AVIGILON™

User Guide

Avigilon Video Appliance Series 3 Models:

VMA-AS3X-8P

VMA-AS3X-16P

VMA-AS3X-24P

VMA-AS3-8P

VMA-AS3-16P

VMA-AS3-24P

Important Safety Information

This manual provides installation and operation information and precautions for the use of this device. Incorrect installation could cause an unexpected fault. Before installing this equipment read this manual carefully. Please provide this manual to the owner of the equipment for future use.

The Warning symbol indicates the presence of dangerous voltage within and outside the product enclosure that may constitute a risk of electric shock, serious injury or death to persons if proper precautions are not followed.

The Caution symbol alerts the user to the presence of hazards that may cause minor or moderate injury to persons, damage to property or damage to the product itself if proper precautions are not followed.

WARNING — Failure to observe the following instructions may result in severe injury or death.

- Installation must be performed by qualified personnel only and must conform to all local codes.
- Do not open or disassemble the device. There are no user serviceable parts.
- The coin cell battery is not replaceable. Replacement of the battery with an incorrect type is unsafe.
- Only use the power adapter supplied with your system.
- Connect the power adapter by means of a power cord connected to a socket-outlet with earthing connection.

CAUTION — Failure to observe the following instructions may result in injury or damage to the appliance.

- Do not subject cables to excessive stress, heavy loads or pinching.
- Do not operate in dusty areas.
- This device is for indoor use only.
- Do not expose this product to rain or use near water. If this product accidentally gets wet, unplug it immediately.
- Keep product surfaces clean and dry. To clean the outside case of the device, gently wipe using a lightly dampened cloth (only use water, do not use solvents).
- Do not install near any sources of vibration, such as motors.
- Do not install near any heat sources such as radiators or other sources of heat.
- Do not block ventilation openings located on the device enclosure as they are designed to keep the system cool while running. Install or place this product in an area where there is ample air circulation.
- The use of EMC-compliant support and auxiliary equipment with this device is required in order to fully comply with the EMC regulatory standards.
- Do not insert anything into the device ventilation openings.
- Use only accessories recommended by Avigilon.
- Keep these safety instructions.

Regulatory Notices

The unit shall not be serviced while extended on the slide-rails.

Ensure to connect the power cord to a socket-outlet with earthing connection.

Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.

This equipment is not suitable for use in location where children are likely to be present.

For model VMA-AS3-16P, VMA-AS3X-16P, VMA-AS3-24P, VMA-AS3X-24P:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

> **Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class A digital apparatus complies with Canadian ICES-003 (A)/NMB-3(A).

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Changes or modifications made to this equipment not expressly approved by Avigilon Corporation or parties authorized by Avigilon Corporation could void the user's authority to operate this equipment.

For model VMA-AS3-8P, VMA-AS3X-8P:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.

> **Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses

and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003 (B)/NMB-3(B).

This equipment satisfies the requirements for use within a residential location.

Changes or modifications made to this equipment not expressly approved by Avigilon Corporation or parties authorized by Avigilon Corporation could void the user's authority to operate this equipment.

Disposal and Recycling Information

When this product has reached the end of its useful life, please dispose of it according to your local environmental laws and guidelines.

Risk of fire, explosion, and burns. Do not disassemble, crush, heat above 100 °C (212 °F), or incinerate.

European Union:

This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

Table of Contents

Introduction

The Avigilon Video Appliance is the all-in-one solution for network video recording. The video appliance includes:

- A network switch to connect and power PoE IP cameras.
- Built-in server and storage to run the Avigilon Control Center Server and retain recorded video content.
- Video ports to display live video and allow users to operate the Avigilon Control Center Client software directly from the appliance.
- Aggregate throughput of 400 Mbps (on the 16- and 24-port models) and 200 Mbps (on the 8-port model, for simultaneous recording, playback, and live streaming.

This guide describes how to configure the system after the appliance has been powered and is connected to a keyboard, mouse and monitor.

Package Contents

Ensure the package contains the following:

- Avigilon Video Appliance
- Power cord
- Power supply and screwdriver to secure it (8-port appliance only)
- Wall installation hardware (8-port appliance only)
- Rack mounting rails and appliance rack mounting hardware (16- and 24-port appliances)
- Digital input/output terminal block connector

Before You Start

Avigilon recommends the use of an uninterruptible power supply (UPS) system to protect your video surveillance system hardware. A UPS system is used to protect critical equipment from mains supply problems, including spikes, voltage dips, fluctuations and complete power failures using a dedicated battery. It can also be used to power equipment during the time it takes for a standby generator to be started and synchronized.

Any UPS connection must include configuration to shut down the operating system on the appliance when battery power is low or there is 15 minutes of power remaining.

It is recommended that cameras not be connected to the appliance until after the appropriate network configuration has been set up.

Overview

Front View
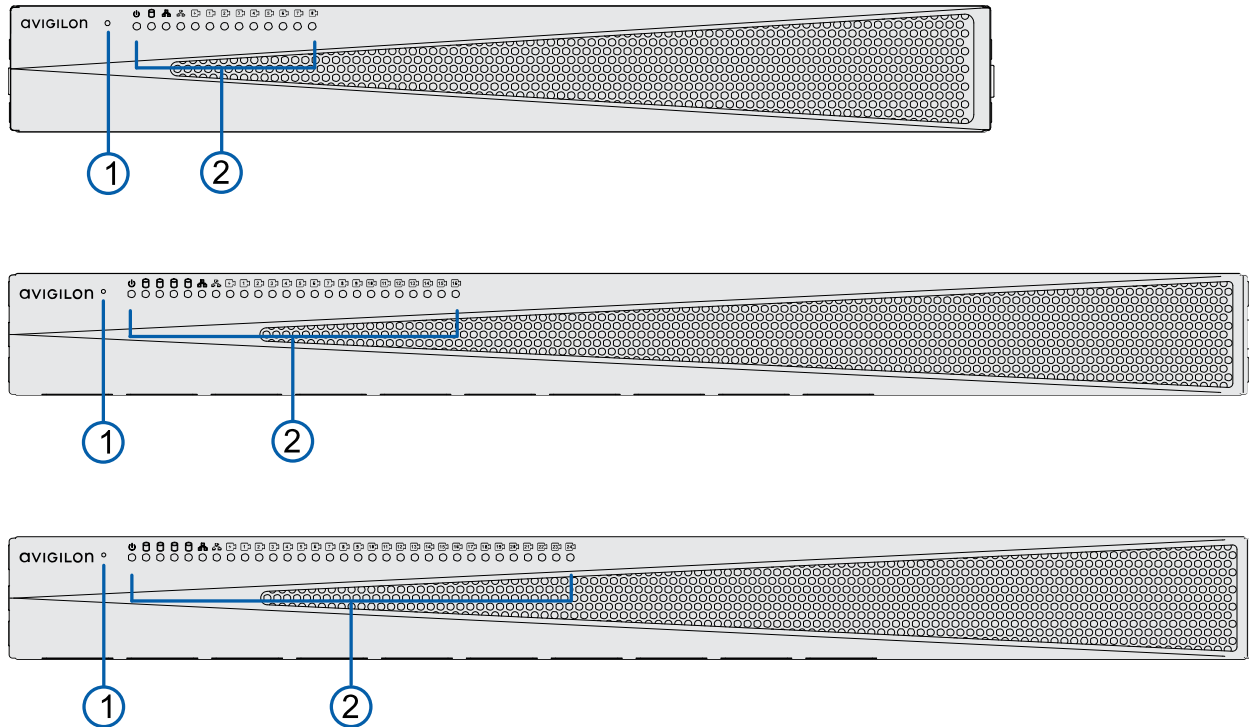
Figure 1: Front view of VMA-AS3-8P / VMA-AS3X-8P, VMA-AS3-16P / VMA-AS3X-16P, and VMA-AS3-24P / VMA-AS3X-24P (top to bottom)

1. **Reset button**

   Use this button to reset the internal PoE switch, or restart the operating system of the appliance. For more information, see *Resetting the Internal PoE Switch to Factory Defaults* on page 43 and *Restarting the Operating System* on page 42.

2. **Status LED**

   Provides information about daily operations. For more information, see *LED Indicators* on page 37.

Rear View
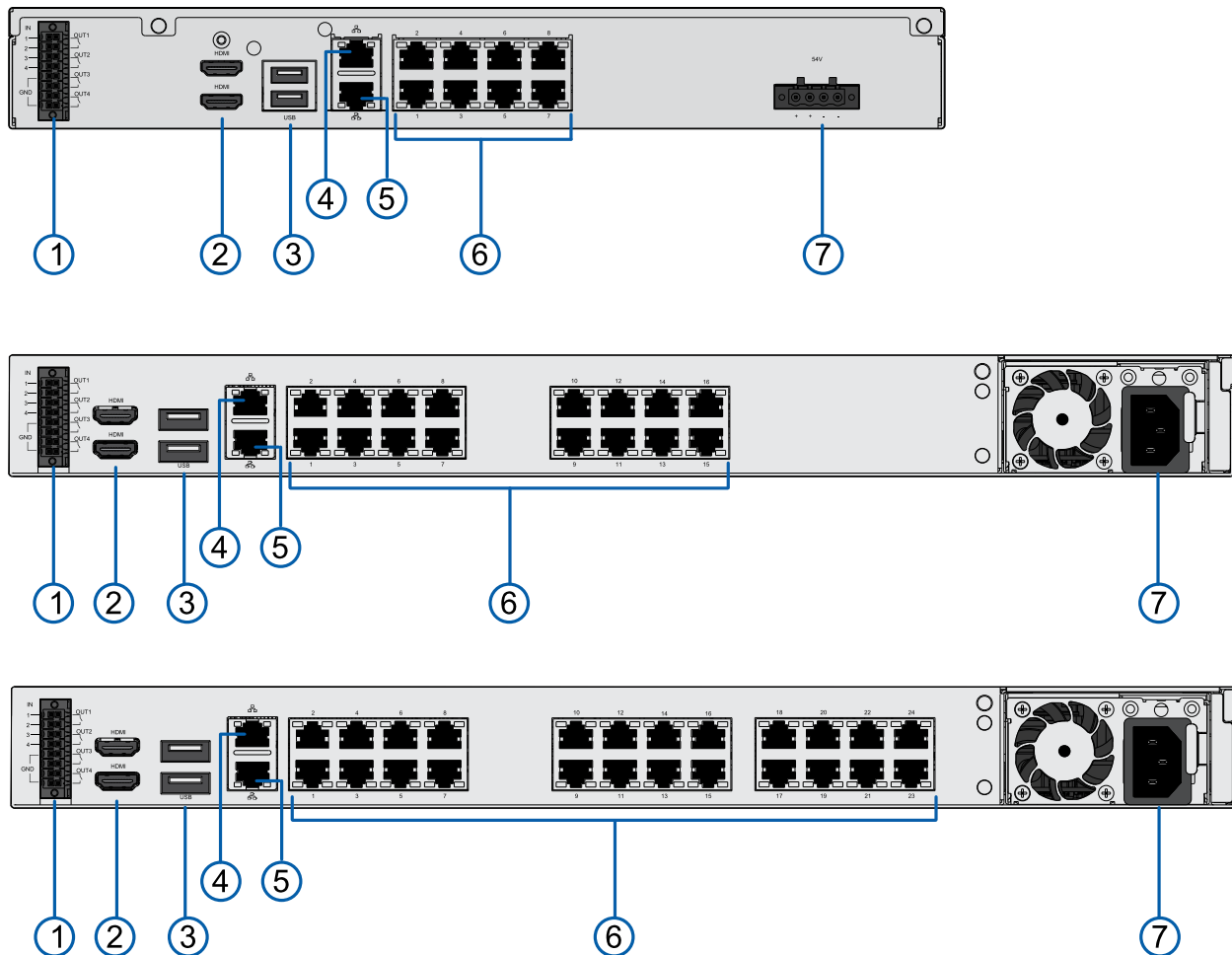
Figure 2: Rear view of VMA-AS3-8P / VMA-AS3X-8P, VMA-AS3-16P / VMA-AS3X-16P, and VMA-AS3-24P / VMA-AS3X-24P (top to bottom)

1. **Digital I/O connector**

   Provides connections to external input/output devices. For more information, see *Connecting to External Devices* on page 39.

