



Cisco ACNS Software Disk Space-Allocation Guidelines

Disk space in Cisco Application and Content Networking System (ACNS) software is allocated on a per-system basis, rather than on a per-disk basis. You can configure your overall disk storage allocations according to the kinds of client protocols you expect to use and the amount of storage that you need to provide for each of the functions described in [Table 2-1](#). This document provides guidelines for allocating disk space based on the type of device and the most common usage of the device.

This document discusses the following topics:

- [Disk Storage Overview, page 2-1](#)
- [Disk Space-Allocation Guidelines, page 2-3](#)
- [Commands Related to Disk File Storage Types, page 2-7](#)
- [Updating Storage Capacity in Your Content Distribution Manager or Content Engines, page 2-12](#)

Disk Storage Overview

ACNS software recognizes four types of disk storage, each with an associated function, as described in [Table 2-1](#).

Table 2-1 Cisco ACNS Software Disk Storage

Disk Storage Type	Function
sysfs (system file system)	Stores log files, including transaction logs, syslogs, and internal debugging logs. Also can store image files and configuration files.
cfs (cache file system)	Caches HTTP and FTP objects.
mediafs (media file system)	Caches RealProxy files and WMT streaming content.
ecdnsf (Enterprise CDN file system)	Stores pre-positioned E-CDN media content.

Disk storage can be configured and viewed by using the commands listed in [Table 2-2](#).

Table 2-2 Disk-Related Commands

Command	Syntax	Description
disk	disk add <i>diskname</i> {cfs {remaining <i>partitionsizesize</i> } ecdnsf {remaining <i>partitionsizesize</i> } mediafs {remaining <i>partitionsizesize</i> } sysfs {remaining <i>partitionsizesize</i> }} disk cancel-config disk config sysfs {remaining <i>partitionsizesize</i> } {cfs {remaining <i>partitionsizesize</i> } ecdnsf {remaining <i>partitionsizesize</i> } mediafs {remaining <i>partitionsizesize</i> }} disk raid-array add-array disk raid-array repair <i>diskname</i> disk recover	Configures the disk resources for Content Engines, Content Routers, and Content Distribution Managers. (The disk raid-array commands are for the CDM-4650 only.)
show disks	show disks configured show disks current show disks details show disks raid-info	Displays information about the disk configurations.

Disk Space-Allocation Guidelines

ACNS software is supported on several different hardware models. In terms of disk support, these models can be divided into four types of hardware configurations.

- Single-rack unit devices with internal disks only: CE-507, CE-507AV, CE-560, CE-560AV, CE-590, CDM-4630, CR-4430
- Single-rack unit devices with the Storage Array 6 (SA-6) attached: CE-560, CE-560AV, CE-590, CDM-4630
- Seven-rack unit devices without the Redundant Array of Inexpensive Disks (RAID) controller: CE-7320
- Seven-rack unit devices with the RAID controller (with or without the SA-6 or SA-12 attached): CDM-4650

This section describes the disk-related commands and provides guidelines for allocating disk space on the different types of hardware configurations that use ACNS software.

Space allocation for the different disk file system types and disk preparation are done through a single set of ACNS software CLI commands. You do not have to first partition the disks and then prepare the disks as you do in Cache 3.1 software or in previous releases of Cache software. In most cases you do not need to know which disk has what file system types. Disk space allocation can be done on a per-system basis rather than on a per-disk basis.



Note

The E-CDN application requires at least 2 GB of ecdnfs disk space to operate correctly.

To display the current disk space configuration, use the **show disks current EXEC** command.

```
ContentEngine# show disks current
SYSFS                1.0GB          3.5%
CFS                   0.0GB          0.0%
MEDIAFS              0.0GB          0.0%
ECDNFS                28.2GB        96.5%
VODFS                 0.0GB          0.0%
FREE                  0.0GB          0.0%
```

**Note**

The **show disks details** command shows that there is 3 to 4 GB of disk space allocated to system use. This detail is not shown by using the **show disks current** command.

