Cisco Video Management and Storage System Network Module

The Cisco® Integrated Video Surveillance solution enables you to rapidly deploy highly distributed, IP-enabled video surveillance at your offices while migrating traditional analog surveillance equipment to IP.

The solution offers very low total cost of ownership (TCO) for the branch office, ease of integration through network transparency, reliable data interoperability, and maximized overall security. It allows you to consolidate costly branch-office servers and deploy new applications centrally while still offering real-time access to physical security video and data.

The Cisco Integrated Video Surveillance solution comprises:

- Cisco integrated services routers
- Cisco Services-Ready Engine (SRE) Modules
- Cisco® Video Management and Storage System (VMSS)
- Cisco IP Video Surveillance 16-Port Analog Video Gateway (AVG) Network Module
- Additional products from the Cisco Video Surveillance Manager product line

This data sheet discusses the Cisco Video Management and Storage System (VMSS) for the Cisco integrated services routers.

Product Overview

Cisco VMSS offers a powerful system for highly distributed video surveillance systems:

- Manage all of your video sources through a single, converged interface
  - Support for Cisco IP Video Surveillance Integrated Analog Video Gateway
  - Support for most major third-party IP cameras and encoders and decoders
- View live and archived video through the same Internet Explorer “thin-client” interface
- Store archival video locally
  - Up to1 TB of local storage per module and the ability to extend integrated storage through the use of the Cisco Integrated Storage System (ISS)
- Intelligently manage your video store through motion-based video stream recording
- Notify relevant security personnel using email messages, pages, and Short Message Service (SMS)
- Control system access with highly configurable user privileges

In addition to these benefits of distributed video surveillance, Cisco VMSS provides a low TCO solution and transparently preserves all existing network services. For additional information about Cisco VMSS, visit www.cisco.com/go/isrvideo.

Cisco VMSS Product Line

Addressing varying customer needs based on branch-office size, bandwidth availability, and usage patterns, this product line is designed to scale to very large enterprisewide deployments. The Cisco VMSS is designed to be deployed in highly distributed environments as edge devices at branch offices; appropriate products exist for high-

density locations for individual deployments (Figure 1). This product line can act as one homogenous solution for coverage of all of your video surveillance deployment needs. For more details about the Cisco Video Surveillance Manager appliances, refer to www.cisco.com/web/solutions/ps/products.html - netcentric.

The VMSS is available for the Cisco 2800 and 3800 Series Integrated Services Routers as well as the Cisco® 2900 and 3900 Series Integration Services Routers from the new Cisco Integrated Services Routers Generation 2 (ISR G2) portfolio.

The Cisco VMSS for the Cisco 2900 and 3900 ISRs

The Cisco VMSS for the Cisco 2900 and 3900 Series ISRs is an application that is hosted on the Cisco SRE Service Module 700 or 900 (Figure 2). These SRE modules allow you to host Cisco, third-party, and custom applications. The modules have their own processors, hard disks, network interfaces, and memory that operate independently of the host router resources, helping to ensure maximum concurrent routing and application performance while reducing physical footprint, lowering power consumption, and consolidating management. You can provision the VMSS application on the module initially or remotely at a later time. This solution enables organizations of various sizes to reduce cost of rolling out branch-office services, help ensure that their network will be compatible with future versions, and quickly deploy new branch-office applications. One of the many advantages of deploying VMSS on a SRE is the increased onboard capacity for video retention at twice the size of the previous VMSS network module.

The Cisco VMSS for the Cisco 2800 and 3800 Series ISRs

The Cisco VMSS for the Cisco 2800 and 3800 Series ISRs runs on dedicated network-module hardware. Like the service modules mentioned previously, these modules also have their own processors, hard disks, network interfaces, and memory that operate independently of the host router resources. Refer to Table 1 for comparisons among the various products.

