



## Upgrading and Downgrading the Software

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This chapter explains how to upgrade or downgrade your software and contains the following sections:

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- [Obtaining a Software Image File from Cisco.com, page 15-3](#)
- [Upgrading from ACNS 5.x Software to ACNS 5.x Software, page 15-3](#)
- [Upgrading and Downgrading a Standby Content Distribution Manager, page 15-10](#)
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- [Upgrading from ACNS 4.x Software to ACNS 4.2 Software, page 15-13](#)
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### Upgrade, Downgrade, and Interoperability Requirements

In general, an ACNS network will be upgraded in a rolling fashion, so that your network might consist of nodes with different software versions for some time. You can expect the following behavior during an upgrade or downgrade of your network:

- The ACNS network continues to operate with mixed versions up to one major or minor version difference in a deployed solution.
- New features that depend on device cooperation might not be fully functional until the ACNS network upgrade is complete, but no existing features will be affected.
- While being upgraded, a node will be unavailable for a short time.
- All nodes, other than the node being upgraded, continue to operate at full capacity. The availability of other nodes is not affected during an upgrade.
- Content is preserved during an upgrade or downgrade unless channels are removed or the **disk** and **database cleanup** commands are used.
- All logs are preserved during an upgrade or downgrade.

## Upgrade Requirements

The following ACNS software release upgrades can be performed:

- Any ACNS 4.2.x release (except ACNS 4.2.1) to any ACNS 5.1.x release
- Any ACNS 5.x.x release to any ACNS 5.x.x release

## Downgrade Requirements

ACNS software release downgrades can be performed, as follows:

- ACNS 5.x.x release to ACNS 4.2.x
- ACNS 5.1 release to ACNS 5.0.3 release
  - After the downgrade, ACNS 5.1-specific features will not work (for example, NTLM authentication)
  - MMS content acquired by the ACNS 5.1 Content Engine remains and can be served by the Content Engine after the downgrade; however, the ACNS 5.0.3 Content Engine cannot reacquire MMS content.
- ACNS 5.1 to ACNS 5.0.1 release (not recommended)
 

This downgrade requires that the management database tables be manually re-created using the CLI.
- Any ACNS 5.x.x release to any ACNS 5.x.x release

## Interoperability Requirements



### Note

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Devices in an ACNS network cannot differ by more than one major or minor software version.

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ACNS software releases interoperate with each other in a mixed deployment, as follows:

- Any ACNS 5.0.x Content Engine with any other ACNS 5.0.x Content Engine
- Any ACNS 5.0.x Content Engine with any other ACNS 5.1 Content Engine
- Any ACNS 5.1 Content Engine with any other ACNS 5.1 Content Engine



### Note

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ACNS 4.x software releases do *not* interoperate with ACNS 5.x software releases.

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Content Engines running ACNS 5.0.1, 5.0.3, and 5.1 software acting in various roles such as root Content Engine, forwarder, receiver, and multicast sender, may interoperate with each other in any combination on basic functionalities that are common to all releases. If a chain of forwarders passes content from a Content Engine running ACNS 5.1 software to a Content Engine running ACNS 5.0 software, and then to another Content Engine running ACNS 5.1 software, the ACNS 5.1 software features are preserved across the chain to the third Content Engine.

For example, if a higher-version forwarder is sending content to a lower-version receiver, the extra database columns are converted to a name-value pair in the metadata field and are transmitted. The lower-version receiver ignores the metadata, but still writes it into the database and passes it on to receivers farther down the chain. Hence if a receiver further down the chain is running the higher-version software, it picks up the metadata and the functionality along with it.

However, features available to a newer release do not work with other Content Engines that are running older releases. For example, a multicast backup sender (an ACNS 5.1 feature) does not work with multicast receivers running ACNS 5.0 software.

The multicast backup sender functions only when the receivers detect that the primary sender is down and send multicast file download requests (called NACKs) to the backup sender. Hence, if a network has no ACNS 5.1 multicast receivers, even if it does have a multicast backup sender, the backup sender cannot become active.

Similarly, the intelligent carousel feature relies on the multicast receiver to send file requests to the multicast sender. Only receivers running ACNS 5.1 software are capable of making such requests. In a mixed network, a receiver Content Engine running ACNS 5.0 software can, however, receive the file transmission that was requested by the receiver running ACNS 5.1 software.

