



Configuring Local and Remote Storage

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This section describes how to configure the Cisco Video Management and Storage System to store archive files on iSCSI (Internet small computer system interface) and NFS (Network File Systems) storage devices. Use the Cisco Video Management and Storage System command-line interface (CLI) commands to add a new iSCSI or NFS devices or to modify existing iSCSI or NFS devices.

The Cisco Video Management and Storage System enhanced network module supports an Internet SCSI (iSCSI) connection to an external storage device. We recommend, but do not require, that the external Gigabit Ethernet connector be used for iSCSI connection. The Gigabit Ethernet port on the faceplate of the network module and the Gigabit Ethernet port on the router can be configured as iSCSI connections.

This chapter describes the following:

- [Configuring Local Storage Devices, page 31](#)
- [Configuring iSCSI Storage Devices, page 32](#)
- [Configuring NFS Mounts from NFS Servers, page 43](#)

Configuring Local Storage Devices

The **format storages local** command formats the local storage device the media tag of *media0*. Use the **show storages all filesystem** command to get information about the current state of *media0*. The **local** command option is available only with 2.0 and later versions of the Cisco Video Management and Storage System.

As shown in [Examples](#), a data loss warning message appears immediately after this command is entered. Local storage device formatting proceeds only after a **y(es)** confirmation is entered. After formatting is complete, the local storage device is automatically mounted.



Note

If the Cisco Video Management and Storage System application is in the process of storing or reviewing an archive from *media0*, formatting of *media0* will not proceed and a device busy message will appear.

SUMMARY STEPS

1. **format storages local** *media-tag*

DETAILED STEPS

	Command or Action	Purpose
Step 1	<pre>format storages local media-tag</pre> <p>Example: cvmss-module# format storages local media0</p>	Formats the local storage device. <i>media-tag</i> : For the local storage device, the media tag sets the unique string identifier for the local storage device <i>media0</i> .

Examples

The following example shows the command to format the local storage device, *media0*.

```
cvmss-module> format storages local media0

!!!WARNING!!!
!!!WARNING!!! You are about to start a destructive sequence of
!!!WARNING!!! operations. All data on the storage device media0
!!!WARNING!!! will be lost and unrecoverable.
!!!WARNING!!! The device formatting can take up to a few minutes.
!!!WARNING!!! During formatting, your console is locked and
!!!WARNING!!! unavailable for use. Before you proceed further, back
!!!WARNING!!! up the contents of the storage device media0.
!!!WARNING!!!
!!!WARNING!!! If you are not sure what to do, answer "no" to the
!!!WARNING!!! following question and then exit.
!!!WARNING!!!

Do you wish to proceed [y/n]? :
```

Configuring iSCSI Storage Devices

This section describes the following:

- [Configuring Only One VSMS to Same iSCSI Target, page 32](#)
- [Formatting iSCSI Storage Devices for Version 1.1 and Earlier Versions, page 37](#)
- [Formatting iSCSI Devices for Version 2.0 and Later Versions, page 39](#)

Configuring Only One VSMS to Same iSCSI Target

The iSCSI protocol is an Internet-enabled SCSI protocol and acts like the SCSI protocol, in which only one Video Surveillance Management System (VSMS) can access one iSCSI disk drive. You must avoid connecting more than one VSMS to the same iSCSI target. Traditional file systems, such as *ext3*, are designed to work on only one VSMS at a time.

**Caution**

Mounting a file system on more than one VSMS at a time will almost certainly cause problems with unpredictable results.

Be aware that even when *ext3* is mounted in read-only mode, *ext3* might still write to the disk drive. It might not write data but will replay the journal. If another VSMS has already been mounted on the same file system, data will almost certainly be corrupted.

Use the **storages iscsi** commands to configure iSCSI storage devices managed by the Cisco Video Management and Storage System module.

Prerequisites and Considerations

Before configuring iSCSI storage devices, be aware of the following prerequisites and considerations:

1. The iSCSI CLI commands allow you to configure nine media tags (media1, media2, and so on to media9) to support up to nine unique iSCSI targets. The mount point */media0* is assigned to the Cisco Video Management and Storage System module local hard disk repository.
2. Each media profile must be assigned a unique IP address.
3. Only one volume can be mounted to the Cisco Video Management and Storage System at any given time.
4. Devices can be formatted by using the CLI. The iSCSI devices can be formatted only to *ext3* format.



