VideoXpert Professionalv 3.0

Scalable Video Management and Surveillance System

Product Features



- "VideoXpert in a box" functionality for small to mid-sized sites
- Simple setup / IT-Friendly — designed for Unicast or multicast environments using Microsoft® Windows® for easy configuration and maintenance
- Available in different hardware configurations to support the needs of different sites
- Supports monitor walls, including cell layouts and cameras
- Up to 450 Mbps throughput per recorder
- Supports attached storage (NAS) to extend video retention
- Includes VxToolbox for simple configuration of one or more servers
- Includes pre-defined roles for easy user creation, and also supports granular editing of user permissions
- Motion Pixel Search for server side motion detection and quick retrieval of events
- 4k/H.264 and H.265 support for live and playback modes for cameras that support streaming through ONVIF, and the ability to export recorded segments from H.265 cameras
- HTTPS support for Pelco cameras
- VxPortal web based client allows viewing and exporting video without installing any software
- Reports can be run from VxToolbox
- Check on VMS and camera health using SNMP (available as a free, separate download)
- Legacy "device tree" view available in VxOpsCenter
- Extensible through plugins including mapping, video information overlays, and license plate recognition
- Supports aggregation through VideoXpert Enterprise system with aggregation
- Supports ONVIF S-compliant cameras and devices
- Investigation mode enables operators to synchronize video playback and export investigative playlists covering scenes of interest
- Monitor multiple VxPro sites with a single client
- A la carte design allows you to order software and/or hardware
- Supports shared displays so operators can send video to surveillance personnel who need it most
- Supports IPv4 and IPv6 cameras
- Supports DNS hostnames for ONVIF-compliant cameras and Pelco cameras

- Enables and supports Risk Management Framework (RMF)
- Provides seamless transition to VideoXpert™ Enterprise
- Server models support Dell iDRAC and OpenManage tools

VideoXpert Professional is a video management system (VMS) in a single box, designed for easy setup and robust monitoring in small or moderately sized applications. Designed for Windows platforms, VxPro is easy to install, quick to setup, and provides an intuitive interface that helps operators use video captured by the system.

VxPro is available in tailor-made hardware solutions or in software distributions to support your existing VMS infrastructure, VxPro provides options to support the throughput you need, and different amounts of storage in RAID 6, RAID 5, or JBOD arrangements to fit your needs for retention, redundancy, and fault tolerance. Software licenses operate in terms of channels, so you don't overpay for the solution you need. The system supports unicast and multicast transmission modes, easily adapting to your network scheme.

Server models also include Dell's iDRAC (integrated Dell Remote Access Controller) platform and support for Dell's OpenManage tools, allowing administrators to remotely configure and support VxPro servers, reducing the need for physical access to the server. Using the iDRAC controller, you can monitor hardware and receive email alerts via SNMP.

VxPro includes VxToolbox, an easy-to-use Windows application enabling users to quickly and easily configure an entire network of servers and cameras locally or remotely. VxPro has pre-defined roles, designed around standard surveillance operations, making user creation and assignments quick and easy.

The included VxOpsCenter client software provides an easy to use interface, so you can use VideoXpert with little to no training. You can operate VxOpsCenter clients in multi-system access mode, allowing one workstation to access multiple servers, scaling your surveillance solution. VxOpsCenter also supports modular plugins, providing integrated functionality from external systems, including informational overlays, license plate recognition (LPR), analytics, and a built-in mapping application.

Built around open standards, VideoXpert includes a complete application programing interface (API), software development kit (SDK), and dedicated technical support, allowing other systems' manufacturers to develop interfaces leveraging VideoXpert's capabilities.

