AVIGILON™

Avigilon Control Center™ System Integration Guide

with Gallagher Command Centre

AVIGILON™

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Introduction

The Avigilon Control Center 6 and 7 software integration with Gallagher Command Centre software includes the following features:

- View live video from cameras connected to the ACC™ software and control PTZ devices in the Gallagher Command Centre software.
- View recorded video in the Gallagher Command Centre software.
- View classified objects detected by Avigilon self-learning video analytics devices.
- View events from the Avigilon Control Center in the Gallagher Command Centre software.
- Control Avigilon Control Center alarms from the Gallagher Command Centre software.
- Video integration using the Gallagher CCVMS framework.
- Ability to use a license plate number as a credential in Gallagher.

What's New in This Release

New features in the Avigilon Control Center software integration with the Gallagher Command Centre 8.9 software are:

- Support for Gallagher 8.9 software

Requirements

Vendor	Requirements
Avigilon	Avigilon Control Center Server software 6.0 or later
Avigilon	Avigilon third-party integration license: `ACC6-GLGR-CMNDC`
Avigilon	Avigilon integration executable file: `AvigilonGallagher.exe`
Gallagher	Gallagher Command Centre 8.9 The Avigilon third-party integration license supports the CCVMS SDK as the integration now works on the CCVMS framework. The `CommandCentre.lic` file from Gallagher should contain the string **CCVMS SDK =1**.

Upgrading to the Gallagher Command Centre Release 8.9 Software

If you installed the integration software then upgraded to the Gallagher Command Centre release 8.9 software, be aware that the upgrade process overwrites some of the files required by the integration. You may need to reinstall the integration but your settings are not affected.

Upgrading to Avigilon Control Center 6 or 7 Software

If you are upgrading to the Avigilon Control Center 6 or 7 software from version 5 and to the latest version of the integration software, be aware that the Avigilon Control Center software uses a new default port number (38880) for server communication.

After you install the Avigilon Control Center 6 or 7 software upgrade, you must manually update the DVR port number as described in *Gallagher Command Centre DVR Configuration* on page 6. If you had set a custom port number, the system will continue to use the custom port number.

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*

- *Gallagher Command Centre User Configuration Client User Guide*
- *Gallagher Controller API Developers Guide*
- *Gallagher VMS User Interface Functionality Guide*
- *Control Centre VMS Development Guide*

Installation

Install the necessary software and manage licenses for the Avigilon LenelS2 Integration.

Server

1. Install the Gallagher Command Centre Server software.
2. Install the Gallagher Controller API (FTCAPI) on one of the following:
   - The same server as the Gallagher Command Centre if and only if there are no other plugins using FTCAPI installed on that server
   - Any middleware system:

     If the Gallagher Controller API (FTCAPI) is installed on a middleware system other than where Gallagher Command Centre Server is installed, copy the `CommandCentre.lic` license file from the Gallagher Command Centre Server to the FTCAPI installed server. The location for the license file will be:

     `C:\ProgramData\Gallagher\Command Centre\CommandCentre.lic`

     > **Note:** Starting from Gallagher Command Centre 8.9, multiple instances of FTCAPI can be installed on the same machine. It is no longer necessary to set the Gallagher Controller IP port, as required in previous releases.

3. Install the integration software (`AvigilonGallagher.exe`).

   The Avigilon SDK v.6.14.28.2 will be installed as part of the bundle.
4. Apply the Avigilon integration license to one of the Avigilon Control Center Servers in your system.

   As you configure the integration, all references to the Avigilon server needs to point to this server. Servers within the same Site share configuration and set up details, so access to one Avigilon server will give you access to all servers and cameras in the Site.

Client Computer

Complete the following steps for all Gallagher Workstations that require the integration.

1. Install the Gallagher Command Centre Workstation software.
2. Install the integration software (`AvigilonGallagher.exe`).

   The Avigilon SDK v.6.14.28.2 will be installed as part of the bundle.

Silent Installation

It is possible to perform an unmanned, or silent, installation of the integration software. If a silent installation is

not required, simply run the integration installer and follow the onscreen prompts.

> **Note:** Upgrade is not supported if the Gallagher version is lower than v8.7. The old version of the integration must be uninstalled, then install the latest version.

To perform a silent installation, enter the following commands into a Command Prompt window:

> **Tip:** The logging command is optional.

- To install the integration, enter the following string:

  <name of the installer.exe> /quiet /log=*<preferred log directory>* TARGETDIR="*<Gallagher installation bin folder>*" ISCCVMS=<TRUE/FALSE > ISFTCAPI=<TRUE/FALSE>

  Set ISCCVMS=TRUE if you want to install video integration.
  Set ISFTCAPI=TRUE if you want to install Avigilon to Gallagher service.

  For example:

  ```
  AvigilonGallagher.exe /quiet
  /log=c:\Users\first.last\Desktop\Gallagher.log
  TARGETDIR="c:\Program Files (x86)\Gallagher\Command Centre" ISCCVMS=TRUE
  ISFTCAPI=TRUE
  ```

- To uninstall the integration, enter the following string:

  <name of the installer.exe> /quiet /log=*<preferred log directory>* UNINSTALL=YES

  ```
  AvigilonGallagher.exe /quiet
  /log=c:\Users\first.last\Desktop\Gallagher.log UNINSTALL=YES
  ```

- To upgrade the previous integration, enter the following string:

  <name of the upgrade installer> /quiet /log=*<preferred log directory>*

  ```
  AvigilonGallagher.exe /quiet
  /log=c:\Users\first.last\Desktop\Gallagher.log
  ```

Checking the Avigilon License

After you have installed all the required software, check that the Avigilon license was applied correctly.

1. Open the Avigilon Control Center Client.

2. Click ☰ and select Site Setup.

3. Click **License Management**. The License Management dialog box appears.

   The dialog box must show *Integration Support > Yes* or the software was not properly licensed.

Basic Configuration

The basic configuration establishes the link between Avigilon servers and Gallagher servers. This allows the two servers to communicate.

Adding an Integration User in 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 Images

The integration username and password is used to add Avigilon servers to the Gallagher Command Centre software.

In the ACC Client software, complete the following steps:

1. In the Setup tab, select the site then click .
2. In the Groups tab, click **Add Group**.
3. In the following dialog box, select to copy the **Standard Users** group permissions.
4. In the Edit Group dialog box, give the new group a name then select the recommended permissions for the integration.

    Make sure only the required permissions are selected.
5. Click **OK** to save the new group.
6. Select the Users tab then click **Add User** .
7. In the Add/Edit User dialog box, enter a **Username:**.
8. In the Password area, complete the following fields:
    - **Password:** enter a password for the user.
    - **Confirm Password:** re-enter the password.
    - **Password never expires:** you may want to select this check box so that you do not need to update the ACC software password for the integration.
9. Select the Member Of tab and select the check box beside the group you created earlier in this procedure.

    The other two columns display the permissions linked to the selected group.
10. Click **OK**. The user is added to the system.

Gallagher Command Centre DVR Configuration

This configuration allows for communication between the Avigilon Control Center server and the Gallagher Command Centre server.

