

# VideoXpert Professional v 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 programming 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 <sup>1</sup> | 96 TB (7200 RPM SATA)                               |                         | 12 TB (7200 RPM)        | N/A                  |

| Item                    | Power Server | Flex Server       | Eco Server | Workstation       |
|-------------------------|--------------|-------------------|------------|-------------------|
| RAID Level <sup>2</sup> | 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          |

<sup>1</sup>Maximum storage based on JBOD configuration

<sup>2</sup>RAID level is user configurable

**Power Server**



**Flex Server**



**Eco Server**



**Workstation**



**Minimum System Requirements<sup>1</sup>**

| 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 <sup>3</sup> |             |            |             |
| Browser          | Current version of Google Chrome, Mozilla Firefox, and Microsoft Edge                          |             |            |             |

<sup>1</sup>Software-only distributions tested without antivirus software installed.

<sup>2</sup>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                          |
|             | <b>Note:</b> 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)    |
|             | <b>Note:</b> 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) |
|                           | <b>Note:</b> 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 <sup>1</sup> | 29.68 kg (65.43 lb)  | 26.02 kg (57.32 lb)                               | 11.1 kg (24.47 lb)                            | 5.14 kg (11.42 lb)                           |

<sup>1</sup> 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

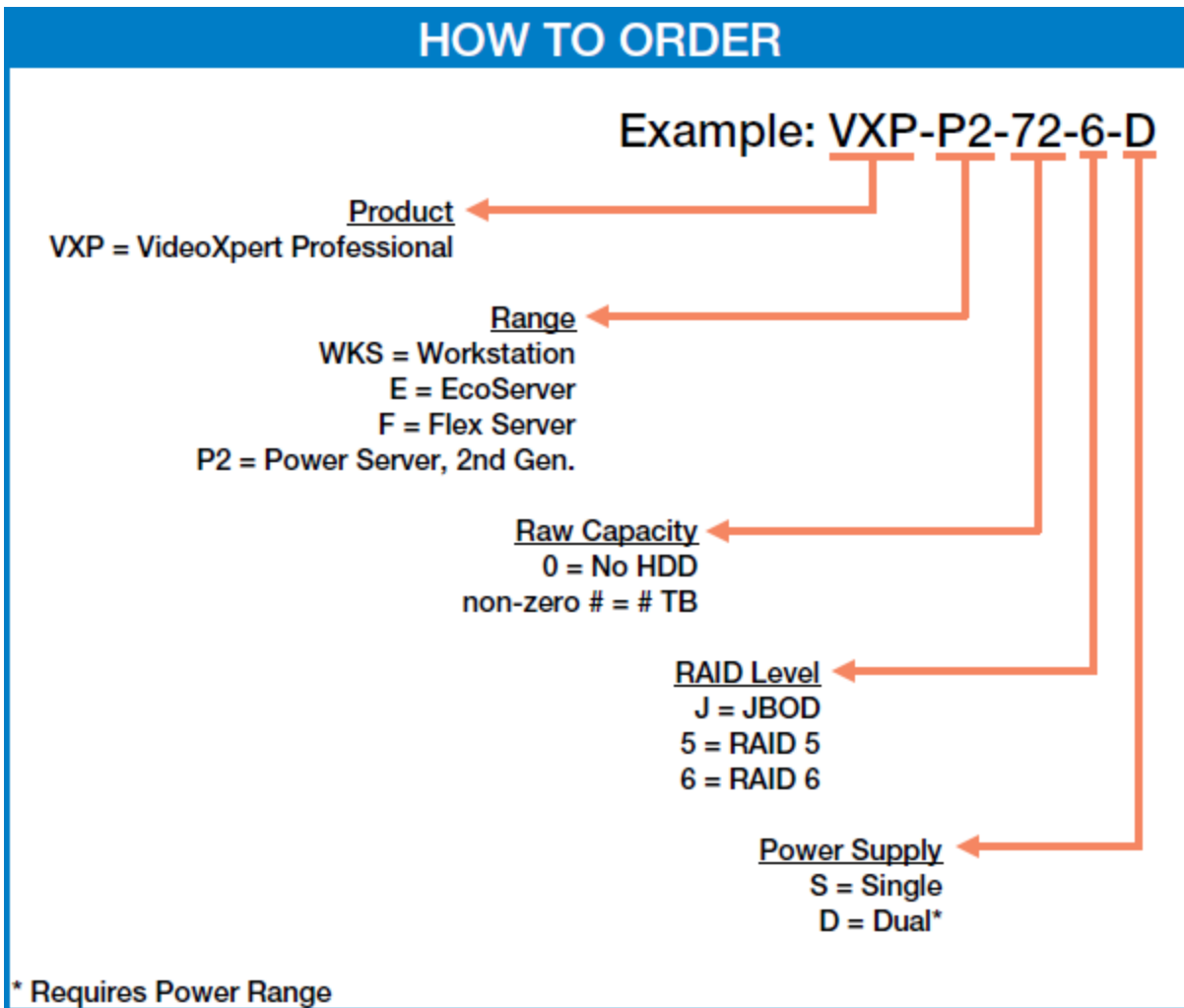
| Model         | Range | Raw Capacity | Effective Capacity | RAID Level | Power Supply |
|---------------|-------|--------------|--------------------|------------|--------------|
| VXP-P2-96-6-D | Power | 96 TB        | 72.70 TB           | RAID 6     | Dual         |
| VXP-P2-96-5-D | Power | 96 TB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



International Standards Organization  
Registered Firm; ISO 9001 Quality System

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