



Cisco Video Management and Storage System SRE Installation and Upgrade Guide

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Cisco Video Management and Storage System SRE Installation and Upgrade Guide
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Overview of Cisco Video Management and Storage System SRE Software Installation

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The Cisco Video Management and Storage System application runs on the Cisco Service Module-Service Ready Engine (Cisco SM-SRE) module, which is the service module hardware component of the Cisco Video Management and Storage System. The Cisco SM-SRE module can reside either in Cisco 2900 Series or 3900 Series Integrated Service Routers (ISRs).

This guide provides procedures and command-line interface (CLI) commands for installing, licensing, and upgrading Cisco Video Management and Storage System application software. It supports features of Cisco Video Management and Storage System running on the Cisco SM-SRE module. To view the product feature history, see [Release Notes for the Cisco Video Management and Storage System SRE](#), which lists feature support for Cisco Video Management and Storage System application versions.

The installation of new software or upgrades to existing software for the Cisco Video Management and Storage System SRE module is described. License keys and software activation are also described. This guide does not provide information about installing Cisco routers or other Cisco network modules. For information about those topics, see the [“Additional References” section on page 3](#).

When you ordered your Cisco SM-SRE module for your Cisco 2900 Series or 3900 Series Integrated Services Router, you were given a choice: To ship Cisco SM-SRE from the factory with or without Cisco Video Management and Storage System application software preinstalled.

If you selected to have the module shipped from the factory with the application installed, do not reinstall the Cisco Video Management and Storage System application.

If you selected not to have the module shipped from the factory with the application installed, complete the following steps before installing the application:

1. Make sure that the Cisco SRE hardware is properly installed in one of the service module (SM) slots of the Cisco 2900 Series or 3900 Series ISR.
2. Configure the host router to module interface and install the application:
 - Use Cisco IOS software to configure Cisco SRE module as a host router interface, as described in [Cisco SRE Service Module Configuration and Installation Guide](#).
 - Complete the appropriate tasks and procedures in this guide for installing new application software or upgrading an existing version of the application.
3. To upgrade Cisco Video Management and Storage System software to a later version, complete the appropriate tasks and procedures in this guide to install the upgraded version of Cisco Video Management and Storage System application.

4. After the new or upgraded software is installed, perform the administrative and configuration tasks described in *Cisco Video Management and Storage System SRE CLI Administrator Guide*.

This chapter contains the following sections:

- [Software Upgrade Process](#), page 2
- [Types of Software Installations and Upgrades](#), page 2
- [Platforms and Cisco IOS Software Images](#), page 3
- [Additional References](#), page 3

Software Upgrade Process

For a complete list of versions and the upgrade processes available for them, see the software upgrade version matrix in *Release Notes for the Cisco Video Management and Storage System SRE*.

Upgrading existing Cisco Video Management and Storage System software involves the following procedures:

1. Clean install or upgrade using the appropriate processes.
2. Configure new features, if appropriate. For details on configuring the software on the Cisco Video Management and Storage System application, see *Cisco Video Management and Storage System SRE CLI Administrator Guide*.

Types of Software Installations and Upgrades

Choose the appropriate software installation method to upgrade or install new software on the Cisco SM-SRE module for the type of installation required.

- Upgrade installation—Follow this procedure to upgrade from an earlier software version to the current one. Only upgrades from version 6.2.1 to later versions are supported on the Cisco SM-SRE module. To upgrade, use the online installer with the **software install upgrade** command. Backup of your configuration and data files is not required for this procedure. See the “[Upgrading Software Using the Online Installer \(No Backup and Restore Required\)](#)” chapter for details.
- Clean installation—Use one of the following two processes to install software, depending on whether your system is operational or off line:
 - Clean installation without boot helper—Installs new software using the online installer with the **software install clean** command. The system remains operational while the new software files are downloaded in the background. Before installing a new software image, you must back up your configuration and data files and restore them after installation is complete. See the “[Installing New Software Using the Online Installer \(Backup and Restore Required\)](#)” chapter for details.
 - Clean installation using boot helper—Installs software upgrades using the boot helper. This procedure is used for downloading new software versions if the system is off line or if other upgrade procedures are unsuccessful.



Note This procedure does not perform incremental upgrades.

You must back up and restore your configuration and data files when using this procedure. See “[Installing Software Using the Boot Helper](#)” chapter for details.

Platforms and Cisco IOS Software Images

Cisco Video Management and Storage System application uses a set of commands that are similar in structure to Cisco IOS software commands. However, the Cisco Video Management and Storage System commands do not have any effect on the Cisco IOS configuration.

The Cisco Video Management and Storage System uses the *service module* command-line interface (CLI) commands for its operation. See the [Cisco Video Management and Storage System SRE CLI Administrator Guide](#) for details about using the service module CLI commands.

See the [Release Notes for the Cisco Video Management and Storage System SRE](#) for detailed information about the Cisco Video Management and Storage System SRE hardware and software platform options.

Uninterruptible Power Supply Recommendations

We strongly recommend attaching an uninterruptible power supply (UPS) to the host router that houses the Cisco SM-SRE module. Any reliable UPS unit will provide continuous power to maintain the operation of both the router and the Cisco SM-SRE module. Consider the unit's capacity and run time because power consumption differs among Cisco platforms. Ideally, a UPS should include a signaling mechanism that directs the router to properly shut down the Cisco SM-SRE module; the UPS then powers off the router.

Additional References

The following sections provide references related to the Cisco Video Management and Storage System SRE module.

Related Documents

Related Topic	Document Title
Cisco Video Management and Storage System and the Cisco Video Surveillance Solution	<ul style="list-style-type: none"> • Release Notes for the Cisco Video Management and Storage System SRE • Cisco Video Management and Storage System SRE CLI Administrator Guide • Cisco Integrated Storage System Installation and Upgrade Guide • Cisco Integrated Storage System CLI Administrator Guide • Connecting Cisco Analog Video Gateway Network Modules to the Network • Cisco Analog Video Gateway Installation and Upgrade Guide • Cisco Analog Video Gateway CLI Administrator Guide • Cisco Analog Video Gateway XML API Guide • Open Source License Notice
Cisco IOS software	<ul style="list-style-type: none"> • Cisco IOS Software

Related Topic	Document Title
Cisco SM-SRE	<ul style="list-style-type: none"> • Cisco Network Modules and Interface Cards Regulatory Compliance and Safety Information • Installing Cisco Network Modules and Service Modules in Cisco Access Routers • Cisco SRE Service Module Configuration and Installation Guide
Technical documentation, including feedback and assistance	What's New in Cisco Product Documentation (including monthly listings of new and revised documents)

Related Cisco IOS Documents

Related Topic	Document Title
Cisco IOS configuration	Cisco IOS Software Releases 15.0

Standards and RFCs

RFC	Title
RFC 1094	Network File System Protocol Specification

Technical Assistance

Description	Link
For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly <i>What's New in Cisco Product Documentation</i> , which also lists all new and revised Cisco technical documentation, at: Subscribe to the <i>What's New in Cisco Product Documentation</i> as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.	http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html
Cisco Feature Navigator website	http://www.cisco.com/go/cfn Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. An account on Cisco.com is not required.
Cisco Software Center website	http://www.cisco.com/public/sw-center/



Licensing and Software Activation

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This document provides an overview of the Cisco Software Licensing (CSL) processes and describes the role the Cisco Software Activation feature plays in those processes. The Cisco Video Management and Storage System, Video Surveillance Management System, and Video Surveillance Operations Manager applications enable CSL to manage feature entitlements for SRE-enabled platform stock keeping units (SKUs). Both applications can reside on either of two Cisco SM-SRE module SKUs: Cisco SM-SRE-700 and Cisco SM-SRE-900.

Two licenses are available for the Cisco SM-SRE:

- VMSS-VSMS-LIC—License to run the Cisco Video Management and Storage System and Video Surveillance Management System applications.
- VMSS-VSOM-LIC—License to run the Cisco Video Management and Storage System and Video Surveillance Operations Manager when managing video processes as a standalone site application.