1. In the Gallagher Configuration Client, open the External Systems Master List Window.
2. Right-click and select **New > External System Server**.
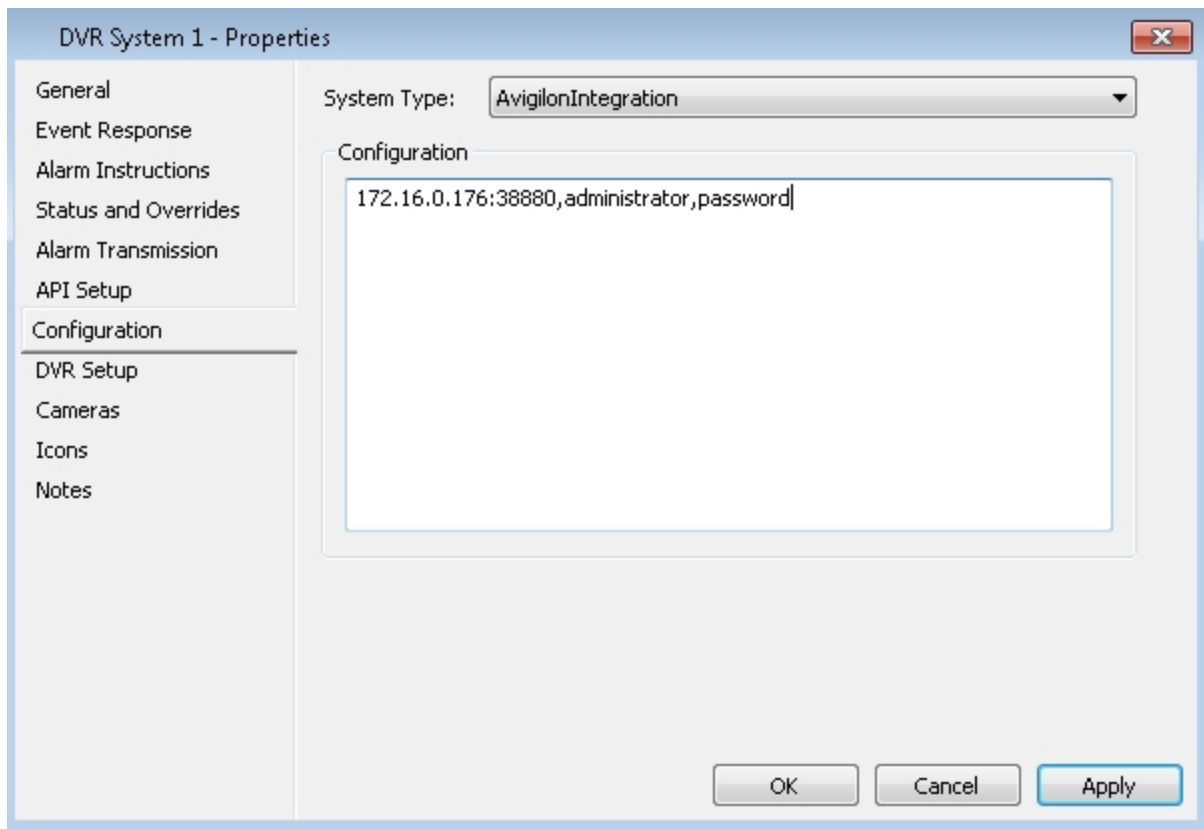3. In the General tab, enter a name for External System Server.
4. In the Setup tab, enter the IP or the name of the system on which FTCAPI is installed and the port number. The default port is 1073.
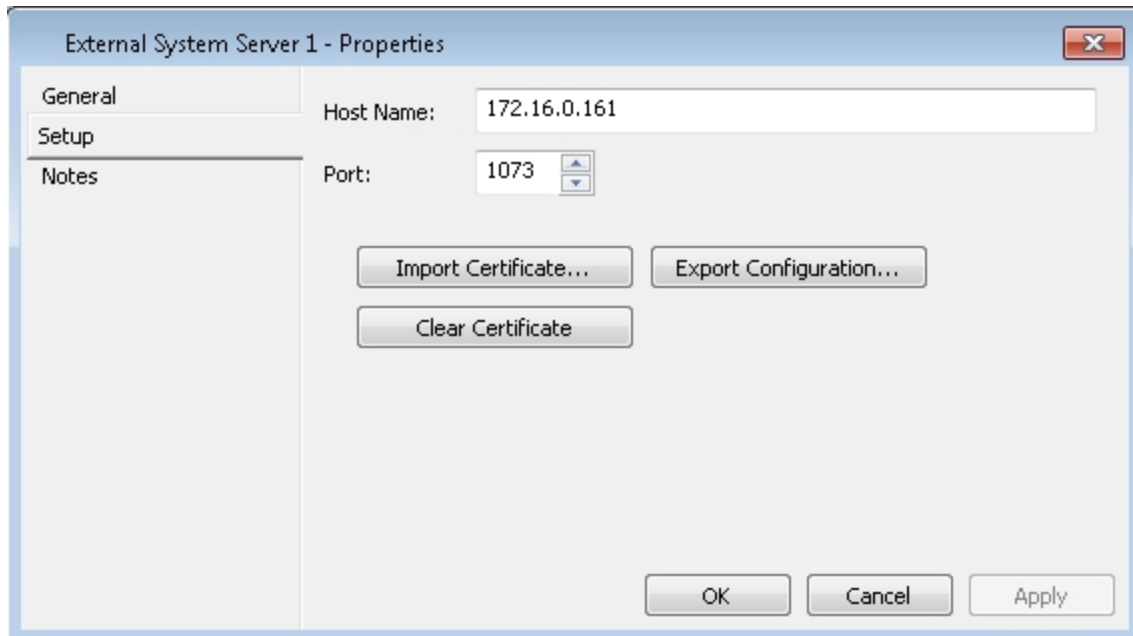
5. Import a Gallagher FTCAPI certificate `GallagherFTCAPI.pem` from location `..\Gallagher\Gallagher FTCAPI`.
6. Export the certificate as `GallagherFTCAPI.ini` and save on the system. The default location is `..\Gallagher\Gallagher FTCAPI`.
7. Right-click on External System Server and select **New > DVR System**.

   The New DVR System—Properties dialog box appears.
8. In the General tab, enter a name for the Avigilon server.
9. In the Configuration tab, enter the server IP address, port, username and password used to access the Avigilon Control Center server. Use the username and password you created in the *Adding an Integration User in Avigilon Control Center Software* on the previous page.

   Use the format *<Server Address:Port>,<Username>,<Password>*

   For example: `172.16.0.176:38880,administrator,password`

DVR System 1 - Properties

General
Event Response
Alarm Instructions
Status and Overrides
Alarm Transmission
API Setup
Configuration
DVR Setup
Cameras
Icons
Notes

System Type: AvigilonIntegration

Configuration

172.16.0.176:38880,administrator,password

OK   Cancel   Apply

10. Select the DVR Setup tab then complete the following fields:

- ○ **Name/IP Address:** enter the IP address for the Avigilon server that is licensed for the integration.
- ○ **Username** and **Password:** enter the same username and password that was used in the Configuration tab.
- ○ In the **Stored** drop down list, select **Avigilon Gallagher CCVMS**.
- ○ In the **Live** drop down list, select **Avigilon Gallagher CCVMS**.
11. Select the **API** Setup tab.

