xsd.dat

Additional information:

- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs002

Patch CSCOgs002 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee88517	2	engine-sj	CL:location labels are not read for SIP.
CSCef14237	2	ioccqbe	Missing trunkgroup causes QBE IOCC core dump.
CSCee62649	2	mdl-cdr	DPNSS calls do not have a 1010CDB.
CSCef16675	3	other	log_rotate script does not appear to be working.
CSCef07741	3	provision	export of ctiVersion peeraddr2 ipadd2&iproute for ctimgr/axlserver.
CSCee73420	3	toolkit	Toolkit:translation verify - a number with resulttype=CPCMOD fails.
CSCef17787	3	xe	engine errors while accessing /dev/hme.

This patch provides updates to the following:

- QBE_V5
- callver
- get_trc.sh
- mmSAgt
- mmdbd
- mml
- pom
- replicator
- sagt
- properties.mod
- propSet.xml.dat

- propVal.xsd.dat
- properties.dat
- trigger.dat
- libcmg.so
- libcxn.so
- libeng.so
- libengif.so
- libpolcomp.so
- libpolroute.so
- librmg.so
- libxe.so

Additional information:

- The fix for caveat number CSCee62649 (DPNSS calls do not have a 1010CDB) provides a change in XECfgParm.dat. XECfgParm.dat must be manually updated.
- See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs001

Patch CSCOgs001 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCee94775	2	provision	Exported trkgrp file should contain mml name of location label.

This patch provides updates to libpolcomp.so.

Additional information:

•See the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

New Features in This Release

A-Number Mods Triggered by CLIP/CLIR

This feature introduces the ability to modify the A-number based on the Presentation Indicator in the Initial Address Message (IAM) message or its equivalent. In this feature, A-numbers encountering this result in analysis are modified with a user-defined prefix when the value of the stored presentation restriction data indicates that the number is restricted or unavailable. If this is not the case, the A-number is not modified and analysis continues.

Note This feature was introduced in patch CSCOnn008. It was propagated from release 9.5(2).

AoC Over PRI Tariff Based On Call Duration

This feature (CSCsb07919) enhances the AOC over PRI support (Advice of Charge (AOC) Supplementary Service over PRI/DSS1)feature. It enables the triggering of tariff changes based on the duration of a call. It allows the PGW to support tariff structures like “flat initial rate” or other rate changes that are associated with the length of the call. Additionally, the timers have been extended to support millisecond granularity. The initial charge units are sent at call connection.

To allow AOC over PRI tariff changes based on call duration, the PRITARIFF MML component has been enhanced to include 4 new fields.

The following table lists the fields for the PRITARIFF MML component. The last 4 fields are new.

Table 6 PRITARIFF Fields

Field Name	Description	MML Name	Range
Tariff Table ID	Key to this entry.	TARIFFID	1 to 9999
AOC-S Charged Item	Charging information applied for the call requesting AOC-S.	SCHARGEDITEM	0 to 4
AOC-SCA	Special Charging Arrangement.	SCA	1 to 10
AOC-S Recorded Charge	AOC-S Charge Recording Configuration.	SRECCHRG	1 to 6
AOC-D Recorded Charge	AOC-D Charge Recording Configuration.	DRECCHRG	1 to 3
AOC-E Recorded Charge	AOC-E Charge Recording Configuration.	ERECCHRG	1 to 3
Currency	The currency to use for this tariff.	CURRENCY	max size of 10 chars
Amount	Amount.	AMOUNT	0 to 16777215
Amount Multiplier	Amount multiplier.	AMTMULT	0 to 6
Time Length	Length of time unit.	TIMLEN	0 to 16777215
Time Scale	Time scale in units of time.	TIMESCALE	0 to 6
Granularity Length	Time unit granularity.	GRANULARITY	0 to 16777215
Granularity Time Scale	Time scale of granularity.	GRANULARITYSCALE	0 to 6
Volume Unit	Volume unit.	VOL	0 to 2
SCU	Specific Charging Unit.	SCU	0 to 32767
Billing ID	Billing identification.	BILLINGID	0 to 7
Charging Units	The number of charging units for the defined time length. This is a new field.	CHARGINGUNITS	1 (default) to 16777215

Table 6 PRITARIFF Fields (Continued)

Field Name	Description	MML Name	Range
Duration	Time period that the tariff will remain in effect (milliseconds). 0 indicates an ongoing tariff (the tariff will not expire after a fixed duration). This is a new field.	DURATION	0 (default) to 16777215
Rate Type	Type of rate. Valid values are Flat rate (0) or Duration based rate (1). This is a new field.	RATETYPE	0 to 1 (default)
Initial Tariff Descriptor	A list of up to 3 tariffs that will be applied prior to this tariff. This is a new field.	INITIALTARIFF	string of up to 3 space separated tariff IDs

The 4 new fields are stored in a new table (priTariffChargingUnit.dat), with the following format:

Tariff Table ID Charging Units Duration RateType Initial Tariff Desc

The following 4 tariff types are available:

- Duration based tariff—does not expire (until time of day/day of week switchover). The existing tariffs are of this type.
- Duration based tariff—expires after a time period.
- Flat rate tariff—expires after a time period.
- Ongoing flat rates tariff—uses a continuous flat rate period until a time of day/day of week switchover.

The following table shows the configurations for the available tariff types:

Table 7 Tariff Configurations

Tariff Type	Duration	Rate Type
Duration based tariff that expires after a time of day/day of week switchover	0 (indicates an ongoing tariff (the tariff will not expire after a fixed duration))	1
Duration based tariff that expires after a time period	0	1
Flat rate	0	0
Ongoing flat rate	0	0

How This Feature Works

When a call is connected, the PGW 2200 uses the pricharge table to determine the current TariffID for the call (based on Charge Origin, Charge Destination, Day of Week and Time of Day). The PGW then looks up the Tariff ID in the priTariff table and reads in the tariff information. If there is an “Initial Tariff Descriptor” defined, then these tariffs are applied first. After the Initial Tariffs have been applied, the

PGW applies any specified tariffs. For example, if Tariff ID 3 has initial tariff defined as “5 7”, then tariff is 5 is applied first, then tariff 7, and then tariff 3. The tariff remains in effect until time of day/day of week tariff switchover.

Provisioning Restrictions Validated by the PGW

The following provision restrictions are validated:

- The tariffs described in the priCharge Tariff Descriptors must all have duration=0 (for example, tariffs cannot expire after a duration into the call.
- The tariffs with duration>0 can only be used as initial tariffs.

Provisioning of the PRICHARGE component has not changed. The only restriction is that all tariffs must have duration=0 (for example, you cannot specify a tariff that expires after a duration).

These tariffs can have “initial tariffs” which are applied at the beginning of the charging (specified in the PRITARIFF component).

The following is a priCharge example:

Table 8 PRICHARGE EXAMPLE

ORIG	DEST	DOW	S-TARIFFDESC	D-TARIFFDESC	E-TARIFFDESC
all originations	1	default		1 0900 2 1500 3 2000 4	

The AOC-D tariff descriptor indicates that we will use:

- Tariff ID #1 from 00:00 to 09:00
- Tariff ID #2 from 09:00 to 15:00
- Tariff ID #3 from 15:00 to 20:00
- Tariff ID #4 from 20:00 to 00:00

Provisioning example for Tariff ID 1:

```
mml> prov-add:pritariff:tariffid=1,drecchrg=1,currency="dollars",
amount=1,amtmult=3,timelen=60,timescale=2,granularity=1,
granularityscale=2,billingid=0,chargingunits=50,duration=0,
ratetype=1,initialtariff="8 5 6"
```

The following new alarm has been added to alarmCats.dat and will be triggered if the engine attempts to read the new table and fails:

```
399 "Pri Tariff Charging Unit Table Load Failure" 2 Y "Failed to load PRI tariff
charging unit table" "Failed to load PRI tariff charging unit table" 3
```

Note This feature was introduced in patch combination CSCOnn012/CSCOgs011.

Call Agent Controlled SIP T.38 Fax Relay

The PGW 2200 now supports call agent controlled T.38 fax relay between SIP and other networks via MGCP gateway. To support call agent controlled T.38 fax relay, the PGW trunkgroup property FAXsupport, on both originating and terminating legs must be set to 1, and the IOS gateway must have the MGCP T.38 fax relay enabled (either in gateway forced or CA-controlled mode). For more details, se the following IOS document, Configuring T.38 Fax Relay feature module at the following url:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1839/products_feature_guide_chapter09186a00800b5dce.html

Note This feature was introduced in patch CSCOnn004. It was propagated from release 9.5(2).

Call Limiting

This feature (CSCeb23839) enables a service provider to limit calls across VoIP interfaces for quality purposes or to limit the number of calls as agreed upon between a service provider and customer. Telephony interfaces include SIP, H.323, E-ISUP, DPNSS, Q.SIG, and PRI.

This feature also provides the ability to limit the number of simultaneous calls sent to or accepted from a specific destination or source. This includes calls made to a specified SIP device, H.323 device, a route to DPNSS, QSIG, or PRI gateways, as well another MGC or an HSI using E-ISUP.

Note Emergency calls are permitted even if a call limit is reached.

Note For more information, se the *Call Limiting* feature module.

Call Limiting Enhancement

This feature (CSCse34668) adds a new flag to the call process to indicate whether the call limiting counter has been increased or decreased. When the call limiting counter is increased, the flag is set to True; when the call limiting counter is decreased, the flag is set to False. To ensure that the call limiting counter is decreased correctly, when the call process context is destroyed, the flag is double-checked.

Note This feature was introduced in patch combination CSCOnn031/CSCOgs029.

