



# Release Notes for Cisco Video Management and Storage System

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**Text Part Number OL-15413-05**

These release notes are updated as needed to support the following network modules for the Cisco Integrated Services Routers (Cisco ISRs):

- **Cisco Analog Video Gateway**— converts analog camera signals into IP-accessible endpoints. The network module receives input from analog video cameras and converts analog signals to IP video streams for IP networks used in closed-circuit IP video surveillance (IPVS) systems
- **Cisco Video Management and Storage System**—provides a method for rapid deployment of highly distributed video surveillance solutions
- **Cisco Integrated Storage System**—provides additional local disk storage for video archives within the ISR. The Cisco Integrated Storage System module is supported in the ISR only if there is a Cisco Video Management and Storage System module present within the same ISR.

We recommend that you read the field notices for this version to see if your software or hardware platforms are affected. If you have an account on Cisco.com, you can find field notices at [http://www.cisco.com/warp/customer/tech\\_tips/index/fn.html](http://www.cisco.com/warp/customer/tech_tips/index/fn.html).

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# Feature History

Table 1, Table 2, and Table 3 provide the feature history of the Cisco Video Management and Storage System, Cisco Integrated Storage System, and Cisco Analog Video Gateway network modules, respectively.

**Table 1** *Cisco Video Management and Storage System Network Module Features*

Version	Feature Name	Feature Description
6.2.1	Support for new VSMS <sup>1</sup> and VSOM <sup>2</sup>	Supports VSOM version 4.2.1 and VSMS version 6.2.1.
	Feature enhancements	Feature enhancements for better performance and usability
2.2	Removal of licensing requirements	A license is no longer required for the Cisco Video Management and Storage System
	Additional onboard storage	Support for additional onboard storage and role-based stream access
	Enhanced Storage Support	Support of NFS storage with the addition of the Cisco Integrated Storage System network module (for details, see Table 2)
	SNMP management	Support for SNMP management
	Low frame rate support for H.264 and MPEG4	Maps certain predefined bit rates to lower frame rates (1, 2, 3) for MPEG4 and H.264
	Video signal loss notification	MIB triggered event to notify the system upon reception of video signal loss from Cisco Analog Video Gateway
2.1	Support for VSOM version 4.1 and VSMS version 6.1	Supports: <ul style="list-style-type: none"> <li>• Batch administration of cameras</li> <li>• Advanced event filtering</li> <li>• Improved motion configuration</li> <li>• Other feature improvements</li> </ul>
	Improvements in central management of video surveillance capabilities	Improvements in: <ul style="list-style-type: none"> <li>• Replicating and updating configuration changes to multiple remote sites</li> <li>• Downloading images to multiple remote sites</li> <li>• Simplifying remote site deployments for iSCSI and end-devices</li> <li>• Stream access control and prioritization for access across the WAN</li> </ul>
2.0	Support for new VSOM and VSMS	Supports VSOM version 4.0 and VSMS version 6.0. <b>Note</b> A new license is required to support these new versions of VSOM and VSMS.
	Supports additional storage configuration options	Supports the configuration of additional of mass storage devices.

**Table 1 Cisco Video Management and Storage System Network Module Features (continued)**

Version	Feature Name	Feature Description
1.1	Changes to iSCSI configuration options	Supports new configuration options for the iSCSI interface.
	IP Camera support	Supports the Cisco 2500 IP Camera.
1.0	Initial Release	<p>Initial release of the Cisco Video Management and Storage System module, which allows the management of video sources through a single converged interface. It supports the Cisco IP Video Surveillance Integrated Analog Video Gateway and most major third-party IP cameras and encoders and decoders.</p> <p>It allows you to view live and archived video through the same Internet Explorer <i>thin client</i> interface, store archival video locally with up to 160 GB of local storage, and to expand to external Small Computer System Interface over IP (iSCSI) storage for long-term archives.</p>

1. VSMS = Video Surveillance Management System

2. VSOM = Video Surveillance Operations Manager

**Table 2 Cisco Integrated Storage System Network Module Features**

Version	Feature Name	Feature Description
<b>Cisco Integrated Storage System Network Module</b>		
1.0	Integrated Storage System providing 500 GB of additional archive storage	Initial release of the Cisco Integrated Storage System network module, which allows additional video archive storage when accompanied by the Cisco Video Management and Storage System module within the same Integrated Services Router (ISR).

**Table 3 Cisco Analog Video Gateway Network Module Features**

Version	Feature Name	Feature Description
1.2.2	Improved video port alarm events	<ul style="list-style-type: none"> <li>Supports video-loss and video-detect event types as well as “any-port” as a valid event source trigger</li> <li>New web-based utility introduced to configure video port alarm events</li> </ul>
	Fine-tune capability for video port settings	Web-based video viewer utility contains new sliders to fine-tune video port settings, including saturation, sharpness, brightness, contrast, and hue
	PAL channel density at parity with NTSC	The maximum of 12 PAL@4CIF streams limitation has been removed
	Configurable color-bar behavior	Provides a new CLI that allows you to disable or limit the play out time of the color-bar (the color-bar is displayed if no video signal is detected on a video port)

**Table 3** *Cisco Analog Video Gateway Network Module Features (continued)*

Version	Feature Name	Feature Description
1.2	MJPEG performance	Enhances performance for MJPEG (density).
	Configuration persistence of output ports	Cross-connected port configurations can be saved such that the configurations survive reloads.
1.1	De-interlacing enable/disable	Supports the enabling and disabling of de-interlacing using the video codec profile.
	MJPEG motion detection support	Supports motion detection for MJPEG.
	Resolution 2CIF support	Supports 2CIF resolution and maximum resolution options.
1.0	Initial Version	Initial version of the Cisco IP Video Surveillance 16-Port Analog Video Gateway Network Module, which provides high-density analog video encoding, up to 30 frames per second (f's) per port at up to 4CIF video resolution, support for Motion JPEG (MJPEG) and MPEG4, remote Pan Tilt Zoom (PTZ) camera control, integrated contact closure ports, and embedded motion detection.  The analog video gateway for video encoding is integrated with a video management and storage system, a Cisco integrated services router, and additional software from the Cisco Video Surveillance Manager products.