This section contains the following topics:

- [About Software Activation, page 5](#)
- [Options for Obtaining and Maintaining Software Licenses, page 7](#)

About Software Activation

Cisco Video Management and Storage System application has a general purpose license (VMSS-VSMS-LIC) and an optional Video Surveillance Operations Manager (VMSS-VSOM-LIC), which are required for the applications to run. There is a 60-day evaluation license bundled with the software images that can be used to evaluate the hosting environment.

The CSL framework also supports custom Cisco or third party licenses using dynamic license policies. Cisco Software Licensing:

- Bundles the VMSS-VSOM-LIC evaluation license with the Video Surveillance Operations Manager
- Supports evaluation license activation after accepting an end-user license agreements (EULAs)
- Supports permanent license installation and removal

License Keys and Types

The Cisco software activation feature is an orchestrated collection of processes and components designed to activate Cisco software feature sets by obtaining and validating Cisco software licenses.

The following describes license keys, license types, and other licensing terms:

Product Authorization Key

A Product Authorization Key (PAK) may be required to interact with the Cisco licensing portals. A PAK is provided to customers when they order and purchase the right to use a feature set for a particular platform. It serves as a receipt and is an important component to obtain and upgrade a license.

Customers may also purchase a bulk PAK to fulfill multiple licenses on a device.

Universal Device Identifier

Cisco software performs license verification checks by comparing a stored Universal Device Identifier (UDI)—a unique and unchangeable identifier assigned to all Cisco hardware devices—with that of the device. The UDI has two main components: product ID (PID) and serial number (SN). The UDI is printed on a label located on the back of most Cisco hardware device and can be viewed using software.

Software License Validation

Cisco Software Licensing uses a system of validation keys to provide a simple mechanism for deploying new feature sets that offer Cisco customers increased functionality for upgrading and maintaining their software.

License keys for the Video Surveillance Management System or Video Surveillance Operations Manager features must be enabled on the Cisco Video Management and Storage System. You can obtain the license key using Cisco's licensing portal. A license key is issued for a specific feature set and is node-locked to the device UDI.

End User License Agreement

As part of the licensing process, you must accept the terms and conditions set forth in the EULA. This agreement is accepted implicitly when you first use a new device but must be explicitly accepted before a feature set can be activated for evaluation and upon applying temporary extension licenses.

Permanent License

Permanent licenses are perpetual; that is, they do not have any usage period associated with them. After permanent licenses are installed, they provide all the permissions necessary to access features in the software image. All permanent licenses are node locked and validated by the licensing infrastructure during software installation and, after a permanent license is installed, it is not necessary to upgrade for subsequent releases.

Temporary License

Temporary licenses are limited to a specific usage period (for example, 60-days), and the EULA must be accepted before temporary licenses are activated.

Temporary licenses may or may not be node-locked, depending on their type. For instance, evaluation licenses bundled with the software not, while an extension license issued by Cisco TAC would be under certain circumstances.

Options for Obtaining and Maintaining Software Licenses

Cisco software activation provides the following resources to enable and register licensed features:

- [Cisco Product Licensing Registration Portal, page 7](#)—Lets you manually obtain and register individual software licenses using the Cisco registration portal.
- [RMA License Transfer, page 9](#)—Lets you transfer a software license from a failed device to a new device.
- [License Software Activation, page 10](#)—Lets you install and manage licenses directly on the device using the command-line interface (CLI) commands in Cisco Video Management and Storage System privileged EXEC mode.

Cisco Product Licensing Registration Portal

These services are provided at the following portals and require a Cisco.com (CDC) account. If you do not have a CDC account, contact your Cisco Video Management and Storage System product marketing representative.

- [Product License Registration](#)
- [Return Merchandise Authorization \(RMA\) Replacement Licenses](#)
- License resend operations
- [License Revocation and Transfer Operations](#)
- License migration

Obtaining a Permanent License

When you are ready to deploy your application, you can acquire a permanent license if your Cisco SM-SRE module does not already have one. The output of the **show license permanent** command displays a blank line if your Cisco SM-SRE module does not have a permanent license.

**Note**

You must have a Cisco.com username and password to access some of the URLs in the following procedure. If you do not have a Cisco account on Cisco.com, contact your Cisco Video Management and Storage System product marketing representative.

Follow these steps to obtain licenses for Cisco Video Management and Storage System, Video Surveillance Management System, or Video Surveillance Operations Manager features:

- Step 1** Go to the licensing portal at www.cisco.com/go/license, click the link at the top of the webpage, and enter the appropriate SKU to obtain a PAK for those Cisco Video Management and Storage System, Video Surveillance Management System, or Video Surveillance Operations Manager features that you want.
- Step 2** To get your license file, return to the Cisco [Product License Registration](#) portal and enter the appropriate information.

You must enter the PAK and the UDI of the device on which the license is to be installed. The UDI is printed on a label located on the back of most Cisco hardware devices or on a label tray visible on the front panel of field-replaceable motherboards. The UDI can also be viewed using the **show license udi** command in privileged EXEC mode. The UDI has two main components: PID and SN.

- Step 3** If prompted for Device Credential, download your device credential using **license save credential ftp://user:password@10.10.10.6/device-cred.txt** command in privileged EXEC mode.
- Step 4** Open your device credential file with a text editor and cut and paste the entire file contents into the corresponding Device Credentials field on the licensing portal.
- Step 5** Download the license file or receive the license file through your E-mail account.
- Step 6** Repeat [Step 1](#) through [Step 5](#) for each device for which you want to obtain a license.
- Step 7** Copy the license files to an FTP, SFTP, or TFTP server that can be accessed by the Cisco SM-SRE module.

After you obtain a license file from Cisco's licensing portal and copy it to an FTP, SFTP, or TFTP server, use CLI commands to install ([Step 8](#)) and verify ([Step 9](#)) the license.



Note Only a TFTP example is shown the following examples.

- Step 8** Use the **license install** command to install your licenses.
- As shown in the following example (which is truncated for easier reading), the **license install** command initiates several actions that result in either:
- The printing of an end-user license agreement with prompts to accept the agreement (for extension licenses only) or,
 - Messages indicating that the license is installed.

When a license is successfully installed, a message confirms the installation and its state, whether or not the licensed feature is present in the current image, as shown in the following example:

```

cvms# license install tftp://ip-address/FHH13070015_20091106190424734.lic
Installing...Feature:VMSS-VSMS-LIC...OK:No Error
1/1 licenses were successfully installed
0/1 licenses were existing licenses
0/1 licenses were failed to install

```

- Step 9** Use the **show license all** command to display a summary of all licenses installed on your Cisco SM-SRE module. As shown in the example, evaluation licenses for VSOM and VSMS features have not been accepted.

```

SRE-Module show license all
License Store: Evaluation License Storage
StoreIndex: 0 Feature: VMSS-VSMS-LIC Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA not accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
License Count: Non-Counted
License Priority: None
License Store: Evaluation License Storage
StoreIndex: 1 Feature: VMSS-VSOM-LIC Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA not accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
License Count: Non-Counted
License Priority: None

```

- Step 10** Use the **show license in-use** command to display licenses that are currently being used by the system, as shown in the following example:

```
SRE-VMSS-900# show license in-use
```

```

StoreIndex: 0 Feature: VMSS-VSMS-LIC                               Version: 1.0
  License Type: Permanent
  License State: Active, In Use
  License Count: Non-Counted
  License Priority: Medium
StoreIndex: 1 Feature: VMSS-VSOM-LIC                               Version: 1.0
  License Type: Permanent
  License State: Active, In Use
  License Count: Non-Counted
  License Priority: Medium

```

Step 11 After verifying the licenses are enabled, continue with the configuration of Cisco Video Management and Storage System. To configure the application's CLI parameters, see the *Cisco Video Management and Storage System CLI Administrator Guide*.

