Data Sheet

Cisco Video Surveillance Services Platforms

Cisco Systems® offers network-centric video surveillance software and hardware that supports video transmission, monitoring, recording, and management. These products protect customers' existing investments in analog equipment, while enabling these devices to operate as part of an IP-based network-centric deployment. Cisco® video surveillance products enable any-to-any multivendor device interoperability, allowing customers to build best-in-class video surveillance systems that optimize price, performance, and capability. Cisco video surveillance products are deployed within the Cisco Intelligent Converged Environment architecture.

Regardless of the location of the video stream (video surveillance camera or Cisco IP Gateway Encoder), whether it be in the same building, campus, or located hundreds of miles away, the Cisco Video Surveillance Services Platform provides high-capacity video recording and storage that can be deployed almost anywhere an organization's IP network is available. These Services Platforms include powerful, embedded Cisco Video Surveillance Stream Manager software, which is capable of continuous, scheduled, alarm-, event-, and motion-triggered recording. Utilizing the power of the IP network, Cisco Video Surveillance Services Platforms accept video via Fast Ethernet (10/100) connections or Universal Serial Bus (USB) ports for recording and storage on its internal hard disk drives, fibre channel, or SCSI-attached direct attached storage devices. The Cisco Video Surveillance Services Platform maximizes storage efficiency by using a time schedule and priority-based system that identifies video data to be removed when storage reaches a preprogrammed percentage of capacity. Retrieval and replay of video from the Cisco Video Surveillance Services Platform is achieved using analog monitors/keyboards/joysticks connected via Cisco Video Surveillance IP Gateway decoders, or through Cisco Video Surveillance Stream Manager software running on a PC.

PRODUCT OVERVIEW

The Cisco Video Surveillance Services Platform accepts digitally encoded video from Cisco Video Surveillance IP Gateways or from the Cisco Video Surveillance Convergence Chassis. Preloaded with Cisco Video Surveillance Stream Manager software, the Cisco Video Surveillance Services Platform handles video archival and retrieval functions, authentication watermarking, and video data export. For each video stream, resolutions up to full D1 and frame rates up to 30 fps NTSC or 25 fps PAL are achievable.

The Cisco Video Surveillance Services Platforms are offered with a choice of a 1-rack unit (RU) and 2-RU high form-factor. All Cisco Video Surveillance platforms have a Linux Operating System. The 2RU Services Platform features RAID 5 fault-tolerant storage for mission-critical, high-reliability video surveillance operations. Additionally, it features 12 hot-swappable, front-load hard disk drive bays, currently capable of supporting up to 4.8 TB (4.4 TB usable) when using 400-GB SATA hard disk drives. When a new hard disk drive is installed or replaced in the Services Platform, it automatically configures the OS and Cisco Video Surveillance Stream Manager software.

For an entry-level recording and storage application, the Cisco Video Surveillance Services Platform 1-RU model provides an economical and compact, easy-to-install, rack-mountable storage solution. Using a JBOD configuration of hard disk drives, this Cisco Video Surveillance Services Platform currently supports up to 1.6 TB of video storage using 400-GB HDD technology.

When video retention requirements drive the need for even more than the internal storage capacity of the 2-RU Services Platform, Cisco offers the ability to use direct-attach storage/storage arrays via SCSI and Fibre Channel connections from a 1-RU Services Platform equipped with SCSI or Fibre Channel interfaces. Running on the 1-RU Services Platform, the Cisco Stream Manager Services software continues to provide all archival, retrieval, authentication watermarking, and data export functions as if the video was stored locally on the Services Platform.

Regardless of the Services Platform form factor or storage configuration, video can be reviewed on either a PC running Cisco Stream Manager Client Software from anywhere the network can be accessed or on analog third-party vendor analog keyboard/joystick/displays via the high performance hardware-based (DSP) Cisco Video Surveillance IP Gateway decoders. This new innovation allows physical security operators to continue to use their familiar keyboard/joystick controllers to view live and, for the first time, recorded video from the same control console. This new capability increases video surveillance operator efficiency, enabling faster response to events, and eliminating the need for a separate recorded video viewing console. Additionally, there is no need to retrain operators on new CCTV keyboard controllers. PTZ controls remain available using the joystick, and the camera menu enables access to all.