## Cisco Analog Video Gateway Performance Optimization

The following tables list the Cisco Analog Video Gateway MPEG4, H.264, and MJPEG video stream performance optimization, respectively, for both the NTSC and PAL video streams at the listed Common Intermediate Format (CIF) resolution and frames per second.

### MPEG4 Performance Optimization

NTSC Streams		PAL Streams	
4CIF MPEG4 30 fps	4	4CIF MPEG4 25 fps	4
4CIF MPEG4 15 fps	8	4CIF MPEG4 12.5 fps	8
4CIF MPEG4 10 fps	16	4CIF MPEG4 8.3 fps	16
2CIF MPEG4 30 fps	8	2CIF MPEG4 25 fps	8
2CIF MPEG4 15 fps	16	2CIF MPEG4 12.5 fps	16

### H.264 Performance Optimization

NTSC Streams		PAL Streams	
4CIF H.264 7.5 fps	4	4CIF H.264 6.25 fps	4
4CIF H.264 3 fps	8	4CIF H.264 2.5 fps	8
4CIF H.264 1 fps	12	4CIF H.264 1.67 fps	12
2CIF H.264 15 fps	4	2CIF H.264 12.5 fps	4

NTSC Streams		PAL Streams	
2CIF H.264 7.5 fps	8	2CIF H.264 6.25 fps	8
2CIF H.264 3 fps	16	2CIF H.264 2.5 fps	16

#### MJPEG Performance Optimization

NTSC Streams		PAL Streams	
4CIF MJPEG 30 fps	8	4CIF MJPEG 25 fps	8
4CIF MJPEG 15 fps	16	4CIF MJPEG 12.5 fps	16
2CIF MJPEG 30 fps	16	2CIF MJPEG 25 fps	16

## System Requirements

Hardware and software requirements for the Cisco Video Management and Storage System are in the following sections:

- [Hardware Supported for Cisco Video Management and Storage System, page 5](#)
- [Software Licenses, page 7](#)
- [Software Upgrade Overview, page 7](#)

## Hardware Supported for Cisco Video Management and Storage System

[Table 4](#) lists supported platforms and the minimum Cisco IOS release required to support version 2.2 and later versions of the Cisco Video Management and Storage System on the NME-VMSS2-16 and NME-VMSS2-HP32.

[Table 5](#) lists supported platforms and the minimum Cisco IOS release required to support version 2.1 and later versions of the Cisco Video Management and Storage System on the NME-VMSS-16, NME-VMSS-HP16, and NME-VMSS-HP32.

[Table 6](#) lists supported platforms and the minimum Cisco IOS release required to support version 1.0 and later versions of the Cisco Integrated Storage System on the NME-ISS.

**Table 4** *Supported Platforms of the Cisco Video Management and Storage System and Minimum Cisco IOS Release Required for Version 2.2 and Later*

Cisco Platform	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.0 GHz CPU, 2 GB, 500 GB HDD, CF 256 (NME-VMSS2-16)	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.4 GHz CPU, 2 GB, 500 GB HDD, CF 256 (NME-VMSS2-HP32)
Cisco 2801	—	—

**Table 4** *Supported Platforms of the Cisco Video Management and Storage System and Minimum Cisco IOS Release Required for Version 2.2 and Later (continued)*

<b>Cisco Platform</b>	<b>Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.0 GHz CPU, 2 GB, 500 GB HDD, CF 256 (NME-VMSS2-16)</b>	<b>Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.4 GHz CPU, 2 GB, 500 GB HDD, CF 256 (NME-VMSS2-HP32)</b>
Cisco 2811 Cisco 2821 Cisco 2851	12.4(9)T or later release	—
Cisco 3825 Cisco 3845	12.4(9)T or later release	12.4(15)T or later release

**Table 5** *Supported Platforms of the Cisco Video Management and Storage System and Minimum Cisco IOS Release Required for Version 2.1 and Earlier*

<b>Cisco Platform</b>	<b>Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.0 GHz CPU, 512 MB, 160 GB HDD, CF 256 (NME-VMSS-16)</b>	<b>Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.4 GHz CPU, 2 GB, 160 GB HDD, CF 256 (NME-VMSS-HP16)</b>	<b>Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System: 1.4 GHz CPU, 2 GB, 160 GB HDD, CF 256 (NME-VMSS-HP32)</b>
Cisco 2801	—	—	—
Cisco 2811 Cisco 2821 Cisco 2851	12.4(9)T or later release	—	—
Cisco 3825 Cisco 3845	12.4(9)T or later release	12.4(15)T or later release	12.4(15)T or later release

**Table 6** *Supported Platforms of the Cisco Integrated Storage System and Minimum Cisco IOS Release Required for Version 1.0 and Later*

<b>Cisco Platform</b>	<b>Cisco Enhanced Network Module ICE VS Cisco Integrated Storage System: 1.0 GHz CPU, 512 MB, 500 GB HDD, CF 256 (NME-ISS)</b>
Cisco 2801	—
Cisco 2811 Cisco 2821 Cisco 2851	—
Cisco 3825 Cisco 3845	12.4(15)T or later release

## Software Licenses

The Cisco Video Management and Storage System Network Module version 2.2 no longer requires a software licence.

The Cisco Video Management and Storage System Network Module software versions 2.1 and earlier versions require a licence. It is licensed on a per input stream basis (16/32) and these licenses are tied to the specific hardware for which the license is generated. These licensed ports may be any combination of Cisco IPVS module streams, IP camera streams, or third-party encoder streams.