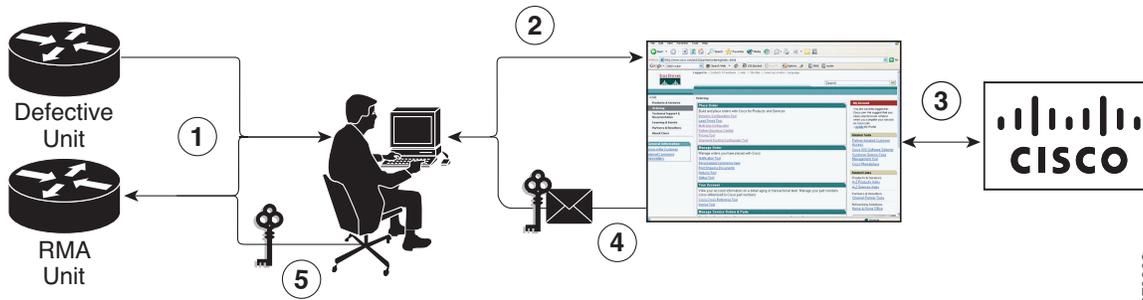
RMA License Transfer

When you need to transfer a software license from a failed device to a new device, the devices must interact with the Cisco Product License Registration portal to initiate an RMA replacement license (<https://tools.cisco.com/SWIFT/Licensing/LicenseAdminServlet/rmaLicenseTransfer>).

If you need assistance to obtain a license, contact Cisco technical support at: <http://www.cisco.com/techsupport>.

Figure 1 shows the RMA replacement license process.

Figure 1 RMA Replacement License Work Flow



The RMA replacement license process involves these steps:

1. You obtain the UDI of the defective and RMA devices.
2. You enter the UDI into the RMA License portal tool on Cisco.com.
3. The license portal determines licenses associated with defective device.
4. The license portal issues replacement licenses.
5. You install the new license on the new device.

License Software Activation

You can use the Cisco Video Management and Storage System CLI to install and manage the software licenses on your Cisco SM-SME module. This section includes the following topics:

- [Software Activation Feature Using Privileged EXEC Commands, page 10](#)
- [License Transfer, page 10](#)
- [Activating an Evaluation License, page 12](#)
- [Installing and Activating Licenses, page 14](#)

Software Activation Feature Using Privileged EXEC Commands

Use the following privileged EXEC commands perform basic licensing tasks:

- Install a license.

```
cvms# license install url
```

where the URL is in the format ftp://user:password@ip/filename.lic.

- Add a comment to a license.

```
cvms# license comment {add | delete} feature-name comment string
```

- Save license credentials. Use this command if you need to resend your device's licenses.

```
cvms# license save credentials url
```

where the URL is in the format ftp://user:password@ip/filename.cred.

- Back up a license.

```
cvms# license save ftp://path/filename.lic.
```

in the format ftp://user:password@ip/filename.lic.

- Remove or clear unused licenses.

- To see which feature licenses your Cisco Video Management and Storage System application is using, perform the following command:

```
cvms# show licenses all
```

- Shutdown each application that uses a feature license that you want to clear.



Note A license cannot be cleared if the license is currently in use.

- Clear the license using the following command:

```
cvms# license clear feature-name
```

License Transfer

Cisco supports two scenarios to transfer licenses between devices:

1. The first scenario has both the source and destination devices active and functional. In this scenario, the license is revoked on the source device, and a new permanent license is issued for the destination device.

- The second is a failure scenario in which one of the devices is unavailable. In this scenario, the license from the failed device is transferred to the RMA or to the replaced device by using the RMA License Transfer portal.

License Transfer Between Two Working Devices

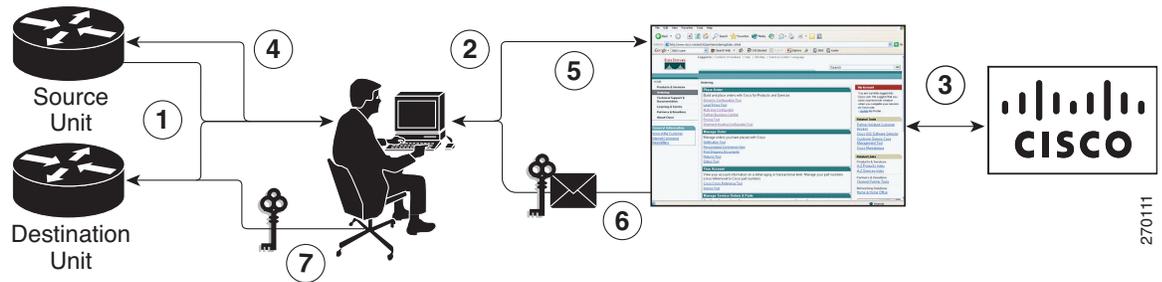
Cisco supports fully automated, customer-initiated, no-questions-asked transfer of licenses. Transferring a license is accomplished by using a process known as *rehosting*. The rehosting process transfers a license from one UDI to another by revoking the license from the source device and installing it on a new device.

You perform a license transfer (rehosting) by using one of these methods:

- Cisco Product License Registration portal
- Cisco IOS License Call Home commands
- Cisco License Manager application

Figure 2 shows the processes involved for rehosting (transferring) a license.

Figure 2 License Transfer Work Flow



This summary is for a license transfer process by using the Cisco Product License Registration portal:

- You obtain the UDI and device credentials from the source and destination devices by using Cisco Cisco SM-SRE commands. For more information, see the [“Software Activation Feature Using Privileged EXEC Commands”](#) section on page 10.
- You contact the Product License Registration page on Cisco.com, and you enter the source device credentials and the UDI into the license transfer portal tool.
- The portal displays licenses that can be transferred from the source device. Select the licenses that need to be transferred. A permission ticket is issued. You can use this permission ticket to start the rehost process by using Cisco IOS commands.
 - You apply the permissions ticket to the source device by using the **license** commands as described in the [“Software Activation Feature Using Privileged EXEC Commands”](#) section on page 10.
 - The source device then provides a rehost ticket indicating proof of revocation. A sixty-day grace period license is also installed on the device to allow enough time to transfer the licenses to the destination device.
- You enter the rehost ticket into the license transfer portal tool on Cisco.com along with destination device UDI.
- You receive the license key through E-mail.
- You install the license key on the destination device.

Activating an Evaluation License

The **show license** commands display the types of licenses available. If the license is an evaluation license, the **show license all** command also shows if the EULA has been accepted or not. To activate an evaluation license, complete the following steps:

- Step 1** Use the **show license all** command to display the status of both VSMS and VSOM licenses. As shown in the following example, the evaluation licenses for VSOM and VSMS features have not been accepted:

```
SRE-Module show license all
License Store: Evaluation License Storage
StoreIndex: 0 Feature: VMSS-VSMS-LIC Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA not accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
License Count: Non-Counted
License Priority: None
License Store: Evaluation License Storage
StoreIndex: 1 Feature: VMSS-VSOM-LIC Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA not accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
License Count: Non-Counted
License Priority: None
```

- Step 2** To accept the EULAs for VMSS-VSMS-LIC and/or VMSS-VSOM-LIC, use the **license evaluation enable** command in global configuration mode for each license to activate it. Enter **y(es)** when asked to accept the EULAs, as shown in the following two examples:

```
cvmss(config)# license evaluation enable VMSS-VSMS-LIC
```

```
Evaluation licenses are being activated in the device for the following feature(s):
```

```
Feature Name: VMSS-VSMS-LIC
```

```
PLEASE READ THE FOLLOWING TERMS CAREFULLY. INSTALLING THE LICENSE OR
LICENSE KEY PROVIDED FOR ANY CISCO PRODUCT FEATURE OR USING SUCH
PRODUCT FEATURE CONSTITUTES YOUR FULL ACCEPTANCE OF THE FOLLOWING
TERMS. YOU MUST NOT PROCEED FURTHER IF YOU ARE NOT WILLING TO BE BOUND
BOUND BY ALL THE TERMS SET FORTH HEREIN.
```

```
You hereby acknowledge and agree that the product feature license
is terminable and that the product feature enabled by such license
may be shut down or terminated by Cisco after expiration of the
applicable term of the license (e.g., 30-day trial period). Cisco
reserves the right to terminate or shut down any such product feature
electronically or by any other means available. While alerts or such
messages may be provided, it is your sole responsibility to monitor
your terminable usage of any product feature enabled by the license
and to ensure that your systems and networks are prepared for the shut
down of the product feature. You acknowledge and agree that Cisco will
not have any liability whatsoever for any damages, including, but not
limited to, direct, indirect, special, or consequential damages related
to any product feature being shutdown or terminated. By clicking the
"accept" button or typing "yes" you are indicating you have read and
agree to be bound by all the terms provided herein.
```

```
Do you accept the EULA [y/n]? : y
```

```
Feature Activated; Execute "video-surveillance task restart" CLI for license activation to
take effect.
```

```
cvmss# license evaluation enable VMSS-VSOM-LIC
```

Evaluation licenses are being activated in the device for the following feature(s):

Feature Name: VMSS-VSOM-LIC

PLEASE READ THE FOLLOWING TERMS CAREFULLY. INSTALLING THE LICENSE OR LICENSE KEY PROVIDED FOR ANY CISCO PRODUCT FEATURE OR USING SUCH PRODUCT FEATURE CONSTITUTES YOUR FULL ACCEPTANCE OF THE FOLLOWING TERMS. YOU MUST NOT PROCEED FURTHER IF YOU ARE NOT WILLING TO BE BOUND BY ALL THE TERMS SET FORTH HEREIN.

