

# Vantage Next VMS Compatibility App Note



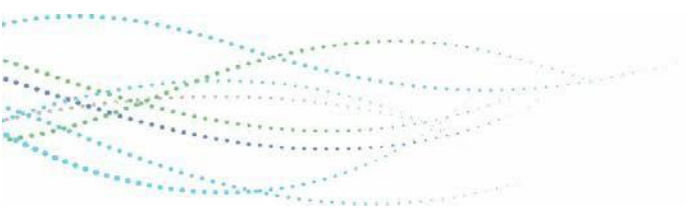
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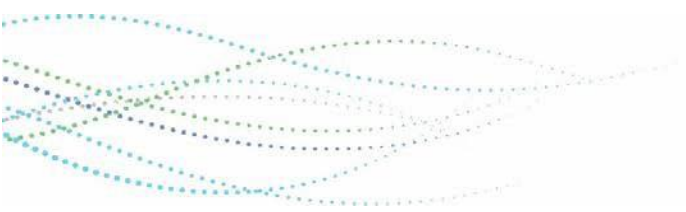


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## 1 INTRODUCTION

Displaying streaming video from Vantage detection systems has always been beneficial to end-users to remotely monitor traffic conditions and to monitor system performance. Vantage Next systems have employed methods to facilitate easy integration with popular Video Management Systems (VMS) using Real Time Streaming Protocol (RTSP) and Open Network Video Interface Forum (Onvif) standards over Ethernet connections.

This application note provides guidance on how to setup various VMS's for receiving and displaying video streams from Vantage Next systems.

*Note that the Vantage Next system does not stream video on its own. The Onvif negotiation process provides the VMS with the URI for each stream. The URI's are what the VMS use to request streams from the Vantage Next system. Therefore, it is the VMS that regulates the number of active streams via stream licenses.*

### 1.1 Minimum Requirements

Vantage Next firmware version 09.02.22SP4C (for Onvif capabilities).

### 1.2 VMS Systems

- A. Generic RTSP
- B. Genetec Security Center/Omnicast (Version 5.8)
- C. Milestone XProtect (Version 2020R1)
- D. Digital Watchdog Spectrum (Version 4.0)
- E. Panasonic Video Insight (Version 7.5.4.14)

## 2 GENERIC RTSP

The Vantage Next system’s streaming video engine employs a RTSP server. Four independent streams for each Vantage Next video input are available in addition to a fifth stream which serves a quad (2x2) image of all four Vantage Next video inputs. In order to get the quad stream, the Vantage Next CCU must be connected to two detection processors (DP’s). Each DP supports two video inputs and with two DP’s, four video inputs are supported. On a single DP Vantage Next system, a quad stream is not available.

Individual streams can be sent to various video management systems or video streaming players such as VLC from VideoLan. To acquire a video stream, the video management system or video stream player must request the stream using the following RTSP format string.

**Table 1 – Generic RTSP String Format**

Video Source	RTSP String Format
Camera 1	rtsp://[IP Address]:554/1
Camera 2	rtsp://[IP Address]:554/2
Camera 3	rtsp://[IP Address]:554/3
Camera 4	rtsp://[IP Address]:554/4
Quad Image of Cameras 1 to 4	rtsp://[IP Address]:8554/1

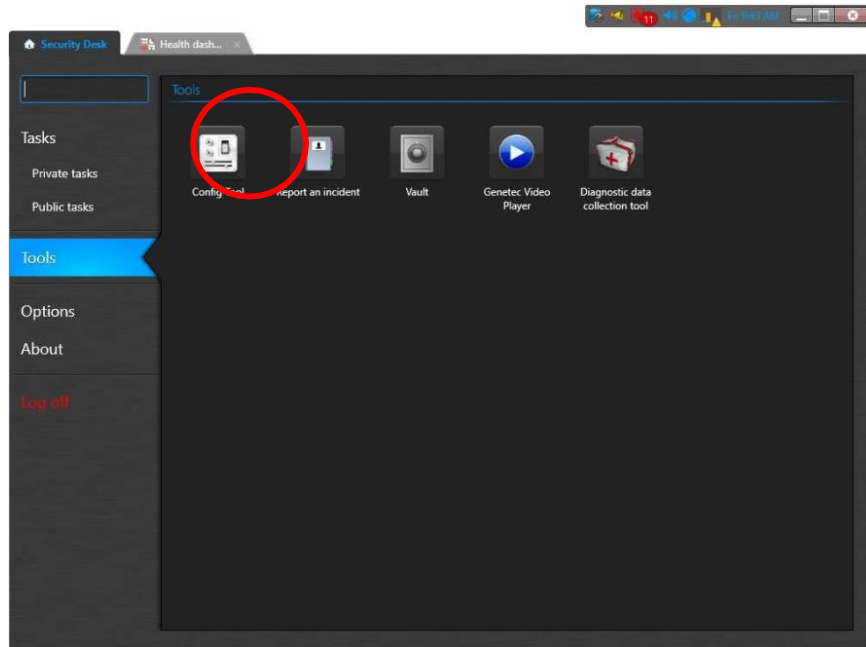
The IP Address is the address of the Vantage Next system. Port 554 is the default control port number for RTSP and at times not required. However, any port other than the default (port 554) must be specifically specified. The quad stream uses port 8554 so it must be explicitly entered in the RTSP request.

Additionally, Vantage Next systems stream video using RTP over RTSP (TCP) streaming transport. Many streaming video display systems automatically detect this type of streaming transport but if streaming video is not shown properly, the user may have to specifically select this type of streaming transport option within the streaming video display application.

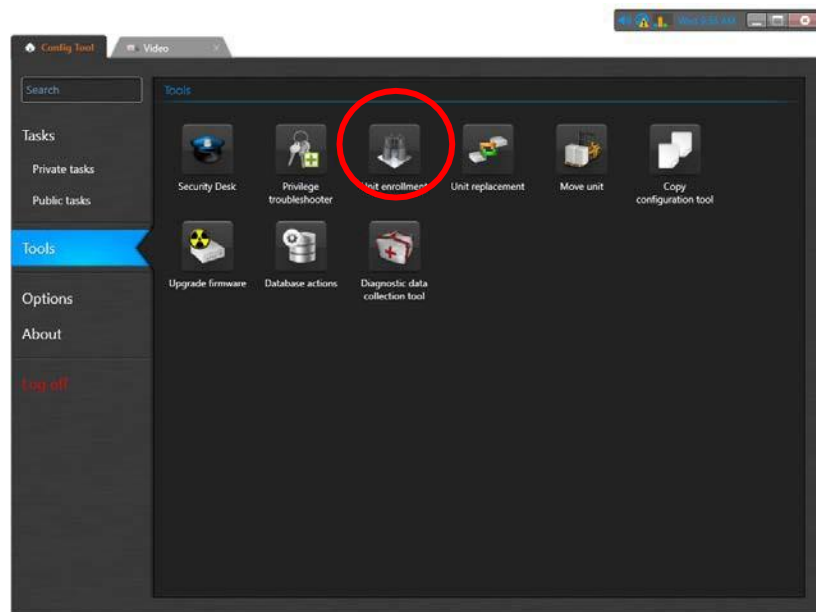
When video management systems or streaming video players support Onvif, the negotiation between Vantage Next and the video player automatically configures the player. During Onvif negotiation process, Vantage Next systems send the appropriate RTSP universal resource identifier (URI) or RTSP string without having the user enter the RTSP string manually.

## 3 GENETEC SECURITY CENTER/OMNICAST

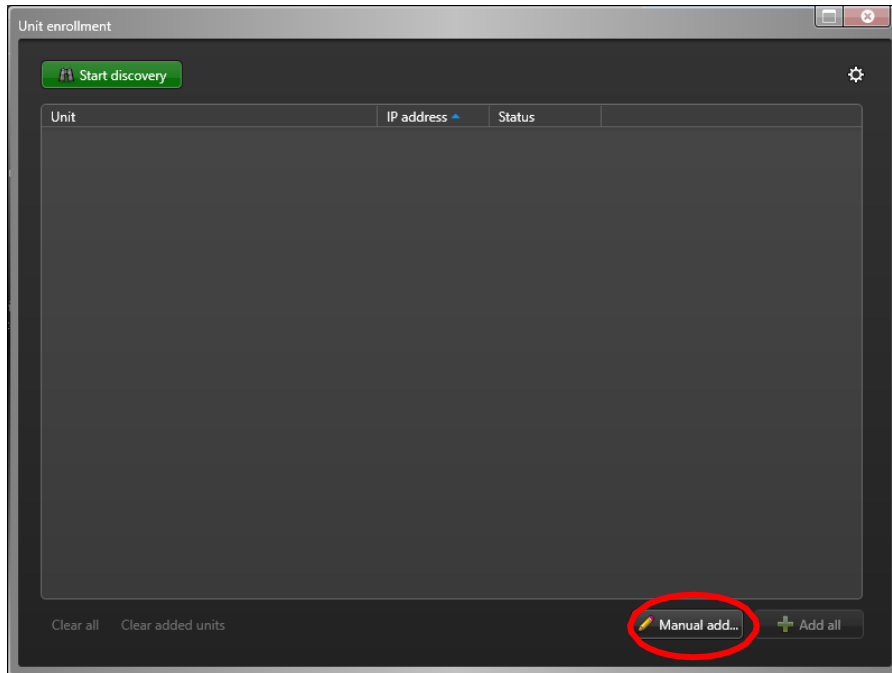
Once Genetec’s Security Desk is running, launch the “Configuration Tool” under the “Tools” tab. The Configuration Tool is used to add streaming video hardware to the system database.



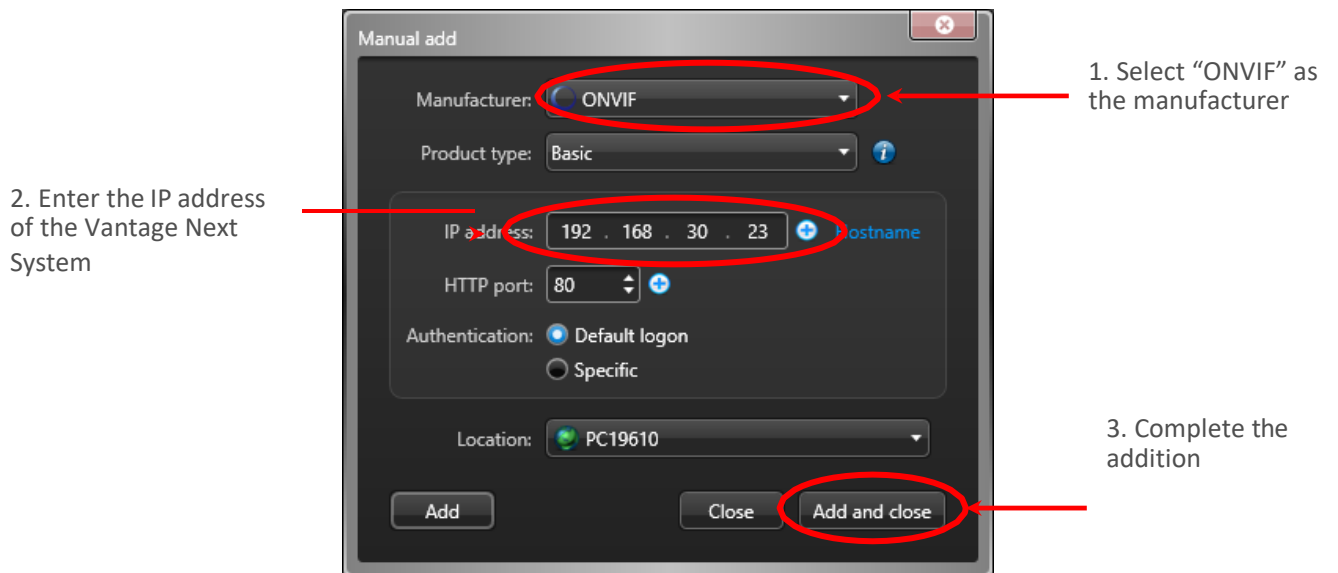
Once the Configuration Tool is launched, select the “Unit Enrollment” icon.



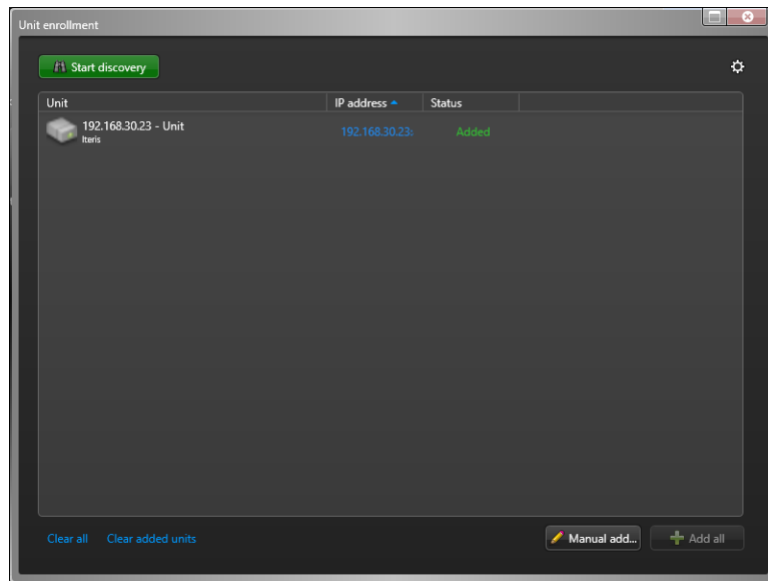
Once “Unit Enrollment” icon is selected, a new window will appear. Then select the “Manually add” button.



Once selected, a generic video configuration panel is displayed. Appropriate fields must be edited in order for the system to discover the desired Vantage Next system.



Once a system is added, close the panel and the following window should show the added Vantage Next system.



