

## NET5500 Series Video Encoders

This document describes the features and operational issues for the NET5500 Series video encoders. Review each section to determine if an upgrade is warranted for your installation. For additional information on the unit (including the latest updates to documentation, product specifications, and software downloads), visit the Pelco Web site at [www.pelco.com](http://www.pelco.com).

**NOTE:** For technical issues, contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international).

### 2.1.9.7 Release

#### Major Fixes

- Corrected a problem with authentication and authorization bypass on firmware version 2.1.9.6.
- Corrected a ShellSock vulnerability with firmware version 2.1.9.6.

### 2.1.9.6 Release

#### New Features and Improvements

- Added cybersecurity improvements:
  - Added the ability to set TLS (formerly SSL) to “Required” in the Web Client which disables HTTP access.

### 2.1.9.2 Release

#### New Features and Improvements

- Added IPv6 support.

### 2.1.8.6 Release

#### New Features and Improvements

- Added support for AUX2.
- Added support for Panasonic Proteus UTC Protocol.

#### Major Fixes

- Corrected a problem in the Ops Center causing PTZ conflicts occurring when controlling different cameras on the same encoder from separate Ops Center Client (OCC) stations.
- Corrected an issue with encoders on an Endura system causing PTZ controls to run too fast.
- Corrected a problem causing PTZ delay control issues when controlling Spectra Mini cameras from a VCD5202.
- Corrected an issue occasionally preventing audio from recording to a VideoXpert system.
- Corrected a problem causing multicast TTL to change to the default value after a reboot.

- Corrected an issue causing the camera to continue to zoom after the user stopped controlling the camera.
- Corrected a problem causing cameras to continue to pan or tilt well after a user had finished controlling the camera through VideoXpert.
- Corrected a problem preventing encoders from working correctly with Wowza Streaming Engine.
- Corrected an issue causing choppy PTZ video with a VideoXpert system.
- Corrected a problem causing zoom control issues from Spectra IV cameras connected to NET5516 encoders.
- Corrected an issue preventing users from being able to view and select tours and presets.
- Corrected an issue preventing live streaming with the VideoXpert 1.8 release when simultaneously streaming from an Endura Workstation.
- Corrected a problem preventing the encoder from panning correctly until the encoder was rebooted.
- Corrected an issue causing loss of PTZ control on an Endura system, especially when moving the mouse to the extreme left or right to pan the camera.

## **2.1.6.0 Release**

### **New Features and Improvements**

- Users can require a password to view live video.

### **Major Fixes**

- Corrected an issue causing NET5500 channels to always appear as PTZ cameras in VideoXpert, even when PTZ was disabled.
- Corrected an issue causing problems connecting and maintaining multiple video streams to VideoXpert on a multi-channel encoder.
- Corrected an issue causing channels on NET5516 encoders to exhibit recording gaps on NSM5200 recorders whenever users streamed video from the encoder through the VideoXpert Ops Center Client.
- Corrected an issue causing channels on NET5516 encoders to crash when users attempted to get the channels' secondary streams through the VideoXpert Ops Center Client.
- Corrected an issue preventing PTZ from working when encoders hosted multiple cameras and were connected to both Endura and VideoXpert.

## **2.1.4.8 Release**

### **Major Fixes**

- Corrected an issue causing video streams to lag behind real time by up to 40 seconds, requiring a restart to correct the discrepancy.
- Corrected an issue preventing audio playback via ONVIF in Milestone environments.

## **2.1.3.16 Release**

### **Major Fixes**

- Corrected an issue causing the encoder to go offline after the logfile filled up.
- Corrected an issue preventing PTZ from functioning correctly.
- Corrected an issue causing distorted audio when playing audio through Digital Sentry.

- Corrected an issue causing channels 2-16 to appear offline in VideoXpert and DigitalSentry after updating to firmware version 2.1.3.13.
- Corrected an issue causing incorrectly formatted RTSP requests to restart the device.
- Corrected an issue causing recording gaps on NSM5200s for any channel(s) accessed by operators through the VideoXpert Ops Center Client.

## **2.1.3.13 Release**

### **Major Fixes**

- Corrected an issue causing all PTZ controls issued to encoder channels displayed on monitor walls (monitors connected to a decoder or other remote source) to affect channel 1, regardless of the intended channel.
- Corrected an issue causing audio to stop streaming, or begin streaming in association with incorrect video streams after several days.
- Corrected an issue preventing users from changing the Multicast Port value using `StreamConfiguration.SaveAllSettings`.

## **2.1.2.3 Release**

### **New Features and Improvements**

- Users can now set multicast values (multicast IP address, TTL, and the option to continually stream) using `StreamConfiguration.SaveAllSettings`.

