

# Digital Sentry® DSSRV2 Network Video Recorder

## H.264 CAPABILITY, FULLY SCALABLE HARDWARE/SOFTWARE SOLUTION

### Product Features

- Increased data rate of up to 350 Mbps (RAID) or 300 Mbps (JBOD) total throughput, allowing the server to support more users and play back more cameras simultaneously than previous DSSRV models
- 4TB storage drives provide 33% more storage over DSSRV 3TB models at no additional cost; systems previously utilizing two or more servers can now be built on a single server
- SSD system drive, with increased read-write speeds and no moving parts, increases overall system responsiveness and reliability
- Supports up to 128 IP Camera Streams; up to 64 Analog Cameras\*
- Records H.264, MJPEG, and MPEG-4 IP Streams
- Supports Pelco and Third-Party IP Cameras and Network Encoders
- 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 SNMP and New Digital Sentry® System Information (DSSI) Utility

### Optimized For Video Surveillance

The Digital Sentry® Network Video Recorder (DSSRV2 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 4th Generation Intel® Xeon™ processor and 8 GB of RAM, DSSRV2 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 ENC5516 direct-attached encoder. Analog streams are also supported using Pelco and third-party encoders.

The DSSRV2 NVR boasts total throughput of up to 350 Mbps (300 Mbps for JBOD models) for recording analog and IP video streams as well as playback and export through the DS ControlPoint client. The increased data rate over original DSSRV models allows more users to play back video from the server simultaneously. 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 played back per client, and the bandwidth required for client connections must be considered.

The DSSRV2 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.



- Compatible with the DS Archive Utility
- Recording Rate Configurable per Individual Camera
- VideoXpert Ready. Migrate to VideoXpert, bringing your products forward into a next generation VMS

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 DisplayPorts provide a convenient connection for high resolution digital monitors for use with HD cameras.

DSSRV2 models are available with DIACAP/DIARMF-ready software, for use in secured environments implementing information assurance security standards.

### Reliability

DSSRV2 models incorporate an SSD system drive. With increased read-write speeds and no moving parts, the SSD system drive increases the reliability, uptime, and responsiveness of the system. DSSRV2 systems now support 4TB drives, increasing capacity by 33% over original DSSRV models without increasing cost. With front-available storage drives for easy servicing and upgrades, the DSSRV2 NVR is available with up to 20 TB storage for models without the optional optical disk drive (ODD), or up to 16 TB for ODD models. The drives are hot-swappable when configured for internal RAID 5 storage.

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 DX8100HDD1, 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.

\*The DS NVs database is limited to 128 cameras. The actual number of cameras the server supports depends on camera settings, client activity, network bandwidth, and the available throughput of the DSSRV2.



by Schneider Electric

International Standards  
Organization Registered Firm;  
ISO 9001 Quality System