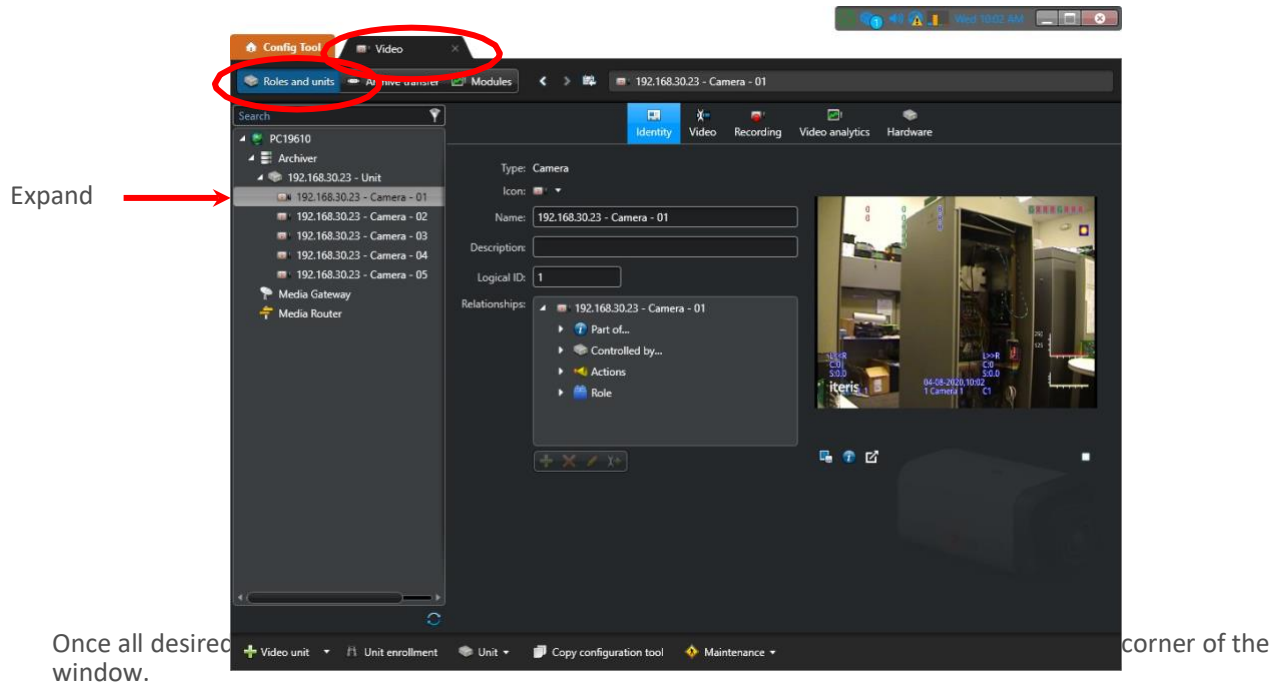
Once that the unit has been added, close the window by clicking on the “X” in the upper right corner of the window. Once this window closes, go back to the Configuration Tool and select the “Video” tab at the top. Also make sure “Roles and units” is selected in the secondary level of tabs at the top. Individual camera inputs can be seen once the list is expanded on the particular Vantage Next unit.

Individual camera descriptions can be changed by selecting the desired camera. The default names are listed below. Camera 5’s name can be changed to “Quad” if desired.

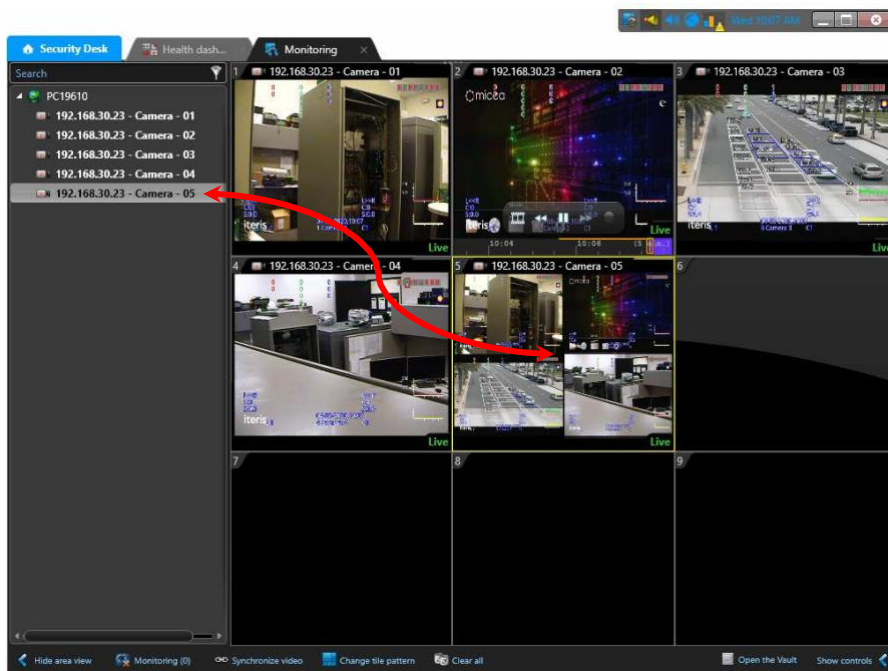
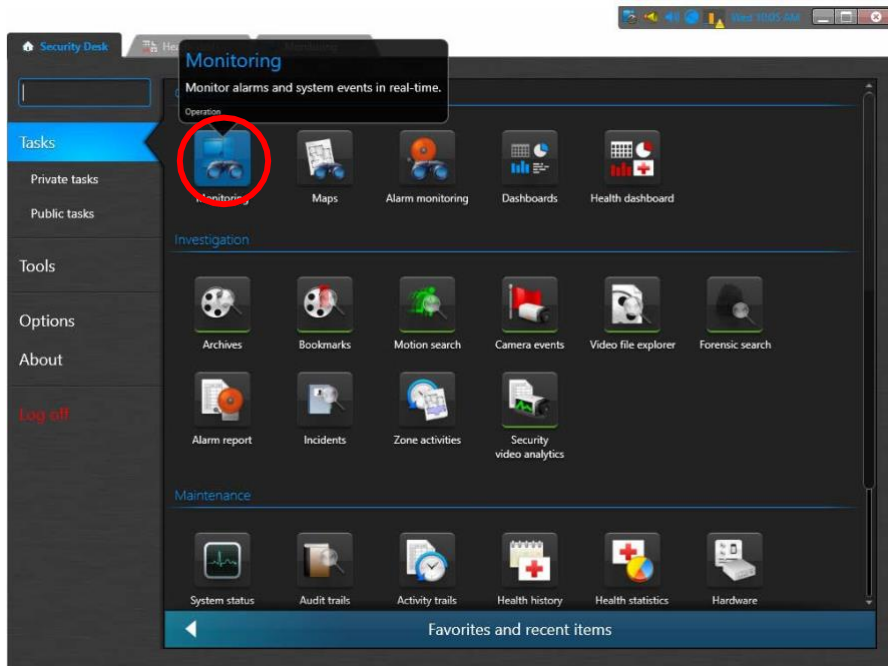
**Table 2 – Genetec Camera Identifier**

Default Camera Identifier	Vantage Next Camera
Camera – 01	Camera 1
Camera – 02	Camera 2
Camera – 03	Camera 3
Camera – 04	Camera 4
Camera – 05	Quad Image of Cameras 1 to 4





Go back to the Security Desk window and select “Tasks” and then the “Monitoring” icon and select the desired video display format (e.g. 3x3 display). Each camera listed in the list on the left can then be dragged and dropped into the desired display location.

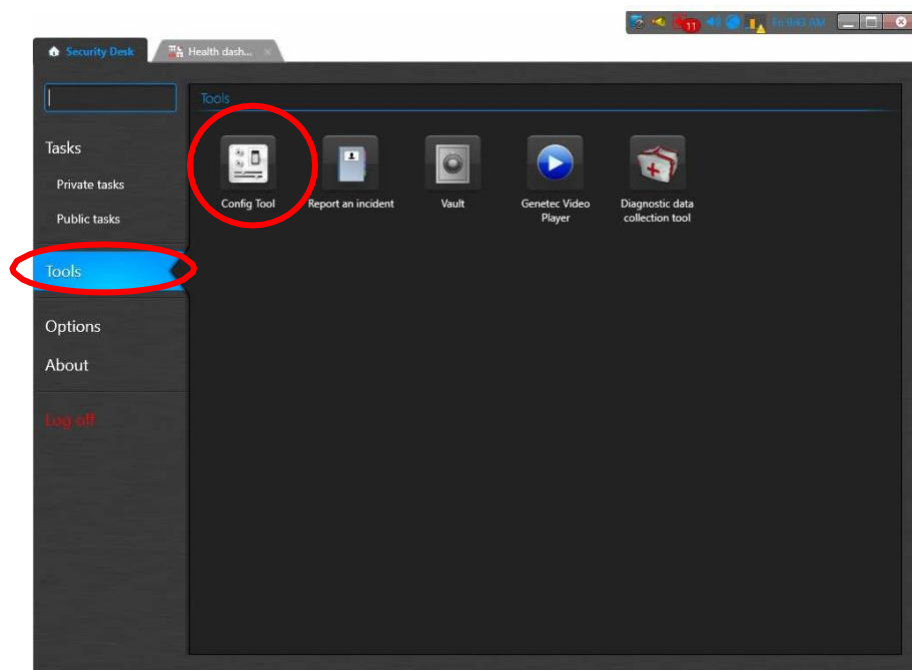


## 3.1 VMS License Requirements

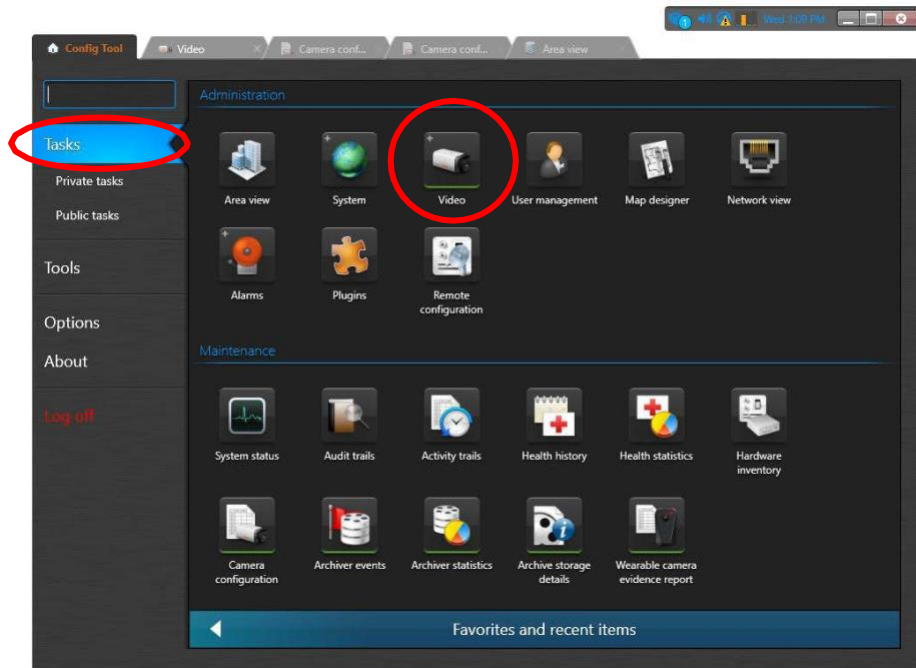
Video Management Systems are deployed with specific number of licenses based on the number of streams. Many VMSs have the capability to disable unused streams from a multi-stream device, thus decreasing the need of the number of licenses. Some VMSs allow the user to select which stream to add to their system during the hardware discovery processes but before adding the streams to the database. However, Genetec requires the user to add the streams first (using available licenses) and then allows the user to disable unused streams releasing licenses. This application note describes how to release unused stream licenses from Genetec Security Center/Omnicast (Version 5.8).

## 3.2 Releasing Unused Stream Licenses

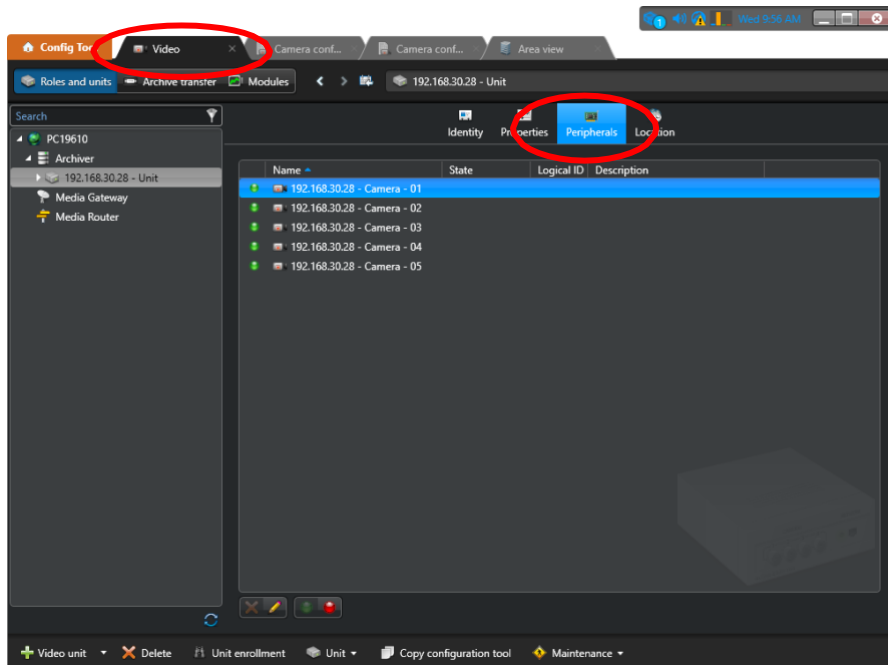
Once a fielded Vantage Next system has been added to Genetec Omnicast, open the Configuration Tool under the Tools tab.



