

User Guide

Avigilon Artificial Intelligence Appliance

VMA-AIA1-CG1/CG2

(Firmware releases 3.2 and later)

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Table of Contents

Introduction	1
Overview	1
Front View	1
Back View	2
System Requirements	2
Camera Frame Rate	2
Web Browser	2
Installation	4
Package Contents	4
Installing the Rack Rails and Cable Management Arm	4
Installing the Bezel	4
Connecting Cables	5
Starting the Avigilon AI Appliance for the First Time	6
Troubleshooting Installation—Cannot Discover the Device	7
Troubleshooting Installation—Networking	7
Installing and Starting the Avigilon Control Center™ Client	8
Starting Up and Shutting Down the ACC Client Software	8
Starting Up the Client Software	8
Shutting Down the Client Software	8
Logging In to and Out of a Site	8
Logging In	9
Logging Out	9
Moving the Avigilon AI Appliance to a Site	10
Configuring the Appliance	11
Accessing the Web Interface	11
Web Interface Launch Page	11
Server Panel	12
Logs Panel	12
Device Panel	13
Network Panel	14
System Logs Panel	14
Configuring the ACC Software	16
Changing the Site Administrator Password	16
Accessing the Setup Tab	16

Enabling Server Analytics	17
Analytic Settings	17
Advanced Features	19
LED Indicators	20
Diagnostic Indicators	20
Power Status Indicators	20
Upgrading the Firmware	22
Restoring to Factory Default Settings	23

Introduction

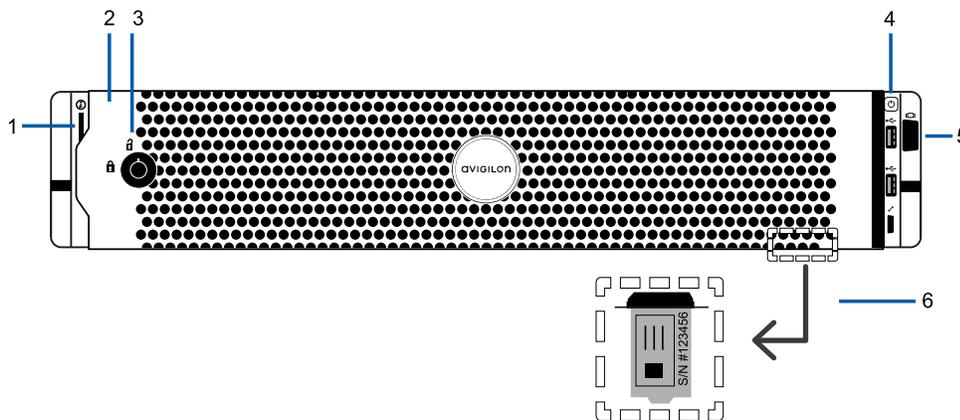
The Avigilon AI Appliance (Avigilon AI Appliance) provides Avigilon's patented self-learning video analytics and Avigilon Appearance Search™ on existing multi-megapixel IP cameras that are not already analytic-enabled when paired with the Avigilon Control Center software (ACC). The Avigilon AI Appliance features:

- Avigilon's self-learning video analytics with no manual calibration, as available on Avigilon analytic cameras.
- Pre-integrated with Avigilon Control Center High Definition Network Video Management System for simple setup.
- High capacity video analytic processing that accepts video sources from 320 × 240 to 3264 × 2448 pixels.

This guide describes how to configure the system after the Avigilon AI Appliance has been powered and is connected the local area network.

Overview

Front View



1. Diagnostic indicators

Provides information about system operations.

For more information, see *LED Indicators* on page 20.

2. Bezel

Must be installed on site.

3. Bezel Lock

Protects against unauthorized physical access.

4. **Power button**

Controls the power supply to the appliance.

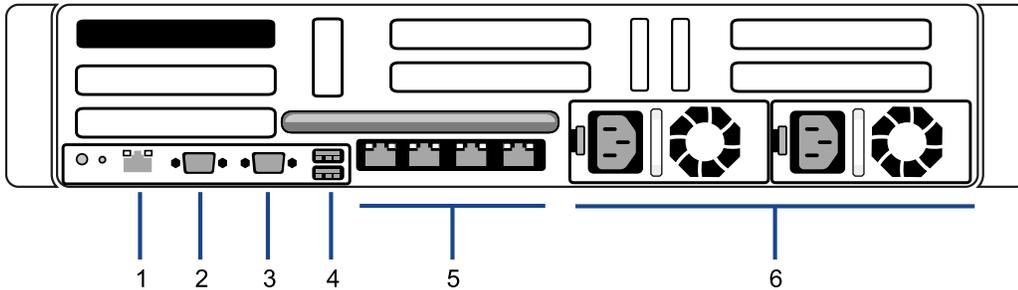
5. **Video connector**

Accepts a VGA monitor connection.

