



Using the Offline Diagnostic Monitor Menu

During the boot process, you can access the Offline Diagnostic Monitor (Offline DM) Main menu. The Offline DM Main menu allows you to perform the following functions:

- Set the boot configuration:
 - Configure a primary and secondary location from which the CSS accesses the boot image
 - Configure an IP address for the CSS
 - Configure a subnet mask
 - Configure a default gateway
- Show the boot configuration
- Select Advanced Options to:
 - Delete a software version from the disk
 - Set a password for the Offline DM Main menu
 - Set an administrative username and password
 - Reformat the disk and perform a check disk
 - Configure disks
- Reboot the CSS

This appendix contains the following major sections:

- [Accessing the Offline DM Main Menu](#)
- [Using the Boot Configuration Menu](#)
- [Displaying the Boot Configuration](#)
- [Using the Advanced Options](#)

Accessing the Offline DM Main Menu

To access the Offline DM Main menu:

1. Connect a console to the console port on the CSS. Configure the console with the following default values: 9600 baud, no parity, 8 data bits, 1 stop bit, and flow control set to none.
2. Power on the CSS. After the CSS begins to boot (approximately 15 seconds), it displays the following message (for approximately 5 seconds):

```
Would you like to access the Offline Diagnostic Monitor  
menu? (y<cr>)
```

At this point in the boot sequence, you may either:

- Take no action (or press **n**) and let the CSS continue booting automatically with the default boot configuration.
- Press **y**, then press **Enter** to halt the boot process and display the Offline DM Main menu.

The Offline DM Main menu appears:

```

MAIN MENU

Enter a menu number:

1* Set Boot Configuration
2. Show Boot Configuration
3* Advanced Options
4. Reboot System

```

An asterisk (*) next to a menu option indicates that the option contains a submenu.



Note

If the 5-second time period elapses before you press **y** to halt the boot process, power down the CSS and then power it up again to access the Offline DM menu.

[Table B-1](#) describes each menu item.

Table B-1 Offline Diagnostic Monitor Menu Options

Menu Option	Function
1. Set Boot Configuration	1. Set Primary Boot Configuration 2. Set Secondary Boot Configuration 3. Set IP Address and Subnet Mask r. Return to previous menu
2. Show Boot Configuration	Display boot configurations (including primary and secondary boot configurations, records, and IP information)

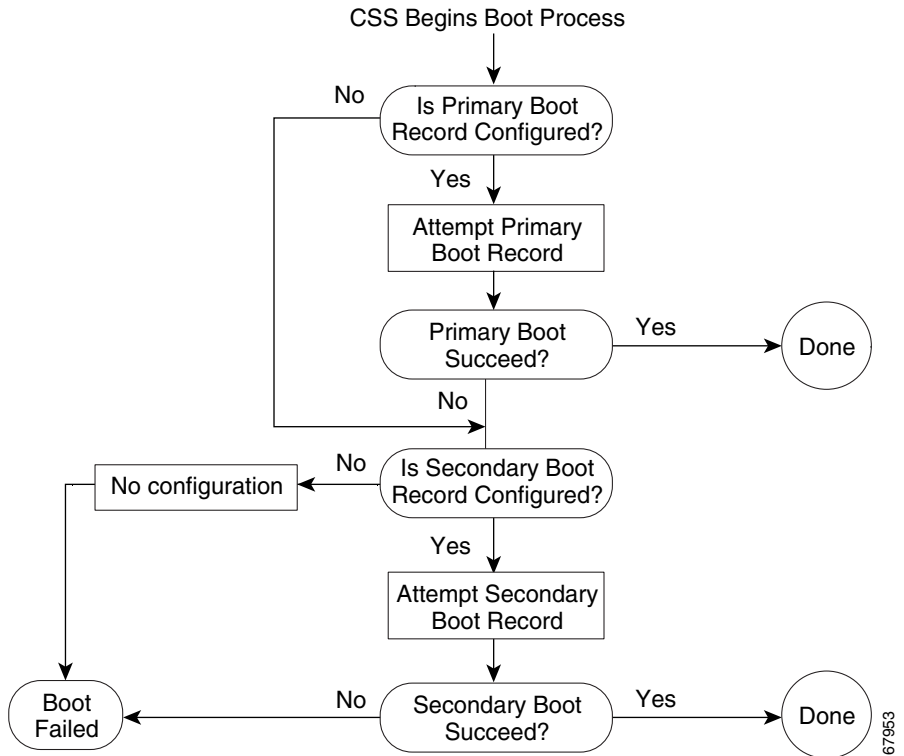
Table B-1 *Offline Diagnostic Monitor Menu Options (continued)*

