



Data Sheet

Cisco Video Surveillance Integrated Services Platform

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 (ICE) architecture.

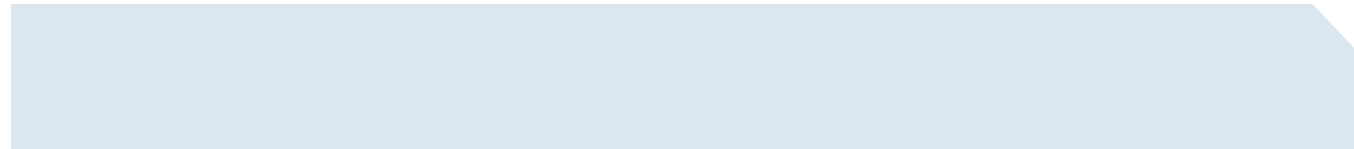
Enabled with Cisco Stream Manager Services Software, the Cisco Video Surveillance Integrated Services Platform delivers a cost effective high-resolution digital video surveillance recording solution, replacing analog VCRs. Designed to work in concert with traditional matrix switch equipment, Cisco Integrated Services Platforms record, and playback video from analog video cameras that are under the control of traditional CCTV keyboards as well as Cisco Stream Manager PC clients. Cisco Stream Manager Services Software, which runs on the Integrated Services Platform, provides instant replay and time-date lookup of selected video at the touch of a button, as well as case-management utilities such as "tagged" video. The system is capable of continuous, scheduled, alarm- and event-triggered, and motion-activated recording. Pre- and post-alarm, event-based, and motion-triggered recording is fully programmable per video channel.

PRODUCT OVERVIEW

Requiring a fraction of the space needed for outdated analog recording solutions, the Cisco Video Surveillance Integrated Services Platform features a compact, rack-mountable chassis that accepts both NTSC and PAL video inputs from traditional matrix switches for video surveillance recording applications. The Cisco Video Surveillance Integrated Services Platform is available with up to three 4-channel encoder modules, providing a total of 12 video inputs in a single chassis. Each video stream input is digitized, compressed and recorded by the Cisco Integrated Services Platforms using high-performance MPEG-4 encoders that can be configured to support broadcast-quality (D1 and 4 CIF, up to 30 frames per second) video as desired. Additionally, three serial ports per unit are available for various functions, including connection to matrix switchers from Bosch, Pelco, or American Dynamics. For higher density video stream recording, when connected to a Cisco Convergence Chassis with USB outputs, up to 64 video streams can be recorded on a single Cisco Services Platform with Cisco Stream Manager Services Software.

Equipped with the powerful Cisco Video Surveillance Stream Manager Services software running on a Linux Operating System, the Cisco Video Surveillance Integrated Services Platform handles video archival and retrieval functions, authentication watermarking, and video data export. Cisco Stream Manager Services software also maximizes storage efficiency of the Integrated Services Platform by using a time schedule and priority-based system that identifies video data to be removed when storage reaches a preprogrammed percentage of capacity.

As a fully integrated video surveillance recording solution, the Integrated Services Platform also 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. Meeting the needs of demanding physical security and loss prevention personnel, Integrated Services Platforms support RAID 5 fault-tolerant storage for mission-critical, high-reliability video surveillance operations. When a new hard disk drive is installed or replaced in the Integrated Services Platform, it automatically configures the OS and Cisco Video Surveillance Stream Manager software for rapid maintenance or storage expansion.



The Cisco Video Surveillance Integrated Services Platform also has the ability to automatically generate system alarms in the event of hardware failure.

Complementing the reliability and high availability features of the Cisco Integrated Services Platform, Cisco Stream Manager Storage Administration software, which runs on a management PC workstation, provides the ability to monitor the health of storage devices and implement a failover to a standby Integrated Services Platform to ensure recorded video continuity in the event of a failure.

From the Cisco Integrated Services Platform, live or recorded video can be accessed anywhere over an IP network by analog third-party display/keyboard/joystick consoles with Cisco IP Gateway Decoders or via PCs running Cisco Stream Manager PC Client Software.

For physical security operations that want to continue to use their familiar third-party vendor analog keyboard/joystick/displays, the Cisco Video Surveillance IP Gateway decoders and software bring exciting capabilities, previously unavailable from these user interfaces, in both matrix switch or virtual matrix switch environments. These innovations increase 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 controls, which makes it easier to migrate to a digital, IP network system. PTZ controls remain available using the joystick, and the camera menu enables access to all dome camera functions and commands. Direct keys are available for recalling camera presets, acknowledging alarms, and providing quick access to commands, including instant replay, fast forward, rewind, pause, frame advance, time/date search, snapshots, and digital zoom.

The Cisco Video Surveillance Integrated Services Platform also provides a time master function for multisystem clock synchronization. This ensures automatic time synchronization with the CCTV matrix switchers, which is necessary for the proper operation of video playback, recording, and export.