6. **Information tag**

Pull-out tag that provides the product service details and support information.

Back View



1. **Out-of-Band Management (OOBM) connector**

Accepts an OOBM RJ-45 connection.

2. **Serial connector**

Accepts connections to serial devices.

3. **Video connector**

Accepts a VGA monitor connection.

4. **USB connectors**

Accepts USB connections to external devices.

5. **Four (4) RJ-45 1 Gbps Ethernet ports**

Accepts Ethernet connections to multiple networks. Any port can be used.

6. **Power supply**

Two hot swappable redundant power supply.

System Requirements

Camera Frame Rate

The Avigilon AI Appliance can provide analytics for non-analytics cameras. For optimal analytics performance, the source camera should stream a minimum of 10 frames per second (fps).

Web Browser

Basic administration settings for the Avigilon AI Appliance are managed through its Web Interface. However, most configuration is done with the ACC Client.

The Web Interface can be accessed from any Windows®, Mac or mobile device using any of the following web browsers:

- Mozilla Firefox® browser version 3.6 or later
- Google Chrome™ browser 8.0 or later
- Microsoft Edge™ browser 25 or later
- Safari® 5.0 or later
- Chrome on Android™ 2.2 or later
- Safari on Apple® iOS 5 or later.
- Windows Internet Explorer® browser version 7.0 or later

NOTE: Your web browser must be configured to accept cookies or the Web Interface will not function correctly.

Installation

Before starting the installation, copy down the serial number and MAC address from the label on the underside of the appliance. You will need this information during the installation procedure.

Package Contents

Ensure the package contains the following:

- Avigilon AI Appliance
- Rack sliding rail assembly kit
- Cable management arm assembly kit
- Bezel and key
- Power cables (may be provided in a separate box)

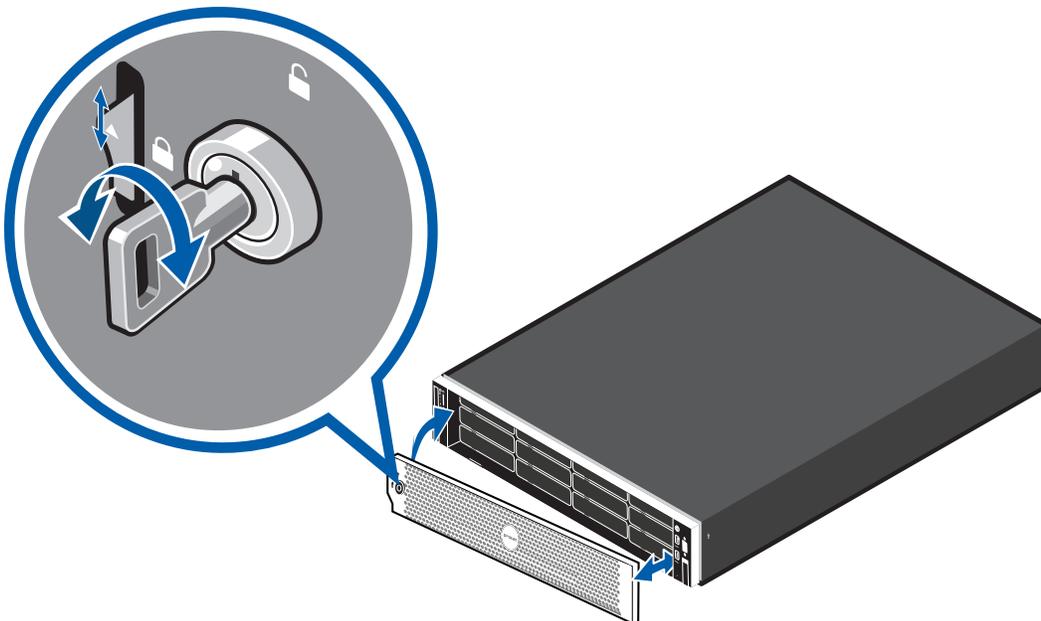
Installing the Rack Rails and Cable Management Arm

If the Avigilon AI Appliance will be kept in a server rack, install the Rack Sliding Rails and the Cable Management Arm provided in the appliance package. Follow the procedures outlined in the *Rack Installation Instructions* and the *CMA Installation Instructions* provided in the assembly kits.

NOTE: The supplied Rack Sliding Rails are compatible with square and round hole racks.

Installing the Bezel

The bezel can be installed on the front of the Avigilon AI Appliance to help protect against unauthorized access.



