Release Notes for the Cisco Media Gateway Controller Software Release 9.5(2)

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These release notes describe the features and caveats for the Cisco media gateway controller (MGC) software Release 9.5(2).

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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 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).

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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 refer to the following documents:

- *Cisco Media Gateway Controller Hardware Installation Guide*
  Chapter 1, Table 1-1, Cisco MGC Host Configurations, at the following url:

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_installation_guide_chapter09186a00807fc039.html
- *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*
  (Chapter 1) at the following url:

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_installation_and_configuration_guide_chapter09186a00807db129.html

Software Required

For a list of required software, refer to Chapter 1 of the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide* at the following url:

http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_installation_and_configuration_guide_chapter09186a00807db129.html

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

Refer to the *Cisco Media Gateway Controller 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/univercd/cc/td/doc/product/wanbu/mgx8850/vism31/v311_rln.htm
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. Refer to 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 9.5(2).

Table 2 Supported Features in Release 9.5(2)

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.

Table 2 Supported Features in Release 9.5(2) (continued)

Feature	Purpose
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.
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

Table 2 Supported Features in Release 9.5(2) (continued)

Feature	Purpose
Quasi-associated or fully associated signaling	Ready for international markets.
Complete continuity check (two-wire and four-wire)	Meets interconnect requirements.
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
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

Related Documentation

Before Installation

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

- *The Overview Guide* for your solution
- *Cisco Media Gateway Controller Hardware Installation Guide*:

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_installation_guide_book09186a00807de145.html
- *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*:

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_installation_and_configuration_guide_book09186a00807db897.html
- *Regulatory Compliance and Safety Information for the Cisco Media Gateway Controller*:

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_regulatory_approvals_and_compliance09186a00807dabfc.html
- *The Gateway Installation Guide* for your solution

After Installation

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

- *Cisco Media Gateway Controller Software Release 9 Provisioning Guide*:

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_configuration_guide_book09186a00807da909.html
- *The Provisioning Guide* for your solution

Load the most recent patch set. Patches can be found at the following url:

http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml

General Purpose Documents

- *Cisco Media Gateway Controller Software Release 9 Operations, Maintenance, and Troubleshooting Guide*

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_maintenance_guide_book09186a008007e563.html
- *Cisco Media Gateway Controller Software Release 9 Messages Reference Guide*

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_technical_reference_book09186a008007dcb8.html
- *Cisco Media Gateway Controller Software Release 9 MML Command Reference*

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_command_reference_book09186a00807fcf17.html

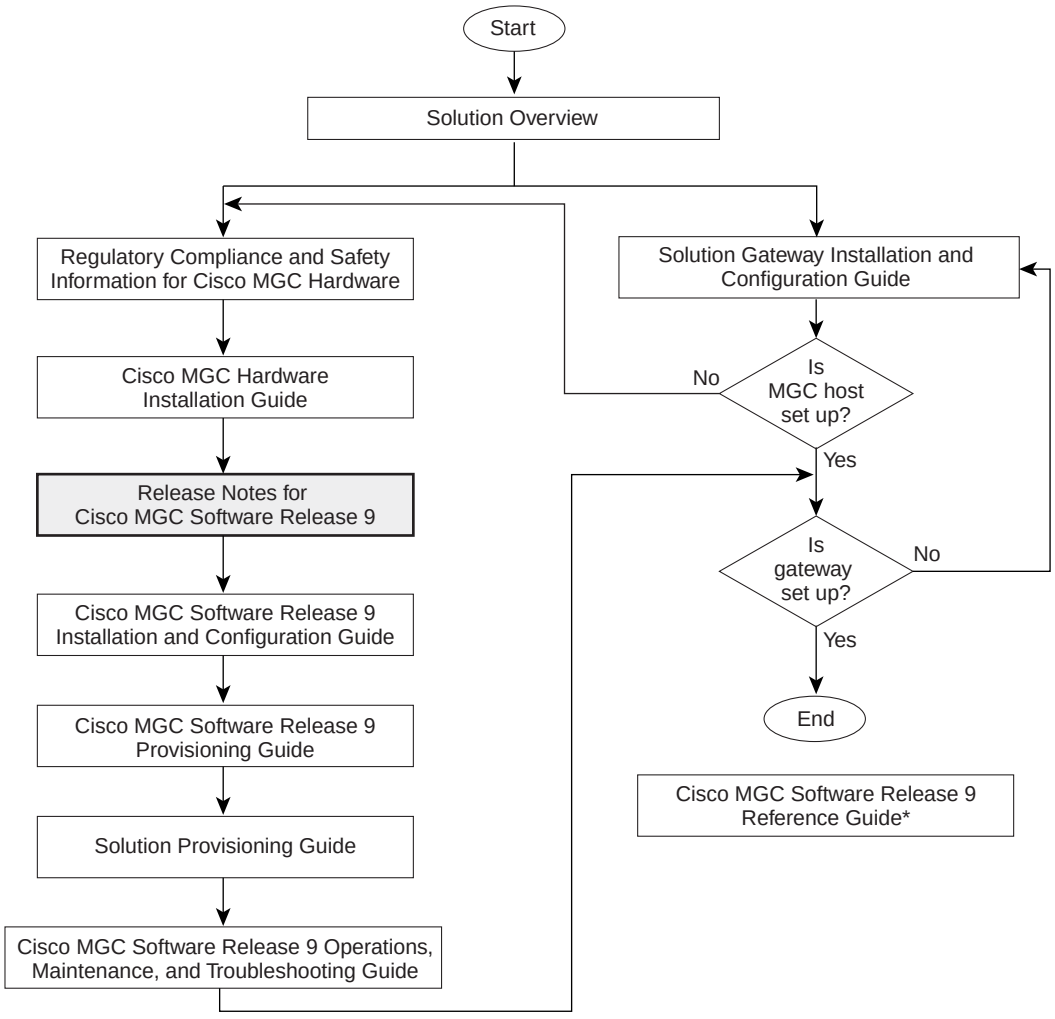
- *Cisco Media Gateway Controller Software Release 9 Dial Plan Guide*

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_configuration_guide_book09186a00807da50b.html
- *Cisco Media Gateway Controller Software Release 9 Billing Interface Guide*

  http://www.cisco.com/en/US/products/hw/vcallcon/ps2027/products_technical_reference_book09186a008009b07b.html
- *Cisco Media Gateway Controller Software Release 9.5(2) MIBs*

  http://www.cisco.com/univercd/cc/td/doc/product/access/sc/rel9/mgc_mib/r952/index.htm

Documentation Map



* This guide provides useful information that is not required during installation.

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

Warning **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, Obtaining Support, and Security Guidelines, page 199) or your Cisco account representative. Software release version incompatibility may cause service disruption.**

If you are installing software Release 9.5(2) for the first time, refer to the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide* for instructions.

Note In the *Cisco Media Gateway Controller 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).

Software Patches

Patches are located in the following directory:

http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952

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 9.5(2) is equivalent to release 9.4(1) patch level CSCOnn009 (contains all patches and features included in release 9.4(1) up to patch CSCOnn009).

Note Automatic propagation of issues is only supported for later releases. The equivalency level between releases assists you in determining when fixes in earlier releases have been propagated into the target release. Automatic backward propagation of issues is not supported.

Table 3 System Level Equivalencies for Protocol Patches

Patch Number	System Level Equivalency
CSCOnn066	Release 9.4(1) patch level nn061
CSCOnn065	Release 9.4(1) patch level nn061
CSCOnn064	Release 9.4(1) patch level nn058
CSCOnn063	Release 9.4(1) patch level nn058
CSCOnn062	Release 9.4(1) patch level nn058
CSCOnn061	Release 9.4(1) patch level nn058
CSCOnn060	Release 9.4(1) patch level nn058
CSCOnn059	Release 9.4(1) patch level nn058
CSCOnn058	Release 9.4(1) patch level nn058
CSCOnn057	Release 9.4(1) patch level nn056
CSCOnn056	Release 9.4(1) patch level nn050
CSCOnn055	Release 9.4(1) patch level nn050
CSCOnn054	Release 9.4(1) patch level nn050
CSCOnn053	Release 9.4(1) patch level nn050
CSCOnn052	Release 9.4(1) patch level nn050
CSCOnn051	Release 9.4(1) patch level nn050

Table 3 System Level Equivalencies for Protocol Patches (continued)

Patch Number	System Level Equivalency
CSCOnn050	Release 9.4(1) patch level nn050
CSCOnn049	Release 9.4(1) patch level nn050
CSCOnn048	Release 9.4(1) patch level nn050
CSCOnn047	Release 9.4(1) patch level nn050
CSCOnn046	Release 9.4(1) patch level nn050
CSCOnn045	Release 9.4(1) patch level nn050
CSCOnn044	Release 9.4(1) patch level nn050
CSCOnn043	Release 9.4(1) patch level nn050
CSCOnn042	Release 9.4(1) patch level nn050
CSCOnn041	Release 9.4(1) patch level nn050
CSCOnn040	Release 9.4(1) patch level nn050
CSCOnn039	Release 9.4(1) patch level nn050
CSCOnn038	Release 9.4(1) patch level nn050
CSCOnn037	Release 9.4(1) patch level nn050
CSCOnn036	Release 9.4(1) patch level nn050
CSCOnn035	Release 9.4(1) patch level nn050
CSCOnn034	Release 9.4(1) patch level nn047
CSCOnn033	Release 9.4(1) patch level nn047
CSCOnn032	Release 9.4(1) patch level nn046
CSCOnn031	Release 9.4(1) patch level nn046
CSCOnn030	Release 9.4(1) patch level nn046
CSCOnn029	Release 9.4(1) patch level nn046
CSCOnn028	Release 9.4(1) patch level nn046
CSCOnn027	Release 9.4(1) patch level nn045
CSCOnn026	Release 9.4(1) patch level nn045
CSCOnn025	Release 9.4(1) patch level nn045
CSCOnn024	Release 9.4(1) patch level nn045
CSCOnn023	Release 9.4(1) patch level nn037
CSCOnn022	Release 9.4(1) patch level nn037
CSCOnn021	Release 9.4(1) patch level nn037
CSCOnn020	Release 9.4(1) patch level nn037
CSCOnn019	Release 9.4(1) patch level nn037
CSCOnn018	Release 9.4(1) patch level nn037
CSCOnn017	Release 9.4(1) patch level nn037
CSCOnn016	Release 9.4(1) patch level nn037
CSCOnn015	Release 9.4(1) patch level nn037

Table 3 System Level Equivalencies for Protocol Patches (continued)

Patch Number	System Level Equivalency
CSCOnn014	Release 9.4(1) patch level nn037
CSCOnn013	Release 9.4(1) patch level nn037
CSCOnn012	Release 9.4(1) patch level nn034
CSCOnn011	Release 9.4(1) patch level nn033
CSCOnn010	Release 9.4(1) patch level nn031
CSCOnn009	Release 9.4(1) patch level nn031
CSCOnn008	Release 9.4(1) patch level nn031
CSCOnn007	Release 9.4(1) patch level nn031
CSCOnn006	Release 9.4(1) patch level nn031
CSCOnn005	Release 9.4(1) patch level nn028
CSCOnn004	Release 9.4(1) patch level nn026
CSCOnn003	Release 9.4(1) patch level nn024
CSCOnn002	Release 9.4(1) patch level nn023
CSCOnn001	Release 9.4(1) patch level nn020

Table 4 provides the system level equivalency for each system patch. For example, after installing CSCOgs001, release 9.3(2) is equivalent to release 9.3(2) patch level CSCOgs009 (contains all patches and features included in release 9.3(2) up to patch CSCOgs009).

Note Automatic propagation of issues is only supported for later releases. The equivalency level between releases assists you in determining when fixes in earlier releases have been propagated into the target release. Automatic backward propagation of issues is not supported.

Table 4 System Level Equivalencies for System Patches

Patch Number	System Level Equivalency
CSCOgs073	Release 9.4(1) patch level gs052
CSCOgs072	Release 9.4(1) patch level gs052
CSCOgs071	Release 9.4(1) patch level gs049
CSCOgs070	Release 9.4(1) patch level gs049
CSCOgs069	Release 9.4(1) patch level gs049
CSCOgs068	Release 9.4(1) patch level gs049
CSCOgs067	Release 9.4(1) patch level gs049
CSCOgs066	Release 9.4(1) patch level gs049
CSCOgs065	Release 9.4(1) patch level gs049
CSCOgs064	Release 9.4(1) patch level gs049
CSCOgs063	Release 9.4(1) patch level gs047
CSCOgs062	Release 9.4(1) patch level gs044

Table 4 System Level Equivalencies for System Patches (continued)

Patch Number	System Level Equivalency
CSCOgs061	Release 9.4(1) patch level gs044
CSCOgs060	Release 9.4(1) patch level gs044
CSCOgs059	Release 9.4(1) patch level gs044
CSCOgs058	Release 9.4(1) patch level gs044
CSCOgs057	Release 9.4(1) patch level gs044
CSCOgs056	Release 9.4(1) patch level gs044
CSCOgs055	Release 9.4(1) patch level gs044
CSCOgs054	Release 9.4(1) patch level gs044
CSCOgs053	Release 9.4(1) patch level gs044
CSCOgs052	Release 9.4(1) patch level gs044
CSCOgs051	Release 9.4(1) patch level gs044
CSCOgs050	Release 9.4(1) patch level gs044
CSCOgs049	Release 9.4(1) patch level gs044
CSCOgs048	Release 9.4(1) patch level gs044
CSCOgs047	Release 9.4(1) patch level gs044
CSCOgs046	Release 9.4(1) patch level gs044
CSCOgs045	Release 9.4(1) patch level gs044
CSCOgs044	Release 9.4(1) patch level gs044
CSCOgs043	Release 9.4(1) patch level gs044
CSCOgs042	Release 9.4(1) patch level gs040
CSCOgs041	Release 9.4(1) patch level gs040
CSCOgs040	Release 9.4(1) patch level gs040
CSCOgs039	Release 9.4(1) patch level gs039
CSCOgs038	Release 9.4(1) patch level gs039
CSCOgs037	Release 9.4(1) patch level gs039
CSCOgs036	Release 9.4(1) patch level gs039
CSCOgs035	Release 9.4(1) patch level gs039
CSCOgs034	Release 9.4(1) patch level gs039
CSCOgs033	Release 9.4(1) patch level gs038
CSCOgs032	Release 9.4(1) patch level gs038
CSCOgs031	Release 9.4(1) patch level gs038
CSCOgs030	Release 9.4(1) patch level gs038
CSCOgs029	Release 9.4(1) patch level gs038
CSCOgs028	Release 9.4(1) patch level gs031
CSCOgs027	Release 9.4(1) patch level gs031
CSCOgs026	Release 9.4(1) patch level gs031

Table 4 System Level Equivalencies for System Patches (continued)

Patch Number	System Level Equivalency
CSCOgs025	Release 9.4(1) patch level gs031
CSCOgs024	Release 9.4(1) patch level gs031
CSCOgs023	Release 9.4(1) patch level gs031
CSCOgs022	Release 9.4(1) patch level gs031
CSCOgs021	Release 9.4(1) patch level gs031
CSCOgs020	Release 9.4(1) patch level gs031
CSCOgs019	Release 9.4(1) patch level gs031
CSCOgs018	Release 9.4(1) patch level gs031
CSCOgs017	Release 9.4(1) patch level gs031
CSCOgs016	Release 9.4(1) patch level gs031
CSCOgs015	Release 9.4(1) patch level gs031
CSCOgs014	Release 9.4(1) patch level gs031
CSCOgs013	Release 9.4(1) patch level gs031
CSCOgs012	Release 9.4(1) patch level gs031
CSCOgs011	Release 9.4(1) patch level gs031
CSCOgs010	Release 9.4(1) patch level gs028
CSCOgs009	Release 9.4(1) patch level gs027
CSCOgs008	Release 9.4(1) patch level gs026
CSCOgs007	Release 9.4(1) patch level gs026
CSCOgs006	Release 9.4(1) patch level gs026
CSCOgs005	Release 9.4(1) patch level gs024
CSCOgs004	Release 9.4(1) patch level gs023
CSCOgs003	Release 9.4(1) patch level gs021
CSCOgs002	Release 9.4(1) patch level gs020
CSCOgs001	Release 9.4(1) patch level gs017

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
CSCOnn066	CSCOgs073
CSCOnn065	CSCOgs072
CSCOnn064	CSCOgs071

Table 5 Patch Test Combinations (continued)

Protocol Patch	System Patch
CSCOnn063	CSCOgs070
CSCOnn062	CSCOgs069
CSCOnn061	CSCOgs068
CSCOnn060	CSCOgs067
CSCOnn059	CSCOgs066
CSCOnn058	CSCOgs065
CSCOnn058	CSCOgs064
CSCOnn057	CSCOgs063
CSCOnn056	CSCOgs062
CSCOnn055	CSCOgs062
CSCOnn054	CSCOgs061
CSCOnn053	CSCOgs060
CSCOnn052	CSCOgs059
CSCOnn051	CSCOgs058
CSCOnn050	CSCOgs057
CSCOnn049	CSCOgs056
CSCOnn048	CSCOgs055
CSCOnn047	CSCOgs054
CSCOnn046	CSCOgs053
CSCOnn045	CSCOgs052
CSCOnn044	CSCOgs051
CSCOnn043	CSCOgs050
CSCOnn042	CSCOgs049
CSCOnn041	CSCOgs049
CSCOnn040	CSCOgs048
CSCOnn039	CSCOgs047
CSCOnn038	CSCOgs046
CSCOnn037	CSCOgs045
CSCOnn036	CSCOgs044
CSCOnn035	CSCOgs043
CSCOnn034	CSCOgs042
CSCOnn034	CSCOgs041
CSCOnn033	CSCOgs040
CSCOnn032	CSCOgs039
CSCOnn031	CSCOgs038
CSCOnn030	CSCOgs037

Table 5 Patch Test Combinations (continued)

Protocol Patch	System Patch
CSCOnn029	CSCOgs036
CSCOnn029	CSCOgs035
CSCOnn028	CSCOgs034
CSCOnn027	CSCOgs033
CSCOnn026	CSCOgs032
CSCOnn025	CSCOgs031
CSCOnn025	CSCOgs030
CSCOnn024	CSCOgs029
CSCOnn023	CSCOgs028
CSCOnn023	CSCOgs027
CSCOnn022	CSCOgs026
CSCOnn021	CSCOgs025
CSCOnn020	CSCOgs024
CSCOnn019	CSCOgs023
CSCOnn019	CSCOgs022
CSCOnn019	CSCOgs021
CSCOnn019	CSCOgs020
CSCOnn018	CSCOgs020
CSCOnn018	CSCOgs019
CSCOnn017	CSCOgs018
CSCOnn016	CSCOgs017
CSCOnn015	CSCOgs016
CSCOnn014	CSCOgs016
CSCOnn014	CSCOgs015
CSCOnn014	CSCOgs014
CSCOnn014	CSCOgs013
CSCOnn013	CSCOgs012
CSCOnn013	CSCOgs011
CSCOnn012	CSCOgs010
CSCOnn011	CSCOgs009
CSCOnn010	CSCOgs008
CSCOnn009	CSCOgs008
CSCOnn008	CSCOgs007
CSCOnn007	CSCOgs006
CSCOnn006	CSCOgs006
CSCOnn005	CSCOgs005

Table 5 Patch Test Combinations (continued)

Protocol Patch	System Patch
CSCOnn004	CSCOgs004
CSCOnn003	CSCOgs003
CSCOnn002	CSCOgs002
CSCOnn001	CSCOgs001

CSCOnn066

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn066 resolves the following caveats:

Identifier	Severity	Component	Description
CSCsi40365	3	engine	PGW 9.5(2): DIGITREQ result type, AMODDIG and BMODIG are lost, v-sol.
CSCsi59627	3	ioccisdnl3	Undo ISDN call state changes introduced by CSCsc52959, v-sol.
CSCsi90643	3	mdl-mgcp	MGCP call legs hanging on PGW, v-sol.

Additional information:

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

CSCOnn065

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn065 resolves the following caveats:

Identifier	Severity	Component	Description
CSCsh68918	3	mdl-in	INAP call stuck when overlap on.
CSCsh89325	3	engine	GW is not re-using session-expires header in retransmission of OK's,v-sol.
CSCsh94790	3	mdl-analysis	AMODDIG not stored for re-entry into generic analysis (overlap dialing),v-sol.
CSCsh97512	3	mdl-mgcp	Echo canceller turned off by pgw once call is connected.
CSCsi15517	3	mdl-sip	PGW SIP REFER fails when CALL-ID is missing @host portion of the id.,v-sol.
CSCsi18687	3	mdl-analysis	DefaultDN does not work for ISDN call with empty Calling Party Number IE,v-sol.
CSCsi28593	3	ioccc7	PGW might coredump under glare conditions.

Additional information:

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

CSCOnn064

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn064 resolves the following caveat:

Identifier	Severity	Component	Description
CSCsh67466	3	ioccc7	Call fails when 200 ok coming soon after 180 from sip side.

Additional information:

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

CSCOnn063

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn063 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg43855	3	mdl-cdr	National CPC values written into CDR as default value 10.
CSCsg87202	3	mdl-in	PGW: call processing for INAP triggered calls stop after some time.
CSCsg89267	3	mdl-sip	Port support for InhibitSipFromMapping=2 to MGC 9.5(2).
CSCsg94582	6	mdl-lcm	PGW: More Russian ISUP CPC mapping for analysis.

Additional information:

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

CSCOnn062

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore

the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn062 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg50104	3	mdl-q767	Q767 does not use CLIDefaultAllowed to set presentation indicator,v-sol.
CSCsg68911	3	mdl-lcm	LCM get LChanFailed signal when connection deleted cause call hangs.
CSCsg77007	3	ioccpriip	PGW fails to release PRI B chan.
CSCsg85583	3	ioccc7	PGW does not handle call glare properly if the GW replys provisional resp.
CSCsg65031	6	protocol	Add a parameter to control the redirection in the ACM from sip 302.

Additional information:

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

CSCOnn061

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn061 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg49767	3	mdl-analysis	SS7 -> SIP Block Caller ID does not work on ported in numbers.
CSCsg25666	3	occxgcp	CPM signals LChanFailed in LEG_STATE_WaitThroughConnect state.
CSCsg51636	3	mdl-eisup	PGW does not relay COT from ISUP to EISUP.

Additional information:

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

CSCOnn060

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn060 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse69708	3	measm	PGW:rtrv-cnt output not showing expected results.
CSCsf30384	3	mdl-lcm	SIP 302 causes DeSel_Out_Crct CDR.
CSCsf97968	3	mdl-analysis	Previous CG_PN_COPY result is lost upon re-entry in GA.

Additional information:

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

CSCOnn059

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn059 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf14322	2	gtd	PGW - SIPGTD - Incorrect 100rel.
CSCse26527	6	mdl-sip	SIP Diversion header treatment in the multi-contact environment.
CSCse37754	6	mdl-analysis	PGW disconnects call after receiving SIP 302 if hop count =5 on IAM.
CSCse86728	2	mdl-callctrl	No Ringback tone on redirected call for a ported number

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCse26527—after the patch is applied, when you use config-lib to revert to a saved configuration, you must manually copy the file propSet.xml.dat from the directory /opt/CiscoMGC/etc/CONFIG_LIB/new to the directories /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link. Then start the PGW.

CSCOnn058

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide:*

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_chapter09186a008011782c.html

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn058 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse40406	3	mdl-pri	Progress message not forwarded on EISUP side if received during Overlap,spvoice-bru-ddts.
CSCse59585	3	mdl-analysis	Overflow to final overflow route list in a 2-route list PERCRTE fails,v-sol.
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.
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.
CSCsf01118	3	mdl-lcm	PGW does not send MDCX (with tSDP) to MGW if siptrnkgrp cutthrough = 2,v-sol.