Figure 1. Cisco VMSS Deployment Architecture

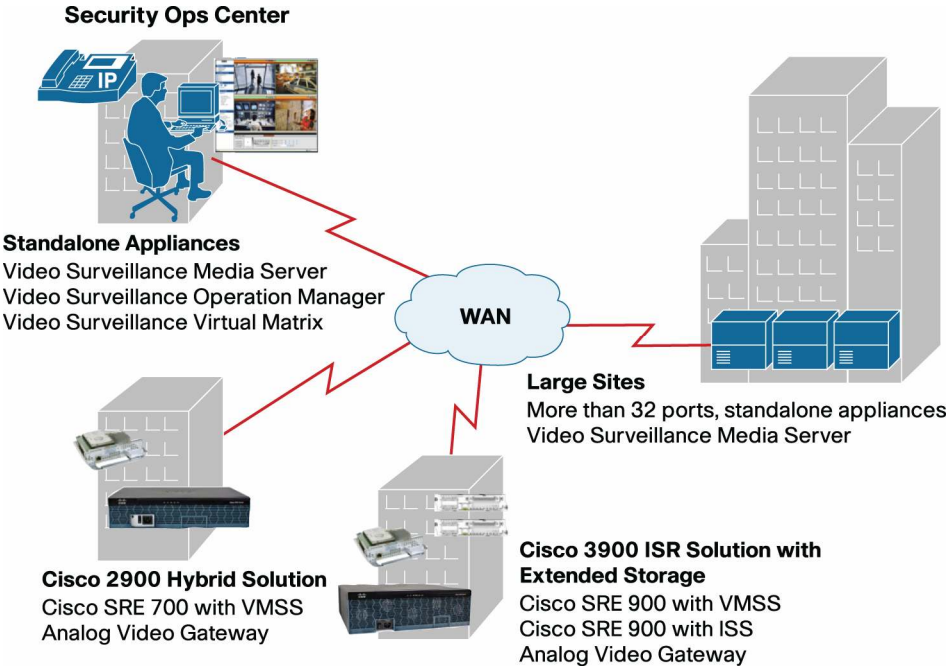

Figure 2. Cisco Services-Ready Engine Service Module

Product Specifications

Table 1 gives product specifications.

Table 1. Cisco VMSS Specifications

	Cisco VMSS with 16-Port License	Cisco High-Performance VMSS with 32-Port License	Cisco VMSS on the Cisco SRE 700 Service Module	Cisco VMSS on the Cisco SRE 900 Service Module
Part number	NME-VMSS2-16	NME-VMSS2-HP32	SM-VMSS-6.2.1-K9 SM-SRE-700-K9	SM-VMSS-6.2.1-K9 SM-SRE-900-K9
RAM	2 GB	2 GB	2 GB	4 GB
Hard disk	500 GB	500 GB	500 GB	2 x 500 GB
Router platforms	Cisco 2811, 2821, 2851, 3825, and 3845 Integrated Services Routers	Cisco 3825 and 3845 Integrated Services Routers	Cisco 2911, 2921, 2951, 3925, 3945 Integrated Services Routers	Cisco 2911, 2921, 2951, 3925, 3945 Integrated Services Routers
Cisco IOS® Software (on router)	Cisco IOS Software Release 12.4(15)T or later	Cisco IOS Software Release 12.4(15)T or later	Cisco IOS Software Release 15.0(1)M	Cisco IOS Software Release 15.0(1)M
Cisco VMSS license options	16-port Cisco Video Surveillance Operations Manager **(**VSOM) and Video Surveillance Operations Media Server (VSMS) stream license included	32-port Cisco VSOM and VSMS stream license included	Cisco VSMS application license and Cisco VSOM application license	Cisco VSMS application license and Cisco VSOM application license
Cisco VMSS software	Cisco VMSS 2.2 or later	Cisco VMSS 2.2 or later	Cisco VMSS 6.2.1 or later	Cisco VMSS 6.2.1 or later
Internal network interfaces	Gigabit Ethernet connectivity to router backplane	Gigabit Ethernet connectivity to router backplane	Gigabit Ethernet connectivity to router backplane	Gigabit Ethernet connectivity to router backplane
External network interfaces	10/100/1000 Gigabit Ethernet	10/100/1000 Gigabit Ethernet	1 USB connector Gigabit Ethernet connector	1 USB connector Gigabit Ethernet connector
Flash memory	64-MB Compact Flash memory	64-MB Compact Flash memory	2-GB internal USB flash-memory module	2-GB internal USB flash-memory module
Physical characteristics	• Dimensions (H x W x D): 1.55 x 7.10 x 7.2 in. (3.9 x 18.0 x 18.3 cm) • Weight: 1.5 lb (0.7 kg) maximum	• Dimensions (H x W x D): 1.55 x 7.10 x 7.2 in. (3.9 x 18.0 x 18.3 cm) • Weight: 1.5 lb (0.7 kg) maximum	• Dimensions : 1.58 x 7.44 x 7.5 in. (4 x 18.9 x 19.1 cm) • Weight: 2.5 lb (1.1 kg)	• Dimensions : 1.58 x 7.44 x 7.5 in. (4 x 18.9 x 19.1 cm) • Weight: 2.5 lb (1.1 kg)