Technical Specifications

Hardware

Item	Power Server	Flex Server	Eco Server	Workstation
Form Factor	Rack (2RU)	Tower		
Processor	Intel® Xeon® Silver 4110	Intel® Xeon® E3-1230 v6	Intel® Xeon® E3-1230 v5	Intel® Core™ i7-6700
Memory	16 GB DDR4			
Operating System	Microsoft® Windows®10 IoT Enterprise 64-bit (LTSB)			
OS Drive	2x SSD 120 GB (RAID 1)	SSD 120 GB		m.2 256 GB
Storage				
Max[1]	96 TB (7200 RPM SATA)		12 TB (7200 RPM)	N/A

Item	Power Server	Flex Server	Eco Server	Workstation
RAID Level[2]	6/5/JBOD		5/JBOD	N/A
Optical Drive	N/A	DVD±RW		N/A
Dell iDRAC Controller	iDRAC9 Basic	Included		N/A
USB Ports				
USB 2.0	1x front	1x front, 4x rear		2x front, 2x rear
USB 3.0	2x rear	1x front, 2x rear		1x front, 4x rear
USB 3.1 Type-C	N/A			1x front

[1]Maximum storage based on JBOD configuration

[2]RAID level is user configurable

Power Server



Flex Server



Eco Server



Workstation



Minimum System Requirements[1]

Item	Power Server	Flex Server	Eco Server	Workstation
Processor	Intel® Core™ i5			64-bit CPU
Memory	8 GB			
Operating System	Microsoft® Windows® 7 64-bit, Windows® 10 64-bit, or Windows® Server 2012 or 2016[3]			
Browser	Current version of Google Chrome, Mozilla Firefox, and Microsoft Edge			

[1]Software-only distributions tested without antivirus software installed.

[2]Although server OS is supported, VxOpsCenter is not supported in the server OS.

Video

Item	Power Server	Flex Server	Eco Server	Workstation
Video Outputs	4x Mini DisplayPort 1.4			2x DisplayPort, HDMI
Video system	NVIDIA Quadro P600 (2 GB memory)	NVIDIA Quadro K620 (2 GB memory)		Intel HD Graphics 530 (shared memory)
Maximum Video Resolution per output type				
HDMI 1.4	N/A			4096 x 2304 at 24 Hz
DP	N/A			4096 x 2304 at 60 Hz
DP 1.2 direct connect	N/A	3840 x 2160 at 60 Hz		N/A
mDP 1.4 direct connect	HDR 5120 x 2880 at 60 Hz (30-bit color)	N/A		
DVI-D DL direct connect	3840 x 2160 at 30 Hz (HDMI via included adapter)	2560 x 1600 at 60 Hz		N/A
DVI-I SL via adapter	2560 x 1600 at 60 Hz or 1920 x 1200 at 60 Hz	1920 x 1200 at 60 Hz		N/A
Video Standards				
NTSC	N/A			60 Hz capable
PAL	N/A			75 Hz capable

Audio

Item	Power Server	Flex Server	Eco Server	Workstation
Inputs	N/A	Microphone In, Line In		Universal Audio Jack (front)
Outputs	DisplayPort Audio	Headphone/Front Out, Rear Out, Center/Subwoofer, DisplayPort Audio		Universal Audio Jack (front), Line Out (rear), Internal Speaker, DisplayPort Audio, HDMI Audio
Connector Types	mDP Cable (out)	3.5mm (In/Out), mDP Cable (Out)		3.5mm 4 pole (In/Out), 3.5mm 3 pole (Out), DP cable (Out), HDMI Cable (Out)

Networking

Item	Power Server	Flex Server	Eco Server	Workstation
Gigabit Ethernet (1000Base-T) ports	2x + dedicated iDRAC port			1x
Recording Throughput	Up to 450 Mbps		Up to 200 Mbps	N/A
IP version	IPv4 and IPv6			

Power

Item	Power Server	Flex Server	Eco Server	Workstation
Input	100 to 240 VAC 50/60 Hz, autoranging			90-264 VAC, 47 Hz - 63 Hz, 3 A / 1.5 A
Supply	Dual Hot Swappable 750 W (Platinum)	Internal 350 W (Bronze)	Internal 290 W (Bronze)	Internal 180W
	Note: This system is also designed to be connected to IT power systems with a phase-to-phase voltage not exceeding 230 V.			
Consumption	2891 BTU/hr max	1357 BTU/hr max (350 W power supply)	989 BTU/hr max (290 W power supply)	614 BTU/hr max (180 W power supply)
	Note: Heat dissipation is calculated by using the power supply wattage rating.			