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

Identifier	Severity	Component	Description
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.
CSCsd82013	2	mdl-sip	CDR record for sip-sip call longer than 4 hours.
CSCse41615	3	mdl-cdr	PGW : 9.3(2) : Setup time is missed in CDR record,v-sol.

CSCOnn057

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn057 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse13603	3	ioccpriip	CICs stuck in the MATE UNAVAILABLE state clear only after reload of PGW.
CSCse44713	3	mdl-in	TCAP Into_analyzed USERID parameter needs to be mandatory in trigger.dat.
CSCsd78091	3	mdl-lcm	No Ringback tone support-- QSIG/DPNSS call QSIG/DPNSS over EISUP.
CSCse41549	3	mdl-lcm	PGW: cutthrough at 183 w/ sdp for SS7 to sip calls.

Identifier	Severity	Component	Description
CSCse02330	3	mdl-q761	SUSPEND should be supported in calling state for RUSSIAN ISUP(Q761).
CSCse20839	3	mdl-q761	need a new sigpath property to control "chargeareainformation".

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

Identifier	Severity	Component	Description
CSCsc09401	3	engine	USI sent out not in certain call scenarios.
CSCsc53624	3	engine	PGW 9.3(2) CDR missing releasing time stamp due to audit after failover.
CSCsd59403	3	gtd	PGW to map FCI.A bit both Null and Unknown to International.
CSCsb68079	3	mdl	Redirecting number between ISUP-ISDN is incorrect.
CSCsc11542	3	mdl-analysis	RedirMax release before set value.
CSCsd40532	3	mdl-analysis	PGW : Delay at call setup when number is ported.
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.
CSCsb49472	3	mdl-cdr	Invalid CDR records when OOS a trunk.
CSCsb98867	3	mdl-cdr	First Release Time Stamp of CDR missing if transit calls are not answered.
CSCsc18090	3	mdl-cdr	Aborted SIP to SIP call resulting missing release time in CDR.
CSCsd28727	3	mdl-ni2	Redirecting number between ISUP-ISDN is incorrect.
CSCsb27752	3	mdl-q761	Wrong BlockType in CGB was sent when GRS in involved.
CSCsb27752	3	mdl-q761	Wrong BlockType in CGB was sent when GRS in involved.
CSCsb67247	3	mdl-q767	SAM measurement not present in Q.767 due to Incorrect string.
CSCsb19528	3	mdl-sip	PGW writes in CDR abnormal release for SIP-SIP calls terminated by Orig.
CSCsb38381	3	mdl-sip	Response code > 300 are mapped to Normal_Release in SIP-SIP proxy call.
CSCsb24768	3	mdl-sip	PGW fails to send out response when out of sequence BYE is received.
CSCsc50364	6	mdl-q767	Need to send Alerting when ACM received no matter what the indication in BCI.

This patch provides updates all protocols.

Additional information:

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

CSCOnn056

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn056 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse41479	3	mdl-mgcp	PGW should send DLCX before MDCX for the new call if glare occurs.
CSCse45377	3	mdl-q761	PGW: Call not released on Clear Calling Line and T6 expiry.
CSCse41339	3	mdl-sip	PGW doesnt send qos_start messages to Mediation Device for SIP-SIP call.
CSCse42989	3	mdl-sip	SIP RPID: SIP Headers Should be Made Case Insensitive.
CSCsd88791	6	mdl-sip	BTS does not pass 488 response transparently.

This patch provides updates all protocols.

Additional information:

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

CSCOnn055

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn055 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse32269	3	mdl-analysis	PGW should pre-populate dw3 for RMODDIG.
CSCse05467	3	mdl-pri	PGW Audio path isn't established at receiving PROGRESS message w/overlap.
CSCsd95159	3	mdl-q761	Provisioned CGBA2 parameter does not work.
CSCse13109	3	mdl-sip	PGW: 9.5(2) REFER missing via header field from NOTIFY.
CSCse33871	6	other	Mexican ISUP Calling Party Category Handling to Telmex Internal Value.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCse33871—Mexican ISUP Calling Party Category Handling to Telmex Internal Value— this feature enables support of the value of 8 for CPC Mexican.

Note The value of 8 is not standard on Q.767 and NOM112 (Mexican ISUP) and does not apply to all Mexican ISUP interconnections.

CSCOnn054

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn054 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse26959	2	mdl-sip	Call transfer fails when Record-Route missing.
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).
CSCse15472	3	mdl-sip	PGW should correctly support UPDATE in proxy mode for call fw scenarios.
CSCse27801	3	engine	PGW can't response re-invite and bye after blinder transfer.
CSCsd92560	3	mdl-analysis	Overflow to the final overflow route list in a PERCRTE fails.

This patch provides updates all protocols.

Additional information:

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

CSCOnn053

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn053 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse05509	2	mdl-ansi-ss7	After LNP query, 11 digit dialed number in GAP causes all LNP calls fail.
CSCsd68675	3	engine	PGW 9.5.2 S54 / P47 switched over to standby without any apparent cause.
CSCsd70781	3	mdl-lcm	RMODDIG on RdPN also affects OCN (remove the fix).
CSCsd95154	3	mdl-q761	Provisioned ChargeAreaInformation is not used in the call ISUPV2_JAPAN.
CSCse01062	3	mdl-sip	SIP INVITE diversion header not correct.

This patch provides updates all protocols.

Additional information:

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

CSCOnn052

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn052 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd68715	3	engine	PGW should support carrierID mapping from SIP trnkgp to SS7 trnkgrp.
CSCsd93589	3	engine	Oneway voice after blind transfer.
CSCsd87366	3	mdl-analysis	CG_PN_COPY stores NoA in variable instead of CC.
CSCsd65277	3	mdl-lcm	User portion length in R-URI limited to TMaxDigits.
CSCsd87311	3	mdl-pri	PRI Backhaul Calls with a one octet Channel ID rejected by PGW 9.5(2).
CSCsd98399	3	mdl-sip	after receiving reinvite, double tags inserted into TO header in 200OK.
CSCsd79643	3	protocol	PGW: T38 not requested for hairpin calls on VISM.
CSCsd80497	6	engine	need a new sigpath property for the digital analyze when get 302 msg.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- A new property, SipRedirAnalysisMethod, has been added for the Support Multiple IP Addresses in SIP Header feature. This feature defines how the PGW handles the SIP redirection target.

Valid values are:

0— (default) Conditional analysis, only analyze the target whose domain matches the PGW's domain.

1—Always analyze.

2—Never analyze; this was the implementation method prior to this feature being implemented.

CSCOnn051

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn051 resolves the following caveat numbers:

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

This patch provides updates all protocols.

Additional information:

- Refer to 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.

CSCOnn050

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn050 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd44933	3	mdl-ansi-ss7	After receiving the LNP query response PGW still does Ltrigger analysis.
CSCsd60636	3	mdl-sip	Blind transfer reinvite with no SDP PGW send back 200OK with no SDP.
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.
CSCea11645	6	mdl-sip	ATA to PSTN-pg1 sw-over to pg2-PSTN onhook-bye direct from pg2 to AT.

This patch provides updates all protocols.

Additional information:

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

CSCOnn049

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn049 resolves the following caveat numbers:

Identifier	Severity	Component	Description
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.
CSCsd37268	2	sim_ss7	Q721 *CLIPess=2 IAI no CLI after receive GRQ GSM without CLI call drop.
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.
CSCsd53869	3	mdl-sip	PGW SIP 181 triggering wrong MDCX with 'M: sendrecv'.

This patch provides updates all protocols.

Additional information:

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

CSCOnn048

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn048 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd34987	2	mdl-sip	SIP to ISUP: P-asserted ID privacy tag not mapped correctly.
CSCsd44516	3	mdl-pri	doesn't send all digits out on terminating side when toverlap is on.
CSCsd49319	3	mdl-sip	SIP/Consulted Call Transfer PGW should send CANCEL to the correct leg.
CSCsd49319	3	mdl-sip	SIP/Consulted Call Transfer, PGW should send CANCEL to the correct leg.
CSCsd40629	6	engine	Allow PGW to derive Span when Explicit id not provided in ISDN message.

This patch provides updates all protocols.

Additional information:

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

- CSCsd40629—To revert to a saved configuration after the patch is applied, you must manually copy the propSet.xml.dat files from the /opt/CiscoMGC/etc/CONFIG_LIB/new directory to the /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link directories, and then start the PGW.

CSCOnn047

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn047 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb55654	3	mdl-cdr	No value for CDR-Tag 4016 (Terminating Member) after CDB-1110 sw-over.
CSCsd17091	3	mdl-sip	ISUP FACILITY maps to SIP INFO and call drops upon SIP 501 reply.
CSCsd24053	3	mdl-sip	No ANM sent because SIP response is received too soon.
CSCsd32939	3	mdl-callctrl	After INAP Query the analysis loses previous BMODDIG result type.

This patch provides updates all protocols.

Additional information:

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

CSCOnn046

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn046 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc51209	3	mdl-in	PGW: INAP: Problem interaction analysis result for overlap send.
CSCsd20298	3	mdl-sip	when second URI in the BYE route header is not enclosed in angle bracket.
CSCeg39985	6	mdl	SIP to MGCP T.38 Fax Fallback to Pass-through and Voice.
CSCsd03592	6	other	CLI Handling for Mexican ISUP Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg39985—SIP to MGCP T.38 Fax Fallback to Pass-through and Voice—The SIP To MGCP T.38 Fax Fallback to Pass-through and Voice feature 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.

  This feature 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.

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).

Note 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—this featurette 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:

  – 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 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.

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

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

CSCOnn045

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn045 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd10185	3	mdl-q761	PGW (with Patch 42/49) discards TMR upon receiving invalid USI in IAM.
CSCsc62129	3	mdl-callctrl	Incorrect SDP sent in CRCX for hairpin call with COT on both call legs.

This patch provides updates all protocols.

Additional information:

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

CSCOnn044

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn044 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc90720	3	engine	PGW opens audio path when it receives a DISCONNECT with PI=8.
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.
CSCsc83636	6	mdl-sip	PGW: Omitting CgPN on receipt of From: Unavailable SIP header.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsc83636—Omitting CgPN on receipt of From: Unavailable SIP header:
  - 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.

CSCOnn043

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn043 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc77297	3	mdl-q761	Q761 OCC side receiving Segmentation CPG function wrong and missing.
CSCsc93037	3	mdl-sip	PGW should use GTD instead SIP Native if getting cause from REQUEST.

This patch provides updates all protocols.

Additional information:

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

CSCOnn042

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore

the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn042 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc82919	3	mdl-mgcp	PGW should always send G/rt toward the MGW side.
CSCsc81117	6	mdl-sip	Support for SIP UPDATE (RFC3311) Phase 1.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- For more information about CSCsc81117, see Support for SIP Update (RFC3311) Phase 1 in the New Features in This Release section of this document.

CSCOnn041

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn041 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc68104	3	mdl-sip	PGW should use GTD values instead of SIP Native for Rel/Location Cause.
CSCsc52618	3	mdl-sip	sip to ss7 and ss7 redirect to sip will block.
CSCsc66577	3	mdl-sip	PGW 9.5(2) : 487 is not forwarded for bridge transfer.
CSCsc66604	3	mdl-sip	PGW 9.5(2) : call is not release after blind transfer.
CSCsc74766	3	mdl-analysis	B#analysis in new dp fails if overdec is different in old and new dp.
CSCsc81713	3	mdl-sip	PGW do not respond ACK to 503 message.
CSCsb30733	6	mdl-callctrl	Fax & Data Call Translation Featurette.
CSCsc73299	6	mdl-ansi-ss7	No alerting for wrong SCCP Indicators in ACM Backward Call Indicators.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb30733—Fax & Data Call Translation—this featurette 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. This featurette only supports scenarios in which the TCC is ISUP; only ITU ISUP variants are supported.

  For more information, see Fax and Data Call Translation in the New Features in This Release section of this document.
- If HLCMOD or BCMOD related dialplan provisioning changes are made after the CSCOgs049/CSCOnn041 patch upgrade and then you need to downgrade to previous patch level, you must use the config-lib utility to revert back to your latest configuration prior to adding the patch.

CSCOnn040

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn040 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc63850	2	mdl-sip	PGW goes to MCL=3 situation when SIP packet is received.
CSCsc45565	3	mdl-in	PGW 9.5(2)INAP missing RDN and OCA parameters in outgoing IAM.
CSCsc51201	3	mdl-analysis	PGW: Calling number digit modification lost after return from INAP Query.
CSCsc58856	3	mdl-eisup	Msg_Cot gets dropped on SS7->EISUP call scenario.
CSCsc64221	6	mdl-ansi-ss7	No alerting for wrong SCCP Method Indicator in ACM BackwardCallIndicator change request.
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 Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsc64221—No alerting for wrong SCCP Method Indicator in ACM BackwardCallIndicator change request—Support of '10' indicator in ACM for ANSI was added. Previously, only '00' was supported.
- CSCsc68358—Additional Russian ISUP CPC mapping for Analysis change request—In addition to CPC values fixed in caveat number CSCsb13048 (values 224, 225, 228, 229, 245, 246, and 247), the values 226, 227, and 244 defined in Russian ISUP should be mapped to unique internal values for number analysis. Previously, these values were mapped to a default value of CPC_ORD_SUBSC=9.

  These values are defined in the Russian ISUP specification and have corresponding internal values in LCM.
- CSCsa62907—Support of DNS SRV and SIP Load-sharing—This featurette implements DNS SRV and SIP load-sharing in compliance with the RFC2782 specification. The feature enables customers to do load-sharing when interconnecting multiple SIP servers.

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

- CSCsc81713—PGW do not respond ACK to 503 message—an issue was introduced in this patch set where the PGW 2200 does not acknowledge the 503 Service Unavailable response. This issue should not impact operation because the SIP side retries several times before releasing the call. It should be resolved in the next patch set.

CSCOnn039

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn039 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc52959	3	ioccisdnl3	PGW ISDN Network Call States are inversed for incoming/outgoing.
CSCsc27775	3	mdl-analysis	E911 release message with retry_action map to trkgrpadv is not occurring.
CSCeg67066	6	mdl-sip	Multiple IP Addresses in SIP Contact Header Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg67066—Multiple IP Addresses in SIP Contact Header—The Multiple IP Addresses in SIP Contact Header Support feature supports multiple IP addresses in the SIP Contact header for redundant interworking with a SIP application server.

  For more information, see Multiple IP Addresses in SIP Contact Header in the New Features in This Release section of this document.

CSCOnn038

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn038 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc28278	3	mdl-analysis	E911 release cause value are not map correctly if set is not define.
CSCsc35318	3	ioccisdn13	PGW releases call due to mismatched call state for ETS_300_102.
CSCsa76563	6	mdl-in	IN636108: PGW releases incoming call when Continue message received.
CSCsb21289	6	mdl-sip	PRACK not supported in Proxy mode.
CSCsc37449	3	mdl-sip	PGW : 9.5.2 gs039/p032 not ack the 487 SIP response message.

This patch provides updates all protocols.

Additional information:

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

CSCOnn037

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn037 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc16997	3	mdl-sip	PGW : Incoming SIP 480 the MGC send wrong inap report to the IN.
CSCsc20286	3	mdl-q767	PGW should not drop first RELEASE from other side in case of collision.
CSCsc21490	3	mdl-in	PGW : TCAP timer never get reset.
CSCsc16963	3	mdl-analysis	PGW: INAP call across the advanced screening feature failed.
CSCsc27707	3	mdl-mgcp	(e:on) and Codec Preference (a:) included in MGCP hairpin message.
CSCsc29695	3	mdl-cdr	Tag 3017/2017 store incorrect Ingress RDN NOA for SIP originated calls.

This patch provides updates all protocols.

Additional information:

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

CSCOnn036

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn036 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc03695	3	ioccsip	PGW does not preserve original CdPN/cgPN NOA with SIP/GTD change request.
CSCsc07861	3	mdl-callctrl	G/rt should not be inserted on local looped calls.

This patch provides updates all protocols.

Additional information:

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

CSCOnn035

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn035 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsb97281	3	mdl-pri	Incorrect cause value Nr. 31 inside STATUS message.

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

Identifier	Severity	Component	Description
CSCsb00298	3	ioccsip	100 Trying should not have To TAG.
CSCsb01592	3	mdl-q761	No mapping Call progress 183 SIP to Q761.
CSCsa82848	6	mdl-q767	Improper Forward Call Indicator in Brazil ISUP change request.
CSCsb27709	2	mdl-q761	Wrong BlockType in CGB was sent when GRS in involved.
CSCsb22427	3	mdl-q761	BCI indicator parameters not transparently passed for Q761_BASE / JAPAN.
CSCsb28289	6	engine	SIP OPTIONS method outside dialog for 9.4(1).
CSCsb64679	3	ioccc7	PGW 9.4(1) : reset-cic changes cic blocked by far end to idle state.

This patch provides updates all protocols.

Additional information:

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

CSCOnn034

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn034 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsb09408	6	mdl-lcm	E911 SR Mapping Table Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb09408—E911 SR Mapping Table—this feature provides support on the Cisco MGC to connect emergency calls that originate in a SIP network to the appropriate selective router (SR) connected to the Public Safety Answering Points (PSAPs). This feature introduces a mapping table to support the various IAM formats or Centralized Automatic Message Accounting (CAMA) signaling required by the SRs in North America, including the sending of the Emergency Services Query Key (ESQK), which is used by the PSAP to find the calling party location and call-back numbers.

CSCOnn033

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn033 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb75381	3	mdl-mgcp	PGW does not send SDP in the MDCX when receives re-invite.
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,

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

Identifier	Severity	Component	Description
CSCef91233	3	mdl-q761	Ghost call generated.
CSCsa90421	3	mdl-q761	Wrong Q761SG release cause (102) upon T6 expiry.
CSCsa96633	3	mdl-q761	BCI for HK is not working properly.
CSCsa97294	3	mdl-q761	Duplicate block of code in q761.mdl.
CSCsb01597	3	mdl-sip	PGW failed to release sip call when no calling# in INVITE From field.
CSCee65340	6	protocol	GTD and FCI/BCI support for BTNUP ISUP featurette.
CSCsa62910	6	other	Support for GTD and Derived FCI/BCI Interworking on Japan ISUP featurette.

This patch provides updates all protocols.

Additional information:

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

CSCOnn032

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn032 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb50667	2	mdl-in	IN633313 - No RLC if overlap dialled call released during ringing phase.
CSCsb63071	3	mdl-sip	PGW should remove the limitation for empty quote in From field.
CSCsb54111	3	mdl-sip	PGW A superfluous space in the SIP stack of the PGW causes interop pro.
CSCsb58209	3	mdl-lcm	RTRN_START_ANAL B-nr modification discarded upon returning to analysis.
CSCsa60241	6	mdl-sip	SIP Remote Party ID support Featurette.
CSCsb56186	6	mdl-pri	Enhancement : early ACM configurable for PRI Sigpathv change request.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsa60241—SIP Remote Party ID Support—this featurette provides support on the Cisco MGC of the ISUP-to-SIP mapping of CLI to SIP Remote Party ID or P-Asserted ID header. It also updates the generic handling of the SIP-to-ISUP and ISUP-to-SIP mapping of calling line identity, generic number, and redirecting number.

This featurette:

- Supports the ISUP-to-SIP mapping of CLI to SIP Remote Party ID or P-Asserted
- Updates the generic handling of the SIP-to-ISUP and ISUP-to-SIP mapping of calling line identity, generic number, and redirecting number.
- Although ISUP-to-SIP is the primary focus, mapping also works for calls from Q.931, QSIG, DPNSS, and H.323 to SIP. The MGC 2200 supports mapping the CLI into the SIP FROM Header, and optionally into the SIP Remote Party ID Header or the P-Asserted-ID on an outgoing SIP trunk group basis.
- Provides CLI Information for the Call Diversion or Redirection Information
- With the addition of support for the SIGTRAN protocols IUA and SCTP, the Cisco PGW 2200 can now use standard protocols for communication with the media gateways.

For more information, see SIP Remote Party ID Support in the New Features in This Release section of this document.

- CSCsb56186—Early ACM Configurable for PRI Sigpath —this change request enables the *.FastConnect property for PRI (currently only used in NI2+).

  For more information, see Early ACM Configurable for PRI Sigpath in the New Features in This Release section of this document.

CSCOnn031

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn031 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee60210	2	mdl-connctrl	Hairpin mgcp call with COT successful fails.
CSCsb54506	2	mdl-cdr	CDR-3017 (Redirect-NOA) = null when CDB-1110 release after switch-over.
CSCsb42300	3	mdl-ni2	Call is not getting released when Restart is never acked.
CSCsa89080	3	mdl-lcm	COT call failed w/OOverlap=1 & TOverlap=0.
CSCsb12818	6	mdl-cdr	Additional charging fields for redirected calls Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb12818—Additional Charging Fields for Redirected Calls—this featurette adds support for additional charging fields so that redirected calls can be properly billed. The PGW 2200 stores both the NOA and digits for both the ingress Redirecting Number (RDN) and Original Called Number (OCN) and additional tags for the egress Redirecting Number (RDN) and Original Called Number (OCN) for both the ANSI and ITU PGW 2200 CDRs.

  For more information, see Additional Charging Fields for Redirected Calls in the New Features in This Release section of this document.

CSCOnn030

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn030 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg72945	2	engine	PGW does not allow configuration of SCP address by Global Title.
CSCsb37000	3	engine	PGW : T.38 fails due to reinvite timer is expiring.
CSCsb37775	3	mdl-sip	PGW resets Session-Expires timer to default on UPDATE received.

This patch provides updates all protocols.

Additional information:

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

CSCOnn029

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn029 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb23924	2	mdl-cdr	PRI AOC day of week swover not working for less then 11 tariffids.
CSCsb15894	2	mdl-pri	PRI call is not released after sw-over.
CSCsb24865	3	mdl-q767	TNS:TNS based routing is failing with OD32DigitSupport is turned ON.

Identifier	Severity	Component	Description
CSCsb27756	3	mdl-q761	Wrong BlockType in CGB was sent when GRS in involved.
CSCsb30284	3	mdl-sip	SDP offer is missing in 200 OK when receiving re-INVITE without SDP.
CSCsb33780	3	mdl-cdr	For german AOC incorrect tariff times are sent in APM msg.
CSCsb08374	6	mdl-q767	Need support for TNS in Q767 RUSS.
CSCsb23897	6	ioccsip	Update SIP To and From Header conform to RFC 3261 tag-param definition change request.
CSCsb07919	6	mdl-lcm	AOC over PRI tariff based on call duration Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb07919—AOC Over PRI Tariff Based On Call Duration—this featurette 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. For more information, see AOC over PRI Tariff Based on Call Duration in the New Features in This Release section of this document.

CSCOnn028

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore

the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn028 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb21311	2	mdl-cdr	After failover Pri AOC-D charged units get reset to zero.
CSCsb17213	3	mdl-analysis	Hung CIC after a glare condition.
CSCsb21677	3	mdl-in	RIN:The default value for missing chargeRateModulator should be 100.
CSCsa97412	3	mdl-btnup	BTNUP: Handling of 16 digit CLI must be changed.
CSCsb13048	6	mdl-lcm	PGW: Specific Russian ISUP CPC mapping for Analysis change request.

This patch provides updates all protocols.