2. **HDMI connector**

   Provides HDMI connections to connect monitors to the appliance.

3. **USB connector**

   Provides USB 3.0 connections to USB devices.

4. **Corporate network uplink port connector**

   Accepts a 1GbE Ethernet connection to connect the appliance to the corporate network so that video can be accessed from a client over the network. It also allows access to the Switch Management WebUI of the appliance.

5. **Camera network uplink port connector**

   Accepts a 1GbE Ethernet connection to remote cameras that are connected via a remote PoE switch

component. Can be used to link to other PoE switches and cameras, and to access the web interface of any connected camera video.

6. **Local camera connector with PoE**

   Connect cameras to the 10/100 Mbps speed PoE switch component to power the cameras and record video.

7. **Power connector**

   Accepts power to the appliance.

Wall Mounting an 8-Port Video Appliance

You can mount the 8-port Video Appliance to a wall. This can be useful if you want to install the appliance in a location obscured from view, such as a closet or equipment room, or so that it doesn't take up shelf or counter space. A pair of wall mount brackets with drywall screws and anchors are provided with the appliance. If you are mounting the appliance in a wooden cabinet, or a brick or concrete wall, you will need to obtain the appropriate screws.

> **Tip:** Install the wall mount brackets to the appliance and the wall before you permanently power on the appliance, connect cameras to it, and start recording. If you want to set up your appliance before mounting it to the wall, we recommend you turn off the power supply to the appliance and disconnect all cables after set up is complete and before you mount the appliance to the wall.

⚠️ **CAUTION —** The device must be mounted as instructed or any issues that arise will not be covered by the warranty.

To mount the appliance on a wall:
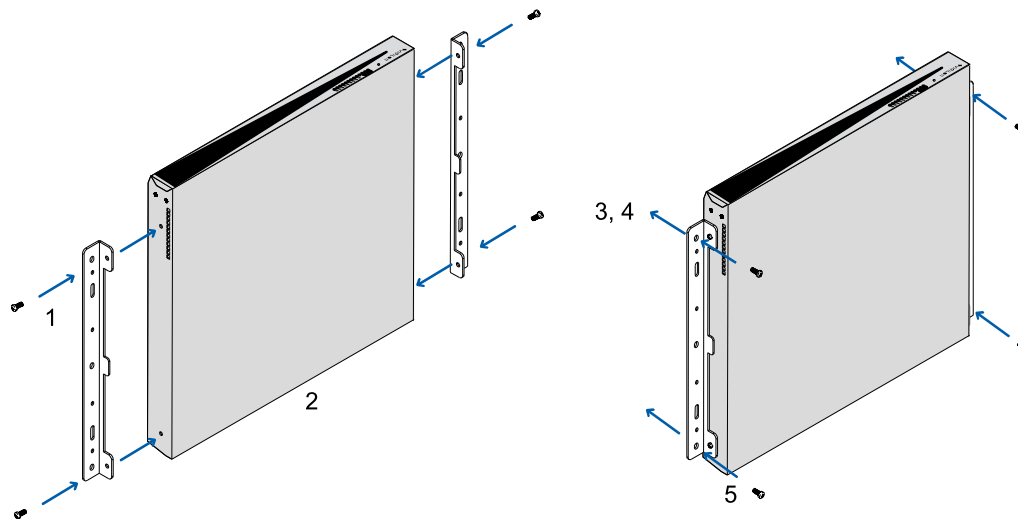
Figure 3: Mounting the 8-port Video Appliance to a wall

1. Attach the wall mount brackets to the lowest threaded holes on the sides of the 8-port Video Appliance.
2. Position the appliance with the rear panel facing downwards. Ensure that the airflow through the appliance is not blocked when it is in position.
3. Mark the locations of the screw holes on the wall.
4. Drill holes for the anchors and insert the anchors into the wall. If you are using wood, concrete or masonry screws, drill holes as appropriate.
5. Attach the appliance to the wall.

Installing a Video Appliance in a Rack Unit

To install a 16- or 24-port Video Appliance in a standard EIA-310 19-inch mounting rack, use the matched pair of mounting rails, matched pair of mounting ears, and pair of unit rails provided with the appliance. For more information, see *Rack Mounting a 16- or 24-Port Video Appliance* on the next page.

To install an 8-port Video Appliance in a standard EIA-310 19-inch mounting rack, you must order the optional accessory RMS1U-B-AS3-8P, the rack mountable shelf for the 8-port Video Appliance. You will need the pair of mounting rails and the rack mountable shelf provided with the RMS1U-B-AS3-8P accessory. For more information, see *Rack Mounting an 8-Port Video Appliance* on page 11.

> **Important:** The rails are designed for rack units with square mounting holes only.

Before you can install the appliance in a rack unit, the side brackets attached to protect the front bezel during transport must be removed. They are attached using thumbscrews and can be removed without any special tools. After they are removed:

- 16- or 24-port Video Appliance: you can attach the two mounting ears that holds the appliance in place when sliding it in and out of the rack.
- 8-port Video Appliance: you can attach the rack mountable shelf that holds the appliance in place when sliding it in and out of the rack.
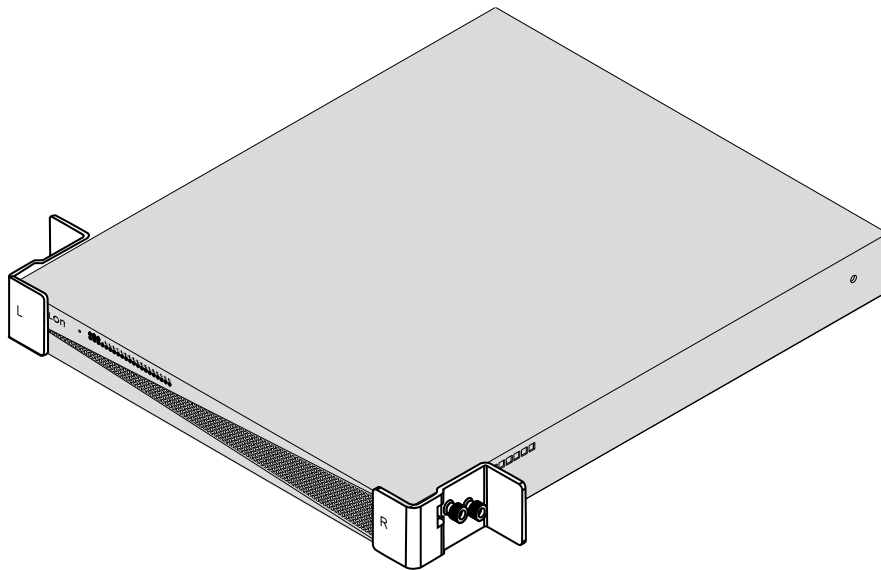
Figure 4: Remove the side brackets that protect the front bezel during transport.

> **Tip:** Save the side brackets to use in case the appliance has to be removed from the rack unit and transported to another location.

The mounting rails are designed in pairs, with a right and left rail. Each rail is clearly marked to indicate the side of the rack unit it must be attached to, as well as the top and front edges. The rail length is adjustable from 641 mm to 910 mm (25.236" - 35.827").

Figure 5: Check each mounting rail to verify on which side of the rack the rail is attached.

Rack Mounting a 16- or 24-Port Video Appliance

Two people are needed to install a 16- or 24-port Video Appliance into a rack unit. These instructions assume that the installers are working from the front of the rack unit.

Ensure that the location of the appliance in the rack unit does not impede airflow through the appliance.
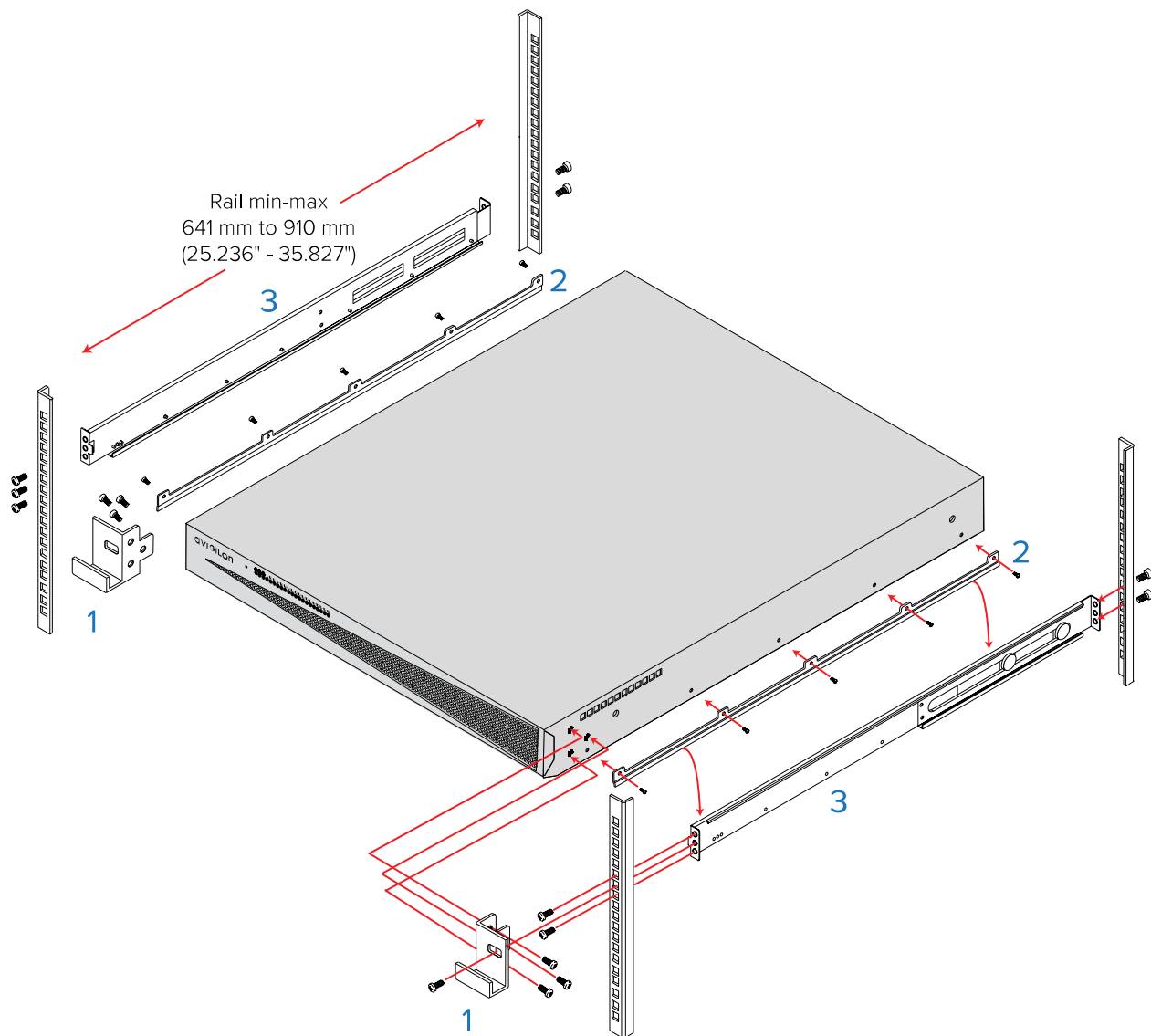
Figure 6: Mounting the 16P/24P Video Appliance into a rack

⚠ There is a risk of serious injury and damage to equipment if the Video Appliance falls out of a rack unit. It is extremely important that the Video Appliance is securely fastened to the mounting rails provided with the 16-port or 24-port Video Appliance.

Refer to the figure above when mounting into a rack.

1. Attach the mounting ears to the outer side of the appliance at the front using three screws (provided) for each tab.

2. Attach the unit rails to each side of the appliance using five screws (provided) for each guide.

3. Install the left-hand mounting rail to the left side of the rack, and the right-hand mounting rail to the right side of the rack. Each rail is attached to the front and back of the rack using two screws (provided) at each end. Use the upper and lower screw holes, which align with the mounting holes in the rack unit.