**Table 7** lists the version 2.1 and later Cisco Video Management and Storage System Network Module software license options for the Cisco Video Surveillance Operations Manager (Cisco VSOM) and Video Surveillance Management System (Cisco VSMS) stream license.

**Table 8** lists the version 2.0 and earlier Cisco Video Management and Storage System Network Module software license options for the Cisco Video Surveillance Operations Manager (Cisco VSOM) and Video Surveillance Management System (Cisco VSMS) stream license.

To view the Open Source License Notices, see

[http://www.cisco.com/en/US/docs/video/cavg/rel1\\_1/openssl/license/Open\\_Source\\_License\\_Notices.html](http://www.cisco.com/en/US/docs/video/cavg/rel1_1/openssl/license/Open_Source_License_Notices.html).

**Table 7**      **Version 2.1 and Later License Options**

System	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System (NME-VMSS-HP16)	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System (NME-VMSS-HP32)
License Option	16-port Cisco VSOM and VSMS stream license	32-port Cisco VSOM and VSMS stream license

**Table 8**      **Version 2.0 and Earlier License Options**

System	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System (NME-VMSS-16)	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System (NME-VMSS-HP16)	Cisco Enhanced Network Module ICE VS Cisco Video Management and Storage System (NME-VMSS-HP32)
License Option	16-port Cisco VSOM and VSMS stream license	16-port Cisco VSOM and VSMS stream license	32-port Cisco VSOM and VSMS stream license

## Software Upgrade Overview

Depending on the network module version you are upgrading from, different software upgrade methods are available. The following methods are supported to upgrade each of the network modules:

- A “clean” installation process upgrade using the online installer with the **software install clean** command.
- Upgrade using the online installer with the **software install upgrade** command.
- A “clean” installation process upgrade using the boot helper.

**Note**

- When upgrading the Cisco Video Management and Storage System from version 1.1 to version 2.2, we recommend formatting the local disk drive and, if an iSCSI drive is used for archive storage, formatting the iSCSI drive before performing the upgrade procedure.
- Upgrades from version 1.1 to version 2.2 will result in the loss of existing archive data.

For detailed software installation and upgrade procedures, see the [Cisco Analog Video Gateway Installation and Upgrade Guide](#), [Cisco Video Management and Storage System Installation and Upgrade Guide](#), and the [Cisco Video Management and Storage System Installation and Upgrade Guide](#), respectively.

**Caution**

If you upgrade using either of the “clean” installation processes, the existing configuration files on the system are not preserved. Any configuration files on the system are lost.

To preserve your configuration, you must first back up the existing configuration files and restore them after performing the upgrade. If the configuration files are not backed up before performing the upgrade, then you must reconfigure the Cisco Video Management and Storage System.

## Caveats

Caveats describe unexpected behavior in Cisco Analog Video Gateway and Cisco Video Management and Storage System network modules software versions. Severity 1 caveats are the most serious caveats. Severity 2 caveats are less serious. Severity 3 caveats are moderate caveats, and only selected severity 3 caveats are included in the caveats document.

This section contains caveats that were resolved and open in the releases noted.

The following information is provided for each caveat:

- Symptoms—A description of what is observed when the caveat occurs.
- Conditions—The conditions under which the caveat has been known to occur.
- Workaround—Solutions, if available, to counteract the caveat.

**Note**

If you have an account on Cisco.com, you can use Bug Toolkit to find select caveats of any severity. To reach Bug Toolkit, log in to Cisco.com by clicking the Log In button on the right side, go to the drop down menu on the top bar of the page and select Technical Support: Tools & Utilities: Software Bug Toolkit (under Troubleshooting Tools). Another option is to enter the following URL in your web browser: [http://www.cisco.com/cgi-bin/Support/Bugtool/launch\\_bugtool.pl](http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl).

To find the latest Cisco Analog Video Gateway or Cisco Video Management and Storage System DDTs information, go to Bug Toolkit and search, by product, for either Cisco Analog Video Gateway or Cisco Video Management and Storage System modules. When logged in to Bug Toolkit, select the option to search for bugs in other Cisco software and hardware products.

- [Cisco Analog Video Gateway, page 9](#)
- [Cisco Video Management and Storage System, page 13](#)
- [Cisco Integrated Storage System, page 28](#)

## Cisco Analog Video Gateway

This section describes possibly unexpected behavior by the Cisco Analog Video Gateway module.

### Resolved Caveats

The following caveats are resolved as of the Cisco Analog Video Gateway version 1.2.2.

CSCsi61385

**Symptom** Debug outputs on the Cisco Analog Video Gateway module may be printed even when all traces are disabled.

**Conditions** When the **trace** command is enabled from the CLI.

**Workaround** None.

CSCs102665

**Symptom** Previously assigned or used channels cannot be selected again to create a new contact closure event. However, selection of assigned or used channels is allowed during the editing of the event.

**Workaround** Check that the desired channel is not already assigned when configuring a new contact closure event or when editing an existing contact closure event.

CSCs126561

**Symptom** Motion detection with MJPEG is not supported.

**Workaround** There is no workaround, motion detection is not supported for MJPEG.

CSCs151028

**Symptom** Video keyword for **video xconn-ppbk...** command is missing.

**Conditions** The video keyword accessible by using the user or privileged EXEC mode is hidden. When the **help** or **?** command option is used, the video keyword command does not appear.

**Workaround** The video keyword is hidden, but it exists and is functional. To access the hidden video keyword, enter the command **video ?** and **xconn-lpbk** command will appear as an option.

CSCsr02487

**Symptom** CLI commands allow a resolution to be configured that is lower on the port than the resolution configured on the codec for the streams on that port.

**Conditions** Cross verification should only allow the resolution on the port to be greater than or equal to the resolution configured on the codec.