Additional information:

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

CSCOnn027

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn027 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb04085	3	mdl-btnup	SS7 Link OOS fro more than 3 minutes leaves CIC's in hung state.
CSCsb07570	3	mdl-sip	PGW can not handle SIP 302 message with reason CFNA.
CSCsb12484	3	mdl-sip	PGW sends 7 CANCELs when receive REL from SS7.
CSCeg33908	6	mdl-in	Russian INAP Support featurette.
CSCsa75634	6	mdl-analysis	Increase AoC per day tariff ranges Featurette.
CSCsb11058	3	mdl-q761	SIP CLI unavailable when interworking to ISUPV3_UK.
CSCsb17555	3	mdl-eisup	PGW is not parsing Called IN number parameter properly on EISUP IAM.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg33908—Russian INAP Support featurette—This featurette 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) featurette.

  For more information, see Russian INAP in the New Features in This Release section of this document.
- CSCsa75634—Increase AoC per day tariff ranges featurette—This featurette increases the number of times a tariff can be changed from five to ten times a day.

  For BAMS release 3.20, the system crashes when a CDE tag with a length greater than is defined is received. SKIPCDE has been provided that enables BAMS to skip the received CDE and continue processing. This SKIPCDE is only required if you provision more than six charge periods within 24 hours. Skipped CDEs will not be present in the BAMS output. For more information, see CSCsa92926.

  For more information this featurette, see Increase AoC Per Day Tariff Ranges in the New Features in This Release section of this document.

CSCOnn026

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn026 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa92396	2	mdl-mgcp	Corruption of DLCX message after overload conditions on the VXSM.
CSCsa98229	3	design	Seeking enhancement to control mapping of S7 calling/charge# to PRI.
CSCsb02876	3	ioccc7	PGW Releases SS7 calls containing duplicate optional parameters.
CSCsa98330	3	mdl-analysis	PGW does not change to NEW_DIALPLAN during Cause Analysis on SIP 404.
CSCsb03470	3	mdl-eisup	PGW: Rel9.5(2): Remove/checking prefixes on E-ISUP links.
CSCsa89517	3	mdl-mgcp	Parse MGCP DLCX properly (parse for 902 versus 802).
CSCsa92198	3	mdl-mgcp	Cut through CRCX with no SDP to gateway.
CSCsb04363	3	mdl-q761	Q761/Q767/ANSI should support mapping * and # to B and C respectively.
CSCsa98104	3	mdl-sip	PGW2200 sends invalid ACK message to SIP Proxy when display is on.
CSCsa98870	3	mdl-sip	PGW2200 sends a BYE-Request 12 times.
CSCsa98837	3	mdl-sip	SIP-ISUP: Rec of REL, RSC, GRS, or CGB before any response to the INVITE.
CSCsa98798	3	mdl-sip	Branch Parameter in Via-header doesn't begin with z9hG4bK.
CSCsa98823	3	mdl-sip	No Max-Forwards Header in the INVITE-Request.
CSCsb04080	3	measm	BTNUP calls with cause code subscriber call terminate pegged as failed.
CSCuk53632	4	mdl-q761	Wrong rel cause val sent to SS7 for MGCP protocol error.
CSCeh01785	6	mdl-sip	PGW should reject a re-INVITE for an unsupported SIP-H323 call flow.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeh01785—PGW should reject a re-INVITE for an unsupported SIP-H323 call flow—this featurette 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 featurette, 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.

  For more information, see Re-INVITE for an Unsupported SIP-H323 Call Flow in the New Features in This Release section of this document.

CSCOnn025

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn025 has no caveat numbers included in this build. The protocols are being redelivered to include changes in the *.so files that are a result of system changes to the glue code.

Identifier	Severity	Component	Description
			No caveats are included in this build.

This patch provides updates all protocols.

Additional information:

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

CSCOnn024

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn024 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa90890	2	engine	SysMdlMemoryReduction causes A/B number missing in CDR.
CSCuk55921	3	mdl-q761	Wrong confusion cause code sent (Q.784.2 IBC_V_1_7_2_3_a).
CSCsa74053	3	mdl-analysis	Remote Announcement call failed with so files.
CSCsa80615	3	mdl-analysis	In Pre and A Number Analysis BMOD don't work in overlap scenario.
CSCuk51326	3	mdl-analysis	BMODDIG dw1=98 ignored when called from the Adigtree.
CSCuk55545	3	mdl-q761	Hop counter is always added to egress UK-ISUP IAM.
CSCsa90720	3	mdl-btnup	PGW BTNUP ACI resp with again CLI causes failure in post analysis.
CSCeg87112	3	mdl-in	PGW : SCP not accepting PGW application context name.
CSCsa95784	3	mdl-btnup	BTNUP Conditional CLI Mod does not happen for Presentation Number.
CSCsa96402	3	mdl-btnup	Conditional CLI modification not correct for UK Specific national format.
CSCsa97385	3	mdl-callcontext	BTNUP:IFAM(SHP=1 PNI=1) fail if full CLI is requested after SIM exchange.

Identifier	Severity	Component	Description
CSCsa80801	3	mdl-lcm	PGW doesn't release the announcement call correctly.
CSCsa99865	3	mdl-analysis	0 prefix is being stripped during A-num analysis for for NOA=National.

This patch provides updates all protocols.

Additional information:

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

CSCOnn023

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn023 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa62895	2	mdl-in	Service key encoding always occupies 4 octets.
CSCsa71086	3	sim_sip	ISDN Backhaul call fails using SIP to interconnect two PGW2200.
CSCef14215	3	mdl-mgcp	Blind_Call-Transfer [CCM-to-DPNSS1/DPNSS2] drops voice and releases.
CSCef58492	3	mdl-callctrl	Call reroute failed and call hung with OOverlap=1& TOverlap=0.
CSCeg77197	3	mdl-cdr	INAP calls has wrong ANM time stamp for second 1010 CDB.

Identifier	Severity	Component	Description
CSCsa69966	3	mdl-callctrl	Call gets hung on certain RTRN_START_ANAL with SAM call scenarios.
CSCsa73393	3	mdl-lcm	Pre Announcement call failed with COT on.
CSCsa74919	3	mdl-lcm	PGW sent dual Fax request notify in SS7 to SS7 T38 fax call.
CSCsa75382	3	mdl-sip	PGW SIP Stack send REFER answer without a Contact header.
CSCsa79165	3	mdl-in	Each SAM should restart INWaitToTriggerTimer.
CSCsa80460	3	engine	SS7 Call is Rel because SGI 'free of charge' is checked for levelToUse.
CSCsa81070	3	mdl-q761	IAM GN is modified incorrectly for PNMODDIG in Q761_GERMAN.
CSCuk51827	3	mdl-dpnss	NV3. Incorrect DPNSS Release Cause Mapping: Signal Not understood.
CSCsa78781	3	mdl-connctrl	9.5.2 Local announcements do not work on VISM/VSXM gateways.
CSCsa82077	3	mdl-sip	Invalid INFO request cause proxy mode PGW sent 400 in loop.
CSCeg61238	6	mdl-lcm	A-Number Mods triggered by CLIP/CLIR Featurette.
CSCsa82527	3	mdl-sip	Incorrect validation for hostname in SIP Request msg From header.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg61238—A-Number Mods triggered by CLIP/CLIR Featurette—This featurette 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 If additional instances of A-number modification occur as analysis continues, the A-number can be further modified.

Note This feature can be used for SS7 ITU and SS7 UK routes.

CSCOnn022

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn022 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa75256	2	mdl-sip	PGW fails to transmit 500 Bad Request Message.
CSCsa71085	3	sim_sip	PGW disconnect established call after about 30 minutes.
CSCec59815	3	mdl-in	High Layer Compatibility not send in IDP message.
CSCsa73210	3	mdl-sip	Call not released after SIP sessionTimer expired&no UPDATE message.
CSCsa74717	3	mdl-q767	Modification of non existent presentation number results insertion of PN.
CSCsa75471	3	mdl-sip	PGW should ignore CSeq checking while in Stateless Proxy Mode.

This patch provides updates all protocols.

Additional information:

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

CSCOnn021

Caution The patch install script has been updated. You must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches. After copying the script to your directory, you must rename it "patch". The script must be owned by root.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn021 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg75951	3	mdl-q767	Calling Party Clearing (CCL) leads to (temporary) stuck MGCP endpts.
CSCsa65676	3	mdl-sip	SIP info for digit '*' and '#' reject with '400 Bad Request'.
CSCsa66371	3	mdl-analysis	PGW:Rel9.5(2):Call SS7 for Pre-announcement fail on interdigit timer.
CSCsa69081	3	mdl-analysis	Add check for current nr digits in the B-nr for modified during analysis.
CSCeg89855	6	provision	VXSM Support Featurette.
CSCsa65317	6	mdl-pri	PGW : For PRI - SS7 interworking deactivate the Early ACM.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg89855—VXSM Support Featurette—This featurette provides support on the Cisco PGW 2200 to extend provisioning and range modification to support PGW 2200 interworking with the VISM or VXSM Media Gateways. It provides the following:
  - Support external node type VISM (which is the same as the existing node type MGX 8850).

- Support external node type VXSM (which is the same as the existing node type MGX 8850).
- Support VXSM endpoint name convention: DS/S-0/DS1-#/#@gateway, DS/S-0/DS1-#/*@gateway, and *@gateway
- Support hairpin call handing for VISM/VXSM

This feature is supported for use with the following Cisco media gateways:

- MGX 8850 Media Gateway
- MGX 8880 Media Gateway

For more information, see VXSM Support in the New Features in This Release section of this document.

CSCOnn020

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn020 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg55572	2	mdl-sip	SIP Attended call transfer failed caused by Parse error on REFER.
CSCeh03023	3	mdl-q761	No support of SS7 UCIC message in German ISUPV2_GERMAN variant.
CSCsa62883	3	mdl-sip	PGW does not include LAQUOT (<) and RAQUOT (>) in Route field of Ack.
CSCeg50889	3	mdl-analysis	NOA Value not included in trigger results.
CSCsa66393	3	mdl-eisup	Pre-announcement activated in dialplan result no ringback tone on EISUP.

This patch provides updates all protocols.

Additional information:

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

CSCOnn019

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn019 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg40022	2	mdl-sip	PGW does not parse SIP signal in INFO message correctly.
CSCeg55341	3	mdl-sip	PGW does not accept SIP display names with Norwegian characters.
CSCeg69724	3	mdl-cdr	Tag 3012 contains wrong data.
CSCeg73660	3	mdl-q767	numb.Qualifier field not mapped to correct EISUP value in Gen.Number.
CSCeg75979	3	mdl-analysis	PGW2200 analysis fail for pre-call announcement and overlap sending.
CSCeg79585	3	mdl-pri	PGW releases call due to mismatched call state.
CSCeh04757	3	mdl-lcm	Avoid the overlap digits timer being stopped for NON-IN calls.
CSCuk55902	3	mdl-lcm	Parameter compatibility not being acted on in Type-A exchange.

Identifier	Severity	Component	Description
CSCeg01601	3	mdl-callctrl	MGCP dial overlap call does not wait for all digits after cot test.
CSCeg81299	2	mdl-lcm	Hung CIC in PRI to PRI fail call upon receiving MGCP 518 Error.

This patch provides updates all protocols.

Additional information:

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

CSCOnn018

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn018 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg37655	3	mdl-sip	CC2 being released due to error from Gateway in response to MDCX.
CSCeg50870	3	mdl-analysis	Timer in trigger result (dw4) doesnt override *.OverlapDigitTime.
CSCeg61035	3	mdl-q761	engine cores when *.IsupTransparencyDisabled = 0 and IAM has ECI.

Identifier	Severity	Component	Description
CSCeg64251	3	mdl-analysis	INC_NUMBERING doesnt override OverlapDigitsTimer for ANNOUNCEMENT.
CSCef27813	6	mdl-callctrl	Call Cutoff Timer Update Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCef27813—Call Cutoff Timer Update featurette—this featurette enhances the existing Call Cutoff Timer feature to support three units of time—hours, minutes, and seconds. Previously, the timer was set using hours. Now the timer can be configured using hours, minutes, or seconds, but not using a combination of units. The maximum timer value is 48 hours, or 2880 minutes, or 172800 seconds. Call Cutoff Timer can be set on a system-wide basis, using Call Cutoff timer (XECfgParm.dat parameter), or on a per call basis, using an analysis result type to provide the timer value. Valid values are:
  - For hours, **0** (disabled), 1—48
  - For minutes, **0** (disabled), 1—2880
  - For seconds, **0** (disabled), 1—172800

  For more information, refer to Call Cutoff Timer Update in the New Features in This Release section of this document.

CSCOnn017

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn017 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg64119	3	mdl-lcm	STATUS msg reporting incompatible state should release the call.
CSCeg66045	3	mdl-pri	PGW drops the RDN received from Q931.
CSCeg11405	3	mdl-mgcp	Hairpin Call with pre-Call Announcement causes mute call.
CSCec59815	3	mdl-in	High Layer Compatibility not send in IDP message.
CSCeg62457	2	mdl-lcm	Result type ROUTE does not work with MGCP 400 return code.
CSCeg63408	2	mdl-lcm	tgadvance and redirect in RETRY_ACTION does not work partly.

This patch provides updates all protocols.

Additional information:

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

CSCOnn016

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn016 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg41750	2	mdl-lcm	PGW : After GW hairpin wrong media offered to SIP and H323.
CSCef89461	3	mdl-lcm	Incorrect release codes for INAP calls.
CSCeg28009	3	mdl-cdr	CDEs 4213/4214 have the wrong length per billing spec 43871.
CSCeg44509	3	mdl-cdr	INAP: no release time stamp.
CSCeg46285	3	mdl-lcm	For SIP SUBSCRIBE/NOTIFY and DTMF sending fails.
CSCeg57446	3	mdl-connctrl	MGCP 400 return code should send call to GA with TEMPORARY FAILURE.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg57446—MGCP 400 return code should send call to GA with TEMPORARY FAILURE—Previously, on an MGCP 400 return code, the PGW attempted one resend of the CRCX. If a second 400 return was encountered, the call was released without going to analysis and the cause was set to Normal or Unspecified.

  The code has been enhanced so if a second 400 return code is received, the cause is set to TEMPORARY FAILURE and then sent to analysis. The dialplan cause analysis can be setup to do reattempts and route advance on this cause value.

  The following MGCP temporary failures map to the indicated internal cause codes and are available for re-routing:

Internal Cause Code	Temporary Failure Description
400	IC_TEMPORARY_FAILURE
401 & 402	IC_USER_BUSY
403 & 404	IC_RESOURCES_UNAVAIL_UNSPEC
405	IC_SERVICE_TEMPORARILY_UNAVAILABLE

CSCOnn015

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn015 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCec82185	2	mdl-q761	Invalid field entries in 1010 CDB.
CSCef84312	2	mdl-lcm	PGW fails to detect RouteSelectFailure in test scenario.
CSCec59815	3	mdl-in	High Layer Compatibility not send in IDP message.
CSCef17304	3	mdl-sip	INVITE message contains invalid TO msg.
CSCeg15176	3	mdl-q767	PGW: USI Octet3b lost for EISUP->Q767_RUSS modem calls.
CSCeg16192	3	mdl-sip	Incorrect SIP messaging causes Codec Mismatch.
CSCuk53506	3	mdl-q761	ISUP indicator not transited in ACM.
CSCef42740	3	mdl-lcm	FINAP TCAP transaction is not cleared after stp-call command.
CSCee59868	6	mdl-eisup	New Zealand ISUP OLM Support Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee59868—New Zealand ISUP OLM Support Featurette—this featurette adds support in New Zealand ISUP for the Overload (OLM) parameter (national parameter used when call processing capacity on a switch exceeds a certain value). It is required by Voice Carriers that need to interconnect with the PTT.

CSCOnn014

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn014 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCef83139	6	engine	SIP OPTIONS method outside dialog.

This patch provides updates all protocols.

Additional information:

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

CSCOnn013

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn013 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg01321	2	mdl-mgcp	MGCP 1.0 does not send SDP info in MDCX message.
CSCee42378	3	upgrade	CFG_migrated contains XECfgParm.dat - problems when syncing.
CSCef17246	3	mdl-sip	Call Forwarding diversion headers different.
CSCef84341	3	mdl-lcm	PGW fails to abort dialogue at detection of Cg party abandon.
CSCef86876	3	mdl-lcm	INAP controlled TDM Hairpin calls fail.
CSCef95194	3	mdl-lcm	when B-number F endmark is found strip it.
CSCuk49066	3	mdl-sip	Repeated receipt of unackd INVITE causes incorrect redir counter.
CSCeg06255	3	mdl-mgcp	Endpt stuck in transient state for hairpinned call w/ COT and T.38.
CSCef70268	3	mdl-q761	Q761_NEWZEALAND OLM Feature needs REL after T3 expires.
CSCee59923	6	mdl-lcm	CBI Field Transparency over DSS1_Q931 Featurette.

This patch provides updates to all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee59923—CBI Field Transparency over DSS1_Q931—This featurette enhances COP Ed 3 behavior to include support for the transit of the UK-specific CBI (CLI Blocking Indicator) parameter over DSS1/Q.931 links.

  For more information, refer to CBI Field Transparency over DSS1_Q931 in the New Features in This Release section of this document.

CSCOnn012

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution Users upgrading from release 9.4(1) with a patch level greater than CSCOgs028 to release 9.5(2) must install patch CSCOgs10 or greater for proper SNMP functionality. For more information refer to *Chapter 6, Upgrading the Cisco MGC Software* in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

Caution After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, immediately after upgrading and prior to starting the PGW software. For more information, refer to snmp.cnf File is Overwritten When Updating to New Release 9 in the Known Issues and Operational Recommendations section of this document.

Protocol patch CSCOnn012 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee70595	2	mdl-sip	9.5T38:SIP/PSTN EISUP CA Controlled T38 Fax call failed.
CSCef77283	3	engine	INAP reports route failure when first route in list is not available.
CSCef81556	3	mdl-sip	Notify for DTMF cannot be sent on TCC side.
CSCef82703	3	engine	No answer timer disarmed during processing of RouteSelectFailure.
CSCee54208	6	other	Call Agent Controlled SIP T.38 Fax Relay SIP <-> H323 featurette.

This patch provides updates to all protocols.

Additional information:

- Refer to 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 Featurette— 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, refer to Call Agent Controlled SIP T.38 Fax Relay in the New Features in This Release section of this document.

CSCOnn011

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn011 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef65568	2	mdl-callctrl	need to propagate CSCea89288 and CSCea89255 into 9.5(2) Release.
CSCee39613	3	mdl-sip	Diversion Counter Wrong.
CSCef49469	3	mdl-lcm	No RingBack Tone in the Call Reattempt after ACM w/cutthrough=3.
CSCef67258	3	mdl-sip	The message event in the Subscribe header need equal in Notify.
CSCef68059	3	mdl-btnup	PGW does not truncate oversize message.
CSCuk52957	3	mdl-cdr	PRI AoC:Fractional AOC-D charge unit times give long update delays.

This patch provides updates all protocols.

Additional information:

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

CSCOnn010

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn010 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee55978	2	mdl-lcm	ACM is bad when B-number does not end with mark f.
CSCef49127	3	mdl-mgcp	Bearer Channel not available due to stuck as if inuse state.
CSCee82987	3	mdl-mgcp	MGCP Error code 540 does not trigger audit in Call Agent.

This patch provides updates all protocols.

Additional information:

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

CSCOnn009

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn009 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef38401	2	mdl-cdr	PRI AOC timing between two AOC-D msg is inaccurate.
CSCef33422	2	mdl-cdr	PRI AOC charging unit increment is not consistent.
CSCef46555	2	mdl-pri	PGW PRI doesnt set the exclusive bit on channel negotiation.
CSCef46565	3	mdl-pri	PGW2200 Broken FACILITY sent to PBX with ETS_300_102.
CSCuk48675	3	mdl-analysis	NV3 MGC software does not update tMaxDigits tMinDigits.
CSCee66739	2	mdl-q767	Early ACM needed where Call Diversion Occurs.
CSCef17231	2	mdl-callctrl	ERB Operations Parameter Missing.
CSCuk52214	2	mdl-q761	PGW kills the call in progress if an incorrectly coded LPM is rcvd.
CSCec67967	3	mdl-in	ETC failed is missing.
CSCee80475	3	mdl-lcm	FINAP TCAP transaction not cleared by kill-call.
CSCef31992	3	mdl-callctrl	Reattempt on same TrunkGroup on cause analysis causes mute call.
CSCee55978	2	mdl-lcm	ACM is bad when B-number does not end with mark f.
CSCuk51031	3	mdl-lcm	PRI AoC:Unable to generate an AOC-E element containing no charge.

This patch provides updates all protocols.

Additional information:

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

CSCOnn008

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn008 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee56200	2	mdl-lcm	If PSTN doesnt send A-Number no triggering happens at all.
CSCuk51216	3	mdl-q761	Loop prevention message not transited.
CSCee39613	3	mdl-sip	Diversion Counter Wrong.
CSCef05076	3	mdl-sip	PGW failed to release sip call when no calling# in INVITE From field.
CSCef15655	3	mdl-connctrl	Call reroute failed from SS7 hairpin call to SIP/H323.
CSCef16460	3	mdl-callctrl	PPAID:End user release does not generate oDisconnect event.
CSCef17950	3	mdl-analysis	Multiple dialplans with local announcements the call do not release.
CSCuk50995	3	mdl-lcm	PRI-AoC: all number multipliers less than 1 give an overall zero val.
CSCuk51002	3	mdl-lcm	PRI AoC:Initial charge period is not included in the total charge.
CSCef05933	6	engine	AOC-D Facility Message update is hard-coded to 15 minutes change request.
CSCee79016	6	mdl-callctrl	Charge Number Based on Destination Featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee79016—Charge Number Based on Destination Featurette—this featurette provides the ability to provision a Charge Number associated with an outgoing Trunk Group.

  For more information, see Charge Number Based on Destination in the New Features in This Release section of this document.

CSCOnn007

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn007 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCef12914	3	mdl-mgcp	MGCP1.0 hairpin call fail if turn EchoCan on on Term Side.

This patch provides updates all protocols.

Additional information:

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

CSCOnn006

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn006 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCuk51523	2	iocm	NV3. Q931 PRI to Q931 BRI (or BRI to PRI) does not work.
CSCeb73451	2	mdl-mgcp	MGCP attempts to hairpin across two gateways on retry.
CSCee56137	2	other	PGW not invoking empty caps set.
CSCee60210	2	mdl-lcm	Hairpin mgcp call with COT successful fails.
CSCee75024	2	mdl-sip	SIP SessionTimer failed caused by missing contact in UPDATE.
CSCuk51174	3	mdl-q761	REL with unknown parm and no PCI causes incorrect RLC message.
CSCuk51222	3	mdl-q761	Parameter compatibility ignored if additional parmameter present.
CSCuk51237	3	mdl-q761	Service activation parameter discarded from FAC and CPG,ST-Mistral; ss7pgw
CSCee50489	2	mdl-analysis	Calls do not go through that have different lengths.

This patch provides updates all protocols.

Additional information:

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

CSCOnn005

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn005 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCec54166	2	mdl-sip	No ring back tone when calling SIP to H.323.
CSCuk50760	2	mdl-lcm	PRI AOC will not work - calls release and no CDRs written.
CSCee55978	2	mdl-lcm	ACM is bad when B-number does not end with mark f.
CSCee56173	2	mdl-lcm	O disconnect (EDP9) is reported even cc2s CON disarms it.
CSCeb64862	3	mdl-eisup	ECS:PGW should release the H323-nonH323 rerouted to H323 calls.
CSCee22610	3	mdl-dpnss	PGW2200 - DPNSS diverted calls to Mobile networks fail.
CSCee23100	3	mdl-cdr	CDR-tag 3009/FCI_Rx & 3010/FCI_Tx of 1010-CDB has wrong values.
CSCee70625	3	mdl-connctrl	PGW does not handle T38_STOP notify message correctly.
CSCee81289	3	mdl-q761	OCC ETS 300 172, TCC German ISUP, calls fails with # (Hash).
CSCed90328	6	mdl-q761	CLI not passed when CLI blocking ind = 0, Change Request.
CSCee27469	6	other	Call Agent Controlled SIP T.38 Fax Relay - SIP <-> MGCP Based featurette.