4. Lift the appliance and lower the back of the appliance onto the rails, slide it in against the back bracket of the rails. Slide the unit towards the back of the rack, and ensure the unit rails slide smoothly within the grooves of the mounting rails.

5. Test that the appliance is securely mounted on the rails. Push the appliance fully into the rack, then pull it out at least half-way, and then back in. It should slide in as though it was a shelf.

6. Fasten the appliance to the rack by installing one screw (provided) in the front of each mounting ear.

> **Note:** To remove the appliance, remove the front screw from each mounting ear and slide the unit forward until it is free.

Rack Mounting an 8-Port Video Appliance

Two people are needed to install an 8-port Video Appliance into a rack unit. These instructions assume that the installers are working from the front of the rack unit. You must order the optional accessory RMS1U-B-AS3-8P, the rack mountable shelf for the 8-port Video Appliance, in order to mount the 8-port Video Appliance into a rack unit.

Ensure that the location of the appliance in the rack unit does not impede airflow through the appliance.
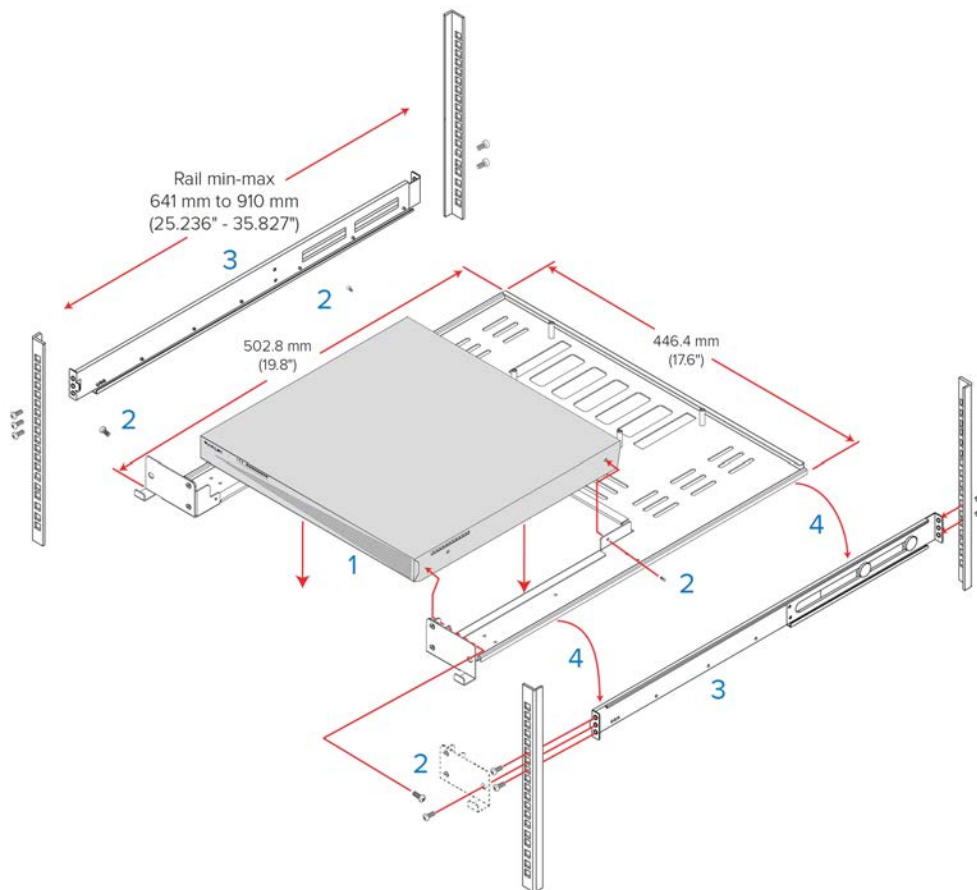
Figure 7: Mounting the 8P Video Appliance into a rack

⚠️ There is a risk of serious injury and damage to equipment if the Video Appliance falls out of a rack unit. It is extremely important that the Video Appliance is securely fastened to the rack mount shelf.

Refer to the figure above when mounting into a rack.

1. Lower the 8-port appliance on to the rack mount shelf so that it fits into the open space in the shelf.

2. Fasten the appliance to the shelf at the front and back using the 4 screws provided.

3. Install the left-hand mounting rail to the left side of the rack, and the right-hand mounting rail to the right side of the rack. Each rail is attached to the front and back of the rack using two screws (provided) at each end. Use the upper and lower screw holes, which align with the mounting holes in the rack unit.

4. Lift the shelf with the appliance and lower the back of the shelf onto the rails, slide it in against the back bracket of the rails. Slide the unit towards the back of the rack, and ensure the unit rails slide smoothly within the grooves of the mounting rails.

5. Test that the appliance is securely mounted on the rails. Push the appliance fully into the rack, then pull it out at least half-way, and then back in. It should slide in as though it was a shelf.

6. Fasten the appliance to the rack by installing one screw (provided) in the front of each mounting ear.

> **Note:** To remove the appliance, remove the front screw from each mounting ear and slide the unit forward until it is free.

Connecting Cables

Refer to the diagrams in the *Overview* on page 4 for the location of the different connectors. Make the following connections as required:

1. Connect a KVM switch or separate keyboard, mouse and monitor to the appliance.
   - The keyboard and mouse can be connected to any USB port on the appliance.
   - The monitor can be connected to any HDMI connector at the back of the appliance.
2. Connect the appliance to your network using an Ethernet cable.
3. Connect to power cords to the mains supply, or a UPS system if available.
4. To power on the 8-port Video Appliance: Connect the external power supply to the power connector at the back of the appliance and use the supplied screwdriver to fasten it in place. Connect a power cord to the external power supply. Press the switch on the power supply to power on the appliance.
5. To power on the 16-port or 24-port Video Appliance: Connect a power cable to the power supply at the back of the appliance. The appliance immediately powers on.
6. Check that the appliance LED indicators display the correct status.

Logging into Windows 10 for the First Time

When you start the Video Appliance for the first time, you will need to configure the Windows operating system that is installed on the appliance.

1. Proceed through the **Language**, **Region**, and **Keyboard** screens. Wait for Windows to complete the network setup.
2. The MICROSOFT SOFTWARE LICENSE TERMS and AVIGILON CONTROL CENTER™ SOFTWARE END USER LICENSE AGREEMENT are displayed. Review the terms and click **Accept**.
3. Select **Join a local Active Directory domain**.

> **Note:** This prompt appears only if an Active Directory is present on the network. See the *Windows Help and Support* files for more information.

4. Enter a user name for the Windows administrator account.
5. Enter a password and password hint for the Windows administrator account and click **Next**.

> **Note:** Remember the Windows Administrator password. If the Windows Administrator credentials are lost, you may need to reinstall the operating system again. It is highly recommended to create a second Administrator user as a backup.

6. Once logged in, the recorder will go through initial system setup. After initial setup is complete, VMS-AS3X-xxP models will skip this step and will automatically use the ACC 7.x.x version. For VMA-AS3-xxP models, select the version of Avigilon Control Center to use:

    *   **Use ACC 7.x.x (recommended)**. Select this option to use the latest version of the ACC software. VMA-AS3X-xxP will automatically select this version of ACC.
    *   **Downgrade to ACC 6.x.x**. Select this option to downgrade your Video Appliance to version 6.x.x. This older version of the ACC software will not support newer features such as facial recognition and the Focus of Attention interface.

    You are logged in to the Windows environment. The Avigilon Control Center Admin Tool and the ACC Client automatically start up.

Proceed to activate the license for the Avigilon Control Center software on your Video Appliance.

Video Appliance Network Interface Connections

The Video Appliance is a combination of a built-in computer with storage for recorded video content and a network switch that supports IP camera connections. It supports three network interface connections (NICs), two network ports and either 8, 16, or 24 PoE ports (depending on the model). You can see the NICs in the Network Connections window of the operating system, shown in *The Network Connections Control Panel showing the three NICs. (Used with permission from Microsoft.)* below.
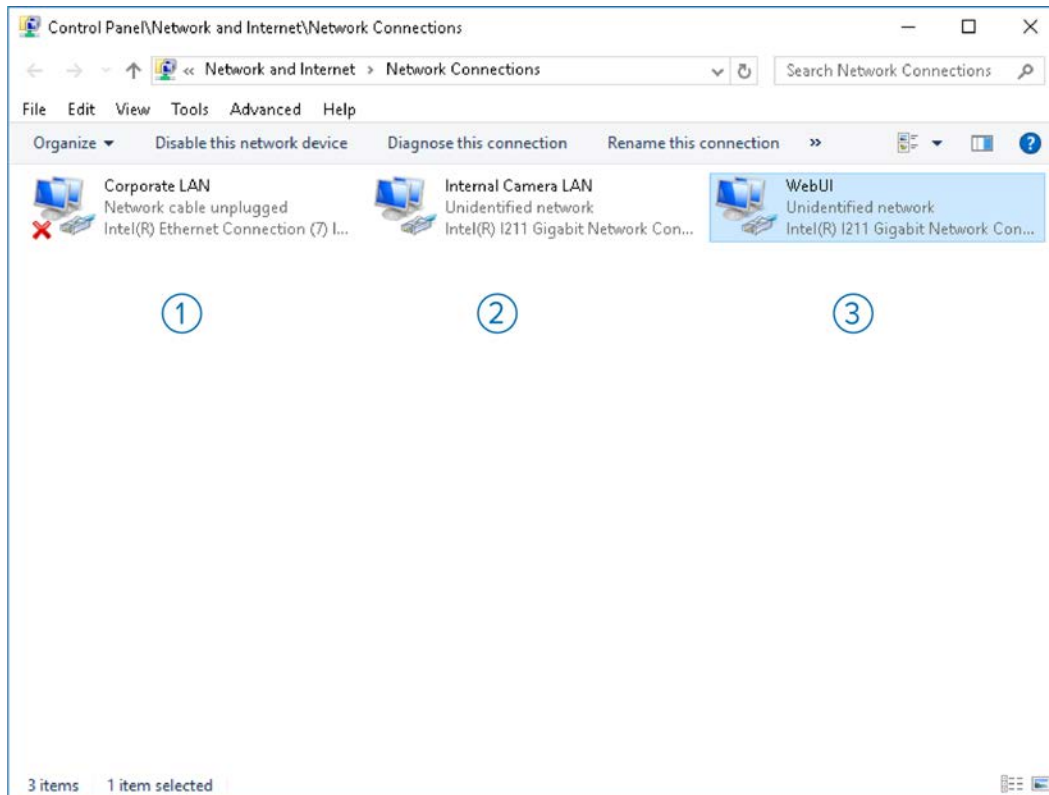
Figure 8: The Network Connections Control Panel showing the three NICs. (Used with permission from Microsoft.)

1. **Corporate LAN**: This NIC is dedicated to the connection between the appliance and the corporate network uplink port. It routes traffic from the internal computer to the corporate network uplink port. This interface can be assigned an IP address in your corporate network either using DHCP (preferably, with IP address reservation) or a static IP address with a default network gateway.

2. **Internal Camera LAN**: The first of two interfaces within the appliance between the internal computer and the internal network switch. This interface is dedicated to the data link between the internal computer and the internal switch and is not associated with any external port.

3. **WebUI**: The second of two interfaces within the appliance between the internal computer and the internal switch. This interface is dedicated to the camera network uplink port. Its purpose is to separate the data traffic for the Switch Management WebUI of the internal switch from the camera data traffic passing through the port. This interface requires that the IP address for both the internal switch and the WebUI are in the same IP subnet.

Each of these NICs must be in separate IP subnets.

Video Appliance Port Connectors

In addition to the PoE port connectors for cameras, the Video Appliance has two network port connectors on the back panel, identified by the following icons:

Corporate network uplink port

Camera network uplink port

Corporate Network Uplink Port

Use the corporate network uplink port to connect the computer in the appliance to the corporate network. Ensure that this port is connected to a 1-Gbps switch port. Corporate network users can then access video from the appliance from an ACC Client connected over the corporate network.