To configure the disk allocations, use the **disk config EXEC** command. This command takes file system type and size as parameters. Size can be designated in megabytes, gigabytes, or as a percentage of the system total storage. In the following example, 10 percent of the total storage is allocated to the sysfs and 30 percent to every other file system.

```
ContentEngine# disk config sysfs 10% cfs 30% mediafs 30% ecdnfs 30%
Disk configured successfully.
New configuration will take effect after reload.
Please remove this device from the ECDN CDM (if any) before reboot
this device, as this device's configuration will be stale due to disk
repartition.
```

**Caution**

If your file systems were created using ACNS 4.0.1 software or an earlier release of ACNS software, using the **disk config** command deletes all existing sysfs, mediafs, and cfs content when the disk configuration takes effect during reboot. However, if your file systems were created using ACNS 4.1 or 4.2 software, in most cases ecdnfs content is preserved. Use this command with care.

The disk configuration does not take effect until after the next reboot. To view what the configuration is going to be after the next reboot, use the **show disks configured** command.

```
ContentEngine# show disks configured
SYSFS                10%
CFS                   30%
MEDIAFS               30%
ECDNFS                30%
```

To cancel the disk configuration, use the **disk cancel-config** command.

```
ContentEngine# disk cancel-config
Disk configuration canceled successfully
```

**Note**

The **disk cancel-config** command is effective only before a reboot. After reboot, the allocation has already taken effect and can only be changed by issuing another **disk config** command.

After you set up a new disk configuration, messages similar to the following appear:

```
Using new disk configuration you specified before reboot.
Removing old disk contents...
Creating new disk configuration...
Initializing new file systems (may take several minutes)...
Mounting all file systems...
```

To view disk details, use the **show disks details** command.

```
ContentEngine# show disks details
disk00:Normal          (h00 c00 i00 100)    17499MB(17GB)
    disk00/03:ECDFNS      9044MB( 8GB) mounted at/sonoma/state
    disk00/04:SYSFS       2047MB( 1GB) mounted at/local/local1
    disk00/05:CFS         2047MB( 1GB)
    disk00/06:MEDIAFS     1023MB( 0GB) mounted at/media/media1
    System use:           3317MB( 3GB)
    FREE:                 16MB( 0GB)
disk01:Not present
```



Note

The **show disks details** command shows that there is 3 to 4 GB of disk space allocated to system use. This detail is not shown by using the **show disks current** command.

To show the space allocation in each individual file system type, use the appropriate **show** command. For example,

```
ContentEngine# show cfs volumes
cfs 00:/dev/raw/raw1      3812351KB      mounted
```

```
ContentEngine# show mediafs volumes
mediafs 00: /media/media1      1048577KB
mediafs 01: /media/media2      8730623KB
```

```
ContentEngine# show ecdnfs volumes
ecdnfs 00: /sonoma/state      9188336KB
```

Disk Space-Allocation Guidelines for Content Engines

Content Engine models such as the CE-507, CE-507AV, CE-560, CE-560AV, CE-590, and CE-7320 that are used as general-purpose Content Engines can be configured for the type of traffic you have on your network. Streaming files are larger, in which case you might allocate more space to ecdnfs storage. For example,

```
ContentEngine# disk config sysfs 10% cfs 20% mediafs 0% ecdnfs 70%
```



Note

Because of memory restrictions in the CE-507, the maximum disk storage allocation for the cfs in the E-CDN application is 6 GB. For example, you might adjust the disk storage allocations for the CE-507 as follows:

```
ce-507# disk config sysfs 2GB cfs 6GB mediafs 2GB ecdnfs remaining
```