This patch provides updates all protocols.

Additional information:

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

- CSCee27469—Call Agent Controlled SIP T.38 Fax Relay SIP MGCP Based Featurette—the PGW 2200 now supports call agent controlled T.38 fax relay between SIP and other networks via MGCP gateway. For more information, refer to Call Agent Controlled SIP T.38 Fax Relay in the New Features in This Release section of this document.

CSCOnn004

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn004 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCed32109	2	mdl-q761	CFN message not sent in response to unknown parameter.
CSCee56200	2	mdl-lcm	If PSTN doesnt send A-Number no triggering happens at all.
CSCee54844	2	mdl-in	Second connection configuration fails.
CSCec67967	3	mdl-in	ETC failed is missing.
CSCee45499	3	mdl-pri	error parsing qsig facility globalValue operation.
CSCuk48821	3	mdl-in	NV3: PGW needs to handle FCI in the ETC.

This patch provides updates all protocols.

Additional information:

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

CSCOnn003

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn003 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee28772	2	mdl-callctrl	Call fails when TG based announcement is config using .SO.
CSCed22575	2	mdl-lcm	Cause based Announcement does not work when TG based Ann is config.

Identifier	Severity	Component	Description
CSCed22596	2	mdl-lcm	Call is not released properly when cause based Announcement is configured.
CSCee00533	2	mdl-lcm	RQNT should not be sent for MGCP scripting calls.
CSCed22743	2	mdl-mgcp	Cause based announcement fails when term is EISUP.
CSCed63732	3	mdl-callctrl	FINAP wrong call duration if maxCallDur is 0 in ACR-BCC.
CSCec75663	3	mdl-in	SCI levelToUse not defined.
CSCuk48799	3	mdl-in	NV3 : PGW does not send abort in some failure scenarios.

This patch provides updates all protocols.

Additional information:

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

CSCOnn002

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn002 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCec33700	2	mdl-analysis	Time 0015 is read wrong from charge.dat.
CSCuk49290	2	mdl-connctrl	NV3: Call forwarding CCM IP phone to PRI and Q.SIG fails.
CSCeb69846	2	mdl-dpnss	PGW is sending EEM with transfer when call is held from CCM.
CSCed91373	2	mdl-in	TCAP pre-arranged end not supported.
CSCed93947	2	mdl-in	Timer (tssf) value should be 6 seconds.
CSCed93958	2	mdl-in	A-num from IN should supersede ingress A-num on egress signalling.
CSCed92686	2	mdl-mgcp	MGCP 1.0 not handling TDM hairpin on redirected call.
CSCee05757	2	mdl-pri	Global obj id is not decoded correctly for QSIG call forwarding.
CSCuk49601	2	mdl-pri	QSIG: Call Independent call failure.
CSCeb67571	3	mdl-callctrl	FINAP call with temporary connect missing interim CDB tag.

Identifier	Severity	Component	Description
CSCec43828	3	mdl-callctrl	REL causes are different when dest=OOS for normal and forwarded call.
CSCec36004	3	mdl-cdr	CDE 4044(local announcement) is not seen after failover in 1040 CDB.
CSCed54594	3	mdl-cdr	4034 4035 4036 4037 are missing from 1010 1030 CDBs.
CSCec35867	3	mdl-dpnss	PGW sends same EEM message three times for call transfer cases.
CSCed69337	3	mdl-dpnss	PGW is not responding to ISRM if it is sent right after CRM/CIM.
CSCuk47848	3	mdl-in	INAP:oNoAnswer timer value not buffered if multiple ops occur.
CSCuk48254	3	mdl-in	INAP:Fail to provide RteSelFail from DFC/connect after ETC.
CSCuk48255	3	mdl-in	INAP:Incorrect BCSM event oAnswer sent after ETC/DFC/ETC sequence.
CSCuk48487	3	mdl-in	INAP-ICM:MGCP RQNT for OOB DTMF not sent for calls after txfr.
CSCec34445	3	mdl-lcm	No RingBack tone on CM-CM and CM transfers call to ISDN.
CSCed24007	3	mdl-lcm	Echo should be turned off when announcement is played.
CSCuk49284	3	mdl-lcm	ST. BTCodeofPractice with Present Number sends too much information.
CSCuk49006	3	mdl-mgcp	RBtone=2 causes S:rt to be sent on MDCX with sendrecv set.
CSCuk48905	3	mdl-pri	NV3: PGW is re-sending cause from STATUS in DISCONNECT.
CSCed83737	3	mdl-q761	Calls with invalid CPC value terminate is being released.
CSCec80167	6	other	CA30 ISUP Variant featurette.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- Both patches CSCOnn002 and CSCOgs002 must be installed.

CSCOnn001

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Protocol patch CSCOnn001 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCed58683	2	mdl-analysis	Redirection counter incorrect in IAM after multiple redirects.
CSCed15875	2	mdl-callctrl	Unable to convert MDL Trace when MGCP announcements are configured.
CSCed25023	2	mdl-cdr	Mapping errors in CgPC values written into CDR files.
CSCed31081	2	mdl-cdr	CDR 1040 tag 4215 needs to be populated for IP->IP calls.
CSCed32094	2	mdl-cdr	CDB 1040 tag 4215 timestamp from IAM rather than ANM.
CSCed31137	2	mdl-in	IN Cut and Paste fails on second cc.
CSCed40015	2	mdl-in	Second cc IN reports missing.
CSCed75345	2	mdl-pri	PGW sends incorrect length call reference and chan id for ETSI BRI.
CSCec54166	2	mdl-sip	No ring back tone when calling SIP to H.323.
CSCec75673	2	mdl-sip	IDP Redirecting information is missing.
CSCed10856	2	mdl-sip	SIP messages not handled properly by PGW.
CSCec41291	3	engine	FINAP Reattempted call CIC status are not on STANDBY.
CSCed26278	3	mdl-dpnss	DPNSS TXFR: PGW doesnt send Notify when receive ConnectedNum in CCM.
CSCec75663	3	mdl-in	SCI levelToUse not defined.
CSCuk48493	3	mdl-in	INAP/IPCC:RTP stream established in one direction after VRU txfr.
CSCec50733	3	mdl-q761	backward indicator not discarded when PCI is set for discard message.
CSCed67788	3	mdl-q761	Incorrect release cause is sent when IPLNK is OOS.

This patch provides updates all protocols.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- The following features are included in this patch:

Caveat Number	Featurette Name
Propagated from 9.4(1)	
CSCed45778	Austrian ISUP Enhancements.
Propagated from 9.3(2)	
CSCed76634	SIP sigPath cannot send out message after engine reload.

For more information, refer to the New Features in This Release section of this document.

CSCOgs073

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs073 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh26042	3	design	FOD-01 process stopped and coredump happened.
CSCsi25376	3	mml	MML command kill-call, prt-call missing help for cid.
CSCsi29458	3	engine	PGW sends Maintenance instead of Hardware Block CGB, v-sol.
CSCsi68223	3	ioccm3ua	PGW cannot clear DPC congestion alarm.
CSCsi90911	3	engine	PGW 9.5.2 S72P65 CDR fields 4207/4208 do not show codec correctly, v-sol.

This patch provides updates to all modules.

Additional information:

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

CSCOgs072

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs072 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsi26997	2	mdl-sip	PGW misunderstands 200OK for PRACK as call answer.
CSCsi15517	3	mdl-sip	PGW SIP REFER fails when CALL-ID is missing @host portin of the id.

This patch provides updates to all modules.

Additional information:

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

CSCOgs071

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs071 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsh42701	3	iocm	OCM coredump on PGW when starting as standby.

This patch provides updates to all modules.

Additional information:

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

CSCOgs070

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs070 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg43855	3	mdl-cdr	National CPC values written into CDR as default value 10.
CSCsg87202	3	mdl-in	PGW: call processing for INAP triggered calls stop after some time.
CSCsg89267	3	mdl-sip	Port support for InhibitSipFromMapping=2 to MGC 9.5(2).
CSCsh29211	3	engine	PGW 9.5(2) Cores with UNKNOWN process.
CSCsh42767	3	m3ua	Coredump when making inap calls.

This patch provides updates to all modules.

Additional information:

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

CSCOgs069

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs069 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg85795	3	mdl-mgcp	PGW should accept '0d0a' as EOL,v-sol.
CSCsg65031	6	protocol	Add a parameter to control the redirection in the ACM from sip 302.

This patch provides updates to all modules.

Additional information:

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

CSCOgs068

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs068 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsg36965	3	ioccm3ua	PGW: wrong destination status on m3ua.

This patch provides updates to all modules.

Additional information:

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

CSCOgs067

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs067 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf20918	3	engine	PGW does not respond to any INVITE message when second sip ip link OOS.
CSCsf30384	3	mdl-lcm	SIP 302 causes DeSel_Out_Crct CDR.
CSCsg03575	3	ioccm3ua	M3UA coredump when starting m3ua traffic.
CSCsg11663	3	sim	Writer fails with Error: trace type could not be read.
CSCsg43793	3	design	True/false doesn't take effective on the property of sip path.

This patch provides updates to all modules.

Additional information:

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

CSCOgs066

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs066 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf28441	1	m3ua	Porting back to 9.5(2) :9.6(1) S32P24 m3ua continuous core dump.
CSCsf28439	2	iocciua	Porting back code of core dump from 9.6(1).
CSCsf28456	2	install	Enable core dump for set-sid process in 9.5.
CSCsg00712	2	iocciua	MGCP coredump on 9.5(2).
CSCsd80956	3	ioccc7	C7DPC cannot get out of congestion after manually set c7link oos.
CSCse70394	3	occli	PGW: wrong radiusKey definition in properties.dat.
CSCse76983	3	mml	Mml core on 9.5(2) S63P57.
CSCse96957	3	iocm	Ocm core on 9.3(2) S54P60.
CSCsg00512	3	engine	PGW core when making glare call.
CSCsg00523	3	ioccm3ua	m3ua coredump when stopping PGW.
CSCse26527	6	mdl-sip	SIP Diversion header treatment in the multi-contact environment.
CSCse93247	6	mdl-ni2	Enable Cliselectionforcop3 to be configured on NI2+ signalling service.

This patch provides updates to all modules.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCse26527—after the patch is applied, when you use config-lib to revert to a saved configuration, you must manually copy the file propSet.xml.dat from the directory /opt/CiscoMGC/etc/CONFIG_LIB/new to the directories /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link. Then start the PGW.
- CSCse70394—After the patch is applied, when you use config-lib to revert to a saved configuration, you must manually copy the file propSet.xml.dat from the directory /opt/CiscoMGC/etc/CONFIG_LIB/new to the directories /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link. Then start the PGW.

CSCOgs065

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs065 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsf14546	3	iocm	Eisup and sip links stay OOS after sigpath update.

This patch provides updates to all modules.

Additional information:

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

CSCOgs064

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs064 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse40406	3	mdl-pri	Progress message not forwarded on EISUP side if received during Overlap,spvoice-bru-ddts.
CSCse48839	6	mml	Generate a Warning message if there is a non-zero stPort value.
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.

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

Identifier	Severity	Component	Description
CSCsd64628	3	ioccc7	Trillium issue ccpu00064020 C7 link congestion.
CSCsd73705	3	engine	PGW shows false CDR after switchover - need new code to diagnose problem,v-sol.
CSCse12574	3	mdl-sip	Gratuitous arp sent due to ethernet link flaps regardless of PGW status.
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.
CSCse37883	4	mdl-tools	The sip-sip MDL trace in 9.3(2) can not simprint in less.
CSCse42861	3	engine	Routing table information becomes corrupted when adding more trnkgrps.

This patch provides updates to all modules.

Additional information:

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

CSCOgs063

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs063 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCse13603	3	ioccpriip	CICs stuck in the MATE UNAVAILABLE state clear only after reload of PGW.
CSCse44713	3	mdl-in	TCAP Into_analyzed USERID parameter needs to be mandatory in trigger.dat.
CSCse20839	3	mdl-q761	need a new sigpath property to control "chargeareainformation".
CSCse30675	6	toolkit	add a tool for customer to track provision.
CSCse51175	6	performance	Update MGC start script regarding performance to recognize SunFire V440.
CSCse51145	6	other	Update check inventory program to recognize SunFire V440.

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

Identifier	Severity	Component	Description
CSCsa67716	3	alrmm	Replic ALM=PEER LINK A FAILURE does not clear automatically.
CSCsc66392	3	engine	PGW sudden switchover due to busy call clean up.
CSCsb04467	3	ioccsctp	Compiler Warnings in Sigtran Libraries.
CSCsa59971	3	m3ua	PGW doesn't initiate CVT testing when receives UPU with unknown cause.
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.
CSCsc50364	6	mdl-q767	Need to send Alerting when ACM recvd no matter what the indication in BCI.

This patch provides updates to all modules.

Additional information:

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

CSCOgs062

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs062 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd94308	3	ioccc7	SS7 core at snRtrDatInd with patch P47/s54.
CSCsd95159	3	mdl-q761	Provisioned CGBA2 parameter does not work.
CSCsd76478	3	mml	the iplnk port/peerport should be prohibited to modify.
CSCse22085	3	mml	mml core dump of 9.7 on Opteron platform.
CSCse01443	3	provision	Prov-Cpy/Prov-EXp fails to complete with large number or rtlist configured.
CSCsd93624	6	design	Validate and support PRI Backup-D channel in Call Control Mode Featurette.

This patch provides updates to all modules.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsd93624—Validate and Support PRI Backup-D Channel in Call Control Mode—The following requirements were used for testing and validation:
  - ability to provision two D channels, one primary and one backup, for all the NFAS groups in the system.
  - NFAS interface can either be T1 or E1, but not a mixture of T1 or E1 on the same NFAS interface.
  - validate maximum supported NFAS spans, which is 16.
  - validate the ability to support mixture of FAS, NFAS and NFAS with Backup D simultaneously.
  - validate manual switchover using mml command.
  - validate the ability to take a D channel M-OOS, but reject taking D channel M-OOS if other D channel is already M-OOS.
  - validate PRI Backup-D channel forMGX8880 with VXSM card and AS5000 (AS5850) voice gateways.

CSCOgs061

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs061 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd89956	3	engine	PGW using To: field to send the Response to new Request after transfer.
CSCse05581	3	engine	PGW core related to LNP.
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&rtrv-lics can't show right.
CSCse06463	3	mdl-analysis	simWriter fails with : Invalid Parameter Range.
CSCsd99942	3	mml	Incorrect duplicate entry for LINEXLATE when provisioning NOA conversion.

This patch provides updates to the following:

- libda.so
- callver
- libcmg.so
- libinf.so

Additional information:

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

CSCOgs060

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs060 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd95154	3	mdl-q761	Provisioned ChargeAreaInformation is not used in the call ISUPV2_JAPAN.
CSCse00872	3	mml	Help text for mml command rtrv-ss7-slt is wrong.

This patch provides updates to the following:

- mmlCommands.xml
- propertySet.xml

Additional information:

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

CSCOgs059

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs059 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd66194	3	alrmm	Change default severity of all ISDN IP conn Fail from major to critical.
CSCsd80497	6	engine	need a new sigpath property for the digital analysis when get 302 msg.

This patch provides updates to the following:

- di
- migration
- properties.dat
- propSet.xml.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- A new property, SipRedirAnalysisMethod, has been added for the Support Multiple IP Addresses in SIP Header feature. This feature defines how the PGW handles the SIP redirection target.

  Valid values are:

0— (default) Conditional analysis, only analyze the target whose domain matches the PGW's domain.

1—Always analyze.

2—Never analyze; this was the implementation method prior to this feature being implemented.

CSCOgs058

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs058 resolves the following caveat numbers:

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.

This patch provides updates to the following:

- mml
- alrmm
- variants.dat
- propSet.xml.dat

Additional information:

- Refer to 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.

CSCOgs057

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs057 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd81084	3	other	PGW remains stuck at /etc/rc3.d/S71startcia script after reboot.
CSCsd64449	3	ioccc7	Trillium issue ccpu00064020 C7 link congestion.
CSCsd81084	3	other	PGW remains stuck at /etc/rc3.d/S71startcia script after reboot.
CSCsd47209	3	mml	S54P47:rtrv-rssn incorrectly when dynamically editing the REMOTESSN to 0.
CSCsd52304	3	flovr	PGW 9.5(2) : Platform stay OOS until second cable is inserted.
CSCsd57900	3	pxelogger	9.5(2) S54/P47--Core Dump when doing ANSI TCAP regression test.
CSCea11645	6	mdl-sip	ATA to PSTN-pg1 sw-over to pg2-PSTN onhook-bye direct from pg2 to AT.

This patch provides updates to the following:

- SS7
- S71startcia
- TCAP
- foverd
- libcmg.so
- libeng.so

Additional information:

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

CSCOgs056

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs056 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd35855	3	mmlhelp	Help text for mml command rtrv-ss7-srt is wrong.
CSCsd31517	3	provision	prov-add:trnkgrpprop allows GWDefaultcodecstring with spaces.
CSCsd42674	3	provision	MML help description needs separator between ranges (if >1 range).
CSCsd44535	3	mml	PGW :Nbr of redun IP links using same port for same sign. can't exceed 2.
CSCsd50625	3	provision	Rel 9.5(2) coredump on POM process for tftp_dataReceived().

This patch provides updates to the following:

- mmlCommands.xml
- SS7
- libpolcomp.so
- libda.so
- libxe.so

Additional information:

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

CSCOgs055

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs055 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd47312	3	ioccxgcp	MGCP IOCC trace buffer too small and string copy does not check size.
CSCsd45914	3	engine	Core dump found when receiving INVITE with GTD and SDP no CRLF.
CSCsd40629	6	engine	Allow PGW to derive Span when Explicit id not provided in ISDN message.
CSCsd40149	3	provision	S53P46:CLIPess =2 protocol EISUP missing on provision.

This patch provides updates to the following:

- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- di
- propSet.xml.dat
- propVal.xsd.dat
- properties.dat
- engine.smartalloc
- engine.no_smartalloc

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsd40629—To revert to a saved configuration after the patch is applied, you must manually copy the propSet.xml.dat files from the /opt/CiscoMGC/etc/CONFIG_LIB/new directory to the /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link directories, and then start the PGW.
- CSCsd40149—To revert to a saved configuration after the patch is applied, you must manually copy the propSet.xml.dat files from the /opt/CiscoMGC/etc/CONFIG_LIB/new directory to the /opt/CiscoMGC/etc/ and /opt/CiscoMGC/etc/active_link directories, and then start the PGW.

CSCOgs054

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs054 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd30835	1	ioccc7	PGW does not launch TCAP query if the remote SSN is set to 0.
CSCsd13429	3	ioccc7	PGW coredump in 9.5(2) on cmHashListDelete.
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.
CSCsd29972	3	toolkit	simWriter fails to read dialplan base table.

This patch provides updates to the following:

- TCAP

- SS7
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- simWriter

Additional information:

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

CSCOgs053

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs053 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd10203	3	mdl-sip	PGW discard DNS SRV records with weight 0.
CSCeg39985	6	mdl	SIP to MGCP T.38 Fax Fallback to Pass-through and Voice.
CSCsd03592	6	other	CLI Handling for Mexican ISUP Featurette.

This patch provides updates to the following:

- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- SIP
- migrate_XECfgParm
- XECfgParm.dat
- di
- engine.smartalloc
- engine.no_smartalloc
- propSet.xml.dat
- propVal.xsd.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg39985—SIP to MGCP T.38 Fax Fallback to Pass-through and Voice—The SIP To MGCP T.38 Fax Fallback to Pass-through and Voice feature 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.

  This feature 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.

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).

Note 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—this featurette 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).

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

CSCOgs052

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs052 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsd09970	2	other	ISDNBRI coredump after setting interface hme1 down.
CSCsd06325	3	mdl-sip	# sign in Via header branch field causes CSPS to ignore the BYE message.
CSCsd01025	6	other	Sun Fire V210 / Netra 210 platform for MGC feature.

This patch provides updates to the following:

- libtcpServer.so
- libcmg.so
- chk_inv

Additional information:

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

CSCOgs051

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs051 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc59340	2	other	STBY needs two CiscoMGC start commands to come up.
CSCsb95787	3	engine	PGW ceased to handle call after fail over.
CSCsc83636	6	mdl-sip	PGW: Omitting CgPN on receipt of From: Unavailable SIP header.

This patch provides updates to the following:

- foverd
- libxe.so
- procM

- di
- propSet.xml.dat
- propVal.xsd.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsc83636— 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.
- CSCsc83636—Omitting CgPN on receipt of From: Unavailable SIP header:
  - 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.

CSCOgs050

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs050 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc20974	3	mdl-tools	trace file can't be got completely after call forward.
CSCsc77498	3	flovr	multiple same virtual ip addresses produced when foverd process killed.
CSCsc93077	3	provision	Batch file provisioning needs performance improvement for routes files.
CSCsc69326	3	engine	PGW sends SIP traffic with wrong interface after INT failover.

This patch provides updates to the following:

- sim
- failover
- mml
- libpolnuman.so
- SIP

Additional information:

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

CSCOgs049

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs049 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc81713	3	mdl-sip	PGW do not respond ACK to 503 message.
CSCsb30733	6	mdl-callctrl	Fax & Data Call Translation Featurette.
CSCsc77446	4	mmlhelp	wrong mml help for siprttrnk:sipproxyport.

This patch provides updates to the following:

- SIP
- mmlCommands.xml
- libpolnuman.so
- mml
- libinf.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb30733—Fax & Data Call Translation—this featurette 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. This featurette only supports scenarios in which the TCC is ISUP; only ITU ISUP variants are supported.

  For more information, see Fax and Data Call Translation in the New Features in This Release section of this document.
- If HLCMOD or BCMOD related dialplan provisioning changes are made after the CSCOgs049/CSCOnn041 patch upgrade and then you need to downgrade to previous patch level, you must use the config-lib utility to revert back to your latest configuration prior to adding the patch.

CSCOgs048

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs048 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc70234	3	provision	PGW/VXSM in NFAS Mode. Calculation of [Sigchan+sigport] is incorrect.
CSCsc34764	3	mml	IOS style help not autocompleting for help:<tab>.
CSCsc60846	3	other	chk_inv does not read specific hw patch files.
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.
CSCsb53849	6	performance	I/O performance improvements for routeAnalysis.dat file.
CSCsa62907	6	other	Support of DNS SRV and SIP Load-sharing Featurette.

This patch provides updates to the following:

- libpolbase.so
- mmlCommands.xml
- mml
- libhelp.so
- chk_inv
- Toolbar.tbc
- libpolroute.so
- libeng.so
- librmg.so
- libcxn.so
- libeng.so
- engine.no_smartalloc
- engine.smartalloc
- libconvutil.so
- libengif.so
- pom

- replicator
- sagt
- SS7
- EISUP
- ISDNL3
- MGCP
- SIP
- TALI
- IUA
- M3UA
- SUA
- LI
- ISDNBRI

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb53849—I/O performance improvements for routeAnalysis.dat file—I/O performance enhancements were added that use the most optimized methods when deleting large route lists for configurations with a large routeAnalysis.dat files.
- CSCsa62907—Support of DNS SRV and SIP Load-sharing—This featurette implements DNS SRV and SIP load-sharing in compliance with the RFC2782 specification. The feature enables customers to do load-sharing when interconnecting multiple SIP servers.