For example, you can connect the corporate network uplink port to the corporate network to obtain an IP address from the corporate DHCP server. The DHCP server allocates the IP address, subnet mask, a default network gateway, and DNS server details for the computer in the appliance.

When you have more than one Video Appliance in your network, you can use the corporate network uplink port to connect each of them to a network switch that is also connected to the corporate network and theACC Client users.

Camera Network Uplink Port and PoE Ports

The PoE port connectors and the camera network uplink port connector are all supported by the internal network switch. The switch manages the traffic from these connectors and directs the video data to the built-in computer.

Cameras connected to the PoE port connectors or the camera network uplink port connector must all be in the same IP subnet. By default the appliance is configured to use ZeroConf and all of the IP addresses are in the local loop.

> **Important:** If your cameras are assigned to their own IP subnet, access the Network Connections control panel to change the IP address of the Camera LAN NIC so that it is in the same range as the camera IP addresses. For more information, see *Connecting to Cameras with Static IP Addresses* on page 23.

In addition, you can connect a laptop to the camera network uplink port to access the Switch Management WebUI from a laptop if you are using the appliance with its default settings. The Switch Management WebUI can also be accessed using a local web browser directly from the appliance. For more information, see *Using the Switch Management WebUI* on the next page.

Using the Switch Management WebUI

The Switch Management WebUI can be accessed using a local web browser directly from the appliance, or from a laptop connected to the camera network uplink port connector if you are using the appliance with its default settings for the WebUI NIC.

> **Important:** When first setting up the appliance, it is recommended that you log in to the Switch Management WebUI and change the default password for the preconfigured login IDs admin and user.

Use the Switch Management WebUI to:

- Manage user accounts and change passwords according to the security policies of your organization. For more information, see *Changing Passwords for Switch Management WebUI Users* on the next page.
- Configure the PoE power budget for the PoE ports you will be using. For more information, see *Configuring the PoE Budget From the Switch Management WebUI* on page 19

> **Tip:** You can connect a stand-alone computer to the camera network uplink port to access the Switch Management WebUI if the operating system on the built-in computer becomes inaccessible, or to reset the passwords again if the switch is restored to its default setting.

To start the Switch Management WebUI, see *Starting the Switch Management WebUI* below.

Starting the Switch Management WebUI

The first time the Switch Management WebUI is opened, you must log in with the administrator ID to change the default password for the administrator and user IDs. The default password for the administrator ID **admin** is the serial number of the Video Appliance. The number is located on the label on the underside of the appliance. It is also located on the label on the box in which the appliance was delivered. The default password for the user ID **user** is **user**.

1. Connect to the appliance:
   - Directly: Connect a keyboard, mouse and monitor to the appliance.
   - From a stand-alone computer, such as a laptop:
     - Configure the laptop in the 192.168.2.0/14 subnet
     - Connect the laptop to the camera network uplink port with an Ethernet cable.
2. Start a web browser on the appliance or the laptop connected to the camera network uplink port.
3. Navigate to `https://192.168.2.1`.
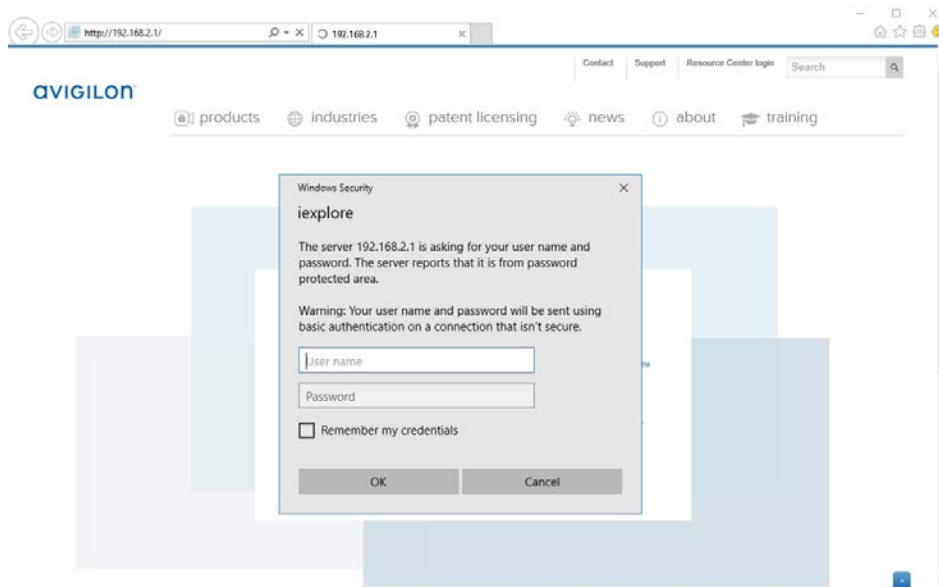
Figure 9: The Switch Management WebUI Log In screen. (Used with permission from Microsoft.)

The browser displays a login screen for the Switch Management WebUI.

4. If this is the first time opening the Switch Management WebUI, refer to *Changing Passwords for Switch Management WebUI Users* below.

Otherwise enter either the user ID **user** or administrator ID **admin** and password.

The Switch Management WebUI is displayed.

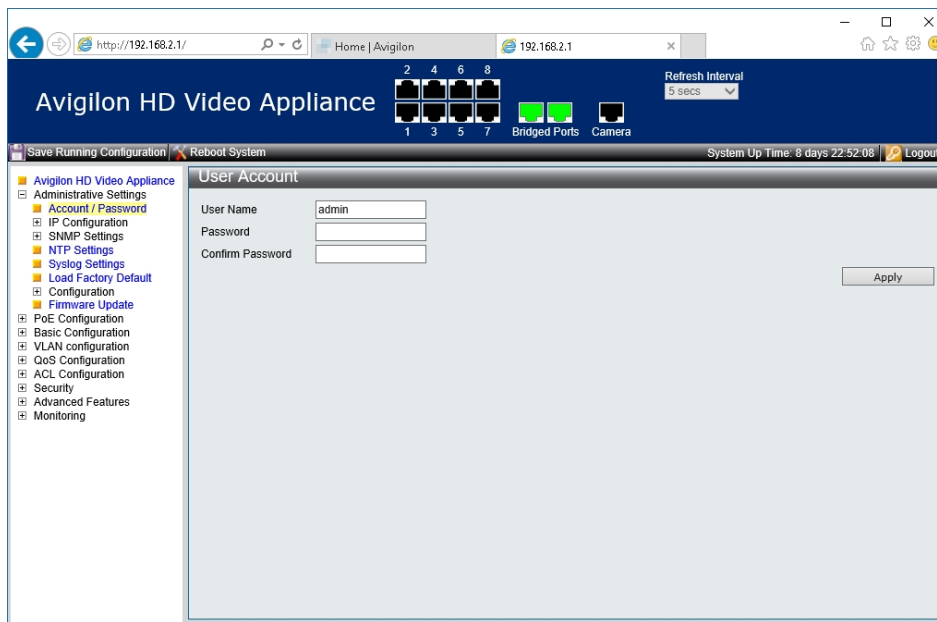# Changing Passwords for Switch Management WebUI Users

Use this procedure to change the preconfigured password for the default user and administrator IDs when you first set up the Video Appliance, and to change passwords according to the security policies of your organization.

The admin user of the Switch Management WebUI must complete this procedure.

1. Open the Switch Management WebUI if it is not already open. For more information, see *Starting the Switch Management WebUI* on the previous page.

2. Enter the administrator ID and password. The:

   - **ID:** admin
   - **Password:** <*Serial number of the unit*>

   The Switch Management WebUI is displayed.

3. Expand Administrative Settings in the left navigation bar and click **Account/Password** to open the User Account tab.

Figure 10: Switch Management WebUI Account | Password tab

4. Change the password for the administrator ID **admin**.

5. Click **Apply**.

6. Change the password for the user ID **user**.

7. Click **Apply**.

8. Click **Logout** to exit.

9. When the log in screen reappears, enter the user ID **user** and the new password.

10. If you want to manually configure the PoE power budget for the PoE ports you will be using, see*Configuring the PoE Budget From the Switch Management WebUI* below; otherwise exit the Switch Management WebUI.

> **Tip:** You can connect a stand-alone computer to the camera network uplink port to access the Switch Management WebUI if the operating system on the built-in computer becomes inaccessible, or to reset the passwords again if the switch is restored to its default setting.

Configuring the PoE Budget From the Switch Management WebUI

The default power budget for all ports on any appliance is 32W. However, the 8-port appliance has a total power budget of 120W (8 x 15W), the 16-port appliance has a total power budget of 240W (16 x 15W), and the 24-port appliance has a total power budget of 360W (24 x 15W). Normally, there is no need to adjust the PoE power budget for individual PoE ports even though the sum total power budget across all ports exceeds the total available power. As long as the total power consumed by all connected devices at any time does not exceed the total available power, there will be no impact.

Individual PoE ports can be configured up to a maximum of 36W. This may be useful if you are connecting a device that may occasionally draw more power than the default budget (such as a camera with an IR illuminator or a heater). In that case, you may want to decrease the power budget of other cameras to ensure that when the high-power device draws full power no cameras are dropped for lack of power.

> ⚠️ **CAUTION —** Changing the power budget on the appliance should be done with care, as there a risk that some devices may lose power. As long as the total power consumed by all connected devices at any time does not exceed the total available power, there will be no impact. However, if the power drawn by all connected devices exceeds the total power available for your appliance, some devices will lose power.

> **Tip:** If you are using a midspan PoE power injector for cameras that require high power PoE, you should set the PoE power budget for that port to 0.

1. Open the Switch Management WebUI if it is not already open.
2. Expand **PoE Configuration** and click **PoE Settings** from the left menu pane.
3. In the PoE Settings area, review the PoE budget for each port and make changes:
    a. Click in the check boxes to select the ports to change.
    b. Enter the new port power budget.
    c. Click **Apply**.
    d. Repeat to change the power budget on other ports if necessary.

    e. Click **Refresh**.

4. Exit the Switch Management WebUI.

Connecting Devices to the Video Appliance

Depending on how you intend to use the Video Appliance, you may choose to configure the network switch component of the appliance differently.

1. A ZeroConf device network— the appliance and the connected cameras will run as a self contained system without a DHCP server.

   This configuration is most likely used by a small business that may not have a network infrastructure, and prefers to use the appliance like a traditional closed circuit surveillance system.

2. A network with an external DHCP server — the appliance and the connected cameras will work with an existing DHCP server on the network.

   This configuration is most likely used by a small office that already has some network infrastructure that will be used with the appliance, like a router that gives the office computers internet access.

3. A network of connected cameras with previously assigned static IP addresses within a different subnet.

   This configuration is most likely used by a business that has existing third-party or Avigilon cameras with static IP address that were previously assigned, or if static IP addresses are desired for cameras.

4. An internal DHCP server — the appliance will act as the local DHCP server for the connected cameras and any other devices that may also be connected to the appliance.

> **Note:** The appliance is intended to be used for connecting and powering IP cameras, not for general computer networking. However, if you prefer, the appliance can be configured to do so.

   This configuration is most likely used by a small business that prefers to use the appliance switch component instead of a router for connecting all network devices together. Other network devices can include voice over IP (VoIP) phones or external network drives.

Complete the procedure that will configure your preferred network:

- *Configuring a ZeroConf Device Network* below.
- *Configuring a Network with an External DHCP Server* on the next page.
- *Connecting to Cameras with Static IP Addresses* on the next page.
- *Configuring the Internal DHCP Server* on page 25.