## Obtaining a Software Image File from Cisco.com

To obtain a software image file from Cisco.com, follow these steps:

- 
- Step 1** Launch your preferred web browser and point it to:  
<http://www.cisco.com/kobayashi/sw-center/sw-content.shtml>
  - Step 2** When prompted, log in to Cisco.com using your designated username and password. The Software Center window appears.
  - Step 3** Choose a link to the Content Networking Software product that you want.  
The Software Download window appears, listing the available software images for that software product.
  - Step 4** Locate the software image that you wish to download by consulting the Release column for the proper release version of the software.
  - Step 5** Click the link for the software image file that you want. The Software Download window refreshes, providing a link to the license agreement. Click the **Software License Agreement** link.
  - Step 6** After you have read the license agreement, right-click the software image file link to download the software and use the **Save Link As** or the **Save Link Target As** option to save the file to your FTP or HTTP server.
- 

## Upgrading from ACNS 5.x Software to ACNS 5.x Software

To upgrade or downgrade from one ACNS 5.x software release to another ACNS 5.x software release, choose between using the Content Distribution Manager GUI or the CLI.

From the Content Distribution Manager GUI, you can:

- Determine the current version of ACNS software.
- Register a meta file containing the update file URL in the Content Distribution Manager.
- Perform a software update for Content Engines and Content Routers in your ACNS network.

From the CLI, you can:

- Determine the current version of ACNS software.
- Perform a software update for individual Content Distribution Managers, Content Engines, and Content Routers.

## Determining the Current Software Version

To determine the current ACNS software version from the Content Distribution Manager GUI, follow these steps:

- 
- Step 1** To view the current software version running on the Content Distribution Manager, choose **Devices > CDM**.
- Step 2** Click the **Edit** icon next to the name of the device. The Modifying Content Distribution Manager window appears, listing the software version.
- Step 3** To view the current software version running on a Content Engine, choose **Devices > Content Engines**.
- Step 4** Click the **Edit** icon next to the name of the Content Engine. In the Contents pane, choose **CDN Settings > Status**. The software version number is displayed under the Device Information heading.
- Step 5** To view the current software version running on a Content Router, choose **Devices > Content Routers**. Click the **Edit** icon next to the name of the Content Router and choose **CDN Settings > Status**.




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**Note** The software version is not updated until a software upgrade has been successfully completed. If a software upgrade is in progress, the version number displayed is the base version, not the updated version number.

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- Step 6** Alternatively, in the Contents pane for any given device, choose **Show/Clear Commands > Show Commands**. Choose **version** and click **Submit**. A secondary window pops up and displays the CLI output for the **show version** command.
- 

To determine the current ACNS software version from the CLI, use the **show version EXEC** command.

## Registering a Software Update File

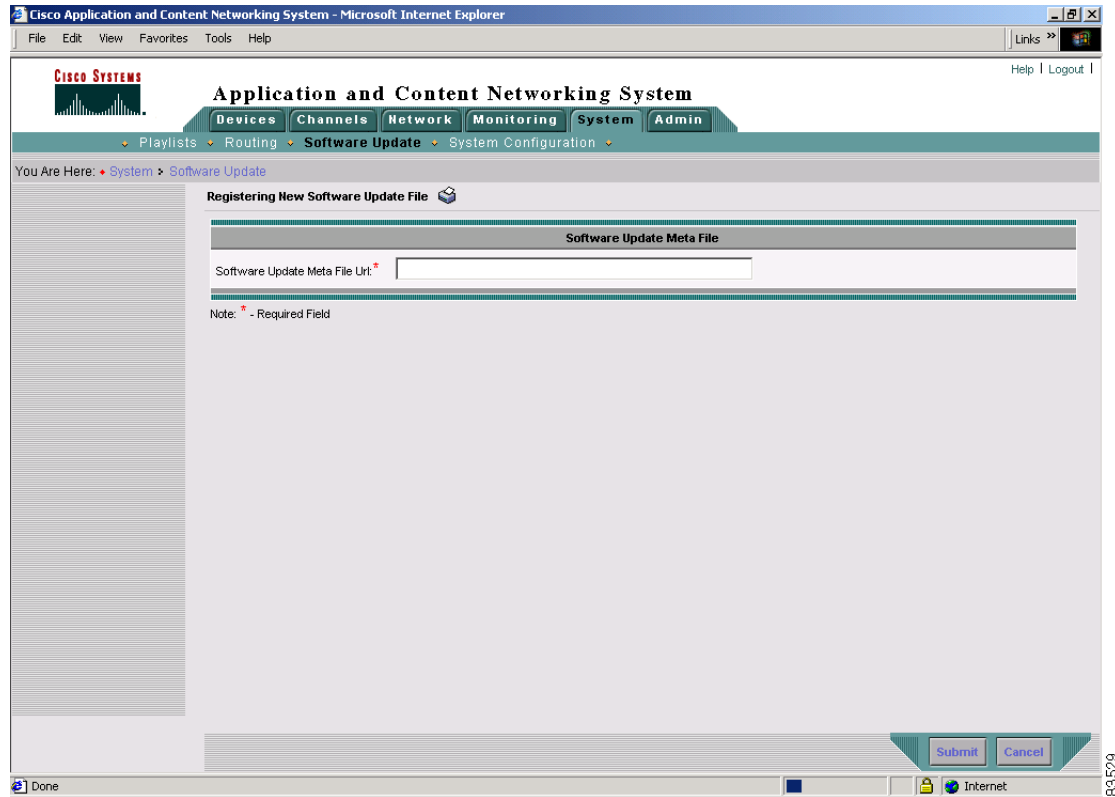
To upgrade software using the Content Distribution Manager GUI, you must first register the URL of a software update meta file in the Content Distribution Manager. A *meta* file contains a pointer to the software image that you want to register for updating your device, as well as other descriptive information (see [Table 15-1](#) for a description of meta file contents).

