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Alarm Gateway and VidProxy Installation and Configuration Guide

for the Avigilon Control Center™ and Access Control Manager™ Systems

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Introduction

The Avigilon Control Center (ACC) and Avigilon Access Control Manager (ACM) system integration uses the Alarm Gateway and VidProxy components to share relevant information across both security platforms.

The Alarm Gateway component allows alarms triggered in the ACM appliance to be monitored and recorded in the ACC™ software.

The VidProxy component allows you to see video and receive events from the ACC system in the ACM appliance.

Requirements

The following is required to use the Alarm Gateway component and the VidProxy component:

- The ACC Server software version 7 or later. If you already use this integration with an earlier version of ACC Server software you will have to upgrade to release 7.
- The ACM Appliance software version 6.16 or later.
- The Avigilon integration executable file: `AvigilonAcmIntegration-6.14.20.2.exe`.

Alarm Gateway Component Requirements

Before you install the Alarm Gateway component, make sure the ACC Server software and the ACM software are installed on the same network. The Alarm Gateway component can be installed on any workstation that is connected to the same network. It is recommended that you install this component on the same server as the ACC Server software, together with the VidProxy component.

VidProxy Component Requirements

The VidProxy component must be installed on the same server as the ACC Server software.

> **Note:** If you are installing both Avigilon integration components, make sure all requirements are met.

The integration requires an ACC Standard or Enterprise edition system and any ACM system. The number of camera channels or readers does not make a difference to the integration.

Licensing Notes

A valid license for an ACC Standard or Enterprise edition is required. If you are :

- Upgrading to the ACC software release 7, and qualify for the free upgrade your licenses for ACC software release 6 Standard or Enterprise editions are valid.
- Upgrading to, or installing for the first time, the ACC software release 7, licenses for the ACC release 7 Standard or Enterprise editions are valid.

For More Information

For more information about the procedures outlined in this guide, refer to the following specific software documentation:

- *Avigilon Control Center Client User Guide*
- *Avigilon Control Center Server User Guide*
- *Avigilon Access Control Manager User Guide*

Installing the ACM - ACC Integration

Both the Alarm Gateway component and the VidProxy component can be installed from the same installer.

By default, both components are automatically selected to install together. If the integration must be installed at separate locations or if you only need one of the components, make sure you only install the component that is required.

1. Run `AvigilonAcmIntegration-6.14.20.2.exe`.
2. Follow the prompts until you arrive at the following page:
   - **Avigilon AcmGateway** is the Alarm Gateway component.
   - **Avigilon VidProxy** is the VidProxy component.
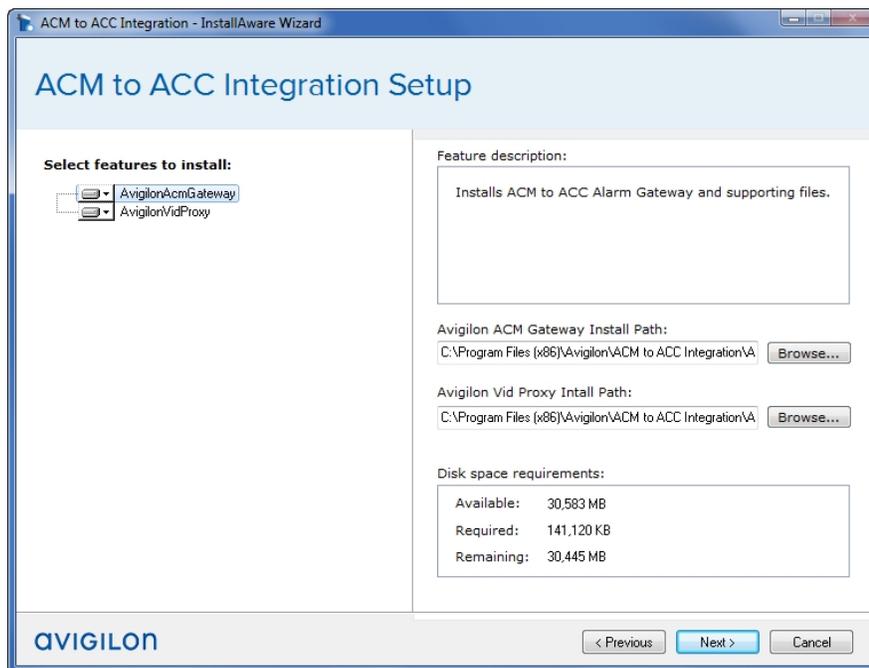
3. Click the component that you do *not* want installed and select the **Entire feature will be unavailable** option.
4. Complete the remaining prompts and finish the installation.