### **Major Fixes**

- Corrected an issue causing the encoder to retain the default multicast address when DHCP was applied after the device applied the default IP address. This resulted in multiple encoders with the same multicast address, preventing Endura from streaming correct video.
- Corrected an issue preventing users from setting an IP address with an initial octet between 100 and 109.
- Improved PTZ control and latency when NET5516 encoders are under heavy load (high bitrate settings).
- Corrected a memory allocation issue that resulted in unexpected restarts and gaps in recording when multiple events are enabled.
- Corrected an issue causing NET5501-I models to respond to `StreamQuery` calls with a 500 error.
- Corrected an issue preventing the encoder from streaming when added to a system using the encoder's hostname.
- Corrected an issue causing the `ONVIF SetSystemDateAndTime` function to return a 500 error.
- Corrected an issue preventing the creation of more than 8 users or setting permissions correctly using the `ONVIF CreateUsers` function.
- Corrected an issue preventing Endura users from silencing motion detection alarms.
- Corrected an issue causing a delay when streaming video through QuickTime®.
- Corrected a problem with the `AlarmArrayConfiguration` not setting the proper dwelltime parameter.
- Corrected an issue preventing changes made to the device name through the encoder's web interface from being reflected in Endura.

## 2.1.1.1 Release

### New Features and Improvements

- Added video streaming support from the SM5200 web application.
- Corrected an issue where the Pelco Mobile application would not stream the NET5500 encoder when connected to Endura.
- Corrected an issue where cameras could not be accessed using HTTPS from the NET5500 Series encoder after a signed certificate had been installed by the certificate authority software (SimpleAuthority software).
- Added support in Digital Sentry for changing the bitrate of a camera stream through the quality slider.
- Fixed a problem where Digital Sentry always connected and streamed video at the lowest bitrate by default.

## 2.1.0.8 Initial Release

### New Features and Improvements

- Supports MJPEG and H.264 baseline, main, or high profile compression standards.
- Capable of dual-stream video at up to D1 resolution and 30/25 images per second (ips) per stream.
- Includes integrated Coaxitron® and Pelco D and Pelco P PTZ protocols.
- Provides support for Power over Ethernet (PoE) in the in-line model.
- There is a choice of 1-, 4-, 8-, and 16-channel models (rack mount chassis).
- Additional options include the 1-channel in-line or extended temperature models.
- The NET5500 Series encoders are ONVIF Profile-S conformant.

### Operational Issues

- When integrating with a Milestone Systems VMS through the ONVIF API, the following features might not work as expected: alarms may not be present, audio might not be accessible, and the NET5500 Series encoder will not transmit video streams that are added through the hostname.
- Only eight users can be created through the ONVIF API, and permission levels might not be set correctly.
- Operating the PTZ controls with ONVIF Profile S is not precise on a Genetec camera from its Genetec Security Center.
- PTZ controls can only be issued for channel one on Genetec cameras when using ONVIF Profile S.
- PTZ control latency is high when the user selects maximum or near maximum bit rates on all channels for the NET5516.
- In the Pelco API, the SetAlarmState function is not supported and the Delay before alarm setting under Sabotage Detection in the Events tab is not supported.
- Video streaming is not supported from the SM5200 web application.
- When using Apple® QuickTime®, video has approximately a three second delay.
- In the Pelco Mobile application, a direct connection to the NET5501 encoder does not identify a camera as a PTZ device, although PTZ is enabled and working.
- The Pelco Mobile application will not stream the NET5500 encoder when connected to Endura.
- Changing the encoder name in Endura does not affect the name of the camera in the encoder web interface. Similarly, changing the name of the camera in the encoder web interface does not affect the name in the Endura system.

- NET5500 Series video latency performance might increase over time with audio enabled on a VCD.
- Motion alarms from the encoder cannot be silenced through the Endura Workstation software (WS5200/WS5000).
- Cameras cannot be accessed using HTTPS from the NET5500 Series encoder after a signed certificate has been installed by the certificate authority software (SimpleAuthority software).
- Actual bitrates for MJPEG streaming are higher than specified by the user.
- The RTSP stream has two URLs for the NET55xx encoders that are stated as follows:
  - Primary stream: rtsp://<ipaddress>/channelx/stream1
  - Secondary stream: rtsp://<ipaddress>/channelx/stream2
  - “x” is the desired channel number on the encoder (1-16)
- Using Digital Sentry, changing the bitrate of a camera stream through the quality slider is not supported in this release.
- Digital Sentry does not check for camera authentication credentials on the NET5500 Series encoders. Therefore, NET5500 Series encoders will stream and record to Digital Sentry with the incorrect name and/or password.
- Digital Sentry always connects and streams video at the lowest bitrate by default. This can be adjusted by increasing bitrate values in the NET5500 Series web interface.
- Digital Sentry now connects to the NET5500 Series encoder through the Pelco API. The port number must be 554 for RTSP. Do not alter the RTSP port on any Sarix camera, or it will not be recognized.
- Digital Sentry discovers the different channels as separate streams within the same IP address.

## Contact Information

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## Document Revision History

Document #	Date	Comments
C1068RN	9/26/14	Original version.
C1068RN-A	1/13/15	Added version 2.1.2.3 release information.
C1068RN-B	3/30/15	Added version 2.1.3.13 release information.
C1068RN-C	8/25/15	Added version 2.1.3.16 release information.
C1068RN-D	9/11/15	Added version 2.1.4.8 release information.
C1068RN-E	2/22/16	Added version 2.1.6.0 release information.
C1068RN-F	5/15/17	Added version 2.1.8.6 release information.
C1068RN-G	1/08/18	Added version 2.1.9.2 release information.
C1068RN-H	11/29/18	Added version 2.1.9.6 release information.

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