Menu Option	Function
3. Advanced Options	<ol style="list-style-type: none"> 1. Delete a software version 2. Security Options 3. Disk Options 4. Set MSD Mapping (two-disk CSS) r. Return to previous menu
4. Reboot System	<p>Reboot the CSS. The CSS displays the following message before rebooting:</p> <pre>Are you sure you want to reboot? (Y/N)</pre> <p>Enter:</p> <ul style="list-style-type: none"> • Y to reboot the CSS • N to continue using the Offline DM Main menu

Using the Boot Configuration Menu

The flowchart in [Figure B-1](#) illustrates how the CSS uses the boot configuration information to complete the boot process.

Figure B-1 *Boot Configuration Flowchart*



The Boot Configuration menu is shown below:

```

BOOT CONFIGURATION MENU

Enter the number of a menu selection:

1. Set Primary Boot Configuration
2. Set Secondary Boot Configuration
3. Set IP Address and Subnet Mask
r. Return to previous menu

```

The Boot Configuration menu enables you to perform the tasks described in [Table B-2](#).

Table B-2 *Boot Configuration Options*

Menu Option	Function
1. Set Primary Boot Configuration	Specifies the primary location (Network, FTP, Disk, or Clear) from which the CSS accesses the boot image. The default location is Disk.
2. Set Secondary Boot Configuration	Specifies the secondary location (Network, FTP, Disk, or Clear) from which the CSS accesses the boot image. The default location is Clear.
3. Set IP Address and Subnet Mask	Configures an IP address for the Ethernet management port and configure a subnet mask.
r. Return to previous menu	Displays the Offline DM main menu.

Setting Primary Boot Configuration

The information you provide for the primary boot configuration specifies the location from which the CSS accesses the primary boot image upon system reboot or when you download new software. When you select **Set Primary Boot Configuration** from the Boot Configuration menu, the CSS displays the following information. If you have previously entered information, the CSS displays the existing information and default values in square brackets [].

```
Configuring PRIMARY Boot Record
Boot via [N]etwork, [F]TP, [D]isk, or [C]lear: [D]
Press <Enter> to continue...
```

- **Boot via Network** - Allows you to boot the CSS using FTP from CSS software on a network-mounted file system on a remote system
- **Boot via FTP** - Allows you to download an ADI file containing CSS software that you want to install on the CSS disk (hard or Flash disk)
- **Boot via Disk** - Allows you to boot the CSS from software currently on the CSS disk (hard or Flash disk)
- **Boot via Clear** - Instructs the CSS to boot the CSS from the secondary boot record

This section includes the following topics:

- [Specifying a Network-Mounted File System as the Primary Boot Record](#)
- [Specifying FTP as the Primary Boot Record](#)
- [Specifying Disk as the Primary Boot Record](#)
- [Specifying Clear as the Primary Boot Record](#)

Specifying a Network-Mounted File System as the Primary Boot Record

Set **Network** as the primary boot record when you want to boot the CSS from a network-mounted file system on a remote system using FTP. Instead of the CSS disk, the network file system contains the CSS software. The CSS boots from this file system and loads the configuration into memory.

Perform a network boot when:

- You want multiple CSSs to use the same boot image while keeping their own configuration information. You provide an alternate path for the location of the configuration information. However, this information must exist on the same network file system with the boot image.



Note

When using an alternate configuration path, make sure the path leads to a directory containing the script, log, and info subdirectories. These subdirectories must contain the files in the corresponding subdirectories in the boot image. First, create these subdirectories on the FTP server, then copy the files from the boot image to the subdirectories.

- The CSS has a disk failure. A network boot allows the CSS to boot independently from its disk and to load the configuration into memory.

Before the CSS can boot from the network:

- Locate the remote system on the network where you want to copy the CSS software.
 - Make sure the CSS can access the system using FTP.
 - Copy the CSS software .zip file from www.cisco.com onto the designated network server.
 - Create a directory and unzip the file into it. This directory will contain all of the boot files and directories.
- On the CSS, create an FTP record to the directory containing the CSS software on the network drive.