Operating environment	• Operating temperature: 41 to 104℉ (5 to 40℃) • Nonoperating and storage temperature: –40 to 158℉ (–40 to 70℃) • Operating humidity: 5 to 85% (noncondensing) • Operating altitude: –197 to 6000 ft (–60 to 1800m)	• Operating temperature: 41 to 104℉ (5 to 40℃) • Nonoperating and storage temperature: –40 to 158℉ (–40 to 70℃) • Operating humidity: 5 to 85% (noncondensing) • Operating altitude: –197 to 6000 ft (–60 to 1800m)	• Operating temperature: 32 to 104℉ (0 to 40℃) normal 23 to 131℉ (–5 to +55℃) short term • Humidity: 10 to 85% operating • Altitude: 104℉ (40℃) at sea level 104℉ (40℃) at 6,000 ft (1,800m) 86℉ (30℃) at 13,000 ft (4,000m) 27.2℃ (81℉) at 15,000 ft (4,600m) Note: De-rate 34.5℉ (1.4℃) per 1,000 ft above 6,000 ft (per 300m above 2,600m)	• Temperature: 32 to 104℉ (0 to 40℃) normal 23 to 131℉ (–5 to +55℃) short term • Humidity: 10 to 85% operating • Altitude: 104℉ (40℃) at sea level 104℉ (40℃) at 6,000 ft (1,800m) 86℉ (30℃) at 13,000 ft (4,000m) 27.2℃ (81℉) at 15,000 ft (4,600m) Note: De-rate 34.5℉ (1.4℃) per 1,000 ft above 6,000 ft (per 300m above 2,600m)
Safety	• UL 60950-1, Safety of Information Technology Equipment-Safety-Part 1: General Requirements (USA); plastic materials that are exposed to the end user shall meet the requirements of fire enclosure (UL94V-1) as defined in UL 60950 • CSA 60950-1, Second Edition, Safety of Information Technology Equipment-Safety-Part 1: General Requirements (Canada) • IEC 60950-1, Second Edition, Safety of Information Technology Equipment-Safety-Part 1: General Requirements, including all national deviations as specified in the current CB Bulletin • EN 60950-1, Second Edition, Safety of Information Technology Equipment-Safety-Part 1: General Requirements (European Union) incorporating all Deviations, as applicable • GB 4943-95, Safety of Information Technology Equipment (Including Electrical Business Equipment) (standard for China, equivalent to IEC 60950) • AS/NZS 60950.1 Information technology equipment, Safety Part 1: General requirements (Australia)	• UL 60950-1, Safety of Information Technology Equipment-Safety-Part 1: General Requirements (USA); plastic materials that are exposed to the end user shall meet the requirements of fire enclosure (UL94V-1) as defined in UL 60950 • CSA 60950-1, Second Edition, Safety of Information Technology Equipment-Safety-Part 1: General Requirements (Canada) • IEC 60950-1, Second Edition, Safety of Information Technology Equipment-Safety-Part 1: General Requirements, including all national deviations as specified in the current CB Bulletin • EN 60950-1, Second Edition, Safety of Information Technology Equipment-Safety-Part 1: General Requirements (European Union) incorporating all Deviations, as applicable • GB 4943-95, Safety of Information Technology Equipment (Including Electrical Business Equipment) (standard for China, equivalent to IEC 60950) • AS/NZS 60950.1 Information technology equipment, Safety Part 1: General requirements (Australia)	• UL 60950-1, First Edition, Standard for safety for information technology equipment (US) • CAN/CSA-C22.2 No. 60950-1-03, Safety of information technology equipment including electrical business equipment (Canada) • IEC 60950-1:2001, Safety of information technology equipment / Second Edition -2005) (World-Wide)- 2nd Ed. 2005 (is optional and will roll in by Dec. 1, 2010) • EN 60950 -1:2001, Safety of information technology equipment (CENELEC; includes EU and EFTA) • GB4943-2001, Safety of information technology equipment (PRC) • AS/NZS 60950-1, Safety of information technology equipment including electrical business equipment (Australia) • NOM-019, Safety of data processing equipment (Mexico)	• UL 60950-1, First Edition, Standard for safety for information technology equipment (US) • CAN/CSA-C22.2 No. 60950-1-03, Safety of information technology equipment including electrical business equipment (Canada) • IEC 60950-1:2001, Safety of information technology equipment / Second Edition -2005) (World-Wide)- 2nd Ed. 2005 (is optional and will roll in by Dec. 1, 2010) • EN 60950 -1:2001, Safety of information technology equipment (CENELEC; includes EU and EFTA) • GB4943-2001, Safety of information technology equipment (PRC) • AS/NZS 60950-1, Safety of information technology equipment including electrical business equipment (Australia) • NOM-019, Safety of data processing equipment (Mexico)