Configuring a ZeroConf Device Network

If you plan to connect cameras directly to the Video Appliance and run a self contained system, all you need to do is connect cameras directly to the numbered ports.
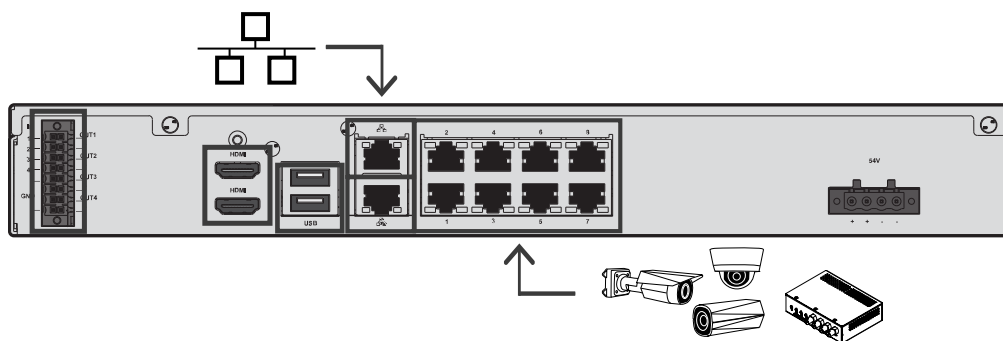
Figure 11: Example of no DHCP network connections on an 8-port Video Appliance.

Avigilon cameras are able to assign IP addresses to themselves through Zero Configuration Networking (ZeroConf) when a DHCP server is not available. The Avigilon Control Center software should automatically detect all connected cameras through the 169.254.0.0/16 subnet.

If you would like to access the Internet through the Video Appliance, you can add an Internet connection to the corporate LAN uplink port, identified by the ⊟⊟ icon. The corporate LAN uplink port is separate from the numbered camera ports, so it will not interfere with video recording.

After you connect cameras to the numbered ports, you can configure the Avigilon Control Center system. See *Activate the ACC Software and Connect to Avigilon Cloud Services* on page 33.

Configuring a Network with an External DHCP Server

If you already have a router or switch to connect your other network devices you can connect the Video Appliance directly to the router so that cameras can be addressed using the router's built-in DHCP service.

1. Connect a network cable from the router or switch to the camera network port on the back of the appliance, identified by the ⊟⊟ icon.
2. Connect Avigilon cameras to the numbered PoE ports.
3. If you would like to access the Internet through the Video Appliance, you can add an Internet connection to the corporate LAN uplink port, identified by the ⊟⊟ icon. The corporate and camera LAN uplink ports are separate from the numbered camera ports, so they will not interfere with video recording. Ensure that the cameras are in a different IP subnet from the corporate network (or Internet connection).

After you've made the required network and camera connections, you can configure the Avigilon Control Center software. See *Activate the ACC Software and Connect to Avigilon Cloud Services* on page 33.

Connecting to Cameras with Static IP Addresses

If you plan to connect cameras with assigned static IP addresses to the Video Appliance, you must change the IP address of the Internal Camera LAN NIC to an IP address in the same subnet as the cameras. For information about identifying this NIC, see *Video Appliance Network Interface Connections* on page 15.

Before you start this procedure, obtain an available IP address from the same subnet as the cameras to

assign to the appliance.

1. Connect to the appliance:

    - Directly: Connect a keyboard, mouse and monitor to the appliance.

    - From a stand-alone computer, such as a laptop:

        - Configure the laptop in the 192.168.2.0/14 subnet

        - Connect the laptop to the camera network uplink port with an Ethernet cable.

2. From the appliance, access the Windows Network Connections window, using one of the following methods:

    - Right-click on the Windows button and select **Network Connections**

      Or

    - Select **Start > Settings > Network & Internet > Change adapter options**

      Or

    - From the taskbar, search for `ncpa.cpl`

3. In the Network Connections window, right-click the Internal Camera LAN connection and select **Properties**.

> **Note:** Do not change or disable any of the other network connections.

4. In the Properties dialog box for the Internal Camera LAN, double-click **Internet Protocol Version 4 (TCP/IPv4)**.
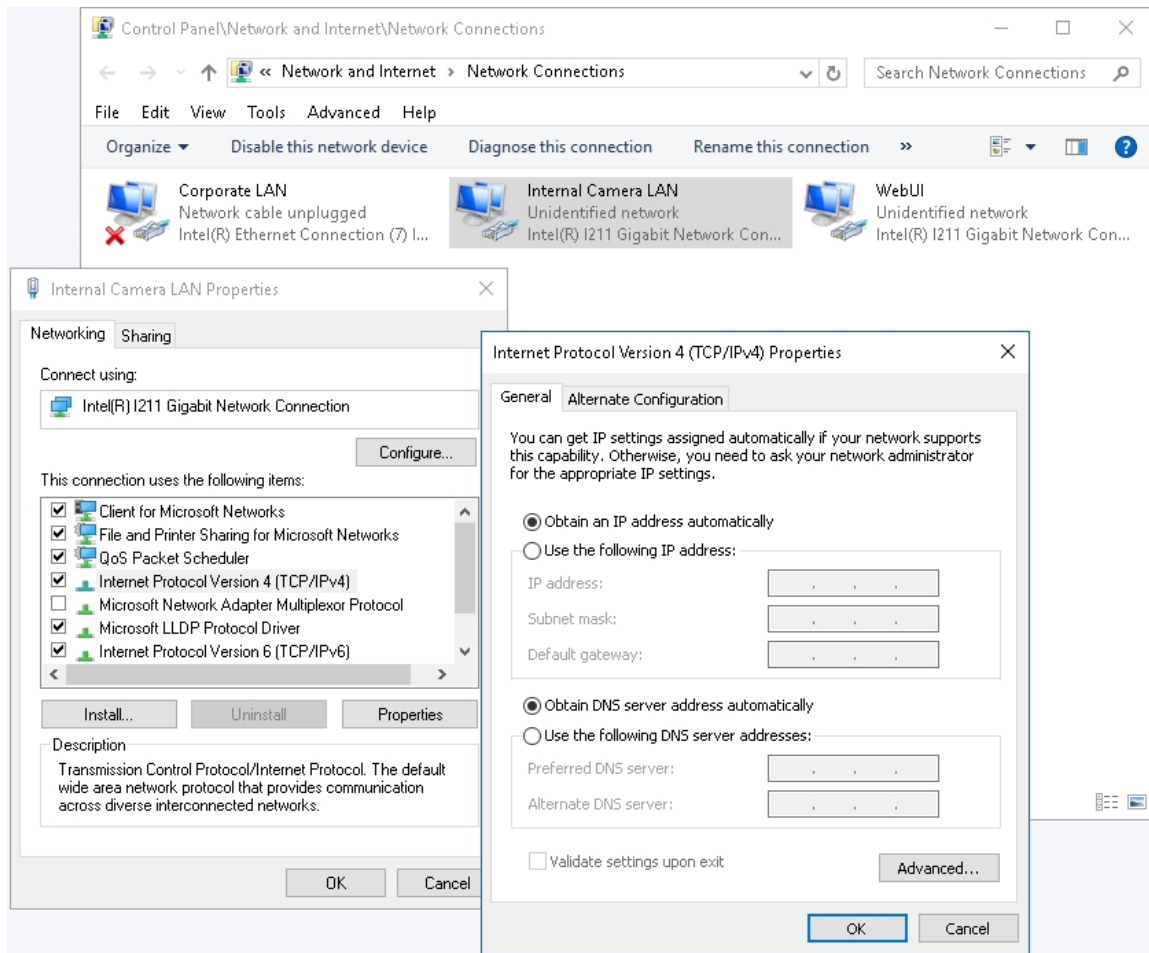
Figure 12: The Network Connections window showing the Properties dialog box for the Internal Camera connection. (Used with permission from Microsoft.)

5. In the dialog box that appears, select the **Use the following IP address:** option and assign the static IP address in the same subnet as the cameras that you obtained.

    The camera network uplink port should have one IP address, subnet mask details, no default network gateway, and no DNS server details.

6. Connect the Video Appliance to your corporate network using the corporate network uplink port. This port is separate from the numbered camera ports, so it will not interfere with video recording. This allows corporate users to access the cameras connected to this appliance using the ACC Client.

Configuring the Internal DHCP Server

If you must use IP addresses within a predefined range at your site for your cameras and devices, or you plan to connect network devices that rely on a DHCP server to receive an IP address before they can work with the local camera connector ports, you may need to set up the Video Appliance to be a DHCP server.

The administrative user of the Switch Management WebUI can complete this procedure.

Note: After you setup the internal DHCP server, do not connect any external DHCP servers to the appliance or there may be address conflicts and cause connection issues.

Tip: If you are only going to connect Avigilon cameras to the appliance, you do not need to set up a DHCP server. For more information, see *Configuring a ZeroConf Device Network* on page 22.

1. Connect a monitor, keyboard and mouse to the appliance. Alternatively, you can start a remote session to the appliance if you have network access to the appliance.

2. In a web browser, enter `192.168.2.1` into the address bar to open the Switch Management WebUI and log in as the administrator user **admin**.

3. Expand **Advanced Features** and click **DHCP Server** from the left menu pane.

4. In the DHCP Server setting area:

    a. In the Status field, select **Enable**.

    b. In the IP start from field, enter the IP address from which to start numbering.
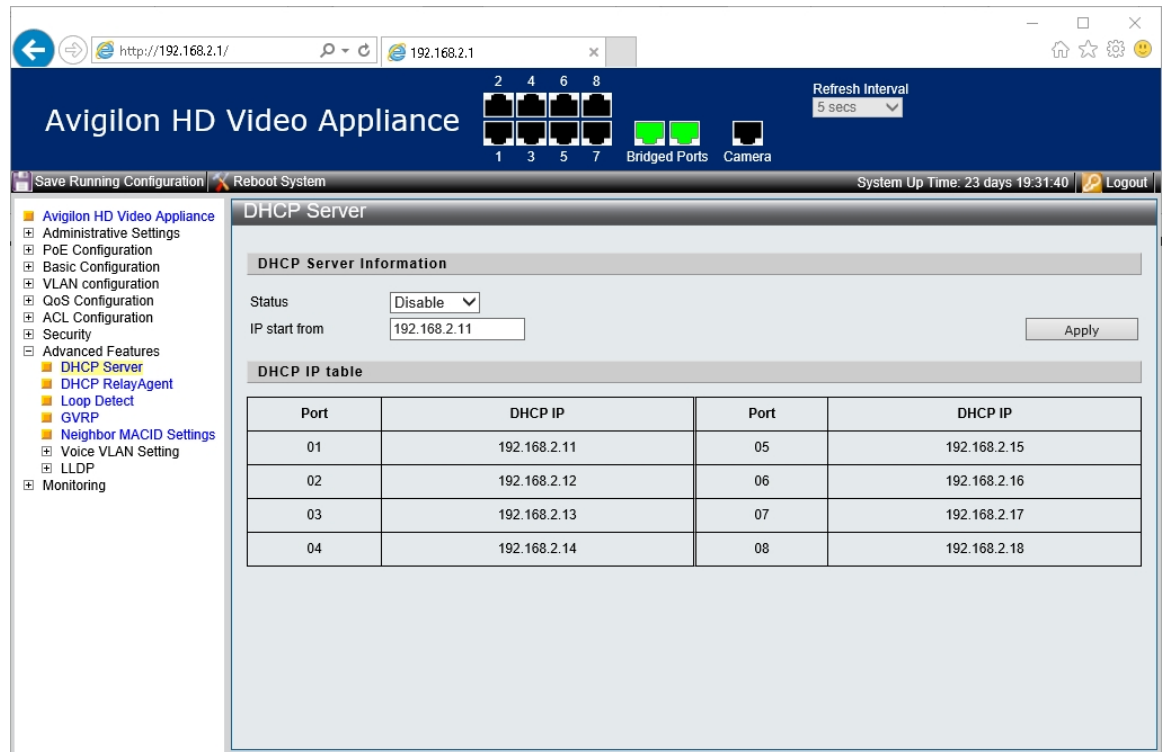
Figure 13: The DHCP Server settings page.

    c. Click **Apply**.

    d. Click **Save Running Configuration**.

    e. The appliance is now set to act as a DHCP server.

    When you connect camera or network devices to a local camera connector port, the IP address beside that connector port's number will be assigned to that camera or device.

> **Note:** The corporate network uplink and camera network uplink ports on the Video Appliance are not part of this DHCP setting. Only the camera network ports broadcast DHCP.