1. Align and insert the right end of the bezel until it clicks into place.
2. Push the left end of the bezel into the front of the unit until it clicks into place.
3. Use the provided key to lock the bezel.

Connecting Cables

Refer to the diagrams in *Overview* on page 1 for the location of the different connectors. Make the following connections, as required:

1. Connect the Avigilon AI Appliance to your network using an Ethernet cable.

NOTE: It is recommended that the Avigilon AI Appliance follow a similar network configuration to the site NVRs. You can connect up to 4 Ethernet cables.

2. Connect a power cable to each power supply at the back of the Avigilon AI Appliance.

Starting the Avigilon AI Appliance for the First Time

After powering on the Avigilon AI Appliance, complete the following procedure:

1. Connect a port on the appliance to the local network with an Ethernet cable.
2. Press the power button on the front of the appliance and wait for the appliance to start up.

Check that the appliance LED indicators display the correct status. See *LED Indicators* on page 20 for more information.

3. On a network workstation, discover the appliance. Use File Explorer on a Windows computer or Finder® on a Macintosh computer.

You are looking for a device labeled “VMA-AIA1-CGx-xxxxxxxx”, where xxxxxxxxx is the serial number of your appliance. If you cannot locate the appliance, see *Troubleshooting Installation—Cannot Discover the Device* on the next page.

4. Click to open the device in a supported web browser (see *System Requirements* on page 2).

Important: The Avigilon AI Appliance is configured with a self-signed certificate, which generates a connection warning in the web browser.

5. Click past any connection messages displayed by the browser. You will see two warning messages that differ slightly depending on the browser. If the browser is:
 - Chrome—Click **Advanced** on the first screen and **Proceed to <IP address> (unsafe)** on the second screen.
 - Firefox—Click **Advanced** on the first screen and on the second screen click **Add Exception**, check **Permanently store this exception**, and click **Confirm Security Exception**.
6. When you are prompted by the Web Interface, enter a new password for the administrator username.

The Strength meter measures the complexity of your password: Red is too simple, yellow is reasonably complex, and green is complex. Complexity measures the difficulty to discover your password, not how secure your password is. A complex password is recommended.

The page refreshes and you are prompted to log in.

7. Enter `administrator` as the username and your new password.

The Dashboard panel of the Web Interface is displayed.

8. Set the language for the Web Interface, and a user-friendly hostname and the time zone. In the navigation sidebar, click **Device** to open the Device panel . In the:
 - a. General pane, select the Language from the drop-down.
 - b. Hostname pane, optionally replace the serial number of the appliance with a descriptive hostname for the appliance.
 - c. Time pane, specify the Time Zone and identify the time source in the NTP drop-down and Servers list.

For more information see *Device Panel* on page 13.

9. Select how the appliance obtains IP addresses from the network. On the navigation sidebar, click **Network** to open the Network panel. For each network port used, select Automatic or manually enter the settings.

For more information, see *Network Panel* on page 14.

For more information about the Web Interface, see *Configuring the Appliance* on page 11

You are now ready to install the ACC Client software and connect the Avigilon AI Appliance to an ACC site.

Troubleshooting Installation—Cannot Discover the Device

If you cannot discover the device using File Explorer (Windows) or Finder (Macintosh) during the hardware installation and it is connected to your network, try the following:

- Access the appliance from your web browser using the URL `https://VMA-AIA1-CGx-<serial number>`
- Use the Address Resolution Protocol (ARP) to determine the IP address for the device:
 1. Locate and copy down the MAC Address (MAC) listed on the Serial Number Tag for reference.
 2. Open a Command Prompt window and enter the following command:

```
arp -a
```

3. Scroll through the response and look for the IP address corresponding to the MAC address.
- Discover the DHCP-assigned IP address from the ACC Client software:

1. Download and install the ACC Client software on to the configuration laptop.

The ACC Client software can be downloaded from the Avigilon website: [avigilon.com](https://www.avigilon.com).

2. Launch the ACC Client software.
3. Log into the site that uses this naming convention: `VMA-AIA1-CGx-<serial number>`.

The default username is *administrator*, with no password.

NOTE: The username and password for the Web Interface application is separate from the administrator username and password for the ACC Client. To change the password for the ACC application, see *Changing the Site Administrator Password* on page 16.

4. Display the server Setup tab.

At the top of the window, the appliance IP address is displayed.

5. Open a web browser and enter the IP address in this format: `https://<IP address>`.
6. Continue the remaining steps for installing the appliance.

If none of the above suggestions resolve the problem, contact Avigilon Technical Support.

Troubleshooting Installation—Networking

By default, the Avigilon AI Appliance acquires an IP address on the network through DHCP. If you need to set up the Avigilon AI Appliance to use a static IP address or any specific network configuration, see the *Windows Help and Support* files for more information.

