



# Release Notes for the Solaris 10 Environment Packages

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# Introduction

This document describes the Solaris 10 environment patches for the Cisco Media Gateway Controller (MGC) software. These packages might be required as a part of the installation procedures for the products running on the Solaris 10 platform.

For information on application and installation of the Sun Solaris patches, refer to the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

The currently deployed Solaris patch set is release 3.0(6).



## Caution

To maintain tested configurations, do not download packages directly from the Sun website. Although Sun's website might contain later patch versions, you should apply only those patches that are provided by Cisco through CD or CCO.



## Note

Solaris 10 environment packages can be downloaded from the following url. You must be logged into [www.cisco.com](http://www.cisco.com) to see these packages.

Sparc Version:

<http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-sol10-sparc>

Opteron Version:

<http://www.cisco.com/cgi-bin/tablebuild.pl/mgc-sol10-opteron>

## Determining Which Solaris Release Version Is Installed on Your System

To determine which Solaris release is installed on your system, use the following command:

```
cat /etc/release
```

In the following example, the OS is Solaris 10 for X86 architecture

```
cat /etc/release
Solaris 10 1/06 s10x_ulwos_nightly X86
Copyright 2005 Sun Microsystems, Inc. All Rights Reserved.
Use is subject to license terms.
Assembled 15 December 2005
```

To determine the Solaris release version of a package that is installed on your system, use the following command:

**pkginfo -l <package instance>**

The following shows an example of the **pkginfo** command for the environment package CSCOh022 Version 3.0(5).

```
sh-costello% pkginfo -l CSCOh022
PKGINST: CSCOh022
NAME: Media Gateway Controller Solaris 10 Patch Cluster
CATEGORY: utilities
ARCH: sparc
VERSION: 3.0(5)
BASEDIR: /opt/sun_install
VENDOR: Cisco Systems, Inc.
PSTAMP: 2007/02/12 02:43 GMT (sha-view1)
```

```

INSTDATE: Feb 12 2007 15:59
EMAIL: sctac@cisco.com
STATUS: completely installed
FILES: 17 installed pathnames
      2 shared pathnames
      2 directories
      15 executables
      477559 blocks used (approx)

```

**Note**

Always ensure that you have the latest required patch version released by Cisco on your system, CD, or file system (if the software was downloaded previously from CCO).

## Solaris 10 Environment Packages

The patches in [Table 1](#) are available. These patches have been regression tested with the product and are supported by Cisco. Patches downloaded from Sun are not supported until they are officially tested and released by Cisco.

**Table 1** *Solaris 10 Environment Packages*

Package	Description
CSCOh020	Media Gateway Controller security package compatible with Solaris 10 (Sparc and Opteron)
CSCOh021	VTS hardware test package (Sparc and Opteron)
CSCOh022	Solaris 10 Patch Cluster (Sparc only)
CSCOh023	Disk Suite (Sparc and Opteron)
CSCOh024	Log/Spool (Sparc only)
CSCOh026	Miscellaneous software for Sparc (ftp, LOM, xterm)
CSCOh027	Cisco BAMS archive partition
CSCOh032	Solaris 10 patches (Opteron only)
CSCOh036	Miscellaneous software for Opteron (ftp and xterm)

**Note**

The latest version of a patch is always required. Refer to CCO to determine the latest patch version available.

### Media Gateway Controller Security Package (CSCOh020)

The Media Gateway Controller Security package provides an optional script to enable/disable various services (remote root login, ftp, telnet, sudo) on the MGC Solaris platform for security purposes. This package is used for both the Sparc and Opteron platforms.

## Hardware Test Package (CSCO021)

The hardware test package provides an optional script needed to test the Cisco MGC hardware platforms with Sun verification test suite (VTS). This package is used for both Sparc and Opteron platforms. This optional script is preconfigured to provide adequate testing of the hardware.

This package can be optionally installed for use when hardware issues are suspected but because of space requirements should be uninstalled after use. Do *not* install this package on the Sun Fire X4600; it is not supported.

**Table 2**     *Hardware Test Package*

Package	Description
CSCO021	VTS Hardware test package (optional)

## Solaris 10 Patch Cluster—Sparc (CSCO022)

The Solaris 10 patch cluster package CSCO022 provides the required operational patches provided by Sun for the Sparc platform. CSCO022 is required to ensure MGC functionality. Only one patch cluster package is needed; for Sparc use package CSCO022, for Opteron use package CSCO032.

**Table 3**     *Solaris 10 Patch Cluster Package*

Package	Description
CSCO022	Cisco Solaris 10 patch cluster—Sparc (Required)

During installation of package CSCO022, errors with a return code of 2 and 8 might display. These return codes are a part of normal installation and can be disregarded.