  For more information, see Support of DNS SRV and SIP Load-sharing in the New Features in This Release section of this document.
- CSCsc81713—PGW do not respond ACK to 503 message—an issue was introduced in this patch set where the PGW 2200 does not acknowledge the 503 Service Unavailable response. This issue should not impact operation because the SIP side retries several times before releasing the call. It should be resolved in the next patch set.

CSCOgs047

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs047 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc43798	2	engine	PGW core.smartall on recv/xmit SDP info > 1000 bytes.
CSCsc20966	3	configlib	redirmax can't be provisioned on sip path.

Identifier	Severity	Component	Description
CSCsc47858	3	mdl-q761	PGW: CGU Status bits mismatch on CGB retransmissions.
CSCsc53049	3	mml	MML does not check the new MetaTariff Table.
CSCsc42392	3	provision	Validation of EISUP trunk group takes too long in provisioning phase.
CSCsb14217	3	sim	PGW : Simwritter failed with No suitable trunk group found.
CSCsc38969	3	toolkit	Toolkit CDR viewer does not display 4213 and 4214 tags in 1060 CDB.
CSCsc54729	3	flovr	PGW 952 stays in OOS after eri0 cable is removed and inserted.
CSCsc57402	3	mml	digmodstring value can exceed its max length 32.
CSCeg67066	6	mdl-sip	Multiple IP Addresses in SIP Contact Header Featurette.

This patch provides updates to the following:

- libcxn.so
- simWriter
- librmg.so
- propSet.xml.dat
- propVal.xsd.dat
- libpolcomp.so
- di
- properties.dat
- position.dat
- foverd
- libpolnuman.so

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg67066—Multiple IP Addresses in SIP Contact Header—The Multiple IP Addresses in SIP Contact Header Support feature supports multiple IP addresses in the SIP Contact header for redundant interworking with a SIP application server.

  For more information, see Multiple IP Addresses in SIP Contact Header in the New Features in This Release section of this document.

CSCOgs046

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs046 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb62848	2	engine	Engine core dumps.
CSCee77624	3	mml	Error Message / Validation Code for dws in NEW_DIALPLAN for mml.
CSCeh01715	3	engine	PGW stays in OOS after eri0 cable is removed/inserted.
CSCsb76391	3	mml	PGW - Allows More than 20 Trunks in Routing.
CSCsc18866	3	mmlhelp	mml help for sta-sc-trc:ss7svc1:prd= is wrong.
CSCsb65433	6	m3ua	Support for M3UA Priority Routes Featurette.

This patch provides updates to the following:

- librmg.so
- libeng.so
- libcmg.so
- libcxn.so
- engine.no_smartalloc
- engine.smartalloc
- libpolnuman.so
- foverd
- libpolcomp.so
- libpolroute.so
- mmlCommands.xml
- di
- mml
- M3UA
- ioChanMgr

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb65433—Support for M3UA Priority Routes Featurette—this featurette 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.

For more information, see Support for M3UA Priority Routes in the New Features in This Release section of this document.

CSCOgs045

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs045 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc13181	3	provision	PGW support of more than 32 EISUP links.
CSCsc29252	3	mml	mml help integer range of unsigned 32-bit is not supported.

This patch provides updates to the following:

- libpolcomp.so
- mmlCommands.xml

Additional information:

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

CSCOgs044

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs044 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee96264	2	provision	Deleting a dialplan prevents further configuration.
CSCsc07114	3	mml	MML Tab help for prov-exp incorrect.
CSCsc09383	3	engine	PGW 9.5(2) patch 34 replication script returns wrong status.
CSCsb83634	3	provision	resulttype E911PROF display for DW1 range value.

This patch provides updates to the following:

- libpolnuman.so

- libpolroute.so
- mmlCommands.xml
- replication_status.sh

Additional information:

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

CSCOgs043

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs043 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb89411	2	mml	PGW allows user to provision more Nodes in A/B digit trees than allowed.
CSCsb99178	2	engine	PGW cores and switches to standby core engine.smartall.
CSCsc00336	2	provision	Same visual ip addresses for sip occur when STANDBY synchronize provision.
CSCsb88904	5	mmlhelp	MML help for query-cic lists range instead of rng as a valid parameter.

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

Identifier	Severity	Component	Description
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.
CSCsb13092	3	provision	STP linksets on different IOCC's should not point to the same DPC.
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.
CSCsa82848	6	mdl-q767	Improper Forward Call Indicator in Brazil ISUP change request.
CSCsb28289	6	engine	SIP OPTIONS method outside dialog for 9.4(1).

Identifier	Severity	Component	Description
CSCsb54047	2	mml	PGW Routes in resultset corrupted after dial plan change.
CSCeh03380	3	engine	Dynamically add/delete Nailed bear channels failed.
CSCsb34763	3	m3ua	Update sigtran stacks to latest version.
CSCsb39284	3	provision	9.4(1) allows more than 8 IPLNK per gateway to be configured.
CSCsb48531	3	mml	MML TAB key does not retrieve certain sigsvcprop entries.
CSCsb70044	3	mml	mml -b batchfile fails while deleting a gateway.
CSCsb13092	3	provision	STP linksets on different IOCC's should not point to the same DPC.

This patch provides updates to the following:

- libpolnuman.so
- foverd
- mmlCommands.xml
- search.tbc
- libpolcomp.so
- libcmg.so
- libpolroute.so
- pom
- libhelp.so
- mml
- variant.dat
- M3UA
- IUA
- SUA

Additional information:

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

CSCOgs042

Warning **If you currently have CSCOgs040 or CSCOgs041 on your PGWs, it is urgent that you upgrade to the latest patch set CSCOgs042/CSCOnn034 as soon as possible.**

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs042 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsc06805	2	engine	Intermittent PGW fail-over.

This patch provides updates to the following:

- libcmg.so

Additional information:

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

CSCOgs041

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs041 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb82020	3	provision	Unable to provision more than 50 D-channels.
CSCsb81504	3	engine	rtrv-cic show SS7 CIC Idle but it is not used for outbound call.
CSCsb09408	6	mdl-lcm	E911 SR Mapping Table Featurette.

This patch provides updates to the following:

- mml
- di
- XECfgParm.dat
- migrate_XECfgParm
- libpolcomp.so
- libcmg.so
- librmg.so

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb09408—E911 SR Mapping Table—this feature provides support on the Cisco MGC to connect emergency calls that originate in a SIP network to the appropriate selective router (SR) connected to the Public Safety Answering Points (PSAPs). This feature introduces a mapping table to support the various IAM formats or Centralized Automatic Message Accounting (CAMA) signaling required by the SRs in North America, including the sending of the Emergency Services Query Key (ESQK), which is used by the PSAP to find the calling party location and call-back numbers.

CSCOgs040

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs040 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb63024	2	engine	Incorrect computation of input CPS rate when PGW is in overload state.
CSCsb67059	3	other	CPU data not collected with rtrv-ne-health command for single CPU.
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.
CSCsb67600	3	mdl-sip	Proxy SIP Refer call.
CSCsb51867	3	mmlhelp	M3uakey component - no mmhelp for opc parameter.
CSCsb27839	4	replicator	replication_status.sh returns blank screen if replication is not setup.
CSCsb62621	6	engine	Enhance MCL log message to include cps and source of CPU Utilization.
CSCsb34465	4	mml	mml command TAB help can not provide help for sipproxyport.

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

Identifier	Severity	Component	Description
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.
CSCsa90863	3	toolkit	The message under CDR viewer of MGC Viewer Toolkit is not right.
CSCef24791	4	toolkit	MGC_Setup displays empty IP Addr.

This patch provides updates to the following:

- libcmg.so
- .perf_setup
- libpolcomp.so
- IUA
- M3UA
- SUA
- libhelp.so
- replication_status.sh
- libeng.so
- mmlCommands.xml
- mmdb
- query.tcl

Additional information:

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

CSCOgs039

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs039 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb56767	2	provision	STANDBY can not come up if in different config than ACTIVE.
CSCsb59615	3	provision	PGW Routes in resultset corrupted after dial plan change.
CSCsb181563	3	mdl-mgcp	G.Clear fails for PGW-HSI calls (PGW selects Echo On and RQNT DTMF-T38).
CSCsb15021	4	other	PGW disk monitor default logic can cause OPT Dir to become full.
CSCsa60241	6	mdl-sip	SIP Remote Party ID support Featurette.
CSCsb56186	6	mdl-pri	Enhancement : early ACM configurable for PRI Sigpath change request.

This patch provides updates to the following:

- procM
- libxe.so
- libpolroute.so
- libcmg.so
- engine.no_smartalloc
- engine.smartalloc
- replication_status.sh
- diskmonitor
- properties.dat
- propSet.xml.dat
- di

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsa60241—SIP Remote Party ID Support—this featurette provides support on the Cisco MGC of the ISUP-to-SIP mapping of CLI to SIP Remote Party ID or P-Asserted ID header. It also updates the generic handling of the SIP-to-ISUP and ISUP-to-SIP mapping of calling line identity, generic number, and redirecting number.

  This featurette:

  – Supports the ISUP-to-SIP mapping of CLI to SIP Remote Party ID or P-Asserted
  – Updates the generic handling of the SIP-to-ISUP and ISUP-to-SIP mapping of calling line identity, generic number, and redirecting number.
  – Although ISUP-to-SIP is the primary focus, mapping also works for calls from Q.931, QSIG, DPNSS, and H.323 to SIP. The MGC 2200 supports mapping the CLI into the SIP FROM Header, and optionally into the SIP Remote Party ID Header or the P-Asserted-ID on an outgoing SIP trunk group basis.

  - Provides CLI Information for the Call Diversion or Redirection Information
  - With the addition of support for the SIGTRAN protocols IUA and SCTP, the Cisco PGW 2200 can now use standard protocols for communication with the media gateways.

  For more information, see SIP Remote Party ID Support in the New Features in This Release section of this document.

- CSCsb56186—Early ACM Configurable for PRI Sigpath —this change request enables the *.FastConnect property for PRI (currently only used in NI2+).

  For more information, see Early ACM Configurable for PRI Sigpath in the New Features in This Release section of this document.

CSCOgs038

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs038 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb42300	3	mdl-ni2	Call is not getting released when Restart is never acked.
CSCsb46404	3	mml	For SS7 AOC there is not check for tariffid if it exists or not.
CSCsb49491	3	engine	PGW core dumps when receiving malformed SIP packets.
CSCsb54013	3	iocm	SIP call transfer using REFER method fails.
CSCsb45674	3	mdl-cdr	ITU CDR Tags 3018 and 3019 have incorrect values for Redirecting calls.
CSCsb39112	3	mml	Error for adding a Service w/ custgrpid of GLBL needs to be corrected.
CSCsb12818	6	mdl-cdr	Additional charging fields for redirected calls Featurette.

This patch provides updates to the following:

- libpxe.so
- libxe.so
- librudp.so
- libmmdb.so
- libpom.so
- libsa.so
- libconvutil.so
- libinf.so
- libda.so

- libengif.so
- libpolbase.so
- libpolcomp.so
- libpolnuman.so
- mdl
- ca
- sim
- callver
- simWriter
- foverd
- cfgM
- ioChanMgr
- almM
- procM
- mmdbd
- measMgr
- cdrDmpr
- amDmpr
- pom
- replicator
- sagt
- mmSAgt
- diskmonitor
- ISDNIP
- SS7
- EISUP
- ISDNL3
- MGCP
- SIP
- TALI
- IUA
- M3UA
- SUA
- LI
- ISDNBRI
- TCAP
- engine.no_smartalloc
- engine.smartalloc

- mml
- libpolroute.so
- libpolfiles.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb12818—Additional Charging Fields for Redirected Calls—this featurette adds support for additional charging fields so that redirected calls can be properly billed. The PGW 2200 stores both the NOA and digits for both the ingress Redirecting Number (RDN) and Original Called Number (OCN) and additional tags for the egress Redirecting Number (RDN) and Original Called Number (OCN) for both the ANSI and ITU PGW 2200 CDRs.

  For more information, see Additional Charging Fields for Redirected Calls in the New Features in This Release section of this document.

CSCOgs037

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs037 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb23998	2	ioccisdnrlm	core dump for ISDNIP if the link between gateway and PGW is down.
CSCeh00557	2	iocm	Cant use INAP Global Title when PGW is attached to combined STP/SSP.
CSCsb23414	2	upgrade	PGW 7.4.12 upgrade to 9.5.2 failed.
CSCsb41053	3	provision	PGW component not found COMP=m3uakey10 error when deleting m3ua key.
CSCeg50884	3	engine	SIP Performance Degradation at high CPS.
CSCsb11326	3	dumper	coredump found during the showtime automation test on 9.5.2 gs32 nn26.
CSCsb26886	3	provision	Add IUA support for VXSM.
CSCsb41163	3	other	Info for di on start-up needs to be corrected.

Identifier	Severity	Component	Description
CSCsb44616	3	sccp-tcap	PGW SCCP-TCAP: called address encoding scheme is set to unknown.
CSCee66527	6	other	Starry Night Support for BRI Backhaul featurette.

This patch provides updates to the following:

- ISDNIP
- SS7
- TCAP
- libpolcomp.so
- libcmg.so
- libinf.so
- libengif.so
- mdl
- sim
- ca
- ioChanMgr
- di
- extNodeTypes.dat
- mmlCommands.xml
- libeng.so
- libcxn.so
- librmg.so
- migrate
- mml
- libpolbase.so
- libpxe.so
- libxe.so
- cdrDmpr
- diskmonitor
- measMgr
- procM

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee66527—Support for BRI Backhaul featurette—this featurette adds support of new hardware modules for BRI Backhaul on the PGW 2200 as well as the new 28XX and 38XX hardware platforms.

CSCOgs036

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs036 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsb42463	2	provision	prov-exp failed after install 9.5(2) gs035 patch.

Additional information:

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

CSCOgs035

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs035 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb17678	3	mml	No mml help for prov-rtrv:sippath.
CSCsb26630	3	mdl-sip	PGW does not use unique tag value in SIP From and To headers.
CSCsb07425	4	mml	Missing ending Double Quotes in mml IOS help command.
CSCsb23030	4	pkg	chk_inv should ignore blank lines.
CSCsb03774	6	install	Convert Data Interrogation Script to Perl to allow easier Sync to 9.6(1).
CSCsb07919	6	mdl-lcm	AOC over PRI tariff based on call duration Featurette.

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCsb07919—AOC Over PRI Tariff Based On Call Duration—this featurette 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. For more information, see AOC over PRI Tariff Based on Call Duration in the New Features in This Release section of this document.

CSCOgs034

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs034 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb16439	3	flovr	foverd error on platform.log when SIP virtual IP configured on PGW.
CSCsb17127	3	flovr	PGW stays in OOS after eri0 cable is removed/inserted and sipFailover=F.
CSCsb20719	3	mml	PGW : The OTG_NUMBERING should allow 32 digits.
CSCsb22179	3	mdl-runtime	AOC not working for more than 3 time changes with leading zeros.
CSCsb23245	3	engine	PGW engine process cores after upgrade to patch 25 system 31.

This patch provides updates to the following:

- libxe.so
- foverd
- libpolnuman.so
- mml
- libinf.so
- libcmg.so
- librmg.so
- libeng.so
- libcxn.so

Additional information:

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

CSCOgs033

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs033 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb13611	2	ioccsip	Standby PGW cant come up if only SIP is configured.
CSCsb05245	3	mdl-sip	PGW core dump on Big INVITE if debug turned on or MDL trace started.
CSCsb08673	3	engine	MCL Alarm clear log is not displayed in ERROR log.
CSCsb10311	3	engine	PGW : Engine crash at 1cMwriteInteger4CI_6FTArnHRawData__v_.
CSCsb12372	3	mml	PGW:numan-rtrv:bnoa/anoa: displays resulttable name instead of resultset.
CSCeg33908	6	mdl-in	Russian INAP Support featurette.
CSCsa75624	6	provision	Relaxed Provisioning Integrity Rules change request.
CSCsa75634	6	mdl-analysis	Increase AoC per day tariff ranges Featurette.
CSCsa75968	3	mdl-in	IN633129: partyToCharge parm of ApplyCharging msg treated as mandatory.

This patch provides updates to the following:

- ioChanMgr
- libcmg.so
- libinf.so
- libeng.so
- mml
- libpolnuman.so
- TCAP
- mmlCommands.xml
- libpolnuman.so
- variant.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg33908—Russian INAP Support featurette—This featurette 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) featurette.

For more information, see Russian INAP in the New Features in This Release section of this document.

- CSCsa75634—Increase AoC per day tariff ranges featurette—This featurette increases the number of times a tariff can be changed from five to ten times a day.

  For BAMS release 3.20, the system crashes when a CDE tag with a length greater than is defined is received. SKIPCDE has been provided that enables BAMS to skip the received CDE and continue processing. This SKIPCDE is only required if you provision more than six charge periods within 24 hours. Skipped CDEs will not be present in the BAMS output.

  For more information, see CSCsa92926.

  For more information, see Increase AoC Per Day Tariff Ranges in the New Features in This Release section of this document.

- CSCsa75624—Relaxed Provisioning Integrity Rules Change Request—This change request removes an intermediate integrity check of provisioning data, so that customers can modify dial plans without having to remove dependencies within the dial plan first, until the time a prov-cpy or prov-dply is performed. The MML command, numan-dlt:dialplan has a new parameter "contentonly", which determines whether or not to remove dial plan content or the whole dial plan. Valid values for this parameter are:

  – false (default)—keeps the existing behavior that runs a dependency check and deletes the whole dial plan file from the configuration set.

  – true—cleans all dial plan sections except the service and dpselection section of the dial plan.

  For more information, see Relaxed Provisioning Integrity Rules in the New Features in This Release section of this document.

CSCOgs032

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs032 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa98229	3	design	Seeking enhancement to control mapping of S7 calling/charge# to PRI .
CSCsa98823	3	mdl-sip	No Max-Forwards Header in the INVITE-Request.
CSCsa78772	3	mml	Can not DefaultCHGNOA, DefaultCHGNPI and DefaultCHG on NI2+ SigPath.

This patch provides updates to the following:

- di
- propVal.xsd.dat
- propSet.xml.dat

Additional information:

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

CSCOgs031

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs031 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa95263	3	performance	PGW report false queue length congestion.
CSCef57930	3	measm	clr-meas or deleting components are not clearing the measurements.
CSCsa98816	3	engine	MCL printout in platform.log for every message during congestion.
CSCsb02236	3	mml	MML exports profile commands twice.

This patch provides updates to the following:

- libeng.so
- libcmg.so
- libcxn.so
- librmg.so
- engine.smartalloc
- engine.no_smartalloc
- measMgr

Additional information:

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

CSCOgs030

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs030 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsb00382	2	engine	PGW crashes when receives very long Diversion Header in SIP message.
CSCsa70583	3	engine	On cancel graceful RSIP all the SS7 cics are not unblocked.
CSCuk51864	3	mml	NV3 Dchans are shown IS in mml while TCPlink and MGCP link are down.
CSCsa72059	4	other	PGW Start-up Script should ensure it is using .so MDL code.

This patch provides updates to the following:

- libinf.so
- libcmg.so
- librmg.so
- libcxn.so
- libeng.so
- ioChanMgr
- .perf_setup

Additional information:

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

CSCOgs029

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs029 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa80300	3	mmlhelp	VXSM support MML IOS help needs uplift on endpoint naming conversion.
CSCsa86440	3	install	After new Install PGW report errors during startup.

This patch provides updates to the following:

- libxe.so
- libconvutil.so

- libinf.so
- libpolcomp.so
- libpolnuman.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- almM
- pom
- replicator
- mdl
- ca
- sim
- ISDNIP
- SS7
- ioChanMgr
- mmBatch
- TCAP
- mml
- foverd
- callver
- simWriter
- mmlCommands.xml
- di

Additional information:

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

CSCOgs028

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs028 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeh00472	3	sim	Simwriter fails in 9.5(2) to retrieve info during generic analysis.
CSCeg45649	3	provision	delete SS7SUBSYS followed by prov-cpy the application fails over.

This patch provides updates to the following:

- libinf.so
- ca
- sim

Additional information:

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

CSCOgs027

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs027 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCsa73763	3	provision	Provisioning check: mgcp signaling service iplnk - pri needs checked.
CSCeh00448	3	upgrade	Upgrade to MGC 9.5(2) resets *.disableMeas to false.
CSCeh06626	3	other	With CfgRmDirs = null diskmonitor do not trim directories to 64.
CSCeg61238	6	mdl-lcm	A-Number Mods triggered by CLIP/CLIR Featurette.
CSCsa83579	6	ioccm3ua	Support for ITP Signaling GW with Distributed MTP3 Featurette.
CSCsa66414	2	ioccm3ua	deleting/committing one m3ua association causes other associations INB.

This patch provides updates to the following:

- libpolcomp.so
- migrate_XECfgParm
- diskmonitor
- mml

- libpolnuman.so
- propSet.xml.dat
- IUA
- M3UA
- SUA

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg61238—A-Number Mods triggered by CLIP/CLIR Featurette—This featurette 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 If additional instances of A-number modification occur as analysis continues, the A-number can be further modified.

Note This feature can be used for SS7 ITU and SS7 UK routes.

- CSCsa83579—Support for ITP Signaling GW with Distributed MTP3 Featurette—this featurette tests/documents the upgrade path from SLT to ITP.

CSCOgs026

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs026 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg68563	3	provision	Post Provisioning validation msg display CICs in Hex format.
CSCsa63042	3	mdl-tools	Simwritter report Error: invalid parameter range and coredump.
CSCsa75350	3	other	CPU timer Interval not set to 0 on systems with 1 CPU.

This patch provides updates to the following:

- librmg.so
- simWriter

- callver
- .perf_setup

Additional information:

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

CSCOgs025

Caution The patch install script has been updated. You must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches. After copying the script to your directory, you must rename it "patch". The script must be owned by root.

Patch CSCOgs025 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg77754	2	engine	CICs are in wrong state after sta-aud/or PGW restart with MGCP1.0.
CSCsa65894	3	ioccxgcp	After delete and re-add of mgcp gwy mgcp process crashed.
CSCsa66371	3	mdl-analysis	PGW:Rel9.5(2):Call SS7 for Pre-announcement fail on interdigit timer.
CSCeg89855	6	provision	VXSM Support Featurette.
CSCeg27953	6	other	Patch status should show info about the system patch.

This patch provides updates to the following:

- libcxn.so
- MGCP
- libpolcomp.so
- di
- librmg.so
- libcmg.so
- libeng.so
- mml
- extNodeTypes.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCeg89855—VXSM Support Featurette—This featurette provides support on the Cisco PGW 2200 to extend provisioning and range modification to support PGW 2200 interworking with the VISM or VXSM Media Gateways. It provides the following:

- Support external node type VISM (which is the same as the existing node type MGX 8850).
- Support external node type VXSM (which is the same as the existing node type MGX 8850).
- Support VXSM endpoint name convention: DS/S-0/DS1-#/#@gateway, DS/S-0/DS1-#/*@gateway, and *@gateway
- Support hairpin call handing for VISM/VXSM

This feature is supported for use with the following Cisco media gateways:

- MGX 8850 Media Gateway
- MGX 8880 Media Gateway

For more information, see VXSM Support in the New Features in This Release section of this document.