**Workaround** None.

CSCsr28670

**Symptom** MPEG4/H.264 motion detection becomes very insensitive at threshold levels above 30. (The threshold is set in the range of 1 to 100, with 1 being most sensitive and 100 being least sensitive to motion detection.)

**Conditions** The video codec used is MPEG4 or H.264, motion detection is enabled, and the detection threshold is set to a level above 30.

**Workaround** Use a threshold value below 30 or use the MJPEG codec.

CSCsy90618

**Symptom** Terminating the child of a forked video stream causes the Cisco Analog Video Gateway to generate excessive error messages.

**Conditions** When two identical codec/stream profiles share the same port and the first stream is started from the VLC and the second one is started and the forking takes place, the first stream freezes when the child stream is stopped, resulting in the generation of excessive error messages. With MPEG4 or H.264 using VLC, the results are the same except that video streaming stops.

**Workaround** None.

CSCsz51331

**Symptom** The VST total frame always shows 0 in **show video dsp internal** command output.

**Conditions** The **show video dsp internal** command VST output should display the sum of the VST Processed and Dropped.

**Workaround** None.

CSCsz73095

**Symptom** It is necessary to continue sending a motion start request to the Cisco Video Management and Storage System during consistent moves.

**Conditions** The Cisco Analog Video Gateway does not send a motion stop request to the Cisco Video Management and Storage System after a motion-start request is sent. The Cisco Video Management and Storage System uses a 30-second timer to determine the end of an event. If a motion start request is not sent within 30 seconds, the Cisco Video Management and Storage System automatically generates a motion stop event.

**Workaround** It is necessary to send a motion start request to reset the Cisco Video Management and Storage System timer during consistent motion, or use a motion-stop request.

CSCta38375

**Symptom** After execution of the **video-surveillance task archive-stop** command, there is no support to restart the stopped archives.

**Conditions** The archives sent to the Cisco Integrated Storage System disk drive can be stopped with the **video-surveillance task archive-stop** command, but to restart the archive, the **video-surveillance task restart** command must be used. This would interrupt archives to local media, if any exist. Also, from the VSOM page, the stopped archives appear as if in the running state, even after they are stopped.

**Workaround** Issue the **video-surveillance task restart** command to start the archiving process.

CSCta67488

**Symptom** In the Cisco IPVS Utilities graphical user interface, the contact closure Video Port LED status indicators do not update to reflect the actual video port status.

**Conditions** The XML API receives the request to send the current port status to the IPVS utility GUI but does not respond to the request. None.

**Workaround** None.

CSCTb15403

**Symptom** When video streams have alarm events configured on all 16 ports, valid video streams flap between color-bar and video clip.

**Conditions** Appears when one MJPEG and 16 MPEG4 video streams have alarm events configured on all 16 ports. When one connection out of 17 is configured, the DSP runs out of resources and failure occurs as expected. The problem appears when valid connections on the DSP get reset and flapping of video stream occurs between the color-bar and video clip display.

**Workaround** None.

## Open Caveats

The following caveats are open as of the Cisco Analog Video Gateway version 1.2.2.

CSCsq23681

**Symptom** Malformed packets cause the RTSP server to crash and cause a denial-of-service.

**Conditions** Test cases with different malformed packets consistently causes the RTSP server to crash and cause denial-of-service.

**Workaround** None.

CSCsq35319

**Symptom** The motion regions configured for MJPEG in the VSOM do not match those configured in IPVS.

**Conditions** The motion regions configured by VSOM are rounded up to an 8 x 8 or 16 x 16 macroblock grid in the IPVS.

**Workaround** None.

CSCTa99501

**Symptom** When the video port settings are tuned, it results in poor video quality.

**Conditions** .When video port settings, especially hue settings. are tuned, the video quality is poor when viewed from the Video Viewer.

**Workaround** None.

## Cisco Video Management and Storage System

This section describes possibly unexpected behavior by the Cisco Video Management and Storage System module.

### Resolved Caveats

The following Cisco Video Management and Storage System caveats are resolved as of version 2.2.

CSCsj37261

**Symptom** Supported bit rates on Video Surveillance Management System for MPEG4 currently do not match those on the encoder. If configured with values that do not match, the video encoder refuses to accept the values and proxies fail to start.

**Conditions** The Cisco Analog Video Gateway module supports rates in the range of only 168 to 2000 kbps, but the Video Surveillance Management System allows values outside of this range.

**Workaround** When adding proxies in Video Surveillance Management System, make sure the bit rates are configured within the range of 168 to 2000 kbps.

CSCsk37327

**Symptom** Video image does not load on the upper first pane on various layouts with VMR enabled.

**Conditions** This appears in both the operator view and administrative view, and also in the live and archive feeds.

**Workaround** The VMR requires a specific graphic card. Disable VMR mode if this problem occurs.

CSCsk56236

**Symptom** The VSMS does not clean up proxy files created by unsuccessful camera additions.

**Conditions** Proxy configurations created in the proxy directory and not cleared after an unsuccessful configuration is attempted.

**Workaround** None.

CSCsk57074

**Symptom** Video archives are not removed from the storage server (whether the server is local or remote) after selecting the option to remove archive files from the server.

**Conditions** This problem appears intermittently.

**Workaround** Check with “technical support shell—listar -r”.

CSCsk95875

**Symptom** MJPEG video streams or archives set at 1 frame-per-second frame rate or less on the Video Surveillance Operations Manager do not remain operational.

**Workaround** Use a frame rate larger than 1 frame-per-second.

CSCs135524

**Symptom** When using the **reload** or **shutdown** CLI commands, some iSCSI I/O errors are reported.

**Conditions** When the **reload** CLI command is issued while the system is in the process of archiving using the iSCSI interface, some I/O errors are reported on the console.

**Workaround** Stop the VSMS service using the **video-surveillance task stop** command before issuing the **reload** or **shutdown** command.