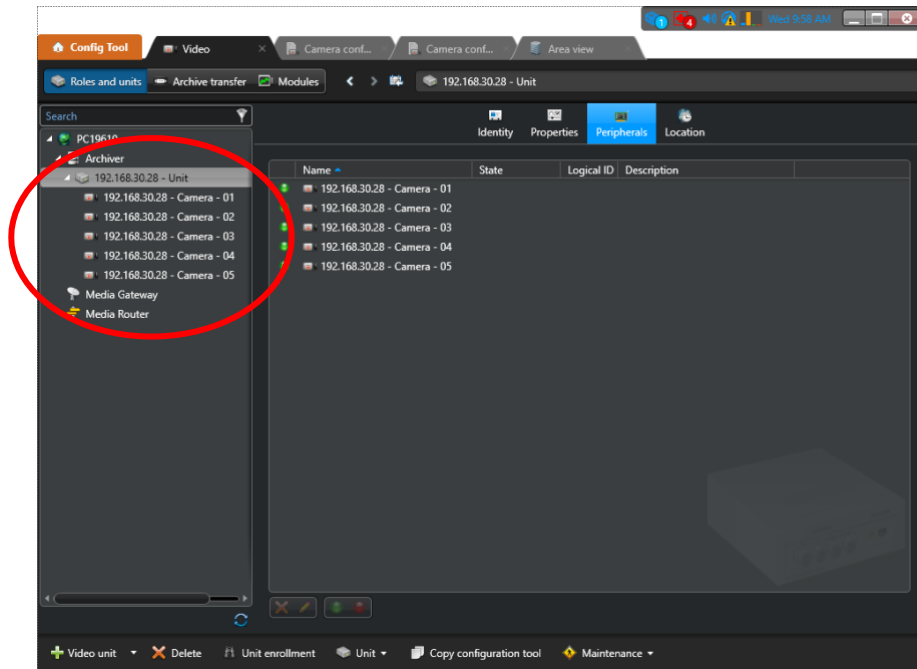
Once into the Configuration Tool, select the Video icon under the Tasks tab.



Once the Video tab is displayed, select the Peripherals button in the upper part of the window.

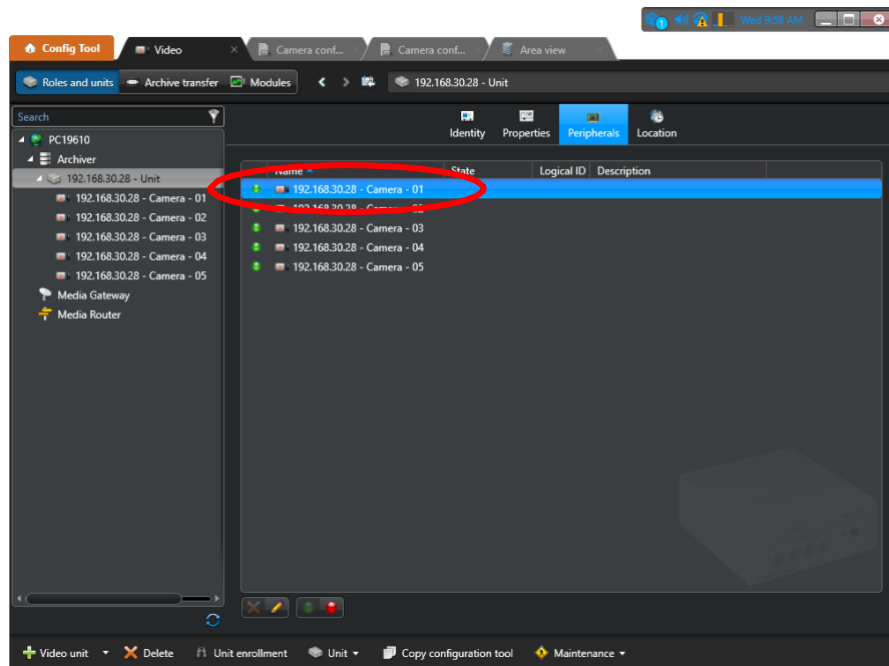


Expand the elements for the Vantage Next platform under the Archiver element in the list tree on the left to display all available streaming channels. At this point, Genetec is using 5 streaming licenses.

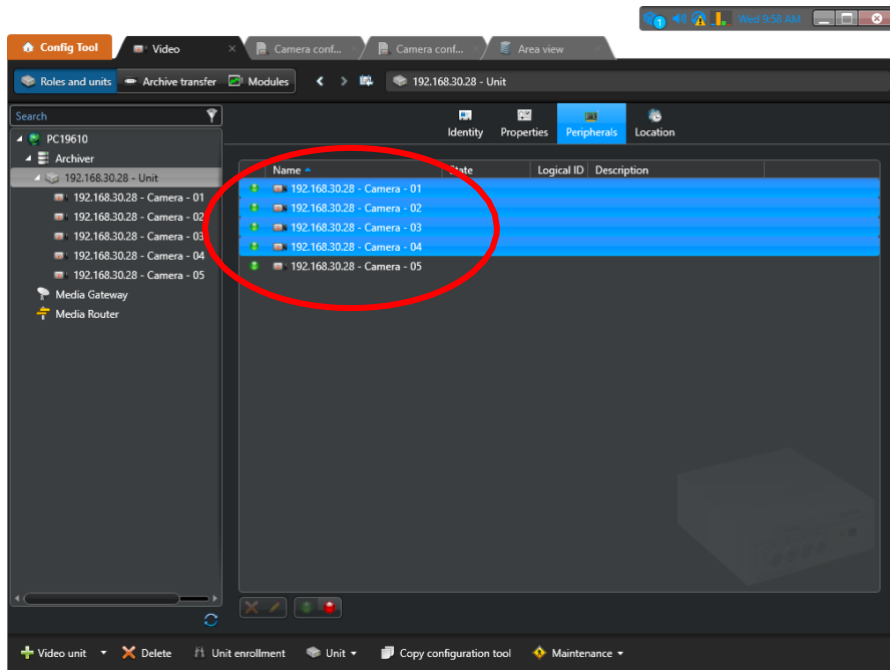


Select a single (or multiple as desired) video inputs. Once selected, the video input(s) will be highlighted.

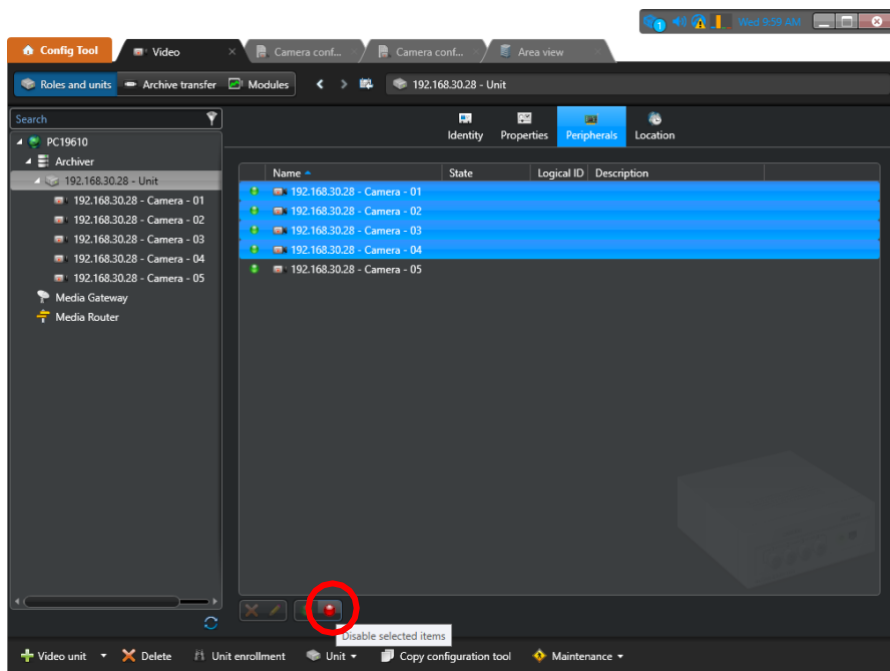
### Single Video Input Selected



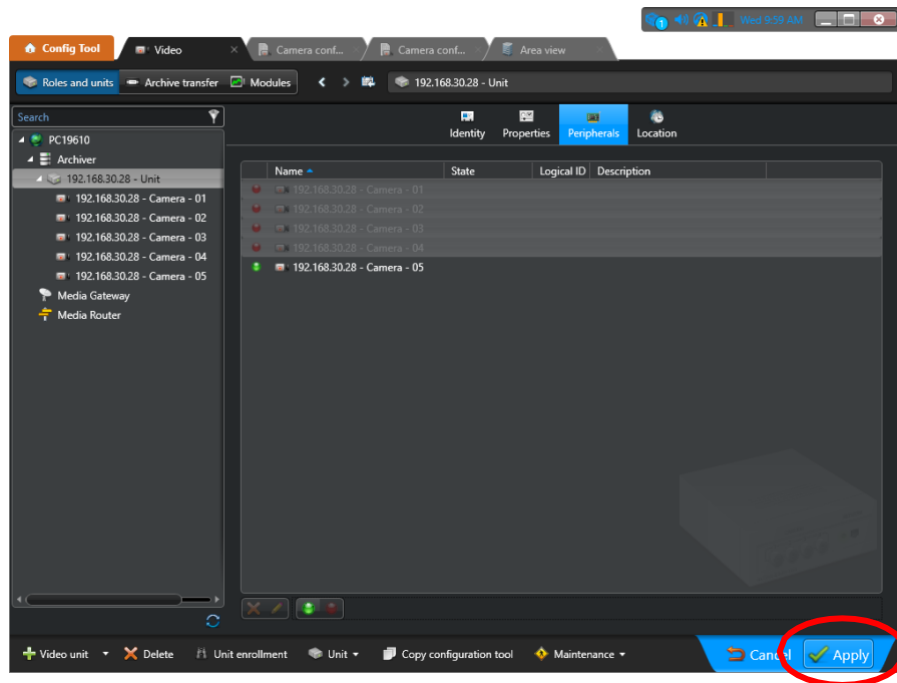
## Multiple Video Inputs Selected



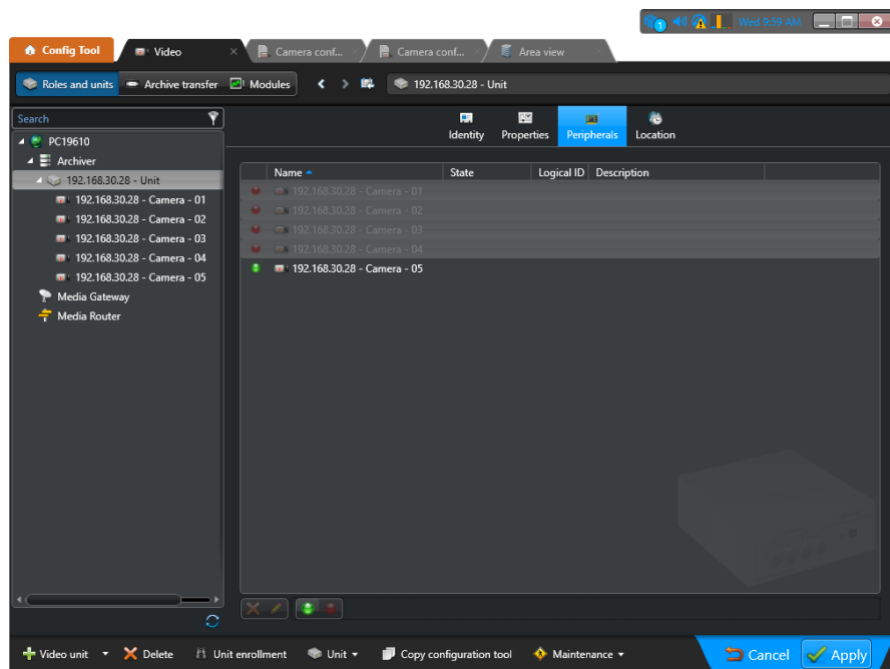
Once highlighted, click on the “red ball” at the bottom of the window to disable the selected video input stream.



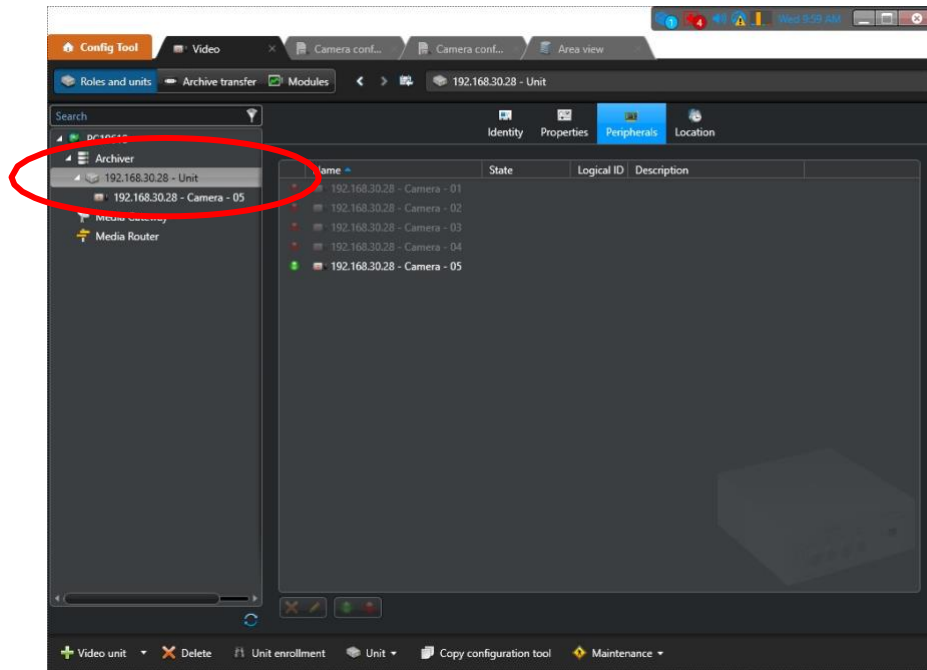
Then click on the Apply button on the bottom.



While the system is updating the database, the selected elements may change color.



Once the database update is complete, the list tree on the left will show the remaining active video stream or streams. In this example, only one video stream remains, thus using only one stream license. So the initial use of 5 stream licenses is now reduced to one.