Removing the Solaris 10 Patch Cluster (CSCO022) does not remove the Solaris patches that were installed when the /opt/sun\_install/installPatches10 script was executed during a previous patch installation. For more information refer to the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*. (Sun Solaris 10 Operating System Installation > Installing the Solaris 10 Patch Cluster (CSCO022).

## Solaris 10 Patch Cluster—Opteron (CSCO032)

The Solaris 10 patch cluster package CSCO032 provides the required operational patches provided by Sun for the Opteron platform. Only one patch cluster package is needed; for Sparc use package CSCO022, for Opteron use package CSCO032.



**Note**

If you install CSCO032 release 3.0(6) on top of release 3.0(5), run the CSCO032 installation script once and reboot the system. These instructions are available in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*. (Sun Solaris 10 Operating System Installation > Installing the Solaris 10 Patch Cluster (CSCO032).

If you do NOT install CSCO032 release 3.0(6) on top of release 3.0(5), you need to run the CSCO032 installation script twice. First run the CSCO032 installation script, then reboot the

system. Then run the CSCOh032 installation script again and reboot the system. After the second reboot is complete, use the **uname -a** command to verify the patch level. If the patch level is 127128-11, CSCOh032 is successfully installed.

**Table 4** Solaris 10 Patch Cluster Package

Package	Description
CSCOh032	Cisco Solaris 10 patch cluster—Opteron (Required)

## Solaris 10 DiskSuite (CSCOh023)

DiskSuite allows disk mirroring in systems that have two or more disks. Disk mirroring enables file system backup and recovery on a secondary disk if the primary disk fails or needs to be replaced.

The Solaris 10 DiskSuite scripts provide the specific steps needed to install Solstice DiskSuite on the Cisco PSTN Gateway 2200 (PGW 2200). This package is used for both Sparc and Opteron platforms.

- Disk Suite, package CSCOh023, can only be installed on systems with disks larger than 18GB. If the disk is smaller than or equal to 18GB, Disk Suite fails.
- Disk Suite supports 36, 73, and 146GB disk drives.
- The installation procedure takes approximately 2 hours to complete.

**Table 5** Solaris 10 DiskSuite Package

Package	Description
CSCOh023	Solaris 10 DiskSuite Scripts (Required)



**Caution**

**The order in which packages are installed on the system is important.** In particular, DiskSuite must be installed before installing the CiscoMGC application (PGW). If the PGW application is already installed, the DiskSuite script will fail to run. Similarly, you must remove the PGW application **before** removing CSCOh023.



**Caution**

Either Log/Spool or DiskSuite can be installed but you cannot install both packages on the same system.

For information on using the Solaris 10 DiskSuite scripts, refer to the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

## Log and Spool File Systems Patch (CSCOh024)

The log and spool file system package provides the scripts needed to configure the /opt/CiscoMGC/var/log and /opt/CiscoMGC/var/spool directories on a secondary disk. It allows a MGC to use the primary disk for the MGC application while allowing billing, alarms, and measurement information to be stored on a secondary disk. This configuration cannot be used if you use Disk Suite for disk mirroring.

This package can be optionally installed on only the Sparc platform. This package cannot be used if you have a disk that is larger than 18 GB.

**Table 1** *Solaris Log and Spool File System Package*

Package	Description
CSCOh024	Log and spool file system configuration scripts (optional)

## Miscellaneous Software for Sparc (FTP, LOM, xterm) (CSCOh026)

The miscellaneous software for Opteron package provides the required software such as ftp and xterm.

**Table 2** *Miscellaneous Software for Sparc Package*

Package	Description
CSCOh026	Miscellaneous Software for Sparc (Required)

## Miscellaneous Software for Opteron (ftp and xterm) (CSCOh036)

The miscellaneous software for Opteron package provides the required software such as ftp and xterm.

**Table 3** *Miscellaneous Software for Opteron Package*

Package	Description
CSCOh036	Miscellaneous Software for Opteron (Required)

# Solaris 10 Return Codes

When a patch cluster is installed, some individual patches might fail to install because they are already installed on the machine (as part of the Solaris 10 installation or as part of an earlier application of the patch cluster) or because the individual patch applies to an application which we do not install. For example, there are security patches for UUCP, but since we do not install UUCP on the machine, these patches fail to install. This is not considered an error as far as the installation process is concerned.