In addition to its use with the Gigabit Ethernet and Ethernet versions of the Cisco Video Surveillance Convergence Chassis, the Cisco Video Surveillance Services Platform can also be used with the Cisco Video Surveillance Convergence Chassis USB outputs. In this application, up to 64 separate MPEG4 encoded video streams can be stored on a single Services Platform via the integrated USB connection on the Services Platform. As a result, this high-density video encoding and recording configuration is fully compatible with all major closed- circuit television (CCTV) video matrix switchers as a digital hybrid solution.

To enhance the availability of the Cisco Video Surveillance Services Platforms in mission-critical safety and security operations, Cisco Video Surveillance Stream Manager Administration software, running on a management PC, provides storage health monitoring with optional storage failover capabilities. In the event of a Services Platform failure or hard drive failure, Cisco Video Surveillance Stream Manager Administration with Failover software, automatically redirects affected video streams to back-up Cisco Video Surveillance Services Platforms.

Cisco Video Surveillance Services Platforms also work with Cisco Stream Manager Configuration PC software, enabling any PC to become a video surveillance management workstation supporting configuration, diagnostics, real-time activity and status monitoring, and alarm capabilities.

FEATURES

- Cisco Video Surveillance Stream Manager software with powerful recording and archival features
- Can be deployed locally or at a remote site, far from the video camera location by using the IP network
- Simultaneous recording and playback
- Multiple playback sessions
- Digital, compressed video storage with authenticated watermarking – approved by State of Nevada Gaming Control board enforcement division
- Linux OS based hardware platforms
- Hot-swappable hard disk drives with RAID 5 fault tolerance (2U units)
- Economical 1 rack unit platforms with JBOD storage
- 19-in. rack-mountable
- Video can be viewed via Cisco IP Gateway connected to third party analog display / control keyboard or PC running Cisco Stream Manager Client Software

PRODUCT ARCHITECTURE

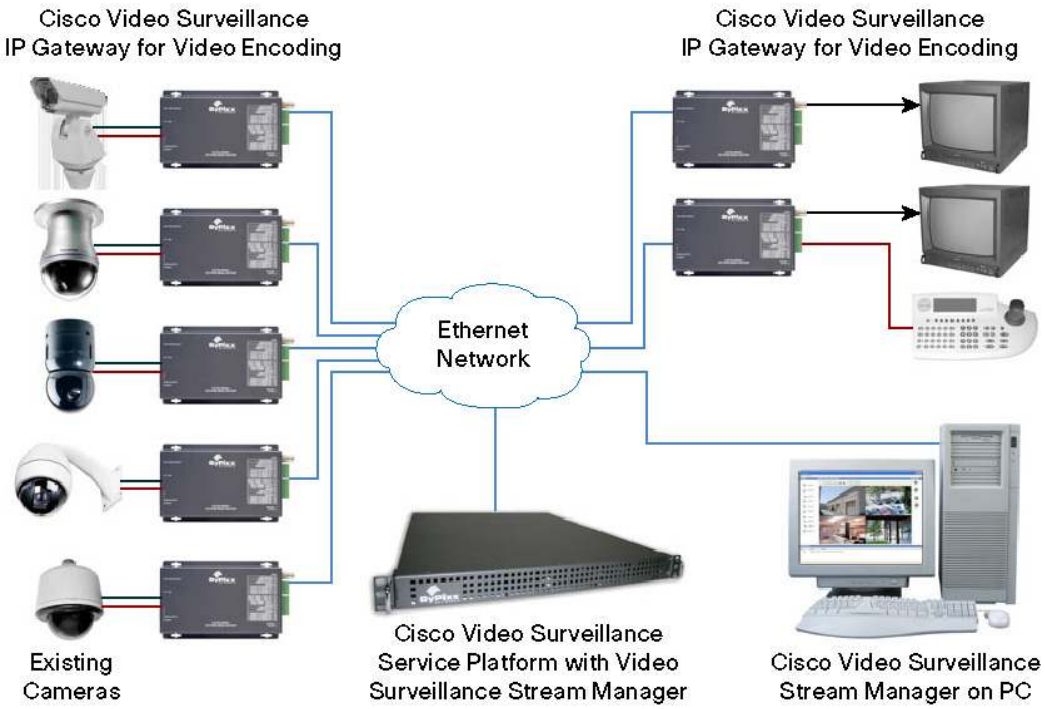
Figures 1 and 2 show the two models of the Cisco Video Surveillance Services Platform.