To enter the software update meta file URL, follow these steps:

- 
- Step 1** Launch the Content Distribution Manager and log in using an administrative username and password.
- Step 2** From the Content Distribution Manager GUI, choose **System > Software Update**. The Software Update File Registration window appears.

- Step 3** To register a new software update file, click the **Add Software Update File** icon. The Registering New Software Update File window appears. (See [Figure 15-1](#).)

**Figure 15-1 Registering New Software Update File Window**



- Step 4** Paste the URL for the update meta file on your web server into the field provided. (See the “[Sample Meta File](#)” section on page 15-6 for a sample meta file and field descriptions.) For example, a valid URL might look like this:

`http://internal.mysite.com/cdn/ACNS-version.meta`

where *ACNS-version* is the version number of the software upgrade.



**Note** Do not attempt to link directly to the software image (.upg or .bin file). The relative location of the software image is provided by the meta file.

- Step 5** Click **Submit**.

The software image that you want to use is now registered in the Content Distribution Manager. When you perform the software update, the update meta file URL that you just registered becomes one of the choices available in the Update Software window. (See [Figure 15-2](#).)

**Note**

The update meta file URL remains the same even if the software image that it points to has been changed on your web server, such as for a patch release. When you attempt to register the new software update meta file, the GUI rejects it because the update meta file appears to be already registered. This occurs because the update meta file URL is the same, even though other contents of the meta file might have changed. Therefore, to update a previously registered update meta file, you must first delete the existing entry and then register the new update meta file.

To remove a registered update meta file, follow these steps:

- 
- Step 1** From the Content Distribution Manager GUI, choose **System > Software Update**. The Software Update File Registration window appears.
- Step 2** Click the **Edit** icon next to the target update file. The Modifying Software Update File window appears.
- Step 3** Click the **Trash** icon.
- Step 4** At the prompt, click **OK** to confirm your decision.
- You can now register the new software update meta file.
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## Sample Meta File

The following is an example of a meta file for upgrading between ACNS 5.x software releases.

```
updateFileSize=97205475
version= 5.0.0.b.26
description= testing
updateFileUrl= ftp://myserver.mycorp.com/ACNS-5.0.3-K9.bin
user=myuserid
password=mypasswrld@mycorp.com
```

Table 15-1 describes the meta file line items.

**Table 15-1 Meta File Line-Item Descriptions**

Field	Description
updateFileSize	Size of the image file in bytes.
version	Target software version to which you want to upgrade or downgrade.
description	Comments about the meta information. (Optional.) These comments are displayed in the Content Distribution Manager GUI.
updateFileURL	URL of the image location. This can be either an FTP URL or an HTTP URL.  <b>Note</b> For HTTP URLs, authenticated servers are not supported, and only port 80 is supported.
user	Login username. (Applies only to FTP URLs.)
password	Login password. (Applies only to FTP URLs.)

The following sample meta file is for downgrading to ACNS 4.2 software from an ACNS 5.x software release.

```
updateFileSize=97205475
version= 4.2.0.b.1
description= testing
updateFileUrl= ftp://myserver.mycorp.com/ACNS-5.x.x-TO-4.2.1-K9.bin
user=myuserid
password=mypasswrld@mycorp.com
CDM-IP=1.1.1.1
```

The CDM-IP field is the IP address of an ACNS 4.x Content Distribution Manager after the image is downgraded to ACNS 4.x. (This field is optional and applies only for downgrades to ACNS 4.x software.) After the downgrade, the Content Engine registers to the Content Distribution Manager with the IP address specified in this field.

## Upgrading or Downgrading Using the Content Distribution Manager GUI

You can upgrade software on your Content Engines and Content Routers using the Content Distribution Manager GUI. When upgrading, begin with Content Engines and Content Routers before upgrading the Content Distribution Manager.

The Content Distribution Manager reboots at the conclusion of the upgrade procedure, causing you to temporarily lose contact with the device and the graphical user interface.

Once the Content Distribution Manager has upgraded its software and rebooted, it may be unable to communicate with devices running different versions of the ACNS software.



### Note

ACNS 5.x software does not support upgrading the Content Distribution Manager using the Content Distribution Manager GUI. To upgrade the Content Distribution Manager, follow the procedure in the [“Upgrading or Downgrading Using the CLI”](#) section on page 15-9.