For those applications that require both video and audio recording capabilities, the Cisco Integrated Services Platform can be ordered with an optional sound capture input that can be connected to analog microphones. An audio track is recorded in sync with the video, providing additional information on a given event.

When equipped with optional Cisco Stream Manager Gateway Software, the Integrated Services Platform can also be used to provide virtual matrix switching capabilities, facilitating a smooth and easy transition from analog to IP switched video streams. By utilizing the power of the IP routed and switched network infrastructure, virtual matrix switching allows any camera can be connected to any monitor and keyboard; while delivering the quality and capabilities of digital video monitoring and recording. As with all other Integrated Services Platform deployments, this integrated solution enables an existing CCTV keyboard to control all cameras and monitors, and even to control its own built-in digital video recording function.

For large-scale deployments, the Cisco Video Surveillance Convergence Chassis supports sixteen 4-channel encoder modules providing 64 video inputs that can be recorded by a single Cisco Video Surveillance Services Platform running the same Cisco Video Surveillance Stream Manager as the Cisco Integrated Services Platform. USB-2 buses on the Convergence Chassis act as outputs for the resultant MPEG-4 digital video that is locally recorded on a Cisco Video Surveillance Services Platform.

FEATURES

The Cisco Video Surveillance Integrated Services Platform features include:

- Single, compact analog video recording solution with integrated Cisco Video Surveillance IP Gateway encoders, RAID5 storage and powerful Cisco Stream Manager Software
- Search capabilities based on cameras, event triggers, and time and date
- Programmable frame rates up to 30 fps (NTSC) or 25 fps (PAL)
- Programmable resolutions up to D1 (720 x 480 NTSC or 720 x 576 PAL)
- Digital, compressed video storage with authenticated watermarking – approved by State of Nevada Gaming Control board enforcement division
- Video activity detection
- Pre- and post-alarm/event recording
- Simultaneous recording and playback
- PTZ control
- Multiple playback sessions
- Video export with secure authentication watermarking
- High availability hot-standby failover and hot-swap RAID 5 storage
- Third-party building and access control system integration

APPLICATIONS

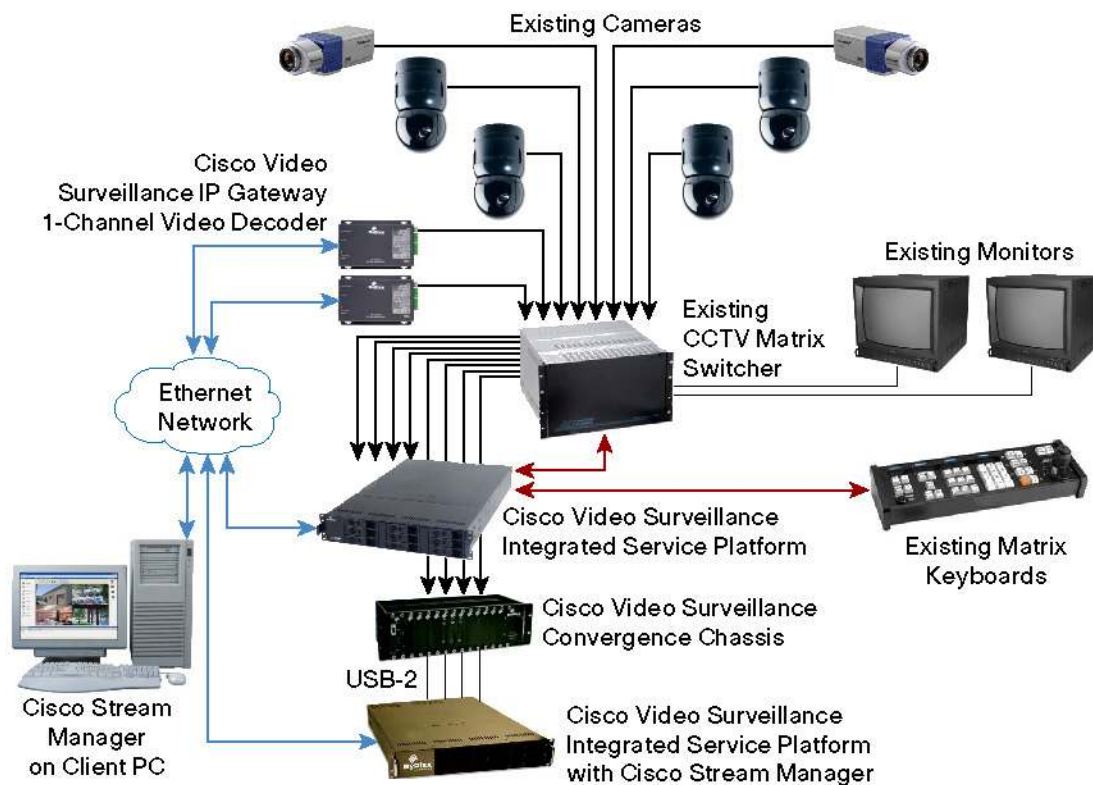
The Cisco Video Surveillance Integrated Services Platform utilizes existing investments in analog CCTV and IP networks. As a result, video to be retrieved from anywhere there is network connectivity. This is an ideal upgrade for organizations using video matrix switchers. Without significant impact on existing video surveillance systems, digital recording and instant retrieval of video can be added, saving operators time and money. The Cisco Integrated Services Platform simply replaces other video/audio recording equipment, leaving intact the legacy matrix switch, along with the installed base of cameras and controllers. In this way, operators do not need to be retrained on new keyboards. Additionally, the Cisco Video Surveillance Integrated Services Platform provides a scalable solution for camera expansion without the high cost of replacing a maxed-out video matrix switch.