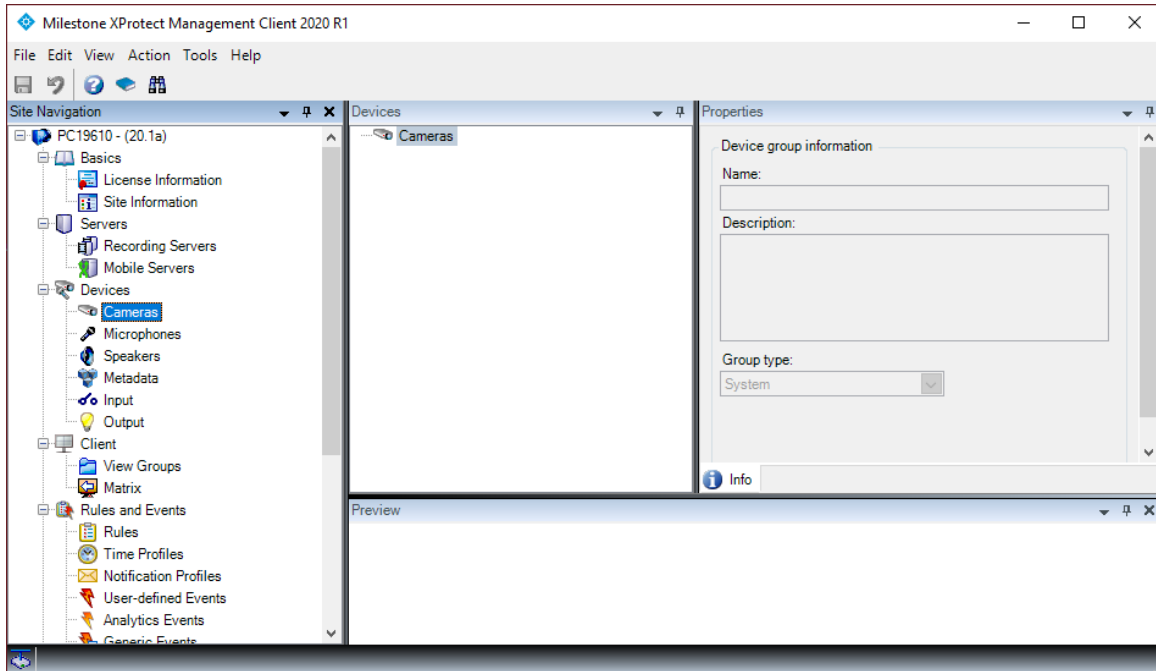


Once the process is complete, the Monitor screen will be updated to only show active streams and the user can now drag and drop the stream onto a display location.

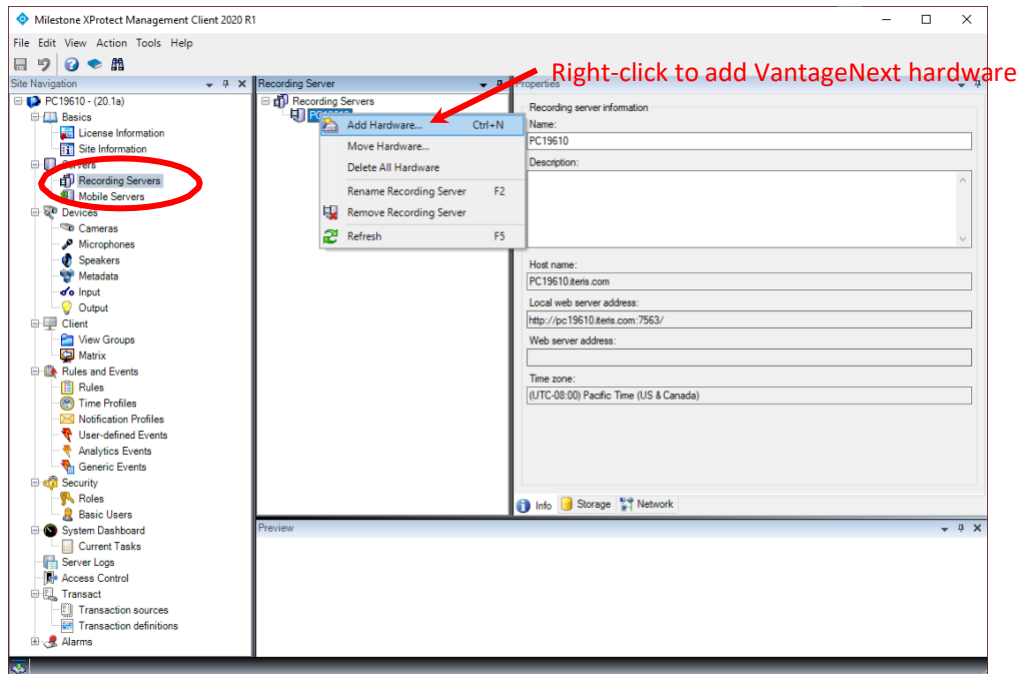


## 4 MILESTONE XPROTECT

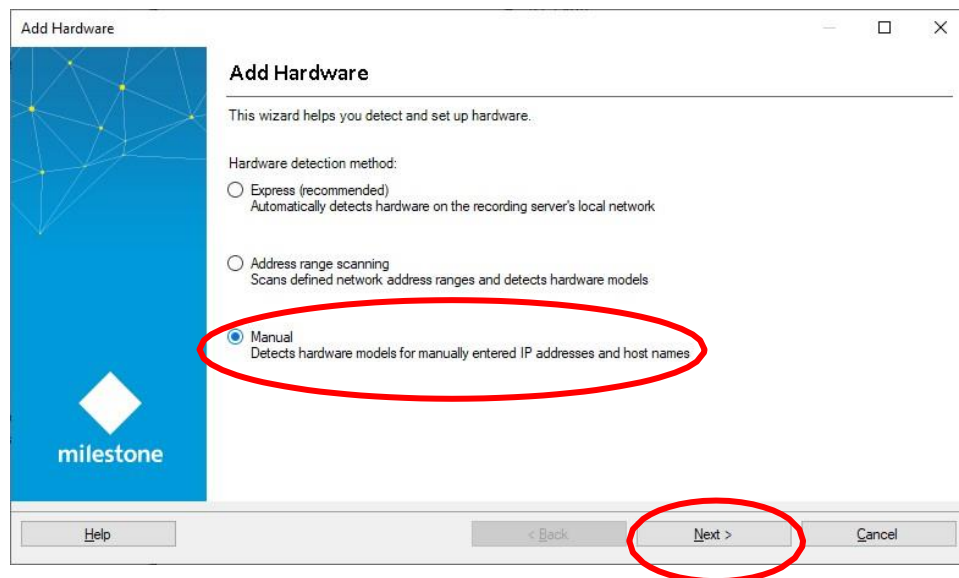
To add Vantage Next video streams to Milestone XProtect, launch the “Milestone XProtect Management Client.”



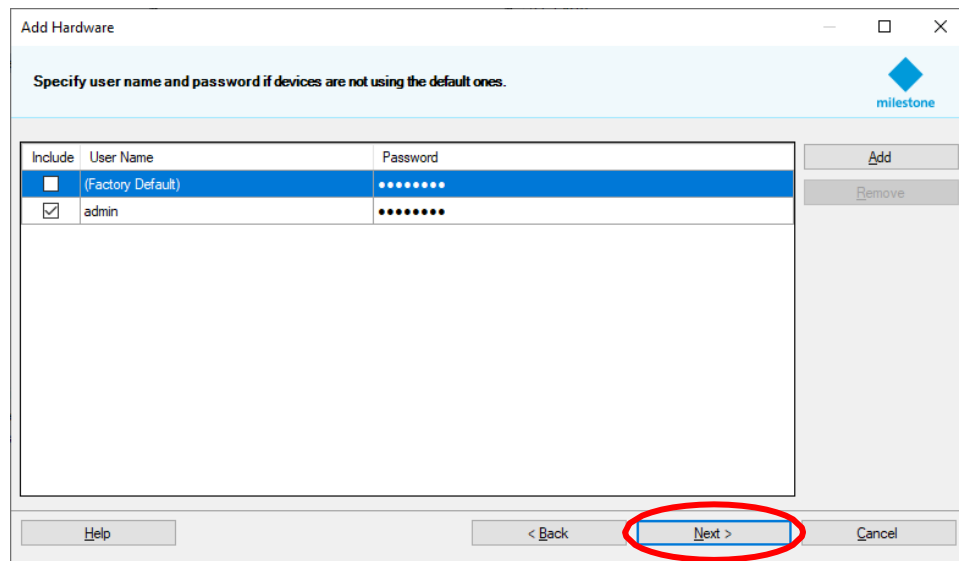
Select “Recording Servers” under “Servers” in the list tree in the left panel. Then right-click on the server you wish to add the Vantage Next video streams and select “Add Hardware...”



In the “Add Hardware” window, select “Manual” and click on the “Next” button at the bottom of the window.

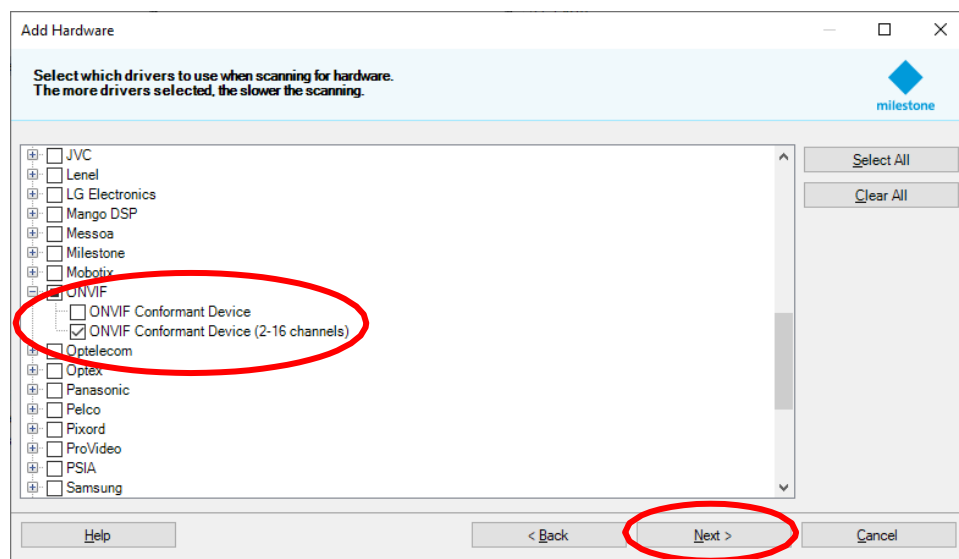


On the next window that pops up, use all the default values. Vantage Next systems do not require a user name or password thus ignores any settings.

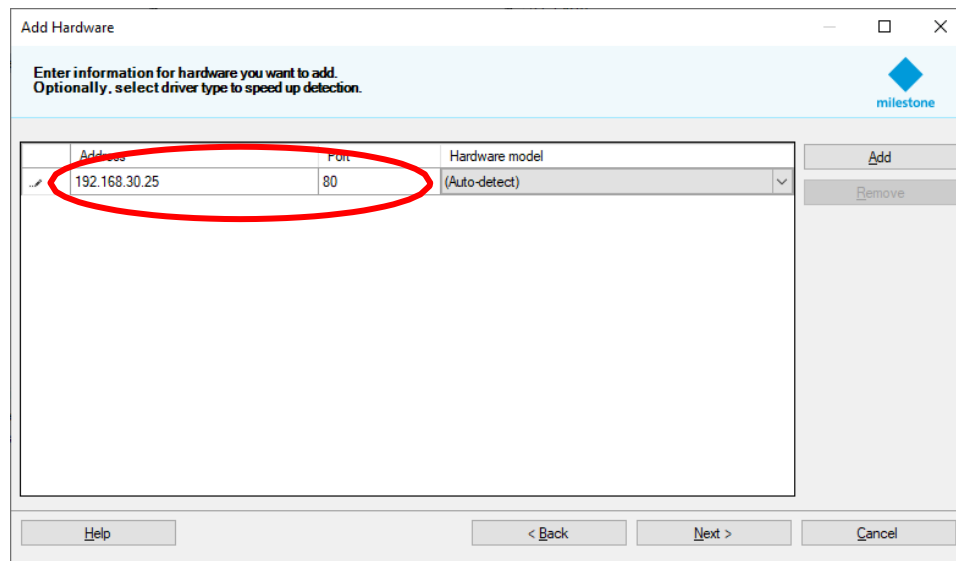


Click on the “Next” button at the bottom of the window to continue.

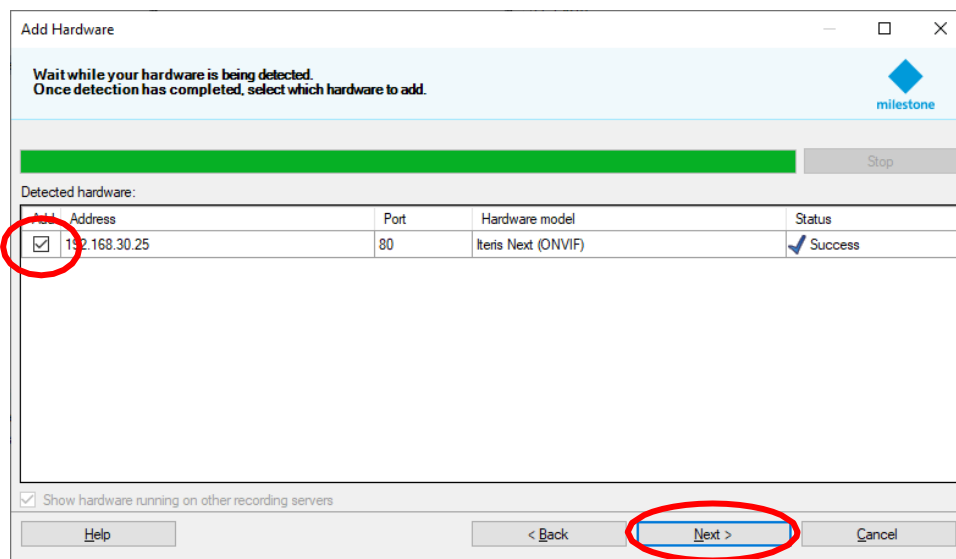
De-select any options and only select “ONVIF” with “ONVIF Conformant Device (2-16 channels)”. Then click the “Next” button at the bottom of the window.



