



Avaya Call Management System

Database Upgrade and Data Migration

Release 16.3
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<http://www.avaya.com/support>

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Introduction

The Avaya Call Management System (CMS) database upgrade and migration is designed for upgrading and migrating Avaya CMS Release 16 (R16) database changes to Avaya CMS Release 16.3 (R16.3). Avaya recommends that you do not use this procedure to upgrade any operating system changes.

This section includes the following topics:

- [Purpose of this document](#) on page 5
- [When and how to use this document](#) on page 6
- [Impacts to CMS service](#) on page 6
- [Contacting Avaya for assistance with your upgrade](#) on page 7
- [Possible customization impacts](#) on page 7
- [Upgrade kit contents](#) on page 7
- [Contacting Avaya technical support during the upgrade](#) on page 7
- [Visual Vectors upgrades](#) on page 8

Purpose of this document

The purpose of this document is to describe the Avaya Call Management System (CMS) database upgrade process for R16.3. This upgrade provides all known software fixes from previous versions.



Important:

A requirement for this process is that System data and CMS data are backed up to tape. Migration of system data and CMS data using LAN backup data is not possible and is not supported for this procedure. If you normally use the CMS LAN backup feature to backup system data and CMS data, you will need to obtain a tape device and perform a CMSADM backup to tape as well as a full data backup to tape, and if needed an incremental data backup to tape.

When and how to use this document

Use this document to upgrade Avaya Call Management System (CMS) from a CMS Release 16 (R16) database to the current CMS R16.3 load. Unless indicated otherwise, all procedures in the *Avaya CMS Release Database Upgrade and Data Migration* document are required.

Avaya recommends that:

- Before performing the upgrade, read through this entire document so that you are familiar with what tasks you will need to perform. If you decide you would like to have Avaya assist you performing the upgrade, see [Contacting Avaya for assistance with your upgrade](#) on page 7.
- Have a pen or pencil during the upgrade so that you can record any required information.
- During the upgrade, mark each step as it is completed.
- You will be required to enter UNIX commands during the upgrade process. You must enter the command from the UNIX prompt in a terminal window. Press the **Enter** key after you have typed in the command. Use the same capitalization and spacing shown in this document.
- If you encounter problems or have questions during the upgrade, contact Avaya technical support.

Impacts to CMS service



CAUTION:

This software upgrade is service affecting.

During the upgrade process you will have to turn off the CMS software and reboot your CMS server. This upgrade can take several hours to complete. During the Solaris patch installation, your system will display an estimate of the amount of time needed to install the Solaris patches. The Solaris patch installation is the part of the database upgrade that usually requires the longest amount of time to complete.

Contacting Avaya for assistance with your upgrade

You can make arrangements to have Avaya provide remote assistance for this upgrade. This remote assistance must be scheduled at least two weeks before your upgrade. Charges, which will be quoted, vary for this service. Contact the Technical Support Organization at 1-800-242-2121.

Possible customization impacts

The software upgrade that you are installing could potentially impact system customization that was performed before this upgrade. For example:

- Custom reports
- LAN printer customization
- Work-force management interfaces
- Operational Analyst

You can schedule an evaluation of your system to determine whether any of your system customizations might be impacted by this upgrade. Schedule this evaluation at least two weeks before your upgrade. Charges, which will be quoted, vary for this service. Contact Avaya CRM at 1-866-282-9266.

Upgrade kit contents

All the software you need for the upgrade should be included with your upgrade kit.

Contacting Avaya technical support during the upgrade

If you encounter problems or have questions during the upgrade and are unable to resolve them by following the upgrade instructions, call technical support at 1-800-242-2121. Be ready to provide the number of the Quality Protection Plan you are using.

Visual Vectors upgrades

If you are upgrading the Visual Vectors software to Visual Vectors 16, which is compatible with CMS R16, you must upgrade to the appropriate versions of the following software:

- A CMS load of r16aa.x or later.
- Visual Vectors server vvsr16xx.x or later.
- Visual Vectors client software release VV14_03 or later.

Preparing for a database upgrade

This section describes the tasks you must perform before you upgrade your CMS database. These procedures will help you verify that your CMS server has no existing hardware or software problems before the upgrade. If you do not perform these procedures, your database upgrade could fail, and your CMS server could be put in a non-functioning state for some time.

This section includes the following topics:

- [Prerequisites](#) on page 9
- [Verifying the current CMS version and load](#) on page 10
- [Verifying that your previous backups completed successfully](#) on page 10
- [Verifying that the nightly archiver is functioning](#) on page 14
- [Checking the status of the disk drives](#) on page 15
- [Checking for memory errors and system panics](#) on page 15
- [Verifying free space in the root file system](#) on page 16
- [Rebooting your CMS server](#) on page 17
- [Backing up the CMS server](#) on page 17
- [Checking for ACD 1](#) on page 22
- [Preserving CMS authorizations and setup files](#) on page 23
- [Checking for installed Feature Packages and pseudo ACDs](#) on page 23

Prerequisites

Before you perform the procedures in this section, you must:

- A requirement for this process is that System data and CMS data are backed up to tape. Migration of system data and CMS data using LAN backup data is not possible and is not supported for this procedure.
- Read the information in the [Introduction](#) on page 5
- The Avaya CMS software disc will include a readme file called **cms.readme**. Avaya recommends you review this file for any changes that might impact the procedures in this document.
- Log in to the system as **root**.



Important:

You will not be able to log into the system remotely as **root**. If you are logging into the system remotely, log in as a user and then enter: **su - root**

Verifying the current CMS version and load

To verify the version and load of CMS currently on the machine:

1. Log in to the system as **root**.
2. Enter:

pkginfo -x cms

The system displays the currently installed CMS package, including the load number, for example:

```
cms  Avaya Call Management System (sparc) XXXXX.X
```

3. Record the displayed CMS version information for reference later, during the upgrade process.

CMS version: _____

Verifying that your previous backups completed successfully

Approximately two days before the CMS database upgrade, verify that your backups have been completing successfully.

This section includes the following topics:

- [Verifying the backup of your CMS system data](#) on page 11
- [Verifying the backup of your CMS data](#) on page 12

Verifying the backup of your CMS system data

To verify that your previous system backup completed successfully, choose one of the following procedures:

- If you backup your data directly to a tape device, go to [Verifying that your last CMSADM backup completed successfully](#) on page 11.

You are responsible for backing up your CMS server unless you engage Avaya to perform the backups in conjunction with this database upgrade.

- If you use the CMS LAN backup feature, go to [Verifying that your last LAN backup of the system data completed successfully](#) on page 12.



Important:

In addition to your normal LAN backup of system data you must also perform a system data backup to tape in order to migrate your system data back onto the system after the upgrade.

For more information about the CMS LAN backup feature, see *Avaya Call Management System LAN Backup User Guide*. This document provides information about using the CMS LAN backup feature, hardware requirements, software requirements, and support guidelines.

Verifying that your last CMSADM backup completed successfully

To verify that your last CMSADM backup completed successfully:

1. Enter:

```
tail /cms/install/logdir/backup.log
```

2. Verify that the previous CMSADM backup completed successfully.

An example of a successful CMSADM backup message is:

```
==== Begin backup Wed Apr 9 05:37:05 EDT 2009

Converter started Wed Apr 9 05:37:07 EDT 2009
Converter completed successfully Wed Apr 9 05:37:10 EDT 2009

Testing tape on /dev/rmt/0...

Tape test on /dev/rmt/0 is okay...

2873600 blocks

==== Finished backup Wed Apr 9 06:30:35 EDT 2009
```

3. Choose one of the following actions:

- If your previous backup was successful, go to [Verifying the backup of your CMS data](#) on page 12.
- If your previous backup was *not* successful, contact your Avaya CMS support representative.