- Make sure you properly connect the Ethernet management port on the CSS to the network. Note the locations of the Ethernet management port on the CSS as listed below.
 - CSS 11501 - Front panel 10 Mbps-Ethernet management port
 - CSS 11503 and CSS 11506 - SCM 10 Mbps-Ethernet management port
- Be aware of the following network boot restrictions:
 - A network boot is not supported on UNIX workstations.
 - The War-FTP daemon is not supported for network-booting the system software.

When you select **Network**, the CSS prompts you for the FTP kernel information.

1. Enter the FTP kernel path information. This path is the FTP daemon-addressable location where the boot image has been unpacked. You must also include the FTP server IP address and the username and password to access the boot image. For example:

```
Enter the FTP Kernel path: [] k:/ap0720002/hdd
Enter FTP Server IP address: [] 10.3.6.58
Enter FTP Server authentication username: [] mandy
Enter FTP Server authentication password: [] fred
```

2. Enter an alternate path to the configuration files, including the startup configuration and script files, if the configuration information is not in the same directory as the boot image.



Note The CSS must be able to access the configuration path through the previously configured FTP server IP address, login username, and password.

For example:

```
Enter the FTP Config Path? [] k:/atlanta-config/
Press <Enter> to continue...
```

3. Press **Enter** to display the Boot Configuration menu.
4. Enter **r** to display the Offline DM Main menu.

5. Select option **4** to reboot the CSS.

When the CSS completes the current boot process, it:

- Accesses the network file system containing the boot image
- Boots the CSS using the boot image you specified

Specifying FTP as the Primary Boot Record

Select **FTP** as the primary boot record when you want to upgrade the CSS software on the CSS disk. The CSS accesses the ADI or GZIP file containing the CSS software from an FTP server, copies it to the disk, and unpacks the software. Then the CSS boots from disk (hard or Flash disk).

Make sure that you properly connect the Ethernet management port on the CSS to the network. Note the locations of the Ethernet management port on the CSS as listed below.

- CSS 11501 - Front panel 10 Mbps-Ethernet management port
- CSS 11503 and CSS 11506 - SCM 10 Mbps-Ethernet management port

When you select **FTP**, the CSS prompts you for the boot image filename and FTP information.



Note

The CSS FTP server supports only the active (normal) FTP mode of operation. The FTP server does not support the passive FTP mode of operation.

1. Enter a valid FTP pathname, if required. For example:

```
Enter the boot image filename: /ftpimages/ap0720002
Enter FTP Server IP address: 10.3.6.58
Enter FTP Server authentication user name: mandy
Enter FTP Server authentication password: fred
```

The CSS queries if you want to access the boot image directly from the disk at the next reboot (that is, the next time you reboot the CSS after completing the current boot process).

```
Boot from Disk at next reboot? y/n
Press <Enter> to continue...
```

2. Enter one of the following:
 - **y** to copy the boot image from the FTP server to the disk. The CSS accesses the boot image directly from the disk at the next reboot. The CSS also changes the information in the primary boot record to Disk.
 - **n** to FTP the boot image from the FTP server at the next reboot.
3. Press **Enter** to display the Boot Configuration menu.
4. Enter **r** to display the Offline DM Main menu.
5. Select option **4** to reboot the CSS.

When the CSS completes the current boot process, it:

- Accesses the ADI file from the FTP server and unpacks (uncompresses) the file
- Boots the CSS using the boot image you specified

Specifying Disk as the Primary Boot Record

When you select **Disk** as the primary boot record, the CSS displays all boot image versions that reside on the disk. For example:

```
ap0720001
ap0720002
```

1. Enter the boot image filename you wish to use at the prompt.


```
Enter the boot image filename: ap0720002
```
2. Press **Enter** to display the Boot Configuration menu.


```
Press <Enter> to continue...
```
3. Press **r** to display the Offline DM Main menu.
4. Select option **4** to reboot the CSS. Upon reboot, the CSS boots up using the boot image you specified.

Specifying Clear as the Primary Boot Record

To use the secondary boot record information instead of the primary boot record to boot the CSS:

1. Select **Clear** as the primary boot record.
2. Press **Enter** to display the Boot Configuration menu.

3. Press **r** to display the Offline DM Main menu.
4. Select option **4** to reboot the CSS. Upon reboot, the CSS uses the secondary boot record.