The Alarm Gateway Component

Configuring the ACC System for the Alarm Gateway Component

Adding an Integration User in the Avigilon Control Center Software

To protect the security of the Avigilon Control Center software, add a user in the ACC Client software specifically for connecting the integration. The user you add will be used to connect the ACC system to the Avigilon integration software. See the *Avigilon Control Center Client User Guide* for more details.

The integration user does not need any access permissions but must be added as a recipient to all ACC system alarms or the alarm will not be listed in the gateway configuration tool.

> **Note:** If the password for the ACC user changes, restart the Alarm Gateway service to see alarms triggered since the password was changed.

Adding ACC System Alarms

Alarms are manually created in the ACC Client software. Create as many alarms as needed for mapping in the gateway.

> **Note:** The ACC user that was created for the integration must be added as an alarm recipient or the alarm will not be displayed in the gateway configuration application. For more information, see *Adding an Integration User in the Avigilon Control Center Software* above.

1. In the ACC Client software, open the site Setup tab and click .
2. In the Alarms dialog box, click **Add**.
3. On the Select Alarm Trigger Source page, select **External Software Event** from the Alarm Trigger Source: drop down list. Click after you complete each page.
4. On the Select Linked Devices page, select the cameras to link to this alarm, and set the **Pre-Alarm Record Time:** and **Recording Duration:**.
5. On the Select Alarm Recipients page, select the ACC software user that was added for the integration. You can also add any other groups or users that need to be notified when this alarm is triggered.

6. (Optional) If you would like to trigger an action when an alarm is acknowledged, select **Activate selected digital output(s) on alarm acknowledgment** check box.

    a. Select the digital outputs to be activated and specify the duration.

    b. Select **Require user confirmation before activating digital output(s)** check box if the user needs to confirm the alarm before the digital output action is initiated.

7. Enter a name for the alarm and set the alarm priority. The alarm name is used to identify the alarm during the integration.

8. Ensure **Enable alarm** check box is selected then click .

Configuring the ACM Software for the Alarm Gateway Component

Adding an Integration User in the ACM System

To protect the security of the ACM system, add a user specifically for connecting the integration to the ACM software. See the ACM Help files for more information.

The integration user must be delegated the following permissions to enable all integration features:

- Identities Listing
- Get Alarm Types For Device
- Doors Listing
- Panels Listing
- Subpanels Listing
- Inputs Listing
- Outputs Listing
- Alarm Monitor Acknowledge
- Alarm Monitor Clear

This user will be used to connect the ACM system to the Alarm Gateway.

Configuring Alarms in the ACM System

In the ACM system, alarms are events that have been assigned to an alarm event type.

Adding Alarm Event Types

By default, there are no alarm event types. To assign an existing event type to be an alarm or create a new alarm event type, in the ACM system, go to the Event Type Listing Page (**Settings > Event Types**).

To set an existing event type to be an alarm:

1. Select the event type you want to set as an alarm.
2. On the following page, select the **Alarm** check box.
3. Change any other settings as required.
4. Click **Save**.

To create a new alarm event type:

1. Click **Add New Event Type**.
2. On the following page, give the new event type a name and select the **Alarm** check box.
3. Set any of the other settings as required.
4. Click **Save**.

Repeat the previous steps to set all required alarm event types.

Any events that are assigned to the event types will now generate an alarm when an event occurs.