Calling Usability

This feature (CSCse28136) provides the ability to view the active call counts for a label or labels using the following new mml commands:

- rtrv-loclabel:all—displays all label limits and their associated active call counter values.
- rtrv-loclabel:all:percent=10—displays all labels whose active counter values are above a specified % threshold of the provisioned limit for that counter.
- rtrv-loclabel:loc1—displays a specific label limit and its associated active call counter value.

Note This feature was introduced in patch combination CSCOnn031/CSCOgs029.

CLI Handling for Mexican ISUP

This feature (CSCsd03592) modifies the Calling Line Identifier (CLI) handling in Mexican ISUP to allow for call completion when the CLI is requested using Information Request (INR) and Information Message (INF), but is not provided by the originating switch.

Currently the PGW can be provisioned with "CLI Essential" sigpath property *.CLIPEss (values 0 or 1). Setting the value to 1 causes the PGW to request the CLI (INR) if the CLI is not already present, and expect a response (INR). Previously, if the PGW did not receive a CLI in response, it dropped the call. Now, if the PGW does not receive a response it continues the call.

The values of *.CLIPEss have been modified as follows:

- 0—Do not request CLI.
- 1—Request CLI if not already provided. Drop the call if CLI is not provided.
- 2—Request CLI if not already provided. Continue the call even if CLI is not provided.

Note This change will be made generic for all variants that support the *.CLIPEss parameter (not just for Q767_MEXICAN).

The following changes have been implemented for this feature:

- Provisioning modification so that values 0, 1, and 2 are accepted for *.CLIPEss; add description of the values in MML help (propSet.xml.dat).
- Modification of LCM so that if *.CLIPEss=2 and no CLI exists the call can still pass. Previously, if *.CLIPEss was set it would reject the call if no CLI existed.
- Modification of all places (ansiSS7, eisup, q721, q767, and LCM) that read *.CLIPEss as a Boolean value; change to read as Integer value.
- Modification of the protocol files so that an incoming INF (or GSM for q721) message that does not contain CLI will continue the call if *.CLIPEss=2. Previously, if an INF/GSM was received without CLI, the call was dropped by the protocol (it was assumed that CLI was essential if it were requested).

Note After the patch has been applied and you want to use config-lib to revert to a saved configuration, you must manually copy the 'propSet.xml.dat' files from the /opt/CiscoMGC/etc/CONFIG_LIB/new directory to the /opt/CiscoMGC/etc/ and to /opt/CiscoMGC/etc/active_link directory and then start the PGW.

Dial Plan Longest Match

This feature (CSCsa75611) provides support for using the longest match in a dial plan even when a new dial plan matches a shorter digit string. Previously, with various result types, like ROUTE, CAUSE, ANNOUNCEMENT, the dial plan changeover is forced, and so the longest match is ignored.

With the introduction of the new Dial Plan Longest Match feature, the PGW 2200 uses the longest dial plan match to select the best result type. Consequently, it will not jump to a new dial plan if there is another terminal result that has a potentially longer match.

For detailed information on the existing call processing behavior, see the Dial Plan Overview section in the *Cisco MGC Software Release 9 Dial Plan Guide*.

New Call Processing Behavior

This new longest match feature results in a new call processing behavior which enhances the basic analysis capability the following five situations:

- Longest Match in A-Number Analysis—With analysis set to the new call processing capability, the following A-number analysis will be subject to longest matching where the new call processing result replaces the old one:
  - ANNOUNCEMENT
  - BLACKLIST
  - CAUSE
  - NEW_DIALPLAN
  - A_NUM_DP_TABLE
- Longest Match in B-Number Analysis —With analysis set to the new call processing capability, the following B-number analysis will be subject to longest matching where the new call processing result replaces the old one:
  - ANNOUNCEMENT
  - BLACKLIST
  - CAUSE
  - TERM_INFO
  - NEW_ DIALPLAN
  - A_NUM_DP_TABLE
  - ROUTE
  - COND_ROUTE
  - PERC_ROUTE
  - MGCPDIALPKG
  - E_PORTED_NUM
  - E_ROUTE_NUM
- Dial Plan Changing—With analysis set to the new call processing capability, dial plan changeover is not a forced action. Previously, a changing result with a ROUTE or ANNOUNCEMENT result would always force a dial plan change. Now change is optional and is carried out only if it is the longest match among the other results. The new feature applies to all of the results listed below:
  - For A-number analysis:

    CAUSE

    BLACKLIST

    ANNOUNCEMENT

    NEW_DIALPLAN

    A_NUM_DP_TABLE
  - For B-number analysis:

    CAUSE

    BLACKLIST

ANNOUNCEMENT

TERM_INFO

ROUTE

COND_ROUTE

PERC_ROUTE

MGCPDIALPKG

E_PORTED_NUM

E_ROUTE_NUM

A_NUM_DP_TABLE

NEW_DIALPLAN

- Overlap Dial Plan Changing—When working with the analysis set to the new call processing capability, before processing a dial plan changeover, overlap calls are checked to see if analysis is complete. If it is not, then instead of forcing a dial plan changeover at this time, the system waits for digits. This allows for further digits to be analyzed in the search for a longer match. These extra digits might produce a different result, for example, ROUTE or ANNOUNCEMENT, which would then be executed instead of the change. This prevents the call from moving into the wrong dial plan and risking a failed call.

  Following a valid change, an overlap call might still run out of digits and need more digits for the analysis to be complete. In that case, the analysis will return an appropriate indication to call control, forcing the call to wait for further digits. In overlap working, an initial address message (IAM) is delivered, and then further digits are delivered in subsequent address messages (SAM), which are received from the previous switch or line.

  In addition, when the analysis capability is set to the new call processing capability, it changes back to the first dial plan rather than waiting for further digits in the current one. This allows the new analysis request to be processed as a completely new procedure and supports longest matching.

- Ported Number Handling —When you are processing ported numbers, if the PGW 2200 is a donor switch, the B-number analysis result E_PORTED_NUM is used. When detecting this result, the PGW does a times-10 database lookup with the called party number, and if it finds a match, a routing number is returned and this is added as a prefix to the called number. The number is then reanalyzed with the intention of finding a routing to the recipient switch.

  With basic analysis capability, it was possible to provision a ROUTE result that could be used to route the call if the number was not matched in the same result set as the E_PORTED_NUM. In such cases, a ROUTE result either at a prior or later point in the digit tree will be used to complete the call.

  With the new call processing capability, the E_PORTED_NUM and E_ROUTE_NUM results are now also subject to longest matching, along with the B-number analysis results CAUSE, BLACKLIST, NEW_DIALPLAN, ANNOUNCEMENT, TERM_INFO, ROUTE, COND_ROUTE, PERC_ROUTE, MGCPDIALPKG, and A_NUM_DP_TABLE. Consequently, a ported result displaces and removes any previous ROUTE result. Also if a ported result was configured with a default ROUTE result in the same result set, this latter ROUTE result would remove the E_PORTED_NUM and invalidate the porting.

  To avoid this situation, routing data is preserved, provided that the ROUTE result is either before the E_PORTED_NUM result in the or is colocated with it in the same result set. Any route result at a later point in the digit tree overwrites and removes the ported result, as required with longest matching.

Reverting to First Dial Plan When There Are Insufficient Digits in Overlap

The Dial Plan Longest Match feature enables you to revert to the original dial plan when there are insufficient digits, and the existing dial plan changeover handling does not provide the flexibility you need throughout your dial plan structure.

Prerequisites for Using this Feature

XECfgParm.dat Configuration Tasks

You must configure the XECfgParm.dat file in the Cisco MGC software to enable this feature. For information on configuring and verifying the XECfgParm.dat file for this feature see the *Dial Plan Longest Match* feature module.

XECfgParm.dat Parameters

The XECfgParm.dat file configuration parameters added for this feature are in the table below. For information on the other XECfgParm.dat parameters, see the *Cisco MGC Software Release 9 Installation and Configuration Guide.*

Table 9 XECfgParm.dat Parameters

Configuration Parameter	Definition
*analysisCapabilityLevel (Affects PGW Release 9.6(1) or later)	Defines the call processing behavior of the PGW analysis function. When this parameter is set to zero or Null, the existing analysis behavior is maintained. When set to 1, the longest match capability is enabled. Valid values: 1, 0 where: 0=existing analysis behavior 1=longest match capability enabled Property domain: XE Parameter Dynamically reconfigurable: No

Additional Data Word for Result Types E_PORTED_NUM and E_ROUTE_NUM

A new data word (dw2) is added to the ported results, as detailed below:

Table 10 Data Words

Configuration Parameter	Definition
E_PORTED_NUM (<RemovePfxDig>,<UsePartialNumber>)	*RemovePfxDig*: Dw1(existing): Integer value indicating the number of prefix digits to remove from called number before reading the Ported or Number termination database table. Default value is 0. *UsePartialNumber*: Dw2 (new) - Integer value indicating whether to interrogate the times ten database with a full number (forcing enbloc behavior) or a partial number. Valid values are: Value 1= partial number Value 0 (default) = Full number Example: E_PORTED_NUM(1,1) Data Word Types: I,I Analysis Point: Intermediate Valid For: B
E_ROUTE_NUM (<RemovePfxDig>,<UsePartialNumber>)	*RemovePfxDig*: Dw1(existing): Integer value indicating the number of prefix digits to remove from called number before reading the Ported or Number termination database table. Default value is zero. *UsePartialNumber*: Dw2 (new) - Integer value indicating whether to interrogate the times ten database with a full number (forcing enbloc behavior) or a partial number. Value 1= partial number Value 0 (default) = Full number Example: E_ROUTE_NUM(1,1) Data Word Types: I,I Analysis Point: Intermediate Valid For: B

Note For existing dial plans this allows defaulting to the current behavior, so this change has no effect. Only users who specifically want partial number matching should activate this function by setting dw2 = 1 when provisioning these result-types.