5. Connect Avigilon cameras and other network devices to the numbered ports.

    Each connected device is automatically assigned an IP address by the appliance.

6. If you would like to access the Internet through the Video Appliance, you can add an Internet connection to one of the corporate network ports. The corporate network ports are separate from the numbered camera ports, so they will not interfere with video recording.

After you've made the required network and camera connections, you can configure the Avigilon Control Center system. See *Activate the ACC Software and Connect to Avigilon Cloud Services* on page 33.

Connecting Additional Video Appliances to a Network

Before you can connect an additional Video Appliance to an existing ACC site, you must change the IP addresses of the internal switch and the WebUI port to avoid IP addressing conflicts between the other Video Appliances connected to the same site.

By default the IP addresses are is 192.168.2.1 for the internal switch and 192.168.2.99 for the WebUI port.

> **Important:** The IP addresses for both the internal switch and the WebUI port on each Video Appliance must be in the same IP subnet (for example, 192.168.100.0/24). All IP addresses must be unique.

It is recommended that you plan an IP addressing strategy for your appliances, and that you change the IP address on every Video Appliance, rather than keeping the default IP addresses on only one of the appliances. You can use separate subnets for each appliance, or a single subnet for all appliances, as long as all of the IP addresses are unique.

An example of IP addresses for three Video Appliances using multiple IP subnets per server:

| Video Appliance	Internal Switch	WebUI Port
Default	192.168.2.1	192.168.2.99
Video Appliance1	192.168.10.99	192.168.10.100
Video Appliance2	192.168.20.99	192.168.20.100
Video Appliance3	192.168.30.99	192.168.30.100

An example of IP addresses for three Video Appliances using one IP subnet for all appliances

For example, this table shows an addressing scheme for three appliances in an 192.168.100.0/24 IP subnet:

Video Appliance	Internal Switch	WebUI Port
Default	192.168.2.1	192.168.2.99
Video Appliance1	192.168.100.11	192.168.100.12
Video Appliance2	192.168.100.21	192.168.100.22
Video Appliance3	192.168.100.31	192.168.100.32

The admin user of the appliance must complete this procedure.

1. Connect to the appliance:
   - Directly: Connect a keyboard, mouse and monitor to the appliance.
   - From a stand-alone computer, such as a laptop:
     - Configure the laptop in the same subnet as the internal switch and WebUI port (for example: the 192.168.100.0/24 subnet).
   - Connect the laptop to the camera network uplink port ⊞ with an Ethernet cable.
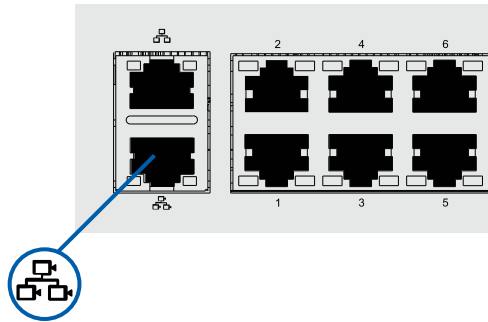
2. Log in to the Windows OS on the appliance as the Windows OS administrator.
3. Change the IP Address of the internal switch:
   a. On the Windows desktop, click the Switch WebUI icon and log in to the web user interface of the internal switch, using the administrator ID **admin** and password.

   > **Note:** If this is the first time the Switch Management WebUI is opened, the default password for the administrator ID **admin** is the serial number of the Video Appliance. The number is located on the label on the underside of the appliance. It is also located on the label on the box in which the appliance was delivered. For information on changing the default password, refer to *Changing Passwords for Switch Management WebUI Users* on page 18..

   b. The Switch Management WebUI is displayed.
   c. Expand Administrative Settings > **IP Configuration** in the left navigation bar and click **IPv4** to open the IPv4 tab.
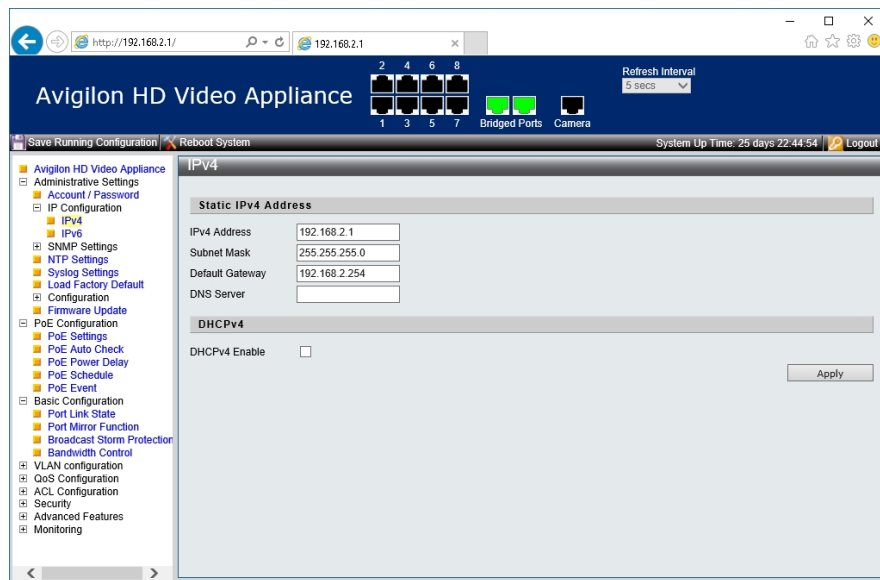
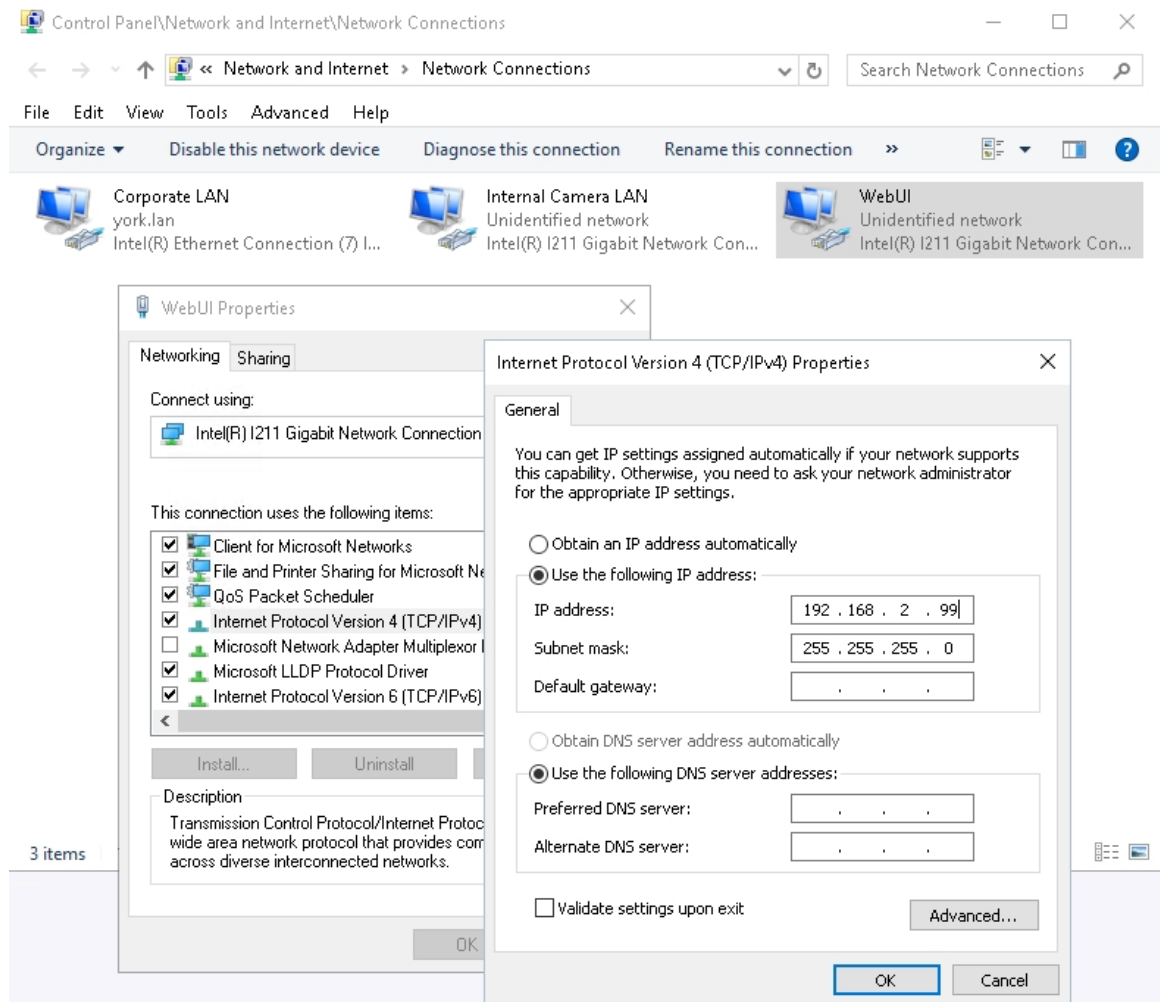**Figure 14:** Switch Management WebUI IPv4 tab showing the default IP address of the internal switch.

d. Change the IP address to a valid unused value in the IP subnet. (For example, if you are using the 192.168.100.0/24 IP subnet, the internal switch on the first appliance could be assigned 192.168.100.11, the second 192.168.100.21, and so on.)

e. Click **Apply**

f. The original connection to the Switch WebUI is lost and you are prompted to log in again at the new IP address.

> **Tip:** Create a shortcut on the desktop to the new IP address of the Switch Management WebUI and delete the existing shortcut, which points to the now invalid default IP address.

4. Change the IP address of the WebUI port:

a. Access the Windows Network Connections window on the appliance, using one of the following methods:

- Right-click on the Windows button and select **Network Connections**

  Or

- Select **Start** > **Settings** > **Network & Internet** > **Change adapter options**

  Or

- From the taskbar, search for `ncpa.cpl`

b. In the Network Connections window, right-click the WebUI connection and select **Properties**.

> **Note:** Do not change or disable any of the other network connections.

c. In the Properties dialog box for the WebUI port, double-click **Internet Protocol Version 4 (TCP/IPv4)**.

Figure 15: The Network Connections window showing the Properties dialog box for the WebUI port and its default IP address. (Used with permission from Microsoft.)

d. In the dialog box that appears, select the **Use the following IP address:** option and change the IP address to a valid unused value in the IP subnet. (For example, if you are using the 192.168.100.0/24 IP subnet, the WebUI port on the first appliance could be assigned 192.168.100.112, the second 192.168.100.22, and so on.) Leave the other settings unchanged.

5. Connect the Video Appliance to a network switch in your corporate network using the corporate network uplink port ⊞.
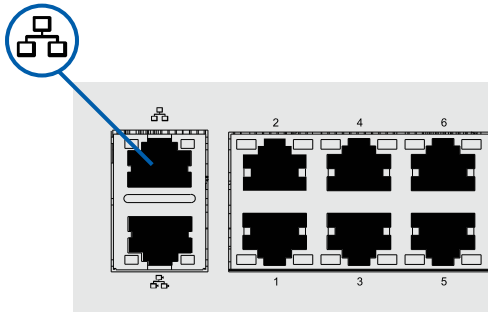
Activate the ACC Software and Connect to Avigilon Cloud Services

After you have deployed your applianceNVR5 WorkstationRemote Monitoring Workstation, activate your ACC software and feature licenses and connect to Avigilon Cloud Services.

Activate ACC Software and Feature Licenses

You can activate, deactivate, and reactivate product or feature licenses. Licenses are called Product Keys in the ACC system, and Activation IDs in the licensing portal.

> **Important:** When a new server is added to or removed from a multi-server site, the existing site licenses become inactive and must be reactivated to confirm system changes. See *Reactivating a License* on page 35.

- **Initial ACC™ System Setup and Workflow Guide**
- **ACC 7 Help Center**

Printable versions of these guides are available on the Avigilon website: **avigilon.com/support/software/**.