Assigning Events to Alarm Event Types

Assign all required events to the appropriate alarm event type.

To add events to the event type:

1. Select **Physical Access > Events**.
2. From the Events Listing Page, select any event that you want to assign to the event type.
3. On the following page, set the **Event Type** option to be one of the configured alarm event types.
4. Make any other changes as required.
5. Click **Save**.

Configuring the Alarm Gateway Component

The Alarm Gateway is composed of two parts: a Windows service that runs automatically in the background, and a Configuration Tool software that is used to map alarms between the two systems.

Configuring Server Settings

Configure the Alarm Gateway to access the two applications.

After you install the integration software, the Configuration Tool automatically opens the Configure Connections window.
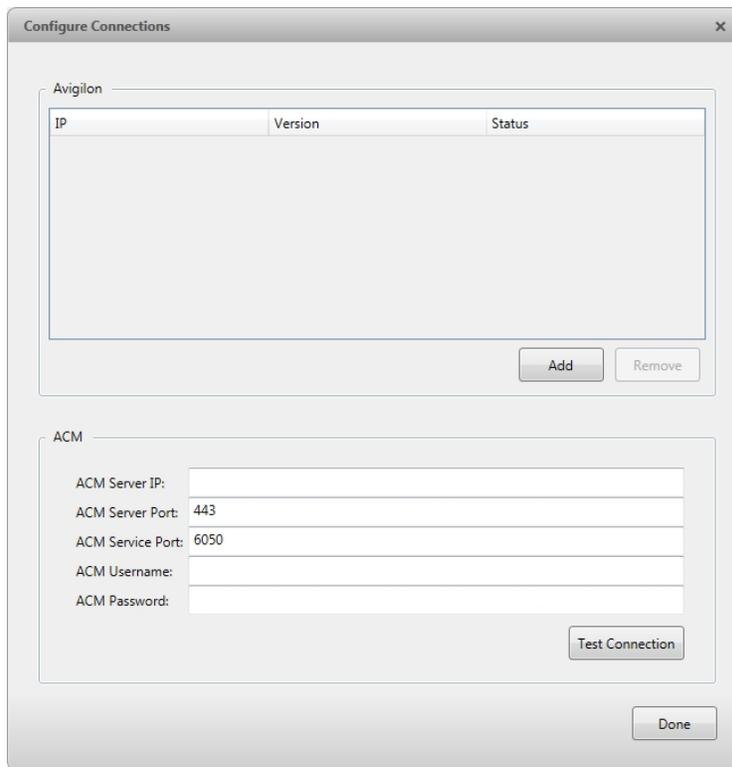
If you've installed the integration software before, this window is not automatically displayed. Your previous settings are remembered and the main Configuration Tool window opens instead. In this case, click **Configure Connections** to open the Configure Connections window.

In the Configure Connections window, add the details needed for the integration to access the ACC system and the ACM system.

1. Click **Add**.
2. In the following dialog box, enter the ACC Server IP address, username and password.

    Use the username and password that was created for the integration. See *Adding an Integration User in the Avigilon Control Center Software* on page 4.
3. In the ACM area, enter the ACM server details:
    a. **ACM Server IP:** enter the ACM server IP address or hostname.
    b. **ACM Server Port:** enter the server port number. This is the web server port number that is used to connect to the ACM appliance. The default value is 443.
    c. **ACM Service Port:** enter the service port number (6050). This is the port number that is used to access diagnostics and system information from the ACM appliance - if left blank the alarm gateway will not work. (Prior to the ACM 5.8.2 release the system automatically set the port.)
    d. **ACM User Name:** enter your user name for the ACM server.
    e. **ACM Password:** enter the password for the user name you entered.
4. Click **Test Connection** to confirm that the integration alarm gateway is able to communicate with both systems.
5. Click **Done**. The Configuration Tool window is displayed.

The integration searches both software systems for alarms that can be mapped together.

If you need to add new Avigilon servers, or edit the server settings later, click **Configure Connections** in the Configuration Tool window.

