## Network Video (IP) Server

### Description

The Network Video Server can be used where analog/network cameras are already in place. It is an integral part of the Fike Video Analytics early warning fire detection system acting as the video management system and communications conduit between third party ONVIF IP cameras or analog cameras outfitted with an ONVIF capable IP encoder and the Video Management Software (VMS). Contact Fike Video Analytics for camera compatibility.

The server is capable of continuosly recording and digitally storing video images from up to 16 ONVIF cameras. The server's proprietary onboard analytics continuously monitors the video, frame-by-frame, pixel-by-pixel to detect anomolies charateristic of fire, smoke and motion within the field of view of the camera. In the event of a fire or the production of smoke, the server will issue a warning signal by digitally streamed transmissions over IP to a VMS workstation. Server video processing algorithms include:

*Flaming Fires* - looks for a specific fire pattern consisting of a bright core of the flame and a flickering corona.

*Smoke Plumes* - identifies the anomalies that are caused by smoke and analyzes the progression over a period of time to identify a growing smoke plume.

*Ambient Smoke* - monitors the light diffusion from light sources and bright objects in the video images to detect the pattern consistent with the slow accumulation of smoke.

*Intrusion Detection -* can monitor multiple areas of the video image for the presence of moving objects at different times. This can be used to detect and record wanted or unwanted persons.

Multiple Network Servers can be installed and accessed over a single IP network by one VMS workstation for easy scalability. This provides the ability to build an enterprise-level surveillance system with a large number of cameras that can be monitored and configured from a single VMS workstation.



**3 and 6 TB Server**

### Features

- Handles up to 16 ONVIF cameras or encoder channels. *All ONVIF cameras used must have a 640 x 480 stream @15 fps available.*

- Provides early warning flame, smoke and motion detection similar to the Fike Video Analytics IP camera

- Multiple unit scalability over IP network

- Remote monitoring over LAN or Internet using the Fike Video Analytics Video Management Software (VMS)

- Remote playback of archived events

- Addresses security storage needs of organization

- Requires a 1 GB network to support video transition

- Provides continuous video recording for each Fike Video Analytics IP camera marking the events reported (flame, smoke and motion)

- Recorded video can be downloaded in .wmv or .axm format

### Ordering Information

| Fike P/N | Description |
|---|---|
| 28-069 | Network Video Server 3 TB, 4 channel ONVIF compliant IP video streams* |
| 28-070 | Network Video Server 3 TB, 8 channel ONVIF compliant IP video streams* |
| 28-071 | Network Video Server 6 TB, 12 channel ONVIF compliant IP video streams* |
| 28-072 | Network Video Server 6 TB, 16 channel ONVIF compliant IP video streams** |
| 28-059 | Network Video Server 4 channel license pack** |

\* Software license installed on each server

\*\* In order to upgrade the number of channels in the field, a 4 channel license pack is required. Only available for upgrade from 4 to 8 channels or 12 to 16 channels. 3TB units can only handle up to 8 channels.

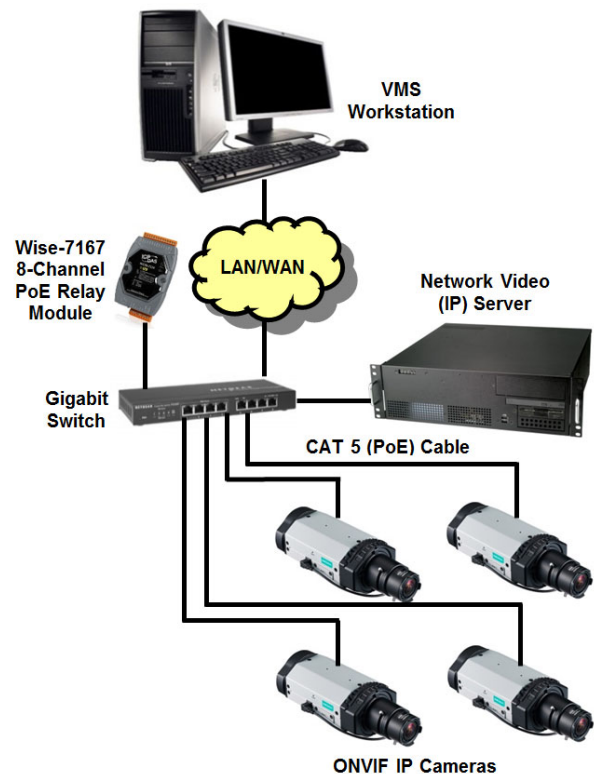This document is only intended to be a guideline and is not applicable to all situations. Information is subject to Fike's full disclaimer at http://www.fike.com/disclaimer.