Caution To use an associated ROUTE result as a default (when the called number is not matched in the Times Ten database), you must define it prior to the E_PORTED_NUM result being determined or within the same result set as the E_PORTED_NUM. Otherwise, the ROUTE result removes the E_PORTED_NUM and invalidates the porting.

Note This feature was introduced in patch combination CSCOnn018/CSCOgs016.

DPNSS Call Back and Extension Status Interworking with Cisco Call Manager

This feature enables the interworking between the PGW 2200 and Cisco Call Manager for DPNSS Call Back When Free (CBWF), Call Back When Next Used (CBWNU), and Extension Status supplementary service features.

Call Back When Free

The Call Back When Free (CBWF) feature allows a user who receives a busy signal, for example, extension busy or network congestion, when trying to establish a call in the Private Network to request an automatic call back. The calling party registers the feature with the originating PBX which requests the terminating PBX to monitor the called extension. When the called extension and a transmission path across the network become free, the user who invoked the feature is notified by an audible and visual alert that the called extension is available. The user has the option to accept the call back and a call is set up from the user to the extension that becomes free.

Note Cisco EGW supports this feature for DPNSS to CCM calls, CCM to DPNSS calls, and calls within a CCM cluster.

Call Back When Next Used

The CBWNU feature allows a user who receives no reply when trying to establish a call in the Private Network to request an automatic call back. The calling party can clear the call and invoke Call Back When Next Used. When the called extension becomes free, the user that invoked the feature is notified by an audible and visual alert. The user has an option at that time to accept the call back and a call will be set up from the user to the extension that becomes free.

Extension Status

The Extension Status feature enables you to determine, on request, the status of an extension. The service establishes a virtual call to an extension to determine its state (free, busy, out of service, call waiting on, call forward on) without calling the extension.

Note The Cisco EGW supports this feature for DPNSS to CCM calls, CCM to DPNSS calls, and calls within a CCM cluster.

CBWF and CBWNU features are not supported for the following:

- For non XML-enabled IP phones connected to Cisco CallManager
- For analog (non-IP phones) connected to Cisco CallManager
- For DNs with multiple or shared lines
- For same DN occurrence across multiple devices
- For partitions on Cisco CallManager
- For Call Back feature among inter-cluster Cisco CallManagers
- For calls from DPNSS PBX phone to Cisco CallManager IP phone and being forwarded to DPNSS phones

For more information, se the *DPNSS Call Back And Extension Status Interworking with Cisco CallManager* feature module.

DPNSS Feature Transparency Call Diversion

This feature (CSCsd71264) adds functionality that allows modification of DPNSS diversion digits when sent in the backward direction. This is useful when the PGW 2200 is used to interconnect PBXs with different or incompatible dial plans where the diversion digits must be modified to be compatible with the Calling Party's PBX.

Note This feature was introduced in patch combination CSCOnn030/CSCOgs028.

DPNSS Route Optimization

For various reasons, an established call through a DPNSS network may not follow the optimum route between two end PBXs. The Route Optimization feature enables end users to obtain a new connection between the two end PBXs using the preferred route.

On data calls, the use of this service may result in data loss or corruption when optimization takes place. Some PBXs might reject requests to optimize data calls or restrict optimization to calls where it is known that sufficient error detection and recovery procedures exist to overcome the consequent disruption of the data.

Restrictions

The Route optimization feature applies to only that part of the call connection that comprises DPNSS if a DPNSS call goes out over PRI/SS7 or H.323 and subsequently re-enters the DPNSS network as a result of call transfer. The Route Optimization feature can be applied separately to either DPNSS part of the call but cannot be applied to the entire call.

The following Cisco access servers can be used for this feature:

- Cisco 2600
- Cisco AS 3600
- Cisco AS 3660

For more information, se the *DPNSS Route Optimization* feature module.

DPNSS Supplementary Service Interworking with Cisco CallManager

This feature enables users to interwork their legacy DPNSS PBXs with Cisco Call Manager and extends the set of features that interwork as follows:

- Call Redirection
- Night Service
- Add-on Conference
- Three Party Service
  - Shuttle
  - Transfer
  - Add-on
- Extension Status
- Call Waiting
- Call Offer
- Centralized Operator

Note When DPNSS features are inter-worked between a legacy DPNSS PBX network and Cisco CallManager (and vice-versa), the given features mimic the implementation as they function in a DPNSS network.

Redirection

The Redirection Supplementary Service provides callers awaiting connection or reconnection the option of being redirected to an alternative destination after a specified time. Redirection is initiated by the waiting party's PBX if the call does not progress within a specified time. Additionally, a failed call can be redirected to an alternative destination immediately.

Night Service

The Night Service Supplementary Service provides alternative answering arrangements for calls to operators when normal operator positions are unattended.

An operator group or specific position can be placed in Night Mode when unattended. You can activate or deactivate the Night Mode in several ways. For example, each operator position can be switched into or out of Night Mode; an operator group is in Night Mode when all the positions in the group are in Night Mode. Night Mode can be activated/deactivated at particular times of day.

Add-on Conference

The Add-On Conference Supplementary Service enables the controller of a three-party service conference to extend to four or more parties depending on the capacity of the conference bridge in use at the conference PBX.

When the conference involves three parties, both the Three-Party Service and the Add-On Conference services are available; but when the conference has four or more parties, only the Add-On Conference Service is available. If the number of parties is two, the conference reverts to a simple call.

This feature allows all the parties involved in a call to do the following:

- Place the conference on hold (using the Hold Supplementary service) and make an add-on enquiry call (using Single-Channel Working as far as the conference PBX to facilitate subsequent add-on). Following establishment of a call, you can go back and forward between the enquiry call and the conference or release the enquiry call.
- Add the called party of an Add-On enquiry Call to the conference.
- Clear the complete conference.
- Split a selected party away from the conference (to have private conversation) or release that party.
- Obtain details of parties currently participating in the conference.

Three Party Service

This Supplementary Service allows a user who has placed an existing call into a suspended or on-hold state to make an enquiry call to a third party. The controlling party can then use any of the following service options:

- Shuttle—The connection is switched so that the controlling party is connected to the party who was on hold, and the party to whom the controlling party was connected is placed on hold. By repeated use of this option the controlling party can speak to each of the other two parties alternately. The party to whom the controlling party is currently connected is known as the connected party. Before the first Shuttle, the enquired-to party is the connected party.
- Transfer—A connection is established between the two non-controlling parties and the controlling extension is released.
- Add-On—The three parties are connected together to form a three-party conference.

Extension Status

The Extension-Status Call Supplementary Service provides the capability of determining, on request, the status of an extension. This service permits the establishment of a virtual call to an extension in order to determine its state that is, free, busy, out of service, diverted, etc., without calling the extension.

This feature can be used by an operator before the establishment of a call on behalf of an extension, to improve the chances of the extension being free when the call is ready. It can also be used to investigate complaints.

Note Extension Status is not supported from Call Manager to DPNSS PBX.

Call Waiting

The Call Waiting Supplementary Service (CW) enables an extension user to request that an indication be given if there is an incoming call when the extension is busy with another call. The Call Waiting service is a called-party service.

A user on an existing call is given an indication (Call Waiting Indication) that there is incoming call, while the calling party is given an audible indication that Call Waiting Indication is being given to the called extension. The called party can do one of the following:

- Terminate the existing call and be automatically re-rung.
- Hold the existing call and answer the new call.
- Reject the Call Waiting Indication.

- Ignore the Call Waiting indication.

Call Offer

The Call Offer service enables the Calling party to indicate to the called party on an already established call that another call is being offered. The Call Offer service is a calling party service.

A user on an existing call is given an indication (Call Waiting Indication) that another call is incoming. At the same time, the calling party is given an in-channel indication that the called extension is receiving a Call Waiting signal. The called party can choose to do one of the following:

- Terminate the existing call and be automatically re-rung.
- Hold the existing call and answer the new call.
- Reject the Call Waiting Indication.
- Ignore the Call Waiting indication.

As an option, the calling party can convert from offering the call to Executive Intrusion on the call.

Cisco PGW 2200 interrogates, on behalf of the DPNSS PBX, the appropriate extension on Cisco CallManager. The end user is presented with the option to accept the call offer if the Cisco CallManager extension is busy, because of one of the following scenarios:

- All the available multiple line appearances on the phone are busy
- There is only a single line appearance on the phone
- There is no Call Waiting service provisioned against the extension

For XML-enabled phones connected to Call Manager, the PGW provides a tone and a XML-based visual indication (to a soft key) giving the end-user the option to accept the call. If the call is not accepted within a predetermined time (configurable on a global basis), the timer expires and the offer is withdrawn.

Call Offer is not be supported for:

- Non XML-enabled phones connected to Cisco CallManager
- Analog (non-Cisco IP phones) connected to Cisco CallManager

Centralized Operator

The Centralized Operator Service allows operators to assist with the connection of calls, without the need to staff operator positions at every PBX in the DPNSS network. The Centralized Operator feature is not supported from Cisco CallManager to DPNSS PBX.

Restrictions

The following restrictions apply to this feature:

- For the MWI support feature, only voice mail on the DPNSS side is supported.
- If a call is transferred from PBX to Cisco CallManager to PBX, loop avoidance is not supported.

The following Cisco access servers can be used for this feature:

- Cisco 2600
- Cisco AS 3600
- Cisco AS 3660

For more information, se the *DPNSS Supplementary Service Interworking with Cisco CallManager* feature module.

DPNSS to CCM across EISUP

This feature (CSCsa65267) adds support for properly handling all DPNSS features supported between a DPNSS PBX connected to a PGW 2200 which in turn is connected using EISUP to another PGW 2200 connected to Cisco Call Manager.