   Complete the following fields:
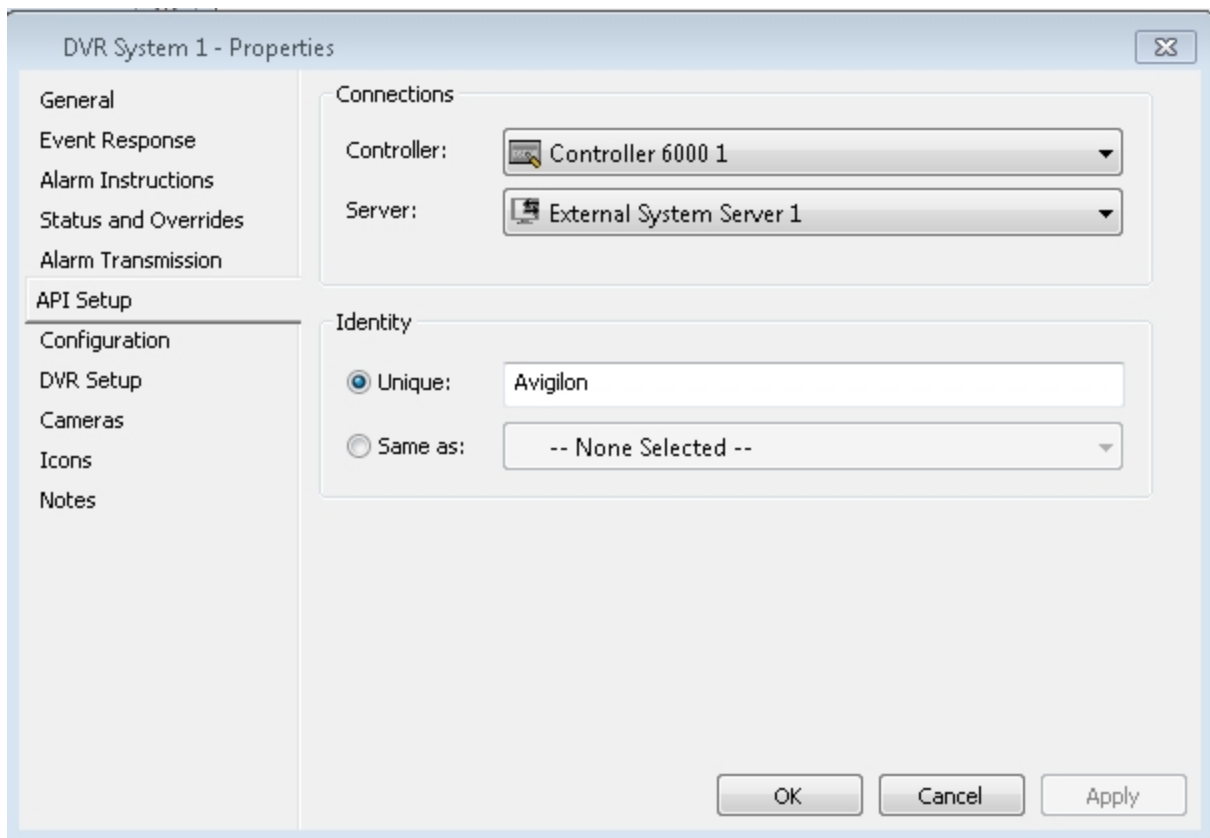
- ○ Select a controller to associate with the Avigilon server.
- ○ In the **Server** field, enter the name of the external system server that is running the FTCAPI.
- ○ In the **Identity** area, give the Avigilon Site a **Unique** identity.
12. Select the **Event Response** tab then select an **Alarm Zone for all Events** for the server.
13. Click **OK**.

Trigger and Acknowledge Avigilon Alarms from the Gallagher Software

Create alarms in the Avigilon Control Center Client software that can be managed by the Gallagher Command Centre software.

Avigilon Alarm Configuration Environment

Set up alarms in the Avigilon Control Center Client software before you configure the the Gallagher Command Centre software to manage all the alarms.

> **Note:** The alarm name is case sensitive and must be unique to the server.

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 Gallagher Command Centre Software to Trigger and Acknowledge Avigilon Alarms

Configure the Gallagher Command Centre to manage Avigilon alarms. The Gallagher Command Centre uses FTCAPI strings to send alarm triggers and acknowledgments to the Avigilon Control Center software.

1. In Gallagher Configuration Client, open the External Systems Master List window.

2. Right-click the camera associated with an alarm and select **Properties**.

3. Select the **Trigger-Output** tab.

4. Open the Hardware Master List window.

5. From the Hardware Master List window, drag the output that will trigger the alarm into the Trigger—Outputs tab in the Properties dialog box.

   Outputs can include magnetic locks, alarm bells or warning lights. A change in any of the outputs will send a FTCAPI string that can be used to trigger or acknowledge an Avigilon alarm.
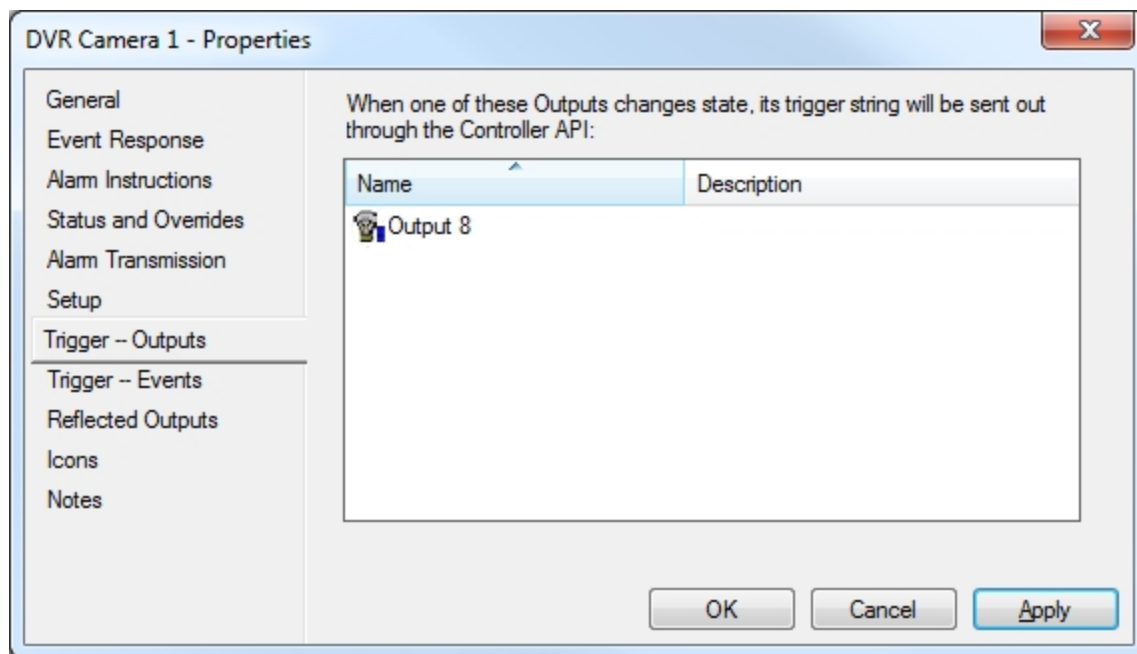
6. Click **OK**.

7. In the Hardware Master List window, right-click the selected output and select **Properties**.

8. Select the **Messages** tab.

9. In the **Controller API strings** area, enter the alarm trigger information in the **On** field in the following format:

   alarmTrigger *<Licensed Avigilon Server Address> <Alarm Name>*

   For example: `alarmTrigger 172.16.0.176 burg alarm`

   > **Note:** The case sensitive alarm name is configured in the Avigilon Control Center Client software. For more information, see *Avigilon Alarm Configuration Environment* on page 10.

10. You have the option of adding an acknowledgment string in the **Off** field to automatically acknowledge the alarm in the Avigilon system. Use the following format:

    alarmAck *<Licensed Avigilon Server Address> <Ack Permission> <Alarm Name>*

    For example: `alarmAck 172.16.0.176 normal burg alarm`

    > **Note:** *<Ack Permission>* can be set to `normal`, `grant` or `deny`. The grant and deny settings can only be used when the alarm requires user confirmation to activate a digital output. For more information, see *Avigilon Alarm Configuration Environment* on page 10.

Alarm Monitoring in the Avigilon Control Center Client Software

All alarms configured in the Avigilon Control Center software can be monitored by the Avigilon Control Center Client. For more information, see the *Avigilon Control Center Client User Guide*.

View Avigilon Image Data and Events in the Gallagher Command Centre Software

The Gallagher Command Centre software can be configured to view live and recorded video from Avigilon cameras, and receive Avigilon events. The Gallagher Command Centre software associates recorded video with specific alarms, so you must configure an Action Plan in the Gallagher software before you can review recorded video in the Gallagher Command Centre software.

Configuring Cameras

Before Avigilon cameras can be viewed in the Gallagher Command Centre software, the cameras must be added to the Gallagher Command Centre software. Complete the following procedures:

Assigning Logical IDs to Cameras

In the Avigilon Control Center Client software, assign a logical ID to each camera. The integration software only allows you to access cameras with a logical ID. By default, cameras do not have a logical ID.