Environmental

Item	Power Server	Flex Server	Eco Server	Workstation
Operating Temperature	10° to 50°C (32° to 95°F) with no direct sunlight on the equipment			0° to 35°C (32° to 95°F)
	Note: Maximum temperature is reduced by 1°C/300 m (33.8°F/984.25 ft) above 950 m (3,117 ft)			
Non-Operating Temperature	–40° to 65°C (–40° to 149°F)			

Item	Power Server	Flex Server	Eco Server	Workstation
Operating Relative Humidity	10% to 80% RH with 29°C (84.2°F) max dew point			5 % to 95 % (non condensing)
Non-Operating Relative Humidity	5% to 95% RH with 33°C (91°F) maximum dew point. Atmosphere must be non-condensing at all times.			10% to 90%, noncondensing
Operating Altitude	Maximum of 3048 m (10,000 ft)			–15.2 m to 3048 m (–50 to 10,000 ft)
Operating Vibration	0.26 Grms at 5 Hz to 350 Hz (operation orientations)			0.66 GRMS

Physical

Item	Power Server	Flex Server	Eco Server	Workstation
Dimensions (D x W x H)	68.2 x 43.4 x 8.68 cm (26.8 x 17.1 x 3.4 in) without rack ears	55.86 x 21.8 x 43.03 cm (22.77 x 8.58 x 17.04 in)	36 x 17.5 x 43.5 cm (14.17 x 6.89 x 17.12 in)	29.0 x 29.2 x 9.26 cm (11.4 x 11.5 x 3.6 in)
Rack Mounting	2 RU	N/A		
Unit Weight[1]	29.68 kg (65.43 lb)	26.02 kg (57.32 lb)	11.1 kg (24.47 lb)	5.14 kg (11.42 lb)

[1] For each server type, the unit weight varies by configuration.

Software Licenses, Servers, and Workstation Models

With VxPro, you only pay for the devices you want to use with your system. Each camera in a VxPro environment consumes a “channel” license. Each channel license includes a 1 year SUP. Order VxPro (with 4 channels included) to quickly get started; you can add additional channel licenses after that.

- When you purchase one or more additional licenses, you must pay for the first four plus the additional license(s).

License	Description
VXP-1C	1 camera license for VideoXpert Pro plus one year SUP
VXP-1C3Y	1 camera license for VideoXpert Pro plus three year SUP
VXP-SUP-1Y	1 Year Software Upgrade Plan, 1CH
VXP-SUP-3Y	3 Year Software Upgrade Plan, 1CH
VXP-SUP-1D	1 Day Software Upgrade Plan, 1CH