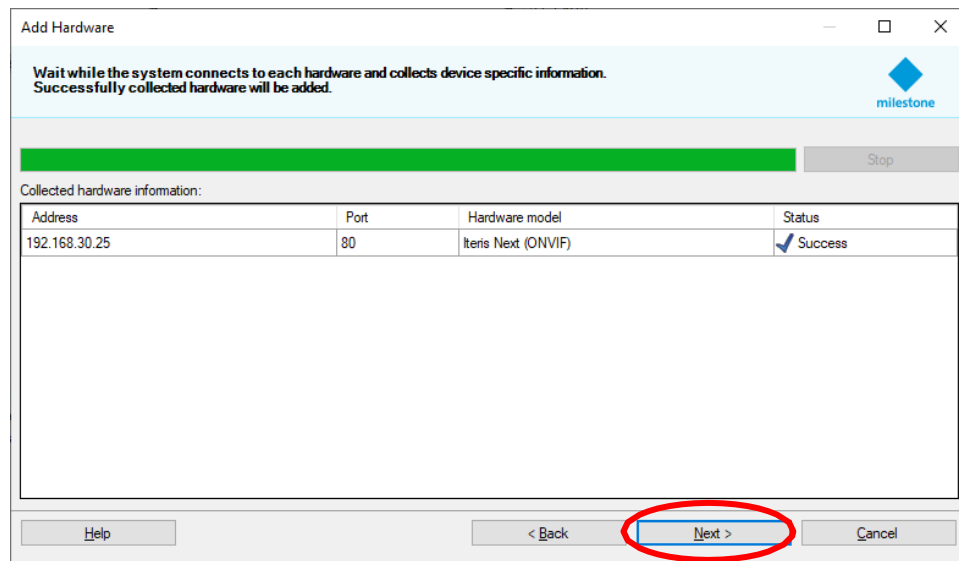
In the next configuration window, enter the IP address of the desired Vantage Next system. Leave the “Port” as “80” and then click on the “Next” button to initialize the search of the device.



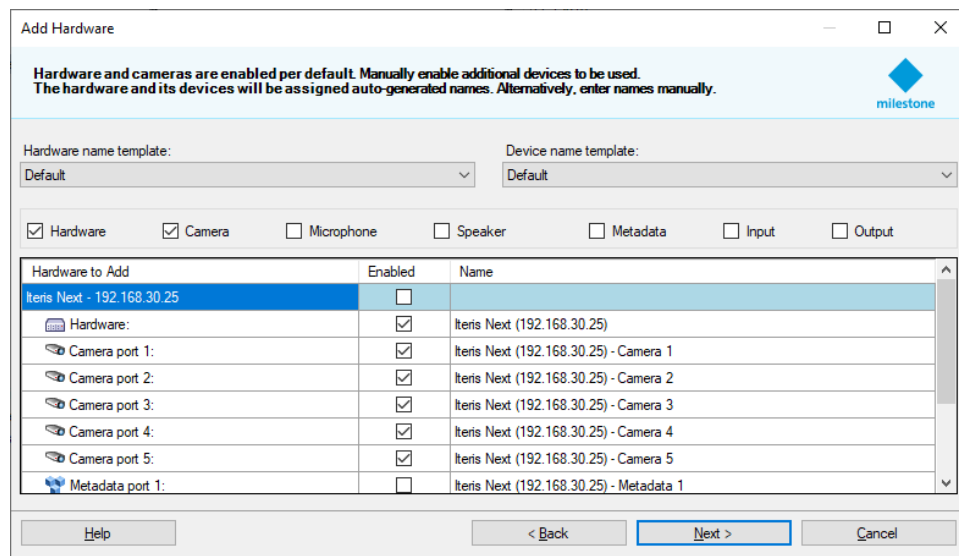
Once the Vantage Next system is detected, the following window will be displayed.



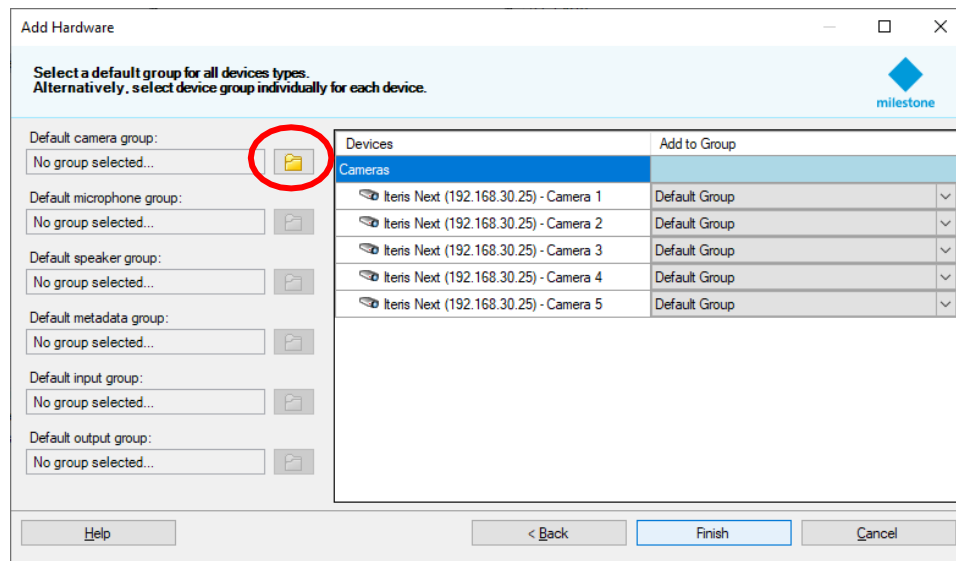
Make certain the check box is selected and click on “Next” to add the system to the Milestone database. Once added, a confirmation window will be displayed.



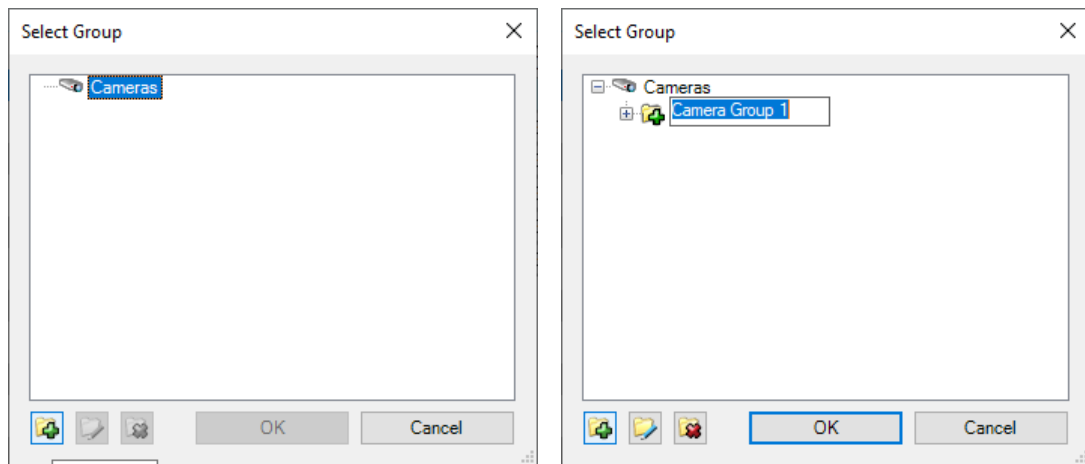
Once confirmed, click on the “Next” button. A window that lists all available video channels of the Vantage Next system will then be shown. Verify that the “Hardware” and all related “Camera ports” are selected and that “Metadata ports” are de-selected.



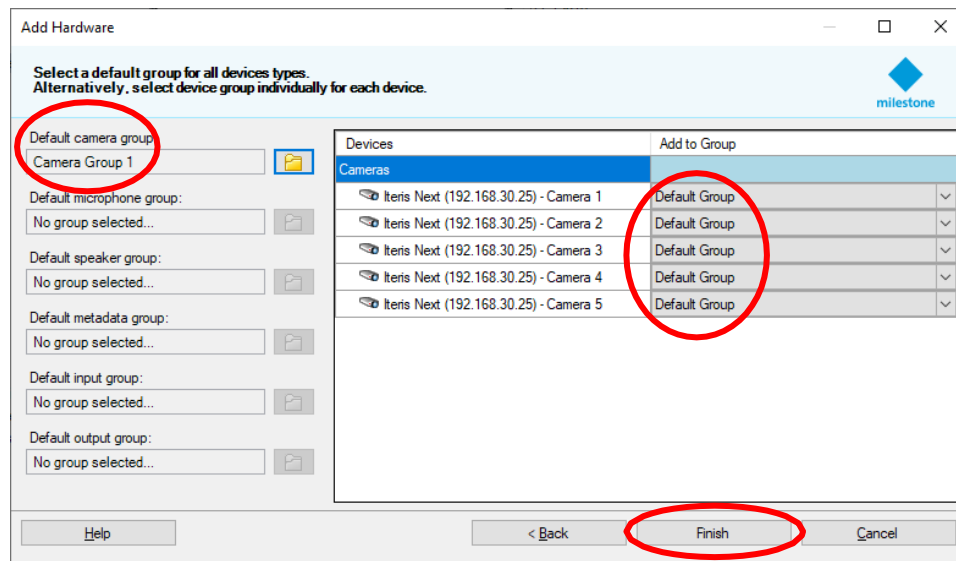
Click “Next” to continue to assign the video streams to a camera group.



If a “Default camera group” is not assigned, then you must assign the “Default camera group” or create one by clicking on the folder icon.



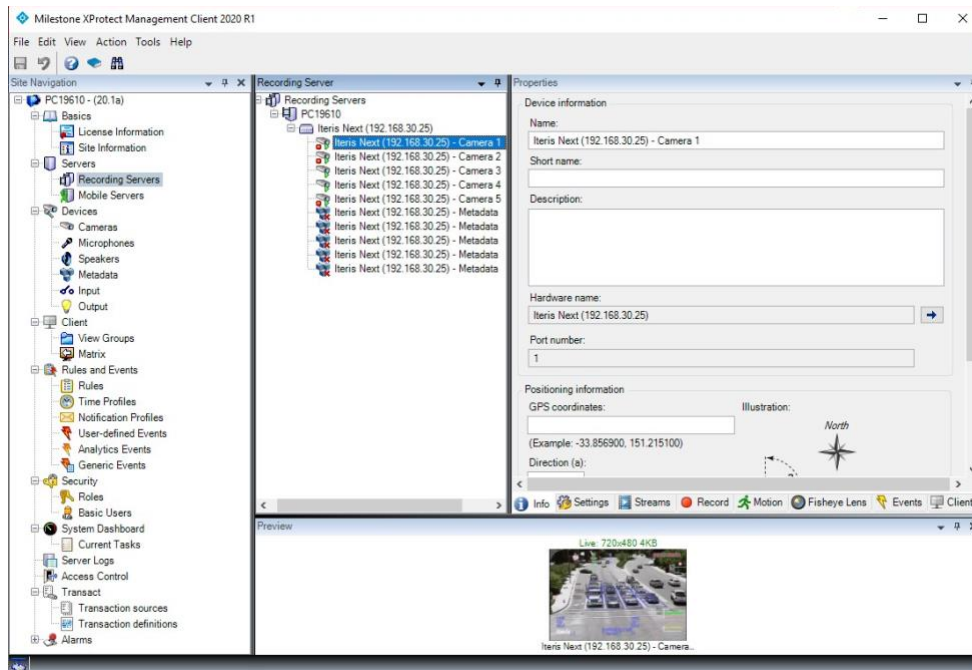
Confirm that the Vantage Next system has been assigned to a Camera Group. Then click “Finish” to finalize the addition of the Vantage Next system.



Once “Finish” is selected, the primary XProtect Management Client window will be populated with the added Vantage Next system. At this point, each entry can be highlighted and the individual camera “Name” can be modified if desired. The following table shows the default camera assignments and names. Camera 5 may be changed to “Quad” if desired.