Setting Secondary Boot Configuration

The information you provide for the secondary boot configuration specifies the location from which the CSS accesses the boot image if you specified **Clear** as a primary boot record or if the primary boot record fails.

When you select **Set Secondary Boot Configuration** from the Boot Configuration menu, the CSS displays the following information. If you have previously entered information, the CSS displays the existing information and default values in square brackets [].

```
Configuring SECONDARY Boot Record
Boot via [N]etwork, [F]TP, [D]isk, or [C]lear: [D]
Press <Enter> to continue...
```

- **Boot via Network** - Allows you to boot the CSS using FTP from CSS software on a network-mounted file system on a remote system
- **Boot via FTP** - Allows you to download an ADI file containing CSS software that you want to install on the CSS disk
- **Boot via Disk** - Allows you to boot the CSS from software currently on the CSS disk
- **Boot via Clear** - Instructs the CSS to boot the CSS from the primary boot record

This section includes the following topics:

- [Specifying a Network-Mounted File System as the Secondary Boot Record](#)
- [Specifying FTP as the Secondary Boot Record](#)
- [Specifying Disk as the Secondary Boot Record](#)
- [Specifying Clear as the Secondary Boot Record](#)

Specifying a Network-Mounted File System as the Secondary Boot Record

Select **Network** as the secondary boot record when you want to boot the system from a network-mounted file system on a remote system using FTP. Instead of the CSS disk, the network file system contains the CSS software. The CSS boots from this file system and loads the configuration into memory. Perform a network boot when:

- You want multiple CSSs to use the same boot image while keeping their own configuration information. You provide an alternate path for the location of the configuration information. However, this information must exist on the same network file system with the boot image.



Note

When using an alternate configuration path, make sure the path leads to a directory containing the script, log, and info subdirectories. These subdirectories must contain the files in the corresponding subdirectories in the boot image. First, create these subdirectories on the FTP server, then copy the files from the boot image to the subdirectories.

- The CSS has a disk failure. A network boot allows the CSS to boot independently from its disk and to load the configuration into memory.

Before the CSS can boot from the network:

- Locate the remote system on the network where you want to copy the CSS software.
 - Make sure the CSS can access the system using FTP.
 - Copy the CSS software .zip file from www.cisco.com onto the designated network server.
 - Create a directory and unzip the file into it. This directory will contain all of the boot files and directories.
- On the CSS, create an FTP record to the directory containing the CSS software on the network drive.

- Make sure you properly connect the Ethernet management port on the CSS to the network:
 - CSS 11501 - Front panel 10 Mbps-Ethernet management port
 - CSS 11503 or CSS 11506 - SCM 10 Mbps-Ethernet management port
- Be aware of the following network boot restrictions:
 - A network boot is not supported on UNIX workstations.
 - The War-FTP daemon is not supported for network-booting the system software.

When you select **Network**, the CSS prompts you for the FTP kernel information.

1. Enter the FTP kernel path information. This path is the FTP daemon addressable location where the boot image has been unpacked. You must also include the FTP server IP address and the username and password to access the boot image. For example:

```
Enter the FTP Kernel path: [] k:/ap0720001/hdd
Enter FTP Server IP address: [] 10.3.6.58
Enter FTP Server authentication username: [] mandy
Enter FTP Server authentication password: [] fred
```

2. Enter an alternate path to the configuration files, including the startup-config and script files, if the configuration information is not in the same directory as the boot image.



Note The CSS must be able to access the configuration path through the previously configured FTP server IP address, login username, and password.

For example:

```
Enter the FTP Config Path? [] k:/atlanta-config/
Press <Enter> to continue...
```

3. Press **Enter** to display the Boot Configuration menu.
4. Enter **r** to display the Offline DM Main menu.
5. Select option **4** to reboot the CSS.

When the CSS completes the current boot process, it:

- Accesses the network file system containing the boot image

- Boots the CSS using the boot image you specified

Specifying FTP as the Secondary Boot Record

Select **FTP** as the secondary boot record value when you want to upgrade the CSS software on the CSS disk. The CSS accesses the ADI or GZIP file containing the CSS software from an FTP server, copies it to the disk, and unpacks the software. Then the CSS boots from disk (hard or Flash disk).