Note The ability of EISUP to transport the diversion request information is planned for PGW release 9.7.

Note This feature was introduced in patch combination CSCOnn013/CSCOgs012.

Fax and Data Call Translation

This feature (CSCsb30733) translates ISUP calls to data/fax calls by changing the Calling Party Category, Bearer Capability, and High Layer Compatibility IEs in outgoing IAMs based on the dialed Called Party Number.

Previously, the CPCMOD result type was used to modify the Calling Party Category in IAM. Two new result types BCMOD and HLCMOD have been added and will be used to modify Bearer Capability and High Layer Compatibility.

Both the predefined value and the provisioning value are supported but the provisioning value's octet coding is not verified. Every dial plan table will include the BC and HLC tables. Both A and B number analysis are applicable but multiples within A-analysis or B-analysis are overwritten; the last collected value is applied.

All three result types can be provisioned against A number or B number analysis.

Table 11 BC Parameters

Field Name	Data Type	Max Length	Instructions and Exceptions
custgrpid	object	N/A	ID of an existing dial plan.
name	string	20	Unique string used to identify BC entries. Alphanumeric characters and dashes are allowed. This string must begin with a character.
ocval	string	32	String used to identify the BC hexadecimal octet coding. This string can contain digits 0-9 or 0-9 and A-F.

Table 12 HLC Parameters

Field Name	Data Type	Max Length	Instructions and Exceptions
custgrpid	object	N/A	ID of an existing dial plan.
name	string	20	Unique string used to identify HLC entries. Alphanumeric characters and dashes are allowed. This string must begin with a character.
ocval	string	32	String used to identify the HLC hexadecimal octet coding. This string can contain digits 0-9 or 0-9 and A-F.

Note This feature only supports scenarios in which the TCC is ISUP; only ITU ISUP variants are supported.

Note This feature was introduced in patch combination CSCOnn025/CSCOgs023.

French ISUP V3 (SPIROU) Support

This feature (CSCee59909) adds support for the French ISUP V3 (SPIROU) protocol. It is available for Signaling and Call Control.

Note This feature was introduced in patch combination CSCOnn027/CSCOgs025.

Increase AoC Per Day Tariff Ranges

This feature (CSCsa75634) increases the number of times a tariff can be changed from five to ten times a day. The following CDBs are used to report tariff information:

Table 13 CDBs Used To Report Tariff Information

CDB Number	CDB Name	CDB Description
4215	Charge Tariff Information	Contains charging tariff information that has been sent or received in MPM messages. Comprised of the following data items: tariff type sent, tariff type received, tariff id and timestamp (may be repeated up to 11 occurrences). **Note** This change was introduced in patch combination CSCOnn027 and CSCOgs033.
4223	PRI AOC - S Charge Information	Contains charging tariff information that has been setup for AOC - S Supplementary services. Comprised of the following data item: tariff id and timestamp (may be repeated (up to 11 occurrences). **Note** This change was introduced in patch combination CSCOnn027 and CSCOgs033.
4224	PRI AOC - D Charge Information	Contains charging tariff information that has been setup for AOC - D Supplementary services. Comprised of the following data items: tariff id and timestamp (may be repeated up to 11 occurrences). **Note** This change was introduced in patch combination CSCOnn027 and CSCOgs033.
4225	PRI AOC - E Charge Information	Contains charging tariff information that has been setup for AOC - E Supplementary services. Comprised of the following data items: tariff id and timestamp (may be repeated up to 11 occurrences). **Note** This change was introduced in patch combination CSCOnn027 and CSCOgs033.

Note A minimum of three tariff changes can be made before 10:00 a.m. For more information, see caveat number CSCsb22179.

Note This feature was introduced in patch combination CSCOnn012/CSCOgs011.

IOS DSP Stats in CDR (K-Factor)

This feature (CSCsa98765) enables the receipt of additional DSP Voice Quality statistics from the IOS media gateways (GWs using C5510 DSPs that run Santa Barbara dspware) in the MGCP DLCX message that will be captured in the PGW's 4098 and 4099 CDR tags.

The DSP stats will be available on most MCEBU gateways, including AS5350, 5400, 5850, and 37xx. The MGX GWs (VISM/VXSM) do not utilize this DSP and are not covered by this feature.

Note Additional work to support receiving/processing the CDRs in BAMS to enable them for customer use is covered under separate features (BAMS 3.21 in EDCS-408316).

Note This feature was introduced in patch combination CSCOnn026/CSCOgs024.

ISUP HOP Counter and SIP Max Forwards

This feature (CSCsb65493) supports mapping of the ISDN User Part (ISUP) hop counter parameter and the Session Initiation Protocol (SIP) Max-Forwards field to prevent loops when calls are made between the Public Switched Telephone Network (PSTN) and SIP domains on the Cisco MGC 2200.

It provides the following:

- The option to apply mapping between the SIP Max-Forwards and the ISUP hop counter.
- Supports both ITU ISUP and ANSI ISUP ISUP hop counter and SIP Max-Forwards.
- Supports mapping between SIP-to-ISUP and SIP-to-EISUP.
- Adds two sigPath property values: SipToIsupRatio, for mapping from SIP to ISUP or EISUP and IsupToSipRatio, for mapping from ISUP or EISUP to SIP.

For more information, see the *ISUP Hop Counter and SIP Max Forwards Mapping* feature module.

Note This feature was introduced in patch combination CSCOnn020/CSCOgs018.

ISUP Transparency Across the BTS/PGW Interface

This feature (CSCeg84917) adds ISUP transparency support between the PGW and the BTS.

Note This feature was introduced in patch CSCOgs010. It was propagated from an earlier release.

Multiple IP Addresses in SIP Contact Header

This feature (CSCeg67066) supports multiple IP addresses in the SIP Contact header for redundant interworking with a SIP application server. It introduces the ContactListOrder sigPath property to the Cisco PGW 2200. With this property, the Cisco PGW 2200 can perform digit analysis and modification, if required, before initiating a new INVITE to the first IP address and subsequent IP addresses in the Contact header. If the INVITE sent to first IP address fails to get a response and the following three

retries also fail, the MGC then sends the INVITE to the second IP address in the list. After all of IP addresses in the list are tried, the MGC returns to digit analysis or releases the call back though the PSTN.

Note This feature was introduced in patch combination CSCOnn024/CSCOgs022.

Netra 240 and Netra 440 Platform Introduction for MGC Host

This feature (CSCee30532) introduces the Netra 240 and Netra 440. This feature offers:

- Upgrade to new 16.1.0.23 CIAgent
- New ALOM support in alarm manager

Note This feature was introduced in patch combination CSCOnn003/CSCOgs004. It was propagated from release 9.5(2).

New CPC Value For Danish ISUP Variant

This feature (CSCsd79625) adds a new value of 10 to the Danish SS7 ISUP parameter. The value is used for International CPC.

Note This feature was introduced in patch combination CSCOnn027/CSCOgs025.

Omitting CgPN on Receipt of From: Unavailable SIP header

The following issues exist with this featurette(CSCsc83636):

- The datasync parameter should be set to False before patch installation (this disables the copying of files). It should be set back to true after installation.
- When using config-lib to revert to a saved configuration, manually copy 'propSet.xml.dat' and 'propVal.xsd.dat' files from /opt/CiscoMGC/etc/CONFIG_LIB/new to /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link and then restart the PGW.

Note This featurette was introduced in patch combination CSCOnn026/CSCOgs024.

PGW 2200 SIP Overload

This feature (CSCsb97983) adds enhancements that protect the PGW 2200 when it is in a SIP Overload situation. These enhancements include sending messages earlier in the call flow, responding to unexpected messages, and improved MML queries.

The three main areas for improvements to the existing SIP implementation are:

- Automatic 100 Trying in IOCC—The PGW 2200 sends the SIP 100 Trying message (from the IOCC Channel Controller) sooner in the SIP call flow to mitigate INVITE re-transmissions.

- Mechanism for automatically responding to unexpected Requests—The PGW 2200 responds to all Non-INVITE Requests when there is no call instance. Currently, the PGW 2200 discards all the non INVITE SIP Requests if no call instance exists, which may result in re-transmitted messages to the PGW 2200 that can fill up the input queue.
- Improved rtrv-ovld and rtrv-ne-health to help understand what is happening on live systems—the PGW 2200 adds the reason that it is in overload to both the retrieve overload (rtrv-ovld) and the retrieve health (rtrv-ne-health) commands. This assists PGW 2200 customers and Cisco support staff in understanding which aspect of load is causing the PGW 2200 to be overloaded.

If MCL is at level 0 (not overloaded) then the 'Reason' field states 'not applicable' otherwise it contains a valid reason. Valid values are:

- not applicable
- call rate
- CPU-system
- CPU-thread
- memory address space
- virtual memory
- queue length

Note This feature was introduced in patch combination CSCOnn026/CSCOgs024.

PGW Does Not Allow SIP Display Name Mapping

This feature (CSCsd99795) introduces a new parameter, InhibitSipFromMapping, to allow the mapping of SIP invite information to ISUP. The feature previously allowed userid from the From field to be mapped but not the user defined Display Name.

The following extends the functionality of this parameter to allow the mapping of the Display Name:

```
InhibitSipFromMapping = 3
If R-PID or P-assert-id already mapped to CLI then
if Display Name contains an E164 Number then
Map Display Name to GN(ACPN)
else
if username contains an E164 Number then
Map username to GN(ACPN)
else
If no R-PID or P-assert-id contained in the INVITE then
If Username contains E164 number then map to CLI
If Display Name contains E164 Number then map to GN(ACPN)
```

Note This is only for mapping in one direction SIP to ISUP not in the other direction.

Note This feature was introduced in patch combination CSCOnn030/CSCOgs028.