You hereby acknowledge and agree that the product feature license is terminable and that the product feature enabled by such license may be shut down or terminated by Cisco after expiration of the applicable term of the license (e.g., 30-day trial period). Cisco reserves the right to terminate or shut down any such product feature electronically or by any other means available. While alerts or such messages may be provided, it is your sole responsibility to monitor your terminable usage of any product feature enabled by the license and to ensure that your systems and networks are prepared for the shut down of the product feature. You acknowledge and agree that Cisco will not have any liability whatsoever for any damages, including, but not limited to, direct, indirect, special, or consequential damages related to any product feature being shutdown or terminated. By clicking the "accept" button or typing "yes" you are indicating you have read and agree to be bound by all the terms provided herein.

Do you accept the EULA [y/n]? : **yes**

Feature Activated; Execute "video-surveillance task restart" CLI for license activation to take effect.

Step 3 Use the **show license all** command to verify that both VSMS and VSOM licenses have been accepted and activated, as shown in the following example:

```
cvmss# show license all
License Store: Evaluation License Storage
StoreIndex: 0 Feature: VMSS-VSMS-LIC Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
License Count: Non-Counted
License Priority: Low
License Store: Evaluation License Storage
StoreIndex: 1 Feature: VMSS-VSOM-LIC Version: 1.0
License Type: Evaluation
License State: Active, Not in Use, EULA accepted
Evaluation total period: 8 weeks 4 days
Evaluation period left: 8 weeks 4 days
License Count: Non-Counted
License Priority: Low
```

Step 4 Before the license activations can successfully take effect, the **video-surveillance task restart** command must be entered, as shown in the following example:

```
cvmss# video-surveillance task restart
Restarting all Cisco Video Surveillance services, please wait ...
Apache already running..
snmpd:/usr/BWhttpd/sbin/snmpd:status...Running
snmptrapd:/usr/BWhttpd/sbin/snmptrapd:status...Running
Checking for vsrecorder
Checking for xvcrmanMonitor... Running.
Checking for xvcrman... Running.
Checking for xvcrconfig... Running.
```

```

Checking for vsms daemons... running.
Checking for mediaout... Running.
Checking for httpd... running.
Checking for service MRTG mrtg:/usr/BWhttpd/bin/mrtg:status...Running
Checking for backup server... Running.
Checking for sys config agent... Running.
se-172-25-210-163#

```

You can now continue with the configuration of the Cisco Video Management and Storage System, Video Surveillance Management System, and Video Surveillance Operations Manager applications. See the *Cisco Video Management and Storage System CLI Administrator Guide* to configure the Cisco Video Management and Storage System application.

After the evaluation license expires, the Cisco Video Management and Storage System applications continue to run. The applications will not start if the **video-surveillance task restart** command is used or the Cisco SM-SRE is reloaded.

When the evaluation license is about to expire, warning messages appear the device's console. These messages continue to appear until you have either installed a permanent license for the particular feature or you shut down the installed application that was utilizing the now expired temporary license.

Installing and Activating Licenses

Evaluation licenses only require activation and do not need to be installed because they are included with the Cisco Video Management and Storage System, Video Surveillance Management System, or Video Surveillance Operations Manager images on the Cisco SM-SRE module.

Permanent licenses must be installed but do not require any activation.

Use the **show license** commands to determine if you need to install a permanent license or to activate an evaluation license, as shown in the following example:

```

cvms# show license feature
Feature name      Enforcement  Evaluation  Clear Allowed  Enabled
VMSS-VSMS-LIC    yes         yes         yes            yes
VMSS-VSOM-LIC    yes         yes         yes            yes
linux_shell      yes         no          yes            no

```

- Use the **show license permanent** command to display the permanent license. In the following example, the CLI returns a blank line because a permanent license is not installed:

```

cvms# show license permanent
[[A blank line indicates that no permanent license is installed]]

```

- Use the **show license file** command to display the actual license files, as shown in the following example:

```

cvms# show license file
License Store: Primary License Storage
Store Index: 0
License: 11 VMSS-VSMS-LIC 1.0 LONG NORMAL STANDALONE EXCL INFINITE_KEYS IN
FINITE_KEYS NEVER NEVER NiL SLM_CODE CL_ND_LCK NiL *1HZJJJFX6BMQP
AE400 NiL NiL NiL 5_MINS <UDI><PID>SM-SRE-900-K9</PID><SN>FHH1325
001N</SN></UDI> LaSnaw2x604WWV0d00Y6VqxxlOCfpX8nviQiXU, :0EV386QzN
,rxY5SekTYtYNoj3T:553PCAmruUHIxyMXJoeVd6BfyoOvQztoJ9D5ycikYf6Ystf

```

```

TfHM3ufqt6S8LShWlf$<WLC>AQEBIQAB//8y4fSyakSpLno5M19wLRjvzLnrpK9W3
EbpfX2G331FbKQK04kZKc6MxNqkZXJxL7yRqwInXo3s+nsLU7rOtdOxoIxYZAo3LY
mUJ+MFzsqlhKoJVlPyEvQ8H21MNUjVbhoN0gyIWsyiJaM8AQIkVBQFzhr10GYo1Vz
dzfJfEPQIx6tZ++/Vtc/q3SF/5Ko8XCy=</WLC>
Comment:
Hash: qQuaB3pvi9qUPZdmgsMbDzZjYN0=
Store Index: 1
License: 11 VMSS-VSOM-LIC 1.0 LONG NORMAL STANDALONE EXCL INFINITE_KEYS IN
FINITE_KEYS NEVER NEVER NiL SLM_CODE CL_ND_LCK NiL *1HZJJJFX6BMQP
AE400 NiL NiL NiL 5_MINS <UDI><PID>SM-SRE-900-K9</PID><SN>FHH1325
001N</SN></UDI> kyKoWoyxXE7xBSPwUJ4zV6mm,PSOhrDZqJN8pYJorrVzpCypZ
BcaU9CxWGOzLgVTVelQ1MNnk3X4Z3m381p2oBLcOR:hFLnP1vbDy8Qws8K9VBncYZ
1PsJL,1Ad9pqfzufVp$<WLC>AQEBIQAB//+aPMYWE4kiI1Qws8rRlLK6Ax/cmGw2Sd
JDA6spL3GcbD7KSV5wLYN+PHw03H/jdFxyRqwInXo3s+nsLU7rOtdOxoIxYZAo3LY
mUJ+MFzsqlhKoJVlPyEvQ8H21MNUjVbhoN0gyIWsyiJaM8AQIkVBQFzhr10GYo1Vz
dzfJfEPQIx6tZ++/Vtc/q3SF/5Ko8XCy=</WLC>
Comment:
Hash: o6Jwm+8w/f97X7ZvGLExF9o7sE8=
License Store: Evaluation License Storage
Store Index: 0
License: 11 VMSS-VSMS-LIC 1.0 LONG TRIAL DISABLED 1 DISABLED STANDALONE AD
D INFINITE_KEYS INFINITE_KEYS NEVER NEVER NiL SLM_CODE DEMO NiL N
iL Ni NiL NiL 5_MINS NiL PjwvCW8A21QLSw5XUSMHLsXdbIiyi3jqa4uMlwhr
oLFG6ojt5C5E46hKWp:Xtgz38$<WLC>AQEBIQAB//+4YnbK/7Y0TG0PJQAuBI1zH
RsQ5wNQues27aLfEmNk9HBhkPXhMKTy0SqIfcIojkSRqwInXo3s+nsLU7rOtdOxoI
xYZAo3LYmUJ+MFzsqlhKoJVlPyEvQ8H21MNUjVbhoN0gyIWsyiJaM8AQIkVBQFzhr
10GYo1VzdzfJfEPQIx6tZ++/Vtc/q3SF/5Ko8XCy=</WLC>
Comment:
Hash: qEmD4LiXIH3vCutGhUxZT5h/RuA=
Store Index: 1
License: 11 VMSS-VSOM-LIC 1.0 LONG TRIAL DISABLED 1 DISABLED STANDALONE AD
D INFINITE_KEYS INFINITE_KEYS NEVER NEVER NiL SLM_CODE DEMO NiL N
iL Ni NiL NiL 5_MINS NiL YnhKWGaZ7zaRj0CaEkvifVcm1:1F3yV2D,t2KLtf
Ro3m0uGqmZk440Vk:oWMFY4Ifq$<WLC>AQEBIQAB//g4sRu8LPj3rfKBbk1ofLze
bQg3qHUICyU6hCVC6nz5ADiRXieijK2zdKvqx5AJ+eRqwInXo3s+nsLU7rOtdOxoI
xYZAo3LYmUJ+MFzsqlhKoJVlPyEvQ8H21MNUjVbhoN0gyIWsyiJaM8AQIkVBQFzhr
10GYo1VzdzfJfEPQIx6tZ++/Vtc/q3SF/5Ko8XCy=</WLC>
Comment:
Hash: v7PhckVI/D7gV5adtn3fsZ+xD/=