Verifying that your last LAN backup of the system data completed successfully

If you use the CMS LAN backup feature, perform the following procedure:

1. Enter:

```
cat /cms/install/logdir/backup.log | pg
```

2. Press **Enter** to continue the display. It might be necessary to repeat this step several times.
3. Verify that the previous system backup completed successfully.

An example of a successful system backup message is:

```
===== LAN SYSTEM BACKUP SUCCESSFULLY FINISHED Date and time
```

4. Choose one of the following actions:

- If your previous backup was successful, go to [Verifying the backup of your CMS data](#) on page 12.
- If your previous backup was *not* successful, contact your Avaya CMS support representative.

Verifying the backup of your CMS data

To verify that your previous system backup completed successfully, choose one of the following procedures:

- If you backup your data directly to a tape device, go to [Verifying that your previous full or incremental backup completed successfully](#) on page 13.
- If you use the CMS LAN backup feature, go to [Verifying that your last LAN backup of CMS data completed successfully](#) on page 13.

 Important:

In addition to your normal LAN backup of CMS data you must also perform a CMS data backup to tape in order to migrate your CMS data back onto the system after the upgrade.

For more information about the CMS LAN backup feature, see *Avaya Call Management System Release 16 LAN Backup User Guide*. This document provides: information about using the CMS LAN backup feature, hardware requirements, software requirements, and support guidelines.

Verifying that your previous full or incremental backup completed successfully

To verify that your previous full or incremental backup completed successfully:

1. Verify that you are logged in as **root**.

 Important:

If at anytime during the upgrade process you need to verify that you are logged in as the root user, you can enter the command: **id**

2. Enter:

tail /cms/maint/backup/back.log

3. Verify that the previous full or incremental backup completed successfully.

An example of a successful full or incremental backup message is:

```
1711 4/15/09 2:14 AM 2 1 INFO
      BACKUP INFO: The backup has completed successfully.
      Please label the volume CMS-030415-01-LSAC-00-F-01-r3milcms
```

4. Choose one of the following actions:
 - If your previous backup was successful go to [Verifying that the nightly archiver is functioning](#) on page 14.
 - If your previous backup was *not* successful, contact your Avaya CMS support representative.

Verifying that your last LAN backup of CMS data completed successfully

To verify that your last LAN backup of CMS data completed successfully:

1. Enter:

cat /cms/install/logdir/backup.log | pg

2. Press **Enter** to continue the display. It might be necessary to repeat this step several times.

3. Verify that the previous data backup completed successfully.

An example of a successful data backup message is:

```
+++++ ON-Bar BACKUP SUCCESSFULLY FINISHED Date and time
```

4. Choose one of the following actions:
 - If your previous backup was successful, go to [Verifying that the nightly archiver is functioning](#) on page 14.
 - If your previous backup was *not* successful, contact your Avaya CMS support representative.

Verifying that the nightly archiver is functioning

To verify that nightly archiver is functioning correctly:

1. Verify that you are logged in to the system as **root**.
2. Enter:
su cms cms
3. Press **Enter** to accept the default terminal type.
4. Select Maintenance > Error Log Report.
5. Enter **2600** in the Error codes field.
6. Leave all of the other fields blank.
7. Press **Enter** to select the Run option.
8. Press **Enter**.

The system displays an archive history report.

9. Verify that the nightly archiver is functioning correctly for all ACDs administered on the system.

An example of a successful nightly archiver message is:

```
2600 4/15/09 2:15 AM 2 1 INFO  
ARCHIVER status: Daily Archive for (Mon)  
Apr. 14, 2009 Successful
```

10. Select **Exit** to return to the previous menu.
11. Choose one of the following actions:

- If the nightly archiver is functioning correctly, go to [Checking the status of the disk drives](#) on page 15.
- If the nightly archiver is *not* functioning correctly, contact your Avaya CMS support representative.

Checking the status of the disk drives

To check the status of the disk drives:

1. Verify that you are logged in to the system as **root**.
2. Enter:

```
/opt/StorMan/arcconf getconfig 1 | egrep "Logical devices" | pg
```
3. The output will look similar to the following:

Logical devices/Failed/Degraded	: 1/0/0
---------------------------------	---------

- If the output shows zero for Failed or Degraded, continue with [Checking for memory errors and system panics](#) on page 15
- If the output shows anything other than zero for Failed and Degraded, your system requires maintenance. Contact your Avaya CMS support representative.

Checking for memory errors and system panics

To check for memory errors and system panics:

1. Enter:

```
egrep -i "panic | memory error | afsr" /var/adm/messages* | pg
```

Note:

It might be necessary to press **Enter** to continue the display.

An example of some memory error messages are:

```
/var/adm/messages:Apr 15 21:27:51 r3upctn SUNW,UltraSPARC-II: [ID 860344 kern.notice]
[AFT0] errID 0x00011903.9c12748f Corrected Memory Error on Board 3 J3600 is Persistent
/var/adm/messages:Apr 16 09:27:52 r3upctn SUNW,UltraSPARC-II: [ID 417990 kern.notice]
[AFT0] Corrected Memory Error on CPU7, errID 0x00014050.8646ccd6
/var/adm/messages:Apr 16 09:27:52 r3upctn      AFSR 0x00000000.00100000<CE> AFAR
0x00000000.09498550
/var/adm/messages:Apr 16 09:27:52 r3upctn      AFSR.PSYND 0x0000(Score 05) AFSR.ETS 0x00
Fault_PC 0x10023bd0
/var/adm/messages:Apr 16 09:27:52 r3upctn SUNW,UltraSPARC-II: [ID 136280 kern.notice]
[AFT0] errID 0x00014050.8646ccd6 Corrected Memory Error on Board 3 J3600 is Persistent
/var/adm/messages:Apr 16 21:27:51 r3upctn SUNW,UltraSPARC-II: [ID 488351 kern.notice]
[AFT0] Corrected Memory Error on CPU6, errID 0x0001679c.f8a4aa5f
/var/adm/messages:Apr 16 21:27:51 r3upctn      AFSR 0x00000000.00100000<CE> AFAR
0x00000000.09498550
/var/adm/messages:Apr 16 21:27:51 r3upctn      AFSR.PSYND 0x0000(Score 05) AFSR.ETS 0x00
Fault_PC 0x10023bd0
/var/adm/messages:Apr 16 21:27:51 r3upctn SUNW,UltraSPARC-II: [ID 599456 kern.notice]
[AFT0] errID 0x0001679c.f8a4aa5f Corrected Memory Error on Board 3 J3600 is Persistent
/var/adm/messages:Apr 17 09:27:51 r3upctn SUNW,UltraSPARC-II: [ID 473191 kern.notice]
[AFT0] Corrected Memory Error on CPU6, errID 0x00018ee9.a6074fb3
```

2. Choose one of the following actions, depending on the message that is displayed:

- If the system displays no memory error or panic messages, go to [Verifying free space in the root file system](#) on page 16.
- If the system displays any memory error or panic messages, your system requires maintenance. Contact your Avaya CMS support representative.

Verifying free space in the root file system

To verify that sufficient free space is available in your root file system to accomplish the database upgrade:

1. Enter:

```
df -k /
```

The system displays a message similar to the following:

Filesystem	kbytes	used	avail	capacity	Mounted on
/dev/dsk/c1t0d0s0	6201485	1738401	4401070	29%	/

2. Check the disk capacity.

3. Choose one of the following actions:
 - If the disk capacity is less than 85%, go to [Rebooting your CMS server](#) on page 17.
 - If the disk capacity is 85% or greater, contact your Avaya CMS support representative.

Rebooting your CMS server

You must reboot your CMS server and verify that the system is functioning properly. Reboot the CMS server before you backup your data.