Installing and Starting the Avigilon Control Center™ Client

To install the ACC Client software:

1. Open a web browser from a network workstation with network access to the Internet.
2. Download the ACC Client software from the Avigilon website: avigilon.com.
3. Install the ACC Client software on a network workstation with network access to the device

Complete the following procedures to start, log in to, and log out of the ACC Client software .

Starting Up and Shutting Down the ACC Client Software

After you install the ACC Client software, start the application and log in to the Avigilon AI Appliance.

The ACC Client software should start automatically when your Windows workstation starts. Refer to the following steps if it doesn't.

Starting Up the Client Software

Perform one of the following:

- In the Start menu, select **All Programs** or **All Apps** > **Avigilon** > **Avigilon Control Center Client**.
- Double-click  or  desktop shortcut icon.

When you are prompted, log in to your site. You can only access cameras and video after you log in.

The “Select one or more sites to log in.” message appears. If you are connected only to the new device, one site is listed in the left navigation panel. Otherwise, all the sites that are connected to the same network are listed. The site name of your new device is the hostname that you assigned in the Web Interface. You can use Find Site... to specify the IP address or hostname of the device if the list is long.

Shutting Down the Client Software

1. In the top-right corner of the Client software, select  > **Exit**.
2. When the confirmation dialog box appears, click **Yes**.

Logging In to and Out of a Site

After you start the ACC Client software, you are immediately asked to log in to a site.

By default, the Avigilon AI Appliance appears as a site with the same name as the hostname.

The default username is *administrator* with no password.

Logging In

1. Open the Site Login tab. The Site Login tab is automatically displayed if you are launching the Client software for the first time.

To manually access the Site Login tab, do one of the following:

- From the top-right corner of the window, select  > **Log In...**
- From the top-left corner of the application window, click  to open the New Task menu, then click .

2. On the left side of the Site Login tab, select one or more sites.

If the site you want to log into is not shown, click **Find Site...** to discover the site.

3. Enter your username and password for the selected sites.
4. Click **Log In**.
5. If Two-Factor Authentication is required, a dialog box is displayed.
 - a. The first time you log in, a QR code is displayed. On your mobile device, scan the QR code with a TOTP authenticator app like the Google Authenticator™ mobile app or the FreeOTP Authenticator™ mobile app. If you cannot scan the QR code, enter the 20-character key into the authenticator app.

The authenticator app will display a 6-character verification code.

- b. The next time you log in, use the authenticator app to get your verification code.
- c. Enter the code in the **Verification Code:** box.

Tip: Select the **Trust this device for 30 days** check box to avoid entering a verification code each time you log in.

- d. Click **OK**.

You are logged in to the selected sites.

If you want to be notified when new or disconnected sites come online, select the **Notify me when additional sites become available** check box.

If you want to see the login page each time you launch the Client software, select the **Show this tab on startup** check box. If you prefer not to login each time, you can disable this option and configure automatic login from the Client Settings dialog box.

Logging Out

You can log out of one or all sites at any time.

To...	Do this...
Log out of one or select sites	<ul style="list-style-type: none">• In the System Explorer, select one or more sites then right-click and select Log Out.
Log out of all sites	<ol style="list-style-type: none">1. In the top-right corner of the Client, select  > Log Out.2. In the confirmation dialog box, click Yes.

Moving the Avigilon AI Appliance to a Site

On its own, an Avigilon AI Appliance has no functionality. After you log on to the ACC Client for the first time, you must move it into the site connected to the non-analytics cameras for whose feeds you want the appliance to provide analytics processing.

1. In the site Setup tab, click .

The Site Management tab lists all the sites that you can access and all the devices that are connected to each site.

If you do not see the site you want, you may need to add the site.

2. Locate the ACC site in the list into which you want to move the Avigilon AI Appliance.
3. Select the Avigilon AI Appliance. You will see the available options at the bottom of the application window.
4. To add the  Avigilon AI Appliance into a site:
 - Select the  Avigilon AI Appliance and drag it into the ACC site.
 - Or, select the  Avigilon AI Appliance then click **Connect to Site...** at the bottom-right corner of the tab. In the following dialog box, select the site you want the appliance to connect to.

NOTE: More than one Avigilon AI Appliance can be connected to an ACC site. Each appliance will appear separately in the system tree.

Configuring the Appliance

The Avigilon AI Appliance can be configured through a Web Interface that is accessible from any browser on the network. The Web Interface allows you to configure the Avigilon AI Appliance server settings, set how the server keeps time, and allows you to remotely restart or upgrade the server. Throughout this section, the term device is used to identify the Avigilon AI Appliance.