```




Upgrading Software Using the Online Installer (No Backup and Restore Required)

Last Updated: September 7, 2010

This chapter provides procedures for upgrading from a previous software version of the Cisco Video Management and Storage System application to a later version using the “upgrade” online software installer in the application.

An *upgrade installation* replaces only the files on the disk that are necessary for creating the new software image. Your existing configuration will not be erased.

With this procedure, the software files are downloaded in the background while the Cisco Video Management and Storage System application continues to run. Anytime after the download is finished, you can perform the upgrade. Only an FTP/SFTP server is required.

This section includes the following sections:

- [Task List, page 17](#)
- [Prerequisites, page 18](#)
- [Downloading and Installing an Upgrade Image, page 18](#)
- [What to Do Next, page 21](#)

Task List

[Table 1](#) lists the tasks required for upgrading to a new software image.

Table 1 *Task List for Upgrading from the Previous Cisco Video Management and Storage System Software Version*

Checklist	Check Off
1. Ensure your Cisco SM-SRE module is operationally up and the Cisco Video Management and Storage System application is running properly.	<input type="checkbox"/>
2. Ensure your FTP/SFTP server is configured and active.	<input type="checkbox"/>
3. Download and install the upgrade software image files. See the “Downloading and Installing an Upgrade Image” section on page 18 . During the upgrade installation process you are asked what disk drive option you prefer. Be prepared to select the option you prefer.	<input type="checkbox"/>

Prerequisites

- The Cisco SM-SRE module is operationally up and that the Cisco Video Management and Storage System application is running properly.
- You know the Cisco.com download site of the Cisco Video Management and Storage System application software.
- Your FTP/SFTP server is configured and active.
- You have the following information 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 SM-SRE module from your FTP/SFTP server.
- If the Cisco Video Management and Storage System software is configured to use a Domain Name System (DNS), you can use hostnames to identify the FTP/SFTP server. If the Cisco Video Management and Storage System software is *not* configured to use a DNS, use the IP address of the FTP/SFTP server.

Downloading and Installing an Upgrade Image

Follow this procedure to upgrade an existing Cisco Video Management and Storage System software image. Examples shown are for an FTP server. If you are using SFTP, you need to modify the commands to support an SFTP server.



Tip

If you have not already done so, we recommend that you back up your configuration files before starting the upgrade. See [Appendix A: Backing Up Files](#).

SUMMARY STEPS

1. Log in and go to the Cisco Software Center website and click [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-full-k9.sme.version.pt1
 - vmss-installer-k9.sme.version.pt1
 - vmss-k9.sme.version.pkg
3. (Optional) To download the new software, enter the **software download upgrade** command.



Note

Although the **software download upgrade** command is optional, it is useful for staging the installation. The command stores the software files on the local disk drive, which can save time during any subsequent installation or upgrade.

4. (Required for Step 5) To continue the download, enter y.

5. (Optional) To check the download status, enter the **software download status** command.
6. To upgrade to the new software, enter the **software install upgrade** command.
7. Enter **y** to install the upgrade, or enter **n** to stop the installation procedure.
The system automatically reloads when the software upgrade is complete.
8. To verify the upgrade is complete, enter the **show software versions** command.



Tip To view what is in the download directory, enter the **show software directory download** command.

DETAILED STEPS

-
- Step 1** Go to the Cisco Software Center website and click [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-full-k9.sme.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 Cisco SM-SRE modules.
 - `vmss-installer-k9.sme.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 Cisco SM-SRE modules.
 - `vmss-k9.sme.version.pkg`
This is the main package for installing the Cisco Video Management and Storage System on Cisco SM-SRE modules.

- Step 3** (Optional) To download the software from the FTP server, enter the **software download upgrade** command:

```
cvms# software download upgrade url
ftp://ftp-server-ip-address/vmss-upgradek9.sme.version.pkg username username password
password
```



Note This example uses the default anonymous FTP user.

or, if the FTP server has been configured:

```
cvms# software download upgrade vmss-k9.sme.version.pkg username username password
password
```



Note If the FTP server has been set in configuration mode, you do not need to use the FTP parameters.

- Step 4** (Required for Step 5) To begin the download, enter **y**:

```
WARNING:: This command will download the necessary software to
WARNING:: complete an upgrade. It is recommended that a backup be done
WARNING:: before installing software.
```

```
Would you like to continue? [n] y
Downloading vmss-k9.sme.version.pkg
```

```
Bytes downloaded : xxxxx
```

```
Validating package signature ... done
Validating installed manifests .....complete.
```



Note After you download the software, there are no other prompts that require you to take action. The software package is downloaded from your FTP server to the Cisco Video Management and Storage System application residing on the Cisco SM-SRE module.

At this point, the new software loads from the FTP server and the system restarts.

Step 5 (Optional) To check the download status, enter the **software download status** command.

Step 6 To upgrade to the new software, enter the **software install upgrade** command.



Note The following example uses the default anonymous FTP user.

```
cvms# software install upgrade url ftp://ftp_server_ip_address/vmss-k9.sme.version.pkg
```



Note In the following example, either the files were previously downloaded using the **software download** command or the FTP server was configured.

```
cvms# software install upgrade vmss-k9.sme.version.pkg
```

Step 7 Enter **y** to install the upgrade, or enter **n** to stop the installation procedure.

```
WARNING:: This command will install the necessary software to
WARNING:: complete an upgrade. It is recommended that a backup be done
WARNING:: before installing software.
```

```
Would you like to continue? [n] y
```



Caution An upgrade does not replace everything on the local disk drive. It replaces only the files necessary for the upgrade. We recommend that you back up your configuration files before installing any software.

The system automatically reloads when the upgrade is complete.

Step 8 To verify the upgrade, enter the **show software versions** command.

In the output displayed for the **show software versions** display, the Cisco Video Management and Storage System software version is shown as the Global version. The other versions shown are for internal components of the product and may not correspond to the actual software version.



Tip To view what is in the download directory, enter the **show software directory download** command.

What to Do Next

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

■ What to Do Next



Installing New Software Using the Online Installer (Backup and Restore Required)

Last Updated: September 7, 2010

This chapter provides procedures for installing a new version of the Cisco Video Management and Storage System application using the “clean” online software installer.

This *clean* installation “cleans” the hard drive by erasing it before loading all new files. Before starting the clean installation, you must back up your configuration files. After the installation is complete, you must restore the configuration files. Only an FTP/SFTP server is required for a clean installation.