To reboot your CMS server:

1. Enter the following command from the pound (#) prompt:
/usr/sbin/shutdown -i6 -g0 -y
The system reboots.
2. Log in to the system as **root**.
3. Choose one of the following actions:
 - If the system does not boot correctly or if any error messages are displayed, contact your Avaya CMS support representative.
 - If the system boots correctly, go to [Backing up the CMS server](#) on page 17.

Backing up the CMS server

Before beginning a CMS database upgrade, you must backup your CMS system data and CMS data.



Important:

You must backup your CMS system data and CMS data to tape even if you normally use the CMS LAN backup feature. Migration of system data and CMS data using LAN backup is not possible and is not supported for this procedure.

This section includes the following topics:

- [Backing up your system data](#) on page 18
- [Backing up your CMS data](#) on page 19
- [Backing up any new CMS data](#) on page 20

Backing up your system data

A backup of the system data must be performed approximately one day before the CMS database upgrade.

Performing a CMSADM backup

To make a back up of your current system files, perform the following procedure:

1. Verify that you are using the correct tape for the tape drive for your system. Many of the tape cartridges look alike, and using the wrong tape can damage the tape drive mechanism and tape heads.
2. Log in as **root**.
3. Enter:

cmsadm

The Avaya Call Management System Administration Menu (CMSADM Menu) is displayed.

4. Enter the number associated with the `backup` option.

Depending on the number of tape drives connected to your system, one of the following messages will be displayed by your system.

- If only one tape drive is available, the system displays the following message:

Please insert the first cartridge tape into *device name*.
Press ENTER when ready or Del to quit:

- If more than one tape drive is available for use, the system displays a list of tape devices. Enter a tape drive selection from the displayed list.

An example of a tape device list is:

Select the tape drive:
1) HP DAT-72 tape drive: /dev/rmt/0
2) HP DAT-72 tape drive: /dev/rmt/1
Enter choice (1-2):

Note:

If the system fails to identify the tapes by manufacturer name, tape devices are displayed according to their system device names, such as `/dev/rmt/0`.

5. Press **Enter**.

The backup process is initiated.

When the backup is complete, the system displays the following message:

```
xxxxxxx blocks
Tape Verification
xxxxxxx blocks
WARNING: A CMS Full Maintenance Backup in addition to this cmsadm
backup must be done to have a complete backup of the system. . .
. .

Please label the backup tape(s) with the date and the current CMS
version (XXXXX.X)
```

6. Write protect the tape and store the tape in a secure location until the next backup is performed.
7. Go to [Backing up your CMS data](#) on page 19.

Backing up your CMS data

Your CMS data must be backed up approximately one day before the CMS database upgrade is performed.

Performing a full backup of CMS data with a tape device

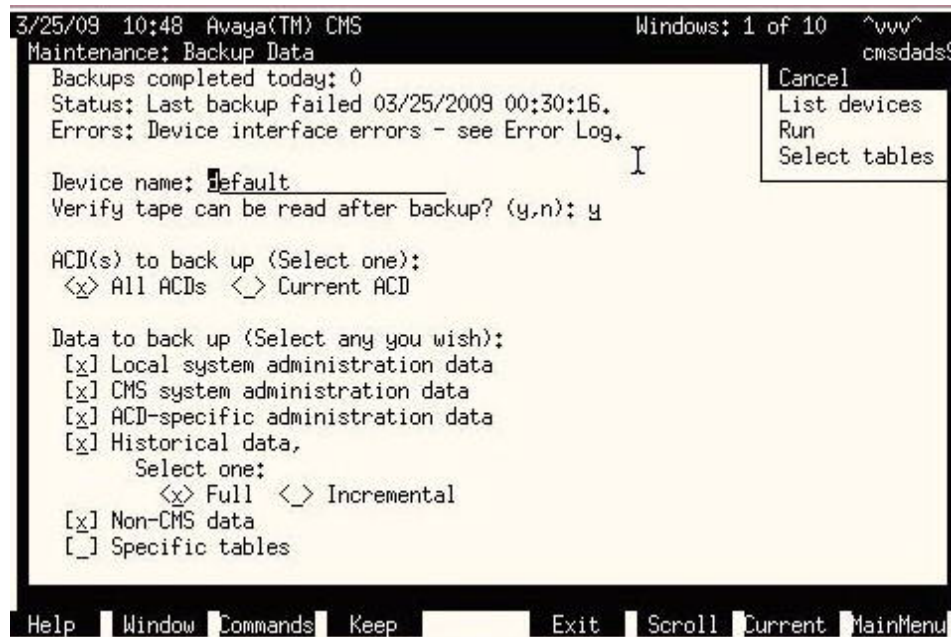
To perform a full backup of CMS data:

1. Verify that you are using the correct tape for the tape drive for your system. Many of the tape cartridges look alike, and using the wrong tape can damage the tape drive mechanism and tape heads.
2. Verify that you are logged in as **root**.

Preparing for a database upgrade

3. From the main menu, select Maintenance > Back Up Data.

The system displays the Back Up Data window, as shown below. Do not change any of the default selections.



4. Press **Enter** to access the action list in the upper right corner of the window.
5. Select **Run** and press **Enter**.
6. Wait for the backup to complete. If the backup does not complete successfully, contact your Avaya CMS support representative.
7. Write protect the tape and store the tape in a secure location until the next backup is performed.
8. Go to [Backing up any new CMS data](#) on page 20.

Backing up any new CMS data

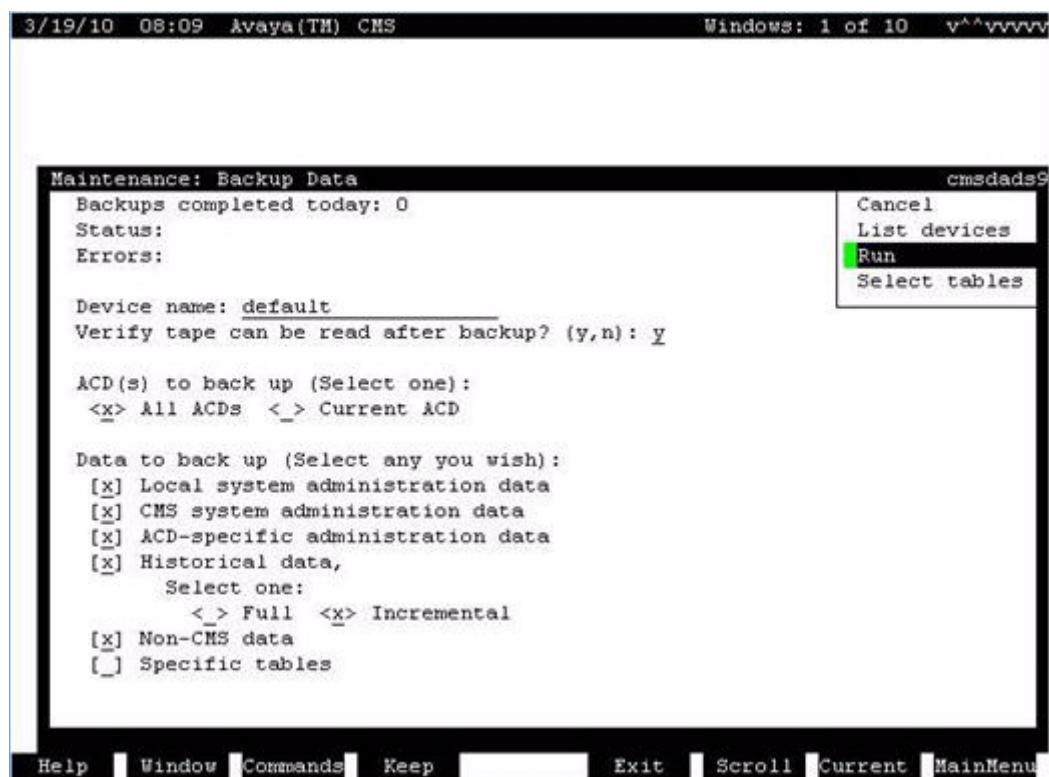
You must back up any CMS data that has been generated since your last CMS data backup. To do this, choose one of the following options:

- If no new CMS data has been generated since your last CMS data backup, go to [Updating the Solaris operating system](#) on page 25.
- If new CMS data has been generated since your last CMS data backup, see [Performing an incremental backup of CMS data with a tape device](#) on page 21.