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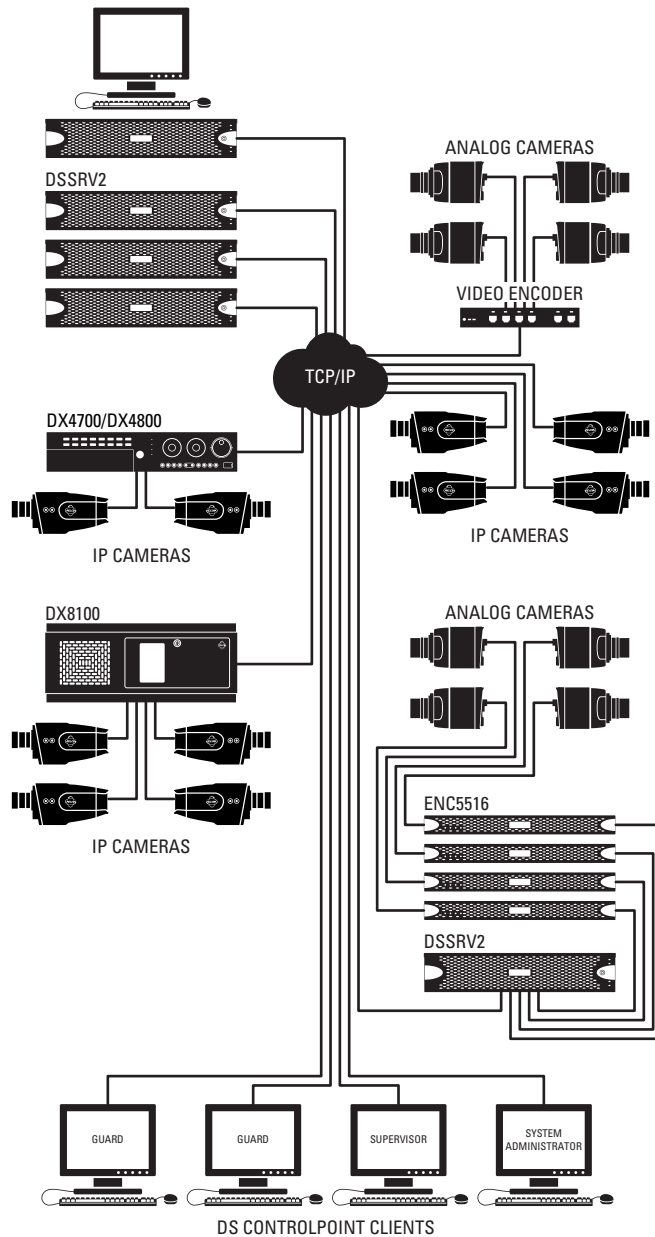
# TECHNICAL SPECIFICATIONS

## 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 DSSRV2 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	Intel® Xeon E3-1275 v3
Operating System	Windows 7 Ultimate 64-bit
Internal Memory	8 GB DDR3 non-ECC RAM; 16 GB DDR ECC RAM for DSSRV2-RD models
User Interface	DS ControlPoint
Internal Storage (JBOD or RAID 5*)	
DSSRV2	500 GB, 4 TB, 8 TB, 12 TB, 16 TB, 20 TB
DSSRV2-DVD	500 GB, 4 TB, 8 TB, 12 TB, or 16 TB
DSSRV2-RD	12 TB, 16 TB, 20 TB, or 24 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 Drive	SSD
Storage Drives	
DSSRV2	6, 3.5-inch hard drive bays
DSSRV2-DVD	4, 3.5-inch hard drive bays
Optical Drive	DVD±RW with DSSRV2-DVD
USB Ports	3 USB 2.0 ports (1 front, 2 rear) 2 USB 3.0 ports (rear)

\*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.

## VIDEO

Video System	Intel HD Graphics P4700 (shared memory)
Maximum Resolution	3840 x 2160 per DisplayPort output (2x) 1920 x 1200 @ 60 Hz on DVI-D output 1920 x 1200 @ 60 Hz on VGA output
Video Outputs	Supports up to 3 simultaneous displays using any combination of the four outputs†
Video Standards	60 Hz capable for NTSC 75 Hz capable for PAL
Video Decoding Supported	MPEG-4 ASP; H.264 Baseline, Main, and High profiles
Panoramic Motion Recording	Supports up to 8 Oncam EVO-05, or EVO-12 cameras
Panoramic Continuous Recording	Supports up to 8 Oncam EVO-05, or EVO-12 cameras Supports up to 6 Optera IMM Series cameras

†Running client software on the server limits the server's performance. It is recommended that you run DS ControlPoint on a separate client to ensure optimal server and recording performance.