Mapping Alarms

In the Configuration Tool is a list of all the current alarm mappings, and all the available alarms from the ACC software and the ACM software.

If the Configuration Tool is not already open, select **All Programs** or **All Apps** > **Avigilon** > **ACM to ACC Alarm Gateway** > **ACM to ACC Alarm Gateway**.
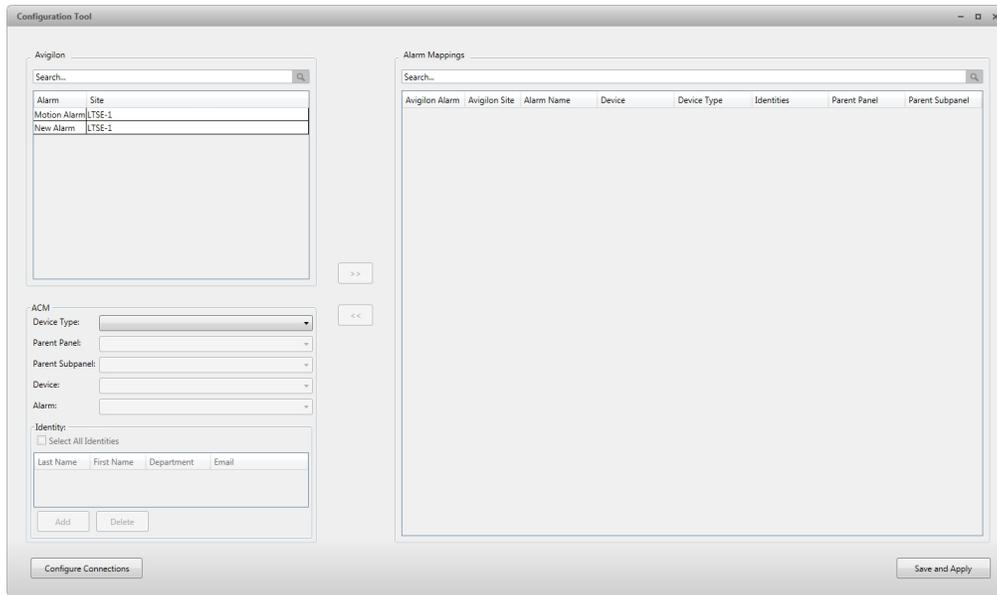
To map alarms together, complete the following steps:

1. In the Avigilon area, select an ACC alarm from the list.

    > **Tip:** Use the **Search** bar at the top of the list to find specific alarms.

2. In the ACM area, select the device commands that will trigger an alarm for the integration.
    a. **Device Type:** select the type of device the alarm is related to.
    b. **Parent Panel** and **Parent Subpanel**: if enabled, select the panel the device is connected to.
    c. **Device:** select the specific device that will trigger the alarm. Devices are listed by their configured name.
    d. **Alarm:** select a specific alarm.

e. In the Identity area, select the specific user(s) that will trigger the alarm.

> **Tip:** Select the **Select All Identities** check box if you want to automatically select all the current identities and any identities that are added to the list later. If you only want to select the current identities, do not select that check box.

3. Click **>>** to map the alarms together.

> **Tip:** To see a list of all the identities that are linked to an ACM alarm, double-click the **Identities** cell of the mapped alarm.

4. Repeat the previous steps until all the required alarms have been mapped.

5. Click **Save and Apply**. The integration alarm gateway is updated with all the new or changed mappings.

Backing Up Mapped Alarms

After you finish mapping all the alarms in the Configuration Tool, you can choose to back up a copy of the mappings.

1. Navigate to `C:\Program Files\Avigilon\ACM to ACC Alarm Gateway`.

> **Note:** The file path may be different depending on how your system is configured.

2. Copy and paste the `AlarmConfig.xml` file to a backup location.

Restoring Mapped Alarms

When you have a backup copy of the mapped alarms, you can restore the mapped alarms any time.

1. Locate your backup copy of the `AlarmConfig.xml` file.

2. Copy and paste the backup `AlarmConfig.xml` file into `C:\Program Files\Avigilon\ACM to ACC Alarm Gateway`.

   Allow Windows to overwrite the copy that is currently in the folder.