Figure 1. Cisco Video Surveillance Services Platform; 2-RU RAID 5 Model, 6x400-GB Hard Drives, Stream Manager Software

Figure 2. Cisco Video Surveillance Services Platform; 1-RU JBOD Model, 2x400-GB Hard Drives, Stream Manager Software

Figure 3 shows the Cisco Video Surveillance Services Platform in a network deployment, recording and storing video feeds.

Figure 3. Cisco Video Surveillance Services Platform



CISCO VIDEO SURVEILLANCE SERVICES PLATFORM

Specifications

Video Performance

Input	IP (Ethernet) or USB
Output	IP (64 Kbps to 8 Mbps per channel)
Compression	MPEG-4 – ISO/IEC 14496-2-1999 (Advanced Simple Profile)
Output	IP (64 Kbps to 8 Mbps per channel)

Resolution	NTSC	PAL
D1	720 x 480	720 x 576
4CIF	704 x 480	704 x 576
2CIF	704 x 240	704 x 288
CIF	352 x 240	352 x 288

Frame rate: Up to 25 fps (PAL); up to 30 fps (NTSC)

Electrical – Power Supply

Cisco Video Surveillance Services Platform 1-RU or 2-RU models

Internal 300W power supply

I/O Ports

Serial (3)	(2) RS-232 (RJ-45), (1) RS-232 (DB-9)
Network	10/100 Ethernet (RJ-45)
Other	Keyboard, monitor

Storage

RAID configuration	Cisco Video Surveillance Services Platform; 2-RU, RAID 5 model
Hard disk drive capacity	400 GB currently
Number of hard disk drives	
1-RU model	2 to 4 JBOD hard disk drive configuration
2-RU RAID 5 model	6 to 12 RAID 5 hard disk drive configurations

Mechanical

Size	
2-RU RAID 5 model	22.5 x 17.0 x 3.5 in. (57.2 x 43.2 x 8.9 cm)
1-RU model	22.5 x 17.0 x 1.75 in. (57.2 x 43.2 x 4.4 cm)
Operating temperature	5 to 50°C
Storage temperature	–20 to 50°C

Table 1 lists matrix switcher vendor and series interoperability.

Table 1. Product Compatibility

Compatibility	Product Series:
Product compatibility	Cisco Video Surveillance Services Platform with Video Surveillance Stream Manager software
Analog matrix switcher manufacturers	All Bosch Matrix Switcher LTC8200 – LTC 8900 Series All American Dynamic Matrix Switcher AD168 – MegaPower Series Pelco 9760 and higher
Cisco Video Surveillance IP Gateway	All models

Table 2 provides ordering information for the Cisco Video Surveillance Services Platform.

Table 2. Ordering Information

Product Name	Part Number
Cisco Video Surveillance Stream Manager Services Software, 2-RU Services Platform RAID 5 6x400 GB	CIVS-SP2RR5-2000
Cisco Video Surveillance 400-GB SATA Hard Disk Drive 2R Services Platform/Integrated Services Platform, spare	CIVS-HDD-400GB=
Cisco Video Surveillance Stream Manager Services Software, 1-RU Services Platform JBOD 2x400 GB	CIVS-SP1RJB-800
Cisco Video Surveillance Stream Manager Services Software, 1-RU Services Platform, Fiber Channel Connection	CIVS-SP1R-FBCH
Cisco Video Surveillance Stream Manager Services Software 1-RU Services Platform, SCSI Connection	CIVS-SP1R-SCSI
Cisco Fibre Chan. Cable for Video Surveillance DAS/SA FC Conn – 2 Meter	CAB-FibChanFC-2M=
Cisco Fibre Chan. Cable for Video Surveillance DAS/SA LC Conn – 2 Meter	CAB-FibChanLC-2M=
Cisco SCSI Cable for Video Surveillance DAS/Storage Array, 1 Meter, spare	CAB-SCSI-1M=
Cisco SCSI Cable for Video Surveillance DAS/Storage Array 2 Meter, spare	CAB-SCSI-2M=
Cisco USB cable for CVG16K to Video Surveillance Recorder, 1 Meter, spare	CAB-USB-1M=

To place an order, visit the Cisco Ordering Home Page.

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Cisco offers a wide range of services programs to accelerate customer success. These innovative services programs are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction. Cisco Services help you to protect your network investment, optimize network operations, and prepare your network for new applications to extend network intelligence and the power of your business. For more information about Cisco Services, see Cisco Technical Support Services or Cisco Advanced Services.

FOR MORE INFORMATION

For more information on Cisco video surveillance products, visit: www.cisco.com/go/videosurveillance.

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