Caution

Direct access to the storage device, for example */dev/sda*, is not allowed with an iSCSI device. You must use the media tag that you defined in the configuration of the iSCSI target tag. Formatting of the storage device is denied if the device is occupied or busy. However, once it is cleared of the busy condition, a storage device can be formatted regardless of its existing format—valid, invalid, supported, unsupported, or unknown FS type. The formatting of multiple devices at the same time is not supported.

5. Each volume is translated into logical unit number (LUN) numbering from initiator aspect, typically 0, 1, 2, and so on.
6. A mountable directory is named using a tag name with the LUN number suffix. For example, a target tag of */media1* with single volume number 0 is named as */media1_0*; that is, the mount point is followed by an underscore (*_*) character and the volume number 0.
7. Only one volume and one iSCSI storage server can be mounted on a Cisco Video Management and Storage System at any given time.
8. Authentication is not necessary because the Cisco Video Management and Storage System uses a dedicated private VLAN through either the secured internal or secured external Gigabyte Ethernet interface.
9. Administrators manage the iSCSI targets and volumes of each target allocation to ensure that no multiple VSMS access is configured to a single target or target volume (see the [“Configuring Only One VSMS to Same iSCSI Target”](#) section on page 32).
10. Any devices of unsupported file system types (for example, *ext2*) are recorded and logged in, but their use is disabled because they are not mounted.
11. If target storage servers are reloaded or power cycled, the iSCSI tags must be logged in again because, after the target iSCSI device is powered cycled or reloaded, existing sessions and sequence numbers are reset. Rediscovery and relogin are necessary after the target storage device is operational.
12. The external Gigabit Ethernet connector located on the Cisco Video Management and Storage System module is used to connect to iSCSI mass storage devices.

SUMMARY STEPS

1. **storages iscsi *media-tag***
2. **default | description | state | target-ip | timeout-node-session]**
3. **end**
4. **exit**
5. **show storages iscsi filesystem**
or
show storages all filesystem
or
show storages iscsi configuration summary
or
show storages iscsi configuration detail

DETAILED STEPS

	Command or Action	Purpose
Step 1	<pre>storages iscsi <i>media-tag</i></pre> <p>Example:</p> <pre>cvmss-module(config)> storages iscsi media1 Adding new iscsi cvmss-module(config-iscsi)></pre>	<p>Enters iSCSI configuration mode.</p> <p><i>media-tag</i>: String identifier for the IP iSCSI mass storage device in the range of media1 to media9.</p>
Step 2	<pre>[default description state target-ip timeout-node-session]</pre> <p>Example:</p> <pre>cvmss-module(config-iscsi)> storages iscsi media1 Adding new iscsi cvmss-module(config-iscsi)> default cvmss-module(config-iscsi)> target-ip 172.19.156.43 cvmss-module(config-iscsi)> descripton"media1: southwest branch" cvmss-module(config-iscsi)> state enabled cvmss-module(config-iscsi)> timeout-node-session 160 cvmss-module(config-iscsi)> end cvmss-module(config)> exit cvmss-module></pre> <p>Example: With DNS Configured</p> <pre>cvmss-module(config)> ip name-server 172.70.168.183 171.68.226.120 cvmss-module(config-iscsi)> storages iscsi media2 Adding new iscsi cvmss-module(config-iscsi)> default cvmss-module(config-iscsi)> target-ip www.sanjose_downtown.org</pre>	<p>Configures iSCSI storage target device configuration parameters.</p> <p>default: iSCSI storage target device default value.</p> <p>description: iSCSI storage target device description text in quotes. Up to 80 text characters are allowed. Default: “ ”</p> <p>state: Enables or disables the operational state of the iSCSI storage target device:</p> <ul style="list-style-type: none"> • disabled: Disables the operational state of the iSCSI storage target device. • enabled: Enables the operational state of the iSCSI storage target device. If this command option is used on a multivolume device, an error message appears asking for the specific volume name and LUN number to be enabled. • enabled [volumename <i>volumename</i> lun <i>lun#</i>]: Enables the selected volume, based on its volume name and logical unit number. This option is only available in 1.1 and later versions. <p>Default: Enabled.</p>