## AUDIO

Audio Decoding	G.711 speech codec
Audio Bit-rate	64 kbps
Audio Levels	
Input	Electret microphone
Output	Up to 3 Vp-p, adjustable, minimum load of 8 ohms
Audio Connectors	2, 3.5 mm stereo jacks
Connector Tip	Signal left (input and output)
Connector Ring	Signal right (input and output)
Connector Sleeve	Common
Audio Inputs	Microphone
Audio Outputs	Speaker or line out

## NETWORK

Interface	Gigabit Ethernet (1000Base-T) ports (2x)
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## 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

## 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
DSSRV2-005	11.8 kg (26 lb)	20.9 kg (46 lb)
DSSRV2-040	11.8 kg (26 lb)	20.9 kg (46 lb)
DSSRV2-080	12.7 kg (28 lb)	21.8 kg (48 lb)
DSSRV2-120	14.5 kg (32 lb)	23.6 kg (52 lb)
DSSRV2-160	15.4 kg (34 lb)	24.5 kg (54 lb)
DSSRV2-200	16.3 kg (36 lb)	25.4 kg (56 lb)
DSSRV2-005DVD	12.7 kg (28 lb)	21.8 kg (48 lb)
DSSRV2-040DVD	13.6 kg (30 lb)	22.7 kg (50 lb)
DSSRV2-080DVD	14.5 kg (32 lb)	23.6 kg (52 lb)
DSSRV2-120DVD	15.4 kg (34 lb)	24.5 kg (54 lb)
DSSRV2-160DVD	16.3 kg (36 lb)	25.4 kg (56 lb)
DSSRV2-120RD	13.6 kg (30 lb)	23.6 kg (52 lb)
DSSRV2-160RD	14.5 kg (32 lb)	24.3 kg (54 lb)
DSSRV2-200RD	15.4 kg (34 lb)	25.2 kg (56 lb)
DSSRV2-240RD	16.3 kg (36 lb)	26.1 kg (58 lb)

# TECHNICAL SPECIFICATIONS

## MODELS

The following table describes model numbers for DSSRV2 products. For example, the model number for a 12 TB, DSSRV2 device with a United Kingdom power cord is DSSRV2-120-EUK. The model number for a 8 TB, DSSRV2-DVD device with a North American power cord is DSSRV2-080DV-US. Models ending in D are for use in DIACAP/DIARMF security-enabled environments.

Model	Storage	Country Code (optional)	
<b>NVR Without Optical Disk Drive</b>			
DSSRV2-005	500 GB	US = North America EUK = Europe/United Kingdom D = DIACAP/DIARMF	
DSSRV2-040	4 TB		
DSSRV2-080	8 TB		
DSSRV2-120	12 TB		
DSSRV2-160	16 TB		
DSSRV2-200	20 TB		
<b>NVR With RAID Configuration</b>			
DSSRV2-120RD	12 TB		
DSSRV2-160RD	16 TB		
DSSRV2-200RD	20 TB		
DSSRV2-240RD	24 TB		
<b>NVR With Optical Disk Drive</b>			
DSSRV2-005DV	500 GB		
DSSRV2-040DV	4 TB		
DSSRV2-080DV	8 TB		
DSSRV2-120DV	12 TB		
DSSRV2-160DV	16 TB		

## SUPPLIED ACCESSORIES

Power cord (for applicable models)

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
USB-DS	Imaged with DS NVs and includes resource documentation

## OPTIONAL ACCESSORIES

DS-SW-CAM	DSSRV2 models include eight licenses for Pelco and third-party IP cameras; additional DS-SW-CAM licenses can be purchased separately
ENC5516	Direct-attached analog encoder
ENC5400-4PORT	4-port host card; connects 4 ENC5416 or ENC5516 encoders
DSSRV2-RAID	LSI 3Ware 9750-8i RAID controller card
DSSRV2-SCSI	Adaptec® SCSI Card 29320LPE
DSHDD-005	500 GB upgrade/replacement drive
DS-EN-HDD-4TB	4 TB upgrade/replacement drive
PWRCRD-S-AR	Standard power cord, Argentina
PWRCRD-S-AU	Standard power cord, Australia
PWRCRD-S-EU	Standard power cord, Europe
PWRCRD-S-UK	Standard power cord, United Kingdom
PWRCRD-S-US	Standard power cord, United States

**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

## 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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