For higher-end models such as the CE-7320 that might be used as a dedicated HTTP cache or RealProxy cache without using the E-CDN application, either cfs storage or mediafs storage could be given more disk space. For example,

```
ContentEngine# disk config sysfs 10% cfs 80% mediafs 10% ecdnfs 0%
```

```
ContentEngine# disk config sysfs 10% cfs 10% mediafs 80% ecdnfs 0%
```

If both RealProxy or WMT caching and HTTP caching are important, disk space could be evenly split between cfs storage and mediafs storage. For example,

```
ContentEngine# disk config sysfs 10% cfs 45% mediafs 45% ecdnfs 0%
```



Note

The mediafs storage must be configured and RealProxy Real-Time Streaming Protocol (RTSP) proxy service must be enabled before any RealProxy files can be cached in the mediafs storage space. For information on how to enable RealProxy, refer to Chapter 10 of the *Cisco ACNS Software Caching Configuration Guide, Release 4.2*.

Lower-end models, especially those models with AV output, are often deployed in small branch offices to store pre-positioned content. These models could be configured as follows:

```
ContentEngine# disk config sysfs 10% cfs 10% mediafs 0% ecdnfs 80%
```

If RealProxy or WMT caching is being used, allocate sufficient mediafs storage and adjust cfs and ecdnfs storage as desired. For example,

```
ContentEngine# disk config sysfs 10% cfs 10% mediafs 10% ecdnfs 70%
```

**Note**

The mediafs storage space is only configured if RealProxy or WMT files are being cached.

Disk Space-Allocation Guidelines for Content Routers

Content Routers assist the Content Distribution Manager and serve as backups if the Content Distribution Manager suddenly goes offline. Like Content Distribution Managers, Content Routers store routing hierarchies for content delivery networking devices; however, they do not store large amounts of content. The E-CDN application requires 2 GB of disk space to operate.

```
CR4430# disk config sysfs 50% cfs 0% mediafs 0% ecdnfs 50%
```

Disk Space-Allocation Guidelines for Content Distribution Managers

Content Distribution Manager models such as the CDM-4630 and CDM-4650 are used to manage content distribution for CDNs. These systems usually need to store a large amount of media content. A typical configuration would be:

```
CDM4630# disk config sysfs 10% cfs 0% mediafs 0% ecdnfs 90%
```

Commands Related to Disk File Storage Types

This section lists the commands related to viewing, manipulating, and maintaining the four different disk storage areas.

sysfs-Related Commands

The system file system (sysfs) storage space stores system image files. At least 1 GB of storage must be allocated to the sysfs; however, you can allocate more storage to the sysfs depending on your network requirements. The content of sysfs storage can be viewed or manipulated with the commands listed in [Table 2-3](#).

Table 2-3 *sysfs-Related Commands*

sysfs-Related Command	Syntax	Description
cd	cd <i>directoryname</i>	Changes the current directory.
copy	copy disk ftp { <i>hostname</i> <i>ipaddress</i> } <i>remotefiledir remotefilename localfilename</i> copy disk startup-config <i>filename</i> copy ftp disk { <i>hostname</i> <i>ipaddress</i> } <i>remotefiledir remotefilename localfilename</i> copy ftp install { <i>hostname</i> <i>ipaddress</i> } <i>remotefiledir remotefilename</i> copy running-config disk <i>filename</i> copy running-config startup-config copy running-config tftp { <i>hostname</i> <i>ipaddress</i> } <i>remotefilename</i> copy startup-config disk <i>filename</i> copy startup-config tftp { <i>hostname</i> <i>ipaddress</i> } <i>remotefilename</i> copy system-status disk <i>filename</i> copy tech-support disk <i>filename</i> copy tech-support tftp { <i>hostname</i> <i>ipaddress</i> } <i>remotefilename</i> copy tftp disk { <i>hostname</i> <i>ipaddress</i> } <i>remotefilename localfilename</i>	Copies configuration or image files to disk, Flash memory, or remote server.
cpfile	cpfile <i>sourcefile destinationfile</i>	Copies files.