Q767_SINGAPORE Support for GTD FDC for CGN and CPC

This feature adds Q767_Singapore GTD FDC support for CGN and CPC. It implements the following:

- The PGW now uses the GTD FDC parameter for out-of-range fields for the CPC and CGN parameters in Q767_SINGAPORE.
- The PGW now implements a GTD override for CAI.loc (cause location) to override the NI2 > SS7 mapping.

Note This feature was introduced in patch CSCOnn008. It was propagated from release 9.4(1).

Re-INVITE for an Unsupported SIP-H323 Call Flow

This feature (CSCeh01785) changes the behavior of the PGW for H.323 to SIP or SIP to H.323 calls. Previously, only basic calls were supported on the PGW for H.323 to SIP or SIP to H.323 calls. If a SIP Re-INVITE is received, then one of the parties was muted. With this feature, instead of leaving the call in a mute state, the PGW rejects a SIP Re-INVITE when it is received as part of a SIP to H.323 or H.323 to SIP call.

Note SIP Re-INVITE is not supported when SIP is interworked with EISUP (for example, SIP-PGW-EISUP-HSI and SIP-PGW-EISUP-PGW-SS7). In these cases, when a SIP Re-INVITE is sent for Call Hold, Call Resume, or Call Transfer, the SIP Re-INVITE is rejected. This is a known limitation.

Note Release 9.7 will contain features that allow the interworking of SIP Re-INVITE and H.323 ECS as well as with EISUP in general. These release 9.7 features will eliminate this feature.

Note This feature was introduced in patch combination CSCOnn012/CSCOgs011.

Routing Based on the Redirecting Number

This feature (CSCsg37231) enhances PGW 2200 routing capability by enabling number analysis and route selection based on the redirecting number (RN) within the ISDN Q.931 SETUP message.

It introduces the RedirNumForAnalysis property to the Cisco PGW 2200. With this SigPath property, the Cisco PGW 2200 indicates whether number analysis is based on the redirecting number.

Valid values for the RedirNumForAnalysis property are:

- 0—Do not use RN for number analysis; this is the default.
- 1—Use RN for number analysis if the ingress call setup message has RN.

Note This feature was introduced in patch combination CSCOnn041/CSCOgs040.

Russian INAP

This feature (CSCeg33908) allows service providers in the Russian Federation to use the PGW 2200 as an SSP (with limited functionality). It uses the existing functionality added by the Finnish INAP (FINAP) feature. For more information on the Finnish INAP feature, see the *Meter Pulse Messages Support* feature module.

The Russian INAP feature supports the currently supported INAP operations. The following operations (parts of INAP-R) are not supported:

- CallGap
- ActvateServiceFiltering
- ServiceFilteringReport
- CallInformationRequest/Report
- PlayAnnouncement
- PromptAndCollectUserInformation

The XECfgParm.dat file configuration parameters modified for this feature are in the table below.

Configuration Parameter	Definition
CustSpecificINAPHandling	Used by call processing to distinguish Russian INAP specific treatment. Default: null Valid values are: rinap and finap.

The following CPC internal values were added:

Value	Definition
108	CPC_SPARE_0
109	CPC_HOTEL_SUB_2
110	CPC_LOCAL_SUB_3
111	CPC_LOCALPAYPHONE_9
112	CPC_SEMI_AUTO_CALL_3
113	CPC_AUTO_CALL_4
114	CPC_SEMI_AUTO_CALL_4

Note Changes to this setting do not take affect until the system has been restarted.

Note If an error occurs while accessing the tariff data table, the existing alarm, TariffTableAccessFail displays.

Note If you use config-lib to revert to a saved configuration, you must also manually copy the 'triggers.dat' file from /opt/CiscoMGC/etc/CONFIG_LIB/new to /opt/CiscoMGC/etc/ and to /opt/CiscoMGC/etc/active_link.

Note During call setup, the missing chargeRateModulator parameter has been modified to default to 100. For more information, see caveat number CSCsb21677 and see Default Value Set to 1 for Missing chargeRateModulator Parameter in the Known Issues and Operational Recommendations section of this document.

Note This feature was introduced in patch combination CSCOnn012/CSCOgs011.

SIP to MGCP T.38 Fax Fallback to Pass-through and Voice

This feature (CSCeg39985) provides support on the Cisco MGC 2200 of T.38 FAX calls in the event a T.38 fax setup on a SIP call fails due to lack of T.38 fax support on a SIP endpoint, such as the Cisco SIP Analog Telephone Adaptor (ATA). Further, after the fax call is completed, the MGC is able to fallback to a voice call, if the original call event was voice.

It provides the following:

When the MGC receives a T.38 Fax indication fax from an MGCP gateway, it initiates Re-Invite with SDP indicating T.38 attributes to the SIP endpoint, which returns a 488 message because the endpoint does not support T.38. The MGC modifies the connection at the MGCP gateway to up speed to G.711 (for example, "L: e:off,s:off;a:G.711a") if the audio channel is not set for G.711.

The upspeed capability applies to both SIP-initiated fax or SS7/ISDN-side initiated fax calls.

After the fax call is completed, the call configuration falls back to voice with the original audio codec, if the original call event was a voice call.

This feature provides the following benefits:

- Fallback to Passthrough—The MGC can be configurable on a system-wide basis for fallback to pass-through when T.38 is not supported by a SIP endpoint.
- Fallback to Voice—The MGC can be configurable on a system-wide basis for fallback to voice that disallows pass-through fax.
- Codec Selection Preference After Fallback—When the codec preference from either an H.323 or MGCP gateway excludes G.711, and T.38 fax fails, the MGC can be configured to instruct the H.323 or MGCP gateway to up speed to G.711 for fax pass-through; and if the call fails, the MGC instructs the T.38 fax initiating party to fallback to the original audio codec for voice.
- Codec Unavailable for a Protocol—When G711 is unavailable on a given protocol (due to bandwidth conservation purposes) and T.38 fax fails, the MGC instructs the T.38 fax initiating party to fallback to the original audio codec for voice. The case applies to where the audio channel is on a codec other than G.711 (for example, G.729).
- Generate CDRs for Upspeed Attempts —The MGC generates call data record (CDR) 4081 when up-speed is attempted whether it is successful or fails for up-speed fax. The codecs being used for Fax shall be check pointed across standby MGC.

Note Fallback to passthrough after failed T.38 Faxes dependent on IOS release 12.4.(5a); Fallback to voice after successful T.38 Fax is dependent on IOS release 12.4(7a).

The following XECfgParm.dat parameter was added:

Table 14 New XECfgParm.dat Parameter

Configuration Parameter	Definition
*.FaxUpspeedCodecPreference	You must statically define the upspeed codecs in XECfgParm.dat. You can define the first preference and the second preference upspeed codec. If the second preference is not defined, the first preference becomes the mandatory codec. The valid upspeed codecs are G711alaw and G711ulaw. Valid values: null (default), G711alaw, and G711ulaw

The following call detail record data was modified for this feature by adding data values 2 through 4.

Table 15 T.38 Fax Call Description

Name: T.38 Fax Call			**Tag:** 4081				**Source:** MDL	
Description/Purpose: Indicates the call was a Fax call negotiated using T.38.								
Format: IA5			**Length in Octets:** 1					
Data Value: 0= No Fax information available 1=Call Agent negotiated T.38 Fax call 2=T.38fax fail and it used up-speed G711alaw 3=T.38fax fail and it used up-speed G711alaw 4=T.38 fax fail and no up-speed								
ANSI/ITU Variations: None.								
Extended Data Value: No extended value.								
General Information: The data for this CDR is assigned by SCP and transparently passed to CDR.								
MGC Release: Release 9.3(2) and later. Added data values 2-4 in Release 9.5(2).								
Answered (1010)	Deselected (1020)	Aborted (1030)	Release (1040)	Interrupted (1050)	Ongoing (1060)	Maintenance (1070)	External DB (1080)	End of Call (1110)
Y	Y	N	N	Y	Y	Y	Y	N

Note This feature was introduced in patch combination CSCOnn026/CSCOgs024.

Sun Fire V210/Netra 210 Platform for MGC

This feature (CSCsd09387) introduces the Sun Fire V210/Netra 210 platform.

Note This feature was introduced in patch CSCOgs021.

Sun Fire V210/Netra 210 Platform Support

This feature (CSCsd01025) introduces Sun Fire V210/Netra 210 platform support for the MGC application.

Note This feature was introduced in patch combination CSCOnn026/CSCOgs024.

Support for BRI Backhaul

This feature (CSCee66527) enables new CPE hardware to function properly for TCP based BRI Backhaul and enables the new 28xx and 38xx to work with the PGW 2200.

Note This feature was introduced in patch combination CSCOnn012/CSCOgs011.

Support for Gateway Ring-Back Tone Over MGCP

This feature (CSCsd03635) adds gateway ring-back tone over MGCP protocol support for MGCP controlled media gateway calls destined for PBXs that do not generate ring-back tones.

Previously, the PGW supported local ring-back tones for MGCP to IP calls (including MGCP to SIP calls and MGCP to EISUP calls). For MGCP to SIP call, the PGW always requests ring-back tones via MGCP MDCX messages if no SDP information was received in the 180/183 response. For MGCP to EISUP calls, the existing trunkgroup property, GatewayRBToneSupport, is used. Valid values for GatewayRBToneSupport are:

- 0—no local ring-back tone support
- 1—local ring-back tone supported for MGCP to EISUP calls by MDCX message
- 2— local ring-back tone supported for MGCP to EISUP calls by RQNT message

Similar functionality will be extended to the MGCP to MGCP call. The existing property, GatewayRBToneSupport will be enhanced to add the following options:

- 3—local ring-back tone supported for MGCP to EISUP calls and MGCP to MGCP calls by MDCX message
- 4—local ring-back tone supported for MGCP to MGCP calls only by MDCX messages

For hairpin calls (originating and terminating on the same IOS gateway) MDCX is not accepted by IOS gateway. The hairpin call function will be disabled for the trunkgroup if the GatewayRBToneSupport parameter is set to 3 or 4. All calls will be treated as non hairpin calls and request a ring-back tone. Hairpin call benefits of saving DSP and other resources on gateway will be lost.