CSCsq20897

**Symptom** Deleting the motion region from the VSOM does not delete the same motion region in IPVS.

**Conditions** When the motion region is deleted from the VSOM, it is supposed to delete the motion region configuration from the IPVS and stop the motion detection. However, if the motion region is being used by motion-detection profile, which in turn is being used by stream profile that is currently streaming, it does not delete the motion-region profile.

**Workaround** The only way to remove motion region from VSOM is to open the motion window, which activates the stream and makes the removal of the region possible from the GUI.

CSCsq46829

**Symptom** Reload of the Cisco Video Management and Storage System hangs when the iSCSI target is unreachable.

**Workaround** None.

CSCsq97641

**Symptom** The VSMC driver packages do not upload.

**Conditions** The **Manage Drivers** option of the VSMC console to upload, install, or uninstall individual driver packages is not functional.

**Workaround** None.

CSCsr09843

**Symptom** If the iSCSI volume is already discovered, changing the timeout-node-session value has no effect.

**Conditions** The timeout-node-session value only gets set during iSCSI discovery.

**Workaround** To change the iSCSI timeout-node-session value, you must first disable the volume before setting the timeout-node-session value.

CSCsr21561

**Symptom** CLI messages incorrectly indicate successful mounting of an iSCSI device when there is no volume available on the device.

**Conditions** 1—When attempting to mount to a single, standalone iSCSI device that has no available volume, the CLI incorrectly indicates a successful mount, returning a *succeeded* message, even though no volume is available.

**Conditions** 2—When attempting to mount the iSCSI device with no volume available as a second device, the CLI incorrectly indicates that the mounting of the new volume has occurred successfully, returning a *succeeded* message, even though multiple volumes cannot be configured on this device.

**Workaround** Make a volume available on the iSCSI device before attempting the configuration.

CSCsr23484

**Symptom** When the iSCSI timeout-node-session value is changed from its default value of 120 and the VSMS is upgraded, the new value does not take effect.

**Conditions** When the **timeout-node-session** command is used to change the time-out value from its default value of 120 to another value, and then the VSMS is upgraded, the new time-out value does not take effect.

**Workaround** None.

CSCso41707

**Symptom** The resolution setting for the Cisco Analog Video Gateway displays incorrectly in the archive view of 2CIF resolution.

**Conditions** When a 2CIF resolution camera feed from the Cisco Analog Video Gateway is created and then its archive is created, the resolution shows 704x288, which is correct. However, from archive view of the same feed, the resolution shows 704x576, which is incorrect.

**Workaround** None.

CSCso43604

**Symptom** The Cisco Review player did not compensate for 2CIF resolution and shows the original resolution.

**Workaround** None.

CSCsq67034

**Symptom** Removing the iSCSI from CLI does not remove the iSCSI info from the *system.cfg* file.

**Conditions** Currently, the only way to remove an existing iSCSI configuration and restart the VSMS server is to manually remove the partition information at the end of the *system.cfg* file.

**Workaround** None.

CSCsr92923

**Symptom** The media server VSMC window does not display the MAC address of the Cisco Video Management and Storage System module.

**Conditions** The MAC address field in the media server VSMC window is blank.

**Workaround** The MAC address of the module is necessary in order to enter the Cisco Video Management and Storage System license key. Open the console Operations Manager window to obtain the MAC address of the module.

CSCsu63586

**Symptom** The VSOM is unable to detect older versions of Cisco Video Surveillance client.

**Conditions** After upgrading from version 3.1.1/5.1.1 to version 4.0/6.0, the VSOM is unable to detect the older version of the Cisco Video Surveillance client to replace it with the new client. The VSOM is expected to compare the new client with the older client and automatically install the new client.

**Workaround** Manually uninstall the older client and install the new client.

CSCsu63606

**Symptom** The motion configuration that is associated with an event is lost after the upgrade.

**Conditions** Events configured with a notification URL that creates an association between the soft-trigger event and the motion configuration in older version 3.1.1/5.1.1 is lost after the upgrade.

**Workaround** Reconfigure the motion configuration to re-associate the soft-trigger event an the motion configuration.

CSCsv35320

**Symptom** The lower bit rate streams are not configurable in the VSMS.

**Conditions** The following cannot be configured in the VSMS:

- Five streams of 4CIF@3 f/s, each 128K with GOP 12.
- Two streams of 4CIF@2 f/s, each 56K with GOP 12.
- Two streams of 2CIF@2 f/s, each 56K with GOP 12.

**Workaround** A special driver package (dp\_cisco) must be installed to allow these bit rate streams to be configured. Complete the following steps to install the driver package:

1. In the VSMC, go to Manage Drivers under Configuration.
2. Select the dp\_cisco <version>.zip driver pack from the Uninstall Driver Package.
3. Restart the server to complete the changes.
4. After successfully restarted the Video Surveillance Server, go back to the Manage Drivers window and click the **Browse** tab under the Upload and Install a Driver Package.
5. Choose and upload the dp\_cisco driver package.
6. Restart the server to complete the changes.



**Note** The newly installed driver package must be a different version than the existing driver package; otherwise, the driver will not be installed.

CSCsv43634

**Symptom** The VSOM Video Tool in the Operator window always displays the play rate as zero (0).

**Conditions** The VSOM Operator window has a green button on the upper right corner that is displayed when the Video Tool is checked. It is supposed to display the media type and streaming frame rate or bit rate, but displays a play rate of zero (0) instead.

**Workaround** None.

CSCsv71033

**Symptom** Video display intermittently flips between two different camera feeds that come from either within the same Cisco Analog Video Gateways or across different ones.

**Conditions** While video streaming is in progress, if VMSS service is restarted using either CLI command: **video-surveillance task restart** or from the VSMC GUI, it sometimes gets into a state where the video displayed or recorded on the VSM switches back and forth between two different cameras feeds.