Accessing the Web Interface

1. Access the Web Interface sign in page, using either of the following methods:

- **Discovering the Device**

1. Use File Explorer on a Windows computer or Finder on a Macintosh computer.

You are looking for a network device labeled “Avigilon AI Appliance” with the serial number appended.

2. Right click and select **View Device Webpage** to open the device sign in page in your default web browser.

- **Using the IP Address or Hostname**

1. Open a web browser from a network workstation with network access to the device.
2. Enter its IP address or hostname into the web browser to open the device sign in page:

`https://<Device IP address>|<Device hostname>/`

For example: `https://192.168.1.40/` or `https://my_AvigilonDevice/` , where `my_AvigilonDevice/` is the hostname configured in the Device panel.

Tip: If you forgot the IP address or hostname that was configured during the installation process, the information is listed in the ACC Client software, in the server Setup tab.

2. To log in to and out of the Web Interface:

- a. To log in, enter the Web Interface username and password.

The username is always `administrator`. Use the password you configured when you logged in to the device for the first time. For more information, see *Starting the Avigilon AI Appliance for the First Time* on page 6.

The Web Interface Dashboard is displayed in your web browser.

- b. To log out of the Web Interface, click the log out icon on the right side of the top banner.

Web Interface Launch Page

The Web Interface launch page consists of a Dashboard navigation bar and a set of panes displaying status information:

- **System:** Displays Ready when the device is fully operational, and Rebooting then Initializing when the device is restarting. The panel provides technical information about your device: product name, part number, serial number, and firmware version.
- **Storage:** Displays the storage capacity of the device and the status of the storage disks.

Server Panel

On the **Server** panel use the:

- General pane:

To...	Do this...
Shut down all the services before you shut down the device.	Click Stop .
Start up all the services after they have been shut down.	Click Start .

- Service and RTP Ports panes

To change the UDP and TCP ports used to communicate with the appliance:

- In the Service Ports pane, enter the **Base** value to use for the HTTP, HTTPS, and UDP ports and click **Apply**. The list of ports is updated.
- In the RTP Ports pane, enter the **Base** value to use for the UDP ports and click **Apply**. The range of ports available for RTP is updated.

Important: These changes can only take effect after the system restarts. When you are prompted, allow the system to restart.

Logs Panel

Use the Logs page to view service logs. The logs are typically requested by Avigilon Technical Support to help resolve an issue.

By default, the page displays 100 warning messages from the logs.

You can filter the logs to display the information that you need:

1. In the drop down list, select the type of application log that you need. The options are:
 - Analytics Service **Exception Logs**
 - Analytics Service **FCP Logs**
 - Analytics Service Logs
 - **Exception Logs**
 - **FCP Logs**
 - **Server Logs**
 - **WebEndpoint Logs**
2. In the **Maximum Logs** drop down list, select the number of log messages you want to display each time.
3. Enter text in the **Filter** field to apply a filter to the log listings.
4. Click the **Sync** button to display the updated logs.

Device Panel

On the Device panel use the:

- **General** pane to:
 - **Reboot** the device from the Web Interface. You can monitor the progress of the device as it reboots from the *Web Interface Launch Page* on page 11.
 - Select a **Language** for the Web Interface from the drop down list.
- **Hostname** pane to enter a new **Hostname**. Click **Apply** to make the change.

The default hostname is the same as the server name. The server name is in the form <Model>-<Serial Number>

- **Password** pane to change the administrator password:

NOTE: You cannot change the default *administrator* username on the Web Interface, only the password.

1. To change your password, confirm your identity by entering your current password in the **Old Password** field.
2. Enter the new password in the **New Password** field.
3. Re-enter the new password in the **Confirm Password:** field.
4. Click **Apply** to save the new password.

CAUTION — You will lose configuration data if you forget your password. To reset the administrator password, you must reset the device to the factory default settings. This will delete the configuration data. For more information on performing a factory restore, see *Restoring to Factory Default Settings* on page 23.

- **Time** pane to customize how the device keeps time:
 - Select your **Time Zone** from the drop-down list. The time zone that you set here is used by the recording schedules defined in the ACC Client software.
 - Select whether you want to keep synchronized time through a Network Time Protocol (NTP) server (recommended) in the NTP field.

Select:

- **DHCP** to automatically use the existing NTP servers in the network.
- **Manual** to enter the address of NTP servers in the Servers list. Controls to add and delete addresses in the list, and reorder them are activated.
- **Off** if you do not use an NTP server.

NOTE: The default set of NTP servers is always present in the Servers list. The default list cannot be rearranged or deleted:

- 0.pool.ntp.org
- 1.pool.ntp.org
- 2.pool.ntp.org
- 3.pool.ntp.org

Click **Apply** to save the time settings.