Performing an incremental backup of CMS data with a tape device

To perform an incremental backup of CMS data:

1. Verify that you are using the correct tape for the tape drive for your system. Many of the tape cartridges look alike, and using the wrong tape can damage the tape drive mechanism and tape heads.
2. Verify that you are logged in as **root**.
3. From the main menu, select Maintenance > Back Up Data.
The system displays the Back Up Data window.
4. Under the *Historical data option*, select **Incremental**, as shown below.



5. Press **Enter** to access the action list in the upper right corner of the window.
6. Select **Run** and press **Enter**.
7. Wait for the backup to complete. If the backup does not complete successfully, contact your Avaya CMS support representative.
8. Write protect the tape and store the tape in a secure location until the next backup is performed.

9. Go to [Checking for ACD 1](#) on page 22.

Checking for ACD 1

You cannot upgrade a system when ACD 1 is not administered. To determine whether ACD 1 is administered on the system:

1. Log on to CMS.
2. Select System **Setup > Switch Setup > List All** to display a list of the administered ACDs. This list shows whether ACD 1 is administered.
 - If ACD 1 is administered, continue with [Checking for installed Feature Packages and pseudo ACDs](#) on page 23.
 - If ACD 1 is not administered, you must add a temporary ACD 1. Go to Step 3.



CAUTION:

Adding an ACD is service affecting since CMS must be turned off in order to add the ACD.

3. Enter:

cmssvc

The system displays the Avaya Call Management System Services Menu (CMSSVC Menu).

4. Enter the number associated with the `run_cms` option.
5. Enter the number associated with the `Turn off CMS but leave IDS running` option.
The system returns to the command prompt.

6. Enter:

cmsadm

7. Select the number that corresponds to the `acd_create` option.
This command adds the first unassigned ACD, which is ACD 1.
8. Enter the switch name and switch model. Enable vectoring and disconnect supervision. Enter **1** for the local port and enter **1** for the remote port.
9. Select TCP/IP for the link device and use an invalid IP address, it is acceptable to assign an invalid IP address since the temporary ACD will be deleted after the upgrade.
10. For the remaining options, use minimum values.
11. Go to [Checking for installed Feature Packages and pseudo ACDs](#) on page 23.

Preserving CMS authorizations and setup files

The customer CMS authorizations and setup files must be preserved before CMS is removed. The information will be preserved in the directory `/var/cms/extractCustData`.

1. Load the Avaya Call Management System software disc into the disc drive.
2. Enter
`/cdrom/cdrom0/extractCustData.sh`
3. Verify the customer authorizations and setup files were preserved. The directory `/var/cms/extractCustData` should contain the following files:

```
cms.install
storage.def
fp.install (optional)
backupDevice
dcadmin.out
pbx/master
```

If the files do not exist try re-executing the `/cdrom/cdrom0/extractCustData.sh` script. If the files still don't exist, escalate through normal channels.

Checking for installed Feature Packages and pseudo ACDs

If the External Call History (ECH) feature package is installed on the system and pseudo-ACDs are also administered on the system then installation of the ECH feature package will fail during the restore process.

- If no pseudo-ACDs are administered on the system, continue with [Updating the Solaris operating system](#) on page 25.
- If ECH is installed on the system and pseudo-ACDs are also administered on the system, go to Step 1.

To prevent ECH installation from failing during the restore process:

1. Review the `/var/cms/extractCustData/fp.install` file.
2. Search for any ACD entries greater than ACD 8. Typically pseudo ACDs are referenced as `unnamed_acdx`.
3. If any entries exist, make a copy of the original `/var/cms/extractCustData/fp.install` file.

Preparing for a database upgrade

4. Edit the `/var/cms/extractCustData/fp.install` file and delete or comment out the `unnamed_acd` value that is displayed on the line following the `unnamed_acd` line. In the following example, the value to be commented out is 20000.

```
# Number of call segments to buffer for ACD unnamed_acd9:  
# 20000
```

5. Repeat step 4 for all pseudo ACDs.
6. Save the modified file.
7. Go to [Updating the Solaris operating system](#) on page 25.

Updating the Solaris operating system

This section contains procedures for updating your Solaris operating system. You must complete the procedures in this section before upgrading your CMS database.

This section includes the following topics:

- [Prerequisites](#) on page 25
- [Stopping the Avaya Visual Vectors server software](#) on page 26
- [Stopping CMS WebClient](#) on page 26
- [Stopping AOM](#) on page 27
- [Stopping Avaya OA data forwarders](#) on page 27
- [Installing Solaris patches](#) on page 28
- [Installing the Avaya CMS security script](#) on page 30

Prerequisites

Before you perform the procedures in this section, you must:

- Read the information in [Introduction](#) on page 5
- Perform all of the required procedures in [Preparing for a database upgrade](#) on page 9
- Verify that you are logged in to the system as root.

Stopping the Avaya Visual Vectors server software

To stop the Avaya Visual Vectors server software:

1. Enter:

setupaas

The system displays the Avaya Visual Vectors Server System Services Menu, as shown in the following figure.

```
Avaya Visual Vectors Server System Services Menu

Select a command from the list below.

1) init_vvs      Setup the initial configuration
2) run_vvs       Turn VVS on or off
3) auth_display  Display simultaneous VVS logins
4) auth_set      Change simultaneous VVS logins
5) backup        Backup vector steps and layout files
6) restore       Restore vector steps and layout files

Enter choice (1-6) or q to quit:
```

2. Enter the number associated with the run_vvs option.

The system displays the following message:

```
1) Turn VVS On
2) Turn VVS Off

Enter choice (1-2) or q to quit:
```

3. Enter the number associated with the Turn VVS Off option.

Stopping CMS WebClient

To stop the CMS WebClient, enter:

cmsweb stop

Stopping AOM

To stop AOM, enter:

```
aom stop
```

Stopping Avaya OA data forwarders

If the CMS configuration includes data collection by Avaya OA, turn off all Avaya OA forwarders on the CMS server using the **pa stop all** command. For more information about Avaya OA forwarders, see *Avaya OA Maintenance and Troubleshooting*.

Verifying the boot-device path is set correctly

1. To determine the current eeprom setting for boot-device, enter:

```
eeprom boot-device
```

- If the boot-device path displayed matches the following, continue with [Installing Solaris patches](#) on page 28.

```
# eeprom boot-device  
boot-device=/pci@0/pci@0/pci@9/scsi@0/disk@0,0
```

2. To update the boot-device path enter:

```
eeprom boot-device=/pci@0/pci@0/pci@9/scsi@0/disk@0,0
```

Note:

bootdevice2 is not a valid path for CMS R16 or later. Do not include bootdevice2, if it existed.

Check the values entered for boot-device.

3. Enter: eeprom boot-device

```
# eeprom boot-device  
boot-device=/pci@0/pci@0/pci@9/scsi@0/disk@0,0
```

Verify the path entered for boot-device is the path shown above.

- If the path is correct, continue with [Installing Solaris patches](#) on page 28.
- If the path is not correct repeat Step 2.

4. Go to [Installing Solaris patches](#) on page 28.

Installing Solaris patches

To install the Solaris patches:

1. Load the Avaya Call Management System software disc into the disc drive.
2. Enter:

cmssvc

The system displays the Avaya Call Management System Services Menu (CMSSVC Menu).



