Digital Sentry® DSSRV Network Video Recorder

H.264 CAPABILITY, FULLY SCALABLE HARDWARE/SOFTWARE SOLUTION

Product Features

- 280 Mbps to Support IP and Analog Video
- Supports up to 128 IP Camera Streams; up to 64 Analog Cameras*
- Optimized to Support Pre-Installed DS NVs Software
- Records H.264, MJPEG, and MPEG-4 IP Streams
- Supports Pelco and Third-Party IP Cameras and Network Encoders
- Expandable by Networking an Unlimited Number of Servers and Encoders (Dependent on Available Network Bandwidth)
- Compatible with DS ControlPoint for Simultaneous Monitoring of All DS Series and DX Series Products in a Single Client Interface
- Network Health and Event Monitoring Support Through Simple Network Management Protocol (SNMP) and New Digital Sentry® System Information (DSSI) Utility

- Compatible with the DS Archive Utility
- Recording Rate Configurable per Individual Camera

Optimized For Video Surveillance

The **Digital Sentry® Network Video Recorder (DSSRV NVR)** is optimized by Pelco to deliver the essential hardware support for the DS NVs video management software (VMS) without the extra cost or risk of integrating hardware and software.

Boosted by the 2nd Generation Intel® Core™ i7 processor and 8 GB of RAM, **DSSRV NVR** provides an optimal combination of processing power and reliability to meet the demands of HD video recording and playback operations. The system is powered to support up to 128 combined IP and analog video streams, with up to 64 analog cameras supported via the optional ENC5416 direct-attached encoder. Analog streams are also supported using Pelco and third-party encoders.

The **DSSRV NVR** delivers total available throughput of 280 Mbps for recording of analog and IP video streams as well as playback and export through the DS ControlPoint client. When determining the maximum number of cameras and the desired frame rate to host on each system, the number of concurrent client connections, the number of streams likely to be viewed in playback on each client, and the bandwidth required to support the client connections must be taken into consideration.

The **DSSRV NVR** functions as a stand-alone system or as part of a network of servers, monitored from the DS ControlPoint user interface. The system can be deployed solely as a network video recorder, as a digital video recorder (DVR), or as a hybrid NVR.

Two gigabit network ports provide for convenient network architecture planning by allowing one port to be dedicated to IP cameras, while the second network port is used for client connections. Two DVI-D ports provide a convenient connection for high resolution digital monitors for use with HD cameras.

Reliability

With front-available drives for easy servicing and upgrades, the **DSSRV NVR** is available with up to 18 TB for models without the optional optical disk drive (ODD), or up to 12 TB for ODD models. The drives are hot-swappable when configured for internal RAID 5 storage with the optional RAID 5 controller card. A minimum of three drives is required for a RAID 5 configuration. External storage is supported through USB attached storage or by using the optional DSSRV-SCSI interface card to connect to external SCSI storage targets such as the DX8100HDDI, providing additional storage of up to 24 TB. The external storage can be configured for either JBOD storage or for software controlled RAID 5 storage. Internal RAID 5 storage cannot be used in conjunction with external storage.

Front panel LED displays on the **DSSRV NVR** provide information on system operation. The LEDs are integrated with the new Digital Sentry System Information (DSSI) utility, providing critical, real-time statistics on system resource utilization, temperature, and throughput status.