**Table 3 – Milestone Camera Identifier**

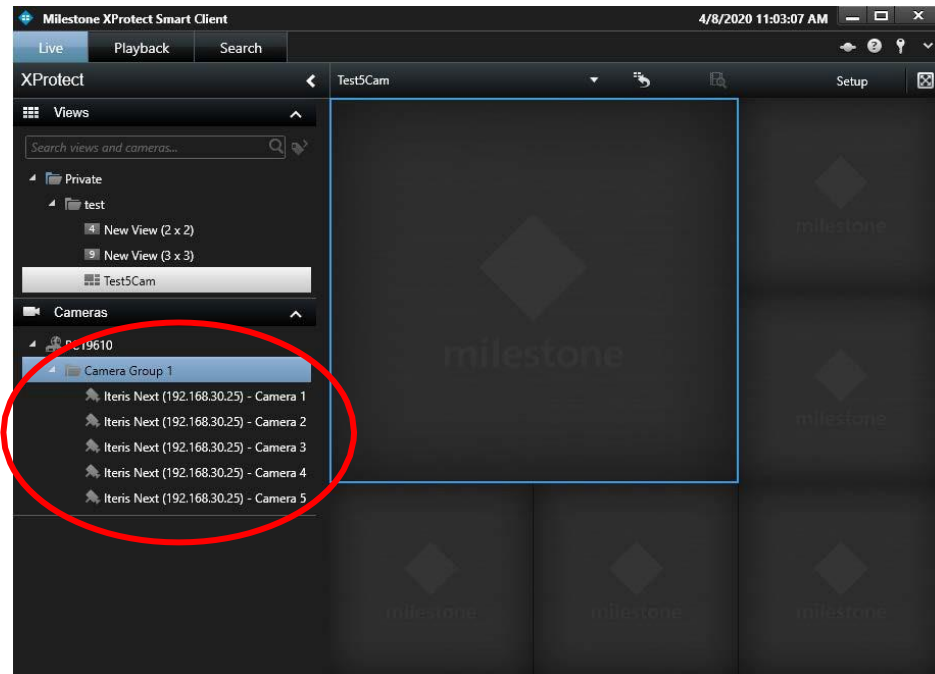
Default Camera Identifier	Vantage Next Camera
Camera 1	Camera 1
Camera 2	Camera 2
Camera 3	Camera 3
Camera 4	Camera 4
Camera 5	Quad Image of Cameras 1 to 4



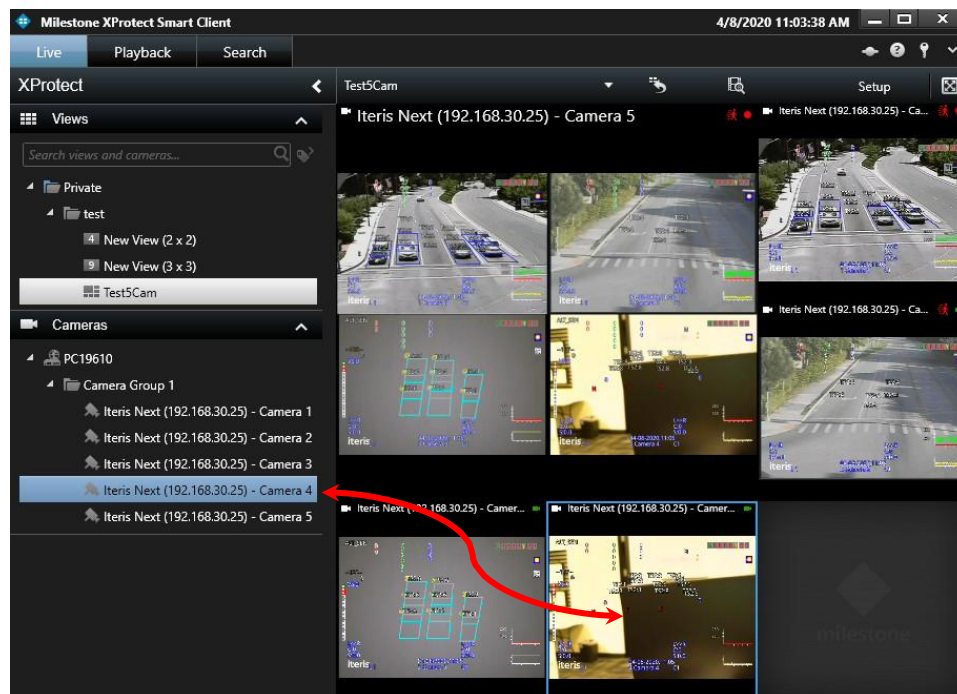
Once all changes are made, click on the “X” in the upper right corner of the window. This closes the Management Client.

To view the video streams, launch “Milestone XProtect Smart Client”. Once launched, the newly added streaming video source will be listed under the previously assigned “Camera Group.”



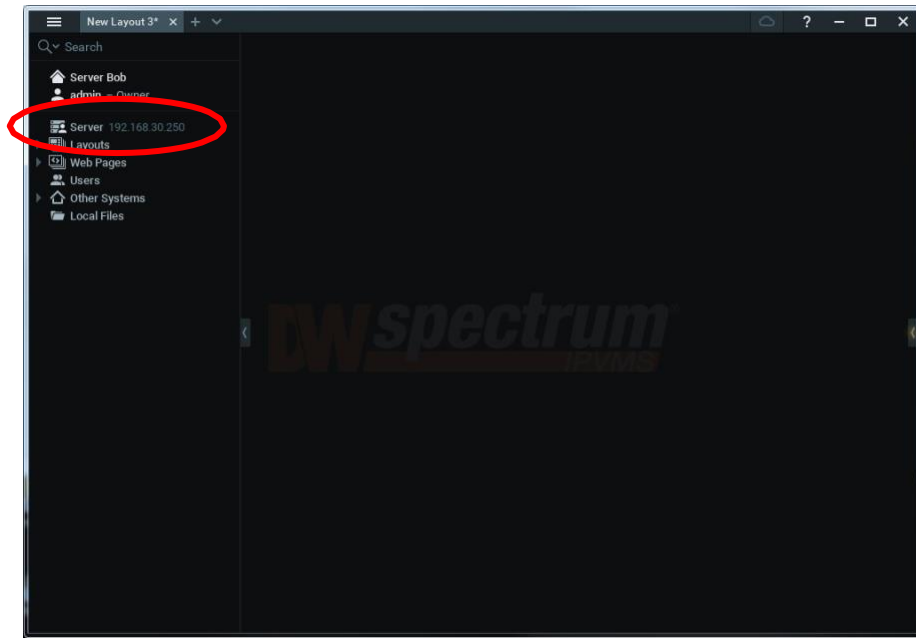


To display the video stream, drag and drop the listed stream into one of the display windows.

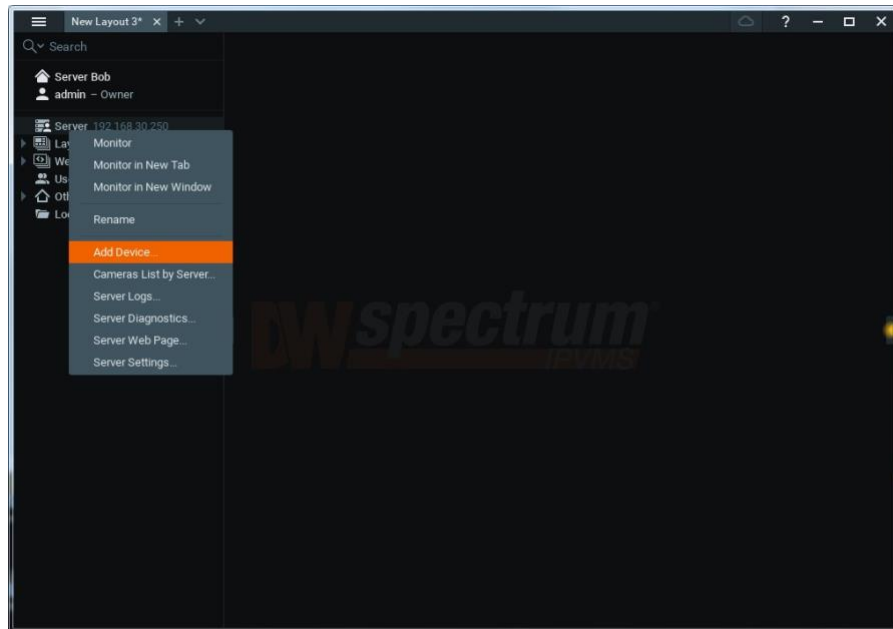


## 5 DIGITAL WATCHDOG SPECTRUM

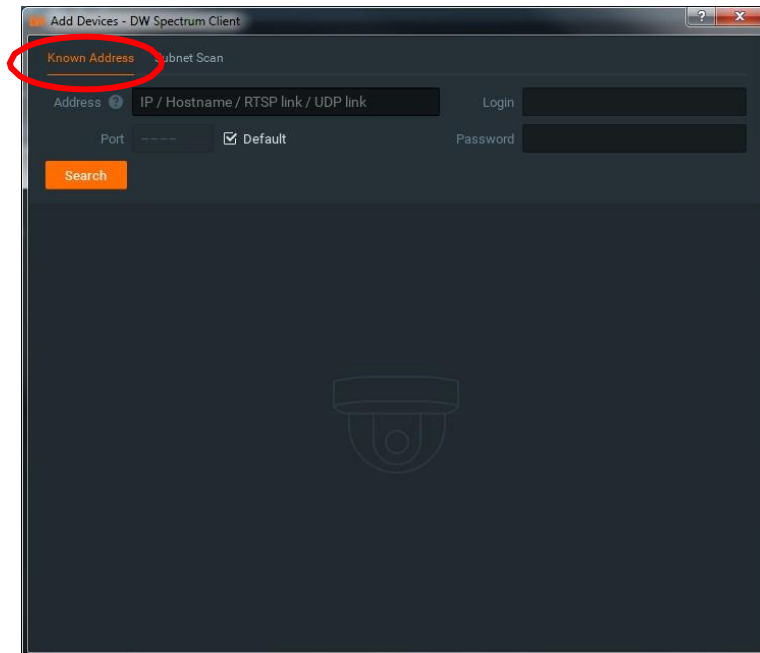
Launch Digital Watchdog Spectrum VMS and confirm that a server connection has been established.



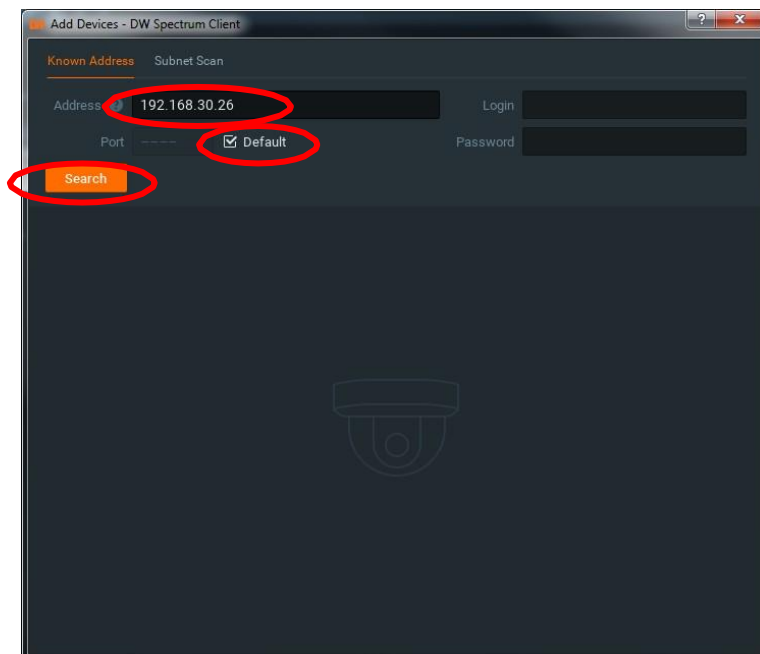
Right-click on the established server and select "Add Device...".



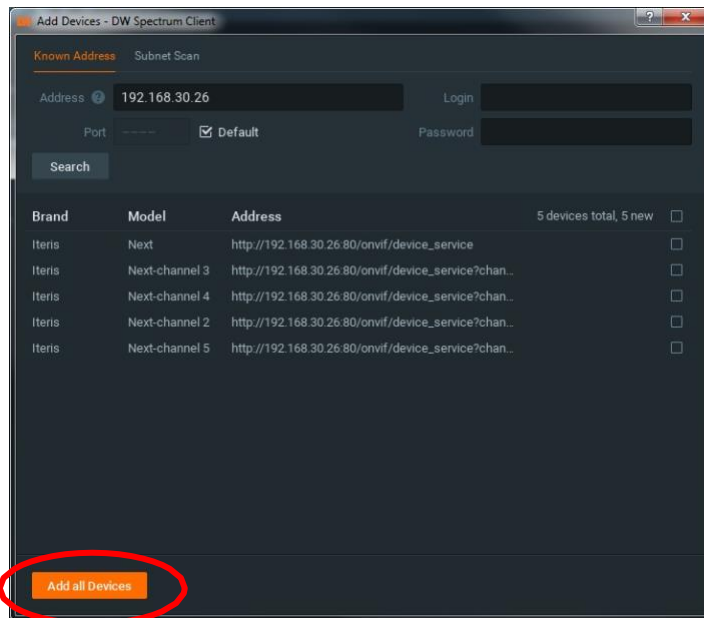
Once the “Add Device” window is shown, make sure the “Known Address” option is selected.



Enter the IP address of the desired Vantage Next system and leave everything else blank. Make sure that the “Default” check box is checked. Then click the “Search” button.

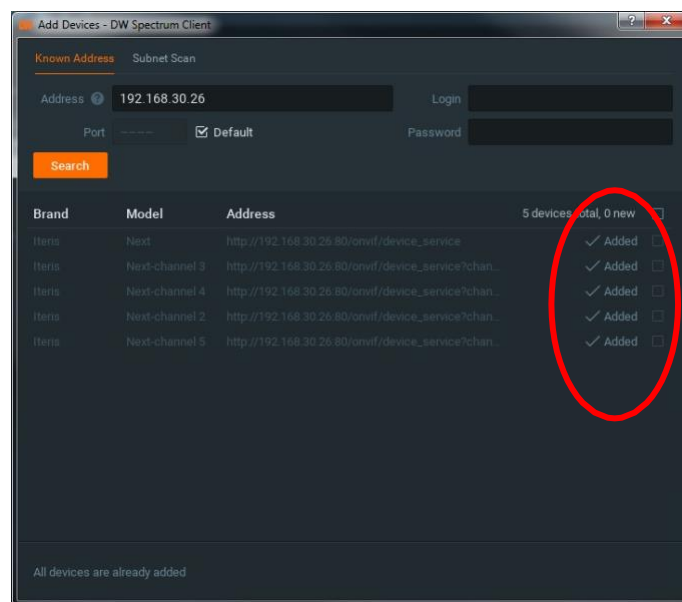


Once the search is complete, the list of available streams from the selected Vantage Next system is shown.