- **Upgrade Firmware** pane to install the latest version of the firmware on your device, or to reinstall the firmware if it becomes corrupted. For more information, see *Upgrading the Firmware* on page 22.

Network Panel

On the Network panel, you can change network connections of the appliance. Four network connections are supported. Any of the network connections can be used to join the Avigilon AI Appliance to an existing ACC site. The appliance must be on a network where it can be discovered by the ACC Client and can be clustered to other ACC servers. Users who administrate the appliance through the ACC Client software connect to the device through this network.

The camera network is a closed network that typically only contains cameras. This reduces the amount of interference with video recording.

You can perform any of the following panes In each of the panes in the Network panel:

To...	Do this...
Set how the device obtains an IP address for each network.	<p>In each of the panes in the Network panel, toggle Automatic on to discover connected networks automatically (the default setting), or off to manually specify the connections. Enter the appropriate values in the following fields if you are manually entering the connection settings:</p> <ul style="list-style-type: none">• IP Address• Subnet Mask• Default Gateway <p>Click Apply to save your changes.</p>
Set how the device obtains a named address from a DNS server.	<p>Toggle Automatic on to discover connected DNS servers automatically (the default setting), or off to manually specify the DNS servers. Controls to add and delete addresses in the list, and reorder them are activated.</p>

System Logs Panel

Use the System Logs page to view the device logs. The logs are typically requested by Avigilon Technical Support to help resolve an issue.

By default, the page displays 100 warning messages from the Logs.

You can filter the logs to display the information that you need:

1. In the drop down list, select the type of application log that you need. The options are:
 - System Logs
 - Boot Logs
 - Web Server Logs

2. In the **Maximum Logs** drop down list, select the number of log messages you want to display each time.
3. Enter text in the **Filter** field to apply a filter to the log listings.
4. Use **Filter** to apply filter to the logs.
5. Click the **Sync** button to display the updated logs.

Configuring the ACC Software

Complete the following procedures in the ACC client to configure the ACC software on the to work with your newly installed device.

For more information about any of the following procedures, see the Help files provided with the ACC Client software.

Changing the Site Administrator Password

After you log in to the site for the first time, it is recommended that you change the default site administrator password. This is only required for a new site.

1. After you login, the Change Password dialog is displayed.
2. Enter a new password and then confirm the new password.

The password must meet the minimum strength requirements.

-  — password meets the strength requirements.
-  — password does not meet the strength requirements, enter a new password.

The password strength is defined by how easy it is for an unauthorized user to guess. If your password does not meet the strength requirements, try entering a series of words that is easy for you to remember but difficult for others to guess.

3. Click **OK**.

WARNING — If you forget the site administrator password, resetting the password requires restoring the factory default settings on every server in the site. To avoid this issue, it is highly recommended that you create at least one other site administrator level user as a backup.

Accessing the Setup Tab

The Setup tab is where you configure your system.

In the Setup tab, the System Explorer is displayed on the left and the settings are displayed on the right. The Setup options change depending on the site, server, or device that is selected in the System Explorer.

To open the Setup tab, do one of the following:

- At the top-left corner of the application window, click  to open the New Task menu and then click **Site Setup** .
- In the System Explorer, right-click the site or device you want to configure and then click **Setup**.

NOTE: Server settings are only available after the site or device Setup tab is open. In the System Explorer, select the server you want to configure.

Enabling Server Analytics

You can enable the system to detect classified objects using self-learning video analytics on any non-analytics camera connected to the appliance.

Be aware that there is a limit to the system's analytic capacity. Refer to the Total Analytic Load bar to avoid exceeding the system's analytic capacity.

NOTE: This appliance does not currently support unusual motion detection.



1. In the server Setup tab, click .
2. In the following dialog box, a list of connected cameras are displayed.

Only cameras without the Classified Object video analytics mode enabled are displayed.

If you do not have access rights for a camera, it will not be shown in this list.

3. To enable Classified Object video analytics, select the check box beside the connected camera. If you have an Avigilon Artificial Intelligence (AI) Appliance, enabling video analytics also enables the Avigilon Appearance Search feature.

The Total Analytic Load bar displays the appliance's video analytics capacity. The percentage is based on the enabled camera's current Compression and Image Rate settings. You cannot exceed a Total Analytic Load of 100%.

4. Click **OK**.

Your settings are now saved.

Analytic Settings

The following list include some settings that you can use to further customize your system. After enabling analytics on the Avigilon AI Appliance for a specific camera, you can navigate to the camera setup dialog using the system tree to configure the analytic rules. See the ACC application Help files for details about how to configure these settings.

- Adjust camera settings
 - If you want the camera to record at a different image rate, you can adjust the camera's Compression and Image Rate settings.