CAUTION:

CMS must be off in order to install the Solaris patches.

3. Enter the number associated with the `run_cms` option.
4. Enter the number associated with the Turn off CMS but leave IDS running option.

The system returns to the command prompt.

5. Set the IDS environment by entering:

. /opt/informix/bin/setenv

6. Enter:

onmode -yuk

7. Ignore any error messages.

8. Enter:

/cdrom/cdrom0/spatches_conf

The system displays one of the following messages:

- If there are Solaris patches to install, the system displays the following message:

```
Warning: you must close all applications before running this script
.....
.....
.....
Solaris patches have been spooled to your machine. The patches will
be installed after rebooting. During the installation of patches
your
server will not be available.

The estimated time to install all patches is: 15 minutes

Ready to install Patches. Please leave the CD in the drive.
You will need to reboot the server for patches to install.

Do you want to reboot now? [y,n,?]
```

**Important:**

The message will contain an estimate of the amount of time needed to install the Solaris patches.

- If there are *no* Solaris patches to install, the system displays the following message:

```
There are no Solaris patches to install
```

9. Choose one of the following steps:

- If there are Solaris patches to install, go to Step 10.
- If there are no Solaris patches to install, go to Step 13.

10. Install the Solaris patches by entering: **y**

The system boots into single user mode and begins to install the Solaris patches. The Solaris patch installation takes at least the amount of time that was estimated earlier in the procedure. After the Solaris patches are installed, the system reboots into multiuser mode and displays a login prompt.

**CAUTION:**

If you cancel the installation of Solaris patches, must install them before upgrading CMS. To cancel installation of the Solaris patches, enter: **n**

11. Log in to the system as **root**.
12. Verify that all of the Solaris patches have been installed by entering:

```
tail -10 /var/cms/spatches/spatches.log
```

The system displays the following message:

```
All patches installed successfully.
```

Note:

If the installation procedure fails for any of the patches, the following message is displayed:

```
Installation failed for one or more Solaris patches.

- Customers in the US should call the CMS Technical Services
  Organization at 1-800-242-2121

- Customers outside the US should contact your Avaya
  representative or distributor.
Patch installation completed: Fri Jan 18 13:28:19 MST 2009
```

If the message shown above is displayed, continue with this procedure and the remaining CMS database upgrade procedures. When the upgrade is complete, notify your Avaya CMS support organization as prompted by the system.

13. If IDS is not running, turn on IDS with the following command:
 - a. Enter **cmssvc**
The system displays the CMSSVC menu.
 - b. Enter the number associated with the **run_ids** option.
The system starts IDS and returns to the command prompt.
14. If needed, restart the volfs service with the following command:
svcadm disable svc:/system/filesystem/volfs
svcadm enable svc:/system/filesystem/volfs
15. Go to [Installing the Avaya CMS security script](#) on page 30.

Installing the Avaya CMS security script

To install the Avaya security script:



Important:

You will be able to log into the console only as **root** after you run the Avaya CMS security script. If you are logging into the system remotely, you will need to log in as another user and then **su** to root.

1. Verify that you are logged into the system as **root**.
2. Verify the current services running on the system, save the list for comparison against the listing after the security script run.

Note:

It is necessary to find out which services in the list of differences are used by the customer.

3. Sort the output before writing the output to the file.

```
svcs -a | sort > /tmp/current_svcs.txt
```

4. Verify the Avaya Call Management System software disc is in the disc drive.

5. Enter:

```
cd /
```

6. Enter:

```
/cdrom/cdrom0/security/cms_sec
```

The system configures your security settings. This process will take some time. The system displays the following message when the process is complete:

Avaya CMS security configuration completed: <i>date</i>

Note:

If the system displays a configuration failed message, contact your Avaya services representative.

7. Sort the output before writing the output to the file.

```
svcs -a | sort > /tmp/new_svcs.txt
```

8. Run a diff against the two listings files and search for services that need to be re-enabled.

```
diff /tmp/current_svcs.txt /tmp/new_svcs.txt
```

9. View the output from the diff command and re-enable the services that are displayed. To re-enable any customer used services enter:

```
svcadm enable <service name>
```

Service name is the third column in your listing files. You do not typically need the ":default" at the end of the service name.

Example:

```
svcadm enable svc:/network/rpc/bind
```

Note:

The files in **/tmp** directory will not be saved during the reboot process. If you feel you need to keep a copy of the files, move them to another location that is not volatile during a reboot.

10. Reboot the system by entering:

```
/usr/sbin/shutdown -i6 -g0 -y
```

Log into the system as **root**.

Updating the Solaris operating system

11. Go to [Upgrading the CMS database](#) on page 33.

Upgrading the CMS database

You must complete the procedures in the previous sections before upgrading your CMS database. Use the procedures in this section to upgrade an older CMS database to a newer CMS database.

This section includes the following topics:

- [Prerequisites](#) on page 33
- [Upgrading CMS Supplemental Services](#) on page 34
- [Removing CMS patches](#) on page 36
- [Removing the current CMS load](#) on page 37
- [Starting AOM](#) on page 39
- [Installing the new CMS load](#) on page 39
- [Installing CMS patches](#) on page 41
- [Turning off IDS](#) on page 44
- [Recreating the database schema](#) on page 45
- [Turning on CMS](#) on page 46
- [Migrating administration data and customer files to the new system](#) on page 46
- [Migrating historical data to the new system](#) on page 49
- [Starting Avaya OA data forwarders](#) on page 51
- [Preparing the Avaya Visual Vectors Server software](#) on page 51

Prerequisites

Before you perform the procedures in this section, you must:

- Read the information in [Introduction](#) on page 5
- Perform all of the required procedures in [Preparing for a database upgrade](#) on page 9
- Perform all of the required procedures in [Updating the Solaris operating system](#) on page 25
- Verify that you are logged in to the system as root.

Upgrading CMS Supplemental Services

Perform this procedure if the Supplemental Services load on the Avaya Call Management System software disc is newer than the Supplemental Services load on the CMS server.

1. To determine the current Supplemental Services load on the CMS server, enter:

```
pkginfo -x LUahl*
```

2. To determine the Supplemental Services load on the Avaya Call Management System software disc, enter:

```
more /cdrom/cdrom0/LUahl/pkginfo | grep VERSION
```

3. Perform one of the following:

- If the Supplemental Services load on the CMS server is older than the Supplemental Services load on the Avaya Call Management System disc, continue with Step 4.
- If the Supplemental Services load on the CMS server is current with the Supplemental Services load on the Avaya Call Management System disc, continue with [Removing CMS patches](#) on page 36.

4. Record the version number printed on the software disc, for use later in this procedure.

5. Load the software disc, Avaya Call Management System into the disc drive.

6. Enter:

```
pkgrm LUim
```

The system displays the following message:

```
Do you want to remove this package?[y,n,?]
```

7. Enter: **y**

The system removes the **LUim** package.

8. Enter:

```
/usr/sbin/pkgadd -d /cdrom/cdrom0 LUim
```

The system loads the new **LUim** package.

9. Enter:

```
/opt/LUim/bin/install 2>&1|tee -a /opt/LUim.log
```

10. Perform one of the following actions:

- If the system does *not* display a license agreement or questions for the SUNWexplo package, or if the system displays a message "CTEact already installed", go to Step .

- If the system does display a series of questions for the SUNWexplo package, install the package, and accept the default answers when provided. Prompts can be left blank if information is not available.

11. Enter:

/opt/cc/install/ahl.cssrXXXX.X/bin/setup

where **XXXX.X** is the version number on the Avaya Call Management System software disc.