3. Open the integration Configuration Tool. The restored mappings should be displayed in the Alarm Mappings list.

4. Click **Save and Apply** to update the integration alarm gateway and apply the alarm mapping changes.

Monitoring Alarms

Once the alarms have been mapped in the Alarm Gateway, you can begin monitoring alarms in either the

ACC software or the ACM system.

Any alarm action in one system will be reflected in the other. For example, when you acknowledge an alarm in the ACC Client software, the mapped alarm in the ACM system will be acknowledged as well. Purged alarms in the ACC Client software are the same as Cleared alarms in the ACM system.

For more information about monitoring alarms in the ACC Client software, see the *Avigilon Control Center Client User Guide*.

For more information about monitoring alarms in the ACM system, see the *Access Control Manager Help*.

Troubleshooting

If the following troubleshooting solutions do not resolve the issue, contact Avigilon Technical Support: **avigilon.com/support**.

Unable to Select an ACM Alarm

After you select all the ACM alarm details, you are unable to map the alarm to a ACC alarm.

This may occur if the ACM server is not connected to the integration. Try the following:

1. Make sure the ACM server is accessible on the network.
2. Open the Configuration Tool and click **Configure Connections**.
3. In the Configure Connections window, click **Test Connection** to see if the integration is able to connect to the ACM server.

Configuration Tool Not Displaying ACC Alarms

The Configuration Tool does not list any ACC alarms even though the ACC Server details were entered correctly in the Configure Connections window.

This issue may occur if there is a connection issue with the ACC Server software.

Check the following:

- The ACC Server software is running.
- The ACC Server is on the same network as the integration.
- The ACC user that was created for the integration was added to all the relevant alarms.
- Double-check the IP address, username, and password used in the Configured Connections window.

Mapped ACC Alarms Displayed as Unknown

Mapped alarms in the Configuration Tool are labeled in red as **Unknown**. The ACC Server that the integration is connected to displays an **Error** status in the Configure Connections dialog box.

This issue occurs if the ACC Server has rebooted or is offline.

Perform the following steps to ensure the integration functions correctly:

1. Check that the ACC Server is online and connected to the local network.

2. When the ACC Server is back online, open the Configuration Tool and click **Configure Connections**.

3. If the ACC Server is online, the server status is **Ready**. If it is not, check the server connectivity again.

4. Close the Configure Connections dialog box. The Configuration Tool should now display the correct alarm names.

5. Click **Save and Apply** to ensure the alarm mappings are active.

Mapped ACC Alarms Not Synchronized

A mapped ACC alarm is not triggered in the ACC Client software even though the mapped ACM alarm has been activated.

The ACM software displays the correct alarm state.

This issue may occur if the alarm gateway service did not start correctly:

- In the Windows Services window (services.msc), restart the **ACM to ACC Alarm Gateway Service**. If it was not running, start the service.

Alarms Are Not Displayed in the ACC Client Software

If an alarm is not displayed in the ACC Client software, do the following:

1. Before starting, ensure:
   - The correct ACC Standard or Enterprise edition license was used.
   - The ACC Client alarm settings have the following setting disabled: **Auto-acknowledge alarm immediately after it activates**
   - The ACM server port is 443 and the alarm gateway port (service port) is 6050.
   - The ACC server has only one SDK version installed. If more than one ACC SDK version is installed, the service will not work.
   - The ACC username and password do not contain any Unicode characters.
   - The ACC sites connected to the alarm gateway have not been merged. The alarm gateway may not work after ACC sites are merged.
   - The ACC alarms were moved from the alarm mapping list to the alarm list in the Alarm Gateway Configuration Tool.

2. Reconfigure the ACC or ACM system attributes in the Alarm Gateway Configuration Tool.

3. Ensure the `Alarmconfig.xml` file is on the same machine that installs the ACC software and the integration build.

4. If alarms are still not displayed, in the Windows Services window (services.msc), restart the **ACM to ACC Alarm Gateway Service**.