Table 2-3 *sysfs-Related Commands (continued)*

sysfs-Related Command	Syntax	Description
delfile	del <i>filename</i>	Removes a file.
deltree	deltree <i>directory</i>	Removes directory and all subdirectories.
dir	dir [<i>directory</i>]	Displays long list of files in a directory.
install	install <i>imagefilename</i>	Installs an image file.
lls	lls [<i>directory</i>]	Displays directory files in long list format.
logging	logging console enable logging console priority <i>loglevel</i> logging disk { enable filename <i>filename</i> priority <i>loglevels</i> recycle <i>size</i> } logging facility <i>facility</i> logging host { <i>hostname</i> <i>ipaddress</i> priority <i>loglevel</i> }	Configures system logging (syslog). Log files are written to the currently mounted sysfs volume.
ls	ls [<i>directory</i>]	Displays a list of files or subdirectory names within a directory.
mkdir	mkdir <i>directory</i>	Makes a directory.
mkfile	mkfile <i>filename</i>	Makes a new 0-byte file (for testing).
pwd	pwd	Displays path name of present working directory.
rename	rename <i>oldfilename newfilename</i>	Renames a file.
rmdir	rmdir <i>directory</i>	Removes a directory.
show statistics	show statistics http usage show statistics transaction-logs	Displays statistics relevant to sysfs storage.
transaction-log force	transaction-log force { archive export }	Forces the archive or export of the transaction log file.

Table 2-3 *sysfs-Related Commands (continued)*

sysfs-Related Command	Syntax	Description
transaction-logs	transaction-logs archive interval every-day {at <i>hour:minute</i> every hour } transaction-logs archive interval every-hour {at <i>minute</i> every minute } transaction-logs archive max-file-size <i>filesize</i> transaction-logs enable transaction-logs export enable transaction-logs export ftp-server { <i>hostname</i> <i>servipaddr</i> } <i>login passw directory</i> transaction-logs file-marker transaction-logs format { extended-squid squid } transaction-logs sanitize	Configures transaction logging.
type	type <i>filename</i>	Displays a file.

cfs-Related Commands

The cache file system (cfs) storage space caches HTTP and FTP objects. The contents of cfs storage cannot be examined or modified. Commands related to maintaining cfs storage are listed in [Table 2-4](#).

Table 2-4 *cfs-Related Commands*

cfs-Related Command	Syntax	Description
show cfs	show cfs { statistics volumes }	Displays cfs status.
show statistics	show statistics cfs show statistics http usage	Displays cfs-related statistics.

mediafs-Related Commands

ACNS software caches RealProxy files in the media file system (mediafs) storage space. The content in the mediafs storage space cannot be examined. Commands related to maintaining mediafs storage are listed in [Table 2-5](#).

Table 2-5 *mediafs-Related Commands*

mediafs-Related Command	Syntax	Description
<code>show mediafs</code>	<code>show mediafs volumes</code>	Displays media file system volumes.
<code>show statistics</code>	<code>show statistics mediacache real requests</code> <code>show statistics mediacache real savings</code>	Displays mediafs-related statistics.

ecdns-Related Commands

The Enterprise Content Delivery Network file system (ecdns) storage space is used by the E-CDN application to store pre-positioned streaming media content. Commands related to maintaining ecdns storage are listed in [Table 2-6](#).

Table 2-6 *ecdns-Related Commands*

ecdns-Related Command	Syntax	Description
<code>show ecdns</code>	<code>show ecdns volumes</code>	Displays information for ecdns volumes.

Updating Storage Capacity on Your Content Distribution Manager or Content Engines

If your storage requirements have changed, you can attach a Cisco Storage Array to your Content Engines and Content Distribution Manager for additional storage capacity. If you are using a CDM-4650, you can add a Storage Array that also supports hot-swap and redundancy functionality.

You can also delete existing storage (nonsystem) disks or replace storage disks in your CDN.