With the **software download** command, the software files are downloaded in the background while the Cisco Video Management and Storage System application continues to operate. Anytime after the download is finished, you can perform the install using the **software install** command.



Note

If you are upgrading software from an *existing* Cisco Video Management and Storage System application, you can use a different procedure that does not require backing up and restoring your configuration files. See the “[Upgrading Software Using the Online Installer \(No Backup and Restore Required\)](#)” section on page 17. However, if you are installing new software to the Cisco Video Management and Storage System application, you must use the installation procedure in this section.

Media preservation is an option with the new software installer. New software installations are considered destructive installs that completely erase the drive. To prevent losing the archives from the storage partition, you can choose the option to preserve the media partition and only format the other partitions during the installation process.

This section includes the following:

- [Task List, page 23](#)
- [Prerequisites, page 24](#)
- [Downloading and Installing a New Software Image, page 25](#)
- [What to Do Next, page 31](#)

Task List

[Table 2](#) lists the tasks required for installing new Cisco Video Management and Storage System application.

Table 2 **Task List for Installing New Cisco Video Management and Storage System Application**

Checklist	Check Off
1. Ensure Cisco SM-SRE module hardware is properly installed in the Cisco 2900 Series or Cisco 3900 Series Integrated Services Router Generation. See Cisco Network Modules and Interface Cards Regulatory Compliance and Safety Information and Installing Cisco Network Modules and Service Modules in Cisco Access Routers for Cisco SM-SRE hardware installation instructions.	<input type="checkbox"/>
2. Ensure Cisco SM-SRE module is configured as an interface to host router, as described in the Cisco SRE Service Module Configuration and Installation Guide .	<input type="checkbox"/>
3. Back up your media files. See Appendix A: Backing Up Files .	<input type="checkbox"/>
4. Ensure your FTP/SFTP server is configured and active.	<input type="checkbox"/>
5. Download and install the software image files. See the “ Downloading and Installing a New Software Image ” section on page 25. During the installation process you are asked what disk drive storage option you prefer. Be prepared to select the storage option you prefer.	<input type="checkbox"/>
6. Restore the media files. See Appendix B: Restoring Files .	<input type="checkbox"/>
7. Reboot the system.	<input type="checkbox"/>
8. Accept the terms and conditions set forth in the end-user license agreement (EULA). See the Licensing and Software Activation chapter for more information about Cisco Video Management and Storage System application and licensing.	<input type="checkbox"/>

Prerequisites

- The Cisco SM-SRE module is properly installed.
- You have configured the Cisco SM-SRE as an interface to host router.
- You know the Cisco.com download site of the Cisco Video Management and Storage System application software.
- Your FTP/SFTP server is configured and active.
- The following information is available:
 - FTP/SFTP server IP address or hostname
 - FTP/SFTP server user ID
 - FTP/SFTP server password
 - Software package name
- You have checked to make sure that you can ping the Cisco SM-SRE module from the FTP/SFTP server.
- If the Cisco Video Management and Storage System software is configured to use DNS, you can use hostnames to identify the FTP/SFTP server. If the Cisco Video Management and Storage System software is *not* configured to use DNS, use the IP address of the FTP/SFTP server.

Downloading and Installing a New Software Image

Follow this procedure to install new Cisco Video Management and Storage System application software. Examples show are for an FTP server. If you are using SFTP, you need to modify the commands to support an SFTP server.



Note

If you have not already backed up your configuration files, you must back up the files before you start the installation. See “[Appendix A: Backing Up Files](#)” for information on how to back up your files.

SUMMARY STEPS

1. Log in and go to the Cisco Software Center website and click [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-full-k9.sme.version.pt1`
 - `vmss-installer-k9.sme.version.pt1`
 - `vmss-k9.sme.version.pkg`
3. (Optional) To download the new software from your FTP/SFTP server:
 - a. Enter the **service-module integrated slot/unit session** command to start a module session.
 - b. Enter the **software download clean** command,
or, if the FTP/SFTP server has been configured,
Enter the **software download clean pkg vmss-k9.sme.version.pkg**.



Tip

Although the **software download** command is optional, it is useful for staging the installation. The command stores the software files on the local disk drive, which can save time during any subsequent installation or upgrade.

4. Before installation begins on the Cisco SM-SRE-900 module, you are asked if you want to use RAID 1, Linear RAID, or RAID 0 for your disk drives, all three are supported by the Cisco Video Management and Storage System application version 6.2.1 and later. Choose the RAID 1, Linear RAID, or RAID 0 option. If you are installing the application on Cisco SM-SRE-700 module, RAID is not an option.
5. To prevent losing the archives from the storage partition, choose the option to preserve the media partition and only format the other partitions during the installation process.
6. (Required for Step 7) To continue the installation, enter **y** when prompted by the system.
7. (Optional) To check the download status, enter the **software download status** command.
8. To install the new software, enter the **software install clean url**
`ftp://ftp-server-ip-address/vmss-k9.sme.version.pkg` command.
The system automatically reloads when the installation is complete.

If you used the optional **software download** command to store the software files on the local disk drive, you do not need to use the **software install clean** command as this will unnecessarily download the software a second time.

9. Enter **y** to restore the configuration saved on the local disk drive, or enter **n** to use your backup software image to restore your configuration.
10. To begin the initial configuration, enter **y**.
11. Enter the hostname and domain name of your system.
12. Select whether or not you want to use DNS.
13. Select your time zone by answering the series of questions when prompted.
14. Verify that the correct time zone has been selected.

DETAILED STEPS

-
- Step 1** Log in and go to the Cisco Software Center website and click [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-full-k9.sme.version.pt1`
This is the package payload containing all data and executable files for a full installation of the Cisco Video Management and Storage System application on Cisco SM-SRE modules.
 - `vmss-installer-k9.sme.version.pt1`
This is the package payload containing all data and executable files for the installer subsystem associated with the Cisco Video Management and Storage System application on Cisco SM-SRE modules.
 - `vmss-k9.sme.version.pkg`
This is the main package for installing the Cisco Video Management and Storage System application on Cisco SM-SRE modules.
- Step 3** (Optional) To download the new software from the FTP/SFTP server:

- a.** Enter the **sm integrated slot/unit session** command to start a module session:

```
cvnss# service-module sm slot/unit session
```

- b.** Enter the **software download clean** command:

```
cvnss> software download clean url ftp://ftp_server_ip_address/vmss-k9.sme.version.pkg  
username username password password
```

Or, if the FTP server has been configured:



Tip If you use FTP anonymously, you do not need to specify a username and password.

Enter the software download clean pkg command:

```
cvnss# software download clean pkg vmss-k9.sme.version.pkg
```



Note If your FTP server has been set in configuration mode, you do not need to use the FTP parameters. To set your FTP server, use the **software download server** command.

```
Delete the installed Cisco Foundation Software and proceed with new installation?  
[no]: yes  
Loading pub/VMSS-RAID0/vmss-k9.sme.eng_bld.pkg.install.sre !
```

```
[OK - 7918/4096 bytes]
Please select RAID mode for storage partition (1 = RAID-1, 2 = Linear RAID, 3 =
RAID-0): 3
If you are installing on a system which already has VMSS installed your media
partition may contain archives.
Would you like for the install to preserve this partition if it exists? Please note
that if you are changing
your RAID option from the previous install, the media partition will not be preserved.
Preserve? [n]:
```

- Step 4** Before installation begins on the Cisco SM-SRE-900 module, you are asked if you want to use RAID 1, Linear RAID, or RAID 0 for your disk drives, all three are supported by the Cisco Video Management and Storage System application version 6.2.1 and later. Choose the RAID 1, Linear RAID, or RAID 0 option.

**Note**

If you are installing the software application on Cisco SM-SRE-700, only one disk drive is available on the module and RAID is not an option. During the installation of Cisco SM-SRE-700, the RAID query does not appear.

```
Disk Configuration Mode
1      RAID-1
2      Linear
3      RAID-0
Choice: 3
```

- Step 5** To prevent losing the archives from the storage partition, choose the option to preserve the media partition and only format the other partitions during the installation process.

```
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] y
```

**Caution**

This step cleans the hard drive. If you choose not to preserve the archive partition, all data are lost after this step.