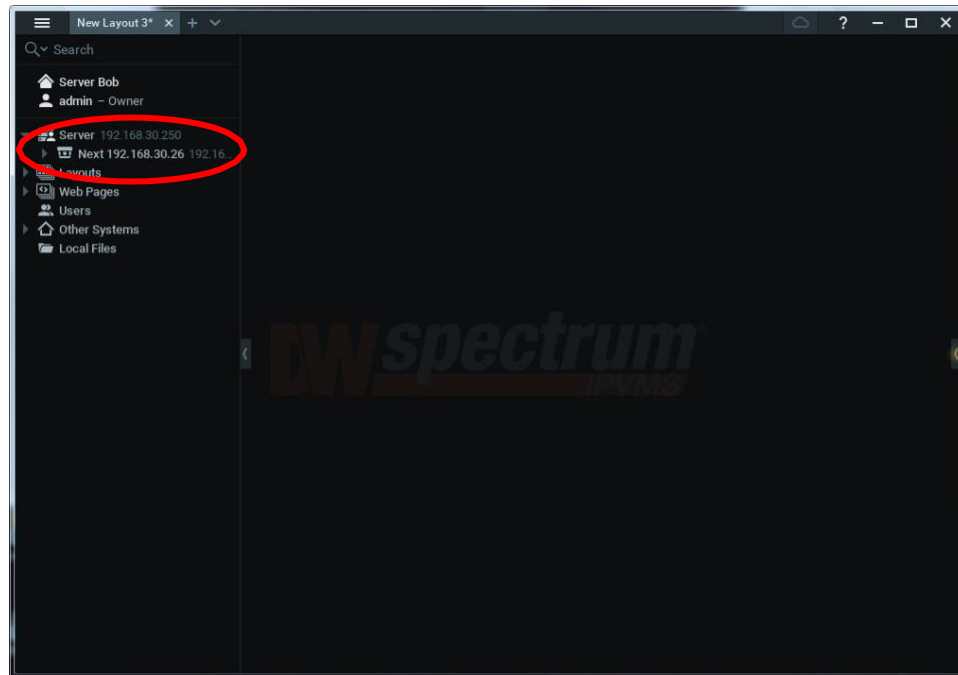


Not all stream identifiers will have a channel number associated with the input (i.e. Camera 1) and may not be listed in numerical or alphabetical order. Click “Add all Devices” to add the streaming capabilities to the database.

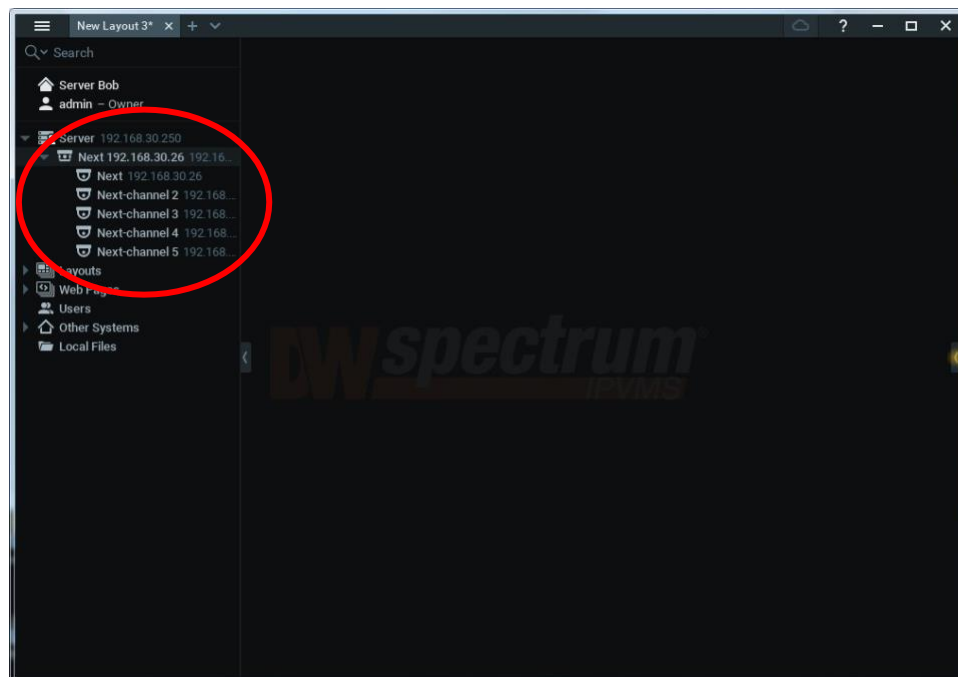
Once added to the database, the window will be updated to indicate that they were added. Then close the window by clicking on the “X” in the upper right corner.



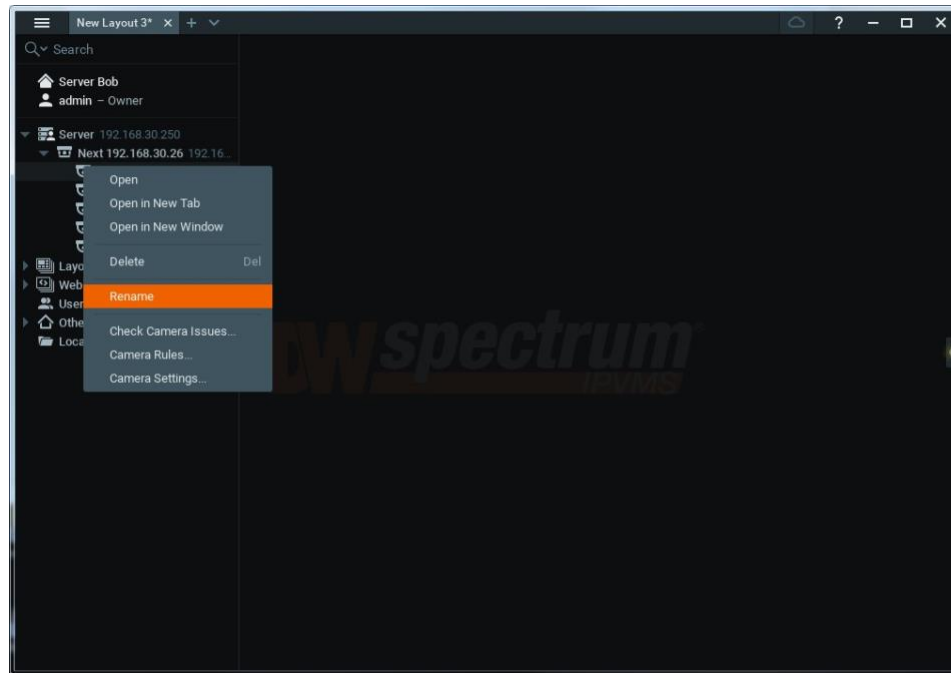
Once the window closes, the primary window should be updated with the newly added Vantage Next system.



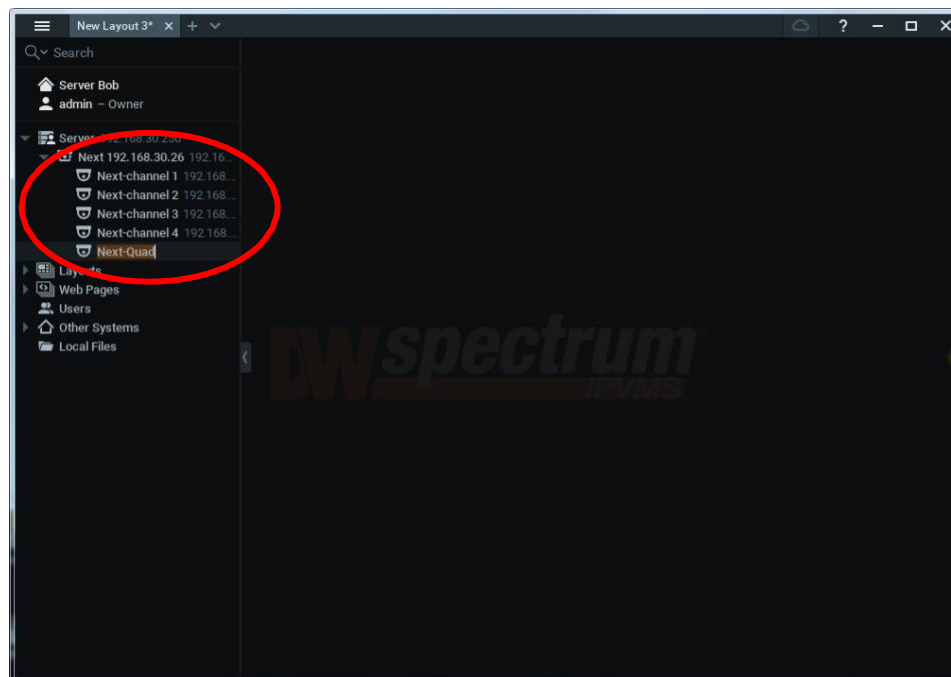
Click on the down arrow next to the system that was just added to expand the list to show available streams.



Right click on an individual stream if you wish to rename the stream input.



Renaming streams to a more descriptive text can be helpful.

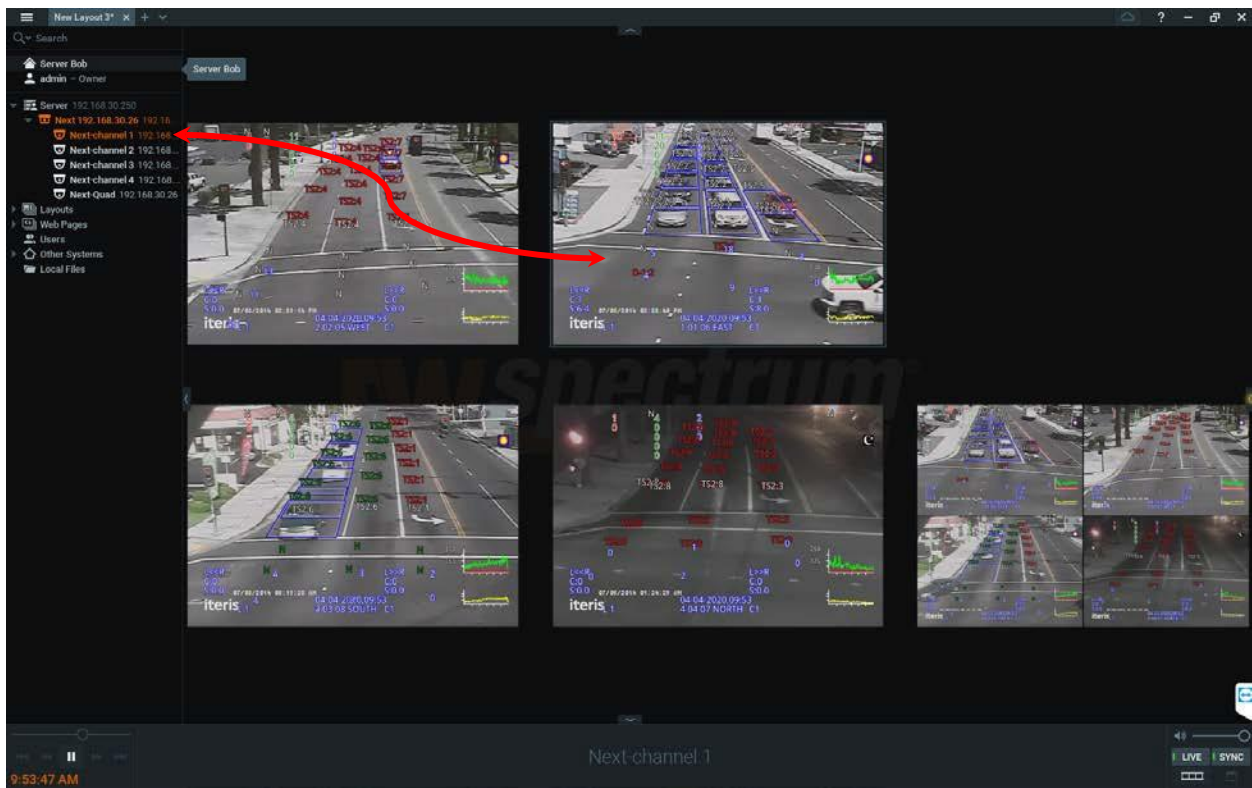


The following table shows the correlation between the default camera identifier and Vantage Next camera.

**Table 4 – Digital Watchdog Camera Identifier**

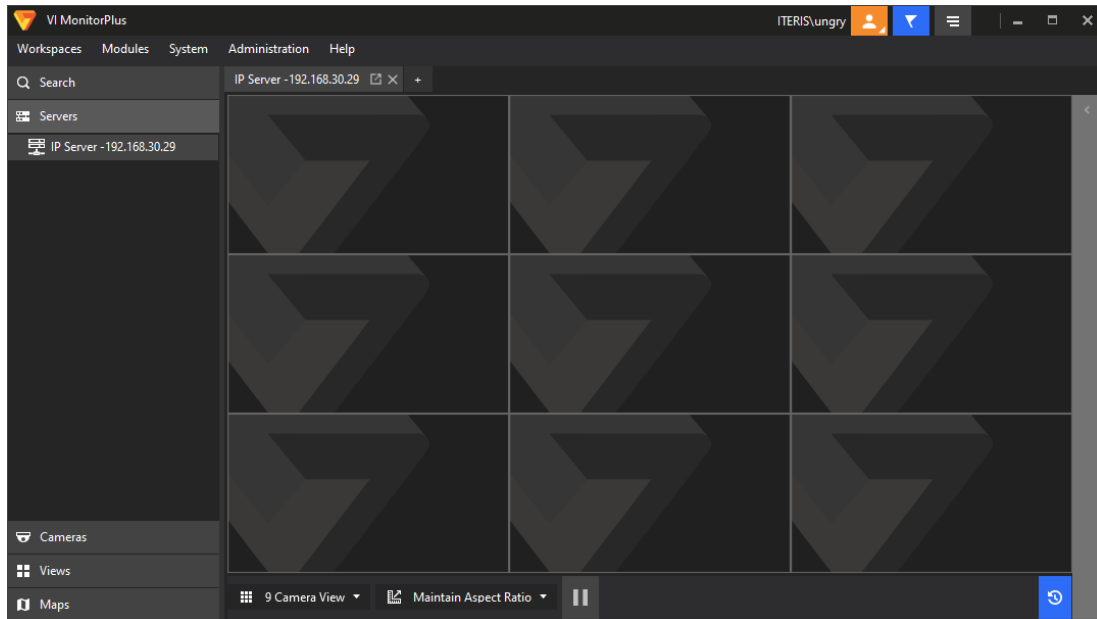
Default Camera Identifier	Vantage Next Camera
Next-channel 2	Camera 2
Next-channel 3	Camera 3
Next-channel 4	Camera 4
Next-channel 5	Quad Image of Cameras 1 to 4
Next-channel 2	Camera 2

Now the user can drag and drop the desired stream onto to display area.