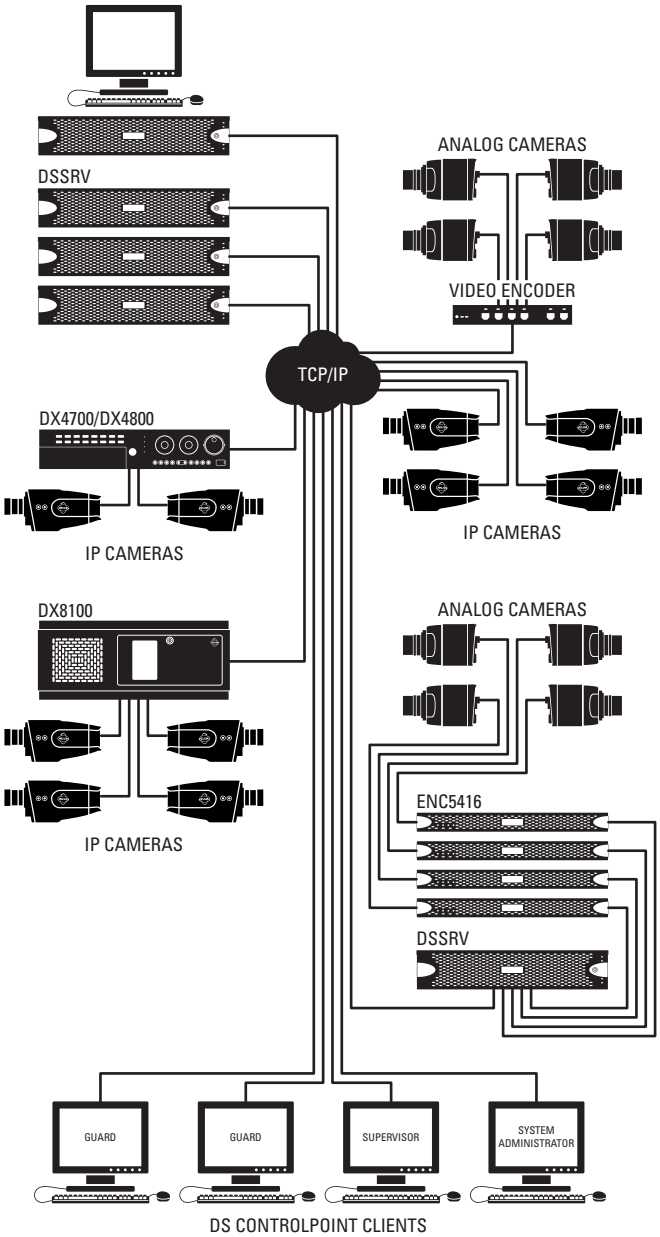
*The DS NVs database is limited to 128 cameras. The actual number of cameras that can be supported is dependent on camera settings, client connections and activity, network bandwidth, and the available throughput of the DSSRV NVR.

Open Architecture

The cornerstone of Digital Sentry design, a fully Open Architecture, is provided through ONVIF compliance and support for a large number of IP-specific drivers. Users can choose specific IP cameras or encoders to fit their application.

In addition, the Digital Sentry platform supports the Pelco API and a full suite of integration tools, allowing Digital Sentry to be integrated into access control or physical security information management (PSIM) systems.

Eliminate the risk of deferred support that comes with VMS software from one vendor and a general purpose hardware platform from another. Replace it with the assurance of an integrated platform built specifically for the rigors of IP video recording. Make the performance, reliability, and Open Architecture of DS NVs running on DSSRV NVR the core foundation of your video management solution.



IMPORTANT NOTE. PLEASE READ. The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco representative to discuss your specific requirements.

TECHNICAL SPECIFICATIONS

SYSTEM

Processor	2nd Generation Intel® Core™ i7
Operating System	Windows 7 Ultimate 64-bit SP1
Internal Memory	8 GB RAM
User Interface	DS ControlPoint
Internal Storage (JBOD or RAID 5*)	
DSSRV	500 GB, 3 TB, 6 TB, 9 TB, 12 TB, 15 TB, or 18 TB
DSSRV-DVD	500 GB, 3 TB, 6 TB, 9 TB, or 12 TB
RAID Level	Internal RAID 5 (requires DSSRV-RAID controller card for hot-swappable drives)†
External Storage	Pelco's DX8100HDDI or third-party SCSI targets (requires optional DSSRV-SCSI)
System Drives	
DSSRV‡	6, 3.5-inch hard drive bays
DSSRV-DVD	4, 3.5-inch hard drive bays
Optical Drive	DVD±RW with DSSRV-DVD

*The minimum configuration for an internal RAID 5 is three hard disk drives. One hard disk drive of the RAID 5 configuration is used for parity, reducing net storage capacity by the storage capacity of one hard disk drive. For example, an 18 TB RAID system provides net storage of 15 TB.

†Requires an optional DSSRV-RAID controller card. The internal RAID 5 requires reimaging of the system.

‡DVD and non-DVD models are each different form factors. DVD models have only four drive bays; non-DVD models have six drive bays.