Command or Action	Purpose
<p>Example:target-ip</p> <pre> cvms (config)> storages iscsi medial Modifying existing iscsi cvms(config-iscsi)> target-ip 172.16.151.243 Connecting 172.16.151.243... When configuring a bad volume, the following message displays: cvms (config-iscsi)> target-ip 172.16.151.243 volumename iqn.2000-08.com.intrinsa:ivsms.dg1.BadVolName lun 0 Connecting 172.16.151.243 volume iqn.2000-08.com.intrinsa:ivsms.dg1.BadVolName... failed. iSCSI volume does not exist: When attempting to configure multiple volumes and only one volume exists, the following message displays: ERROR: The target could not be connected because multiple volumes exist on this storage server The following volumes exist on this storage server: volumename iqn.2000-08.com.intrinsa:intrinsa.intrinsa.intvol1 LUN 0 volumename iqn.2000-08.com.intrinsa:intrinsa.intrinsa.intvol2 LUN 0 cvms(config-iscsi)> end cvms(config)> end Use "target-ip <IP_ADDRESS>" command with volumename and lun as parameters. Multiple volume Exists on this device. Central-VMSS(config-iscsi)> target-ip 172.16.151.243 volumename iqn.2000-08.com.intrinsa:intrinsa.intrinsa.intvol1 LUN 0 Connecting 172.16.151.243 volume iqn.2000-08.com.intrinsa:intrinsa.intrinsa.intvol1.. . succeeded.</pre>	<p>target-ip: Sets the iSCSI target IP address in dotted decimal format or hostname. You can mount a device as either a single volume, or in the case of a multi-volume device, all or selected volumes, based on volume name and logical unit number.</p> <p>Note If you need to use a hostname, make sure that you have DNS configured (see example, “With DNS Configured” section on page 34).</p> <ul style="list-style-type: none"> <i>ip-address:</i> Selects the IP address of a single-volume iSCSI storage target device. If this command option is used on a multivolume storage device, an error message appears, asking for the specific volume name and LUN number to be selected (see example “target-ip” section on page 35 <i>ip-address [volumename volumename lun lun#]:</i> Selects the volumes of a multivolume iSCSI storage target device located at the configured IP address, based on the volume name and logical unit number. This option is only available in 1.1 and later versions. <p>timeout-node-session value: Sets the target iSCSI node time-out session in integer range 0 to 32767. Default: 120</p>
<p>Step 3 end</p> <p>Example:</p> <pre> cvms-module(config-iscsi)> end cvms-module(config)></pre>	<p>Exits the storage iSCSI configuration mode.</p>

	Command or Action	Purpose
Step 4	<pre>exit</pre> <p>Example: cvms-module(config)> exit cvms-module> </p>	Exits global configuration mode.
Step 5	<pre>show storages iscsi filesystem or show storages all filesystem show storages iscsi configuration summary or show storages iscsi configuration detail</pre> <p>Example: cvms-module> show storages iscsi filesystem or cvms-module> show storages all filesystem or cvms-module> show storages iscsi configuration summary or cvms-module> show storages iscsi configuration detail </p>	Displays a summary of iSCSI storage devices by iSCSI or all file systems, general summary of all device configurations, or detailed summary of all device configurations.

Examples

To view a summary of file systems, use the **show storages iscsi filesystem** command. For example:

```
cvms-module# show storages iscsi filesystem
Filesystem          1K-blocks      Used Available Use% Mounted on
=====
/dev/sdb             2307162084 1171905380 1018059636 54% /media1_0
/dev/sdc             576789800    106560 547384004    1% /media1_1
```

To view all the configured file systems, use the **show storages all filesystem** command. For example:

```
cvms-module# show storages all filesystem
Filesystem          1K-blocks      Used Available Use% Mounted on
=====
rootfs              9775184      1081472 8693712    12% /
/dev/root            9775184      1081472 8693712    12% /
none                1036520         0 1036520    0% /dev/shm
/dev/sda3           142284500     32828 135024032    1% /media0
/dev/sdb            2307162084 1171912476 1018052540 54% /media1_0
/dev/sdc            576789800     106560 547384004    1% /media1_1
```

To view a general summary of iSCSI storage device configurations, use the **show storages iscsi configuration summary** command. For example:

```
cvms-module# show storages iscsi configuration summary
                Sessn
  Tag  State   Target IP   Timeo
=====
media1 on     192.168.1.254 120
```