Caution

If you delete storage disks from the Content Distribution Manager, you could lose some of the original content stored on your Content Distribution Manager. You would then have to reimport it.

Before you add a Storage Array to a Content Engine or Content Distribution Manager, consult [Table 2-7](#) to determine whether or not your device supports the Storage Array you have chosen.

Table 2-7 Storage Array Support for Content Delivery Networking Devices

Device	Storage Array Compatibility
CE 507	None
CE-560	Storage Array 6
CDM-4630	Storage Array 6
CDM-4650	Storage Array 6 with Redundant Array of Inexpensive Disks (RAID)-5 drive Storage Array 12 with RAID-5 drive See the next section, “ Adding a Storage Array on a Content Distribution Manager 4650 and Configuring the Disks as RAID Drives ,” for instructions on how to configure a Cisco Storage Array as a RAID-5 drive on a CDM-4650.

For information on how to install or uninstall a Storage Array, refer to the *Cisco Storage Array 6 Installation and Configuration Guide* or the *Cisco Storage Array 12 Installation and Configuration Guide*.

Adding a Storage Array on a Content Distribution Manager 4650 and Configuring the Disks as RAID Drives

The Content Distribution Manager 4650 (CDM-4650) is manufactured with a RAID controller. When you receive a CDM-4650, the internal disks are already configured as one logical RAID-5 drive at manufacturing time. However, if you want to add a Storage Array, you must first make sure that your Storage Array disks are configured as logical RAID-5 drives so that they are recognizable to the ACNS software.

The disks, both internal and external (Storage Array disks), are grouped logically by the ACNS software into three arrays of disks. The CDM-4650 has an array of eight internal disks that are viewed by the ACNS software as one logical disk (disk00).

The CDM-4650 can be connected to a Storage Array 6 (SA-6) or Storage Array 12 (SA-12) for additional disk space. The SA-6 is an array of 6 disks that can be configured as a second logical disk (disk01), and the SA-12 is an array of 12 disks that can be configured as a second and a third logical disk (disk01 and disk02) with 6 physical disks in each.

This section describes how to configure your Storage Array disks as logical RAID-5 drives so that they are recognizable to the ACNS software. After completing the steps in this section, you can configure disk storage space by using the **disk config** command. (See the [“Disk Space-Allocation Guidelines” section on page 2-3.](#))

Configuring the Disks as RAID Drives



Note

If you are running E-CDN 3.x software on a CDM-4650 with an SA-6 or SA-12 attached, *do not* follow these instructions. Your Storage Array disks are already recognized by the E-CDN software, and they continue to be recognized when you upgrade to ACNS software. Upgrade your system to ACNS software by following the procedure in the [“Upgrading from CDN Enterprise 2.x Software or E-CDN 3.0.x Software to ACNS 4.x Software”](#) section on page 3-28.

The following procedure is to be used *only* when you have a new CDM-4650 with ACNS software, or if you have already upgraded from E-CDN 3.0 software to ACNS software without a Storage Array. This procedure is necessary because the ACNS software does not automatically recognize the Storage Array disks.

To add a Storage Array and configure the ACNS software to recognize the disks, follow these steps:

-
- Step 1** Make sure that the CDM-4650 is running ACNS 4.0 software, or a later release of ACNS software.
 - Step 2** Power down the CDM-4650 and attach an SA-6 or SA-12 to channel B.
Channel B is located in card slot 7 on the back of the CDM-4650. (Refer to the *Cisco Content Networking Hardware Installation Guide for the Seven-Rack Unit Chassis*.)
 - Step 3** Power up the CDM-4650 and the Storage Array.
 - Step 4** When the system is powered up, use Telnet or log in from the console and verify that the ACNS software recognizes the Storage Array but is not using the Storage Array disk space.