NOTE: For optimal analytics performance, the source camera should stream a minimum of 10 images per second (ips).

- Classified object detection

- Available to cameras that have server-side analytics enabled, and available to other Avigilon video analytics cameras.
- Use the Analytic Events dialog box to configure classified object motion detection. Once configured, you can receive events, trigger alarms, define rules, and record video when specific object motion requires your attention.

Advanced Features

The following list include some advanced features that you can use perform actions with the Avigilon AI Appliance. See the ACC Client application Help files for details about how to use these features.

- **Displaying Site Health**

- To help you monitor the health of your site and Avigilon AI Appliance, you can access a quick overview in the Site Health tab.

NOTE: If your sites are configured into a family, you will be able to see the status of all child sites if you are logged into the parent site. If you are only logged into a child site, the parent site status is displayed as unknown.

- The following status icons identify the status of each component in the ACC software:

-  The component is functioning normally.
-  The component requires your attention.
-  The component is unavailable or offline.
-  The component status is unknown.

- **Analytics Service:**

An icon displays the ACC Analytics Service status:

-  The ACC Analytics Service is online.
-  The ACC Analytics Service was overloaded at some point in the last 3 days. Reduce the Total Appearance Search Load by disabling the Avigilon Appearance Search feature on some cameras.
-  The ACC Analytics Service is offline.

- **Peak Load (Last 3 Days):**

The highest percent usage of the analytics service over the last 3 days.

- **Avigilon Appearance Search**

- With the Avigilon Appearance Search feature, operators can search for and find all instances of a person or vehicle in recorded video quickly and easily.
- When used with the Avigilon AI Appliance, the Avigilon Appearance Search feature can search for instances of a person or vehicle in both cameras with video analytics and cameras without video analytics.
- See the application Help files for details about how to perform an Avigilon Appearance Search.

LED Indicators

The following tables describe what the LEDs on the appliance indicate.

Diagnostic Indicators

The diagnostic indicators on the front panel highlight system issues during system startup.

NOTE: The diagnostic indicators only light-up when the appliance is powered.

LED Indicator	Description
 Hard drive	<ul style="list-style-type: none">Blinks orange — the hard drive is experiencing an error.
 Temperature	<ul style="list-style-type: none">Blinks orange — there is a thermal error. Errors include:<ul style="list-style-type: none">temperature out of rangefan failure <p>Check that the fans are functioning correctly and the air vents are not blocked.</p>
 Electrical	<ul style="list-style-type: none">Blinks orange — there is an electrical error. Errors include:<ul style="list-style-type: none">voltage out of rangefailed power supplyvoltage regulator <p>Check the power status indicator to confirm if it is an issue with the power supply.</p>
 Memory	<ul style="list-style-type: none">Blinks orange — there is a memory error.
 PCIe	<ul style="list-style-type: none">Blinks orange — there is a PCIe card error. Restart then upgrade the device firmware if the error persists.
System health and System ID	<ul style="list-style-type: none">Blue — powered and in good healthBlinking blue — System ID mode activeOrange — fail-safe modeBlinks orange — there is an error

Power Status Indicators

The power button on the front lights up when power is on.

Additional information about the power supply is provided by the power status indicator on the power supplies at the back. The following table describes what the LEDs indicate:

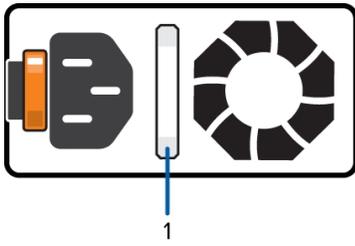


Figure 1: (1) The power status indicator.

LED Indicator	Description
Off	Power is not connected.
Green	Power is supplied.
Flashing green	The firmware update is being applied to the power supply unit.
Flashing green then turns off	The redundant power supply is mismatched. This only occurs if you have a secondary redundant power supply installed.
Flashing orange	There is a problem with the power supply.

Upgrading the Firmware

Upgrade the firmware to ensure the appliance is operating with the latest software, to upgrade from obsolete software, or to replace corrupted firmware. When you upgrade the firmware, all your current settings and all recorded video is retained.

Choosing to upgrade corrupted firmware helps you avoid reverting to the factory default settings. When you revert to the factory default settings, all of the configured settings are lost.

Before you can upgrade or reinstall the firmware, download the latest version of the firmware (.fp) file from the Avigilon website (avigilon.com) and

1. If you have access to the Internet from your web browser while using the Web Interface, from the Dashboard, navigate to the About panel. and click Firmware Updates.

Otherwise, from a workstation connected to the Internet, navigate to avigilon.com and download the appropriate Avigilon AI Appliance firmware.