REMOTE CLIENT PC REQUIREMENTS§

Operating System	Microsoft® Windows® XP Professional SP2, Windows Vista® (32 or 64 bit), Windows 7 (32 or 64 bit)
Processor	2nd Generation Intel® Core™ i7 3.4 GHz or higher
Memory	4 GB DDR3 or higher
Graphics Card	512 MB or more dedicated memory

§While the DS ControlPoint client can be run at the server, doing so can impact performance of the DSSRV. For optimum performance, run DS ControlPoint at a client station.

NETWORK

Interface	2 rear RJ-45 Gigabit Ethernet Ports (1000Base-T, non load balancing)
Auxiliary Interfaces	
USB Ports	1 front (USB 2.0) 4 rear (2 USB 3.0; 2 USB 2.0)

POWER

Power Input	100 to 240 VAC, 50/60 Hz, autoranging
Power Supply	Internal

Power Consumption	Operating Maximum		
	Watts	Amperes	BTU/H
100 VAC / 50 Hz	222.0	2.22	758.0
110 VAC / 50 Hz	224.0	2.02	759.4
110 VAC / 60 Hz	223.0	2.03	761.4
115 VAC / 50 Hz	217.0	1.89	740.8
115 VAC / 60 Hz	215.5	1.87	735.7
220 VAC / 50 Hz	213.0	0.97	727.2
220 VAC / 60 Hz	204.1	0.93	696.8
240 VAC / 50 Hz	211.9	0.88	723.4
240 VAC / 60 Hz	207.6	0.86	708.8

CONNECTIONS

Video Out	2 DVI-D connectors, 1 VGA connector; a maximum of 2 video out connectors can be used**
Audio Out	1, 1/8-inch audio jack connector

**Running the client software on the DSSRV NVR server degrades the performance of the server; therefore, running the DS ControlPoint remote client at one or more stations is recommended.

FRONT PANEL INDICATORS/FUNCTIONS

Buttons	Power
Indicators	
Unit Status	Green, amber, red
Primary Network	Green, amber, red
Secondary Network	Green, amber, red
Software Status	Green, amber, red (based on diagnostics)
Hard Disk Status	Green, red, off (behind bezel)

ENVIRONMENTAL

Operating Temperature	10° to 35°C (50° to 95°F)
Storage Temperature	–40° to 65°C (–40° to 149°F)
Operating Humidity	20% to 80%, noncondensing
Maximum Humidity Gradient	10% per hour
Operating Altitude	–15 to 3,048 m (–50 to 10,000 ft)
Operating Vibration	0.25 G at 3 Hz to 200 Hz at a rate of 0.5 octave/minute

Note: The temperature at the unit air intake can be significantly higher than room temperature. Temperature is affected by rack configuration, floor layout, air conditioning strategy, and other issues. To prevent performance failure and unit damage, make sure the temperature at the unit is continuously within the operating temperature range.

PHYSICAL

Dimensions	50.8 x 43.4 x 8.9 cm (20" D x 17.1" W x 3.5" H)

Weight	Unit	Shipping
DSSRV-005	11.8 kg (26 lb)	20.9 kg (46 lb)
DSSRV-030	11.8 kg (26 lb)	20.9 kg (46 lb)
DSSRV-060	12.7 kg (28 lb)	21.8 kg (48 lb)
DSSRV-090	13.6 kg (30 lb)	22.7 kg (50 lb)
DSSRV-120	14.5 kg (32 lb)	23.6 kg (52 lb)
DSSRV-150	15.4 kg (34 lb)	24.5 kg (54 lb)
DSSRV-180	16.3 kg (36 lb)	25.4 kg (56 lb)
DSSRV-005DVD	12.7 kg (28 lb)	21.8 kg (48 lb)
DSSRV-030DVD	13.6 kg (30 lb)	22.7 kg (50 lb)
DSSRV-060DVD	14.5 kg (32 lb)	23.6 kg (52 lb)
DSSRV-090DVD	15.4 kg (34 lb)	24.5 kg (54 lb)
DSSRV-120DVD	16.3 kg (36 lb)	25.4 kg (56 lb)
DSSRV-RD-090	13.6 kg (30 lb)	23.6 kg (52 lb)
DSSRV-RD-012	14.5 kg (32 lb)	24.3 kg (54 lb)
DSSRV-RD-015	15.4 kg (34 lb)	25.2 kg (56 lb)
DSSRV-RD-018	16.3 kg (36 lb)	26.1 kg (58 lb)