1. In the ACC Client software, right-click a camera in the System Explorer and select **Setup**.
2. In the camera Setup tab, click **General**.
3. In the General dialog box, enter a Logical ID: for the camera. The logical ID must be unique number.

Gallagher Camera Setup

1. In the Gallagher Configuration Client, open the External Systems Master List Window.
2. Right-click the window and select **New > DVR System Camera**.
3. In the **General** tab, name the Avigilon camera.
4. Select the **Setup** tab, and complete the following fields:

- **DVR System:** select the Avigilon server the camera is connected to.
- **Identification:** enter the Logical ID assigned to the camera in the Avigilon Control Center software. For more information, see *Assigning Logical IDs to Cameras* on the previous page.

5. Select the **Event Response** tab then select an **Alarm Zone for all Events** for the camera.
6. Click **OK**.

Testing the Connection

After the cameras and software have been configured to support the integration, test the connection to confirm that the integration was successful.

In the Gallagher Command Centre, perform the following:

- In the Monitor Site Viewer, configure the camera to view video using Viewer configuration. For more information, see the *CCVMS Development Guide*.

  If you are able to watch live video, the connection was successful.

  If you are unable to watch live video and a ⃠ symbol appears over the camera in the Gallagher Configuration Client, the connection was unsuccessful. Confirm the following then test the connection again:

  - The camera is connected to the Avigilon Server it was assigned to in the Gallagher Camera Setup procedure.
  - The camera's logical ID matches the Identification assigned to the camera during the Gallagher Camera Setup procedure.
  - The FTCAPI was installed properly.
  - The installation and configuration procedures were completed in full.

If the connection continues to be unsuccessful, contact Avigilon Technical Support at **support@avigilon.com**.

Viewing Live Video and Controlling PTZ Cameras

In Gallagher Command Centre, open Monitor Site Viewer tab and view the camera that is configured through Viewer Configuration.

For more information on how to setup a camera tile in Monitor Site Viewer refer to *CCVMS Development Guide*.
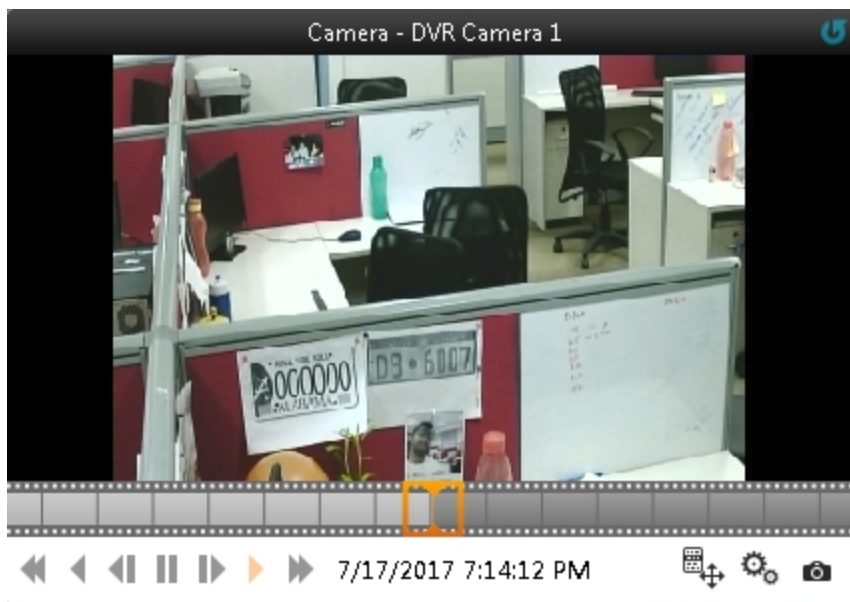
If the Avigilon camera is configured for pan, tilt, and zoom (PTZ), the mouse icon will appear on screen to provide the PTZ functionality or you can use keyboard PTZ controls.

If you are watching video from an Avigilon video analytics device, the classified object bounding boxes are automatically displayed. A red bounding box identifies a person, and a blue box identifies a vehicle. To disable this feature, see *Disabling Classified Object Bounding Boxes* on page 41.

Configuring and Viewing Recorded Video

You can only view recorded video from Avigilon cameras when the cameras are part of an alarm from the Gallagher Command Centre software. Gallagher Command Centre alarms are generated from events with an Action Plan. Avigilon cameras must be added to an Action Plan to become part of a Gallagher Command Centre alarm.

Adding Avigilon Cameras to a Gallagher Command Centre Software Action Plan

Create an Action Plan to enable Avigilon cameras to record when an alarm is triggered in the Gallagher Command Centre software.

1. In the Gallagher Configuration Client, open the Action Plan Master List Window and the External Systems Master List Window.
2. Right-click the Action Plan Master List Window and select **New > Action Plan**.
3. In the **General** tab, name the new Action Plan.
4. Select one of the following tabs:
    ◦ Select the **Armed** tab if the Action Plan is to be associated with an Armed Alarm Zone.
    ◦ Select the **Disarm** tab if the Action Plan is to be associated with a Disarmed Alarm Zone.
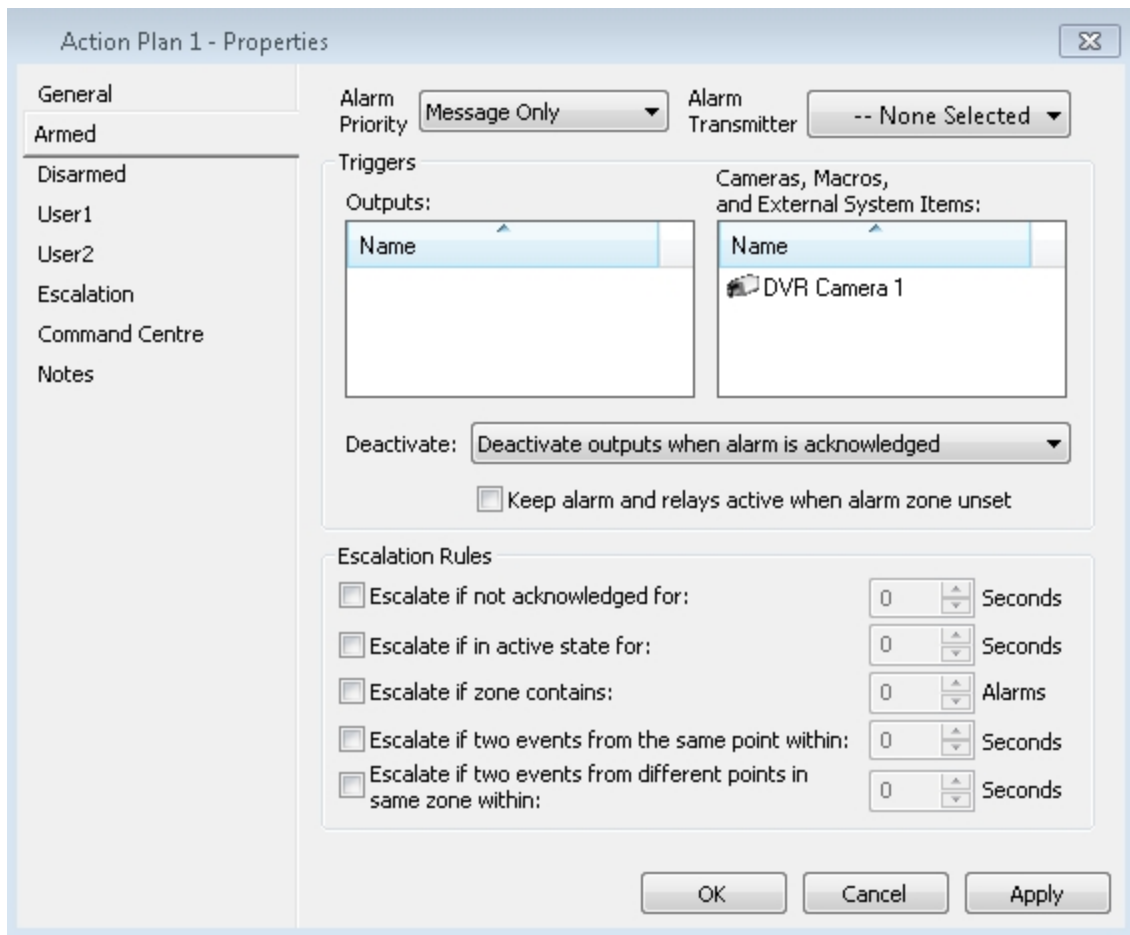
5. In the **Alarm Priority** drop down list, select an available alarm priority.