The system displays one of the following messages:

- If no previous version is in place, the system displays a message similar to the following:

```
No previous version is in place.
enable crontab entry...
set up output log configuration...
AHL setup completed successfully.
```

- If a previous version is in place, the system displays a message similar to the following:

```
Migrating previous version ahl.cssrXXXX.X
.....
.....
.....
AHL setup completed successfully.
```

12. Enter:

/opt/cc/install/aot.cssrXXXX.X/bin/setup

where **XXXX.X** is the version number on the Avaya Call Management System software disc.

The system displays one of the following messages:

- If no previous version is in place, the system displays a message similar to the following:

```
No previous version is in place.
copy previous log files...
no log files exist for tag "LAN_Admin_Log"
linking new version...
registering server with Orbix daemon
.....
.....
.....
[786: New Connection (cms3,IT_daemon,*,root,pid=645,optimised) ]
AOM setup completed successfully.
```

- If a previous version is in place, the system displays a message similar to the following:

```
Migrating previous version aot.cssrXXXX.X
.....
.....
.....
linking new version...
```

Removing CMS patches

1. Enter:

cmssvc

The system displays the CMSSVC Menu.

2. Enter the number associated with the `back_all` option.

The system displays one of the following messages, depending on whether CMS patches are present:

- If no patches are present, the system displays a “No CMS patches” message.
- If patches are present, the system displays the following message:

```
The following patches are installed on this machine:
.
.
.
Are you sure you wish to remove all these patches? (y|n)
```

Note:

Some CMS patches might require additional steps for installation or removal. If additional steps are required, the system will display a message describing the steps you must perform. The patch installation or removal will fail until you perform the required steps. For example, a patch might require both CMS and IDS to be off.

3. Perform one of the following actions:

- If no patches are present, go to [Removing the current CMS load](#) on page 37.

- If patches are present, enter: **y**

The system removes the patches. For each patch removed, the system displays messages similar to the following:

```
Removing patch package for cmspx-s:
Patch x has been backed out.
```

When all patches have been removed, the system returns to the prompt.

Removing the current CMS load



Important:

The /cms/cmstables files will not be preserved during the R16.3 database upgrade and data migration. If these files are needed after the upgrade then a copy of the files should be made to /tmp before removing CMS. The files will need to be restored to the directory /cms/cmstables after the upgrade.

To remove the current CMS base package:

1. Load the Avaya Call Management System software disc into the disc drive.
2. Enter:

pkgrm cms

The system checks the package and displays the following message:

```
The following package is currently installed: cms Avaya
Call Management System
(sparc) rxxxxx.x
Do you want to remove this package?
```

3. Enter: **y**

```
Removing installed package instance <cms>
. . .
WARNING: This package contains scripts which will be executed with
super-user permission during the process of removing the package.

Do you want to continue with the removal of this package [y,n,?,q]
```

4. Enter: **y**

The system displays the following message:

```
Removing installed package instance <cms>
. . .
WARNING:
The <LUfaas> package depends on the  package currently being
removed.

WARNING:
The <cmsweb> package depends on the package currently
being removed.

Dependency checking failed.

Do you want to continue with the removal of this package [y,n,?,q]
```

Note:

The <LUfaas> package message might not appear if Visual Vectors is not installed on the system. The <cmsweb> package message will only appear if CMS WebClient is installed on the system.

5. Enter: **y**

The system displays the following message:

```
Verifying package dependencies.
Processing package information.
Executing preremove script

Do you want to preserve CMS data [y,n,?]
```

6. Enter: **n**

Note:

Do not preserve CMS data

The system displays the following message:

```
CMS and associated data will be removed from this machine.
Are you sure this is correct [y,n,?]
```

7. Enter: **y**

The system displays the following message:

```
Have you backed up the file systems [y,n,?]
```

8. Enter: **y**

If CMS has not been turned off, the system displays the following message:

```
CMS must be turned off in order to remove software.
Do you want to turn off CMS now?
```

9. Enter: **y**

The system removes the current CMS load and displays the following message:

```
Turning off CMS, please wait.
.....
Removal of <cms> was successful.
```

Starting AOM

To start AOM, enter:

```
aom start
```

Note:

If AOM was started automatically by the system, the system will display a message stating AOM is already on.

Installing the new CMS load

To install the new CMS database:

1. Verify the Avaya Call Management System software disc is in the disc drive.
2. Enter the following command to update the CMS related Informix files.

```
/cdrom/cdrom0/update_ids
```

3. Enter:

```
pkgadd -d /cdrom/cdrom0 cms
```

Note:

It may be necessary to enter **y** several times to continue the CMS software installation.

The system installs the CMS software and displays a message similar to the following:

```
Installing Avaya Call Management System as <cms>
.....
.....
Background installation of performance packages complete.

If CMS was installed by choosing CMS from pkgadd menu, type q and
press return to exit.

If CMS was installed using pkgadd -d /cdrom/cdrom0 cms, press
return.
```

4. Press **Enter**.

The system proceeds to install several CMS performance tool packages. When the installation is complete, the program once again displays the following message:

```
If CMS was installed by choosing CMS from pkgadd menu, type q and
press return to exit.
If CMS was installed using pkgadd -d /cdrom/cdrom0 cms, press
return.
```

Note:

If the installation procedure fails for any of the performance tools, the system displays the following message:

```
- Customers in the US should call the CMS Technical Services
Organization at 1-800-242-2121

- Customers outside the US should contact your Avaya
representative or distributor.
```

If the message shown above is displayed, continue with this procedure and the remaining CMS database upgrade procedures. When the upgrade is complete, notify your Avaya CMS support organization as prompted by the system.

5. Press the **Enter** key.

The system returns to the command prompt.

6. The system prompts you to reboot the system. Enter:

```
/usr/sbin/shutdown -i6 -g0 -y
```

The system reboots.

7. Enter:

```
pkgchk -n cms
```

If the software installation was successful, the system prompt returns to the screen after a few seconds. If you receive any error messages, call the Avaya Technical Services Organization, 1-800-242-2121, or your product distributor.

8. Enter:

```
cat /cms/install/logdir/admin.log |pg
```

The system displays part of the CMS administration log.

9. Verify that there were no errors during the installation.
10. Press **Enter** to continue the display. It might be necessary to repeat this step several times.

Installing CMS patches

To install the CMS patches:

1. Enter:

```
cmssvc
```

The system displays the CMSSVC Menu.

2. Enter the number associated with the `load_all` option.

Depending on the availability of CMS patches one of the following events occurs:

- If there are no patches to be installed, the system displays a message to that effect and returns to the system prompt.
- If there are patches to be installed, the system displays the following message:

```
Are you sure you want to install all these patches? (y|n)
```

Note:

Some CMS patches might require additional steps for installation or removal. If additional steps are required, the system will display a message describing the steps you must perform. The patch installation or removal will fail until you perform the required steps. For example, a patch might require both CMS and IDS to be off.

3. Choose one of the following actions:

- If there are no patches to be installed, continue with [Installing, Upgrading, or Removing CMS WebClient](#) on page 42.

- If there are patches to be installed, enter: **y**

The system installs the CMS patches. As the installation proceeds, the system keeps you informed of its progress, as shown in the following message:

```
Generating list of files to be patched...
. . .
Patch installation completed.
```

Installing, Upgrading, or Removing CMS WebClient

Perform this procedure if you want to install, upgrade, or remove CMS WebClient.



Important:

There are dependencies between the CMS server version and the CMS WebClient version. Maintaining incompatible versions of CMS WebClient on the CMS system can result in the failure of CMS WebClient to function properly. If customers are not using CMS WebClient, they should remove it from the CMS system to prevent incompatible versions of CMS WebClient from being turned on accidentally.