EMC	**Emission:** • 47 CFR Part 15 Class A • CISPR22 Class A • EN300386 Class A • EN55022 Class A • EN61000-3-2 • EN61000-3-3 • SD/EMI (India) • KN22 (Korea) • VCCI Class I • AS/NZS CISPR 22 Class A **Immunity:** • CISPR24 • EN300386 • EN50082-1 • EN55024 • SD/EMI (India) • KN22 (Korea) • EN61000-6-1	**Emission:** • 47 CFR Part 15 Class A • CISPR22 Class A • EN300386 Class A • EN55022 Class A • EN61000-3-2 • EN61000-3-3 • SD/EMI (India) • KN22 (Korea) • VCCI Class I • AS/NZS CISPR 22 Class A **Immunity:** • CISPR24 • EN300386 • EN50082-1 • EN55024 • SD/EMI (India) • KN22 (Korea) • EN61000-6-1	**Emission:** • 47 CFR Part 15 Class A • CISPR22 Class A • EN300386 Class A • EN55022 Class A • EN61000-3-2 • EN61000-3-3 • SD/EMI (India) • KN22 (Korea) • VCCI Class I • AS/NZS CISPR 22 Class A • Immunity: • CISPR24 • EN300386 • EN50082-1 • EN55024 • SD/EMI (India) • KN22 (Korea) • EN61000-6-1	**Emission:** • 47 CFR Part 15 Class A • CISPR22 Class A • EN300386 Class A • EN55022 Class A • EN61000-3-2 • EN61000-3-3 • SD/EMI (India) • KN22 (Korea) • VCCI Class I • AS/NZS CISPR 22 Class A • Immunity: • CISPR24 • EN300386 • EN50082-1 • EN55024 • SD/EMI (India) • KN22 (Korea) • EN61000-6-1

Ordering Information

Refer to Table 2 for ordering information.

Table 2. Part Numbers for Cisco VMSS

Product Part Number	Product Description
NME-VMSS2-16	Cisco VMSS Network Module for Cisco 2800 and 3800 Series Integrated Services Routers, 2GB RAM, 500GB Storage, 16 Port License
NME-VMSS2-HP32	Cisco VMSS Network Module for Cisco 3800 Series Integrated Services Routers, 2GB RAM, 500GB Storage, 32 Port License
SM-VMSS-x-x	Video Management and Storage System software application for the ISR G2 SRE
FL-VMSS-SM-MS	Cisco 32-port Video Surveillance Media Server Application License for the ISR G2 SRE
FL-VMSS-SM-OM	Cisco Video Surveillance Operations Manager Application License for the ISR G2 SRE
SM-SRE-700-K9	2GB DRAM, 512MB flash storage, 500GB hard disk, field replaceable hard disk for the ISR G2
SM-SRE-900-K9	4GB DRAM, 2GB flash storage, 2 x 500GB hard disk (1 TB storage), embedded cryptography chip, RAID 0/1 support, hot swappable hard disk for the ISR G2

Cisco Services for the Branch Office

Services from Cisco and our certified partners can help you reduce the cost and complexity of branch-office deployments. We have the depth and breadth of experience across technologies to architect a blueprint for a branch-office solution to meet your company's needs. Planning and design services align technology with business goals and can increase the accuracy, speed, and efficiency of deployment. Technical services help maintain operational health, strengthen software application functions, solve performance problems, and lower expenses. Optimization services are designed to continually improve performance and help your team succeed with new technologies. For more information, visit http://www.cisco.com/go/services.

For More Information

For more information about the Cisco VMSS and Cisco Video Surveillance Media Manager solutions, visit http://www.cisco.com/go/isrvideo or contact your local Cisco account representative.

For more information about Cisco integrated services routers, visit http://www.cisco.com/go/isr or contact your local Cisco account representative.

For more information about Cisco Services-Ready Engine, visit http://www.cisco.com/en/US/products/ps10598/prod_module_series_home.html or contact your local Cisco account representative.

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