When an individual patch fails to install, a return code displays to indicate the reason the patch did not install. [Table 4](#) lists the return codes for Solaris 10:

**Table 4** *Solaris 10 Return Codes*

Return Code	Description
0	No error.
1	Usage error.
2	Attempt to apply a patch that's already been applied.
3	Effective UID is not root.
4	Attempt to save original files failed.
5	Pkgadd failed.

**Table 4** *Solaris 10 Return Codes (continued)*

<b>Return Code</b>	<b>Description</b>
6	Patch is obsoleted.
7	Invalid package directory.
8	Attempting to patch a package that is not installed.
9	Cannot access /usr/sbin/pkgadd (client problem).
10	Package validation errors
11	Error adding patch to root template.
12	Patch script terminated due to signal.
13	Symbolic link included in patch.
14	Not used.
15	The prepatch script had a return code other than 0.
16	The postpatch script had a return code other than 0.
17	Mismatch of the -d option between a previous patch install and the current one.
18	Not enough space in the file systems that are targets of the patch.
19	\$(SOFTINFO/INST_RELEASE) file not found.
20	A direct instance patch was required but not found.
21	The required patches have not been installed on the manager.
22	A progressive instance patch was required but not found.
23	A restricted patch is already applied to the package.
24	An incompatible patch is applied.
25	A required patch is not applied.
26	The user specified backout data can't be found.
27	The relative directory supplied can't be found
28	A pkginfo file is corrupt or missing.
29	Bad patch ID format.
30	Dry run failure(s).
31	Path given for -C option is invalid.
32	Must be running Solaris 2.6 or greater.
33	Bad formatted patch file or patch file not found.
34	The appropriate kernel jumbo patch needs to be installed.
35	Newer version of patch already installed.

## Installation

For new installations please refer to the installation procedures provided in the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

# Patch Installation

When installing Solaris packages and the MGC software has already been installed, see the *Cisco Media Gateway Controller Software Release 9.7 Installation and Configuration Guide*.

## New Features

There are no new features at this time.

## Known Issues and Operational Recommendations

### New “etc/inet/ipnodes” File Must Be Edited When Changing IP Address

When changing the IP address of a host or network card on a Solaris10 platform, the following three files must be edited using vi:

- /etc/inet/hosts
- /etc/hostname.<ce#, or bge#, or hme#>
- /etc/inet/ipnodes



**Note**

For more information, see caveat CSCsd75517.

### Package CSCOh021

The following issue exists with package CSCOh021 Version 3.0(2).

Caveat Number	Description
CSCsh19932	The VTS package in 01/06 jumpstart does not support X4600.



**Note**

For more information, see caveat number CSCsh19932.

# Media Gateway Security Package CSC0h020 Modification History

**Table 5** *Modifications for Media Gateway Security Package CSC0h020*

<b>Date</b>	<b>Solaris Patch Release</b>	<b>Solaris Version</b>	<b>Modification</b>
07/30/08	3.0(6)	10	Repackaged to constitute complete package set.
02/12/07	3.0(5)	10	Repackaged to constitute complete package set.
07/26/06	3.0(4)	10	Repackaged to incorporate changes for CSCsd64874.
06/08/06	3.0(3)	10	Initial release.

## Solaris Patch CSC0h021 Modification History

**Table 6** *Modifications for Solaris Patch CSC0h021*

<b>Date</b>	<b>Solaris Patch Release</b>	<b>Solaris Version</b>	<b>Modification</b>
07/30/08	3.0(6)	10	Repackaged to incorporate changes for CSCso63886.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCse44375 and CSCse51230.
07/26/06	3.0(4)	10	Repackaged to constitute complete package set.
06/08/06	3.0(3)	10	Repackaged to incorporate changes for CSCse04673.
03/15/06	3.0(2)	10	Repackaged to constitute complete package set.
03/01/06	3.0(1)	10	Initial release.

## Solaris Patch CSC0h022 Modification History

**Table 7** *Modifications for Solaris Patch CSC0h022*

<b>Date</b>	<b>Solaris Patch Release</b>	<b>Solaris Version</b>	<b>Modification</b>
07/30/08	3.0(6)	10	Repackaged to incorporate changes for CSCs138971, CSCsm17189, CSCso68507, and CSCsq44605.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCsh62453, CSCsh53103, CSCsh70940, and CSCsh72385.
07/26/06	3.0(4)	10	Repackaged to incorporate changes for CSCse55593.
06/08/06	3.0(3)	10	Repackaged to incorporate changes for CSCse07201.

**Table 7** *Modifications for Solaris Patch CSCOh022 (continued)*

<b>Date</b>	<b>Solaris Patch Release</b>	<b>Solaris Version</b>	<b>Modification</b>
03/15/06	3.0(2)	10	Repackaged to incorporate changes for CSCsc40180, CSCsc79532, and CSCsd38155.
03/01/06	3.0(1)	10	Initial release.