To determine whether the Storage Array is being recognized, use the **show disks raid-info** command. The following example shows that all the Storage Array 6 physical disks are recognized on RAID channel 1:

```
cdm-4650-raid# show disks raid-info
Physical Drive Information
RAID Channel 0
    17398MB drive scsi ID 0
    17278MB drive scsi ID 1
    17278MB drive scsi ID 2
    17278MB drive scsi ID 3
```

```

17278MB drive scsi ID 4
17278MB drive scsi ID 5
17278MB drive scsi ID 8
17278MB drive scsi ID 9
RAID Channel 1
17398MB drive scsi ID 0
17398MB drive scsi ID 1
17398MB drive scsi ID 2
17398MB drive scsi ID 3
17398MB drive scsi ID 4
17398MB drive scsi ID 5

```

To verify that the Storage Array is not being used, use the **show disks** command. The following example shows that the eight 18-GB internal disk drives are in use because less than 8 * 18 GB of disk space is being used; therefore, the Storage Array is not being used yet.

```

cdm-4650-raid# show disks
SYSFS          11.3GB      10.0%
CFS             0.0GB       0.0%
MEDIASF        0.0GB       0.0%
ECDNFS         101.8GB     90.0%
VODFS          0.0GB       0.0%
FREE           0.0GB       0.0%

```

Step 5 Enter the **disk raid-array add-array** command to create a logical disk that is recognized by the RAID controller.

```
cdm-4650-raid# disk raid-array add-array
```

```
Type ? as command line arg for help
```

```
Finding Devices On Each PERC Adapter...
Scanning Ha 0, Chnl 1 Target 15
```

```
No size was specified on cmd line
```

```
Full array will be used as the size of logical disk
Please reload system and then run disk add command.
```

Step 6 Reboot the CDM-4650 by using the **reload** command and log in again.

- Step 7** Enter the **disk add** command so that the ACNS software begins using the new logical disk. The following example adds the logical disk, disk01, and allocates 100 percent of the disk space to ecdnfs storage.

```
cdm-4650-raid# disk add disk01 ecdnfs 100%
```

To add more than one logical disk, repeat [Step 7](#).

- Step 8** To verify that the ACNS software is using the new logical disk, use the **show disks** command. The following example shows that the new logical disk is being used by the ACNS software because the ecdnfs storage has 186.2 GB allocated to it.

```
cdm-4650-raid# show disks
SYSFS                11.3GB          5.7%
CFS                   0.0GB           0.0%
MEDIASF               0.0GB           0.0%
ECDNFS                186.2GB        94.3%
VODFS                 0.0GB           0.0%
FREE                  0.0GB           0.0%
```

- Step 9** Go to the Content Distribution Manager user interface to update the system to recognize the new storage capacity.

Proceed to the [“Updating Storage Capacity Through the Content Distribution Manager User Interface”](#) section on page 2-17.

Replacing a Single Failed Disk and Rebuilding a RAID Disk Array

If one disk in a RAID disk array fails, you can replace the disk and then run the **disk raid-array repair** command to rebuild it.

```
cdm-4650-raid# disk raid-array repair disk00
Nothing wrong with disk00
cdm-4650-raid# disk raid-array repair disk01
cdm-4650-raid# disk raid-array repair disk02
Nothing wrong with disk02
```