**Workaround** If it is necessary to restart the VSM service while there are video streaming sessions in progress between the VSM and the Cisco Analog Video Gateways, complete the following steps instead of using restart option:

1. Stop the service with CLI command **video-surveillance task stop**.
2. Wait for 60 seconds or until all the existing sessions are terminated (use CLI command **show video session connection** to check the status of the sessions in the Cisco Analog Video Gateway and verify that there are no active sessions).
3. If sessions are not cleared after 60 seconds, use the CLI command **test video sessions clear all** to manually tear down the sessions.
4. If sessions are not cleared after following the previous Step 3, reload the Cisco Analog Video Gateway.
5. Start the service using the CLI command **video surveillance task start**.

## Open Caveats

All the Cisco Video Management and Storage System caveats listed in this section are open. This section describes severity 2 caveats and select severity 3 caveats.

CSCsj46139

**Symptom** The channel IDs offered in the drop down list of the Video Surveillance Operations Manager do not match those of encoder.

**Conditions** The Cisco Analog Video Gateway module has only 16 channel IDs and the channel IDs must be used within the range of channel 1 to channel 16.

**Workaround** Make sure the channel selected is within the supported range of the encoder.

CSCsj91135

**Symptom** The VSOM GUI reports that the archive has been created successfully but it is not running and an error message appears.

**Workaround** None.

CSCsk03048

**Symptom** Camera feeds and archives saved to the configuration as PAL show up as NTSC after restoring the configuration from backup files to the Video Surveillance Management System.

**Workaround** Although feeds are reported as NTSC, they continue to run as PAL.

CSCsk21927

**Symptom** The PTZ analog device is intermittently unresponsive to joystick movements from the Video Surveillance Operations Manager (VSOM).

**Workaround** None. Wait a few seconds, and then retry.

CSCsl29432

**Symptom** There is no password recovery capability for the Cisco Video Management and Storage System module. There is currently no method to recover the password for root.

**Workaround** Reinstall the application image.

CSCs156333

**Symptom** After restoring a configuration that was previously backed up, proxies sometimes do not start, and there is no video streaming.

**Conditions** If the restored configuration contains an iSCSI partition selected for media repository, but the partition becomes unavailable at the startup (because of a network outage or some other reason), the VSMS service does not start and there is no video streaming.

**Workaround** Restart the VSMS using either the **video-surveillance task start** CLI command or the VSMS Console. You can also use the Cisco Video Management and Storage System **reload** CLI command to restart the VSMS.

CSCso45416

**Symptom** Cannot disable the motion detection function in the camera feed.

**Conditions** Currently, once motion detection is enabled on a camera feed, the check-box that says **Enable Motion Detection** gets locked out and motion detection cannot be disabled.

**Workaround** The only way to disable motion detection is to delete the camera feed and then re-create it.

CSCso55960

**Symptom** Motion detection persistence cannot be configured or tuned.

**Conditions** The VSOM uses persistence value to control how long (in seconds) the motion must persist before generating motion detection event. This value is currently not configurable in IPVS.

**Workaround** None.

CSCso61125

**Symptom** When the date is entered in the date widget by typing it in, the widget does not always pick up the correct date.

**Conditions** The date widget is not always accepted by entering the date by typing it in.

**Workaround** Rather than entering a date, select the date on the widget itself. This problem can also be fixed by replacing this widget with a third-party widget.

CSCsq47287

**Symptom** After connectivity to the iSCSI target is lost, the VSOM generates an error but media server starts the archive process even though there is a loss of connectivity.

**Conditions** When connectivity from Cisco Video Management and Storage System host to the iSCSI storage target is lost and an archive process is started, the underlying repository is not reachable and the error *malformed response* appears. However, despite the message, it actually starts the archive process.

**Workaround** None.

CSCsq72219

**Symptom** VSOM should not allow same camera names and feed names to be configured.

**Conditions** In the VSOM GUI administration configuration window, identical camera names and feed names can be reused, which causes confusion when selecting the camera and feed names for archival purposes.

**Workaround** You must ensure that you do not use the same names with naming cameras or feeds.

CSCsr07437

**Symptom** Restarting of VSMS server fails after using the Cisco Video Management and Storage System CLI to remove an iSCSI device.

**Conditions** After using the Cisco Video Management and Storage System CLI to remove an iSCSI device, the VSMC console removes the corresponding mapped Local Archive Repositories. However, the partition information is still contained in the *system.cfg* file.

**Workaround** Reconnect an iSCSI device to the system and restart the video surveillance task.

CSCsv05004

**Symptom** After configuring H.264 video compression, video displays a jerky motion when in operator mode.

**Conditions** When configuring H.264 video compression with 4cif/4000/NTSC, the video source display is jerky after switching to operator mode.

**Workaround** None.

CSCsv05235

**Symptom** Motion events does not get generated consistently

**Conditions** While the Cisco Analog Video Gateway detects a motion and sends an alarm message to the Cisco Video Management and Storage System, the Cisco Video Management and Storage System does not trigger an event every time a notification is received. When an event is not triggered, the associated motion configuration, such as archiving, alerts, and so on, fails.

**Workaround** None.

CSCsv46345

**Symptom** When an attempt is made to edit an event, the window expires and causes a *Page Not Found* error, unless the edits are made using the Motion Configuration window.

**Conditions** If an attempt is made to edit an event without going to the Motion Configuration window, a *Page Not Found* error appears. If the event is edited by changing the value using the Motion Configuration window, the edit is successfully submitted.

**Workaround** Edit an event using the Motion Configuration window.

CSCsv57002

**Symptom** Excessive macro-blocking is seen on the video after restarting the media server.

**Conditions** If, while video streaming is in progress, the Cisco Video Management and Storage System service is restarted using either the CLI command **video-surveillance task restart** or the VSMC GUI, there can be excessive RTP packet loss recorded in the */usr/BWhttpd/logs/ims.log* file and excessive video macro-blocking.