CSCOgs024

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs024 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeh04376	1	engine	RSIP with long GW names can lead to Buffer Overrun then Engine Core.
CSCeg39436	2	iocm	Dyn prov of mgcp ver is not working.
CSCsa63091	2	engine	engine.smartall has crashed with core everyday.
CSCeg25842	3	configlib	Critical process MOOS error message received during failover.
CSCeg56657	3	mml	prov-exp:all created invalid prov-add:extnode mml with syntax error.
CSCeg74906	3	ioccm3ua	PGW doesnt send to ITP any other network-appearance value than 1.
CSCuk55546	3	provision	Unable to modify CircHopCount property for SS7-UK links.
CSCeh04249	3	ioccxgcp	Need interoperability with 3-rd party NAS that works per RFC2705.
CSCeg71330	3	snmp	PGW send wrong OID to SNMP station if it is rebooted.
CSCeh05670	3	toolkit	TOOLKIT: LogViewer: ../var/log query error hangs Toolkit.
CSCeh02191	4	install	Get [mv: cannot access diskmonitor.sh.old] when uninstalling gs020.
CSCsa66292	3	other	Translation verification tool complains of invalid parameter range.

This patch provides updates to the following:

- libcxn.so
- SS7
- TCAP
- ioChanMgr
- libcmg.so
- libpolnuman.so
- alarmCats.dat
- M3UA
- propSet.xml.dat
- MGCP
- mmSAgt
- Filter.tbc
- callver

Additional information:

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

CSCOgs023

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs023 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsa64640	3	mdl-runtime	Dialplan analysis fails with index larger than 32767.

This patch provides updates to the following:

- libengif.so
- libinf.so
- libinf.a
- libpolcomp.so

- libpolnuman.so
- libcmg.so
- libcxn.so
- pom
- replicator
- sagt
- mdl
- ca
- sim

Additional information:

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

CSCOgs022

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs022 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsa64002	3	mdl	PGW cores after downgrade to gs018/nn017 on commit config or mdl trace.

This patch provides updates to the following:

- libinf.so
- libinf.a

Additional information:

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

CSCOgs021

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Caution CSCOgs021 corrects a defect in patches CSCOgs019 and CSCOgs020 which causes severe outages. If you have patch CSCOgs019 or CSCOgs020 on your PGW 2200, replace it with patch CSCOgs021 immediately.

Patch CSCOgs021 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCsa60930	2	engine	Can't Make any SS7 calls after a call failed with mgcp 510 Error.

This patch provides updates to the following:

- MGCP
- libcmg.so

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- For more information regarding this issue, see the Field Notice located at the following url:

  http://www-tac.cisco.com/Support_Library/field_alerts/fn61997.html

CSCOgs020

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs020 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg34018	2	ioccli	LI: CalledNum Tap: PGW doesnt provide rtp-port info to MD.
CSCeg52420	3	flovr	After switchover PGW stayed OOS would not come back into STBY.
CSCeg82008	3	procm	PGW switch-over failed to load dialplan.
CSCeg55231	6	other	Diskmonitor should be rewritten to be less CPU intensive.

This patch provides updates to the following:

- M3UA
- libcxn.so
- libcmg.so

- libeng.so
- librmg.so
- .dump_prov
- di
- foverd
- libpem.so
- libpolcomp.so
- libpxe.so
- diskmonitor
- pom
- procM

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- After installing this patch, the following information displays on application startup:

```
Validating system and protocol package versions for consistency...please be patient.
Start Data Interrogation (/opt/CiscoMGC/local/di) of data in /opt/CiscoMGC/etc
di: adding engine.SendHardwareBlock = false to /opt/CiscoMGC/etc/XECfgParm.dat
Data Interrogation completed.
Application started
```

Note This feature is not available in this release at this time. It has been implemented in release 9.3(2) patch CSCOgs042 and will be propagated to release 9.5(2) at a later date.

CSCOgs019

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs019 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg36419	3	engine	CP_ERR_OBJ_PTR_IS_NULL:cmgCallCntrlProcCxt under high load.
CSCeg60520	3	provision	Prov-dply file transfer can time out.
CSCef27813	6	mdl-callctrl	Call Cutoff Timer Update Featurette.
CSCuk55150	2	sccp-tcap	PGW fails To reroute calls on prohibited INAP link.

This patch provides updates to the following:

- libxe.so

- libpolcomp.so
- libpolnuman.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- pom
- replicator
- sagt
- TCAP
- mml
- callver
- CiscoMGC
- migrate

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCef27813—Call Cutoff Timer Update featurette—this featurette enhances the existing Call Cutoff Timer feature to support three units of time—hours, minutes, and seconds. Previously, the timer was set using hours. Now the timer can be configured using hours, minutes, or seconds, but not using a combination of units. The maximum timer value is 48 hours, or 2880 minutes, or 172800 seconds. Call Cutoff Timer can be set on a system-wide basis, using Call Cutoff timer (XECfgParm.dat parameter), or on a per call basis, using an analysis result type to provide the timer value. Valid values are:
  - For hours, **0** (disabled), 1—48
  - For minutes, **0** (disabled), 1—2880
  - For seconds, **0** (disabled), 1—172800

  For more information, refer to Call Cutoff Timer Update in the New Features in This Release section of this document.

CSCOgs018

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs018 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef70434	3	install	Some PGW Boxes not allowing to create dir in /opt/CiscoMGC with mgcu.
CSCeg41961	2	iocm	mgcp links stuck in INB.
CSCuk54722	2	mml	liusr is unable to connect as regards MML session already active.
CSCeg24376	2	engine	Trunk Activation problem after GW Restart.
CSCed63954	3	mml	rtrv-iplnk:tcp* does not work when there are 1000 links configured.
CSCeg07092	3	other	migrateTKGFile is not working for 9.3->9.6 9.4->9.6 format converse.
CSCeg07965	3	pkg	collectdata script needs execute permissions.
CSCeg24197	3	configlib	MML help is incorrectly showing DESC for SESSIONSET.
CSCeg54582	3	engine	Mutex race condition causes engine core dump.
CSCeg55250	3	engine	EISUP message decoded wrong resulting junk sdp.
CSCuk55148	3	mdl-in	wrong inservice.dat file in installation.
CSCeg51561	3	dumper	PGW Incorrect time stamp of CDR file names after switch-over.
CSCeg49361	3	measm	Compiler Warnings: measM when compiled optimized.
CSCuk50553	4	mml	MML guidance text missing for switched-trunk deleting.
CSCuk50855	4	mml	NV3. MML helpline does not offer option to change subunit in DChanne.
CSCuk55276	4	mml	MML help text fails to offer defined DPCs in prov-add:lnkset.
CSCuk55277	4	mml	MML help text doesnt offer SLT as an extnode in prov-add:sessionset.

This patch provides updates to the following:

- engine.no_smartalloc
- engine.smartalloc
- libhelp.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- mml

Additional information:

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

CSCOgs017

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs017 resolves the following caveat number:

Identifier	Severity	Component	Description
CSCeg49254	2	engine	Debug statements regarding large SDP cause core.

This patch provides updates to the following:

- libcmg.so
- libpolcomp.so

Additional information:

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

CSCOgs016

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs016 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg41865	2	engine	engine stops when mgcp gwy is deleted.
CSCeg42757	3	mdl-analysis	PGW patch gs015 intro. probl. with Adv. Screening funct. on SIP/H323.

This patch provides updates to the following:

- libcmg.so
- libcxn.so
- libeng.so

- librmg.so
- engine.no_smartalloc
- engine.smartalloc

Additional information:

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

CSCOgs015

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs015 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg24554	3	provision	Performance improvements for prov-cpy.
CSCef57930	3	measm	clr-meas or deleting components are not clearing the measurements.
CSCeg27051	3	provision	Routing and Dialplan provisioning performance improvements.
CSCeg35191	3	iocm	PGW coredump generated due to GW deletion operation.
CSCeg35570	3	mml	PGW doesnt modify the Description param for DPNSSPATH.
CSCef20445	4	mml	mml valid range for result type CHARGE dw3.
CSCef20452	4	mml	mml need range check for dw4 for result type IN_TRIGGER.

This patch provides updates to the following:

- libxe.so
- librudp.so
- libpom.so
- libda.so
- libpolcomp.so
- libpolnuman.so
- libpolroute.so
- libpolfiles.so
- measMgr
- pom
- MGCP

- ioChanMgr
- mml

Additional information:

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

CSCOgs014

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs014 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg31001	2	ioccc7	MSO_Refused Warm-start-Failed: after call-release on FO attempt.
CSCeg13116	3	engine	PGW2200 : Two invite message with same Call-id created two IAM messages.
CSCeg17875	3	ioccc7	SS7 process core resulted by engine core though.
CSCeg26892	3	engine	PGW coredump when changing from MGCP V0.1 to MGCP v1.0.

This patch provides updates to the following:

- EISUP
- ISDNL3
- ISDNBRI
- MGCP
- SIP
- SS7
- IUA
- TALI
- M3UA
- SUA
- LI
- mml
- pom
- replicator
- sagt

- libcmg.so
- libeng.so
- libcxn.so
- librmg.so
- libengif.so

Additional information:

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

CSCOgs013

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs013 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef81408	3	engine	PGW engine under load, shared data between threads could be corrupted
CSCef31736	3	engine	FINAP:TCAP dialog cleared locally but no ABORT to SCP,Mistral
CSCef70368	3	engine	CPU data not collected with rtrv-ne-health command for single CPU
CSCeg01456	3	engine	CP_ERR_OBJ_PTR_IS_NULL in platform.log for SIP terminated calls

This patch provides updates to the following:

- librmg.so
- libcmg.so
- libcxn.so
- libeng.so
- pom
- replicator
- sagt
- mml
- perf_setup

Additional information:

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

CSCOgs012

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs012 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCeg22733	3	mml	PGW2200: Reduce MML operations involving for prov-cpy
CSCeg22283	3	procm	Large Core File is truncated - work-around

This patch provides updates to the following:

- chk_inv
- procM
- libpolcomp.so

Additional information:

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

CSCOgs011

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs011 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee42378	3	upgrade	CFG_migrated contains XECfgParm.dat - problems when syncing.
CSCee62702	3	provision	prov-ed fails for ANNOUNCEMENT result type for local/remote edit.
CSCef84253	3	ioccxgcp	Compiler warnings need to be fixed in mgcp channel controller.
CSCee59923	6	mdl-lcm	CBI Field Transparency over DSS1_Q931 Featurette.
CSCeg06748	3	engine	engine core dump under load.

This patch provides updates to the following:

- libengif.so
- libhelp.so
- libpolnuman.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so
- pom
- replicator
- sagt
- MGCP
- mml
- CiscoMGC
- mmlCommands.xml
- position.dat
- presentation.dat
- propSet.xml.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- CSCee59923—CBI Field Transparency over DSS1_Q931—This featurette enhances COP Ed 3 behavior to include support for the transit of the UK-specific CBI (CLI Blocking Indicator) parameter over DSS1/Q.931 links.

  For more information, refer to CBI Field Transparency over DSS1_Q931 in the New Features in This Release section of this document.

CSCOgs010

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs010 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef87146	2	provision	Validation of timer fails at prov-cpy although validation is off.
CSCef75886	3	design	BRI path deploy failed with node C3725.

This patch provides updates to the following:

- almM
- MGCP
- ioChanMgr
- sagt
- mmSagt
- extNodeTypes.dat
- libpxelog.so
- libcmg.so
- libsa.so
- .perf_setup
- startcia.sh
- critagt.cnf
- brassd
- critagt
- fsagt
- hostagt
- logagt
- mib2agt
- setany
- snmpdm

Additional information:

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

The following featurette was propagated in this patch:

- CSCee30532—Netra 240 and Netra 440 Platform Introduction for MGC Host—This feature introduces the Netra 240 and Netra 440. This featurette offers:
  - Upgrade to new 16.1.0.23 CIAgent
  - New ALOM support in alarm manager

CSCOgs009

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs009 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee73234	3	toolkit	Toolkit: translation Verify - time routing numbers give errors.
CSCef02775	3	engine	populate SDPInfoInCDR on SIP trunkgrps platform.log fill with error.
CSCef28445	3	mml	Pritariff mml component export error.
CSCef47239	3	ioccc7	SS7 core with unknown cause,Mistral9.5(2)
CSCef53118	3	mmlhelp	ITU2 trunk selection option for glare is not showing on help.
CSCef60717	3	mmlhelp	Incorrect MML IOS help for set-admin-state command.
CSCuk52702	3	provision	PRI AoC:Pricharge table fails to show tariff banding if only 1 band.
CSCef59505	6	mml	New Range for T6 Timer change request.
CSCef70742	6	mmlhelp	PGW: cause result set and Bdigit range / Bdigtree deletion ranges.

This patch provides updates to the following:

- libpom.so
- libengif.so
- libpolcomp.so
- libpolnuman.so
- libpolroute.so
- libpolfiles.so
- libcmg.so
- libcxn.so
- libpxelog.so
- libpxe.so
- libxe.so
- librudp.so
- librmg.so
- libmmdb.so
- libda.so
- libpolbase.so
- libhelp.so
- libinf.so
- libsa.so
- libeng.so

- libconvutil.so
- chk_inv
- replicator
- SS7
- pom
- ca
- sim
- mml
- sagt
- engine.no_smartalloc
- engine.smartalloc
- propSet.xml.dat
- propVal.xsd.dat

Additional information:

- CSCef59505—New Range for T6 Timer— (change request) a new MML parameter has been added for the PROFILE command. This command allows validation of the ISUP timers to be turned off when adding/editing a profile. For more information, refer to New Range For T6 Timer in the New Features in This Release section of this document.
- CSCef70742—Cause Result Set and Bdigit Range / Bdigtree Deletion Ranges—a new parameter (partial) has been added to the numan-dlt:bdigtree/adigittree. Partial allows you to only delete specified digit strings from the digit tree. For more information, refer to Cause Result Set and Bdigit Range/Bdigtree Deletion Ranges in the New Features in This Release section of this document.
- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.

CSCOgs008

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs008 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee76183	3	provision	Incorrect Validation for SIP IN/OUTSessiontimer property.
CSCef08854	3	mml	prov-ed:dpnsspath:desc= does not actually change the description.
CSCef27110	3	provision	PGW Exits with Core Dump.
CSCef35746	3	mmlhelp	Help for holiday table is not correct.

This patch provides updates to the following:

- libpolcomp.so
- mmlCommands.xml
- propSet.xml.dat

Additional information:

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

CSCOgs007

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs007 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCef09854	2	engine	FINAP:RelINAPCallsAfterSwOver true core-dump with 2 calls.
CSCee30232	2	ioccisdnl3	NV3 ISDNBRI core dumps when stopping MGC software.
CSCeb87414	3	engine	PGW Created a new call for Re-INVITE which has no calling# in From.
CSCuk48937	3	mml	NV3. Change of MDO requires MML advice to the user.
CSCef05933	6	engine	AOC-D Facility Message update is hard-coded to 15 minutes change request.

This patch provides updates to the following:

- pom
- replicator
- sagt
- mml
- libtcpServer.so
- libengif.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so

Additional information:

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

CSCOgs006

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs006 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCuk51523	2	iocm	NV3. Q931 PRI to Q931 BRI (or BRI to PRI) does not work.
CSCee70131	2	provision	Must bounce PGW when deleting and reading c7lnk.
CSCee69414	3	pkg	delete_replication script is missing in 9.5(2) release.
CSCee70318	3	mml	SCU parameter not allowed to be provisioned for end of call tariff.
CSCee73422	3	mml	Validation for srecchrg parameter for pritariff table fails.
CSCee73437	3	mml	Validation for erecchrg parameter in pritariff table fails.
CSCee74159	3	mml	SIGPATHPROF export chopped off the sigpathprof name if it has hyphen.
CSCuk48809	3	engine	NV3: XECfgParm.dat parm RelINAPCallsAfterSwOver should be changed.

This patch provides updates to the following:

- sagt
- pom
- replicator
- engine
- mml
- libengif.so
- libda.so
- libpolcomp.so
- libcmg.so
- libcxn.so
- libeng.so
- librmg.so

Additional information:

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

CSCOgs005

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs005 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee53068	2	sccp-tcap	TCAPSTACK error causing call failure during load run.
CSCed60333	3	engine	Under congestion SIP invite messages are not processed.
CSCed95172	3	ioccm3ua	PGW sends entire SIO instead of SI in M3UA DATA packet.
CSCee23100	3	mdl-cdr	CDR-tag 3009/FCI_Rx & 3010/FCI_Tx of 1010-CDB has wrong values.
CSCee45796	3	provision	PGW does export profile when we export SIGNAL.
CSCee62668	3	ioccisdn13	BRI backhaul should be marked a TOS value of DSCP AF31.
CSCee63933	3	provision	CRLEN default incorrect for certain protocols with BRI service.
CSCuk50754	3	provision	NV3. MML should check that only slot 0 is allowed for BRI in 1760.

This patch provides updates to the following:

- ISDNIP
- EISUP
- ISDNL3
- M3UA
- TCAP
- replicator
- mml
- libtcpServer.so
- libpolcomp.so
- libcxn.so
- libeng.so
- librmg.so

Additional information:

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

CSCOgs004

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs004 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee44409	2	iocm	FT platform OOS when Debug-level set followed by sw-over::confirm.
CSCee37490	3	mml	problem with numan-add:anpi:.
CSCuk48821	3	mdl-in	NV3: PGW needs to handle FCI in the ETC.

This patch provides updates to the following:

- collectdate script
- MGCP
- callver
- mml
- LibACE.so
- libconvutil.so
- libcmg.so
- libeng.so
- libpolcomp.so
- libpolnuman.so
- mmlCommands.xml
- trigger.dat

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- The new collectdate script was propagated from release 9.4 (caveat number CSCed86328).

CSCOgs003

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs003 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee10074	2	configlib	config-lib does not work with gs1.
CSCed45290	2	ioccisdn13	TCPLNK remains IS when local or remote ethernet interface goes OOS.
CSCee30232	2	ioccisdn13	,2,ioccisdnl3,ISDNBRI core dumps,Mistral
CSCee14146	2	iocm	Redundant mgcp-link does not function. Links OOS after link switch.
CSCed90129	2	mdl-in	Call is not connected if TCAP-END is used.
CSCed91373	2	mdl-in	TCAP pre-arranged end not supported.
CSCee18836	2	provision	some sigpath properties not there for lipath.
CSCec21063	3	ioccsip	dlt and re-add siplink without dlt/re-add sippath should be blocked.
CSCeb35623	3	mml	Remove wiretap debug logs after DevTest.
CSCec21034	3	provision	Provisioning is not blocked for Active 9.3(2) and standby 9.5.
CSCec37110	3	provision	prov-cpy fails at first time then passes after second try.
CSCee00617	3	provision	some isup timers not configurable for minimum (default) range.
CSCee17733	3	provision	setup_replication.sh exits with out a status.
CSCec64314	6	mdl-pri	QSIG: Call Completion No Reply call fails.
CSCuk48886	6	sccp-tcap	IN SSN is not checkpointed results in SCCP/TCAP OOS for at least 30s.

This patch provides updates to the following:

- libeng.so
- libda.so
- libpolcomp.so
- librmg.so
- libtcpServer.so
- libpolnuman.so
- libcmg.so
- SS7

- MGCP
- mmSAgt
- sp
- foverd
- callver
- simWriter
- mml
- pom
- SIP
- ISDNBRI
- TCAP
- ioChanMgr
- extNodeTypes.dat
- alarmCats.dat
- variant.dat
- measCats.dat
- inService.dat
- trigger.dat
- properties.dat
- propSet.xml.dat
- propVal.xsd.dat

Additional information:

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

CSCOgs002

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs002 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCee05981	1	engine	PGW not able to start. Engine cores.
CSCed91373	2	mdl-in	TCAP pre-arranged end not supported.
CSCed93958	2	mdl-in	A-num from IN should supersede ingress A-num on egress signalling.

Identifier	Severity	Component	Description
CSCeb55013	2	provision	prov-ed command for pricharge table fails.
CSCeb55237	2	provision	prov-ed for pritariff table fails.
CSCed69836	2	provision	provisioning error for q761_99ver.
CSCed83934	3	engine	Compiler Warnings: Engine.
CSCec36004	3	mdl-cdr	CDE 4044(local announcement) is not seen after failover in 1040 CDB.
CSCed72762	3	mml	mml does not list SDM for rtrv-ctr.
CSCed83939	3	mml	Compiler Warnings: MML.
CSCed94194	3	other	propSet.xml.dat merge issue on LoopAvoidanceSupport property.
CSCed03417	3	provision	MML help does not display resulttype SCRIPT.
CSCed61694	3	provision	Add supported BRI GWs to extNodeTypes.dat.
CSCec80167	6	other	CA30 ISUP Variant featurette.
CSCuk48886	6	sccp-tcap	IN SSN is not checkpointed results in SCCP/TCAP OOS for at least 30s.

This patch provides updates to the following:

- libeng.so
- libda.so
- libpolcomp.so
- libcmg.so
- librmg.so
- SS7
- MGCP
- SIP
- TCAP
- mmSAgt
- sp
- ioChanMgr
- foverd
- callver
- simWriter
- mml
- extNodeTypes.dat
- trigger.dat
- propSet.xml.dat
- alarmCats.dat
- variant.dat

- measCats.dat
- propVal.xsd.dat
- inService.dat
- migrate_9.5001_9.5002
- migrate_XECfgParm

Additional information:

- Refer to the Patch Test Combinations section of this document to determine which protocol and system patches are needed.
- Both patches CSCOnn002 and CSCOgs002 must be installed.

CSCOgs001

Caution The patch install script might have been updated. If it has been updated, you must copy the script (patch) from http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-952 to your /opt/SW directory before installing the patches.

Patch CSCOgs001 resolves the following caveat numbers:

Identifier	Severity	Component	Description
CSCed45290	2	ioccisdn13	TCPLNK remains IS when local or remote ethernet interface goes OOS.
CSCed52886	3	engine	sta-aud on an endpoint gets Unsuccessful completion from engine.
CSCed64845	3	ioccsip	Compiler Warnings in the SIP Channel Controller.
CSCuk48303	3	ioccxgcp	NV3 When mgcpRemoteIpPollCount=1 CICs do not get BLK=GW.
CSCed73393	3	other	Support for 4000 d-chans increase the limit from 1000 to 4000.
CSCed61694	3	provision	Add supported BRI GWs to extNodeTypes.dat.
CSCed66298	3	upgrade	FINAP engine.CustSpecificINAPHandling not migrating.
CSCed47413	6	iocm	Optimize IOCM code.

Additional information:

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

New Features in This Release

Validate and Support PRI Backup-D Channel in Call Control Mode

This change request (CSCsd93624) used the following requirements for testing and validation:

- ability to provision two D channels, one primary and one backup, for all the NFAS groups in the system.
- NFAS interface can either be T1 or E1, but not a mixture of T1 or E1 on the same NFAS interface.
- validate maximum supported NFAS spans, which is 16.
- validate the ability to support mixture of FAS, NFAS and NFAS with Backup D simultaneously.
- validate manual switchover using mml command.
- validate the ability to take a D channel M-OOS, but reject taking D channel M-OOS if other D channel is already M-OOS.
- validate PRI Backup-D channel forMGX8880 with VXSM card and AS5000 (AS5850) voice gateways.

Note This feature was introduced in patch combination CSCOnn055/CSCOgs062.

New Property Added For Support Multiple Addresses in SIP Header

This feature (CSCsd80497) adds a new property, SipRedirAnalysisMethod, for the Support Multiple IP Addresses in the SIP Header feature. It defines how the PGW handles the SIP redirection target.

Valid values are:

- 0— (default) Conditional analysis, only analyze the target whose domain matches the PGW's domain.
- 1—Always analyze.
- 2—Never analyze; this was the implementation method prior to this feature being implemented.

Note This feature was introduced in patch combination CSCOnn052/CSCOgs059.

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 CSCOnn051/CSCOgs058.

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 CSCOnn051/CSCOgs058.

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

This featurette (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 featurette 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 6 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 featurette by adding data values 2 through 4.

Table 7 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.		