6. For the **Cameras, Macros and External System Items** box, drag a camera from the External Systems Master List Window into the box.

7. Click **OK**.

Assigning Action Plans to Events in the Gallagher Software

After an Action Plan has been created to include Avigilon cameras, the Action Plan must be attached to an event to trigger alarms.

To assign an Action Plan to an event in the Gallagher Command Centre software, see the *Gallagher Command Centre Configuration Client User Guide*.

Viewing Recorded Video

Once an alarm is triggered by an event that includes an Avigilon camera Action Plan, recorded video can be viewed.

> **Note:** If an alarm is deleted, the event cannot be viewed.

1. In the Gallagher Command Centre software, open the Alarm Viewer tab. To configure camera in the Alarm viewer, see *CCVMS Development Guide*.

2. Select the alarm and the camera tile will display the recorded video.

If the video does not display, the event may still be occurring and the Avigilon server may not have finished recording the event. Wait a few seconds then try again, or watch the live video.

If you cannot locate the alarm, use the **Find Tool** to locate the recorded video.

Snapshots

To take a video snapshot of an Avigilon camera from the Gallagher Command Centre, carry out the following steps:

1. Log in to Gallagher Command Centre and navigate to Monitor Site Viewer to see configured Avigilon cameras in the view.

2. Click the **Advanced Control** button for the camera, shown highlighted in red below:

3. When the Advanced Control ribbon appears, click the **Take Snapshot** button, highlighted in red below:

4. The snapshot is copied to the clipboard.

Exporting Video

To export video for an an Avigilon camera from the Gallagher Command Centre, carry out the following steps:

1. Log in to Gallagher Command Centre and navigate to Monitor Site Viewer to see configured Avigilon cameras in the view.

2. Navigate to the time frame for which you wish to export video for the camera:

   - Drag the timeline icon, or

     Click Date and Time display to enter date and time settings.

3. Click the **Advanced Control** button for the camera, shown highlighted in red below:

4. When the Advanced Control ribbon appears, click the **Export Video** button, highlighted in red below:

5. The video export pane appears:
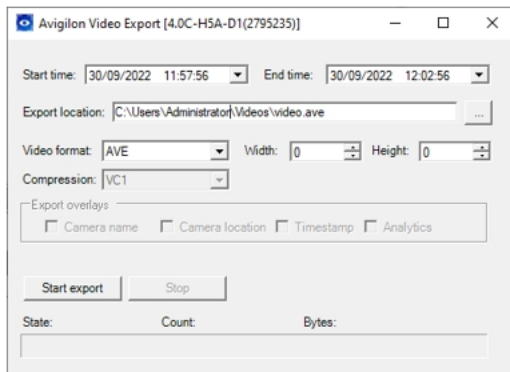
6. The following export options are available:

- Start time
- End time
- Export location
- Video format:
  - AVE or AVI
- Width
- Height
- Compression (available for AVI exports only):
  - None
  - JPEG
  - H264
  - VC1

Export Overlays (available for AVI exports only):
  - Camera name
  - Camera location
  - Timestamp
  - Analytics

7. Configure your export settings as required and click **Start export**.

8. As the export is executing, the progress bar displays an **Executing** state for the export:

State: Executing   Count: 2473   Bytes: 32291630

9. When the export is complete, the state will be shown as **Completed:**

State: Completed   Count: 9001   Bytes: 120165532

10. The exported video may be opened to view from the selected **Export location** on the PC.

Configuring ACC License Plates as Credentials

The Gallagher Command Centre software can use license plates read with the ACC software as credentials. The following sections cover the necessary steps to setup license plate credentials.

Configuring Gallagher Software to Use ACC License Plates as Credentials

Note: The following procedure assumes that you are setting up a fresh Gallagher configuration. If you already have items configured such as Doors, Access Groups, and so on, and just want to add license plate numbers as credentials, follow **step 3** and **step 11b** to add the new license plate credential cards to your existing setup.

1. Launch the Gallagher Configuration Client.
   a. Ensure the following items are listed under the **Configure** toolbar option:
      - Hardware
      - External System
      - ACC NVR is added in External System and cameras are added to it
      - Action Plans for events
   b. Ensure that the Controller board is online in the client.
2. Navigate to **File > Server Properties > Licensing** tab and note down the **Facility Codes** displayed there.
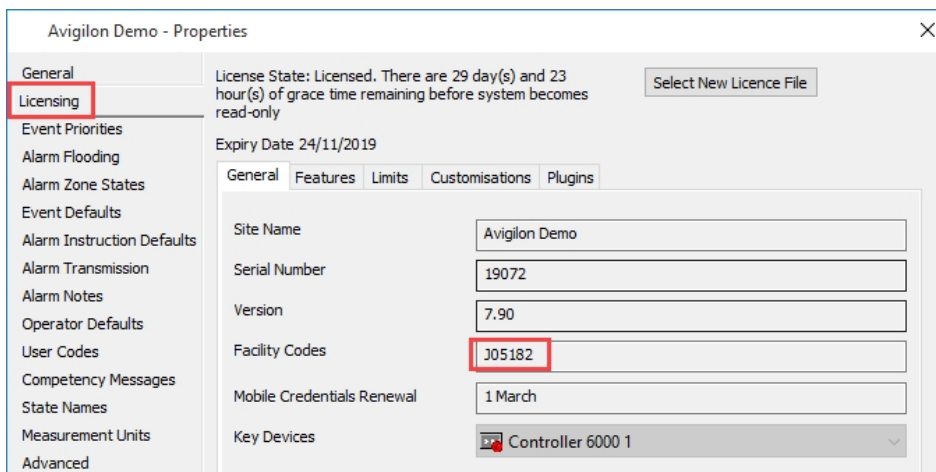
3. Click **Configure > Card Types**. Right-click in the Card Types popup window and select **New > Card Type**.
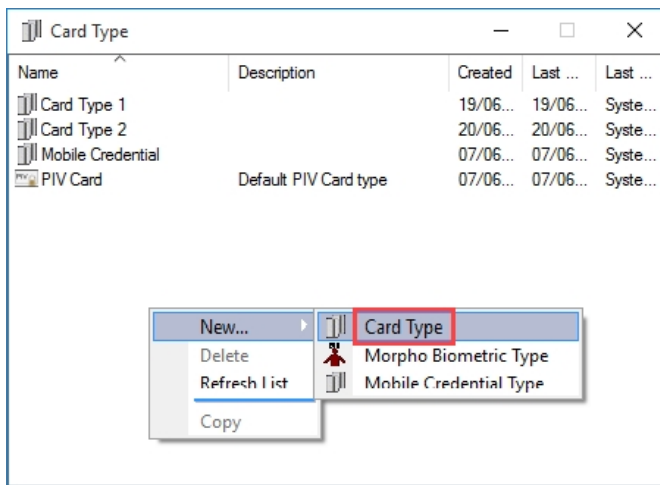
Enter the following details in the Card Type creation window:

a. Provide a name in the **General** tab.

b. In the **Setup** tab, provide a **Region Code** and a **Facility Code**:

  - The Region Code is the alphabet character, from A-P, mentioned in the Facility Code value, as noted in **step 2**, above. This can be different from the license file value.