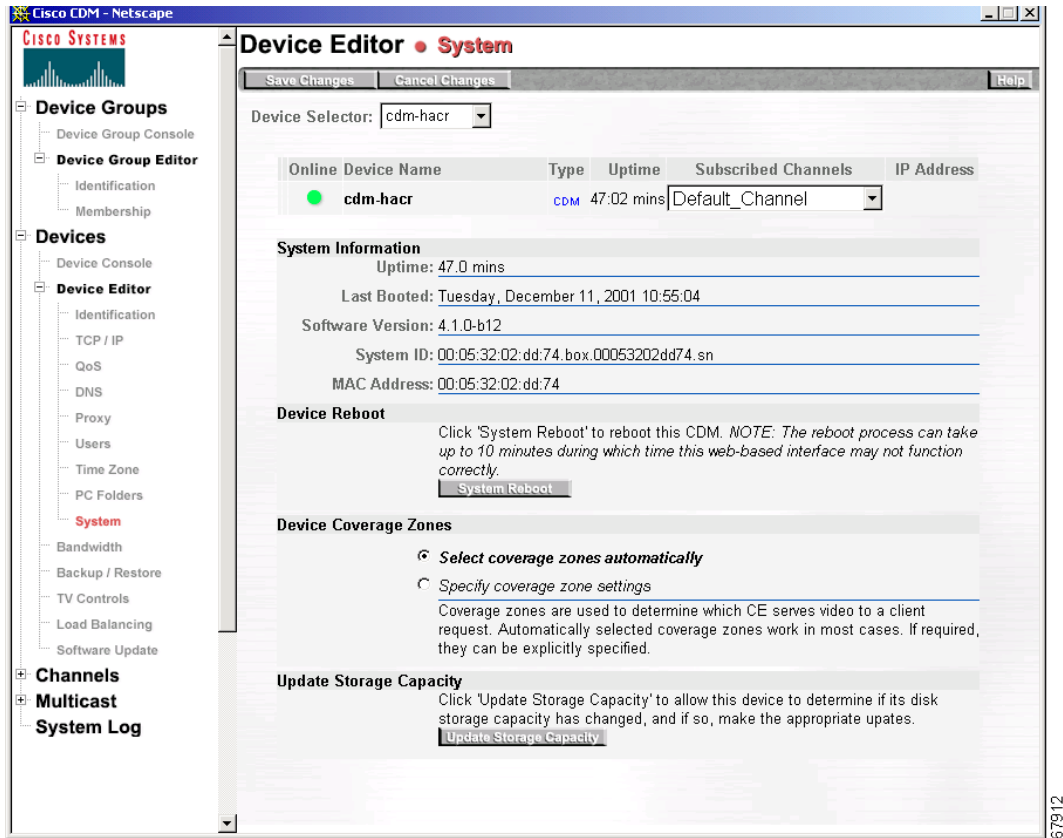
Updating Storage Capacity Through the Content Distribution Manager User Interface

After you have changed the storage capacity of a Content Engine or Content Distribution Manager by adding or deleting a Storage Array from your hardware, you must update the system to recognize the new storage capacity.

To update your system with new storage capacity information, follow these steps:

-
- Step 1** Power up the device to bring it online. You can verify that the device is online by choosing **Device Console** from the Content Distribution Manager Devices menu.
- Step 2** Choose **Devices > Device Editor > System**.
- The System window appears. (See [Figure 2-1](#).)

Figure 2-1 Device Editor System Window



Step 3 Click the **Update Storage Capacity** button. The amount of available storage is displayed.

Step 4 Calculate the storage you had available before you added or deleted a Storage Array. You can calculate this using the following equation:

Prior available storage = Total storage capacity of device before addition or deletion – Total storage reserved for channels

**Note**

The documentation that came with your Content Distribution Manager or Content Engine should tell you how much storage capacity the device has at the time of manufacture. This should give you the value for the total storage capacity of the device before addition or deletion.

The total storage reserved for channels can be determined by adding up the capacity value for all the channels to which the device is subscribed. The capacity for all the channels is listed in the Channel Console window.

- Step 5** Compare this amount to the amount of storage you had before adding or deleting a Storage Array to verify whether or not the new storage capacity is recognized.
- Step 6** If the new available storage value does not reflect the addition or deletion of a Storage Array, go to the command-line interface to reissue the **add** or **delete disk** command, and then repeat [Step 2](#) to reinitialize the update.