Table 7 T.38 Fax Call Description (continued)

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 featurette was introduced in patch combination CSCOnn046/CSCOgs053.

E911 SR Mapping Table

This featurette (CSCsb09408) provides support on the Cisco MGC to connect emergency calls that originate in a SIP network to the appropriate selective router (SR) connected to the Public Safety Answering Points (PSAPs). This feature introduces a mapping table to support the various IAM formats or Centralized Automatic Message Accounting (CAMA) signaling required by the SRs in North America, including the sending of the Emergency Services Query Key (ESQK), which is used by the PSAP to find the calling party location and call-back numbers.

Note This featurette was introduced in patch combination CSCOnn034/CSCOgs041.

CLI Handling for Mexican ISUP

This featurette (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 featurette:

- 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.

Note This featurette was introduced in patch combination CSCOnn046/CSCOgs053.

Sun Fire V210/Netra 210 Platform for MGC

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

Note This featurette was introduced in patch CSCOgs052.

Support for SIP Update (RFC3311) Phase 1

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

Table 8 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 SessionExpires head is inserted to UPDATE response only at connected states.

Note This change request was introduced in patch CSCOnn042.

Fax and Data Call Translation

This featurette (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 9 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 10 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 featurette only supports scenarios in which the TCC is ISUP; only ITU ISUP variants are supported.

Note This featurette was introduced in patch combination CSCOnn041/CSCOgs049.

No Alerting for Wrong SCCP Indicators in ACM Backward Call Indicators

This change request (CSCsc73299) adds support for SCCP indicators ('01' and '11') in ACM for ANSI. Previously, only '00' was supported. CSCsc64221 adds support of '10'.

Previously, no ringback was provided on calls where the wrong SCCP indicator was given in ACM for ANSI; the PGW 2200 dropped the ACM and sent a CFN message back to the SS7 side. This fix passes the alerting message back to the ISDN side even if the wrong SCCP method indicator is in the ACM.

Note This change request was introduced in patch combination CSCOnn041/CSCOgs049.

Support of DNS SRV and SIP Load-sharing

This featurette (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 featurette was introduced in patch combination CSCOnn040/CSCOgs048.

Multiple IP Addresses in SIP Contact Header

This featurette (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 featurette was introduced in patch combination CSCOnn039/CSCOgs047.

Support for M3UA Priority Routes

This featurette (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, refer to the Support for M3UA and SUA with SCTP on Cisco ITPs feature module.

Note This featurette was introduced in patch combination CSCOnn038/CSCOgs046.

Support for TNS in Q767 RUSS

This enhancement (CSCsb08374) adds a new variant to support the TNS parameter in the IAM message for Q767_RUSS.

Note This enhancement was included in the CSCOnn029/CSCgs036 patch combination.

Early ACM Configurable for PRI Sigpath

This change request (CSCsb56186) enables the *.FastConnect property for PRI (currently only used in NI2+) (configurable on sigpath).

It removes the fix done for caveat number CSCsa65317 which followed the Q.699 mapping rules to decide whether or not to map CallProgress to SS7.

Note This featurette was introduced in patch combination CSCOnn032/CSCOgs039.

SIP Remote Party ID Support

This featurette (CSCsa60241) provides support on the Cisco MGC of the ISUP-to-SIP mapping of CLI to SIP Remote Party ID or P-Asserted ID header. It also updates the generic handling of the SIP-to-ISUP and ISUP-to-SIP mapping of calling line identity, generic number, and redirecting number.

This featurette:

- Supports the ISUP-to-SIP mapping of CLI to SIP Remote Party ID or P-Asserted
- Updates the generic handling of the SIP-to-ISUP and ISUP-to-SIP mapping of calling line identity, generic number, and redirecting number.
- Although ISUP-to-SIP is the primary focus, mapping also works for calls from Q.931, QSIG, DPNSS, and H.323 to SIP. The MGC 2200 supports mapping the CLI into the SIP FROM Header, and optionally into the SIP Remote Party ID Header or the P-Asserted-ID on an outgoing SIP trunk group basis.
- Provides CLI Information for the Call Diversion or Redirection Information
- With the addition of support for the SIGTRAN protocols IUA and SCTP, the Cisco PGW 2200 can now use standard protocols for communication with the media gateways.

Note The existing functionality is controlled by the cgpnInclude property. This property inserts the Calling Party Number parameter into the From Header even if the presentation indicator is set to restricted.

The Remote-Party-ID and P-Asserted-ID headers are already supported. A new header, Privacy (for P-Asserted-ID header support) has been added.

Table 11 New Sigpath Properties

Property	Description
MapCLItoSipHeader	(Integer type) determines the mappings from ISUP CLI to the outgoing SIP message. Valid Values are: • 0 - map the CLI to the SIP From header • 1 - map the CLI to Remote-Party-ID header in addition to From header • 2 - map the CLI to Remote-Party-ID header in addition to From header only when the CLI presentation allowed. • 3 - map the CLI to P-Asserted-ID header in addition to From header • 4 - map the CLI to P-Asserted-ID header in addition to From header only when the CLI presentation allowed. Default Value: 0 Dynamically reconfigurable: yes Protocol Family: SIP Provisioning example: mml> prov-ed:sigsvcprop:name="sip-path", MapCLItoSipHeader ="1"
MapRNtoSipHeader	(Integer type) determines the mappings from ISUP RN to the SIP message. Valid Values are: • 0 – do not map the RN to the SIP header • 1 - map the RN to Diversion header • 2 - map the RN to Diversion header only when the RN is presentation allowed. Default Value: 1 Dynamically reconfigurable: yes Protocol Family: SIP Provisioning example: mml> prov-ed:sigsvcprop:name="sip-path", MapRNtoSipHeader ="2"
InhibitSipFromMapping	(Integer type) determines if the SIP From header needs to be mapped.; Decides the mapping from incoming SIP message to ISUP CLI. Valid Values are: • 0 - map SIP From Header to GN/CGPN • 1 - do not map SIP From Header to GN/CGPN • 2 - only map SIP From Header to CGPN regardless of RPID/PAID Default Value: 0 Dynamically reconfigurable: yes Protocol Family: SIP Provisioning example: mml> prov-ed:sigsvcprop:name="sip-path", InhibitSipFromMapping ="2"

Note This featurette was introduced in patch combination CSCOnn032/CSCOgs039.

Additional Charging Fields for Redirected Calls

This featurette (CSCsb12818) adds support for additional charging fields so that redirected calls can be properly billed. The PGW 2200 stores both the NOA and digits for both the ingress Redirecting Number (RDN) and Original Called Number (OCN) and additional tags for the egress Redirecting Number (RDN) and Original Called Number (OCN) for both the ANSI and ITU PGW 2200 CDRs.

This featurette adds 7 new tags as indicated in the following table.

Table 12 New Tags Required

Parameter	Ingress Tag (Parameter Received by PGW)		Egress Tag (Parameter Received by PGW)	
	Number	Checkpointed	Number	Checkpointed
Calling Party Number	4010	yes	4084	yes
Calling Party NOA	2003(ANSI) 3003(ITU)	yes	new tags required 2018(ANSI) 3018(ITU)	yes
Called Party Number	4012	yes	4014	yes
Called Party NOA	2005(ANSI) 3005(ITU)	yes	2007(ANSI) 3007(ITU)	yes
Redirecting Number			4060	yes
Redirecting Number NOA	2017(ANSI) 3017(ITU)	yes	new tags required 2019(ANSI) 3019(ITU)	yes
Original Called Number	not required	not required	4018	required
Original Called Number NOA	not required	not required	new tags required 2020(ANSI) 3020(ITU)	yes
Charge Number/NOA	Charge number is only used by ANSI and it is beyond the scope of this featurette to know which is written for the ITU customer.			

Note The parameter received by the PGW can be modified by property, number normalization, or generic analysis. It is possible for the same parameter to have different values on the ingress and egress sides.

Note The OCN number is not usually used for billing purposes.

The following new tags were added in this featurette:

Table 13 New tags for the Additional Charging Fields for Redirected Calls Featurette

Tag Number	Name	Description
2018	Egress Calling Number Nature of Address	This tag records Calling party NOA sent in the outgoing message by the PGW. This field tells what type of address the calling party is. In POTS calling, there are usually 2 values that used: Unique national number and Non unique national number. This tag is included in the following CDBs: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.
2019	Egress Redirecting number Nature of Address	This tag records Redirecting Number NOA sent by the PGW in the outgoing message. CDBs to be included in: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.
2020	Egress Original Called Number Nature of Address	This tag records Original Called Number NOA sent by the PGW in the outgoing message. CDBs to be included in: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.

Table 13 New tags for the Additional Charging Fields for Redirected Calls Featurette (continued)

Tag Number	Name	Description
3018	Egress Calling Number Nature of Address	This tag records Calling party NOA sent in the outgoing message by the PGW. This field tells what type of address the calling party is. In POTS calling, there are usually 2 values used: Unique national number and Non unique national number. CDBs to be included in: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.
3019	Egress Redirecting Number NOA	This tag records Redirecting Number NOA sent by the PGW in the outgoing message. CDBs to be included in: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.
3020	Egress Original Called Number NOA	This tag records Original Called Number NOA sent by the PGW in the outgoing message. CDBs to be included in: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.
4237	Ingress Redirecting Number	This tag records the digits from Redirecting Number received by the PGW. CDBs to be included in: 1010(Y) 1020(N) 1030(Y) 1040(N) 1050(N) 1060(Y) 1070(N) 1071 (N) 1080(N) 1110(Y) **Note** This tag is present in 1060 CDB if end of call CDB (1110) is configured. For point-in-call mode, the 1060 CDB is usually a short one and will not contain this tag.

Note The new tags will be available in BAMS release 3.30.

Note 1060 CDB is incomplete. It is missing tags 4084, 2003, 3003 etc. Caveat CSCsb31960 has been opened to fix this defect.

Note This featurette was introduced in patch combination CSCOnn031/CSCOgs038.

Support for BRI Backhaul

This featurette (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 featurette was introduced in patch combination CSCOnn030/CSCOgs037.

AOC over PRI Tariff Based on Call Duration

This featurette (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 14 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

Table 14 PRITARIFF Fields (continued)

Field Name	Description	MML Name	Range
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
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 15 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 Featurette 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 16 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 AOC over BRI is also supported.

Note This featurette was introduced in patch combination CSCOnn029/CSCOgs035.

Relaxed Provisioning Integrity Rules

This change request (CSCsa75624) removes an intermediate integrity check of provisioning data, so that customers can modify dial plans without having to remove dependencies within the dial plan first, until the time a prov-cpy or prov-dply is performed.

The MML command, numan-dlt:dialplan has a new parameter “contentonly”, which determines whether or not to remove dial plan content or the whole dial plan. Valid values for this parameter are:

- false (default)—keeps the existing behavior that runs a dependency check and deletes the whole dial plan file from the configuration set.
- true—cleans all dial plan sections except the service and dpselection section of the dial plan.

Example in mml:

mml> numan-dlt:dialplan:custgrpid="T001",contentonly="true"

Note This change request was introduced in patch combination CSCOnn027/CSCOgs033.

Increase AoC Per Day Tariff Ranges

This featurette (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 17 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.

Table 17 CDBs Used To Report Tariff Information (continued)

CDB Number	CDB Name	CDB Description
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 featurette was introduced in patch combination CSCOnn027/CSCOgs033.

Russian INAP

This featurette (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) featurette. For more information on the Finnish INAP featurette, see the *Meter Pulse Messages Support* feature module document located at the following url:

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_feature_guide09186a00802043ec.html

The Russian INAP featurette 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 featurette was introduced in patch combination CSCOnn027/CSCOgs033.

Re-INVITE for an Unsupported SIP-H323 Call Flow

This featurette (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 featurette, 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 A later software release will contain features that allow the interworking of SIP Re-INVITE and H.323 ECS as well as with EISUP in general. These features will eliminate this feature.

Note This featurette was introduced in patch combination CSCOnn026/CSCOgs032.

VXSM Support

This featurette (CSCeg89855) provides support on the Cisco PGW 2200 to extend provisioning and range modification to support PGW 2200 interworking with the VISM or VXSM Media Gateways. It provides the following:

- Support external node type VISM (which is the same as the existing node type MGX 8850).
- Support external node type VXSM (which is the same as the existing node type MGX 8850).
- Support VXSM endpoint name convention: DS/S-0/DS1-#/#@gateway, DS/S-0/DS1-#/*@gateway, and *@gateway
- Support hairpin call handing for VISM/VXSM

This feature is supported for use with the following Cisco media gateways:

- MGX 8850 Media Gateway
- MGX 8880 Media Gateway

The following restrictions apply to this featurette:

- After switchover of the VXSM from active to standby, active, stable voice calls are maintained. For data calls (for example, fax and modem calls), only the bearer path for the call is maintained upon a switchover.
- Transient data calls (for example, voice calls in the process of being converted to a data call) are not preserved on the newly active VXSM.
- Bearer path after switchover reverts to a voice call; it is up to the end data devices to resynchronize/reattempt their data transmission to maintain the data flow.
- To avoid MGC overload conditions, set the VXSM configuration for the MGCP DLCX (Delete Connection) value to not exceed 24 messages a second for each VXSM.
- Dual Tone Multifrequency (DTMF) support

- In-band DTMF (G.711) - no issues
- RFC 2833 - no issues
- SIP Subscribe/Notify - not supported after switchover
- H.245 alphanumeric method - not supported after switchover

Note This featurette was introduced in patch combination CSCOnn021/CSCOgs025.

Multiple Carrier Selection

This featurette (CSCdz89645) enables you to use a single HSI (or a pair of HSIs for redundancy) to route calls to multiple HSI carriers.

- The existing trunkgroup property BNationalPrefix (16-character string) is used as a tech-prefix and is stored in Call Detail Record (CDR) tag 4014.

Note BNationalPrefix is case sensitive.

- The EISUP trunkgroup that has a NULL value for the BNationalPrefix property is selected as the incoming trunkgroup (it can be both the incoming and outgoing trunkgroup).
- The tech-prefix capability is applied only when the PGW interconnects to the HSI through EISUP.
- The existing SigPath property, H323AdjunctLink, must be provisioned against EISUP and set to 1 to indicate HSI connection and allow the tech-prefixing capability.

Note If H323AdjunctLink is set to 0, a PGW to PGW configuration will be assumed and the existing BNationalPrefix functionality (NOA-BNationalPrefix featurette) will apply.

- If the NOA-BNationalPrefix feature is not used, there should be one and only one trunk group with BNationalPrefix=NULL. If there are multiple trunk groups already provisioned, you must remove them. This also applies to a PGW to HSI configurations.
- If the NOA-BNationalPrefix feature over EISUP is used, you need a minimum of two trunkgroups; at least one with BNationalPrefix set to your national prefix and another with BNationalPrefix=NULL.

Note Provision postprocessing checks to ensure that only one EISUP trunkgroup has a NULL value for the BNationalPrefix property. If more than one EISUP trunkgroup has a NULL value for the BNationalPrefix property, postprocessing fails.

Note In this release, the BTechPrefix property replaces the BNationalPrefix property used for this featurette. You must replace the property name when upgrading from release 9.4 to release 9.5.

A-Number Mods Triggered by CLIP/CLIR

This featurette (CSCeg61238) 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. For more information, see the *Conditional A-Number Digit Modification* feature document located at the following url:

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_feature_guide09186a00804dfb26.html

Note If additional instances of A-number modification occur as analysis continues, the A-number can be further modified.

Note This featurette can be used for SS7 ITU and SS7 UK routes.

Note This featurette was introduced in patch combination CSCOnn023/CSCOgs027.

ITP Signaling Gateway with Distributed MTP3

This featurette (CSCsa83579) extends the use of the Cisco ITP Signaling Gateway to support the use of a single point code for multiple ITPs in front of multiple MGC nodes. This featurette requires the Cisco ITP to be running with IOS Release 12.2(25)SW2 or higher.

Note This featurette was introduced in patch combination CSCOnn023/CSCOgs027.

Call Cutoff Timer Update

This feature (CSCef27813) enhances the existing Call Cutoff Timer feature to support three units of time—hours, minutes, and seconds. This feature uses a global timer, which is started after answer for every call and continues for a pre-specified length of time. When the timer expires, the call is released in both directions. Previously, the timer was set using hours. Now the timer can be configured using hours, minutes, or seconds, but not using a combination of units. The maximum timer value is 48 hours, or 2880 minutes, or 172800 seconds. Call Cutoff Timer can be set on a system-wide basis, using Call Cutoff timer (XECfgParm.dat parameter), or on a per call basis, using an analysis result type to provide the timer value. Valid values are:

- For hours, **0** (disabled), 1—48
- For minutes, **0** (disabled), 1—2880
- For seconds, **0** (disabled), 1—172800

Note When using VSPT, the default for this featurette is hours. This cannot be changed at this time.

Note When using EGW, the default for this featurette is hours. This cannot be changed.

Note When using seconds, a minimum of 1200 seconds (20 minutes) must be used.

When setting the Call Cutoff Timer on a system-wide basis using the Call Cutoff Timer parameter (XECfgParm.dat), you must use an editor, such as vi. To ensure that valid values are entered, the application validates and if necessary, limits the timer values and unit fields to their default or maximum values, as appropriate.

Note New XECfgParm.dat parameters are added to the system during migration.

The migration script has been modified to invoke a data interrogation script that inspects and modifies the XECfgParm.dat parameters. For this featurette, the data interrogation script examines the following XECfgParm.dat parameters:

- Call Cutoff Timer parameter—If the parameter exists, its value is left intact. If the parameter does not exist, it is added with a default value of 0 (disabled).
- Call Cutoff Timer Units parameter—If the parameter exists, its value is left intact. If the parameter does not exist, it is added with a default value of 0 (hours).

Call Release After Failover

If the callcutoff timer is set on an answered call and the call is subject to multiple failovers, the overall timer period is extended, but the call is still released. When the timer is set on the Active (at call answer), checkpointing of the value to the Standby causes the timer to be set there as well. If a single failover is encountered, the timer continues on the new Active and expires within the expected timeframe of the original timer setting.

If subsequent failovers occur, the timer on the existing Active is lost and hence there is no timer running on the Standby. In this situation, the timer is reapplied (full time) on the new Active (formerly the Standby). The overall time for timer expiry and release on the call is then equal to the elapsed time on original Active from timer setting up to failover + the elapsed time on the new Active after initial failover and up to new failover + the full period of the timer on the final new Active.

Note Only in the event of more than one failover on a connected call is the timer duration extended.

Note This featurette was introduced in patch combination CSCOnn018/CSCOgs019.

New Zealand ISUP OLM Support

This featurette (CSCee59868) adds support in New Zealand ISUP for the Overload (OLM) parameter (national parameter used when call processing capacity on a switch exceeds a certain value). Affected circuits are made unavailable to traffic for a period of two minutes. This featurette does not support checkpointing to the Standby and does not contain MML support for display of circuit stats via rtrv-tc or rtrv-cic.

Note This featurette is required by voice carriers that need to interconnect with the PTT.

Note This featurette was introduced in patch CSCOnn015.

CBI Field Transparency over DSS1_Q931

This featurette (CSCee59923) enhances COP Ed 3 behavior to include support for the transit of the UK-specific CBI (CLI Blocking Indicator) parameter over DSS1/Q.931 links. The support includes changes to the "CLISelectionForCodeOfPractice" trunk group property (added new value and change the default value from 0 to 2), and ETS_300_102 (ETSI PRI) protocol variant (mapping of "spare" and "not available" bits in Presentation Restriction Indicator (Octet 3a)).

Note This featurette was introduced in patch combination CSCOnn013/CSCOgs011.

QSIG over BRI and Q.931 over BRI Backhaul

This feature supports two BRI protocols, Q Signaling (QSIG) and Q.931. The Cisco MGC can now backhaul layer 3 QSIG/Q.931 messages over a TCP session. TCP is required for internetworking with BRI voice gateways.

With the addition of support for ISDN BRI over TCP backhauling, the Cisco MGC can now be used to control calls for BRI voice gateways connected to QSIG private branch exchanges (PBXs). This adds to the existing functionality that enables the Cisco MGC to control calls for Primary Rate Interface (PRI) voice gateways connected to QSIG PBXs.

Note Enabling this feature provides a data pathway for the backhaul of QSIG/Q.931 messages from a Cisco BRI voice gateway to the MGC. An MGCP data pathway must also be defined between the Cisco BRI voice gateway and the MGC to form a complete duplex data pathway.

This feature can be used only with the following Cisco BRI voice gateways:

- Cisco 1751
- Cisco 1760
- Cisco 2600
- Cisco 2610XM
- Cisco 2611XM
- Cisco 2620XM
- Cisco 2621XM
- Cisco 2650XM
- Cisco 2651XM
- Cisco 2691
- Cisco 3640

- Cisco 3640A
- Cisco 3660
- Cisco 3725
- Cisco 3745

Netra 240 and Netra 440 Platform Introduction for MGC Host

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

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

Note This featurette was introduced in patch combination CSCOnn012/CSCOgs010. It was propagated from release 9.4(1).

New Range For T6 Timer

This change request (CSCef59505) adds a new MML parameter (VALIDATION) for the PROFILE command that allows validation of the ISUP timers to be turned off when adding/editing a profile. Valid values are:

- On—(default) validation of the timer ranges will be performed.
- Off—validation of the timer ranges will NOT be performed.

Note This parameter is only valid for ISUPTIMER profiles, not GRPROFILE.

Note During a PROV-EXP, if any of the timer ranges are invalid, then the VALIDATION parameter is exported with a value of off.

Example MML command:

```
prov-add:profile:name="prof-1", type="ISUPTMRPROFILE", variant="Q767_BASE",
validation="off", t1="5"
```

Note This change request was introduced in patch CSCOnn009.

Cause Result Set and Bdigit Range/Bdigtree Deletion Ranges

This change request (CSCef70742) adds a new parameter (partial) to the numan-dlt:bdigtree/adigittree. Partial allows you to only delete specified digit strings from the digit tree. You no longer have to delete all matched digit strings. Valid values are:

- Yes—do a partial delete instead of the default deletion (which deletes all matches of a specified digit string)

- No—(default) do not do partial deletion; use the default deletion (delete all matches of a specified digit string)

Note This change request was introduced in patch CSCOnn009.

Charge Number Based on Destination

This featurette (CSCee79016) provides the ability to provision a Charge Number associated with an outgoing Trunk Group. Charge Numbers configured on the originating trunk group take precedence over configurations on terminating trunk groups. If you configure the Charge Number on the originating trunk group, then the Charge Number is used for outgoing IAM messages, regardless of whether the terminating trunk group is configured with a Charge Number. If the originating trunk group does not have Charge Number specified, then terminating trunk group properties are checked against the Charge Number; if present the Charge Number is used.

Note This featurette was introduced in patch CSCOnn008.

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, refer to the following IOS document, *Configuring T.38 Fax Relay*, at the following url:

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

Note This featurette was introduced in patch CSCOnn005.

Note Call agent controlled T.38 Fax calls between SIP and H323 support was introduced in patch CSCOnn012.

CA 30 ISUP Variant

This featurette (CSCec80167) implements the CA.30 ISUP variant. The following functionality is specific to the CA 30 ISUP variant:

- No End of pulsing ST digit is applied in the enbloc mode of operation.
- Cot Check not required in Telstra's network
- Tones and announcements - When a network provided tone or announcement is supplied after an address complete message is returned, the address complete message contains a "no charge" indication.