Once your license is activated, you can immediately use the new licensed features.

Connect to Avigilon Cloud Services (Optional)

After activating your ACC software, you can connect your ACC site to the cloud, which may require a subscription, and take advantage of the capabilities and features that provide centralized access across distributed systems.

To connect your site to Avigilon Cloud Services, see **help.avigilon.com/cloud**.

For information about the cloud services, see **avigilon.com/support/cloud/avigilon-cloud-services**.

You can start to back up the system settings for your new site in the ACC Client software after it is configured. These settings include the ACC password, and the settings for the camera connections. For more information on backing up the site and server configurations, see the *Avigilon ACC Client User Guide*.

Activating a License

Once your license is activated, you can immediately use the new licensed features.

> **Tip:** Finish organizing your multi-server site before activating a new license to avoid reactivating the site license each time a new server is added.

Online Activation

If you have internet access, use online activation. However, if your site is large and contains hundreds of licenses, the server may time out. See *Offline Activation* below instead.

1. In the New Task menu ☰ , click **Site Setup**.
2. Select your new site, then click 🔑 .
3. Click **Add License...**.
4. Enter your product keys.

   If you copy and paste more than one comma-separated product key, the system will format it automatically.

   - To remove the last product key, click **Remove Last Key**.
   - To clear all the product keys, click **Clear**.
5. Click **Activate Now**.
6. Click **OK**.

Offline Activation

Offline licensing involves transferring files between a computer running the ACC Client software and a computer with internet access.

In the ACC Client:

1. In the New Task menu ☰ , click **Site Setup**.
2. Select your new site, then click 🔑 .
3. Click **Add License...**.
4. Select the **Manual** tab.
5. Enter your product keys.

   If you copy and paste more than one comma-separated product key, the system will format it automatically.

   - To remove the last product key, click **Remove Last Key**.
   - To clear all the product keys, click **Clear**.
6. Click **Save File...** and choose where you want to save the `.key` file. You can rename the file as required.
7. Copy the `.key` file to a computer with internet access.

In a browser:

1. Go to **activate.avigilon.com**.

2. Click **Choose File** and select the `.key` file.

3. Click **Upload**. A `capabilityResponse.bin` file should download automatically.

   If not, allow the download to occur when you are prompted.

4. Complete the product registration page to receive product updates from Avigilon.

5. Copy the `.bin` file to a computer running the ACC Client software.

In the ACC Client:

1. In the License Management dialog box, click **Apply...**.

2. Select the `.bin` file and click **Open**.

3. Click **OK** to confirm your changes.

Reactivating a License

FOR ENTERPRISE EDITION

When servers are added to or removed from a site, the site licenses become inactive and must be reactivated to confirm system changes.

If you do not reactivate the affected licenses, the site will stop normal operations.

1. In the New Task menu ☰ , click **Site Setup**.

2. Click the site name, then click 🔑 .

3. Click **Reactivate Licenses...**.

   If you have Internet access:

   a. Click **Reactivate Licenses**.

   b. Click **OK** to confirm your changes.

   If you do not have Internet access:

   a. Select the **Manual** tab.

   b. Click **Save File...** and choose where you want to save the `.key` files.

   c. Copy the `.key` files to a computer with internet access:

      i. Go to **activate.avigilon.com**.

      ii. Click **Choose File** and select the `.key` file.

      iii. Click **Upload**. A `capabilityResponse.bin` file should download automatically.

         If not, allow the download to occur when you are prompted.

      iv. Complete the product registration page to receive product updates from Avigilon.

      v. Copy the `.bin` file to a computer running the ACC Client software.

d. In the License Management dialog box, click **Apply...**.

e. Select the `.bin` file and click **Open**.

f. Click **OK** to confirm your changes.

LED Indicators

The following lists describe what the LEDs on the front and back of each Video Appliance indicate.

Front Panel LEDs

Icons	LED Status	Description
(power icon)	Green	Device is powered and the ACC server is running normally.
	Orange	Device is powered but ACC has been stopped or has crashed and is not running, or device is restarting and the ACC server is not yet running.
(hard disk icon)	Green - blinking	Hard disk drive activity.
	Red	Hard disk drive has an error.
(port icons 1-8) 16 for the 16-port Video Appliance. 24 for the 24-port Video Appliance.	Green	Link is present.
	Orange	Power is off due to failure.
	Green - blinking	Port activity.
(network icons)	Orange	10/100 network link is present.
	Orange - blinking	Port activity.
	Green	GigE network link is present.
	Green - blinking	Port activity.
(PoE icon)	Orange	Switch component has reached its PoE output capability.

RJ45 Ethernet LEDs on the Back Panel

LED Status	Description
Green	Network activity is present.

LED Status	Description
Orange	For PoE ports: On for 100 Mbps speed. Off for 10 Mbps speed.
	For corporate and camera uplink ports: On for GigE speed. Off for 10/100 Mbps speed.

Connecting to External Devices

External devices are connected to the Video Appliance through the digital I/O connector. The pinout for the I/O connector is shown in the following diagram:
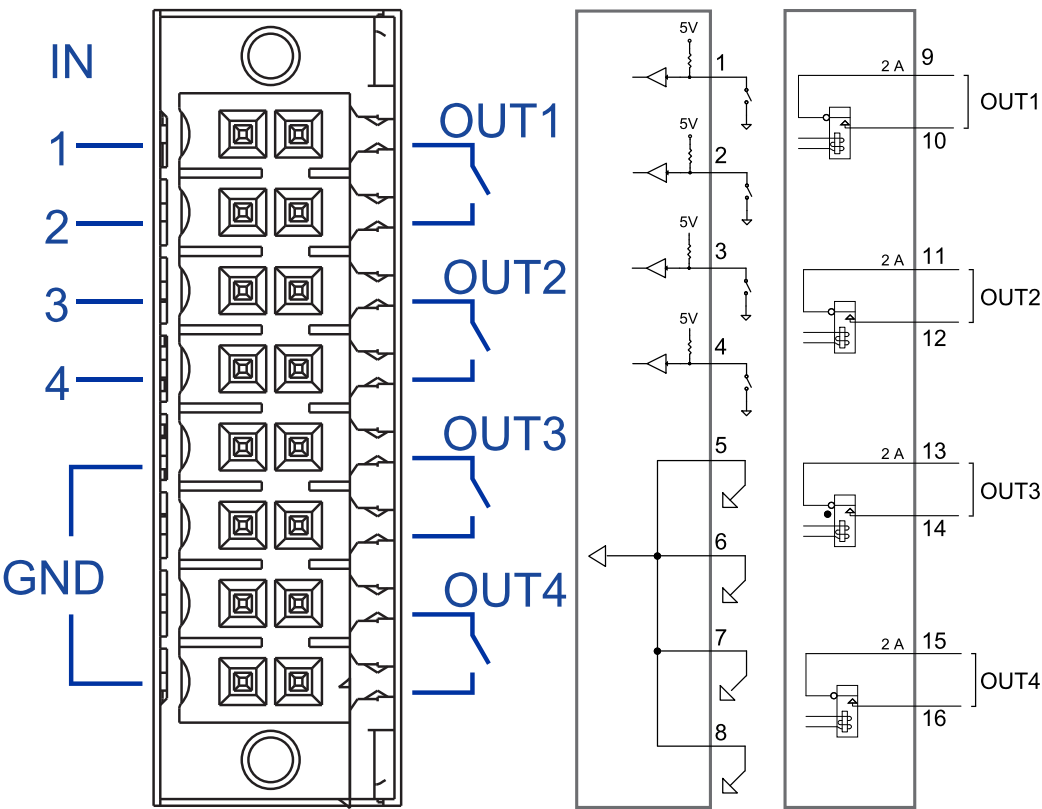
Figure 16: Digital I/O connector pinout schema.

Pin	Function	Description
1	IN1	Alarm Inputs — Active-Low inputs. To activate, connect the Input to the Ground pin (GND). To deactivate, leave disconnected.
2	IN2	
3	IN3	
4	IN4	
5	GND	
6		
7		
8		

Pin	Function	Description
9	OUT1	Relay Outputs — Form-A dry contact outputs. When active, terminals are connected. When inactive, terminals are disconnected.
10		
11	OUT2	
12		**Note:** Contacts are normally open. The contacts are open when the energizing force (magnet or relay solenoid) is not present. When the energizing force is present, the contact will close.
13	OUT3	
14		
15	OUT4	
16		Maximum load is 30 V, 0.5 A.

Adding Local Windows Accounts

Not all methods for creating local Windows accounts are supported by the Video Appliance. Use the following method to reliably add local Windows user accounts:

1. Press the **Windows key + R** on your keyboard to open the Run dialog.
2. Type **netplwiz** in the Run dialog and press **Enter**.
3. The User Accounts window will open. Add any required local accounts using this window.

> **Tip:** You can also use Window Computer Management to add local accounts if that is preferred over the option above.

Restarting the Operating System

Use the reset switch on the front of the appliance to restart the operating system if the operating system ever freezes or displays a fatal system error.

Use the reset switch while the appliance is powered. An operating system reset does not affect the Ethernet switch component or the connected cameras.

The reset switch is located at the front of the appliance and is the small unlabeled hole between the Avigilon logo and the ⏻ status LED.

After you've located the reset switch on the appliance, complete the following steps:

1. Using a straightened paperclip or similar tool, gently press the reset switch and release after one second.

   ⚠️ **CAUTION —** Do not apply excessive force. Inserting the tool too far will damage the appliance.

   After you release the reset switch, the operating system should automatically restart.

Resetting the Internal PoE Switch to Factory Defaults

Use the reset switch on the front of the appliance to reset the internal PoE switch to its factory default settings. Resetting the switch to factory default settings also resets the user password back to the appliance's serial number.

> **Important:** The reset action causes a hard reset of the device. Sometimes this results in an improper shutdown of Windows. Any Windows warning regarding an improper shutdown upon rebooting can be ignored after the reset switch is pressed.

The reset switch is located at the front of the appliance and is the small unlabeled hole between the Avigilon logo and the ⏻ status LED.

After you've located the reset switch on the appliance, complete the following steps:

1. Using a straightened paperclip or similar tool, gently press and hold the reset switch.

   ⚠️ **CAUTION —** Do not apply excessive force. Inserting the tool too far will damage the appliance.

2. Do not release the reset switch until you hear a confirmation beep, which takes about 12 seconds.

Replacing a Hard Drive

If the ACC software starts to perform excessively slow or becomes prone to freezing, these may be signs of a potential hard drive failure.

> ⚠️ 8-port Video Appliance: Immediately shut down your system and contact Avigilon Technical Support for possible recovery instructions.

On the 16-port or 24-port Video Appliance, the ⊟ **Hard Drive Status** LED turns red if one of the hard drive connections is in error and is potentially failing.

> **Important:** Only use a hard drive for the Video Appliance available from your Avigilon dealer. Always replace a hard drive with the same size, make and model, or the appliance will continue to fail.

Enabling the Marvell Storage Utility

The Marvell Storage Utility is used to check hard drive status and to replace failed hard drives. The Marvell Utility may be disabled from the factory to comply with security requirements. Follow the steps below to enable the Marvell Utility:

1. Right-click **Windows PowerShell** and click **Run as administrator**.
2. Enter the following commands in the PowerShell window:

   ```
   Set-Service MSUWebService -StartupType Manual
   Start-Service MSUWebService
   ```

Checking the Hard Drive Status

Use the Marvell Storage Utility that is provided on the 16-port or 24-port Video Appliance to confirm which hard drive is in error. If the Marvell Utility is not running on the Video Appliance, see *Enabling the Marvell Storage Utility* above.