  - The Facility Code is the numeric characters mentioned in the Facility Code value, as noted in **step 2**, above. This can be different from the license file value.
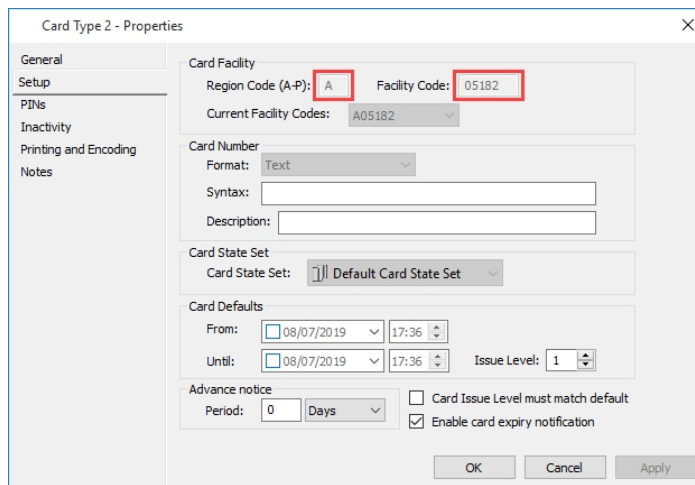
c. Click **Apply** and **OK** to save the settings.

4. Click **Configure > Alarm Zone**. Right-click in the Alarm Zone popup window and select **New > Alarm Zone**. Enter the following details in the Alarm Zone creation window:

a. Provide a name in the **General** tab.

b. Select the Controller from the drop-down list on the **Connections** tab.
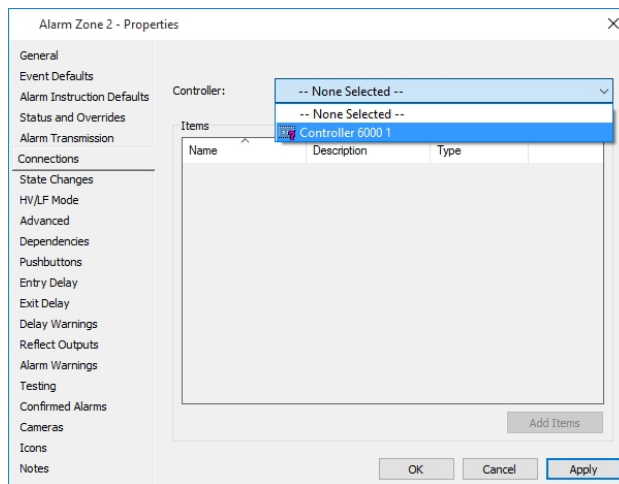
c. Select an Action Plan for the **Card Event** drop-down list on the **Event Defaults** tab.
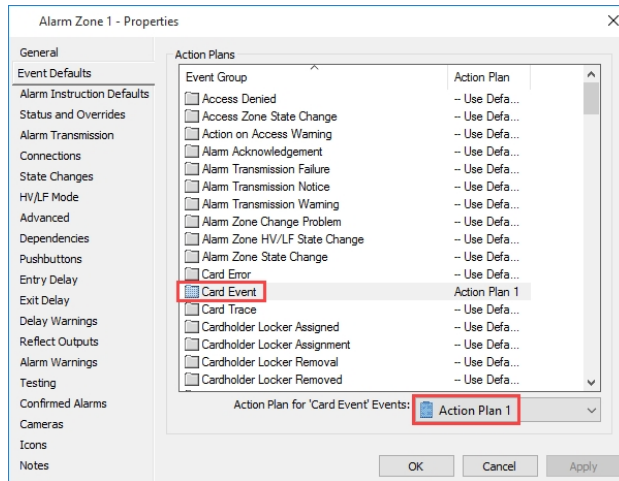
d. Click **Apply** and **OK** to save the settings.

5. Select **Configure > Hardware** and open the Hardware properties. These are the Controller properties.

a. In the **Event Response** tab, select an alarm zone from the **Alarm Zone for all Events** drop-down list.
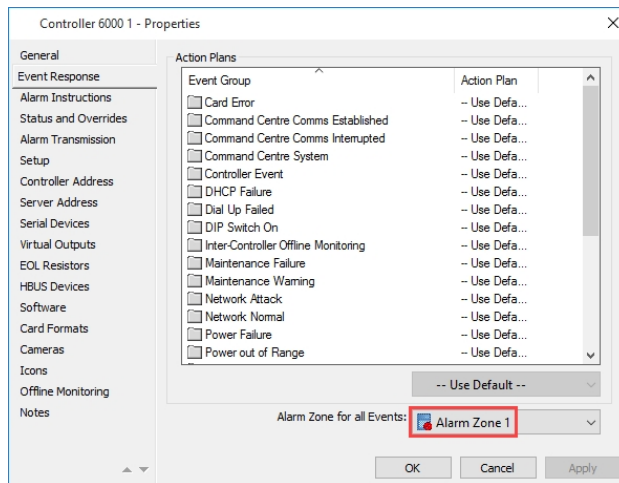
b. Click **Apply** and **OK** to save the settings.

6. Select **Configure > External System** and open the properties for the external system that was added. These are the properties for the ACC NVR external system.

a. In the **Event Response** tab, select an alarm zone from the **Alarm Zone for all Events** drop-down list.
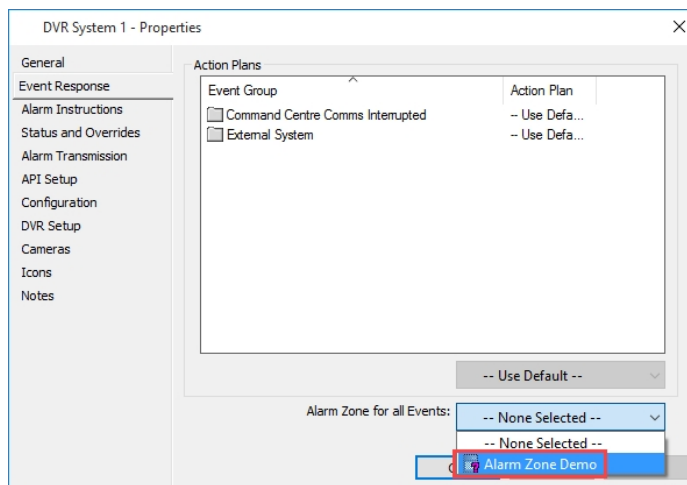
b. Click **Apply** and **OK** to save the settings.

7. Select **Configure > Access Zone**. Right-click in the Access Zone window and select **New > Access Zone**. Enter the following details in the Access Zone creation window:

a. Provide a name in the **General** tab.

b. In the **Event Response** tab, select an alarm zone from the **Alarm Zone for all Events** drop-down list.

c. In the **Access Mode** tab, select a **Schedule** from the drop-down list.
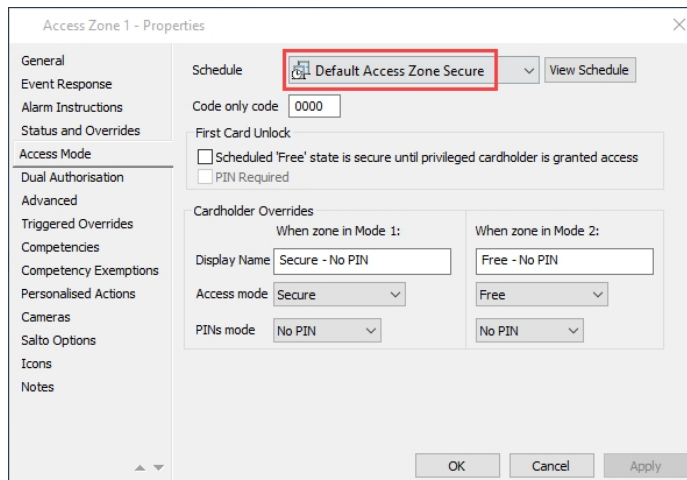
d. Click **Apply** and **OK** to save the settings.

