Installing Software Using the Boot Helper

Last Updated: September 7, 2010

This chapter provides the procedures for installing a new version of the Cisco Video Management and Storage System application using the boot helper.

To use this *clean* installation process, the system must be *offline* while you download the new software files. The clean installation erases the hard drive before loading the new files in memory. You must back up and restore your configuration files *before* you commence this process. Both an FTP/SFTP server and a TFTP server are required.

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Boot Loader and Boot Helper

Before you install the Cisco Video Management and Storage System application, opening a session brings up the boot loader. The boot loader is a small set of system software that runs when the system first powers up. It loads the operating system from the local disk drive or the network, which loads and runs the Cisco Video Management and Storage System application. The boot loader may optionally load and run the boot helper. After you install the software, you can open a session to the module.

The boot helper is a small subset of the system software that runs on the module. It boots the module from the network and assists in software installation and upgrades, disaster recovery, and other operations when the module cannot access its software.

The application image contains the network module user functionality software. The application image is based on the Cisco Video Management and Storage System module application.

Task List

Table 3 lists the tasks required for installing a new software image.

Table 3 Task List for Upgrading Using the Boot Helper

Checklist	Checkoff
1. Download the software image files. See the "Downloading the Software Files" section on page 26.	❑
2. Back up your configuration files. See Appendix A: Backing Up Files.	❑
3. Enter configuration parameter values. See the "Entering Configuration Parameter Values" section on page 27.	❑
4. Install the software files. See the "Installing the Software Image Files" section on page 29.	❑
5. Restore the your configuration files. See Appendix B: Restoring Files.	❑

Prerequisites

- A Cisco Video Management and Storage System module is currently installed.
- You know the Cisco.com download site of the Cisco Video Management and Storage System software.
- The TFTP and FTP/SFTP servers are configured and active. If your TFTP server and FTP/SFTP server reside on the same computer, ensure that the TFTP and FTP/SFTP programs are both activated.
- The following information is available:
  - FTP/SFTP server IP address
  - FTP/SFTP server user ID
  - FTP/SFTP server password
  - Software package name
- You have checked to make sure that you can ping the Cisco Video Management and Storage System module from your TFTP server and FTP/SFTP server.

Downloading the Software Files

Review the prerequisites listed in Table 3 to ensure that all servers and modules are active and available.

SUMMARY STEPS

1. Log in and go to the Cisco Software Center website and Download Software.
2. Click **ISR Video Surveillance–VMSS** and download the following Cisco Video Management and Storage System software files and copy them to your FTP/SFTP server:
   - vmss-boothelper.nmx.*version*
   - vmss-full-k9.nmx.*version*.prt1

- vmss-installer-k9.nmx.*version*.prt1
- vmss-k9.nmx.*version*.pkg

3. Copy the other software files to your FTP/SFTP server.

DETAILED STEPS

Step 1 Log in and go to the Cisco Software Center website and Download Software.

Step 2 Click **ISR Video Surveillance–VMSS** and download the following Cisco Video Management and Storage System software files and copy them to your FTP/SFTP server:

- vmss-boothelper.nmx.*version*

  This is the Cisco Video Management and Storage System boot helper image. To aid application installation on nmx service modules when necessary.

- vmss-full-k9.nmx.*version*.prt1

  This is the package payload containing all data and executable files for a full installation of the Cisco Video Management and Storage System on NME service modules.

- vmss-installer-k9.nmx.*version*.prt1

  This is the package payload containing all data and executable files for the installer subsystem associated with the Cisco Video Management and Storage System on NME service modules.

- vmss-k9.nmx.*version*.pkg

  This is the main package for installing the Cisco Video Management and Storage System on NME service modules.

Step 3 Download the helper software file to your TFTP server.

Step 4 Copy the other software files to your FTP/SFTP server.

What to Do Next

- Back up your configuration files. See Appendix A: Backing Up Files.
- After you back up the files, configure several parameter values. See the "Entering Configuration Parameter Values" section on page 27.

Entering Configuration Parameter Values

You must configure several parameters in the server so that you can download the Cisco Video Management and Storage System software files.

SUMMARY STEPS

1. **reload**
2. To enter boot loader mode, type "***."
3. **config**
4. Enter the values for the following parameters:

- Gateway module IP address
- Subnet mask
- TFTP server address
- Gateway router address
- Ethernet interface
- Default helper image
- Default boot setting
- Default boot loader is primary

5. Use the boot helper to boot the network module.

DETAILED STEPS

Step 1 To restart the system, enter **reload**.