**Workaround** If it is necessary to restart the VSM service while there are video streaming sessions in progress between the VSM and the Cisco Analog Video Gateways, complete the following steps instead of using restart option:

1. Stop the service with CLI command **video-surveillance task stop**.
2. Wait for 60 seconds or until all the existing sessions are terminated (use CLI command **show video session connection** to check the status of the sessions in the Cisco Analog Video Gateway and verify that there are no active sessions).
3. If sessions are not cleared after 60 seconds, use the CLI command **test video sessions clear all** to manually tear down the sessions.
4. If sessions are not cleared after following the previous Step 3, reload the Cisco Analog Video Gateway.
5. Start the service using the CLI command **video surveillance task start**.

CSCsv70829

**Symptom** An archive event marked using the VSOM operator window does not start marking and does not create event clipping.

**Conditions** This occurs after the first event is deleted and a new one with the same name is added.

**Workaround** Whenever an event is deleted, make sure that the new event name is not the same as the name of the deleted event.

CSCsw20015

**Symptom** RTP packets are missed or dropped after the VSM is running for an extended period.

**Conditions** If the VSM is heavily loaded after running it for extended period of time, the *ims.log* file starts recording RTP packets missed errors for different cameras at random. The packet drops are not excessive and do not have a noticeable effect on the live video being recorded or viewed.

**Workaround** None

CSCsw15190

**Symptom** Scheduled archives configured in the Cisco Video Management and Storage System version 1.1 are not preserved after an upgrade to version 2.0. The recurring archives appear as one-time archives after the upgrade.

**Conditions** Scheduled archives configured in Cisco Video Management and Storage System version 1.1 are not preserved after upgrade to version 2.0.

**Workaround** Remove the old recurring archives and add the recurring archives from VSOM window.

CSCsw91361

**Symptom** Alarms Monitor, Destination, and Notifier profile configurations on IPVS might disappear after the Cisco Video Management and Storage System is restarted, causing motion detection failures on cameras with motion detection enabled.

**Conditions** This condition is likely to occur after a camera without motion detection is added to the existing configurations (that is, cameras with motion detection configurations) and the Cisco Video Management and Storage System restarted.

**Workaround** Completely remove the camera from the VSOM and then add the camera and its related motion event configurations again.

CSCta02156

**Symptom** The NFS mount state might become stale on Cisco Video Management and Storage System. If this happens, the reporting a mount on free disk space on all mounted file systems command (“df -k”) will not show the NFS mount point.

**Conditions** 1. Changing the export mount using the Cisco Integrated Storage System module CLI after the Cisco Video Management and Storage and Cisco Integrated Storage System mounts are completed.

**Conditions** 2. Installing the Cisco Integrated Storage System software without properly stopping the active archives might cause the NFS to be unmounted when Cisco Integrated Storage System becomes operational again.

**Workaround** 1. Using the Cisco Video Management and Storage System **storages nfs** subcommand, first disable and then enable the state.

**Workaround** 2. Stop the currently running archives being sent to Cisco Integrated Storage System before reloading or installing Cisco Integrated Storage System software.

CSCta04265

**Symptom** When multiple large archives are deleted from the VSOM, the VSOM might get out of sync with VMSC, resulting in some archives appearing in the VSOM but not in the VSMC; or, the archives might not be removed even though the system is still running.

**Conditions** Large archives, such as 12-hour and 24-hour archives, contain many files. Because it takes a long time to remove those files from the disk drive, errors might occur because of application timeouts. These timeouts, in turn, will cause the VSOM go out of sync with the VMSC.

**Workaround** Delete the problematic archives in the VSOM again and synchronize the server from VSOM server page by clicking the **Sync** button.

CSCta29008

**Symptom** SNMP destination configuration is not preserved after restoring backup configuration.

**Conditions** After the Cisco Video Management and Storage System undergoes a clean install and the configuration is restored, the SNMP configuration is not restored in the VSMC page.

**Workaround** The SNMP trap destination must be manually added to the VSMC page.

CSCTa47474

**Symptom** The SNMP daemon fails when the SNMP configuration is changed frequently.

**Conditions** When the SNMP configuration is changed frequently using the SNMP CLIs, SIGHUP is issued repeatedly, causing the SNMP daemon to fail.

**Workaround** Reduce the frequency of changes to the SNMP configuration.

CSCTa59104

**Symptom** When the Cisco Integrated Storage System is unavailable for more than 10 minutes and then again becomes operational, the Cisco Video Management and Storage System cannot reestablish its NFS connection to it. The “listar” command returns “Null” in the tech support shell.

**Conditions** This error occurs when:

1. The Cisco Video Management and Storage System uses the Cisco Integrated Storage System as NFS storage with the **switch-on-failed** subcommand enabled.
2. The Cisco Integrated Storage System becomes unavailable for more than 10 minutes because either it crashed or it was shutdown without following the proper shutdown procedures.

**Workaround** Before shutting down the Cisco Integrated Storage System, use the Cisco Video Management and Storage System **video-surveillance task archive-stop** command to stop the archiving process. If the Cisco Integrated Storage System has crashed, reboot the Cisco Video Management and Storage System to clear the RPC backlog.

CSCTa70160

**Symptom** The VSOM is out of sync and does not show running archives.

**Conditions** When the Cisco Video Management and Storage System is configured with only the Cisco Integrated Storage System as the archive repository and the Cisco Integrated Storage System is unavailable (because the network is down, the Cisco Integrated Storage System module is reloading, or another reason), the VSOM returns a malformed response after it gets a request to add an archive. The archive is not added in VSOM. If the Cisco Integrated Storage System module becomes available, the archiving process starts automatically; however, the VSOM loses its sync and does not show the running archive process.

**Workaround** Go to VSOM server page, click the **Sync** button for corresponding server.

CSCTb07311

**Symptom** The signal-detected alarm is sent to the Cisco Video Management and Storage System, even though there is no signal change on the video port.