Make sure you properly connect the Ethernet management port on the CSS to the network:

- CSS 11501 - Front panel 10 Mbps-Ethernet management port
- CSS 11503 or CSS 11506 - SCM 10 Mbps-Ethernet management port

When you select **FTP**, the CSS prompts you for the boot image filename and FTP information.

1. Enter a valid FTP pathname, if required. For example:

```
Enter the boot image filename: /ftpiimages/ap0720002
Enter FTP Server IP address: 10.3.6.58
Enter FTP Server authentication user name: mandy
Enter FTP Server authentication password: fred
```

The CSS queries if you want to access the boot image directly from the disk at the next reboot (that is, the next time you reboot the CSS after completing the current boot process).

```
Boot from Disk at next reboot? y/n
```

2. Enter one of the following:
 - **y** to copy the boot image from the FTP server to the disk. The CSS accesses the boot image directly from the disk at next reboot. The CSS also changes the information in the secondary boot record to Disk.
 - **n** to FTP the boot image from the FTP server at next reboot.
3. Press **Enter** to display the Boot Configuration menu.


```
Press <Enter> to continue...
```
4. Enter **r** to display the Offline DM Main menu.
5. Select option **4** to reboot the CSS.

When the CSS uses the secondary boot record to reboot, it:

- Accesses the ADI file from the FTP server and unpacks (uncompresses) the file
- Boots the CSS using the boot image you specified

Specifying Disk as the Secondary Boot Record

When you select **Disk** as the secondary boot record, the CSS displays all boot image versions that reside on the disk and prompts you to enter a boot image.

1. Enter a boot image filename.

```
Boot via [N]etwork, [F]TP, [D]isk, or [C]lear: [D]
```

```
ap0720001
ap0720002
```

```
Enter the boot image filename: ap0720001
```

2. Press **Enter** to display the Boot Configuration menu.

```
Press <Enter> to continue...
```

3. Enter **r** to display the Offline DM Main menu.
4. Select option **4** to reboot the CSS. Upon reboot, the CSS boots up using the boot image you specified.

Specifying Clear as the Secondary Boot Record

If you do not wish to specify a secondary boot record:

1. Select **Clear** as the secondary boot record.
2. Press **Enter** to display the Boot Configuration menu.
3. Enter **r** to display the Offline DM Main menu.
4. Select option **4** to reboot the CSS. Upon reboot, the CSS uses the primary boot record.

Setting IP Address, Subnet Mask, and Default Gateway

When you select **Set IP Address and Subnet Mask** from the Boot Configuration menu, the CSS prompts you to:

1. Enter an IP address for the Ethernet management port.

An IP address of 0.0.0.0 for the Ethernet management port is a legal setting and disables the management port upon reboot. If you enter 0.0.0.0, and you attempt to use the **subnet mask** command, the following message appears:
The mask cannot be set because the IP address is 0.0.0.0. To enable the Ethernet management port, use the Boot Configuration menu to enter an IP address for the management port.

The Ethernet management port IP address must be a different subnet than any other CSS VLAN circuit IP subnet. If you do not make the Ethernet management port IP address unique, you cannot access the port.

```
Enter IP Address or 0.0.0.0 to disable [<current value>]:  
10.3.6.58
```

2. Enter a subnet mask.

```
Enter Subnet Mask: 255.0.0.0
```

3. Enter a default gateway address for the Ethernet management port.

```
Enter Default Gateway: 172.16.11.1
```

4. Press **Enter** to display the Boot Configuration menu.

```
Press <Enter> to continue...
```

5. Enter **r** to display the Offline DM Main menu.
6. Select option **4** to reboot the CSS.

Displaying the Boot Configuration

When you select **Show Boot Configuration** from the Offline DM Main menu, the CSS displays the following boot information. The Miscellaneous information appears only if you set password-protection on the Offline DM Main menu.

```
***** Miscellaneous *****
Offline Diagnostic Monitor menu is password-protected
***** IP/MAC Information *****
IP Address:10.3.6.58
Subnet Mask:255.0.0.0
Gateway Address:172.16.11.1
MAC Address00-10-58-00-12-ca
***** PRIMARY *****
Boot Type:DISK
Boot File:ap0720002
***** SECONDARY *****
Boot Type: DISK
Boot File: ap0720001
```

1. Press **Enter** to display the Offline DM Main menu.

Press <Enter> to continue...