Hardware Models

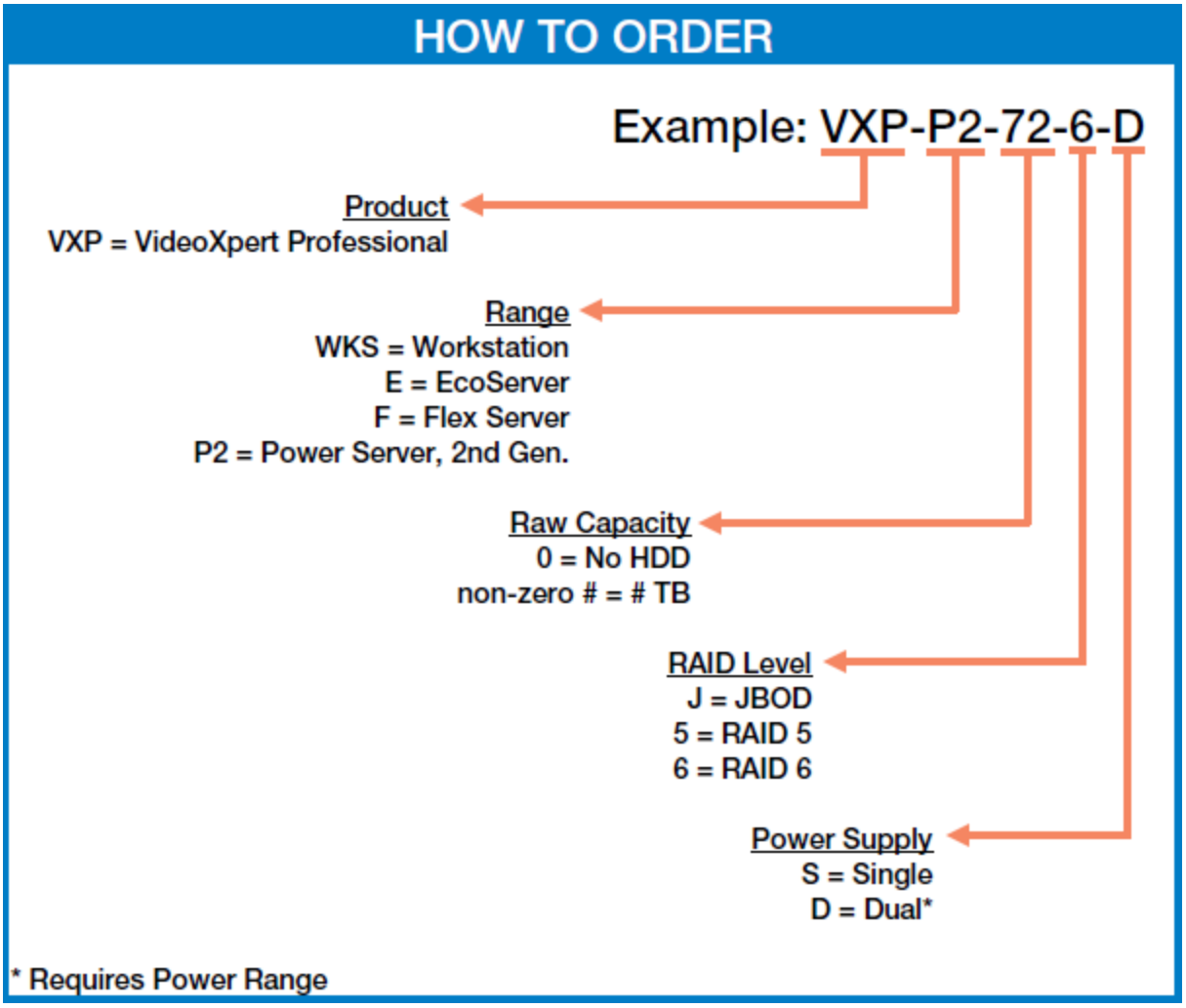
Model	Range	Raw Capacity	Effective Capacity	RAID Level	Power Supply
VXP-P2-96-6-D	Power	96 TB	72.70 TB	RAID 6	Dual
VXP-P2-96-5-D	Power	96 TB	79.97 TB	RAID 5	Dual

Model	Range	Raw Capacity	Effective Capacity	RAID Level	Power Supply
VXP-P2-96-J-D	Power	96 TB	87.24 TB	JBOD	Dual
VXP P2-72-6-D	Power	72 TB	50.89 TB	RAID 6	Dual
VXP-P2-72-5-D	Power	72 TB	58.16 TB	RAID 5	Dual
VXP-P2-72-J-D	Power	72 TB	65.43 TB	JBOD	Dual
VXP-P2-48-6-D	Power	48 TB	29.08 TB	RAID 6	Dual
VXP-P2-48-5-D	Power	48 TB	36.35 TB	RAID 5	Dual
VXP-P2-48-J-D	Power	48 TB	43.62 TB	JBOD	Dual
VXP-P2-24-5-D	Power	24 TB	14.54 TB	RAID 5	Dual
VXP-P2-24-J-D	Power	24 TB	21.81 TB	JBOD	Dual
VXP-P2-0-X-D	Power	0 TB	N/A	Unconfigured	Dual
VXP-F-28-6-S	Flex	28 TB	18.15 TB	RAID 6	Single
VXP-F-28-5-S	Flex	28 TB	21.78 TB	RAID 5	Single
VXP-F-28-J-S	Flex	28 TB	25.41 TB	JBOD	Single
VXP-F-20-5-S	Flex	20 TB	14.52 TB	RAID 5	Single
VXP-F-20-J-S	Flex	20 TB	18.15 TB	JBOD	Single
VXP-F-8-J-S	Flex	8 TB	7.26 TB	JBOD	Single
VXP-F-4-J-S	Flex	4 TB	3.63 TB	JBOD	Single
VXP-F-0-J-S	Flex	0 TB	N/A	JBOD	Single
VXP-E-12-J-S	Eco	12 TB	10.89 TB	JBOD	Single
VXP-E-8-J-S	Eco	8 TB	7.26 TB	JBOD	Single
VXP-E-4-J-S	Eco	4 TB	3.63 TB	JBOD	Single
VXP-E-0-J-S	Eco	0 TB	N/A	JBOD	Single
VXP-WKS	Workstation	N/A			