To view a detailed summary of iSCSI storage device configuration information, use the **show storages iscsi configuration detail** command. For example:

```

cvmss-module# show storages iscsi configuration detail
              Sessn
  Tag   State   Target IP   Timeo
===== =====
media1  off      0.0.0.0    120
media2  on       172.16.0.0 120
media3  on       0.0.0.0    120
media4  on       0.0.0.0    120

```

You can also display the general or detailed status of the iSCSI storage device configurations.

```

cvmss> show storages iscsi status detail
      Fou Log
  Tag  nd in  Device   Mounts   LUN  FS Types   iSCSI Portal   Portal
Target Name
=====
media1 yes yes /dev/sdb /media1_0    0  ext3      172.16.151.243:3260,0   Yes  rw
iqn.2000-08.com.intransa:intransa.
nsa.intvol1
media1 yes no  unknown not_support  0  unknown   172.16.151.243:3260,0   Yes  --
iqn.2000-08.com.intransa:intransa.
nsa.intvol2

```

To view a general status of the configured iSCSI storage devices, use the **show storages iscsi status summary** command. For example:

```

cvmss-module# show storages iscsi status summary
      Rec Log
  Tag  ord in  Device   Mounts   LUN  Vol  FS Types   iSCSI Portal   IO
=====
media1 yes yes /dev/sdb /media1_0    0  2  ext3      192.168.1.254:3260,1  rw
media1 yes yes /dev/sdc /media1_1    1  2  ext3      192.168.1.254:3260,1  rw

```

To view a detailed status of the configured iSCSI storage devices, use the **show storages iscsi status detail** command. For example:

```

cvmss-module# show storages iscsi status detail
      Rec Log
  Tag  ord in  Device   Mounts   LUN  Vol  FS Types   iSCSI Portal   IO Target Name
=====
media1 yes yes /dev/sdb /media1_0    0  2  ext3      192.168.1.254:3260,1  rw
iqn.1999-02.com.nexsan:p0:sataboy:01731a5a
media1 yes yes /dev/sdc /media1_1    1  2  ext3      192.168.1.254:3260,1  rw
iqn.1999-02.com.nexsan:p0:sataboy:01731a5a

```

Formatting iSCSI Storage Devices for Version 1.1 and Earlier Versions

You must take the highest level of caution when using the CLI to format iSCSI storage devices. You cannot directly access the storage device (for example, /dev/sda) with an iSCSI device. You must use the media tag that you defined in the configuration of the iSCSI target tag. If the device is occupied or busy, it cannot be formatted. However, once the device is cleared of the busy condition, a storage device can be formatted regardless of its existing format—valid, invalid, supported, unsupported, or unknown FS type. The formatting of multiple devices at the same time is not supported.

Use the **format storages** command to format iSCSI mass storage devices managed by the Cisco Video Management and Storage System version 1.1 or earlier versions of the module.

SUMMARY STEPS

1. **configure terminal**
2. **format storages** *storage-type media-tag*
3. *lun# fs-type*
4. **end**
5. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	For 1.1 and earlier versions: configure terminal Example: cvmss-module> configure terminal cvmss-module (config)#	Enters global configuration mode.
Step 2	format storages <i>storage-type media-tag</i> Example: cvmss-module (config)# format storages iscsi media8 cvmss-module (config-iscsi)#	Enters storage device configuration mode for the mass storage device identified by <i>storage-type</i> to be formatted. <i>storage-type</i> : Sets the storage interface type to iSCSI, USB, or SATA. Note Only iSCSI is supported. <i>media-tag</i> : Sets the unique string identifier for the IP iSCSI mass storage device in the range of media1 to media9.
Step 3	<i>lun# fs-type</i> Example: cvmss-module (config-iscsi)# 0 ext3	Sets the iSCSI device logical unit number and file system type. <i>lun#</i> : Sets the corresponding iSCSI volume number. <i>fs-type</i> : Sets the file system type, ext3 or reiserfs. Note The <i>ext3</i> file system is the only type supported.
Step 4	end Example: cvmss-module (config-iscsi)# end	Exits storage device configuration mode.
Step 5	end Example: cvmss-module (config)# end	Exits global configuration mode.