Note This feature is not designed to handle MGCP to MGCP calls where the originating leg and terminating leg are on different PGW pairs (does not support calls transported over EISUP). The reference to EISUP is for EISUP—H323 only.

Note This feature was introduced in patch combination CSCOnn028/CSCOgs026.

Support for ITP Signaling GW with Distributed MTP3

This feature (CSCeg80870 and CSCsa83579) adds support for the following configurations:

- Mated pair of ITPs with a single OPC in front of a single PGW node with the same OPC (Distributed MTP3)
- Mated pair of ITPs with a single OPC in front of multiple PGW nodes with the same OPC (Point Code Consolidation)

Note This feature was introduced in patch CSCOnn008. It was propagated from release 9.4(1).

Support for M3UA Priority Routes

This feature (CSCsb65433) provides the ability to assign priorities for M3UA routes for each OPC/DPC pair on the PGW. Two levels of priority can be assigned on an M3UAROUTE link; level 1 (higher priority) and level 2. The default priority is 1. If multiple routes have the same priority assigned, the PGW loadshares traffic across the links.

Note Only two signaling gateways (SG) can be supported for a specified sigPath. When two SGs are assigned different route priority, only the SG with the higher priority is selected for routing. The other SG is only used when the higher priority SG fails. When the two SGs are assigned the same priority, the traffic is loadshared.

Note This feature can only be used for communication between Cisco MGCs and Cisco ITPs. For information on the restrictions on the Cisco ITPs, se the Support for M3UA and SUA with SCTP on Cisco ITPs feature module.

Note This feature was introduced in patch combination CSCOnn024/CSCOgs022.

Support for SIP Update (RFC3311) Phase 1

This feature (CSCsc81117) adds SIP Update (RFC3311) Phase 1 to this software release. The following are requirements from RFC3311:

Table 16 RFC3311 Requirements

Requirement Number	Requirement	Supported/Not Supported
1	A UAS that receives an UPDATE before it has generated a final response to a previous UPDATE on the same dialog MUST return a 500 response to the new UPDATE, and MUST include a Retry-After header field with a randomly chosen value between 0 and 10 seconds.	Not supported. PGW will discard this UPDATE.
2	If an UPDATE is received that contains an offer, and the UAS has generated an offer (in an UPDATE, PRACK or INVITE) to which it has not yet received an answer, the UAS MUST reject the UPDATE with a 491 response (Request Pending).	Not supported. There is no protection for the described scenario. The UPDATE will be processed, and we would expect the other SIP endpoint to reject the request sent by PGW.
3	If an UPDATE is received that contains an offer, and the UAS has received an offer (in an UPDATE, PRACK, or INVITE) to which it has not yet generated an answer, the UAS MUST reject the UPDATE with a 500 response, and MUST include a Retry-After header field with a randomly chosen value between 0 and 10 seconds.	Not supported. If the first offer is from UPDATE, then the following UPDATE is discarded. There is no protection if the first offer is from PRACK or INVITE. We would expect the SIP endpoint does not send 2 offers in a row.
4	If a UA receives an UPDATE for an existing dialog, it MUST check any version identifiers in the session description or, if there are no version identifiers, the content of the session description to see if it has changed. If the session description has changed, the UAS MUST adjust the session parameters accordingly and generate an answer in the 2xx response. There is an in-between internal state OCC_AckSDP. PGW goes into this state if original INVITE does not have SDP, the originating SDP is received only in the ACK message. This offer does not expect an answer. Currently we send MDCX down to gateway after such ACK is received, and move to OCC_Connected state if gateway acks MDCX. UPDATE messages received from this state are discarded. For state OCC_Setup and TCC_Setup, we do not expect UAC to send a PGW UPDATE as no reliable response has been sent to UAC yet, UPDATE received from these states are also discarded as default.	Supported. This is supported for UPDATE at both early and confirmed states. This means we handle UPDATE at PGW internal state: OCC_Alerting, OCC_Answered, OCC_Connected TCC_Ringing and TCC_Completed, one UPDATE at a time, not to mix with REINVITE and PRACK.
5	If the UAS cannot change the session parameters without prompting the user, it SHOULD reject the request with a 504 response. If the new session description is not acceptable, the UAS can reject it by returning a 488 (Not Acceptable Here) response for the UPDATE. This response SHOULD include a Warning header field.	Not supported. The exact behavior depends on MGCP gateway returncode, generally, the call is torn down.

The following are PGW-specific limitations:

- If the other leg is EISUP, and there is sdp in UPDATE, the UAS can reject it by returning a 488 (Not Acceptable Here) response for the UPDATE.
- If populateSDPinCDR flag is on, the SDP from the last accepted UPDATE for the dialog is saved in a CDR.
- PGW does not generate outgoing UPDATE message in non-proxy mode. At proxy mode, PGW passes UPDATE transparently. The idea is to pass UPDATE with SDP to gateway as MDCX via internal event LMidCallSDPEvent
- lcm.mdl. We only accept LMidCallSDPEvent at Connected state before; this has been extended to AddressComplete and Alerting states.
- sip.mdl, Added Boolean pendingMediaUpdate to indicate that we are processing a valid UPDTE message; When UPDATE is received at OCC_Alerting, OCC_Answered, OCC_Connected, TCC_Ringing and TCC_Completed states, if pendingMediaUpdate is TRUE, discard the UPDATE, else validate it, if there is SDP and the other leg is not EISUP, send LMidCallSDPEvent to lcm and set pendingMediaUpdate to TRUE; If other leg is EISUP, reply with 488; At OCC_Connected and TCC_Completed state, session timer is reset as long as the UPDATE is valid (regardless of presence of SDP); When LMidCallSDPEventAck is received at these state and pendingMediaUpdate is TRUE, send 200OK response to UPDATE; Updated sendRespons function so Session Expires head is inserted to UPDATE response only at connected states.

Note This change request was introduced in patch CSCOnn026.

Support for Up to 8 Call Manager Clusters

This change request (CSCsa82415) adds support for up to eight call manager clusters. This is an interim fix for the CTI Multicluster feature (CSCef08096). It is used with features such as DPNSS CallBack and Extension Status.

Note This change request was introduced in patch CSCOgs008.

Support of DNS SRV and SIP Load-Sharing

This feature (CSCsa62907) implements DNS SRV and SIP load-sharing in compliance with the RFC2782 specification. When the PGW 2200 is connected to multiple SIP entities that offer a service, it does loadsharing among multiple SIP entities when provisioned so in the DNS server. The PGW 2200 loadshares the initiation of SIP sessions (INVITE messages) between these entities. The entities can be SIP Proxy servers and/or SIP Back to Back User Agents.

Note This feature was introduced in patch combination CSCOnn025/CSCOgs023.

Support of R-ISUP2000 Variant

This feature implements the ISUP-R-2000 variants to support Russian and other Commonwealth of Independent States (CIS) (former Soviet Union) users.

Note This feature was introduced in patch combination CSCOnn028/CSCOgs026.

VXSM Support

This feature (CSCeg89855) provides interoperability between the MGC8850 and the PGW 2200 regarding the SIP interface as part of the VXSM 1.5MR project.

Note This feature was introduced in patch CSCOnn007. It was propagated from release 9.5(2).

Protocols Supported

The following protocols are supported:

Table 17 Supported Protocol Variants

Protocol Variant Name	Protocol Family	Switch Supported
ETS_300_102	ISDNPRI	27
ETS_300_102_C2	ISDNPRI	27
ATT_41459	ISDNPRI	17
ATT_41459_C2	ISDNPRI	17
BELL_1268	ISDNPRI	22
ETS_300_172	ISDNPRI	29
BELL_1268_C2	ISDNPRI	22
ETS_300_121	SS7-ITU	0
Q931_AUSTRALIA	ISDNPRI	19
Q931	ISDNPRI	27
Q931_SINGAPORE	ISDNPRI	27
GR317	SS7-ANSI	0
ANSISS7_92	SS7-ANSI	0
ANSISS7_STANDARD	SS7-ANSI	0
ANSISS7_C2	SS7-ANSI	20
ANSISS7_C3	SS7-ANSI	0
ANSISS7_E1	SS7-ANSI	23
ANSISS7_2K	SS7-ANSI	0
BTNUP_BTNR167	SS7-UK	5

Table 17 Supported Protocol Variants (Continued)