Step 2 To enter the boot loader mode, enter "***."

Step 3 To enter configuration mode, enter **config**.

Tip You must configure the boot loader before you can ping it.

Step 4 Enter the values for the following parameters (make sure you save the configuration parameters; the module will not become operational without the proper parameters saved):

- Gateway module IP address
- Subnet mask
- TFTP server address
- Gateway router address
- Ethernet interface
- Default helper image
- Default boot setting: **disk**
- Default boot loader: **primary**

Note We recommend that you use the primary boot loader as the default when upgrading.

Step 5 To begin the installation, enter **boot helper**. This will load the installer.

What to Do Next

Install the software files. See the "Installing the Software Image Files" section on page 29.

Installing the Software Image Files

After you download the software files and back up your configuration files, you can install the software image files.

Prerequisites

Installing the software image files requires the following information:

- TFTP server IP address
- FTP/SFTP server IP address
- FTP/SFTP server user ID
- FTP/SFTP server password
- Software package name

Note Back up your current system configuration files before you install new software.

SUMMARY STEPS

Starting from the module EXEC mode:

1. From the install menu, choose the first choice, **Install software**.
2. Enter the package name, FTP/SFTP server address, username, and password.
3. To begin the initial configuration in the post-installation configuration menu, enter **y**.
4. Enter **y** to restore the configuration saved on the local disk drive, or enter **n** to use your backup to restore your configuration.

DETAILED STEPS

Step 1 From the install menu, choose the first choice, **Install software**:

```
Welcome to Cisco Systems Service Engine Helper Software
Please select from the following
1       Install software
2       Reload module
(Type '?' at any time for help)
Choice: 1
```

Step 2 Enter the package name, FTP/SFTP server address, username, and password, as shown in the following example:

```
Package name: vmss-k9.nmx.version.pkg
Server url: ftp://10.33.162.120/
Username: cvms
Password: ******
The following partition can be preserved on install:
  ['media0']
All data on the partition will be left intact.
Do you wish to preserve the partition? (y/n) n
Software installation will clear disk contents
Continue [y/n]? y
```

Caution This step cleans the hard drive. All configurations are lost after this step. For future upgrades and installations, verify that a backup has been done. If backup has not been done, abort at this step and do a backup. See Appendix A: Backing Up Files.

Step 3 To begin the initial configuration, enter **y**:

```
IMPORTANT::
IMPORTANT::    Welcome to Cisco Systems Service Engine
IMPORTANT::     post installation configuration tool.
IMPORTANT::
IMPORTANT:: This is a one time process which will guide
IMPORTANT:: you through initial setup of your Service Engine.
IMPORTANT:: Once run, this process will have configured
IMPORTANT:: the system for your location.
IMPORTANT::
IMPORTANT:: If you do not wish to continue, the system will be halted
IMPORTANT:: so it can be safely removed from the router.
IMPORTANT::

Do you wish to start configuration now (y,n)? y
```

Step 4 Enter **y** to restore the configuration saved on the local disk drive, or enter **n** to use your backup to restore your configuration. See the output below to determine your configuration needs.

```
IMPORTANT::
IMPORTANT:: A Cisco Video Management and Storage System Module configuration has been
found in the local disk drive.
IMPORTANT:: You can choose to restore this configuration into the
IMPORTANT:: current image.
IMPORTANT::
IMPORTANT:: A stored configuration contains some of the data from a
IMPORTANT:: previous installation, but not as much as a backup. For
IMPORTANT:: example: voice messages, user passwords, user PINs, and
IMPORTANT:: auto attendant scripts are included in a backup, but are
IMPORTANT:: not saved with the configuration.
IMPORTANT::
IMPORTANT:: If you are recovering from a disaster and do not have a
IMPORTANT:: backup, you can restore the saved configuration.
IMPORTANT::
IMPORTANT:: If you are going to restore a backup from a previous
IMPORTANT:: installation, you should not restore the saved configuration.
IMPORTANT::
IMPORTANT:: If you choose not to restore the saved configuration, it
IMPORTANT:: will be erased from the local disk drive.
IMPORTANT::

Would you like to restore the saved configuration? (y,n)
```

What to Do Next

Open a Cisco Video Surveillance Management Server (VSMS) session to the Cisco Video Management and Storage System module to verify that all configurations are preserved following the clean installation process.