Examples

The following example shows the format command for formatting iSCSI mass storage device media8, logical unit number (LUN) 0, and file type ext3. Note the warning message and two confirmations that you must respond to before an attempt is made to format the device.

```

cvmss-module# format storages iscsi media8 0 ext3

!!!WARNING!!!
!!!WARNING!!! You are about to start a destructive sequence of
!!!WARNING!!! operations. All data on the storage device will be lost
!!!WARNING!!! and unrecoverable. Depending on the capacity of the
!!!WARNING!!! storage device, the formatting can take up to a few
!!!WARNING!!! hours. During formatting, your console is locked and
!!!WARNING!!! unavailable for use. Before you proceed further, back
!!!WARNING!!! up the contents of the storage device.
!!!WARNING!!!
!!!WARNING!!! If you are not sure what to do, answer "no" to the
!!!WARNING!!! following question and then exit.
!!!WARNING!!!

Do you wish to proceed [y/n]? : y
Are you sure you want to format the device and lose all the data [y/n]? : y
Formatting /dev/sdb in ext3
mke2fs 1.37 (21-Mar-2005)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
366247936 inodes, 732481536 blocks
36624076 blocks (5.00%) reserved for the super user
First data block=0
22354 block groups
32768 blocks per group, 32768 fragments per group
16384 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968,
    102400000, 214990848, 512000000, 550731776, 644972544

Writing inode tables: 254/22354

```

Formatting iSCSI Devices for Version 2.0 and Later Versions

You must take the highest level of caution when using the CLI to format iSCSI storage devices. You cannot directly access the storage device (for example, /dev/sda) with an iSCSI device. You must use the media tag that you defined in the configuration of the iSCSI target tag. If the device is occupied or busy, it cannot be formatted. However, once the device is cleared of the busy condition, a storage device can be formatted regardless of its existing format—valid, invalid, supported, unsupported, or unknown FS type. The formatting of multiple devices at the same time is not supported.

Use the **format storages iscsi** or the **format storages local** command to format iSCSI mass storage or local storage devices managed by the Cisco Video Management and Storage System for versions 2.0 or later versions to the module.

iSCSI Storage Devices

The **format storages iscsi** command formats the iscsi storage devices assigned media tags *media1* to *media9*. Use the **show storages all filesystem** command to get information about the state of the *media1* to *media9* devices. The **mount-option sync** command options are available only with 2.0 or later versions of the Cisco Video Management and Storage System.

Use the **format storages**

As shown in [Examples](#), a data loss warning message appears immediately after this command is entered. The formatting of the selected iSCSI storage device *media0* to *media9* will proceed only after a **y(es)** confirmation is entered. After formatting is complete, the selected device is automatically mounted.

The **mount-option sync** command allows an iSCSI device to be mounted using the synchronous I/O option, where all the I/O operations to the iSCSI device are performed in a synchronous mode. That is, the I/O operation for a given request proceeds only after getting an acknowledgement from the iSCSI device. By default, this feature is turned not enabled, and the iSCSI device is mounted without the synchronous I/O option.

If the iSCSI device is already mounted when **mount-option sync** command is used, it displays the message:

```
You must disable and then enable this media before the changes will take place.
```

The configuration takes effect at the time of next login to this iSCSI device.

**Caution**

Because iSCSI performance becomes degraded when using the **mount-option sync** option, this command should be used with caution. While using this command option helps to achieve greater iSCSI device reliability, the throughput of the iSCSI device is compromised. Although reduced throughput does not affect the archiving process, it affects the backup operation. The backup operation is much more demanding of the iSCSI performance. We recommend that, in deployment scenarios where there are frequent network or power outages that can cause the iSCSI device to be unreachable, it is better to use this command to improve the iSCSI storage media reliability.