2. Press **r** to display the Offline DM Main menu.

Using the Advanced Options

The CSS hard disk or Flash disk enables you to store two versions of software (including the version you are currently running). If you are storing the maximum number of software versions on the CSS and wish to download a new version to the disk, you must delete a version before the CSS allows the download to begin.

When you select **Advanced Options** from the Offline DM Main menu, the CSS displays the Advanced Options menu:

```
A D V A N C E D   O P T I O N S
```

```
Enter the number of a menu selection:
```

- ```
1. Delete a Software Version
2* Security Options
3* Disk Options
4. Set MSD Mapping
r. Return to previous menu
```

## Deleting a Software Version

To delete a software version from the disk:

1. Select option **1** to display the software versions currently stored on the disk. The CSS prompts you to enter the software version to delete. For example:

```
ap0720001
ap0720002
```

```
Enter the software version to delete: ap0720001
```



**Warning**

---

**Ensure you do not delete the software version that you are currently running.**

---

2. Press **Enter** to display the Advanced Options menu.

```
Press <Enter> to continue...
```

3. Enter **r** to display the Offline DM main menu.
4. Select option **4** to reboot the CSS.

## Using the Security Options

The Security Options menu enables you to:

- Set password protection on the Offline DM menu
- Change the administrative username and password

The Security Options menu is as follows:

```
S E C U R I T Y O P T I O N S
```

```
Enter the number of a menu selection:
```

- ```
1. Set Password Protection for Offline Diagnostic Monitor
2. Set Administrative Username and Password
r. Return to previous menu
```

Setting Password Protection

The CSS allows you to password-protect the Offline DM Main menu against unauthorized access. The default is disabled; no password is required to access the Offline DM Main menu.



Caution

Use care when password protecting the Offline DM Main menu and ensure you take adequate steps to record the password. If you lose the new password, it cannot be recovered and you cannot access the Offline DM Main menu. At that point, the only solution would be to contact the Cisco Technical Assistance Center (TAC) at 1-800-553-2447 or 1-408-526-7209. You can also e-mail TAC at tac@cisco.com.

To access the Offline DM Main menu password protection option:

1. Select option **1** from the Security Options menu.

Password protect Offline Diagnostic Monitor menu (yes,no):
The administrative username and password are required to access the Offline Diagnostic Monitor menu.

- If you enter **yes**, the CSS prompts you to enter a username and password when you access the Offline DM Main menu.
- If you enter **no**, the CSS does not prompt you for a username and password when you access the Offline DM Main menu.

2. Press **Enter** to display the Security Options menu.

Press <Enter> to continue...

3. Enter **r** to return to the Advanced Options menu.
4. Enter **r** to return to the Offline DM Main menu.
5. Enter **4** to reboot the CSS, or select another option to continue using the Offline DM Main menu.

Changing the Administrative Username and Password

During the initial log in to the CSS, you enter the default user name **admin** and the default password **system** as lowercase text. For security reasons, you should change the administrative username and password through the Security Options menu. Security on your CSS can be compromised because the administrative username and password are configured in the same way for every CSS.



Note

You may also use the **username-offdm** CLI command to change the default administrative username and password (see [Chapter 2, Configuring CSS Basics](#)).

The administrative username and password are stored in nonvolatile random access memory (NVRAM). Each time you reboot the CSS, it reads the username and password from NVRAM and reinserts them into the user database. SuperUser status is assigned to the administrative username by default.

You can change the administrative username and password, but because the information is stored in NVRAM, you cannot permanently delete them. If you delete the administrative username using the **no username** command, the CSS deletes the username from the running-config file, but restores the username from NVRAM when you reboot the CSS.

To change the administrative username and password through the Offline DM Main menu:

1. Select option **2** from the Security Options menu.
2. Enter a username. The CSS prompts you for this username when you log in. The CSS also prompts you for this username and password if you set password protection on the Offline DM Main menu.

Enter <administrator> username (minimum 4 characters):

3. Enter a password. Note that the CSS does not display passwords.

Enter <administrator> password:

4. Reenter the password for confirmation.

Confirm <administrator> password:

The CSS displays the Security Options menu.

5. Enter **r** to return to the Advanced Options menu.
6. Enter **r** to return to the Offline DM Main menu.
7. Enter **4** to reboot the CSS, or select another option to continue using the Offline DM Main menu.