Reconfiguring Storage Capacity on a Content Engine After a Storage Capacity Update

If the E-CDN application is enabled, a Content Engine cannot have a storage capacity that is less than the sum of the space required by all the channels subscribed to it. If, as a result of deletion, the storage capacity of the Content Engines falls below the required size, the system prompts you to unsubscribe the Content Engine for some of the channels. For information on how to unsubscribe your Content Engine, see the [“Removing a Content Engine from a Subscribed Devices List”](#) section on page 3-30.

To replace the content that was lost when you deleted a storage disk, the Content Engine automatically initiates content replication from its parent Content Engine or Content Distribution Manager. It replicates only that content which was lost.

Reconfiguring Storage Capacity on a Content Distribution Manager After a Storage Capacity Update

If you remove a storage disk that was on the Content Distribution Manager before you imported content, you risk losing some of the media content on your Content Distribution Manager. This can cause performance degradation in the Content Distribution Manager routing and replication processes and can also affect the performance of Content Engines that were subscribed to the deleted content. To avoid this, you can do one of the following:

- Delete missing content from the Content Distribution Manager user interface. This ensures that the CDN system is consistent, because when you delete the missing content from the Content Distribution Manager user interface, this content is also deleted from the subscribed Content Engines.
- Reimport the content into the Content Distribution Manager. For information on how to import content into the Content Distribution Manager, refer to the section “Importing Media” in Chapter 3 of the *Cisco ACNS Software E-CDN Administrator’s Guide*.

To delete missing content from the Content Distribution Manager user interface, follow these steps:

Step 1 Choose **Devices > Device Editor > System**.

The System window appears. (See [Figure 2-1](#).)

If you have already completed the steps for updating storage capacity through the Content Distribution Manager user interface, the **Identify Lost Content** button should be visible in the window.

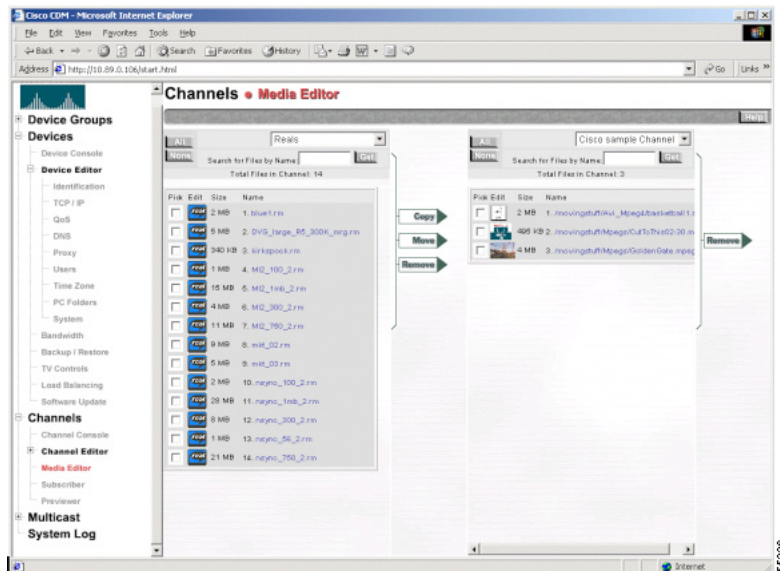
However, if your System window is still displaying the **Update Storage Capacity** button, click it. The System window then refreshes itself and displays the **Identify Lost Content** button.

Step 2 Click the **Identify Lost Content** button. A new page appears, with a table listing lost media files and the channels with which those files were associated. Make a note of the lost media files.

Step 3 Choose **Channels > Media Editor**.

The Channels Media Editor window appears. (See [Figure 2-2](#).)

Figure 2-2 Media Editor Window



- Step 4** Make sure that the correct channel is displayed in the appropriate drop-down list. If it is not, choose the correct channel from the list.
- Step 5** Check the check box next to each file that you want to remove.
- Step 6** Click **Remove**. You are prompted to confirm that you want to remove the selected media.

■ Updating Storage Capacity on Your Content Distribution Manager or Content Engines