5. If alarms are still not displayed, uninstall both the integration build and the SDK, then reinstall them both.

The VidProxy Component

Configuring the ACC System for the VidProxy Component

Adding an Integration User in the Avigilon Control Center Software

To protect the security of the Avigilon Control Center software, add a user in the ACC Client software specifically for connecting the integration. The user you add will be used to connect the ACC system to the Avigilon integration software. See the *Avigilon Control Center Client User Guide* for more details.
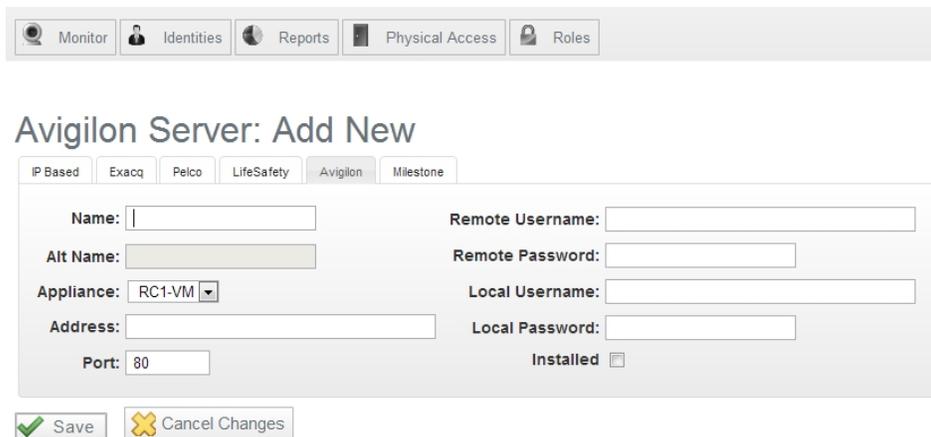
- View Live Images
    - Use PTZ controls
    - Lock PTZ controls
- View Recorded Video

The integration username and password is required to link the ACC system with the ACM appliance.

Adding the ACC Server to the ACM Appliance

To use the VidProxy component, you must add the ACC Server as an external system in the ACM appliance.

1. In the ACM appliance, go to **Settings** > **External Systems**.
2. In the Avigilon tab, click **Add New Avigilon Server**.

3. In the **Name** box, give a name for the ACC Server.
4. In the **Address** box, enter the IP address of the ACC Server.
5. In the **Port** box, enter 8080. Ensure the VidProxy port in the VidProxy config file is set to 8080 then restart the VidProxy service.

> **Note:** If you upgrade the VidProxy component, reconfigure the VidProxy config file to

update the default VidProxy port to 8080.

6. In the **Remote Username** and **Remote Password** boxes, enter the ACC username and password created for the integration.

7. In the **Local Username** and **Local Password** boxes, enter your username and password for the ACM appliance.

8. Select the **Installed** check box.

9. Click **Save**.

A list of all the cameras that are connected to the ACC Server is displayed.

On the Avigilon Server page, the new server is displayed with the status **Backend Up**.

Configuring the ACC System for the VidProxy Component

Adding Cameras to ACM System Doors and Inputs

After the ACC system is connected to the ACM appliance, add cameras to doors and inputs to view ACC video and events.

In the ACM Client:

1. Click **Physical Access** and select the door to open the **Door : Edit** screen.

2. To associate cameras to a door:

   a. Click the **Cameras** tab on the Door: Edit screen. The Camera page is displayed. From this page, you can assign specific cameras to record video of the selected door.

   b. In the **Camera Type** field, specify the external system hosting the cameras associated with this input.

   c. Move the cameras to associate with this door into the Members column.

   d. Click **Save**.

3. To check that the cameras are associated with the inputs for the door:

   a. Click the **Door Hardware** tab.

   b. Click the ✎ icon beside the Door Position or REX # field to open the Input: Edit page for the door. The cameras associated with the door are listed in **Cameras:** field.