## Specifications

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|---|---|
| Chassis | 3U, 17 inch, 7xPCI Slots, Slide Rail Kit<br>Dimensions (WxDxH): 17"x 21.75" x 5.25"<br>(432 x 552 x 133 mm) |
| Motherboard | MBD-X10SRi-F<br>Intel® C612 chipset, Sata3 (6Gbps) via C612<br>controller, ASPEED AST2400 BMC graphics |
| Processor Unit | Intel® Xeon® Processor E5-2650 v4,<br>30 MB SmartCache, 2.30-3 GHz, 12 Cores,<br>24 Threads, 105 W |
| Memory | 8GB, DDR4-2666 RDIMM, 1.2 V, CL 19 |
| OS Drive | Enterprise 1 TB, 3.5" SATA 7200 RPM, 128 MB<br>CACHE |
| Storage Drives | Enterprise 1 TB, 2.5" SATA 3GB/S, 7200 RPM,<br>28 MB Buffer<br>Qty. 3 (28-069 and 28-070)<br>Qty. 6 (28-071 and 28-072) |
| CD Drive | 24x DVD-RW Black SATA |
| Input/Output | (2) USB ports on front of unit<br>(1) RJ45 GB LAN ports on rear of unit<br>(4) USB ports on rear of unit<br>(2) DVI-D port on rear of unit<br>(2) Display Port on rear of unit<br>(1) Audio jack on rear of unit<br>(1) Serial port on rear of unit<br>(1) HDMI port on rear of unit |
| Power Supply | P2H-5500V (typical 28-069 and 28-070)<br>Load Wattage: 298 W<br>Recommended UPS Rating: 600 VA<br>Recommended PSU Wattage: 348 W<br>Amperage (combined):<br>+3.3 V @ 9.3 A/86 W<br>+5 V @ 11 A/86 W;<br>+12 V @ 21.8 A/262 W<br>P2H-5500V (typical 28-071 and 28-072)<br>Load Wattage: 331 W<br>Recommended UPS Rating: 650 VA<br>Recommended PSU Wattage: 381 W<br>Amperage (combined):<br>+3.3 V @ 9.3 A/94 W<br>+5 V @ 12.5 A/94 W;<br>+12 V @ 24 A/288 W |
| Operating System | Windows® Server Standard 2016, 64-bit |
| Event Notification | Fike Video Management Software and Wise Relay Module |
| Server Capacity | Varies based on the number of video channels and recording frame rate settings. Refer to Network Video Recorder manual for additional information.<br>*Note: The server has been factory tested with numerous, off-the-shelf ONVIF compatible cameras of various models using compression, resolution and frame rate settings compatible with the processing requirements of a 16 channel system with excess processing capacity. While the server has been proven in factory testing, Fike cannot guarantee to meet 16 channels on every installation due to variations in installed systems (i.e., wire run lengths, wire type, switch data transfer rate, camera available compression type, frame rate and/or resolution settings).* |
| Environmental | Operating Temperature Range: 10-35°C (50-95°F)<br>Non-operating Temperature Range: -20-60°C (-4-140°F)<br>Operating Humidity (RH): 10-85% (non-condensing)<br>Non-operating Humidity (RH): 10-95% (non-condensing) |

## System Architecture

In its basic configuration, the Fike Video Analytics system will consist of at least one ONVIF IP camera, network video server, and a Windows based PC running the Fike Video Management Software (VMS), all connected to the same high-speed local area network (LAN). Remote VMS workstations can be located on a differnet network and will communicate normally as long as the NVR is accessible over a TCP connection.

Where Alarm annunciation is required, a Wise-7167 relay module can be connected to the system to provide dry-contact relay connections. These connections can be tied into an FM Approved Fire Alarm Control Panel (FACP) to signal system events.



## Network Requirements

In order for the server to function properly and communicate with the ONVIF IP cameras, they must all share the same high-speed local area network (LAN).

If integrating the Fike Video Analytics components into an existing LAN, consult with your IT representative or system administrator to ensure that adequate capacity is available to handle the camera(s) bandwidth. Contact your Fike Video Analytics distributor for additional information regarding network requirements.

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