Protocol Variant Name	Protocol Family	Switch Supported
BTNUP_IUP	SS7-UK	5
HONGKONG	SS7-ITU	0
ETS_300_356	SS7-ITU	0
ISUPV2_FRENCH	SS7-ITU	0
ISUPV2_AUSTRIAN	SS7-ITU	0
ISUPV2_SWISS	SS7-ITU	0
ISUPV2_SWISS_C2	SS7-ITU	0
ISUPV2_GERMAN	SS7-ITU	0
ISUPV2_FINNISH96	SS7-ITU	0
ISUPV1_POLI	SS7-ITU	0
ISUPV2_POLISH	SS7-ITU	0
ISUPV2_DUTCH	SS7-ITU	0
ISUPV2_JAPAN	SS7-Japan	10
ISUPV2_JAPAN_C2	SS7-Japan	0
ISUPV2_CZECH	SS7-ITU	0
ISUPV3	SS7-ITU	0
ISUPV3_UK	SS7-UK	0
ISUPV3_UK_C2 SS7-UK	SS7-UK	15
ISUPV3_UK_C3 SS7-UK	SS7-UK	0
ISUPV3_UK_C4	SS7-UK	15
ISUPV2_SPANISH_C2	SS7-ITU	0
ISUPV2_SPANISH	SS7-ITU	0
ISUPV2_NORWEGIAN	SS7-ITU	0
ISUPV2_ISRAEL	SS7-ITU	40
Q721_FRENCH	SS7-ITU	5
Q721_CHINA	SS7-China	5
Q721_BASE	SS7-ITU	5
Q721_PHILLIPINE	SS7-ITU	5
Q721_BRAZILIAN	SS7-ITU	5
Q761_97VER	SS7-ITU	0
Q761_CHINA	SS7-China	0
ISUPV2_32DIG	SS7-ITU	0
ISUPV2_VIETNAM	SS7-ITU	0
Q761_CHINA_C2	SS7-China	0
Q761_BELG_C2	SS7-ITU	0
Q761_BELG_C3	SS7-ITU	0

Table 17 Supported Protocol Variants (Continued)

Protocol Variant Name	Protocol Family	Switch Supported
Q761_DANISH	SS7-ITU	0
Q761_INDIA	SS7-ITU	0
Q761_MALAYSIAN	SS7-ITU	0
Q761_JAPAN	SS7-Japan	10
Q761_KOREAN	SS7-ITU	0
Q761_TAIWAN	SS7-ITU	0
Q761_CHILE	SS7-ITU	0
Q761_SINGAPORE	SS7-ITU	0
Q761_SINGAPORE_C2	SS7-ITU	0
Q761_THAILAND	SS7-ITU	0
Q761_ARGENTINA	SS7-ITU	0
Q761_ARGENTINA_C2	SS7-ITU	0
Q761_BELG	SS7-ITU	0
Q761_AUSTRL	SS7-ITU	0
Q761_AUSTRL_C2	SS7-ITU	0
Q761_NEWZEALAND	SS7-ITU	0
Q761_BASE	SS7-ITU	0
Q761_PORTUGAL	SS7-ITU	0
Q761_GERMAN	SS7-ITU	0
Q761_PERU	SS7-ITU	0
Q767_BASE	SS7-ITU	0
Q767_SPAN	SS7-ITU	0
Q767_ITAL	SS7-ITU	0
Q767_RUSS	SS7-ITU	0
Q767_SWED	SS7-ITU	0
Q767_ITAL_C2	SS7-ITU	0
Q767_MEXICAN	SS7-ITU	0
Q767_AUSTRALIA	SS7-ITU	0
Q767_COLOMBIA	SS7-ITU	0
Q767_INDONESIA	SS7-ITU	0
Q767_BRAZIL	SS7-ITU	0
Q767_GUATEMALA	SS7-ITU	0
Q767_TURKISH	SS7-ITU	0
Q767_SINGAPORE	SS7-ITU	0
Q767_NIGERIAN	SS7-ITU	0
EISUP	EISUP	0

Table 17 Supported Protocol Variants (Continued)

Protocol Variant Name	Protocol Family	Switch Supported
BELL_SGCP	MGCP	0
MGCPCAS	CAS	0
dummy	SGCP	0
dummy	MGCP	0
dummy	TCAPOverIP	0
dummy	VSI	0
dummy	AVM	0
IETF_SIP	SIP	0
IETF_DCS	SIP	0
DPNSS_BTNR188	DPNSS	26
ETS_300_102	ISDNPRI	27
ETS_300_102_C2	ISDNPRI	27
ATT_41459	ISDNPRI	17
ATT_41459_C2	ISDNPRI	17
BELL_1268	ISDNPRI	22
ETS_300_172	ISDNPRI	29
BELL_1268_C2	ISDNPRI	22
ETS_300_121	SS7-ITU	0
Q931_AUSTRALIA	ISDNPRI	19
Q931	ISDNPRI	27
Q931_SINGAPORE	ISDNPRI	27
GR317	SS7-ANSI	0
ANSISS7_92	SS7-ANSI	0
ANSISS7_STANDARD	SS7-ANSI	0
ANSISS7_C2	SS7-ANSI	20
ANSISS7_C3	SS7-ANSI	0
ANSISS7_E1	SS7-ANSI	23
ANSISS7_2K	SS7-ANSI	0
BTNUP_BTNR167	SS7-UK	5
BTNUP_IUP	SS7-UK	5
HONGKONG	SS7-ITU	0
ETS_300_356	SS7-ITU	0
ISUPV2_FRENCH	SS7-ITU	0
ISUPV2_AUSTRIAN	SS7-ITU	0
ISUPV2_AUSTRIAN_C2	SS7-ITU	0
ISUPV2_SWISS	SS7-ITU	0

Table 17 Supported Protocol Variants (Continued)

Protocol Variant Name	Protocol Family	Switch Supported
ISUPV2_SWISS_C2	SS7-ITU	0
ISUPV2_GERMAN	SS7-ITU	0
ISUPV2_FINNISH96	SS7-ITU	0
ISUPV1_POLI	SS7-ITU	0
ISUPV2_POLISH	SS7-ITU	0
ISUPV2_DUTCH	SS7-ITU	0
ISUPV2_JAPAN	SS7-Japan	10
ISUPV2_JAPAN_C2	SS7-Japan	0
ISUPV2_CZECH	SS7-ITU	0
ISUPV3	SS7-ITU	0
ISUPV3_UK	SS7-UK	0
ISUPV3_UK_C2	SS7-UK	15
ISUPV3_UK_C3	SS7-UK	0
ISUPV3_UK_C4	SS7-UK	15
ISUPV2_SPANISH_C2	SS7-ITU	0
ISUPV2_SPANISH	SS7-ITU	0
ISUPV2_32DIG	SS7-ITU	0
ISUPV2_VIETNAM	SS7-ITU	0
ISUPV2_NORWEGIAN	SS7-ITU	0
ISUPV2_ISRAEL	SS7-ITU	40
Q721_FRENCH	SS7-ITU	5
Q721_CHINA	SS7-China	5
Q721_BASE	SS7-ITU	5
Q721_PHILLIPINE	SS7-ITU	5
Q721_BRAZILIAN	SS7-ITU	5
Q761_CHINA	SS7-China	0
Q761_CHINA_C2	SS7-China	0
Q761_DANISH	SS7-ITU	0
Q761_INDIA	SS7-ITU	0
Q761_MALAYSIAN	SS7-ITU	0
Q761_JAPAN	SS7-Japan	10
Q761_KOREAN	SS7-ITU	0
Q761_TAIWAN	SS7-ITU	0
Q761_CHILE	SS7-ITU	0
Q761_SINGAPORE	SS7-ITU	0
Q761_SINGAPORE_C2	SS7-ITU	0

Table 17 Supported Protocol Variants (Continued)

Protocol Variant Name	Protocol Family	Switch Supported
Q761_THAILAND	SS7-ITU	0
Q761_ARGENTINA	SS7-ITU	0
Q761_ARGENTINA_C2	SS7-ITU	0
Q761_BELG	SS7-ITU	0
Q761_BELG_97VER	SS7-ITU	0
Q761_AUSTRL	SS7-ITU	0
Q761_AUSTRL_C2	SS7-ITU	0
Q761_NEWZEALAND	SS7-ITU	0
Q761_BASE	SS7-ITU	0
Q761_PORTUGAL	SS7-ITU	0
Q761_GERMAN	SS7-ITU	0
Q761_PERU	SS7-ITU	0
Q767_BASE	SS7-ITU	0
Q767_SPAN	SS7-ITU	0
Q767_ITAL	SS7-ITU	0
Q767_RUSS	SS7-ITU	0
Q767_SWED	SS7-ITU	0
Q767_ITAL_C2	SS7-ITU	0
Q767_MEXICAN	SS7-ITU	0
Q767_AUSTRALIA	SS7-ITU	0
Q767_COLOMBIA	SS7-ITU	0
Q767_INDONESIA	SS7-ITU	0
Q767_BRAZIL	SS7-ITU	0
Q767_GUATEMALA	SS7-ITU	0
Q767_TURKISH	SS7-ITU	0
Q767_SINGAPORE	SS7-ITU	0
Q767_NIGERIAN	SS7-ITU	0
EISUP	EISUP	0
BELL_SGCP	MGCP	0
MGCPCAS	CAS	0
dummy	SGCP	0
dummy	MGCP	0
dummy	TCAPOverIP	0
dummy	VSI	0
dummy	AVM	0

Table 17 Supported Protocol Variants (Continued)

Protocol Variant Name	Protocol Family	Switch Supported
IETF_SIP	SIP	0
IETF_DCS	SIP	0

Known Issues and Operational Recommendations

This section contains information about known issues and the corresponding workarounds in the Cisco MGC software release 9.6(1).

Note For more information about Cisco IOS issues and workarounds, see the Cisco IOS release notes for your platform.

Release Cannot Contain HLCMOD and BCMOD Dialplans After Upgrade to 9.6(1)

If HLCMOD or BCMOD related dial plan provisioning is done in release 9.5(2), when the PGW is upgraded to release 9.6(1) patches CSCOgs023 and CSCOnn025, you must change your PGW configuration to one that does not contain a HLCMOD and BCMOD dial plan. Caveat number CSCsd63679 has been submitted for this known issue; the fix will be included in release 9.6(1) patch CSCOnn026.

Note For more information, see caveat numbers CSCsd38803 and CSCsd63679.

SIP Redirection Handling Has Been Updated

If the PGW acts as a SIP proxy, SIP redirection handled works as usual; there are no changes.