See the *Access Control Manager Help* files or *Access Control Manager User Guide* for more information.

Monitoring Video

You can access the door and view live video, or you can access events and view either live video from the door or recorded video of the event itself.

To view live video from a door In the ACM Client:

1. Click **Physical Access** and select the door from the Doors list to open the **Door: Edit** screen.
2. Click the **Cameras** tab on the Door: Edit screen.
3. Click the **Camera** button to open the live video popup window,

To view live or recorded video of an event at a door In the ACM Client:

1. From one of the Monitor pages (Events, Alarms, or Search), select an event or alarm that includes a camera.

   Only events or alarms with an 📷 icon will have video.

2. Click the **Live Video** or **Recorded Video** button.

   The video popup window is displayed.

> **Tip:** The window may look different and have different controls depending on the external camera system that is connected to the Access Control Manager system.

Typically, the video popup window will include the following elements:

	Feature	Description
1	**Camera Controls Tool Bar**	This area includes all the features that you would need to view and control the related camera video. Options typically include switching from live to recorded video, PTZ controls for PTZ cameras, and changing the video display layout.
2	**Camera List**	This area lists all the cameras that are linked to the event. Click the name of a camera to display the video. Use one of the multi-video layouts to display more than one camera at a time.
3	**Image Panel**	This area displays the video stream from the connected cameras. In the top-right corner, you can minimize and maximize the display or close the video.

Important: If the window does not display any video in the image panel, the video stream may be blocked by the security settings in your web browser. For more information see *No Video Displayed in the Video Popup Window* on page 1.

Live and Recorded Video

In the video player, you can choose to watch live or recorded video.

- To switch between live and recorded video, click either the **Live** or **Recorded** button.

Controlling Recorded Video

To control recorded video, make sure the video player is displaying recorded video then do any of the following:

- To select a playback time, click on a point in the Timeline.
- To start playback, click ▶ .
- To stop playback, Click ❚❚ .
  - Click ❚▶ to step forward one frame.
  - Click ◀❚ to step backward one frame.
- To zoom in or out on the Timeline, place your mouse over the Timeline and use the scroll wheel to zoom in or out. You can zoom in to a quarter of a second, and zoom out to see years.
- To pan the Timeline:
  - Click and drag the red time marker through the Timeline.
  - Right-click and drag the Timeline.

Controlling PTZ Cameras

If you have a pan, tilt, zoom camera connected to your system, you can control the PTZ camera by using the on-screen controls in the image panel.

> **Note:** PTZ controls are only available when viewing live video.

To display the PTZ on-screen controls, click .

- In the image panel, drag your mouse from center to move the camera in that direction. The farther the cursor is from the center of the image panel, the faster the camera will move.

Figure 1: PTZ On-screen Controls

- If the camera supports Click to Center, click anywhere in the image panel to center the camera at that point.
- If the camera supports Drag to Zoom, click and drag on the image panel to create a green box to define the area you want to zoom in and see.

Selecting a Layout for a View

You can organize how video is displayed by selecting a View layout.

- On the toolbar, select [icon], then select one of the layout options.

Maximizing and Restoring an Image Panel

If you have more than one image panel displaying video, you can maximize an individual image panel to enlarge the video display.

Maximizing an Image Panel

Do one of the following:

- Inside the image panel, click [icon].
- Double-click the image panel.

Restoring an Image Panel

In a maximized image panel, do one of the following:

- Inside the image panel, click [icon].
- Double-click the image panel.

Troubleshooting

If the following troubleshooting solutions do not resolve the issue, contact Avigilon Technical Support: **avigilon.com/support**.

ACM - ACC Integration Stops Working

Symptom: The ACM - ACC Integration software is correctly installed, and stops working.

Corrective Actions:

On the server where the ACC server software and the ACM - ACC Integration software are installed, check the following:

- The Avigilon VidProxy Windows service is started.

  If the service will not start, the integration port number may be used by a different program. This issue usually occurs when the integration is installed.

- The ACC Server is running.
- The connection is not blocked by a firewall.