1. Verify the Avaya Call Management System software disc for your specific platform architecture (SPARC or x86), is loaded in the disc drive.
2. To determine if CMS WebClient is installed on the system, enter:

pkginfo -x cmsweb

The system displays messages similar to the following if CMS WebClient is installed on the system:

```
# pkginfo -x cmsweb
cmsweb  CMS Web Interface
        (sparc/x86) web16.Xxx.x
```

- If CMS WebClient is not installed and you do not want to install CMS WebClient, continue with [Turning off IDS](#) on page 44.
 - If CMS WebClient is installed on the system and being upgraded, continue with Step [3](#).
 - If CMS WebClient is installed but no longer used, continue with Step [4](#).
 - If CMS WebClient is being installed for the first time, continue with Step [8](#).
3. To determine the CMS WebClient version on the Avaya Call Management System software disc, enter:

more /cdrom/cdrom0/cmsweb/pkginfo | grep VERSION

- If the CMS WebClient version on the Avaya Call Management System disc is newer than the CMS WebClient version on the CMS system, then you need to upgrade CMS WebClient, continue with Step 4.
 - If the CMS WebClient version on the Avaya Call Management System disc is same or older than the CMS WebClient version on the CMS system, then you do not need to upgrade CMS WebClient, continue with [Turning off IDS](#) on page 44.
4. To stop the CMS WebClient, enter:
- ```
cmsweb stop
```
5. To remove the current CMS WebClient package, enter:
- ```
pkgrm cmsweb
```

```
Do you want to remove this package?[y,n,?]
```

6. Enter: **y**

The system displays the following messages:

```
## Removing installed package instance <cmsweb>

This package contains scripts which will be executed with super-user
permission during the process of removing this package.

Do you want to continue with the removal of this package [y,n,?,q]l
```

7. Enter: **y**

The system removes the CMS WebClient package.

- If CMS WebClient was removed because it is no longer being used, continue with [Turning off IDS](#) on page 44.
8. To install the CMS WebClient package, enter:

```
/usr/sbin/pkgadd -d /cdrom/cdrom0 cmsweb
```

The system displays messages similar to the following:

```
Processing package instance <cmsweb> from </cdrom/cms_<platformtype_XX.xxxx.g>

CMS Web Interface(sparc/x86) webXX.xx.x
Copyright (c) 2011 Avaya Inc.
All Rights Reserved

The selected base directory </opt/cmsweb> must exist before installation is
attempted.

Do you want this directory created now [y,n,?,q]
```

9. Enter: **y**

Note:

The prompt to create the /opt/cmsweb directory only occurs the first time CMS WebClient is installed on the system.

The system displays messages similar to the following:

```
Using </opt/cmsweb> as the package base directory.

## Processing package information.
## Processing system information.
  1 package pathname is already properly installed.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
permission during the process of installing this package.

Do you want to continue with the installation of <cmsweb> [y,n,?]
```

10. Enter: **y**

The system installs the new CMS WebClient package.

11. Continue with [Turning off IDS](#) on page 44.

Turning off IDS

Turn off IDS while the database is being restored.

1. Enter:

cmssvc

The system displays the CMSSVC menu.

2. Select the run_ids option.
3. Select the Turn off IDS option.

IDS will automatically be turned back on during the database restore process.

Recreating the database schema

To recreate the database:

1. Change to the root directory.

```
cd /
```

2. Enter:

```
/cms/install/bin/restore database
```

A warning message is displayed.

3. Enter: **y**

This command removes the database and recreates a new database based on the new schemas.

4. Continue with [Removing temporary ACD 1](#) on page 45.

Removing temporary ACD 1

If you created a temporary ACD 1 earlier in the process of this upgrade, you must now remove that ACD.

- If you did not add a temporary ACD 1, continue with [Turning on CMS](#) on page 46.
- If you did add a temporary ACD 1, go to Step 1.

To remove the temporary ACD 1:

1. Enter:

```
cmsadm
```

The CMS Administration menu is displayed.

2. Enter the number that corresponds to the **acd_remove** option.

3. Enter ACD 1.

A warning message is displayed.

4. Enter: **y**

5. Continue with [Turning on CMS](#) on page 46.

Turning on CMS

If CMS is not running, turn on CMS with the following commands:

1. Enter:

cmsadm

The system displays the CMSADM Menu.

2. Enter the number associated with the `run_cms` option.

The system displays the following message:

```
Select one of the following
1) Turn on CMS
2) Turn off CMS but leave IDS Running
3) Turn off CMS
Enter choice (1-3):
```

3. Enter: **1**

The system starts CMS and returns to the command prompt.

4. You must now migrate your data. See [Migrating administration data and customer files to the new system](#) on page 46.

Starting CMS WebClient

To start the CMS WebClient, enter:

cmsweb start

Migrating administration data and customer files to the new system

The process of migrating the administration data and customer files consists of the following procedure:

- [Migrating system administration data to the new system](#) on page 47
- [Migrating agent and call center administration data to the new system](#) on page 48

Migrating system administration data to the new system

This procedure supports the standard like-for-like ACD migration from the old system to a new system. That is, ACD 1 migrates to ACD 1, ACD 2 migrates to ACD 2, ACD 3 migrates to ACD 3, and so on. Any variations on this standard migration scheme are supported by CSI in the United States or the International CSI or COE outside of the United States.

**CAUTION:**

Perform this procedure only once! Attempting to migrate system administration data more than once causes *catastrophic errors* from which you are unable to recover. Failure to heed this warning can *irretrievably destroy data*.

To migrate the system administration data:

1. Log on to CMS.

The system displays the CMS main window.

2. From the CMS main menu, select **System Setup > CMS State > Single-user mode** to put CMS into single-user mode.
3. Insert the full maintenance backup tape created earlier into the tape drive.
4. From the CMS main menu, select **System Setup > R3 Migrate Data**.

The **R3 Migrate Data** window is displayed.

5. In the **R3 Migrate Data** window, enter the values and select the options that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Data Type	System Administration data
Specify ACD(s)	All ACDs

6. Press **Enter** to access the action list in the top right corner.
7. Select **Run** and press **Enter**.

The system displays the progress of the migration in the **Status:** field. When the migration ends, the system indicates the success or failure of the migration in this field.

If the following message is displayed, select **y**

Migration for this data type has been partially run or successfully completed before, but the tape(s) containing the migration data was not the same as the one currently in the tape drive. Do you want to run the migration using the tape in the drive?
(Note: For System Administration data, rerun of migration will not override any previously migrated data.)
Enter y or Y for yes, n or N for no:

Note:

After the migration is complete, you will receive a message if the migration of any custom reports fail. Information about the failed reports are written to the **r3mig.log** file. After you acknowledge the message, contact CSI to have the custom report migrated to the new system.

8. Press **F3** (Commands) and select the **UNIX** option to display the UNIX prompt.
9. Enter:

pg /cms/migrate/r3mig.log

This command displays the customer migration log.

10. Look at the contents of the customer migration log and take any necessary corrective action. Note that the migration log file can be large. For help with interpreting the log, contact technical support or your customer representative.
11. To exit the UNIX window, enter:
exit

Migrating agent and call center administration data to the new system

To migrate agent and call center administration data:

1. Verify that the full maintenance backup tape created earlier is in the tape drive.
2. From the CMS main menu, select **System Setup > R3 Migrate Data**.

The **R3 Migrate Data** window is displayed.

3. In the **R3 Migrate Data** window, enter the values and select the options that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Data Type	Agent/Call Center Admin data
Specify ACD(s)	All ACDs

4. Press **Enter** to access the action list in the top right corner.

5. Select **Run** and press **Enter**.

The system displays the progress of the migration in the **Status:** field. When the migration ends, the system indicates the success or failure of the migration in this field.

6. Press **F3** (Commands) and select the **UNIX** option to display the UNIX prompt.

7. Enter:

```
pg /cms/migrate/r3mig.log
```

This command displays the customer migration log.