To upgrade from one ACNS 5.x software release to another ACNS 5.x software release on your Content Engines and Content Routers, follow these steps:

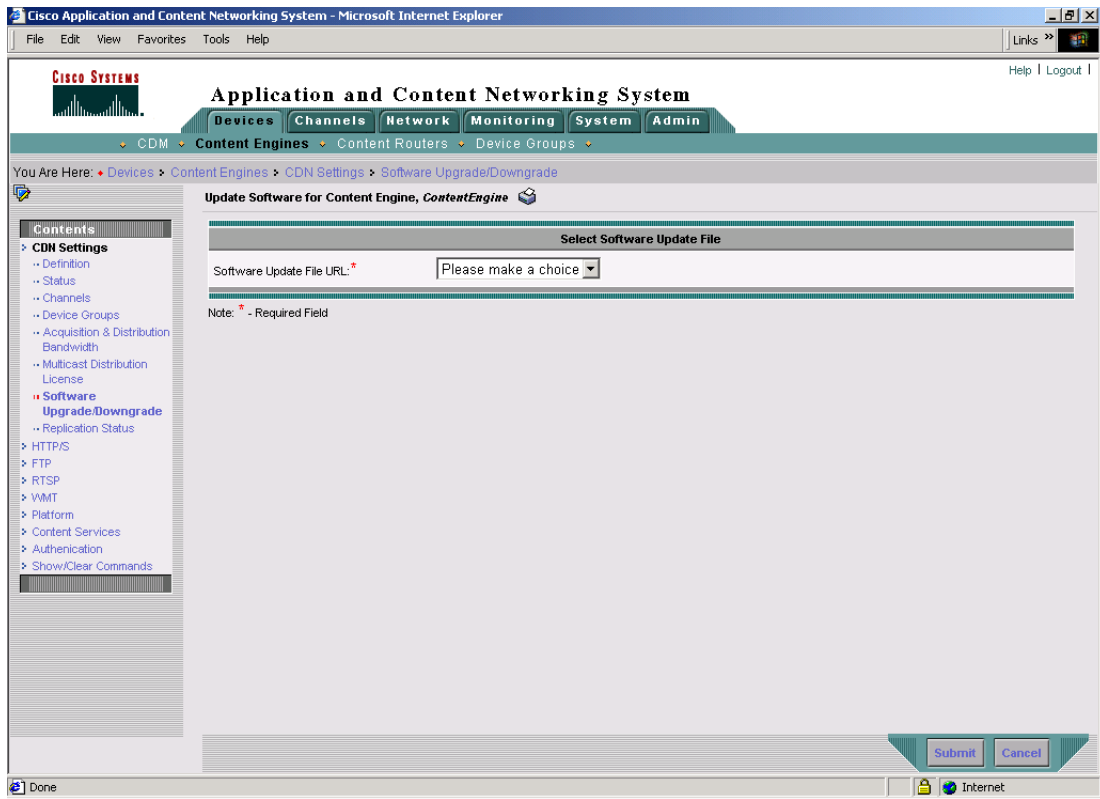
- Step 1** From the ACNS 5.x software Content Distribution Manager GUI, choose **Devices > Content Engines**. The Content Engines window appears, listing all the Content Engines in your ACNS network.  
For Content Routers, choose **Devices > Content Routers**. The Content Routers window appears.
- Step 2** Click the **Edit** icon next to the name of the device and click **Status** in the Contents pane to check the software version. Verify that the devices you are choosing are not already running the version that you plan to upgrade to, and that the current version has an upgrade path to the version that you plan to upgrade to.
- Step 3** In the Contents pane, choose **CDN Settings > Software Upgrade/Downgrade**. The Update Software window appears. (See [Figure 15-2](#).)



### Note

Always upgrade Content Engines and Content Routers before you upgrade the associated Content Distribution Manager.

Figure 15-2 Update Software Window



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- Step 4** Choose the meta file URL from the drop-down list.
- Step 5** Click **Submit**.
- Step 6** To view progress on an upgrade, go to the Content Engines or Content Routers window. (See [Step 1](#).) Software update status messages are displayed in Software Version column. These intermediate messages are also written to the system log on Content Engines.

[Table 15-2](#) shows the status update messages that are displayed in the Software Version column in the Content Engines window on the Content Distribution Manager GUI during requests for pre-positioned image files for software updates.

**Table 15-2 Channel Update Status Messages**

Condition	Update Status Message
The URL has been determined to be for a pre-positioned image file.	Proceeding with Prepositioned Download
A request for a pre-positioned image file has been made and is being processed. “Completed” indicates the number of megabytes processed.	Prepositioned Download in Progress (Completed ...)
A request for a pre-positioned image file was processed successfully.	Prepositioned Download Successful
A request for a pre-positioned image file was not able to be processed. Troubleshooting is required.	Prepositioned Download Failed

**Note**

The channel update status messages are meant only for pre-positioned image files for software updates. These messages will be displayed only when software update is in progress.