- Step 6** (Required for Step 7.) To continue the download, enter **y**:

```
WARNING:: This command will download the necessary software to
WARNING:: complete a clean install. It is recommended that a backup be done
WARNING:: before installing software.
```

```
Would you like to continue? [n] y
```

- Step 7** (Optional) To check the download status, enter the **software download status** command, as shown in the following example:

```
cvms# software download status
Download request in progress.
downloading file : vmss-k9.sme.version.pkg
bytes downloaded : 18612224
cvms#
```

```
cvms# software download status
Download request completed successfully.
cvms#
```



Tip To view what is in the download directory, enter the **show software directory download** command.

Step 8 To install the new software, enter the **software install clean** command.

If you used the optional **software download** command to store the software files on the local disk drive, you do not need to use the **software install clean** command as this will unnecessarily download the software a second time.



Caution This step erases the hard drive. All configurations will be lost after this step. For future upgrades and installations, verify that a backup has been made. If there is no backup, abort at this step and make a backup first. See [Appendix A: Backing Up Files](#).

```
cvmss# software install clean url ftp://ftp-server-ip-address/vmss-k9.sme.version.pkg
username username password password
```

or, to install the software when the FTP server has been configured,

```
cvmss# software install clean vmss-k9.sme.version.pkg
```

The installation takes several minutes to complete.

Step 9 Enter **y** to restore the configuration saved in memory, or enter **n** to use your backup software image to restore your configuration. See the output below to determine your configuration needs.



Note If this is a new installation or if the hard drive has been erased, the following output will *not* be displayed.

```
IMPORTANT::
IMPORTANT:: A Cisco Video Management and Storage Module configuration has been found in
local hard 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 hard drive.
IMPORTANT::
```

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

Step 10 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
Are you sure (y,n)? y

```

Step 11 Enter the hostname and domain name of your system:

```

Enter Hostname
(my-hostname, or enter to use se-10-0-0-22):
Using se-10-0-0-22 as default

Enter Domain Name
(mydomain.com, or enter to use localdomain):
Using localdomain as default

```

```

IMPORTANT:: DNS Configuration:
IMPORTANT::
IMPORTANT:: This allows the entry of hostnames, for example foo.cisco.com, instead
IMPORTANT:: of IP addresses like 1.100.10.205 for application configuration. In order
IMPORTANT:: to set up DNS you must know the IP address of at least one of your
IMPORTANT:: DNS Servers.

```

Step 12 Select whether or not you want to use DNS. In the following example, **n** is selected, and the entry of an IP address is required:

```

Would you like to use DNS (y,n)?n

WARNING: If DNS is not used, IP addresses will be required.

Are you sure (y,n)? y

Enter IP Address of the Primary NTP Server
(IP address, or enter for 13.0.0.20):
Found server 13.0.0.20

Enter IP Address of the Secondary NTP Server
(IP address, or enter to bypass):

```

Step 13 Select your time zone by answering the series of questions when prompted, as shown in the following example:

```

Please identify a location so that time zone rules can be set correctly.
Please select a continent or ocean.
1) Africa          4) Arctic Ocean    7) Australia      10) Pacific Ocean
2) Americas       5) Asia           8) Europe
3) Antarctica     6) Atlantic Ocean 9) Indian Ocean
#? 2
Please select a country.
1) Anguilla        18) Ecuador       35) Paraguay
2) Antigua & Barbuda 19) El Salvador  36) Peru
3) Argentina      20) French Guiana 37) Puerto Rico
4) Aruba          21) Greenland     38) St Kitts & Nevis
5) Bahamas        22) Grenada       39) St Lucia
6) Barbados       23) Guadeloupe   40) St Pierre & Miquelon
7) Belize         24) Guatemala    41) St Vincent
8) Bolivia        25) Guyana        42) Suriname

```

```

9) Brazil
10) Canada
11) Cayman Islands
12) Chile
13) Colombia
14) Costa Rica
15) Cuba
16) Dominica
17) Dominican Republic
26) Haiti
27) Honduras
28) Jamaica
29) Martinique
30) Mexico
31) Montserrat
32) Netherlands Antilles
33) Nicaragua
34) Panama
43) Trinidad & Tobago
44) Turks & Caicos Is
45) United States
46) Uruguay
47) Venezuela
48) Virgin Islands (UK)
49) Virgin Islands (US)
#? 45

```

Please select one of the following time zone regions.

```

1) Eastern Time
2) Eastern Time - Michigan - most locations
3) Eastern Time - Kentucky - Louisville area
4) Eastern Time - Kentucky - Wayne County
5) Eastern Standard Time - Indiana - most locations
6) Eastern Standard Time - Indiana - Crawford County
7) Eastern Standard Time - Indiana - Starke County
8) Eastern Standard Time - Indiana - Switzerland County
9) Central Time
10) Central Time - Michigan - Wisconsin border
11) Central Time - North Dakota - Oliver County
12) Mountain Time
13) Mountain Time - south Idaho & east Oregon
14) Mountain Time - Navajo
15) Mountain Standard Time - Arizona
16) Pacific Time
17) Alaska Time
18) Alaska Time - Alaska panhandle
19) Alaska Time - Alaska panhandle neck
20) Alaska Time - west Alaska
21) Aleutian Islands
22) Hawaii
#? 16

```

The following information has been given:

```

United States
Pacific Time

```

Step 14 Verify that the correct time zone has been selected.

Therefore TZ='America/Los_Angeles' will be used.

Is the above information OK?

```

1) Yes
2) No
#? 1

```

```

Local time is now:      Tue Sep 25 19:15:12 PDT 2007.
Universal Time is now: Wed Sep 26 02:15:12 UTC 2007.
Configuring the system. Please wait...
Changing owners and file permissions.
chown: cannot access `/usr/tomcat': No such file or directory
Change BWhttpd port to 8079
Reloading cron database.
Setting file ownership and permissions ... complete.

```

What to Do Next

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

■ What to Do Next



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 software 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 start this process. Both an FTP/SFTP server and a TFTP server are required.

This chapter contains the following sections:

- [Boot Loader and Boot Helper, page 33](#)
- [Task List, page 34](#)
- [Prerequisites, page 34](#)
- [Downloading the Software Files, page 35](#)
- [Entering Configuration Parameter Values, page 36](#)
- [Installing the Software Image Files, page 37](#)

Boot Loader and Boot Helper

Before you install the Cisco Video Management and Storage System software, 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 software.

Media preservation is an option with the boot helper. Boot helper installations are considered destructive installs that completely erase the drive. To prevent losing the archives from the storage partition, you can choose the option to preserve the media partition and only format the other partitions during the installation process.

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. Ensure your TFTP and FTP/SFTP servers are configured and active.	<input type="checkbox"/>
2. Download the software image files. See the “ Downloading the Software Files ” section on page 35.	<input type="checkbox"/>
3. Back up your configuration files. See Appendix A: Backing Up Files .	<input type="checkbox"/>
4. Enter configuration parameter values. See the “ Entering Configuration Parameter Values ” section on page 36.	<input type="checkbox"/>
5. Install the software files. See the “ Installing the Software Image Files ” section on page 37.	<input type="checkbox"/>
6. Restore the your configuration files. See Appendix B: Restoring Files .	<input type="checkbox"/>
7. Reboot the system.	<input type="checkbox"/>
8. Accept the terms and conditions set forth in the end-user license agreement (EULA). See the Licensing and Software Activation chapter for more information about Cisco Video Management and Storage System application and licensing.	<input type="checkbox"/>

Prerequisites

- Cisco SM-SRE module is currently installed and operational.
- Cisco Video Management and Storage System application is running properly.
- 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 SM-SRE module from your TFTP and FTP/SFTP servers.

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 click [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.sme.version`
 - `vmss-full-k9.sme.version.prt1`
 - `vmss-installer-k9.sme.version.prt1`
 - `vmss-k9.sme.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 click [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-full-k9.sme.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 Cisco SM-SRE modules.
 - `vmss-installer-k9.sme.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 Cisco SM-SRE modules.
 - `vmss-k9.sme.version.pkg`
This is the main package for installing the Cisco Video Management and Storage System on Cisco SM-SRE modules.
- Step 3** Download the helper software file to your TFTP server.
- `vmss-boothelper.sme.version`
This is the Cisco Video Management and Storage System boot helper image. The helper software aids application installation on Cisco SM-SRE modules when necessary..
- 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 36.

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 37.

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:

- Decide whether you want to use RAID 1, Linear RAID, or RAID 0 option for your local disk drives.
- 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. Before installation begins on the Cisco SM-SRE-900 module, you are asked if you want to use RAID 1, Linear RAID, or RAID 0 for your disk drives, all three are supported by the Cisco Video Management and Storage System application version 6.2.1 and later. Choose the RAID 1, Linear RAID, or RAID 0 option. If you are installing the application on Cisco SM-SRE-700 module, RAID is not an option.
3. Enter the package name, FTP/SFTP server address, username, and password.
4. To prevent losing the archives from the storage partition, choose the option to preserve the media partition and only format the other partitions during the installation process.
5. To begin the initial configuration in the post-installation configuration menu, enter **y**.

- 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
3      Disk cleanup
4      Install License(s)
5      Linux shell
(Type '?' at any time for help)
Choice: 1
Package name: vmss-k9.sme.eng_bld.pkg

cvmss-module#mss-k9.sme.eng_bld.pkg script vmss-k9.sme.eng_bld.pkg.install.s$
Delete the installed Cisco Foundation Software and proceed with new installation? [no]:
yes
Loading pub/VMSS-RAID0/vmss-k9.sme.eng_bld.pkg.install.sre !
[OK - 7918/4096 bytes]
Please select RAID mode for storage partition (1 = RAID-1, 2 = Linear RAID, 3 = RAID-0): 3
If you are installing on a system which already has VMSS installed your media partition
may contain archives.
Would you like for the install to preserve this partition if it exists? Please note that
if you are changing
your RAID option from the previous install, the media partition will not be preserved.
Preserve? [n]:

```

- Step 2** Before installation begins on the Cisco SM-SRE-900 module, you are asked if you want to use RAID 1, Linear RAID, or RAID 0 for your disk drives, all three are supported by the Cisco Video Management and Storage System application version 6.2.1 and later. Choose the RAID 1, Linear RAID, or RAID 0 option.



Note

If you are installing the software application on Cisco SM-SRE-700, only one disk drive is available on the module and RAID is not an option. During the installation of Cisco SM-SRE-700, the RAID query does not appear.

```

Disk Configuration Mode
1      RAID-1
2      Linear
3      RAID-0
Choice: 3

```

- Step 3** Enter the package name, FTP/SFTP server address, username, and password, as shown in the following example:

```

Server url: ftp://128.107.146.235/pub/VMSS-RAID0/
Username:cvmss
Password:*****

Downloading ftp vmss-k9.sme.eng_bld.pkg
Bytes downloaded : 683001

Validating package signature ... done
- Parsing package manifest files... complete.
No installed manifests found.

```

```
- Checking Package dependencies... complete.
- Checking Manifest dependencies for subsystems in the install candidate list...
complete
Populating resource values from /etc/products/argus/mixed_raid_rsrc_file
```

- Step 4** To prevent losing the archives from the storage partition, choose the option to preserve the media partition and only format the other partitions during the installation process.

```
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] y
```



Caution

This step cleans the hard drive. If you choose not to preserve the archive partition, all data are lost after this step.

- Step 5** 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 6** 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 application to verify that all configurations are preserved following the clean installation process.



Appendix A: Backing Up Files

Last Updated: September 7, 2010

Backup commands must be entered in the Cisco SM-SRE module's privileged EXEC mode while the system is offline. Consider performing the backup procedure at a time when the system is least active.



Note

We recommend that you back up your configuration files whenever you make changes to the system or the application files. When you configure the backup server to back up files, you can also schedule nightly backups of the configuration.

Prerequisite

Configure your backup server. See the [Cisco Video Management and Storage System CLI Administrator Guide](#) to configure your backup server.

Numbering Scheme for Backup Files

Five types of backup CLI requests are available: Cisco Video Management and Storage System application data only, Cisco Video Management and Storage System startup configuration only, Video Surveillance Management System data files only, Video Surveillance Operations Manager data files only, or back up all. However, the Cisco Video Management and Storage System data only files are not backed up.

- **Data**—Other than Video Surveillance Management System and Video Surveillance Operations Manager archive data, no data is stored in the Cisco Video Management and Storage System.
- **Configuration**—Backs up only the startup configuration. Use the **show startup** command in user EXEC mode to display the current startup configuration.
- **All**—Backs up startup configuration information. There are no Cisco Video Management and Storage System data only files; thus, only the Video Surveillance Management System and Video Surveillance Operations Manager files are backed up.
- **Video Surveillance Management System**—Backs up Cisco Video Surveillance Media Server data files.
- **Video Surveillance Operations Manager**—Backs up Cisco Video Surveillance Operations Manager data files.

The Cisco Video Management and Storage System software automatically numbers and dates the backup files and identifies the revision number in a **backupid** field.

When restoring the files, refer to the backup ID for the backup configuration file that you want to use. To see a list of startup configuration file backup IDs, use the **show backup server** command in user EXEC mode.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **backup server**
4. **exit**
5. **offline**
6. **backup category {all | configuration | data | VSMS | VSOM}**
7. **continue**
8. **show backup history**
9. **show backup server**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: cvmss-10-0-0-0> enable	Enables the privileged EXEC command mode.
Step 2	configure terminal Example: cvmss-10-0-0-0# configure terminal cvmss-10-0-0-0(config)#	Enters configuration mode.
Step 3	backup server Example: cvmss-10-0-0-0(config)# backup server url ftp://branch/vmbackups username admin password mainserver	Configures the FTP/SFTP URL of the backup server.
Step 4	exit Example: cvmss-10-0-0-0(config)# exit cvmss-10-0-0-0#	Exits configuration mode.

	Command or Action	Purpose
Step 5	offline Example: cvmss-10-0-0-0# offline cvmss-10-0-0-0(offline)#	Enters offline mode. All activities are terminated.
Step 6	backup category {all configuration data VSMS VSOM} Example: cvmss-10-0-0-0(offline)# backup category configuration	Specifies backup and storage of the Cisco Video Management and Storage System startup configuration, Video Surveillance Media Server, Video Surveillance Operations Manager, or all files.
Step 7	continue Example: cvmss-10-0-0-0(offline)# continue	Exits offline mode and returns to EXEC mode.
Step 8	show backup history Example: cvmss-10-0-0-0# show backup history	Displays the backup and restore procedures and the success or failure of those attempts.
Step 9	show backup server Example: cvmss-10-0-0-0# show backup server	Displays the backup files available on the backup server, the date of each backup, and the backup file ID.

■ **Numbering Scheme for Backup Files**



Appendix B: Restoring Files

Last Updated: September 7, 2010

After you create the backup configuration files for the Cisco Video Management and Storage application, you can restore the files as needed. Restoring is done in offline mode, which terminates all activity. You should consider doing the restore when the system is least active.

Use the **show backup server** command to locate the backup ID of the file that you want to restore.

SUMMARY STEPS

1. **show backup server**
2. **offline**
3. **restore id *backupid* category {all | configuration | data | VSMS | VSOM}**
4. **reload**
5. **show backup history**

DETAILED STEPS

	Command or Action	Purpose
Step 1	show backup server Example: cvms-10-0-0-0# show backup server	Lists the configuration backup files. Look at the backup ID field for the revision number of the file that you want to restore.
Step 2	offline Example: cvms-10-0-0-0# offline	Enters offline mode. All activities are terminated.
Step 3	restore id <i>backupid</i> category {all configuration data VSMS VSOM} Example: cvms-10-0-0-0(offline)# restore id 8 category configuration	Specifies the backup ID <i>backupid</i> value and the Cisco Video Management and Storage configuration file type to be restored. Use the backup ID that you used in Step 1. Note Make sure that you have enough storage space to store the files. Restoring could take a long time.

	Command or Action	Purpose
Step 4	reload Example: cvms-10-0-0-0 (offline)# reload	Resets the Cisco Video Management and Storage SRE module so that the restored values take effect.
Step 5	show backup history Example: cvms-10-0-0-0# show backup history	Displays the backup and restore procedures and the success or failure of those attempts.



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