- Release initiated by called party—If the called party is an analogue subscriber, the on-hook condition results in a network initiated SUS message being sent in the backward direction from the destination exchange to the controlling exchange. In this case, the Suspend/Resume procedures are followed.
- On detection of a transmission fault on a busy circuit, a timer is started at the exchanges at both ends of the affected bearer. Each route has its own timer, which has a value of 5–30 seconds (nominal 10 seconds).On expiry of this timer, calls are cleared. There is no need to clear the calls on the affected circuits because the transmission fault clears the circuits. It may be necessary to clear these calls on the other side of the exchanges.
- ISDN User part signaling congestion control—Minimum requirement with the number of steps of traffic reduction and the type and/or amount of increase/decrease of traffic load at the various steps as follows:

  Step 1—User-User Information Messages are discarded.

  Step 2—IAMs and Circuit Management Messages are discarded.

  Step 3—All ISUP Messages are discarded.

  MTP Pause/Resume—to ensure that a customer is not overcharged during a DPU (destination point unavailable) at a transit exchange performing a charging function, all calls on circuits to the unavailable signalling point that are being charged according to the duration of the call are released by the charging point once the DPU has existed for greater than 10 seconds.
- Timer value changes —The following timer value changes have been made:

Table 18 Timer Value Changes

Timer	Value
T1	10 seconds
T2	180 seconds
T5	60 seconds
T6	90 seconds
T7	25 seconds
T8	15 seconds
T9	120 seconds
T10	6 seconds
T11	16 seconds
T12	10 seconds
T13	60 seconds
T14	10 seconds
T15	60 seconds
T16	10 seconds
T17	60 seconds
T18	10 seconds
T19	60 seconds
T20	10 seconds
T21	60 seconds

Table 18 Timer Value Changes (continued)

Timer	Value
T22	10 seconds
T23	60 seconds
T24	1.5 seconds
T25	5 seconds
T26	180 seconds
T27	4 minutes
T29	600 milliseconds
T30	5 seconds
T33	13 seconds
T34	4 seconds
T35	15 seconds

Two new mdl files have been created:

- q761_austrl_ca30_type.mdl—contains the source code.
- q761_austrl_ca30—contains the type definitions for various messages, parameters, etc.

The protocol file names are:

- Q761_AUSTRL_CA30.mdo
- Q761_AUSTRL_CA30.so

New variant.dat entries:

- Q761_99_BASE SS7-ITU
- Q761_AUSTRL SS7-ITU

Note This featurette was introduced in the CSCOnn002/CSCOgs002 patch combination.

Support for H.323 Info

This featurette (CSCdy33095) enables the H.225 INFO message to control when A hears ringback. The Cisco Call Manager uses H.225 INFO messages during call transfer for carrying the ringback tone on/off information to indicate when the calling party should hear ringback. That is when A calls B, and B initiates a blind transfer to C. The HSI must support this message to correctly interoperate with the Cisco Call Manager.

Support for Notify Messages on H.323 Signaling Interface (HSI)

This featurette (CSCdz82112) updates users of Cisco Call Manager and other elements in the PSTN when a Call Manager invoked call transfer occurs in the PGW.

Cisco Call Manager uses H.225 NTFY messages during call transfer to identify the Transferee's name and number information to the calling party. For example, when A calls B, and B transfers the call to C, the information about C is sent to A using a H.225 NTFY message.

If the A party is in the PSTN, then the H.225 NTFY has to be interworked to Connected Line Presentation (COLP). The HSI supports this message to correctly interoperate with Cisco Call Manager.

The following new trunk group/sigpath properties were added to support this feature:

Table 19 New Trunk Group/Sigpath Properties for the HSI Notify Support Featurette

Property Name	Description
InhibitIncomingConnectedNameDisplay	Used to inhibit the support of the incoming connected name display in DPNSS and EISUP (HSI) protocols. This property is dynamically reconfigurable. Property Valid Values: 0 (enable) and 1 (inhibit incoming calling name display) Property Default Value: 0
InhibitOutgoingConnectedNameDisplay	Used to inhibit the support of the outgoing connected name display in DPNSS and EISUP (HSI) protocols. This property is dynamically reconfigurable. Property Valid Values: 0 (enable) and 1 (inhibit incoming calling name display) Property Default Value: 0
InhibitIncomingConnectedNumberDisplay	Used to inhibit the support of the incoming connected number display for call transfer in DPNSS and EISUP (HSI) protocols. This property is dynamically reconfigurable. Property Valid Values: 0 (enable) and 1 (inhibit incoming connected name display) Property Default Value: 0
InhibitOutgoingConnectedNumberDisplay	Used to inhibit the support of the outgoing connected name display for call transfer in DPNSS and EISUP (HSI) protocols. This property is dynamically reconfigurable. Property Valid Values: 0 (enable) and 1 (inhibit incoming connected name display) Property Default Value: 0

Note This featurette works only for calls within the same enterprise or VPN.

TIBCO Support

This featurette (CSCdy52150) provides the Cisco MGC with the ability to communicate with an outside management system via Tibco Rendezvous Message Transport. In order to provide data exchange, Tibco Rendezvous daemons and an adapter are installed on the Cisco MGC hosts.

This feature enables you to perform various functions on your Cisco MGC using your Tibco management system. The supported management functions are:

- Add

- Modify
- Delete
- Query
- Read

SIP-H.323 Interworking

This featurette (CSCdz58191) allows basic calls to be made between SIP and H.323 based networks, that are connected through the PGW 2200. It supports basic voice calls only—no services from remote endpoint(s) or PGW 2200s. The following known issues exist:

- Passing of DTMF does not work.
- T.38 FAX does not work.
- Call flows that involve receiving a SIP Re-INVITE do not trigger an H.323 ECS Invocation.
- Call flows that involve receiving an H.323 ECS do not trigger the PGW to send a SIP Re-INVITE.
- INAP redirection commands are not supported for SIP-H.323 or H.323-SIP calls.

MGCP 1.0 Support

This featurette (CSCdz70058) enhances the version of Media Gateway Control Protocol (MGCP) used on the Media Gateway Controller (MGC) software for the PGW 2200 in Call Control mode.

The MGCP 1.0 protocol provides:

- better management of endpoints where adverse network conditions exist
- extensive selection of return codes
- new restart methods and procedures

Enhanced Call Detail Records on PGW 2200 Softswitch

This featurette (CSCdz72348) provides general usability improvements within the PGW CDRs in support of improved BAMS CDRs and measurements. The following new tags have been added:

- Charge Indicator–A new tag 4083 is populated with the Charge Indicator information received in the Backward Call Indicator IE in ANM and ACM messages. The Charge indicator allows the carrier to determine if certain calls should be billed.
- MCID Indicator–Two new tags 4085 and 4086 are populated (one each for MCID Request Indicator and MCID Response Indicator) if received in IRD and IRS messages.
- Network Translated Address Indicator (NTA)–A new tag 4089 is populated with NTA Indicator information received in the National Forward Call Indicator in IAM message. The NTA Indicator is information sent in the forward direction to indicate whether network translation of the called address has occurred. This indicator is specific to BTNUP, UK IUP, UK ISUP. It allows customers to determine if a number has been translated.
- Indication of MGCP DLCX return code–Two new tags 4087 and 4088 (one for Ingress Gateway and another for Egress Gateway) are populated with the response code received in the DLCX message.

- Generic Number–Generic Number could be multiple in any given message and requires us to populate multiple records for the same parameter. A new tag 4084 (Outgoing Calling Party) records the Calling Party going out on the line from PGW. It is populated and recorded in the CDBs.
- Calling Party Number–The received calling party number is preserved and written to the existing CDR tag 4010.
- Gateway Statistics–The existing tags 4046 and 4067 will be activated to populate and record the Gateway Statistic information.
- Route information per destination–Two new tags 4095 and 4096 will record the Route Name and Route List Name for each call. MDL sends the route id and route list id along with the tag numbers for both of them and the ASCII names are then populated by the engine and recorded in the CDBs.
- The existing tag 4045 will be retired because there is no mechanism in BAMS to extract two different types of data for different PGW versions.

The following new CDBs will be populated and recorded in the CDRs:

Table 20 New/Enhanced CDB Tags

Tag Number	Tag Descriptor/Description
4083	Charge Indicators
4084	Outgoing Calling Party Number
4085	MCID Request Indicators
4086	MCID Response Indicators
4087	Ingress MGCP DLCX Response Code
4088	Egress MGCP DLCX Response Code
4089	Network Translated Address Indicator
4095	Route List Name
4096	Route Name

The following changes have been made to existing CDBs:

- Calling Party Number– The received calling party number in IAM message is stored and populated in CDB 4010.
- Engine receives the ASCII information for the Route information being sent to it and records the ASCII information for Route and Route List in separate tags.
- Gateway statistic is recorded in existing tags 4046 and 4047 (which will be activated).

Support for Partial CLI and CLI Code of Practice Edition 3

This featurette (CSCea33023) enables the PGW to properly handle a partial or no (Calling Line Identification) CLI and to update the UK CLI Code of Practice from edition 1 to edition 3.

Implementation consists of:

- Providing Partial Calling Line Identification (PCLI) information to a succeeding exchange if the originating side of the call to PGW2200 does not contain CLI related information and the terminating side of the call utilizes the UK ISUP protocol variant.

- Providing the CLI related information, based on the Code of Practice Edition 3 (COP3), to a succeeding exchange if the originating side of the call to PGW2200 utilizes the UK ISUP protocol variant.

  In the case of a single-PGW2200 configuration, the information needed to generate the PCLI and CLI COP3 information are readily available from the originating call side to be used by the terminating call side of the PGW2200.

  In the case of a double-PGW2200 configuration, the PCLI information must be exported explicitly by the ingress PGW2200 to the egress PGW2200 before the terminating call side of the egress PGW2200 can utilize it. (The PCLI parameter has its own explicit SS7 ISUP parameter ID and is delivered as an optional parameter in the outgoing Initial Address Message (IAM) on the EISUP link, rather than as part of the unrecognized parameter buffer).

Metering Pulse Message Support

This featurette (CSCdy74838) adds Metering Pulse Message (MPM) support to the PGW 2200. It enables the handling of meter pulse message pass through, modification, and generation. Billing information is derived from and provided to the billing mediator using Call Detail Records (CDRs)).

This feature enhances the following two main functional areas of the PGW:

- Additional charging requirements—The PGW uses one or more of the following criteria to calculate charge tariff determination:
  - Incoming trunk group
  - Calling party number (also referred to as A-Number)
  - Called party number (also referred to as B-Number)
  - Calling Party Category (CPC)
  - Transmission Medium Requirement (TMR)

  Charging information in the form of meter pulse messages (MPMs) is sent to the PSTN at call answer and/or periodically thereafter, depending on the tariff data provisioned in the PGW. The sent MPMs are also recorded in a CDR.

  MPM can be received over outgoing ISUP trunks. Data contained in them must be analyzed and stored in a CDR. These messages can also be transmitted back over the incoming ISUP trunk.

  Charging tariff data can be received from an SCP during a call. This data overrides the data provisioned in the PGW charge tables.

  The Charge/No-Charge indicator in the ISUP BCI parameter of the ACM/CPG/ANM messages sent to the network by the PGW must be set appropriately based on either provisioned data in the PGW or data received from the SCP.
- Additional INAP requirements

ITU 1997 and ETSI V3 ISUP Variants

This featurette introduces the ITU-based 1997 version of Q-76x and the ETSI-based ISUP Version 3 base protocols into the PGW 2200.

INAP CS1 Enhancements

The Intelligent Network (IN) is described in terms of a functional model as presented by ITU-T Q.1214 specifications. The functional entities include the:

- Service Control Function (SCF)
- Service Switching Function (SSF)
- Call Control Function (CCF)

The PGW 2200 assumes the role of Service Switching Points (SSPs) that contain both the SSF and the CCF. For the purpose of adding IN services, a portion of the CCF behavior is made visible and is described by a Basic Call State Model (BCSM). The SSF interacts directly with the CCF to make this behavior accessible to the SCF. The The SSF communicates with the SCF via INAP.

A separate relationship is established between the SSF and the SCF for each call. This occurs when the SSF sends an initial request for instruction to the SCF regarding a new call. Either the SCF or the SSF, depending on circumstances, can terminate the relationship.

The BCSM is described using the following elements:

- Points in Call
- Detection points
- Transitions
- Events

Calls progress through a series of states that correspond to Points in Call (PICs). Each state change represents a transition that is precipitated by one or more events. Those PICs where a transfer of control can occur between SSP and SCP have an associated detection point (DP). DP processing allows the transition to be seen by the SCF through an event reporting mechanism.

Two types of DPs are defined:

- trigger DPs (TDPs)—statically armed.
- event DPs (EDPs)—dynamically armed under control of the SCF.

Detection points when armed, cause event reports to be sent to the SCP. An event report can be a notification or a request. A notification informs the SCP of an event and a request specifically requests assistance from the SCP. A request implies a transfer of control to the SCP.

For the purpose of the PGW, only the Originating BCSM is used.

Table 21 Provisionable Properties

Property	Modified value takes effect without restart
AOCInvokeType	Yes
AOCDefaultTariffId	Yes

New/Enhanced Tags

For information on tags and call data blocks, refer to the *Cisco Media Gateway Controller Software Release 9 Billing and Interface Guide* at the following url:

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_technical_reference_book09186a008009b07b.html

Protocol Variants

Table 22 provides a snapshot of the protocol variants supported in the Cisco MGC software Release 9.5(2).

Table 22 Supported Protocol Variants for Software Release 9.5(2)

Protocol Variant Name	Protocol Family	Switch Supported
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
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

Table 22 Supported Protocol Variants for Software Release 9.5(2) (continued)

Protocol Variant Name	Protocol Family	Switch Supported
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_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
Q721_BRAZILIAN_C2	SS7-ITU	5
Q761_97VER_BASE	SS7-ITU	0
Q761_99VER_BASE	SS7-ITU	0
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_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

Table 22 Supported Protocol Variants for Software Release 9.5(2) (continued)

Protocol Variant Name	Protocol Family	Switch Supported
Q761_BELG_97VER	SS7-ITU	0
Q761_AUSTRL	SS7-ITU	0
Q761_AUSTRL_C2	SS7-ITU	0
Q761_99VER_AUSTRL_C3	SS7-ITU	0
Q761_97VER_RUSS	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_RUSS_C2	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_BRAZIL_C2	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
dummy	SGCP	0
dummy	MGCP	0
dummy	TCAPOverIP	0
dummy	VSI	0
dummy	AVM	0
dummy	LI	0
IETF_SIP	SIP	0

Known Issues and Operational Recommendations

This section contains information about known issues and the corresponding workarounds in the Cisco MGC software release 9.5(2).

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

VISM Release 3.3.30 Required For T.38 Fax Fallback to Pass-Through and Voice

VISM software release 3.3.30 is required for PGWs deployed with VISM gateways in order for the SIP to MGCP T.38 Fax Fallback to Pass-Through and Voice feature to function correctly.

Note For more information, see caveat number CSCsd79877.

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 was introduced in patch combination CSCOnn044/CSCOgs051.

Call Cutoff Timer (dialplan) is Reset After One Failover

The Call Cutoff Timer is configurable at the dialplan level. If configured, the timer is replicated at call answer time and started on both Active and Standby PGW 2200s. After the first failover, the call is released as configured. However, all subsequent failovers reset the timer to the configured value. The call is eventually released but its duration is larger than the call cutoff timer specification.

Note For more information, see caveat number CSCeg73933.

Upgrade/Downgrade Issue for Patch CSCOgs049

If HLCMOD or BCMOD related dialplan provisioning changes are made after the CSCOgs049/CSCOnn041 patch upgrade and then you need to downgrade to previous patch level, you must use the config-lib utility to revert back to your latest configuration prior to adding the patch.

Note For more information, see caveat number CSCsb30733. This caveat was included in the CSCOgs049 and CSCOnn041 patch combination.

numan-add AMODDIG Resulttype Fails if dw2="99" and dw3="0"

To remove the entire A number regardless of the number of digits it contains, enter the value "99" for dataword2.

To use dw3="0" , dataword3 must be 0 (no quotes) or an existing digit modification name or it fails. Do not use dw3="" or do not enter dw3 and the command works.

Example 1:

```
va-lassie mml>
numan-add:resulttable:custgrpid="MGX7",name="removeanum",resulttype="AMODDIG",dw1="1",dw2=
"99", dw3="0",dw4="0",setname="set382"
   MGC-01 - Media Gateway Controller 2005-09-08 10:58:53.031 EDT M  DENY
   SROF
   "resulttable:The digit modification name:0:is not currently configured"
   /* Status, Requested Operation Failed on the component */
   ;
```

Example 2:

```
va-lassie mml>
numan-add:resulttable:custgrpid="MGX7",name="removeanum",resulttype="AMODDIG",dw1="1",dw2=
"99", dw3="",dw4="0",setname="set382"
   MGC-01 - Media Gateway Controller 2005-09-08 10:59:00.810 EDT M  COMPLD
   "resulttable"
```

Note For more information, see caveat number CSCsb81061.

Call Cutoff Timer (Dialplan) is Reset After Failover

The Call Cutoff Timer when configurable at the dialplan level, is replicated at call answer time and started on both the Active and Standby PGWs. After the first failover, the call is released as configured. However, all subsequent failovers reset the timer to the configured value. The call is released, but its duration is longer than the call cutoff timer specification.

Note The call cutoff timer is accurate on the first failover after a call is answered. However, on subsequent failovers, the timer is reset to full value.

Note For more information, see CSCeg73933.

AOC Does Not Work for More Than Three Time Changes

AOC for SS7 and PRI does not work when the charge table is provisioned to have more than three time changes with leading zeros.

Note For more information, see CSCsb22179.

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.

BAMS Cannot Handle CDE Tags with Longer Length Than Defined

For BAMS release 3.20, the system crashes when a CDE tag with a length greater than is defined is received. SKIPCDE has been provided that enables BAMS to skip the received CDE and continue processing. This SKIPCDE is only required if you provision more than six charge periods within 24 hours. Skipped CDEs will not be present in the BAMS output.

For more information, see CSCsa92926.

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, refer to caveat number CSCeg39436.

Note This workaround was introduced in patch combination CSCOnn020/CSCOgs024.

Diagnostic Code In CFN Message is Not Correct for Two Unknown Parameters in IAM

Specifications Q.850 sec 2.2.5 and Q764 2.9.5.3 indicate that when cause number 99 is indicated, the diagnostics can refer to multiple unrecognized parameters. However, at this time, when an incoming IAM contains two unknown parameters, the diagnostics code in the Confusion message only indicates one unknown parameter.

Note PGW currently only supports including one unrecognized parameter in the diagnostic code.

Note For more information, refer to caveat number CSCsa95205.

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, refer to 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.

MGCP 400 Return Code Should Send Call to GA With Temporary Failure

Previously, on an MGCP 400 return code, the PGW attempted one resend of the CRCX. If a second 400 return was encountered, the call was released without going to analysis and the cause was set to Normal or Unspecified.

The code has been enhanced so if a second 400 return code is received, the cause is set to TEMPORARY FAILURE and then sent to analysis. The dialplan cause analysis can be setup to do reattempts and route advance on this cause value.

The following MGCP temporary failures map to the indicated internal cause codes and are available for re-routing:

Internal Cause Code	Temporary Failure Description
400	IC_TEMPORARY_FAILURE
401 & 402	IC_USER_BUSY
403 & 404	IC_RESOURCES_UNAVAIL_UNSPEC
405	IC_SERVICE_TEMPORARILY_UNAVAILABLE

For more information, refer to caveat number CSCeg57446.

snmp.cnf File is Overwritten When Updating to New Release 9

After upgrading from 9.4(1) to 9.5(2), the existing /opt/CiscoMGC/snmp/snmpd.cnf is overwritten with a default file (the existing snmp entries in the snmpd.cnf file are automatically copied to snmpd.cnf.custorig). Since a new default snmpd.cnf replaces the original snmpd.cnf file, the snmp functionality no longer works as expected. After upgrading to any 9 release, you must manually restore the original snmp functionality, IMMEDIATELY after upgrading and PRIOR to starting the PGW software.

Complete the following procedure to manually restore the original snmp functionality:

As root:

Step 1 cd /opt/CiscoMGC/snmp

Step 2 cp snmpd.cnf.custorig to snmpd.cnf

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 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, refer to the Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide at the following url:

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_book09186a008007df76.html

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, refer to 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, refer to the following documents:

- Cisco Media Gateway Controller Software Release 9 Provisioning Guide
  http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_configuration_guide_book09186a008007ddbd.html
- Cisco Media Gateway Controller Software Release 9 Operation, Maintenance, and Troubleshooting Guide
  http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_maintenance_guide_book09186a008007e563.html

T6 Timer Default Change

When migrating/upgrading from release 9.2(2) to releases 9.4(1) and 9.5(2), you must create a profile (sigpathprofile) for each sigpath on which you want to change the T6 value (from the default value (20000)).

The maximum value for T6 is 130000, which is beyond the maximum value defined in the protocol specification.

Note The Q761_SINGAPORE protocol specification states that the maximum value should be 32000, but the software allows up to 130000 in response to a customer requirement.

Note For more information, refer to caveat number CSCef03452.

Uninstalling Releases for Upgrade and Fallback

When uninstalling release 9.4(1) to upgrade to release 9.5(2), the 9.4(1) uninstall script must be used to uninstall 9.4(1). When falling back from 9.5(2) to 9.4(1), the 9.5(2) uninstall script must be used. For more information, refer to the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide* at the following url:

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_book09186a008007df76.html

Note For more information, refer to caveat number CSCec34395.

Installation of 9.5(2) Needs to Have Its Own Directory

When installing software release 9.5(2), you should use a directory that has only one UTILITIES directory under it.

Note For more information, refer to caveat number CSCuk48736.

Simple Resource Control Protocol

The Simple Resource Control Protocol (SRCP) commands and alarms are no longer supported in the Media Gateway Controller (MGC) software effective in software release 9.3(2). SRCP was developed as an optional extension to the MGCP control protocol. It provided an additional heartbeat mechanism between the Call Agent and Media Gateways to ensure that the configuration and parameters were synchronized. When the SRCP heartbeat was enabled, the Call Agent and Media Gateways would exchange information and the Call Agent would provide an alarm if IP addresses, Slot Numbers, Control Protocols/Versions and other parameters were not synchronized.

The SRCP audit mechanism was developed by Cisco Systems when the MGCP protocol was still in draft version and has never been adopted by any Standards bodies (ITU, ETSI) or other equipment suppliers.

QSIG Support in Signaling Inter-Working for Cisco Unity is ECMA Only

Signalling inter-working support for this feature is limited to QSIG implementations based on the ECMA specification only.

Note For more information, refer to caveat number CSCed01786.

Validation Rules of Cisco Solaris Packages Are Incomplete (mgcrestore/mgcbackup)

The mgcrestore script validates the version of the installed Solaris packages but does not ensure that the install script was executed. If there is a mismatch between when the backup file was created and the time of the restore, the restore is not allowed. For example, if the security package was not installed when the backup was created, but is installed when the restore is attempted, then the restore is not allowed. Because the script does not validate whether the script was executed, the restore validation rules might pass, yet the restore could cause system problems.

Workaround: When Cisco Packages are added and removed, ensure the install and uninstall scripts are executed.

Note For more information, refer to caveat number CSCdx78398.

Calls Not Going Through After Uninstalling 9.5(1)T and Installing 9.4(1)

When uninstalling release 9.4(1) to upgrade to release 9.5(1)T, the 9.4(1) uninstall script must be run to perform the uninstall . When falling back from release 9.5(1)T to release 9.4(1), the 9.5(1)T uninstall script must be run to perform that uninstall.

Note For more information, refer to caveat number CSCec34395 and the Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide at the following url:

http://www.cisco.com/en/US/products/sw/voicesw/ps1913/products_installation_and_configuration_guide_book09186a008007df76.html

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, Obtaining Support, and Security Guidelines

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

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