For more information on the status of software upgrades on devices across your ACNS network, see the [“Using the System Message Log”](#) section on page 17-22.

## Deleting an Upgrade File

To delete an ACNS software upgrade file, follow these steps:

- Step 1** In the Update Software window (see [Figure 15-2](#)), if there are multiple upgrades to choose from, click the button next to the upgrade file that you want to delete. Otherwise, proceed to the next step.
- Step 2** Click **Delete**. You are prompted to confirm your decision to delete the software upgrade file.
- Step 3** Click **OK**. You are returned to the Software Update window with the selected software update removed from the ACNS network.

## Upgrading or Downgrading Using the CLI

To use the CLI to perform an upgrade, you need the following items:

- FTP or HTTP server with the upgrade package files
- Network connectivity between the device to be upgraded and the server hosting the upgrade files
- Appropriate .bin upgrade or downgrade package file:
  - ACNS-5.x.x-K9.bin

To install the upgrade or downgrade package file using the CLI, follow these steps:

- Step 1** Install the upgrade or downgrade package file by using the **copy ftp install** command or the **copy http install** command:

```
CE# copy ftp install ftp-server package-file-path package-file-name
```

```
CE# copy http install http-server package-file-path package-file-name [portnumber]
```

- Step 2** If you want to keep a local copy of the software image on your Content Engine, you can use the **copy ftp disk** command and then use the **install** command. For example:

```
CE-507# copy ftp disk ACNS-5.x.x-K9.bin
```

```
CE-507# install ACNS-5.x.x-K9.bin
```

When the **install** command is executed, the image file is expanded. The expanded files overwrite the existing files in the Content Engine. The newly installed version takes effect after the system image is reloaded.




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**Note** The **install** command does not accept .pax files. Files should be of the type .bin (for example, ACNS-5.x.x-K9.bin).

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**Step 3** After the package files are copied to your system, use the **reload** command to reboot.

```
CE# reload
```

The installation process continues automatically after the reboot. No further work is required.

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## Upgrading and Downgrading a Standby Content Distribution Manager

Cisco ACNS software implements a standby Content Distribution Manager feature that allows a second Content Distribution Manager to receive updates from a primary Content Distribution Manager and therefore maintain a copy of the ACNS network configuration. If the primary Content Distribution Manager fails, the standby can be used to replace the primary.

For interoperability, when a standby Content Distribution Manager is used, it must be at the same software version as the primary Content Distribution Manager in order to maintain the full Content Distribution Manager configuration.

When upgrading an ACNS network containing a standby Content Distribution Manager, use the following procedure:

- 
- Step 1** Stop the standby Content Distribution Manager using the **no cms enable** command.
  - Step 2** Stop the primary Content Distribution Manager using the **no cms enable** command. Stopping the Content Distribution Manager does not affect the other ACNS network content request or content pre-positioning services.
  - Step 3** Install the new software version on the primary Content Distribution Manager using the **copy ftp install {hostname | ip-address} remotefiledir remotefilename EXEC** command.  
The primary Content Distribution Manager will reboot as part of the installation procedure.
  - Step 4** After the reboot, it is best to copy to a safe place the Content Distribution Manager database backup that is made as part of the software upgrade. These backups are made in the /local/local1 directory and have a .dump file extension. These files can be copied to another location using the **copy ftp disk {hostname | ip-address} remotefiledir remotefilename localfilename EXEC** command.
  - Step 5** Restart the Content Distribution Manager using the **cms enable** command.
  - Step 6** Ensure that the status of devices is “online” in the Content Distribution Manager device lists and that the ACNS network is working with the new Content Distribution Manager software.
  - Step 7** Upgrade the standby Content Distribution Manager using the **copy ftp install {hostname | ip-address} remotefiledir remotefilename** command.  
The standby Content Distribution Manager will reboot as part of the installation process.
  - Step 8** Restart the standby Content Distribution Manager using the **cms enable** command.
-

When downgrading a Content Distribution Manager, you must restore a previous database backup before installing the downgraded software version. Use the following procedure to downgrade a Content Distribution Manager:

- 
- Step 1** If there is a standby Content Distribution Manager, stop it using the **no cms enable** command.
  - Step 2** Stop the primary Content Distribution Manager using the **no cms enable** command. Stopping the Content Distribution Manager does not affect the other ACNS network content request or content pre-positioning services.
  - Step 3** Use the **cms database backup** command to back up the existing primary Content Distribution Manager database if you wish to retain the current configuration data. This action creates a database .dump file in the /local/local1 directory.
  - Step 4** Once the backup is complete, the existing database must be cleared of all tables present in it. Use the **cms database delete** command to delete the embedded database files.
  - Step 5** Restore the database backup that matches the version of the downgraded software to the primary Content Distribution Manager using the **cms database restore filename** command. This database backup must be present on the Content Distribution Manager to use the **cms database restore filename** command. When the Content Distribution Manager is upgraded, a database backup .dump file will be created in the /local/local1 directory. To copy the database backup file to the device, use the **copy ftp disk {hostname | ip-address} remotefiledir remotefilename localfilename** command.
  - Step 6** Install the downgraded software version on the primary Content Distribution Manager, using the **copy ftp install {hostname | ip-address} remotefiledir remotefilename EXEC** command. The primary Content Distribution Manager will reboot as part of the installation procedure.
  - Step 7** After the reboot, restart the CMS processes using the **cms enable command**.
  - Step 8** If there is a standby Content Distribution Manager, create a database backup of the existing database by using the **cms database backup** command. This will create a database .dump file in the /local/local1 directory.
  - Step 9** Install the downgraded software version on the standby Content Distribution Manager using the **copy ftp install {hostname | ip-address} remotefiledir remotefilename EXEC** command. The software version must match the version of the primary Content Distribution Manager. The standby Content Distribution Manager will reboot as part of the installation procedure.
  - Step 10** After the reboot, the CMS database must be re-created so that the database definition matches the version of the software. To do this, first use the **cms database delete** command to remove the old software version database. Then run the **cms database create** command to create the matching database definition.
  - Step 11** Restart the CMS on the standby Content Distribution Manager using the **cms enable** command. The standby Content Distribution Manager will request a full data update from the primary Content Distribution Manager.
- 

## Migrating from ACNS 4.2 Software to ACNS 5.x Software

If you are upgrading a device that is operating as part of an ACNS network or if you are migrating an entire network to ACNS 5.x software, you must carefully follow the migration procedure that is documented in the *Cisco ACNS Software Migration Guide, Release 5.x*. This document is available online at the following URL:

[http://www.cisco.com/en/US/products/sw/conntsw/ps491/products\\_getting\\_started\\_guides\\_list.html](http://www.cisco.com/en/US/products/sw/conntsw/ps491/products_getting_started_guides_list.html)

**Note**

Cisco Systems currently supports two migration options for your network. The first option requires you to shut down your ACNS network and convert the entire network to ACNS 5.x software. The second option allows you to continue operating your ACNS network while you perform a gradual migration to ACNS 5.x software.

In deciding which option to use, you should consider the performance requirements of your network and what additional equipment might be required to complete the network migration method you choose.

To upgrade from a previous release of ACNS software to ACNS 5.x software, you must be running ACNS 4.2 software or a later version of ACNS 4.x software. If you are running ACNS 4.1.3 or an earlier version of ACNS software, you must first upgrade your software to ACNS 4.2 before you can upgrade to ACNS 5.x software. (See the “[Upgrading from ACNS 4.x Software to ACNS 4.2 Software](#)” section on page 15-13.)

If you are running Cache software or E-CDN software, first upgrade to ACNS 4.2 software and then upgrade to ACNS 5.x software. For these upgrade instructions, refer to the *Cisco ACNS Software Maintenance and Troubleshooting Guide* that is available online at the following URL:

[http://www.cisco.com/en/US/products/sw/conntsw/ps491/products\\_maintenance\\_guides\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/conntsw/ps491/products_maintenance_guides_books_list.html)

**Note**

Upgrading from Internet CDN (ICDN) software to ACNS software is *not* supported.

**Note**

When upgrading from ACNS 4.2 software to ACNS 5.x software, any ecdnfs file systems are automatically changed to cdnfs file systems. Files are not deleted unless the administrator specifically deletes them.

## Upgrading a Standalone ACNS 4.2 Content Engine or Content Router to ACNS 5.x Software

This section describes how to upgrade from ACNS 4.2 software to ACNS 5.x software on a device that is *not* operating as part of an ACNS network. After performing this upgrade procedure, you must manually configure the device and register it with the Content Distribution Manager before it can join the ACNS 5.x network, or else it can operate as a standalone caching device.

To perform an upgrade from ACNS 4.2 software to ACNS 5.x software on a Content Engine or Content Router that is not operating as part of an ACNS 4.2 ACNS network, you need the following items:

- FTP or HTTP server with the upgrade package files
- Network connectivity between the device to be upgraded and the server hosting the upgrade files
- Appropriate .bin upgrade file:  
ACNS-4.2.x-TO-5.x.x-K9.bin

To install the upgrade file, follow these steps:

**Step 1** Install the upgrade package file by using the **copy ftp install** command or the **copy http install** command:

```
Device# copy ftp install ftp-server package-file-path package-file-name
```

```
Device# copy http install http-server package-file-path package-file-name [portnumber]
```

**Step 2** After the package files are copied to your system, use the **reload** command to reboot.

```
Device# reload
```

The standalone Content Engine or Content Router is now running ACNS 5.x software.