**Conditions** The Cisco Analog Video Gateway is configured to send signal-change event alarms to the Cisco Video Management and Storage System. When the Cisco Video Management and Storage System has camera feeds on the Cisco Analog Video Gateway and is sending streaming video, use the Cisco Analog Video Gateway Video Viewer to view the video stream from the same port. Whenever the Cisco Analog Video Gateway Video Viewer starts the video, a signal-detect alarm is sent, even though there is no signal change on the Cisco Video Management and Storage System video port.

**Workaround** None. Ignore the alarm.

CSCTb07923

**Symptom** The H.264 codec cannot be configured.

**Conditions** Because of the codec profile default settings (codec = Mpeg4, resolution = 4CIF, and skipFrame < 4), when the codec configuration is changed to H.264 without first changing other parameters, the following error appears:

```
codec=H.264, resolution=4CIF, skipFrame<4 invalid combination
```

**Workaround** Configure other parameters before configuring codec to H264.

CSCTf49642

**Symptom** When upgrading software from Cisco Video Management and Storage System version 2.2 to version 6.2.1, Flash errors result.

**Conditions** The following Flash errors are encountered when upgrading to version 6.2.1:

```
aesopflash: ioctl copy to bad user address sect 0 (0x40012560, 0xf89e9000, 65536)
Unable to read 3 failed: Bad address  errno = 14
```

Please refer to attach "log" for more details.

**Workaround** None.

CSCtf42633

**Symptom** For Cisco Video Management and Storage System version 6.2.1, iSCSI behavior is unpredictable after disconnect.

**Conditions** CPU utilization remains at 100 percent for several minutes and the system is unresponsive and unpredictable. After stopping the session, the system returned to normal operation.

**Workaround** None. The iSCSI storage options for Cisco Video Management and Storage System version 6.2.1 are not supported.

CSCtf42610

**Symptom** The Video Surveillance Management System fails to remove all configurations from system.cfg file.

**Conditions** For Cisco Video Management and Storage System version 6.2.1, when the iSCSI options configured and attempts are made to disable media0 from the Video Surveillance Management System and enable iSCSI, the PARTITION information for the local drive remains in the system.cfg file. When archiving begins, load balancing occurs between iSCSI and the local drive when it is not intended.

**Workaround** None. The iSCSI storage options for Cisco Video Management and Storage System version 6.2.1 are not supported.

CSCtf42633

**Symptom** For Cisco Video Management and Storage System version 6.2.1, iSCSI behavior is unpredictable after disconnect.

**Conditions** CPU utilization remains at 100 percent for several minutes and the system is unresponsive and unpredictable. After stopping the session, the system returned to normal operation.

**Workaround** None. The iSCSI storage options for Cisco Video Management and Storage System version 6.2.1 are not supported.

CSCtf42778

**Symptom** The event polling interval CLI does NOT have effect on NME/SRE modules.

**Conditions** Regardless of setting the event polling interval as 2, 10, or 30 seconds, it does not have any effect on the GUI notification window popup.

**Workaround** None.

## Cisco Integrated Storage System

This section describes possibly unexpected behavior by the Cisco Integrated Storage System module.

### Resolved Caveats

There are no resolved caveats for the Cisco Integrated Storage System.

### Open Caveats

All the Cisco Integrated Storage System caveats listed in this section are open. This section describes severity 2 caveats and select severity 3 caveats.

CSCsz78538

**Symptom** Video archives sent to the Cisco Integrated Storage System module NFS drive might stop archiving data when the system archiving rate exceeds 132 Mb/s.

**Conditions** When the archive data sent to Cisco Integrated Storage System module NFS drive exceeds the rate of 132Mb/s, the Cisco Video Management and Storage System might experience RPC errors and, subsequently, cause the mount to the Cisco Integrated Storage System module drive to fail. This condition was observed in the MJPEG codec under high stress situations.

**Workaround** Do not exceed the 132 Mb/s data rate when sending archive data to the Cisco Integrated Storage System module drives.

# Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

## Additional References

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

## Related Documents

Related Topic	Document Title
Cisco Video Surveillance Solution	<ul style="list-style-type: none"> <li>• <a href="#">Connecting Cisco Video Management and Storage System Enhanced Network Modules to the Network</a></li> <li>• <a href="#">Cisco Video Management and Storage System Installation and Upgrade Guide</a></li> <li>• <a href="#">Cisco Video Management and Storage System CLI Administrator Guide</a></li> <li>• <a href="#">Connecting Cisco Integrated Storage System Enhanced Network Modules to the Network</a></li> <li>• <a href="#">Cisco Integrated Storage System Installation and Upgrade Guide</a></li> <li>• <a href="#">Cisco Integrated Storage System CLI Administrator Guide</a></li> <li>• <a href="#">Connecting Cisco Analog Video Gateway Network Modules to the Network</a></li> <li>• <a href="#">Cisco Analog Video Gateway Installation and Upgrade Guide</a></li> <li>• <a href="#">Cisco Analog Video Gateway CLI Administrator Guide</a></li> <li>• <a href="#">Cisco Analog Video Gateway XML API Guide</a></li> <li>• <a href="#">Open Source License Notice</a></li> </ul>
Cisco IOS software	<a href="#">Cisco IOS Software</a>
Network modules	<a href="#">Installing Cisco Network Modules in Cisco Access Routers</a>
Technical documentation, including feedback and assistance	<a href="#">What's New in Cisco Product Documentation</a> (including monthly listings of new and revised documents)

## Technical Assistance

Description	Link
Cisco Feature Navigator website	<a href="http://www.cisco.com/go/cfn">http://www.cisco.com/go/cfn</a> 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	<a href="http://www.cisco.com/public/sw-center/">http://www.cisco.com/public/sw-center/</a>

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