8. Open the properties for the camera added under the external system that was configured in **step 6**.

a. In the **Event Response** tab, select an alarm zone from the **Alarm Zone for all Events** drop-down list.
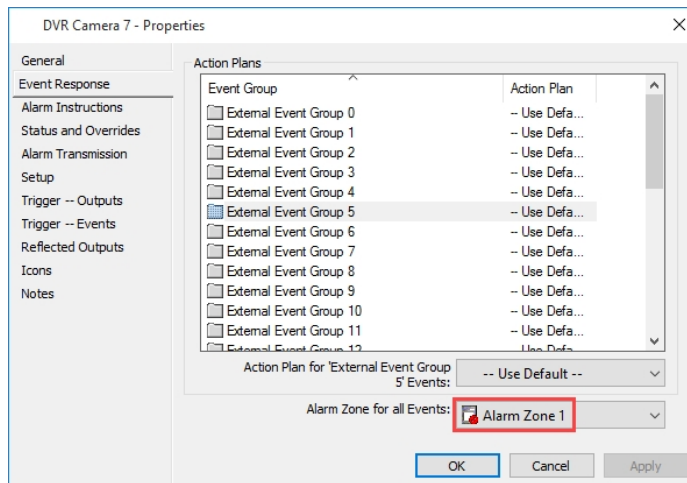
b. In the **Setup** tab, select an **Access Zone** from the drop-down list.
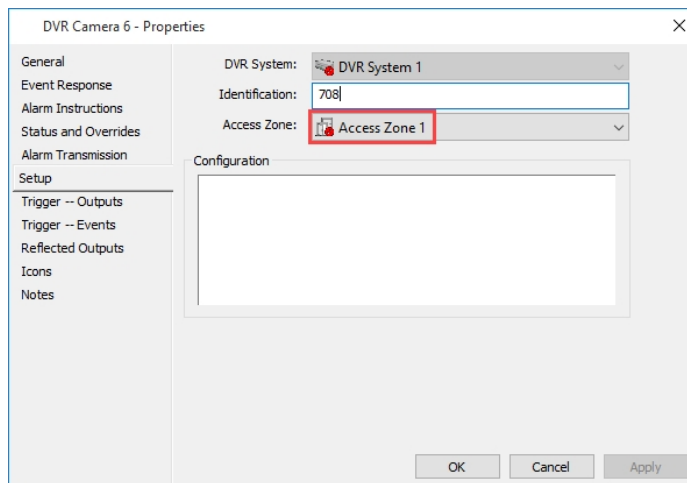
c. Click **Apply** and **OK** to save the settings.

9. Select **Manage > Access Groups**. Right-click in the Access Group window and select **New > Access Group**. Enter the following details in the Access Group creation window:

a. Provide a name in the **General** tab.

b. In the **Access** tab, drag and drop an Access Zone into the field.
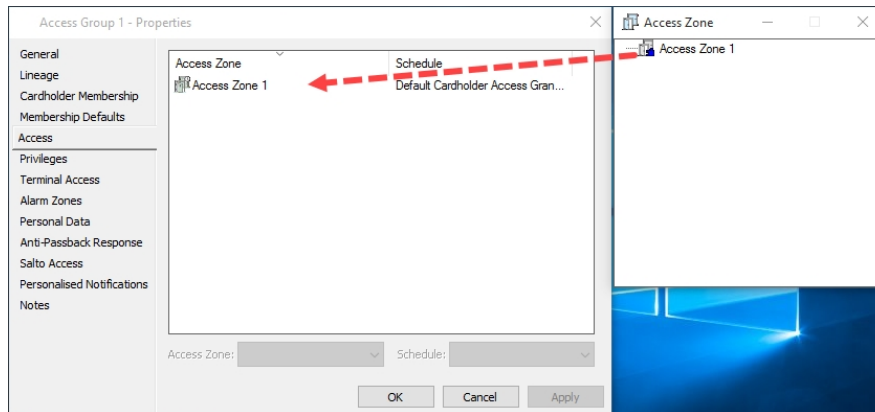
c. Select a **Schedule** from the drop-down list.
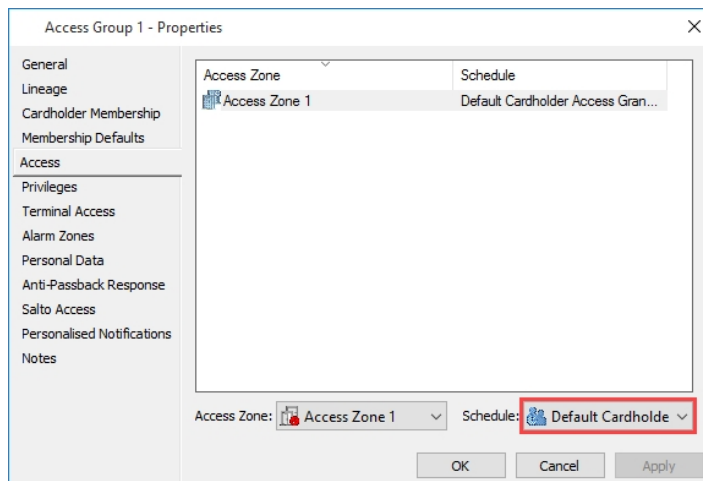
d. In the **Privileges** tab, make sure the following settings are checked:

- Lock and unlock access zones
- View alarms and items
- Shunt items
- Acknowledge all alarms
- Change to the Disarmed state
- Change to the Armed state
- Prompt for alarm zone selection

- Force-arm alarms zones
- Auto-isolate alarm zones
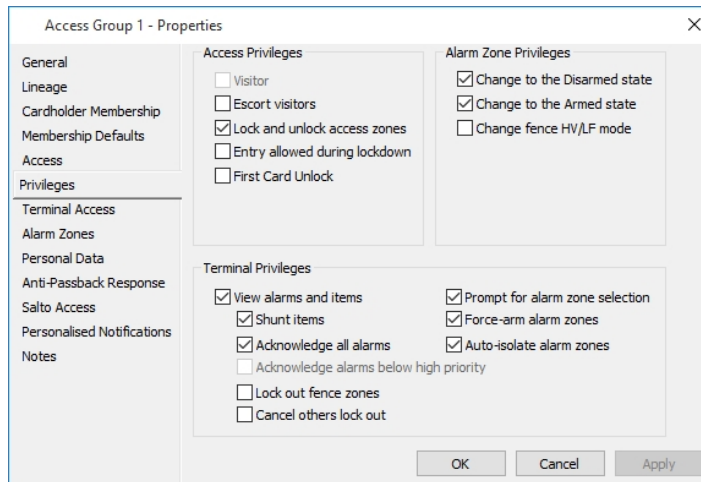
e. In the **Alarm Zone** tab, drag and drop the Alarm Zone that you created in **step 4** into the field.

f. Click **Apply** and **OK** to save the settings.

10. Select **Configure > Doors**. Right-click in the Door window and select **New > Door**. Enter the following details in the Door creation window:

a. Provide a name in the **General** tab.