2. Save the file to a location accessible to the Web Interface.

You can upgrade the firmware from:

- The Web Interface
- An ACC Client connected to an ACC-based NVR in the same site as the Avigilon AI Appliance. Refer to the procedure for upgrading servers in a site in the Help files provided with the ACCClient.

To upgrade the firmware from the Web Interface:

1. Use one of these methods:
 - Drag-and-Drop
 1. Use Windows Explorer to navigate to the location of the downloaded firmware file.
 2. Click on the file in the Explorer window and drag it over the **Drop '.fp' file here or click to upload** area.
 - Click to upload
 1. Click in the **Drop '.fp' file here or click to upload** area. The Windows Open dialog box is displayed.
 2. Use Windows Explorer to navigate to the location of the downloaded firmware file.
 3. Click on the file in the Open dialog box and click **Open**.
2. Click **OK** to confirm you want to continue. An upload progress indicator appears. Wait while the file is uploaded and verified. After the file is verified, the device will reboot. The Web UI Communication Lost message appears while the device is rebooting. The process takes several minutes. When the device has rebooted, the connection to the Web Interface is restored in your web browser.

You can cancel a firmware upgrade that is in progress only during the upgrade and verification phase. Click **Cancel upload** before the file has downloaded.

NOTE: If an error occurs during the upload phase or the upgrade process or if the firmware becomes corrupted, you are prompted to remove the file. The system may revert to the factory default settings as the system reboots.

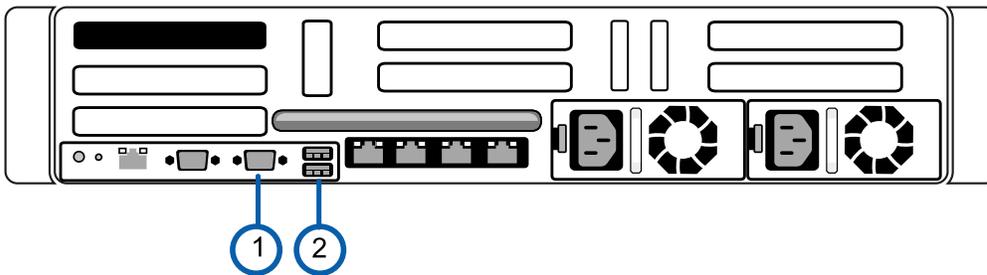
Restoring to Factory Default Settings

You may have to restore the Avigilon AI Appliance to the original factory default settings if the firmware becomes corrupted, or if you forget the administrator password and have no backup administrator account with a known password.

CAUTION — All configuration data is deleted when you restore the appliance to the factory default settings. The firmware installed on the machine at the factory before it was delivered is restored. After the appliance is restarted, you must reconfigure the appliance as though it was newly installed, and upgrade the firmware to the latest release.

To restore the factory settings:

1. Connect a monitor and keyboard to the Avigilon AI Appliance to the connections on the rear of the appliance.



❶ VGA connector (for monitor)

❷ USB connector (for keyboard)

2. Unlock and remove the front bezel to access the power button.
3. Use the power button to powercycle the appliance and start the reboot process.
The Avigilon logo and a progress bar appear on the monitor while the BIOS is loading.
4. When the progress bar indicates the BIOS loading is nearly complete, press and hold down the **f** key on the keyboard.
Within a minute the bootloader welcome screen appears. The first progress message indicates that the factory reset button has been pressed.
5. Release the **f** key when the progress message “reset latched -- waiting for release” appears.
Within a minute the bootloader welcome screen appears. The first progress message indicates that the factory reset button has been pressed.
6. After the Avigilon AI Appliance has completed the reboot, connect a configuring laptop to the *camera network* port on the appliance. On the laptop:

- a. Click to open the Avigilon AI Appliance in a supported web browser (see *System Requirements* on page 2).
- b. Enter this IP address: `https://169.254.100.100`.
- c. Click past any connection messages displayed by the browser.
- d. When you are prompted, enter a new password for the administrator username.
The Web Interface appears after you set the new administrator password.
- e. In the navigation sidebar, click **Device** and click **Upgrade Firmware** to install the latest version of the firmware on your device. See *Device Panel* on page 13.
- f. Enter all of the configuration information for the appliance. Complete the procedure *Starting the `[[[Undefined variable NVR_ProductNames.AI Appliance]]]` for the First Time* on page 1.

Limited Warranty and Technical Support

Avigilon warranty terms for this product are provided at [avigilon.com/warranty](https://www.avigilon.com/warranty).

Warranty service and technical support can be obtained by contacting Avigilon Technical Support: [avigilon.com/contact-us/](https://www.avigilon.com/contact-us/).