Using the Disk Options

The Disk Options menu includes the following menu items:

- **Format Disk** - Reformats the disk. This option permanently erases all data on the disk. If you wish to retain the startup configuration, be sure to move it off the CSS before reformatting the disk. Also make sure you have a copy of the CSS software ADI file to reinstall on the CSS.
- **Check Disk** - Runs a quick check disk or a complete check of the disk.
- **Check Disk Disable** - Disables running a check of the disk at boot time or enable it again. By default, check disk is enabled.

**Note**

We do not recommend running a Flash disk with the **Check Disk Disable** option selected.

The Disk Options menu is as follows:

```
D I S K   O P T I O N S

Enter the number of a menu selection:

1. Format Disk
2. Check Disk
3. Check Disk Disable
r. Return to previous menu
```

Reformatting the Disk

If the CSS detects unrecoverable errors when performing a disk check, you must reformat the disk. Reformatting the disk erases all data from the disk permanently.

To reformat the disk:

1. Select option **1** from the Disk Options menu. If the CSS contains two disks, you see the following prompt:

```
Format volume in which PCMCIA slot? (0,1):
```

2. Enter **0** (for slot 0) or **1** (for slot 1).
3. Press **Enter** to continue.

The CSS prompts you to format the disk.

```
Formatting the disk results in all disk data being permanently
erased.
```

```
Are you sure you want to continue? (yes,no):
```

4. Enter one of the following:
 - **yes** to reformat the disk.
 - **no** to stop the reformat function. If the disk has unrecoverable errors and you do not reformat it, be aware that the file system may be corrupted and functionality compromised.

The CSS prompts you to perform a quick format or a complete format.

```
Quick format? (yes,no):
```

5. Enter one of the following:
 - **yes** to reformat the disk using the quick format (does not perform cluster verification). Use the quick format only when you are certain of the disk integrity.
 - **no** to reformat the disk including cluster verification.

After the CSS reformats the disk, it displays:

```
Operation completed successfully.
```

6. Enter **r** to return to the Advanced Options menu.
7. Enter **r** to return to the Offline DM Main menu.

Because the disk is empty, you must configure a primary boot record to instruct the CSS where to locate the new ADI file containing the CSS software.

8. Select option **1** to set the primary boot configuration (see the [“Setting Primary Boot Configuration”](#) section).

If you do not set the primary boot configuration before booting the CSS, the boot process halts at the prompt:

```
Would you like to access the Offline Diagnostic Monitor
menu? (y<cr>)
```

You must enter the Offline DM Main menu to set the primary boot configuration.

Performing a Check Disk

During the check disk process, the CSS detects and recovers from the following error conditions:

- File Allocation Tables (FATs) are out of synchronization
- Sector write truncation revitalization (may occur from a power loss at the time the CSS is writing to the disk)
- Bad cluster identification (of all in-use cluster) and mapping in the FAT when reformatting the disk
- Crosslinked FAT entries
- Disk entry validation, name, size, cluster assignment, cluster chaining
- Recovery of lost clusters

The amount of time the CSS requires to perform a disk check is proportional to the number of installed files and directories on the disk. The greater the number of installed files and directories, the longer the CSS takes to complete the disk check.



Note

The CSS cannot recover from sector failures located within the first 754 sectors on the disk (for example, boot, primary/secondary FAT, or root directory entries). If a sector failure occurs, use the Format Disk option of the Disk Options menu (see the [“Reformatting the Disk”](#) section). If the CSS is unable to properly format the CSS disk after using the Format Disk option, contact TAC.

To perform a disk check:

1. Select option **2** from the Disk Options menu. The CSS prompts you about correcting errors if discovered.

```
Correct errors if discovered (yes,no):
```

2. Choose whether you want the CSS to correct errors it detects. Enter one of the following:
 - **yes** to enable the CSS to correct recoverable errors it detects. When the CSS completes the disk check, it displays a summary of what was fixed.
 - **no** to prevent the CSS from correcting recoverable errors it detects. The CSS displays a summary of what would have been fixed if you had run the disk check.

The CSS prompts you to perform a quick check of the disk.

```
Quick check disk? (yes,no):
```

3. Choose whether you want the CSS to perform a quick disk check or a complete disk check. Enter either:
 - **yes** to instruct the CSS to perform a quick disk check (does not include cluster verification). Use quick disk check only when you are certain of the disk integrity.
 - **no** to instruct the CSS to perform a complete disk check, including cluster verification.