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After this upgrade procedure, the device needs to be manually configured and registered with the Content Distribution Manager before it can join the ACNS 5.x network. (See [Chapter 3, “Configuring and Registering ACNS Network Devices.”](#))

If you wish to connect the standalone Content Engine to an ACNS 5.x network, follow these steps:

---

**Step 1** In the Content Engine CLI, configure the IP address of the Content Distribution Manager for the ACNS network by using the **cdm ip** command.

```
ContentEngine(config) cdm ip cdmIPAddress
```

**Step 2** Enable the Centralized Management System (cms).

```
ContentEngine(config)# cms enable
```

**Step 3** Write the current configuration to memory.

```
ContentEngine# write memory
```

---

After you upgrade from ACNS 4.2.x software to ACNS 5.x software, we strongly recommend that you reconfigure the Content Engine for Network Time Protocol (NTP) to ensure that the system clock on the Content Engine is synchronized with the NTP time server clock. This can be done on the Content Engine by using the **ntp server** {ip-address | hostname} global configuration command or by using the Content Distribution Manager GUI. (See the [“Configuring NTP Settings”](#) section on page 16-4.)

## Upgrading from ACNS 4.x Software to ACNS 4.2 Software

Cisco ACNS 5.x software introduces significant changes from the functionality of ACNS 4.2 software. The existing ACNS network must run ACNS 4.2 software in order to be migrated to ACNS 5.x software. If ACNS network devices are running a software version earlier than ACNS 4.2, they must first upgrade to ACNS 4.2 software before the migration process. This ensures that the pre-positioned content is preserved in the migration process.

This section describes how to upgrade from ACNS 4.x software to the ACNS 4.2 software release. You can choose between using the Content Distribution Manager GUI or the CLI.

## Upgrading from ACNS 4.x Software to ACNS 4.2 Software Using the Content Distribution Manager GUI

If you choose to use the Content Distribution Manager GUI to perform the upgrade, you must use the following file set:

- ACNS-4.x.x-K9.upg
- ACNS-4.x.x-K9.meta

To install the upgrade file using the Content Distribution Manager GUI, follow these steps:

- 
- Step 1** From the ACNS 4.x Content Distribution Manger GUI, choose **Channels > Channel Console**, and follow these steps:
- a. Click the **Add Channel** button at the top of the window.
  - b. Click the **Edit** button next to the channel that you added.
  - c. Create a channel named “MANUAL\_UPGRADE” by entering **MANUAL\_UPGRADE** in the Name field.
  - d. Check the **Auto-Replicate** check box.
  - e. Click the **Save Changes** button at the top of the window.
- Step 2** Choose **Devices > Bandwidth** to make sure that the replication bandwidth has been set correctly for each device that you are going to upgrade. Make the settings as high as your available bandwidth allows.
- Step 3** Choose **Channels > Subscriber** to subscribe your devices to the MANUAL\_UPGRADE channel.
- Step 4** Choose **Channels > Channel Editor > Media Importer** to import the upgrade or downgrade package files.
- a. Import the upgrade file to the MANUAL\_UPGRADE channel.
  - b. Choose **Channels > Channel Editor > Import Progress** to make sure that the Import Progress status field shows 100 percent completion.
  - c. Wait an additional 20 minutes or so for the channel replication to finish.
  - d. Choose **Channels > Channel Console**, and verify that the Replication Status field shows 100 percent completion for the MANUAL\_UPGRADE channel.
- Step 5** Choose **Devices > Software Update** to execute the upgrade for Content Engines and Content Routers. (The Content Distribution Manager is upgraded in another step later on.)
- a. Choose the upgrade version, and then choose all the device names of the devices that you want upgraded. Click the **Start Update** button.
  - b. Wait approximately 30 minutes for the upgrade to be completed.
- Step 6** Verify that the upgrade was successful by checking the Version field in the Software Update window. If the upgrade was successful, the Version field for the chosen device is updated with the new software version.
- Step 7** After the upgrade is complete for all your Content Engines and Content Routers, you need to upgrade your Content Distribution Manager.
- a. Choose **Devices > Software Update**. Choose the upgrade version, and then choose your Content Distribution Manager. Click the **Start Update** button at the top of the window.
  - b. Wait for the upgrade to be completed.
-

## Upgrading from ACNS 4.x Software to ACNS 4.2 Software Using the CLI

If you choose to use the CLI to perform an upgrade for a device that is running ACNS 4.x software, you need the following:

- FTP server with the upgrade files
- Network connectivity between the device to be upgraded and the server hosting the appropriate files
- Appropriate .bin upgrade file: ACNS-4.x.x-K9.bin

To install the upgrade file using the CLI, follow these steps:

---

**Step 1** Install the upgrade file by using the **copy ftp install** command:

```
ContentEngine# copy ftp install ftp-server package-file-path package-file-name
```

**Step 2** After the files are copied to your system, use the **reload** command to reboot.

```
ContentEngine# reload
```

The installation process continues automatically after the reboot. No further work is required.