TECHNICAL SPECIFICATIONS

MODELS

The following table describes the DSSRV and DSSRV-DVD model numbers. For example, the model number for a 12 TB, DSSRV device with a United Kingdom power cord is DSSRV-120-UK. The model number for a 6 TB, DSSRV-DVD device with an Australian power cord is DSSRV-060DVD-AU. For DIACAP models, replace the country code with *D*; DIACAP models ship with a US power cord.

Note: Units shipped to China do not include power cords.

Model	Storage	Country Code/DIACAP
NVR Without Optical Disk Drive		US = North America EU = Europe UK = United Kingdom CN = China AU = Australia AR = Argentina D = DIACAP
DSSRV-005	500 GB	
DSSRV-030	3 TB	
DSSRV-060	6 TB	
DSSRV-090	9 TB	
DSSRV-120	12 TB	
DSSRV-150	15 TB	
DSSRV-180	18 TB	
NVR With RAID Configuration		
DSSRV-RD-090	9 TB	
DSSRV-RD-012	12 TB	
DSSRV-RD-015	15 TB	
DSSRV-RD-018	18 TB	
NVR With Optical Disk Drive		
DSSRV-005DVD	500 GB	
DSSRV-030DVD	3 TB	
DSSRV-060DVD	6 TB	
DSSRV-090DVD	9 TB	
DSSRV-120DVD	12 TB	

SUPPLIED ACCESSORIES

Power Cord	1 USA standard, 1 based on country designation; all cables are 3 prong, molded connector, 1.8 m (6 ft) **Note:** Units shipped to China do not include power cords.
USB Keyboard and Mouse	1
Bezel Key	2
Rack Mount Kit	Brackets, rails, and hardware for mounting in a 2 RU rack
DSSRV-LIT	Documentation, resource and recovery discs
USB-DS	For non-DVD models; the USB stick is imaged with DS NVs and includes resource documentation

OPTIONAL ACCESSORIES

DS-SW-CAM	DSSRV models include eight licenses for Pelco and third-party IP cameras; additional DS-SW-CAM licenses can be purchased separately
ENC5416	Direct-attached analog encoder
ENC5400-4PORT	4-port host card (analog) connects 4 ENC5416
DSSRV-RAID	LSI 3Ware 9750-8i RAID controller card
DSSRV-SCSI	Adaptec® SCSI Card 29320LPE
DSHDD-005	500 GB upgrade/replacement drive
DSHDD-030	3 TB upgrade/replacement drive

Note: Only joystick control is supported. Mouse operation is required to move between tear-off tabs in DS ControlPoint. Endura color-coded keys are not supported.

CERTIFICATIONS/RATINGS

- CE, Class A; meets EN50130-4 standard requirements
- FCC, Class A
- UL/cUL Listed
- C-Tick
- CCC
- KCC
- S-Mark

STANDARDS/ORGANIZATIONS

- Pelco is a member of the MPEG-4 Industry Forum
- Pelco is a member of the Universal Plug and Play (UPnP) Forum, Steering Committee
- Pelco is a member of the Universal Serial Bus (USB) Implementers Forum
- Pelco is a contributor to the Internal Standards for Organization/ Electrotechnical Commission (ISO/IEC) Joint Technical Committee 1 (JTC1), "Information Technology," Subcommittee 29, Working Group 11
- Compliance, ISO/IEC 14496 standard (also known as MPEG-4)
- Compliance, International Telecommunication Union (ITU) Recommendation G.711, "Pulse Code Modulation (PCM) of Voice Frequencies"
- Pelco is a member of the ONVIF Open Industry Forum

Notice: *Judgment as to the suitability of the products for users' purposes is solely the users' responsibility. Users should refer to the Operation manuals for cautionary statements regarding user selected options and how they might affect video quality. Users shall determine the suitability of the products for their own intended application, picture rate and picture quality. In the event users intend to use the video for evidentiary purposes in a judicial proceeding or otherwise, users should consult with their attorney regarding any particular requirements for such use.*

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