8. Look at the contents of the customer migration log and take any necessary corrective action. Note that the migration log file can be large. For help with interpreting the log, contact technical support or your customer representative.
9. To exit the UNIX window, enter:

```
exit
```

Migrating historical data to the new system

This document supports the standard like-for-like ACD migration from the old system to a new system. That is, ACD 1 migrates to ACD 1, ACD 2 migrates to ACD 2, ACD 3 migrates to ACD 3, and so on. Any variations on this standard migration scheme are supported by CSI in the United States or the International CSI or COE outside the United States.



Important:

If the /cms/cmstables files were preserved before the upgrade then restore the files to the /cms/cmstables directory.

To migrate historical data to the new system:

1. Log on to CMS.

The system displays the CMS main menu.

2. Verify that the full maintenance backup tape created earlier is in the tape drive.
3. From the CMS main menu, select **System Setup > R3 Migrate Data**.

The **R3 Migrate Data** window is displayed.

4. Enter the values and select the options that are indicated in the following table:

Field	Value to enter or option to select
Device name	The tape drive device name
Data type	Historical data
Stop date	Leave blank
Stop time	11:59 PM
Specify ACD(s)	All ACDs (or a specific ACD if not moving all ACDs)

5. Press **Enter** to access the action list in the top right corner.
6. Select **Run** and press **Enter**.

The system displays the progress of the migration in the **Status:** field. When the migration ends, the system indicates the success or failure of the migration in this field.

Note that a full historical migration can take several hours. It runs in the background, however, so you can exit the migration window and perform other tasks. If you do that, bring up the migration window periodically to check on the progress.

7. Press **F3** (Commands) and select the UNIX option to display the UNIX prompt.
8. Enter:

```
pg /cms/migrate/r3mig.log
```

This command displays the customer migration log.

9. Look at the contents of the customer migration log and take any necessary corrective action. Note that the migration log file can be large. For help with interpreting the log, contact technical support or your customer representative.
10. Repeat this procedure using the incremental backup tape if one was created.
11. To exit the UNIX window, enter:
exit

Starting Avaya OA data forwarders

If the CMS configuration includes data collection by Avaya OA, turn on all Avaya OA forwarders on the CMS server using the **pa start all** command. For more information about Avaya OA forwarders, see *Avaya OA Maintenance and Troubleshooting*.

Preparing the Avaya Visual Vectors Server software

If you are not using Visual Vectors, go to [Completing the database upgrade process](#) on page 57.

If you are using Visual Vectors, perform this procedure if the Visual Vectors load on the Avaya Call Management System software disc is newer than the Visual Vectors load on the CMS server.

1. To determine the current Visual Vectors load on the CMS server, enter:

```
pkginfo -x LUfaas
```

2. To determine the Visual Vectors load on the Avaya Call Management System software disc, enter:

```
more /cdrom/cdrom0/LUfaas/pkginfo | grep VERSION
```

3. Perform one of the following:
 - If the Visual Vectors load on the CMS server is older than the Visual Vectors load on the Avaya Call Management System disc, continue with [Removing the Avaya Visual Vectors Server software](#) on page 52.
 - If the Visual Vectors load on the CMS server is current with the Visual Vectors load on the Avaya Call Management System disc, go to [Turning on Avaya Visual Vectors](#) on page 54.

Recording Visual Vector Server authorization data

Record this information so you can readminister the correct values after the upgrade.

1. Enter:

setupaas

The system displays the Avaya Visual Vectors System Services Menu.

```
Select a command from the list below.  
1) init_vvs Setup the initial configuration  
2) run_vvs Turn VVS on or off  
3) auth_display Display simultaneous VVS logins  
4) auth_set Change simultaneous VVS logins  
5) backup Backup vector steps and layout files  
6) restore Restore vector steps and layout files  
Enter choice (1-6) or q to quit:
```

2. Enter the number associated with the `auth_display` option.
Record the authorization data.

Removing the Avaya Visual Vectors Server software

To remove the Avaya Visual Vectors Server software:

1. Verify the Avaya Call Management System software disc is in the disc drive.
2. Enter:
pkgrm LUfaas
For each package, the system will display at least two messages asking for confirmation to continue the removal.
3. Enter **y** each time you receive messages asking for confirmation to continue the removal.
When the last package is removed, the system returns to the command prompt.
4. Go to [Installing the Avaya Visual Vectors Server software](#) on page 52.

Installing the Avaya Visual Vectors Server software

To install or upgrade the Avaya Visual Vectors Server software:

1. Enter:
aom stop
2. Verify the Avaya Call Management System software disc is in the disc drive.

3. Enter:

pkgadd -d /cdrom/cdrom0 LUfaas

The system displays the following message:

```
Processing package instance <LUfaas> from </cdrom/untitled>

Visual Vectors Server Software
(sparc) vvsXX.X

.....
.....
.....

Do you want to continue with the installation of <LUfaas> [y,n,?]
```

Note:

You might receive messages about installing conflicting files. Enter **y** to install the files and continue with the installation.

4. Enter: **y**

The system displays the following message:

```
Installing Visual Vectors Server Software as <LUfaas>

.....
.....
.....

Installation of <LUfaas> was successful.
```

5. Enter:

setupaas

The system displays the Avaya Visual Vectors System Services Menu.

```
Select a command from the list below.
1) init_vvs Setup the initial configuration
2) run_vvs Turn VVS on or off
3) auth_display Display simultaneous VVS logins
4) auth_set Change simultaneous VVS logins
5) backup Backup vector steps and layout files
6) restore Restore vector steps and layout files
Enter choice (1-6) or q to quit:
```

Enter the number associated with the `init_vvs` option.

The system displays the following message:

6. Enter the login number recorded in [Go to Installing the Avaya Visual Vectors Server software on page 52.](#)

7. Enter:
aom start
8. Go to [Turning on Avaya Visual Vectors](#) on page 54.

Turning on Avaya Visual Vectors

To turn on the Avaya Visual Vectors software:

1. Enter:
setupaas
The system displays the Avaya Visual Vectors Server System Services Menu.
2. Enter the number associated with the `run_vvs` option.
3. Enter the number associated with the `Turn VVS On` option.
4. Enter:
eject cdrom
5. Verify that AOM is on. For more information, see [Starting AOM](#) on page 39
6. Go to [Authorizing ODBC Connections](#) on page 54.

Authorizing ODBC Connections

Beginning with R16.2 CMS ODBC connections must be authorized using the `auth_set` command. The customer purchase order will be needed to determine the number of ODBC connections authorized.

1. Use the customer purchase order to determine the number of ODBC connections authorized.
2. Enter:
cmssvc
The system displays the CMSSVC menu.
3. Enter the number for the `auth_set` option.
The system displays the following message:
Password:
4. Enter the appropriate password

Note:
This password is available only to authorized personnel.

5. The current authorization for each CMS feature will be displayed, press Enter to accept the current value.
6. Repeat Step 5 until the ODBC connection feature is displayed, as shown below:

Enter the number of authorized ODBC connection (0-10): (default: 0)

7. Enter the number of ODBC connections purchased by the customer, from Step 1.
The system displays the command prompt.

Note:

You can verify the authorizations by using the `auth_display` option of the **cmsvc** command.

8. Go to [Completing the database upgrade process](#) on page 57.

Completing the database upgrade process

You must perform the procedures in this section to complete the CMS database upgrade process.

This section includes the following procedures:

- [Performing a backup of the system files](#) on page 57
- [Performing a backup of the CMS data](#) on page 57

Performing a backup of the system files

After the database upgrade has completed successfully, perform a backup to create a reliable copy of the computer system files. For instructions on how to backup the system files, see [Backing up your system data](#) on page 18.

Performing a backup of the CMS data

After the database upgrade has completed successfully, perform a backup to create a reliable copy of the computer CMS data files. For instructions on how to backup the CMS data, see [Backing up your CMS data](#) on page 19.