How to Order

Use the following table to create a model number for your VideoXpert hardware and/or software package. Your model number consists of the VxPro range, capacity, RAID-level, single/dual power supply, and quantity of licenses.

The chart below lists the full range of features. Capacity, RAID level, dual power supply, and channel requirements may be limited by the product range you select. Workstations come in a single configuration and do not require capacity, RAID, power supply, or channel designations.



VideoXpert Player

The VxPlayer decrypts, validates, and plays-back secured exports from VideoXpert. You can download the player directly from VideoXpert along with an exported video file or you can download it from Pelco.com. The following sections specify the minimum system requirements for non-VideoXpert machines running the VxPlayer.

Hardware Requirements

- Dual Core i5 2.67 GHZ
- 4 GB RAM
- 200+ GB of free HDD space or more
- GPU that supports OpenGL 3.0 or higher
- 1024 x 768 or higher screen resolution
- 100/1000 Ethernet Network Interface Card
- Sound Card

Software Requirements

- Windows 7 Pro or Ultimate 64 bit or higher
- .NET 4.6.1 or higher
- OpenGL 3.0 or higher
- Direct3D 9 or higher

Security

VideoXpert includes the following security features:

- Client authentication
- Passwords stored in encrypted format only
- Configurable roles and permissions
- User action reports
- TLS-based encryption over HTTPS
- Support running with antivirus
- Ability to encrypt exports
- Synchronized system clocks using NTP

Supported Languages

The VxOpsCenter and VxToolbox interfaces is are available in the following languages:

- Arabic
- Brazilian Portuguese
- German
- French
- Italian
- Korean
- Russian
- Simplified Chinese
- Spanish for Latin America
- Turkish

Supplied Accessories

- Keyboard*
- Mouse*
- USB drive containing resource and recovery information
- Rack mount kit (Power Series only)
- US, UK, and EU power cords (for applicable models)

*Not included with Power Series (VXP-P) models.

Optional Accessories

- **VXP-KIT-8TB** 8 TB hard disk drive with carrier

VXP-WKS Client Optional Accessories

- **3DX-600-3DMOUSE** Enhanced 3D Mouse and Joystick
- **Y-U0023-G910KBD** Enhanced Keyboard
- **A1-KBD-3D-KIT2** Enhanced Keyboard and 3D Mouse Combination Kit

Optional Power Accessories

- **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
- **PWRCRD-R-AR** Round power cord, Argentina
- **PWRCRD-R-AU** Round power cord, Australia
- **PWRCRD-R-EU** Round power cord, Europe
- **PWRCRD-R-UK** Round power cord, United Kingdom
- **PWRCRD-R-US** Round power cord, United States
- **VXP-KIT-P2-PSU** Hot-swappable power supply for the VXP-P2 series.

Certifications

- CE (Class A)
- FCC, Part 15 (Class A)
- ICES-003 (Class A)
- UL/cUL Listed
- C-Tick
- CCC
- KCC
- NOM

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 International 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”
- Compliance, Open Network Video Interface Forum (ONVIF) Profile S





Pelco, Inc.
625 W. Alluvial, Fresno, California 93711 United States
(800) 289-9100 Tel
(800) 289-9150 Fax
+1 (559) 292-1981 International Tel
+1 (559) 348-1120 International Fax
www.pelco.com

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