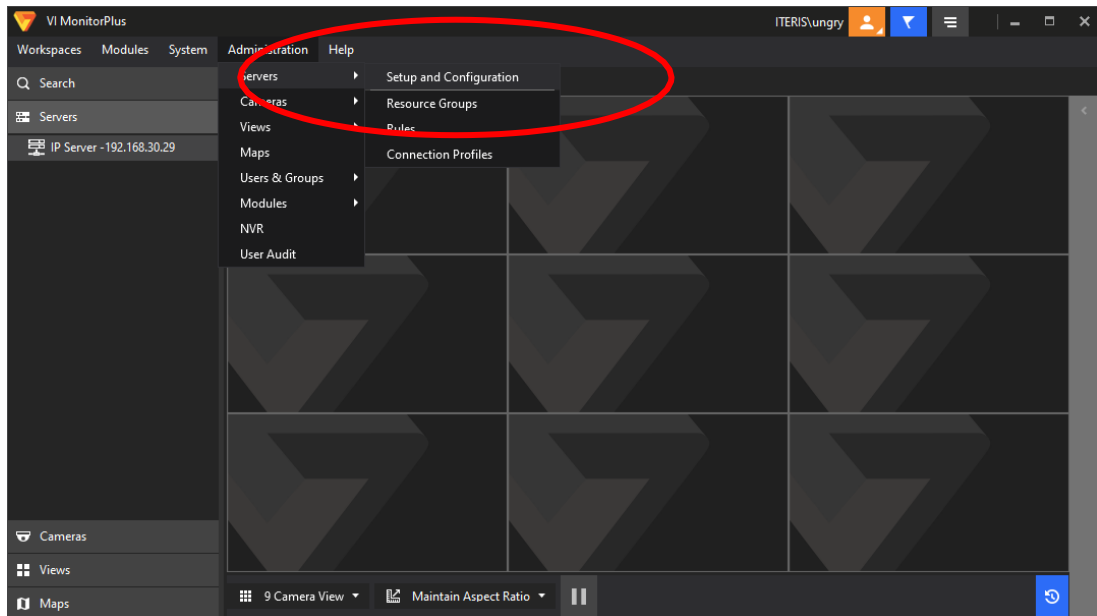


## 6 PANASONIC VIDEO INSIGHT

Launch the Panasonic Video Insight application (VI MonitorPlus).

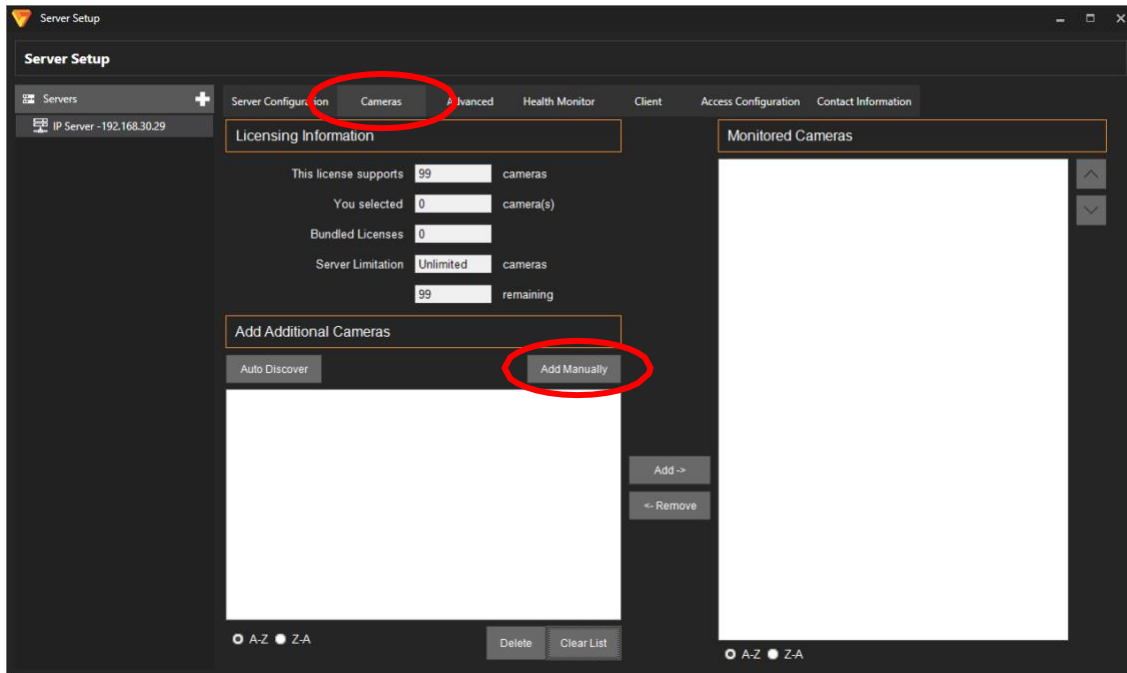


To add a Vantage Next system to Video Insight, select the "Setup and Configuration" item under the "Administration" main tab and "Servers" subtab.

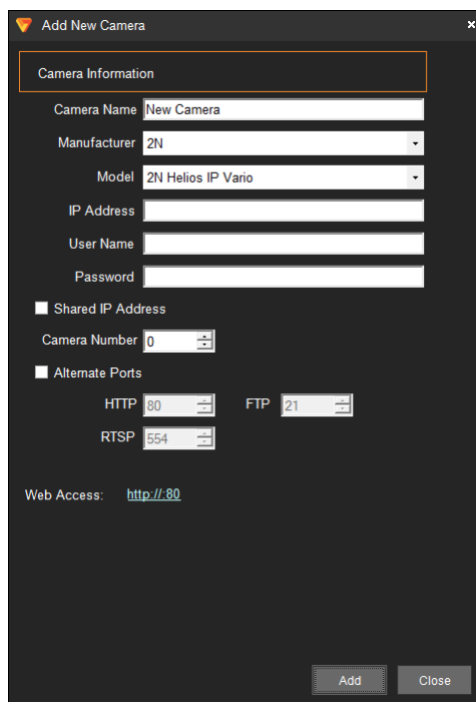




When the “Server Setup” window appears, select the “Cameras” tab. Then select the “Add Manually” button.



A generic camera configuration window will then pop up.



Change the “Camera Name” to the first stream from the Vantage Next System. The “Manufacturer” should be “ONVIF” with the “Model” being “ONVIF 1.02 Compliant Camera.” Additionally, enter the IP address of the desired Vantage Next system.

▼ Add New Camera

Camera Information

Camera Name: Next Camera 1

Manufacturer: ONVIF

Model: ONVIF 1.02 Compliant Camera

IP Address: 192.168.30.30

User Name: \_\_\_\_\_

Password: \_\_\_\_\_

Shared IP Address

Camera Number: 1

Alternate Ports

HTTP: 80    FTP: 21

RTSP: 554

Web Access: <http://192.168.30.30>

Add    Close

Video Insight configures multi-video devices as “Shared IP” devices. Thus, the “Shared IP Address” must be selected as well as selecting the appropriate video input (camera number). Leave the “Alternate Ports” element unchecked. Then click the “Add” button to add the video stream to the system database.

▼ Add New Camera

Camera Information

Camera Name: Next Camera 1

Manufacturer: ONVIF

Model: ONVIF 1.02 Compliant Camera

IP Address: 192.168.30.30

User Name: \_\_\_\_\_

Password: \_\_\_\_\_

Shared IP Address

Camera Number: 1

Alternate Ports

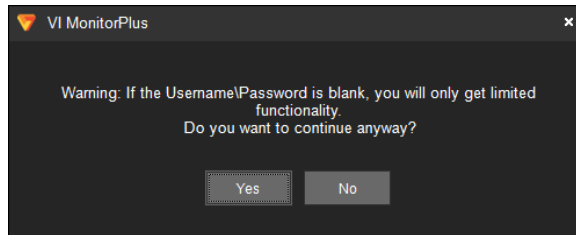
HTTP: 80    FTP: 21

RTSP: 554

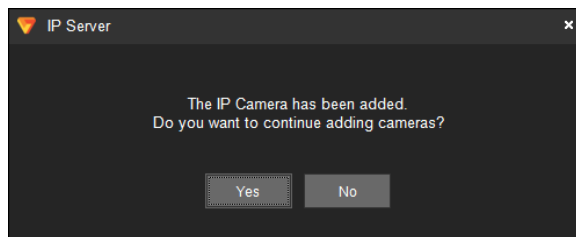
Web Access: <http://192.168.30.30>

Add    Close

A warning should appear to indicate the user name and password is blank. This is fine for the Vantage Next system. Click on the “Yes” button to continue.



Another window will then be displayed to inquire if additional streams need to be added. Select “Yes” to add more video streams.



Continue to add desired streams and make sure the appropriate camera name is applied, the “Shared IP Address” is checked, and appropriate camera number is used.



Finally, for camera 5, the camera name should be changed to indicate a quad stream using camera number 5.

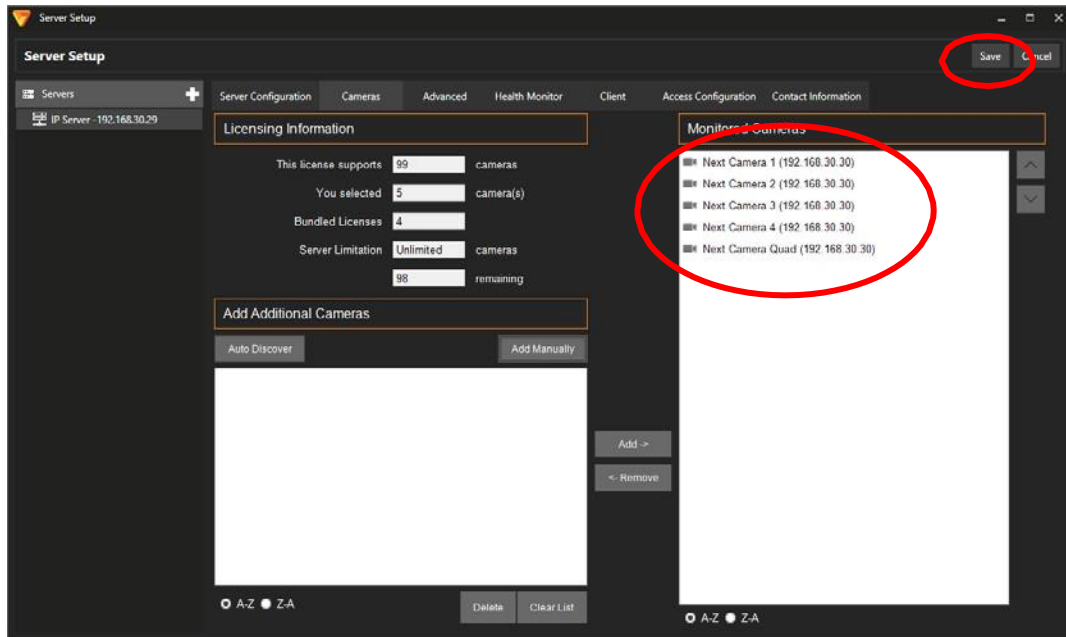


The following table can be used as a guide to correlate camera number to Vantage Next streams.

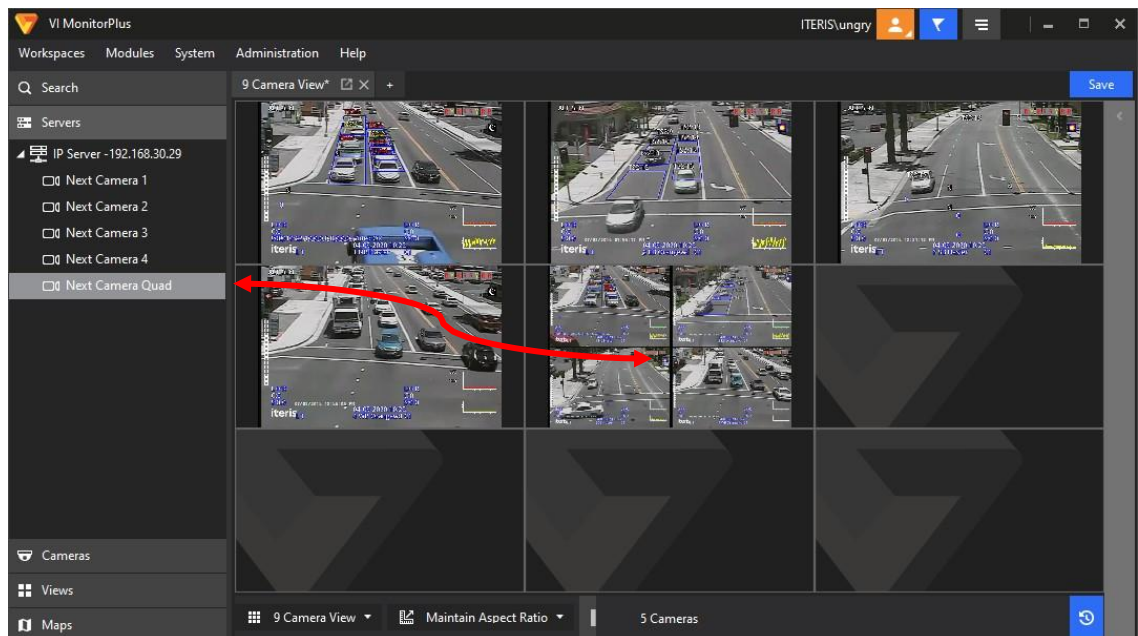
**Table 5 – Panasonic Camera Identifier**

Camera Identifier	Vantage Next Camera
1	Camera 1
2	Camera 2
3	Camera 3
4	Camera 4
5	Quad Image of Cameras 1 to 4

Once all desired streams are added to the system database, the streams are shown in the “Monitored Cameras” list box on the right side of the “Server Setup” window. Once the list of streams is verified, click the “Save” button in the upper right portion of the window.



In the primary display window of Video Insight, the newly added streams will be listed under the Vantage Next server. Individual streams can then be dragged and dropped onto the video display window. Note that unlike other video management systems, the list of streams is not listed under the Vantage Next system's IP address or identifier. Therefore, appropriate naming conventions may have to be used to distinguish "camera 1" from one Vantage Next system to another.





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