The CSS performs the disk check. When completed the CSS displays:

```
c:\ - Volume is OK (\)
Press <Enter> to continue...
```

4. Enter **r** to return to the Advanced Options menu.
5. Enter **r** to return to the Offline DM Main menu.
6. Select option **4** to reboot the CSS.

Disabling or Enabling Disk Check

The Disk Options menu provides an option to disable or enable the running of check disk. When you select this option, it toggles to disable check disk if the option is currently enabled, or to enable check disk if the option is currently disabled.



Note

We do not recommend running a Flash disk with the **Check Disk Disable** option selected.

For example, if check disk is currently enabled, to disable it:

1. Select option **3** from the Disk Options menu.
2. Enter **r** to return to the Advanced Options menu.
3. Enter **r** to return to the Offline DM Main menu.
4. Select option **2** to display the boot configuration.

When check disk is disabled, the CSS displays the following:

```
***** Miscellaneous *****
Check Disk is disabled
***** IP/MAC Information *****
IP Address:    10.3.6.58
Subnet Mask:   255.0.0.0
Gateway Address:172.16.11.1
MAC Address:   00-10-58-00-12-ca
***** PRIMARY *****
Boot Type:     DISK
Boot File:     ap0720002
***** SECONDARY *****
Boot Type:     DISK
Boot File:     ap0720002
Press <Enter> to continue...
```

If check disk is currently disabled, to reenable it:

1. Select option **3** from the Disk Options menu.
2. Enter **r** to return to the Advanced Options menu.
3. Enter **r** to return to the Offline DM Main menu.
4. Select option **2** to display the boot configuration.

When check disk is enabled, no state information appears in the Miscellaneous field of the boot configuration:

```
***** IP/MAC Information *****
IP Address:      10.3.6.58
Subnet Mask:    255.0.0.0
MAC Address:    00-10-58-00-12-ca
***** PRIMARY *****
Boot Type:      DISK
Boot File:      ap0720002
***** SECONDARY *****
Boot Type:      DISK
Boot File:      ap0720001
Press <Enter> to continue...
```

Configuring Disks in a Two-Disk CSS

The CSS 11501 and the SCM in the CSS 11503 and CSS 11506 contain two PCMCIA slots for a hard disk or Flash disk. These disks contain the CSS system software and are also used for logging and storing offline system files. The two disks are identified by the PCMCIA slots (slot 0 and slot 1) in which they are installed. Disk 0 is the default storage location for the primary and secondary boot records in the CSS. The default storage location for log files and core dumps in the CSS is the specified disk from which the CSS boots (disk 0 or disk 1).

To specify the CSS disk that is to be the storage location for booting (primary and secondary boot disk), for logging output, and for core dumps:

1. Select option **4** from the Advanced Options menu to configure the disks in the active SCM.

The CSS prompts you to specify the disk for the primary boot record.

```
Set Primary-Boot to which PCMCIA slot? (0,1):
```

2. Enter either **0** for the disk in slot 0 (the default setting) or **1** for the disk in slot 1.

The CSS prompts you to specify the disk for the secondary boot record.

```
Set Secondary-Boot to which PCMCIA slot? (0,1):
```

3. Enter either **0** for the disk in slot 0 (the default setting) or **1** for the disk in slot 1.

The CSS prompts you to specify the disk for core dump files when the CSS experiences a fatal error.

Set Core to which PCMCIA slot? (0,1):

4. Enter either **0** for the disk in slot 0 or **1** for the disk in slot 1.



Note Core dump information is intended for Cisco Technical Assistance Center (TAC) use only.

The CSS prompts you to specify the disk for writing information to log files.

Set Log to which PCMCIA slot? (0,1):

5. Enter either **0** for the disk in slot 0 or **1** for the disk in slot 1.
6. Enter **r** to return to the Advanced Options menu.
7. Enter **r** to return to the Offline DM Main menu.
8. Select option **4** to reboot the CSS.

Rebooting the CSS

To reboot the CSS from the Offline DM Main menu:

1. Select option **4** to reboot the system. The following reboot confirmation is displayed:

```
Are you sure you want to reboot? (y/n)
```

2. Enter either **y** to reboot or **n** to continue using the Offline DM Main menu.

When the CSS completes the current boot process, it:

- Accesses the network file system containing the boot image
- Boots the CSS using the boot image you last specified