1. Open the Windows system tray and click on the MarvellTray icon:
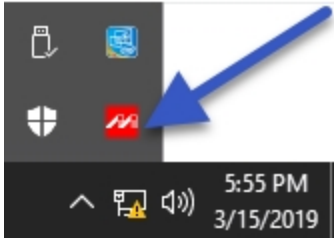
> **Important:** By default, this utility starts when the Video Appliance is powered up and runs in the background. If you don't see the icon in the system tray, you need to start it. From the Windows Start menu, select:

2. The Marvell Storage Utility opens in your web browser.
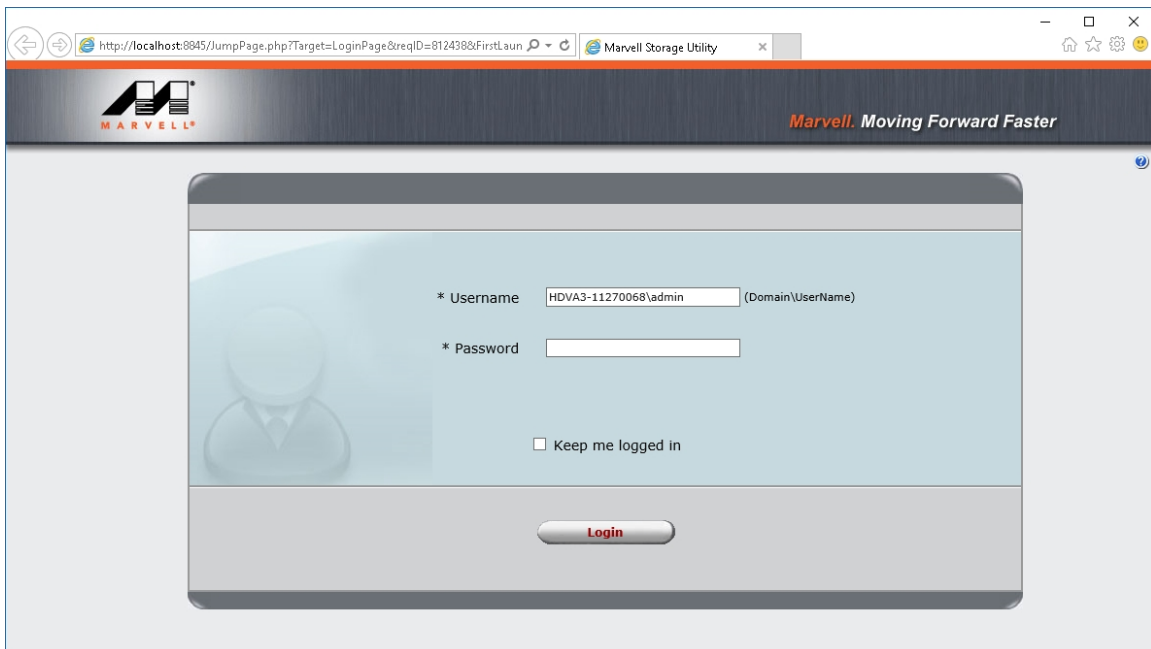
Figure 17: The Marvell Storage Utility Login Page

> **Note:** If the MarvellTray icon does not open the Marvell Storage Utility, try opening **http://localhost:8845** in the web browser.

3. In the Marvell Storage Utility page, look in the Marvell Storage Management tree to see if the Array:0 and Virtual Disk:0 icons are in the yellow alarm state. If the icons are yellow, scan the list of physical disks in the array, to identify which disk has failed. In normal operation, the disks are labeled Physical Disk: port 0 to Physical Disk: port 3. If one is missing, this is the disk that has failed.

   You can also review the messages in the Event Log at the bottom of the Marvell Storage Utility page to see additional information.

Replacing a Hard Drive

In the Marvell Manager, the hard drives are listed as Physical Disk: port 0 to Physical Disk: port 3. From the front of the appliance, Physical Disk: port 0 is the hard drive installed on the far left and Physical Disk: port 1 to Physical Disk: port 3 are installed beside each other from left to right.

If more than one drive has failed, immediately shut down your system and contact Avigilon Technical Support for possible recovery instructions.

To replace a failed hard drive, complete the following steps.

1. Exit all running programs and shut down the Windows operating system.
2. Disconnect the appliance from power:
   a. Undo the plastic clip securing the power cable to the power receptacle at the rear of the appliance
   b. Unplug the power cord.
3. Remove the front bezel:
   a. Slide the appliance out from the rack enough to allow you to access the screws that attach the front bezel.
   b. Remove the screw on each side of the bezel.
   c. Pull the bottom edge of the bezel slightly away from the appliance to detach the plastic clip at the top and then remove the bezel. Be careful not to snap off the clip.
4. Remove the hard drive caddy:
   a. Press on the tab on the right side of the hard drive caddy cover to unlatch it and then swing the cover open.

Figure 18: The hard drive caddy in the open position.

   b. Slide the caddy out of the appliance.

      c. Remove the silver-colored screws on the side that attach the hard drive to the caddy.

      d. Use some force to push the right-hand side of the hard drive out of the caddy. It is held in place by several pins on the left-hand side.

5. Properly dispose of the failed hard drive.

6. Install the replacement hard drive:

      a. Insert the new hard drive into the caddy. Make sure that it clips into place.

      b. Screw the hard drive to the caddy.

      c. Place the caddy into the appliance, then slide the caddy into the appliance, close the caddy cover and latch it into the appliance.

      d. Reattach the front bezel.

      e. Connect your mouse, keyboard and monitor back to the appliance.

      f. Before connecting the power cord to the mains, plug in the power cord and reattach the plastic clip securing the power cable to the power receptacle at the rear of the appliance.

7. Connect power to the appliance and allow the system to restart:

      a. The system immediately begins to rebuild the RAID.

      b. When prompted, allow Windows to start normally.

> **Important:** Shut down the ACC server as soon as it starts, as it will not function while the RAID is rebuilding.

      c. While the RAID is being rebuilt, do not reconnect cameras, open other applications or allow any network instances of the ACC Client software to connect to the appliance. If you try to resume normal operations while the RAID rebuilds, you may lose recorded data and cause further issues in the appliance.

8. After Windows has started and the ACC server is shut down:

      a. Start the MarvellTray application and open it from the system tray.

      b. Open the Property tab and confirm that the Background activity state is "Rebuild running".

      The RAID rebuild will take at least 24 hours, or longer depending on the total amount of recorded data stored on the array of disks.

      When the rebuilding process is complete, the RAID status changes to *Normal*.

9. After the system has finished rebuilding, reconnect all your cameras, restart the ACC server and resume normal operations.

Disabling the Marvell Storage Utility

Once you have finished replacing hard drives, it is recommended to disable the Marvell Storage Utility:

1. Right-click **Windows PowerShell** and click **Run as administrator**.

2. Enter the following command in the PowerShell window:

```
Stop-Service MSUWebService
```

Replacing the Power Supply in the 16- or 24-port Video Appliance

The power supply unit (PSU) in the 16- or 24-port Video Appliance is replaceable if the PSU becomes unreliable or fails.

> **Important:** Only use a PSU for the Video Appliance available from your Avigilon dealer.

> **Important:** If you are replacing a PSU before it has fully failed, ensure that you have powered down the appliance by exiting all running programs and shutting down the Windows operating system.

To remove the failed PSU:

1. Undo the plastic clip securing the power cable to the power receptacle at the rear of the appliance, and unplug the power cord.
2. Slide the appliance out from the rack.
3. Undo the screws at the front of the appliance that attach it to the mounting rails.
4. Remove the appliance from the rack unit and place it on a solid work area, with the rear panel facing outward.
5. Hook your index finger into the tab on the inner side of the PSU and use your thumb to press the latch on the outer side inwards until the PSU is released.
6. Pull the PSU out of the appliance and properly dispose of it.

To insert the replacement PSU:

1. With the tab and latch correctly oriented, firmly push the new PSU into the appliance until you hear the PSU click into place and the latch is locked.
2. Place the appliance onto the mounting rails and screw the appliance back to the rails.
3. Reattach all cables, and plug in the power cord last of all.
4. Reattach the plastic clip securing the power cable to the power receptacle at the rear of the appliance.
5. The appliance will power up as soon as the power supply is restored.

# Connecting Multiple Video Appliances to the Same Network

If you add more Video Appliances to the same camera network, and you need to manage the internal network switch with the Switch Management WebUI, assign each added appliance a unique IP address in the local subnet. Changing the local subnet address used to access the Switch Management WebUI of an appliance does not impact usage of the appliance in any other way.

The default IP address for the Switch Management WebUI of the internal network switch in every Video Appliance is 192.168.2.1. If you are adding a Video Appliance to your network, you need to assign it an unused IP address in the local loop. Typically, you only need to increment the default address.

To change the IP address for the Switch Management WebUI on the appliance you are adding to your network, complete the following steps:

1. Open the Switch Management WebUI using the default IP address.
2. Expand **Administrative Settings** > **IP Configuration** > **IPv4** from the left menu pane.
3. In the Static IPv4 Address area, update the value of the last octet of the **IPv4 Address** field to an unassigned IP address in the local subnet. Do not change any of the other fields.

   For example, to add a second appliance, enter 192.168.2.2. For a third appliance, enter 192.168.2.3, and so on.
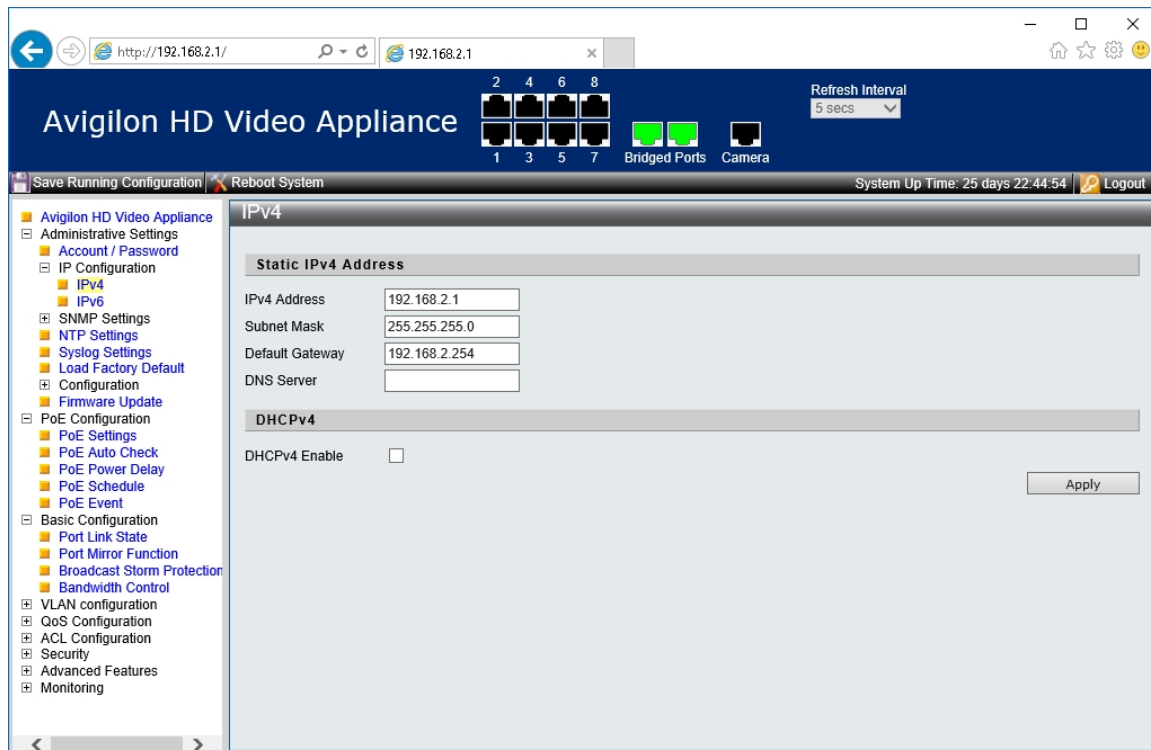
4. Exit the Switch Management WebUI.

Limited Warranty

Avigilon warranty terms for this product are provided at **avigilon.com/warranty**.

For More Information

For additional product documentation and software and firmware upgrades, visit **support.avigilon.com**.

Technical Support

Contact Avigilon Technical Support at **support.avigilon.com/s/contactsupport**.

Product User Guides

For product user guides, visit the Downloads page:

Avigilon Workstations: **avigilon.com/products/video-infrastructure/remote-monitoring**