## Solaris Patch CSCOh023 Modification History

**Table 8** *Modifications for Solaris Patch CSCOh023*

<b>Date</b>	<b>Solaris Patch Release</b>	<b>Solaris Version</b>	<b>Modification</b>
07/30/08	3.0(6)	10	Repackaged to incorporate changes for CSCsi03019, CSCso62483, and CSCso68507.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCse45652.
07/26/06	3.0(4)	10	Repackaged to constitute complete package set.
06/08/06	3.0(3)	10	Repackaged to constitute complete package set.
03/15/06	3.0(2)	10	Repackaged to incorporate changes for CSCsc36203.
03/01/06	3.0(1)	10	Initial release.

## Solaris Patch CSCOh024 Modification History

**Table 9** *Modifications for Solaris Patch CSCOh024*

<b>Date</b>	<b>Solaris Patch Release</b>	<b>Solaris Version</b>	<b>Modification</b>
07/30/08	3.0(6)	10	Repackaged to constitute complete package set.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCse45652.
07/26/06	3.0(4)	10	Repackaged to constitute complete package set.
06/08/06	3.0(3)	10	Repackaged to constitute complete package set.
03/15/06	3.0(2)	10	Repackaged to incorporate changes for CSCsc08521.
03/01/06	3.0(1)	10	Initial release.

## Solaris Patch CSC0h026 Modification History

**Table 10** Modifications for Solaris Patch CSC0h026

Date	Solaris Patch Release	Solaris Version	Modification
07/30/08	3.0(6)	10	Repackaged to incorporate changes for CSCsh19932, CSCsk06251, CSCso63882, and CSCsq65158.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCse55480.
07/26/06	3.0(4)	10	Repackaged to constitute complete package set.
06/08/06	3.0(3)	10	Repackaged to incorporate changes for CSCse04213 and CSCse04278.
03/15/06	3.0(2)	10	Repackaged to incorporate changes for CSCsc14788, CSCsc86535, and CSCsd37951.
03/01/06	3.0(1)	10	Initial release.

The NTP protocol has been added to this package. NTP manages a single time throughout a network. It enables the PGW 2200 to be in sync with the time data used in a customer's network. For more information, see the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

## Solaris Patch CSC0h027 Modification History

**Table 11** Modifications for Solaris Patch CSC0h027

Date	Solaris Patch Release	Solaris Version	Modification
07/30/08	3.0(6)	10	Repackaged to constitute complete package set.
02/12/07	3.0(5)	10	Repackaged to constitute complete package set.
07/26/06	3.0(4)	10	Repackaged to constitute complete package set.
06/08/06	3.0(3)	10	Initial release. Repackaged to incorporate changes for CSCsd86312.

## Solaris Patch CSC0h032 Modification History

**Table 12** Modifications for Solaris Patch CSC0h032

Date	Solaris Patch Release	Solaris Version	Modification
07/30/08	3.0(6)	10	Repackaged to incorporate changes for CSCs138971, CSCsm17189, CSCso68507, and CSCsq44605.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCse75538, CSCsh62453, CSCse36060, and CSCse02959.
07/26/06	3.0(4)	10	Repackaged to incorporate changes for CSCse55593.
06/08/06	3.0(3)	10	Repackaged to incorporate changes for CSCse07201, CSCsd68162, and CSCse11989.
03/15/06	3.0(2)	10	Repackaged to incorporate changes for CSCsd28075.
03/01/06	3.0(1)	10	Initial release.

## Solaris Patch CSC0h036 Modification History

**Table 13** Modifications for Solaris Patch CSC0h036

Date	Solaris Patch Release	Solaris Version	Modification
07/30/08	3.0(6)	10	Repackaged to incorporate changes for CSCsh19932, CSCsk06251, and CSCsq65158.
02/12/07	3.0(5)	10	Repackaged to incorporate changes for CSCse55480.
07/26/06	3.0(4)	10	Repackaged to constitute complete package set.
06/08/06	3.0(3)	10	Repackaged to incorporate changes for CSCse04213 and CSCse04278.
03/15/06	3.0(2)	10	Repackaged to incorporate changes for CSCsd28131 and CSCsd45076.
03/01/06	3.0(1)	10	Initial release.

The NTP protocol has been added to this package. NTP manages a single time throughout a network. It enables the PGW 2200 to be in sync with the time data used in a customer's network. For more information, see the *Cisco Media Gateway Controller Software Release 9 Installation and Configuration Guide*.

# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at

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

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