This feature-rich system also provides audio recording, allowing organizations to expand their security and surveillance coverage. And Cisco Video Surveillance Stream Manager software provides instant access to archived footage with easy-to-use search functions that enable users to identify and export evidential-quality video clips for investigations and prosecutions.

SYSTEM ARCHITECTURE

Figure 1 shows a typical Cisco Video Surveillance architecture.

Figure 1. Typical Cisco Video Surveillance System Architecture



CISCO VIDEO SURVEILLANCE INTEGRATED SERVICES PLATFORM

Video Storage Specifications

Video

Number of video inputs Up to 12 (3 Cisco Video Surveillance IP Gateway Modules with 4 MPEG-4 channels per module)

Video Performance

Input 1V pk-pk (75 ohms)

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 30 fps (NTSC), up to 25 fps (PAL)	

Electrical – Power Supply

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)
Video	BNC
Other	Keyboard, monitor

Storage

RAID configuration	RAID 5
Hard disk drive capacity	Currently supports 400GB (SATA)
Number of hard disk drives	Up to 12

Mechanical

Size:

Cisco Video Surveillance Integrated Services Platform and Cisco Services Platform (2 RU): 22.5 x 17.0 x 3.5 in. (57.15 x 43.18 x 8.89 cm)

Cisco Video Surveillance Convergence Chassis (3 RU) 19.0 x 7.0 x 5.25 in. (48.26 x 17.78 x 13.34 cm)

Operating temperature 5 to 50°C

Storage temperature –20 to 50°C

Table 1 provides ordering information for the Cisco Video Surveillance Integrated Services Platform.

Table 1. Ordering Information

Product Name	Part Number
Cisco Video Surveillance Generic Keyboard RS232 to RS422/485 Adapter	CIVIDEO SURVEILLANCE-KYBD2232=
Cisco Video Surveillance American Dynamics Keyboard Adapter, RS232 to RS422/485	CIVIDEO SURVEILLANCE-KYBD2232-AD=
Cisco Video Surveillance Bosch Keyboard Adapter, RS232 to RS422/485	CIVIDEO SURVEILLANCE-KYBD2232-B=
Cisco Video Surveillance Pelco Keyboard Adapter, RS232 to RS422/485	CIVIDEO SURVEILLANCE-KYBD2232-P=
Cisco Video Surveillance Stream Manager Services Software, Integrated Services Platform ISP with 8 Encoders, 6 x 400-GB RAID 5 Hard Disk Drives, Sound Capture and 8 Stream Manager Connection Feature Licenses	CIVIDEO SURVEILLANCE-SP8ECISP-2KS
Cisco Video Surveillance Stream Manager Services Software, Integrated Services Platform ISP with 8 Encoders, 6 x 400-GB RAID 5 Hard Disk Drives and 8 Stream Manager Connection Feature Licenses	CIVIDEO SURVEILLANCE-SP8ECISP-2000
Cisco Video Surveillance 400-GB SATA Hard Disk Drive for 2R Services Platforms and Integrated Services Platforms	CIVIDEO SURVEILLANCE-HDD-400GB=
Cisco Video Surveillance Stream Manager Storage Administration Software, does not include PC	CIVIDEO SURVEILLANCE-SM-AS30=
Cisco Video Surveillance Stream Mgr Admin Storage Administration Failover Software, does not include PC	CIVIDEO SURVEILLANCE-SM-ASF30=

To place an order, visit the [Cisco Ordering Home Page](#).

The Cisco Video Surveillance Integrated Services Platform can be programmed to integrate with an existing CCTV matrix switcher. Table 2 provides matrix switcher compatibility information for the Cisco Video Surveillance Integrated Services Platform. Accessories are required when an existing analog system is to be used with the Cisco Video Surveillance Integrated Services Platform. Table 3 lists platform accessories.

Table 2. Matrix Switcher Compatibility

Description	Specification
Product	Cisco Video Surveillance Integrated Services Platform
Matrix switcher	All Bosch Matrix Switcher LTC8200 – LTC 8900 Series All American Dynamic Matrix Switcher AD168 – MegaPower Series Pelco 9760 and higher

SERVICE AND SUPPORT

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FOR MORE INFORMATION

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



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