SUMMARY STEPS

1. **configure terminal**
2. **format storages iscsi *media-tag***
3. **mount-option sync**
4. **end**
5. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	<p>For 2.0 and later versions:</p> <pre>cvmss-module> configure terminal</pre> <p>Example:</p> <pre>cvmss-module> configure terminal cvmss-module (config)#</pre>	Enter global configuration mode.
Step 2	<pre>cvmss-module (config)# format storages iscsi media-tag</pre> <p>Example:</p> <pre>cvmss-module (config)# format storages iscsi media1 Modifying existing iscsi cvmss-module (config-iscsi)#</pre>	<p>Enter iSCSI storage device format configuration mode for the iSCSI device identified by <i>media-tag</i>.</p> <p><i>media-tag:</i></p> <p>For iSCSI storage devices, the media tag sets the unique string identifier for the IP iSCSI mass storage device in the range of media1 to media9.</p>
Step 3	<pre>format storages iscsi <i>media-tag</i> [mount-option] [sync]</pre> <p>Example:</p> <pre>cvmss-module (config-iscsi)# mount-option sync mount configuration has been changed successfully. cvmss-module (config-iscsi)# end cvmss-module (config)# end</pre> <pre>(config-iscsi)# no mount-option sync mount configuration has been changed successfully. You must disable and then enable this media before the changes will take place. cvmss-module (config-iscsi)# end cvmss-module (config)# end</pre>	<p>mount-option sync: (Optional) Sets the iSCSI device to be mounted by using the synchronous I/O option, where all the I/O operations to the iSCSI device are performed in a synchronous mode.</p> <p>Use the no form of this command to remove the mount-option sync configuration; that is, the iSCSI file system is mounted without synchronous I/O option. For the changes to take effect, the media must first be disabled and then reenabled.</p> <p>Note While using this command option helps to achieve greater iSCSI device reliability, the throughput of the iSCSI device is compromised.</p> <p>Default: no mount-option sync configuration</p>
Step 4	<pre>end</pre> <p>Example:</p> <pre>cvmss-module (config-iscsi)# end</pre>	Exits iSCSI storage device format configuration mode.
Step 5	<pre>end</pre> <p>Example:</p> <pre>cvmss-module (config)# end</pre>	Exits global configuration mode.

Examples

The following example shows the format command for formatting iSCSI mass storage device media1 in global configuration mode.

```

cvmss-module (config)# format storages iscsi media1

!!!WARNING!!!
!!!WARNING!!! You are about to start a destructive sequence of
!!!WARNING!!! operations. All data on the storage device will be lost
!!!WARNING!!! and unrecoverable. Depending on the capacity of the
!!!WARNING!!! storage device, the formatting can take up to a few
!!!WARNING!!! hours. During formatting, your console is locked and
!!!WARNING!!! unavailable for use. Before you proceed further, back
!!!WARNING!!! up the contents of the storage device.
!!!WARNING!!!
!!!WARNING!!! If you are not sure what to do, answer "no" to the
!!!WARNING!!! following question and then exit.
!!!WARNING!!!

Do you wish to proceed [y/n]? : y
Are you sure you want to format the device and lose all the data [y/n]? : y
Formatting /dev/sdb in ext3
mke2fs 1.37 (21-Mar-2005)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
366247936 inodes, 732481536 blocks
36624076 blocks (5.00%) reserved for the super user
First data block=0
22354 block groups
32768 blocks per group, 32768 fragments per group
16384 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968,
    102400000, 214990848, 512000000, 550731776, 644972544

Writing inode tables: 254/22354

```

The following example uses the **mount-option sync** command, where all the I/O operations to the iSCSI media1 device are performed in a synchronous mode.

```

cvmss-module (config-iscsi)# mount-option sync
mount configuration has been changed successfully.
You must disable and then enable this media before the changes will take place.

```

The following example uses the **show running-configuration** command in user EXEC mode, where the mount-option sync command is output.

```

cvmss-module> show running-config
Generating configuration:

clock timezone America/Los_Angeles

hostname cvmss-module

system language preferred "en_US"
software download server url "ftp://127.0.0.1/ftp" credentials hidden
"6u/dKTN/hsEuSABfw40XlF2eFhNZfyUTSd8ZZNgd+Y9J3x1k2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3x1k2B35j0nfG
WTYHfmPSd8ZZNgd+Y9J3x1k2B35j0nfGWTYHfmP"

```

```
log trace local enable

backup server url "ftp://128.107.148.164/argus_backup" credentials hidden
"Xi0lHP/mJI9CFWjDhf/D/OTywA9uqzsRSd8ZZNgd+Y9J3x1k2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3x1k2B35j0nfG
WTYHfmPSd8ZZNgd+Y9J3x1k2B35j0nfGWTYHfmP"

storages iSCSI media1
mount-option sync
timeout-node-session 120

target-ip 172.16.153.14

end storages-iscsi

end
```

Configuring NFS Mounts from NFS Servers



Note

NFS mount configuration is only supported on Cisco Video Management and Storage System version 2.2 and later.

NFS allows data to be stored on central servers and easily accessed from client devices in a client/server network configuration through a process called mounting. It allows a system to share directories and files with others over a network. Files stored on remote systems can be accessed almost as if they were local files. The Cisco Video Management and Storage System supports the command-line interface (CLI) configuration of NFS for remote video archiving.