---

## Downgrading from ACNS 5.x Software to ACNS 4.2.x Software

Cisco ACNS 5.x software and ACNS 4.2 software have significant functional differences. When you downgrade from an ACNS 5.x release to an ACNS 4.x release, note the following:

- After the downgrade, ACNS 5.x.x features will not work.
- Any content acquired by the ACNS 5.x.x Content Engine will be lost after the downgrade.

Use the following files for the downgrade:

- ACNS-5.x.x.x.x-TO-4.2.x-K9.bin software file, where *x* corresponds to the current version.
- acns4\_cdm\_ip.meta

This downgrade meta file registers the device with the ACNS 4.2 Content Distribution Manager and points to the software (.bin) file for the downgrade.

## Downgrading from ACNS 5.1 Software to ACNS 4.2.9 Software Using the Content Distribution Manager GUI

To downgrade to ACNS 4.2 software using the ACNS 5.1 Content Distribution Manager GUI, follow these steps:

---

**Step 1** Obtain the correct software file from Cisco.com. (See the [“Obtaining a Software Image File from Cisco.com”](#) section on page 15-3.)

**Step 2** Obtain the correct meta file (acns4\_cdm\_ip.meta) from Cisco.com. (Follow the same procedure as found in the [“Obtaining a Software Image File from Cisco.com”](#) section on page 15-3.)

The meta file contains the information necessary for the Content Engine to be automatically registered with the ACNS 4.2 Content Distribution Manager after the downgrade is completed.

- Step 3** Edit the meta file using any text editor and save it. (See the “[Sample Meta File](#)” section on page 15-6.)
- In the `updateFileUrl` field, replace the URL with the URL to the ACNS-5.1.x.x-TO-4.2.9-K9.bin software file that you downloaded from Cisco.com.
  - Edit the username and password.
- Step 4** Register the meta file URL with the Content Distribution Manager.
- Follow the procedure in the “[Registering a Software Update File](#)” section on page 15-4.
  - In the Software Update Meta File URL field (see [Figure 15-1](#)), enter the URL of the downgrade meta file.
- Step 5** To complete the downgrade, follow the procedure in the “[Upgrading from ACNS 5.x Software to ACNS 5.x Software](#)” section on page 15-3.
- 

## Downgrading from ACNS 5.x Software to ACNS 4.2.9 Software Using the CLI

The CLI allows you to downgrade individual devices one at one time. To use the CLI to perform a downgrade to ACNS 4.x software from a device that is running ACNS 5.x software, you need the following:

- FTP or HTTP server with the downgrade software files
- Network connectivity between the device to be downgraded and the server hosting the appropriate files
- Appropriate .bin downgrade file: ACNS-5.x.x.x-TO-4.2.x-K9.bin
- Meta file containing the ACNS 4.x Content Distribution Manager IP address: `acns4_cdm_ip.meta`



### Note

We recommend that you use the Content Distribution Manager GUI to downgrade your managed Content Engines and other devices and then use the CLI to downgrade the Content Distribution Manager itself.



### Note

If you are downgrading a Content Distribution Manager, omit [Step 2](#) through [Step 4](#).

To downgrade the software using the CLI, follow these steps:

- Step 1** Obtain the correct software file from Cisco.com. (See the “[Obtaining a Software Image File from Cisco.com](#)” section on page 15-3.)
- Step 2** Obtain the correct meta file (`acns4_cdm_ip.meta`) from Cisco.com. (Follow the same procedure as found in the “[Obtaining a Software Image File from Cisco.com](#)” section on page 15-3.)
- The meta file contains the information necessary for the Content Engine to be automatically registered with the ACNS 4.2 Content Distribution Manager after the downgrade is completed.
- Step 3** Edit the meta file using any text editor. (See the “[Sample Meta File](#)” section on page 15-6.)
- Step 4** Save the meta file to the `/local1` directory on the Content Engine using the **copy ftp disk EXEC** command:

```
copy ftp disk {hostname | ip-address} remotefiledir remotefilename localfilename
```

The **copy ftp disk** command copies a file from an FTP server to a the sysfs storage space on the Content Engine.

- Step 5** Copy the software file to the Content Engine by using the **copy ftp install** or **copy http install** EXEC command:

```
ContentEngine# copy {ftp | http} install server-containing-dng-image  
directory-to-dng-image dng-image-name
```

For example:

```
ContentEngine# copy ftp install my-ftp-server /my-ftp-directory  
ACNS-5.x.x.x-TO-4.2.x-K9.bin
```

- Step 6** After the software file is copied to your system, use the **reload** EXEC command to reboot.

```
ContentEngine# reload
```

The installation process continues automatically after the reboot. No further action is required.

---