If the PGW acts as a SIP UAC, the PGW supports multiple contacts in one 302 response for redundant interworking with a SIP application server and also handles the "maddr" parameter in the 302 contact header.

The PGW always does the digit analysis for the redirection number in the received 302 contact to redirect the call whether the "host" in the contact URI is PGW or not. The only exception is if the contact URI includes the "maddr" parameter which causes the PGW to redirect the call to the SIP host in the "maddr" directly without analyzing the digits in the contact URI.

Caveat CSCeg67066 (synced from release 9.5(2) patches CSCOgs047 and CSCOnn039) has been propagated to this release.

SysConnectDataAccess Parameter Changed on Upgrade

During migration from release 9.5 to release 9.6 the XECfgParm.dat SysConnectDataAccess parameter is changed from the setting of false to true. For more information, see caveat number CSCsc58674.

Copying snmpd.cnf Prior to Upgrade

Instructions to copy the snmpd.cnf file to the dial plan directory (so it can be saved during an upgrade) and then copying it back into the snmp directory prior to upgrading to a new release should only be done when upgrading from 7.4(x) to release 9. You do not need to follow this process when upgrading within the 9.x releases. For more information, see caveat number CSCsc34762.

Default Value Set to 1 for Missing chargeRateModulator Parameter

Previously, during Russian INAP (RINAP) call setup, the missing chargeRateModulator parameter was defaulted to 1. A software change has been made to cdr_man_func.mdl to set the default for ChargeRateModulator (unitMultiplier) to 100. A value of 100 results in no change.

Note For more information, see caveat number CSCsb21677.

Interworking Between Diversion and CallBack is Not Supported

The following limitations exist:

- Limitation 1:

  PBX phone A registers a Call Diversion on-busy service. The forward-to party is PBX phone B in another PBX. This makes phone A busy. CCM IP phone calls PBX phone A. This call is forwarded to phone B but B does not answer. The IP phone invokes call back when next use. The expected result is, that the CBWNU-R should target phone A and CBWNU-R should be converted to CBWF-R. The actual result is that CBWNU-R targets phone A, not the CBWF-R.

- Limitation 2:

  The CCM phone calls PBX phone A. Since PBX phone A has call forward immediate set, the call is forwarded to phone B in another PBX. Phone B is busy now. So the CCM phone invokes the Call Back When Free Request. According to BTNR, this Call Back When Free should be sent to PBX phone B. The actual result is that it is sent to PBX phone A.

There are no known workarounds at this time.

Note For more information, se caveat number CSCsb38778.

Dynamic Provisioning of MGCP Version Now Supported

Dynamic provisioning of MGCP version is now supported.

Caution The MGCP version on the gateway must also be changed. Perform your change on the gateway prior to setting the iplink back in-service.

The following is an example of how to change the MGCP version property:

```
set-iplnk:clink205:oos,confirm
```

Perform mgcp version change on the gateway.

```
prov-sta::srcver="active",dstver="mgcp10",confirm
prov-add:sigsvcprop:name="mgcp205",gwprotocolversion="MGCP 1.0"
prov-ed:iplnk:name="clink205",pri=2
prov-dply

prov-sta::srcver="active",dstver="mgcp10-2",confirm
prov-ed:iplnk:name="clink205",pri=1
prov-dply

set-iplnk:clink205:is
```

To ensure changes have been updated:

```
rtrv-iplnk:all
prov-rtrv:sigsvcprop:name="mgcp205"
```

Note This must be done on all links on your gateway.

Note For more information, se caveat number CSCeg39436.

Note This workaround was introduced in patch combination CSCOnn007/CSCOgs008.

PGW Should Support the Option of Sending Hardware Block Messages

A new XECfgParm.dat parameter engine **.SendHardwareBlock** has been added. Valid values are true or false. If set to true, the PGW sends hardware oriented blocking messages for any blocks that originate from the media gateways. If set to false, the PGW only sends maintenance oriented blocking messages for all blocking cases.

Note This parameter must be added manually (using a UNIX editor such as vi) on release 9.3 and 9.4 systems. The di script automatically adds this parameter (if not already existing), to release 9.5 systems and above.

Note For more information, see caveat number CSCeg83496.

Link and Call States for New Object Not Synchronized to Standby After prov-copy/prov-sync

When you provision and add new signaling links or new CICS using the PROV-CPY command, you must reboot the system to synchronize the new objects in the active system to the standby. Not rebooting can cause loss of calls after a switchover.

Upgrading to Release 9.6(1)

When upgrading to release 9.6(1), the Times Ten database is upgraded to version 5.0.x.

Upgrading From Release 7.4:

If you are not using the database (no awhite, bwhite, ablack, or bblack data), remove the files (/opt/CiscoMGC/etc/*.ttdb) prior to installing release 9.6. If you do have database data, prior to uninstalling release 7.4, export each of the tables. Use the following commands to create the export data:

```
prov-add:files:name="AWhiteFile", file="XXXX.awhite", type="export"
prov-add:files:name="BWhiteFile", file="XXXX.bwhite", type="export"
prov-add:files:name="ABlackFile", file="XXXX.ablack", type="export"
prov-add:files:name="BBlackFile", file="XXXX.bblack", type="export"
```

where xxxx is the dialplan name associated with the screening data.

Note If you have multiple dial plans, you must execute these commands once for each dial plan. A file is created in the /opt/CiscoMGC/etc/cust_specific directory. These files should be saved so that they can be reimported later.

After installing release 9.6, recreate your screening data using the following commands:

```
prov-add:files:name="AWhiteFile", file="XXXX.awhite", type="import"
prov-add:files:name="BWhiteFile", file="XXXX.bwhite", type="import"
prov-add:files:name="ABlackFile", file="XXXX.ablack", type="import"
prov-add:files:name="BBlackFile", file="XXXX.bblack", type="import"
```

Upgrading From Releases 9.3, 9.4, and 9.5:

Before uninstalling a previous release, if using the database, run the delete_replication.sh script. After installing release 9.6 on both the active and standby, run the setup_replication.sh script on both PGWs.

The delete_replication.sh script should be run as mgcusr. The script is located in /opt/CiscoMGC/local, but if run as mgcusr, can be run from any location.

The setup_replication.sh script should be run as mgcusr. The script is located in /opt/CiscoMGC/local, but if run as mgcusr, can be run from any location.

Note For more information on running these scripts, see the *Cisco MGC Software Release 9 Installation and Configuration Guide*.

Note Provisioning must not be done during the upgrade until both PGWs (active and standby) have release 9.6 installed and the setup_replication.sh script has been run (on active and standby).

For more information, see caveat number CSCec77087.

Japanese Point Code Transmission

Point codes are used in SS7 networks as addresses for each element. There are three different point code address lengths used in SS7 networks:

- 14-bit address
- 16-bit address
- 24-bit address

Each point code addressing type has unique formats that are used to provide a structure for the network, where the lowest order bits in the address identify a particular signaling point, the highest order bits identify the wider "zone", and the bits in-between identify an "area" or "network." For example, ANSI SS7 uses 24-bit addresses with a format of 8-bits for each field (8-8-8).

Note An exception to this is found in Japanese ISUP, in which the order is reversed (that is, the lowest order bits identify the wider "zone" and the highest order bits identify a particular signaling point).

For more information, see the following documents:

- *Cisco MGC Software Release 9 Provisioning Guide*
- *Cisco MGC Software Release 9 Operation, Maintenance, and Troubleshooting Guide*

SRCP

The SRCP protocol is no longer available as of this release.

The following properties are no longer supported as of this release:

- *.srcpAuditGwInterval
- *.srcpAuditLineInterval
- *.srcpAuditLineInterval
- *.srcpIpPortLocal
- *.srcpIpPortRemote
- *.srcpRemoteAuditGwInterval
- *.srcpRetxCount
- *.srcpRetxTimer

The following mml commands are no longer supported as of this release:

- sta-aud-gw
- rtrv-aud-gw

The following alarms are no longer supported as of this release:

- Ext Node Interface Fail
- srcpAudit: GwBackhaulProto
- srcpAudit: GwBackhaulSes
- srcpAudit: GwControlProto
- srcpAudit: GwCoordProto

- srcpAudit: GwCuIpAddr
- srcpAudit: GwCuIpPort
- srcpAudit: GwNumOfLines srcpAudit: GwSlotNum srcpAudit: GwSulpAddr
- srcpAudit: GwSulpPort
- srcpAudit: GwType
- srcpAudit: LineCoding
- srcpAudit: LineLoopback
- srcpAudit: LineSigProto
- srcpAudit: LineState

The following logs are no longer supported as of this release:

- PROT_ERR_SRCP_BLD_PARMTYPE
- PROT_ERR_SRCP_PARSE_MAJVER
- PROT_ERR_SRCP_PARSE_MINVER
- PROT_ERR_SRCP_PARSE_PROT
- PROT_TRACE_SRCP_FROM_GW
- PROT_TRACE_SRCP_TO_GW
- PROT_ERR_SRCP_BLD_ACTION
- PROT_ERR_SRCP_BLD_CVID
- PROT_ERR_SRCP_BLD_EVT
- PROT_ERR_SRCP_BLD_REQEVT
- PROT_ERR_SRCP_BLD_REQINFO
- PROT_ERR_SRCP_BLD_SIGEVT
- PROT_ERR_SRCP_PARSE_EPID
- PROT_ERR_SRCP_PARSE_EVTPARM
- PROT_ERR_SRCP_PARSE_LINE
- PROT_ERR_SRCP_PARSE_MSGTYPE
- PROT_ERR_SRCP_RANGE_TXNID
- PROT_WARN_SRCP_PARSE_LONGCOMM

Note For more information, see caveat CSCec82754.

Caveats

Use Bug Toolkit to query defects. The tool is located at the following url:

http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl

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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