Unlike iSCSI devices, NFS supports multiple mounts. However, the Cisco Video Management and Storage System supports a one-to-one relationship between NFS exports and mount configurations. For example, if you had an NFS server with four exports and you wanted to configure three of those mounts for video surveillance archive storage, you need to configure three separate media enclosures.

Also unlike iSCSI, NFS supports the **target-ip** command differently. You no longer need to disable an export to mount a new export. You can simply issue a **target-ip ip-address exportName export-name** command to mount a new export. If you want to change the media's IP address, simply issue **target-ip ip-address** command, which automatically unmounts the old IP address and export name and adds the new IP address.

SUMMARY STEPS

1. **configure terminal**
2. **storages nfs media-tag**
3. **end**
4. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	<pre>cvms-module> configure terminal</pre> <p>Example:</p> <pre>cvms-module> configure terminal cvms-module (config)#</pre>	Enter global configuration mode.
Step 2	<pre>cvms-module (config)# storages nfs media-tag</pre> <p>Example:</p> <pre>cvms-module (config)# storages iscsi medial Modifying existing nfs cvms-module (config-nfs)#</pre>	<p>Enter the NFS configuration mode for the NFS mount identified by <i>media-tag</i>.</p> <p><i>media-tag:</i></p> <p>For NFS mount, the media tag sets the unique string identifier for the NFS mount from an NFS server in the range of medial to media9.</p> <p>Note Error Messages: If that an iSCSI device has already been configured for medial and the following command is entered:</p> <pre>cvms-module (config-nfs)> storages nfs medial</pre> <p>The following error message appears:</p> <p>There is already a medial enclosure configured for iSCSI. Please try a different media-tag and try again.</p>

Command or Action	Purpose
<p>Step 3</p> <pre>[default state switch-on-fail target-ip]</pre> <p>Example:</p> <pre>cvmss-module(config-nfs)> storages nfs media1 Adding new nfs cvmss-module(config-nfs)> default cvmss-module(config-nfs)> state enabled cvmss-module(config-nfs)> cvmss-module(config-nfs)> target-ip 10.10.10.60 Connecting 10.10.10.60... succeeded. cvmss-module(config-nfs)> target-ip 10.10.10.60 Connecting 10.10.10.60... failed. ERROR: The target could not be connected because multiple exports exist on this storage server /var/nfs /source/nfs cvmss-module(config-nfs)> target-ip 10.10.10.60 exportname /var/nfs Connecting 10.10.10.60... succeeded. cvmss-module(config-nfs)> end cvmss-module(config)> exit cvmss-module></pre> <p>Example: With DNS Configured</p> <pre>cvmss-module(config)> ip name-server 172.70.168.183 171.68.226.120 cvmss-module(config-nfs)> storages nfs media2 Adding new nfs cvmss-module(config-nfs)> target-ip 10.10.10.60 Connecting 10.10.10.60... succeeded.</pre>	<p>Configures NFS mount configuration parameters.</p> <p>default: NFS mount default values.</p> <p>state: Enables or disables the operational state of the NFS mount:</p> <ul style="list-style-type: none"> disabled: The NFS export is not mounted. enabled: The NFS export is mounted. <p>Default: Disabled.</p> <p>switch-on-fail [on off]: Configures whether the archives can be switched to the local hard drive in the case where the NFS media device is not available. When on, the switchover of the archives process to the local drive occurs in the event the NFS media is not available.</p> <p>Note This feature is only available to the NFS device on the ISS module. It checks whether the configured device is the NFS media from the ISS module.</p> <p>Default: Off—The application waits for the configured NFS media device to become available before starting the archive.</p> <p>target-ip: Sets the NFS target IP address in dotted decimal format or name of the export server.</p> <p>Note If you need to use a hostname, make sure that you have DNS configured (see example, “ With DNS Configured” section on page 34).</p> <ul style="list-style-type: none"> <i>ip-address:</i> Selects the IP address of a single export. exportname <i>server-export:</i> Selects the server export directories.
<p>Step 4</p> <p>end</p> <p>Example:</p> <pre>cvmss-module (config-nfs)# end</pre>	<p>Exits NFS mount format configuration mode.</p>
<p>Step 5</p> <p>end</p> <p>Example:</p> <pre>cvmss-module (config)# end</pre>	<p>Exits global configuration mode.</p>