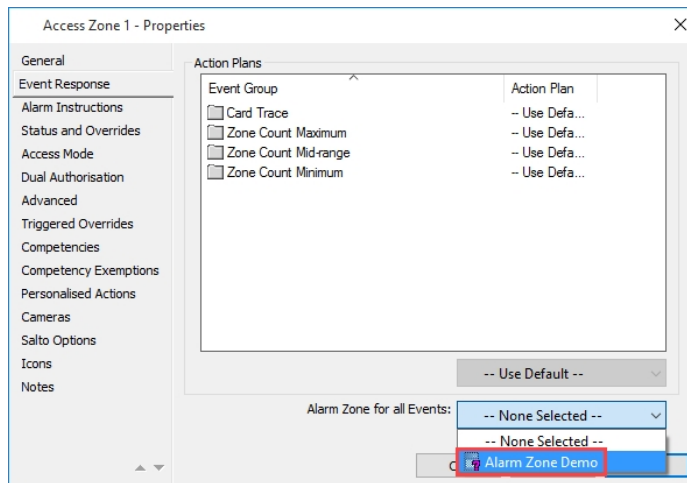b. In the **Event Response** tab, select an alarm zone from the **Alarm Zone for all Events** drop-down list.

c. Select an **Action Plan** for the **Card Event**.

d. In the **Connections** tab, select the Controller device from the drop-down list.
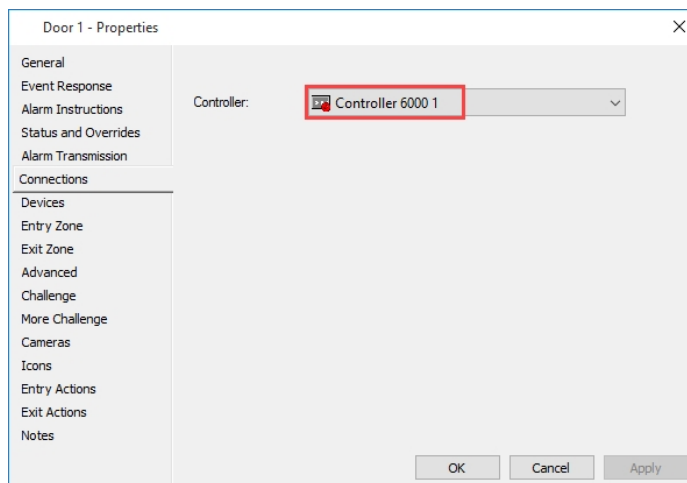
e. In the **Entry Zone** tab, configure the following settings:

- Select an **Access Zone** from the drop-down list.
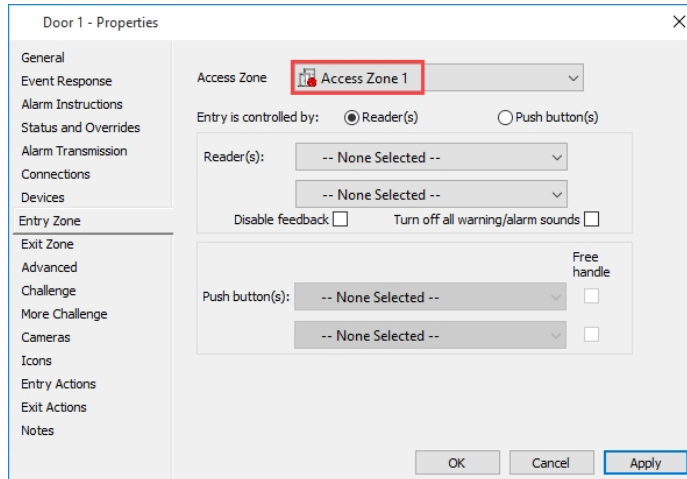
- Select a camera from the **Reader(s)** drop-down list.
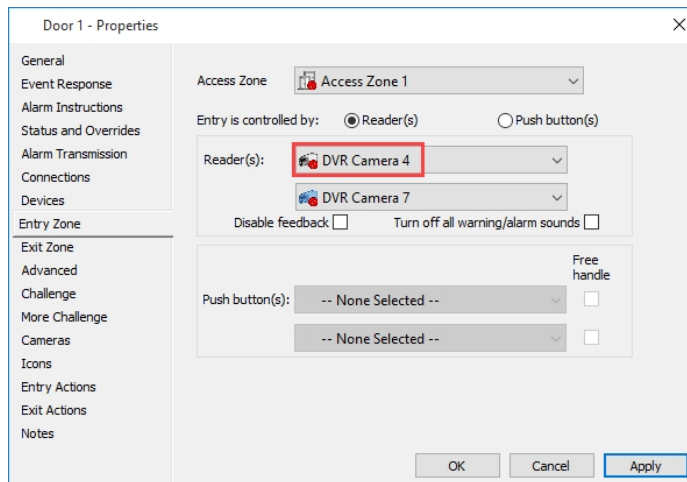
    f. Click **Apply** and **OK** to save the settings.

11. Select **Manage > Cardholders**. Right-click in the Cardholder window and select **New > Cardholder**. Enter the following details in the Cardholder creation window:

a. In the **General** tab, provide a First Name, Last Name, and Short Name. Adding a Description is optional.

b. In the **Cards** tab, configure the following settings:

    i. Make sure the **Cardholder Authorised** checkbox is checked.

    ii. Right-click in the table section and select **Insert**. A card will be added to the table.
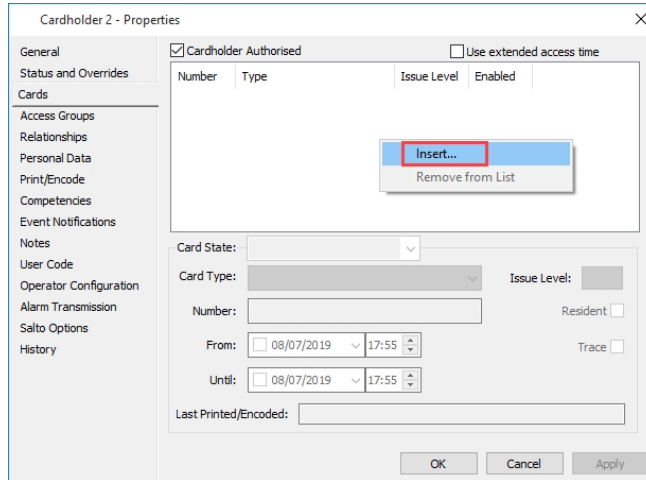
    iii. Select **Active** from the **Card State** drop-down list of the new card.

    iv. Enter the license plate number for this cardholder in the **Number** field.
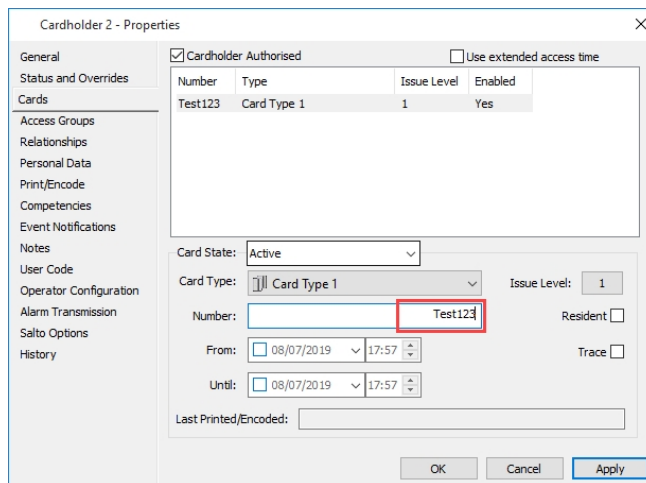
c. In the **Access Groups** tab, drag and drop an Access Group into the field.

d. Click **Apply** and **OK** to save the settings.

12. Open the **Access Group** you created in **step 9**. In the **Cardholder Membership** tab, drag and drop new cardholder in the field.

Configuring LPR in the ACC System

License Plate Recognition (LPR) is a licensed feature that allows users to read and store vehicle license plates from any video streamed through the ACC software. You must have the LPR feature licensed and installed on

your server.

1. In the server Setup tab, click **License Plate Recognition**. The License Plate Recognition dialog box opens.

2. Select a lane from the **License Plate Lane** list. The number of lanes listed is determined by the number of License Plate Recognition channels that are available on the server.

3. Complete the following fields:

   - **Name:** The name for the lane.
   - **Camera:** Select the camera that will perform license plate recognition. One camera can be used for multiple lanes.
   - **License Plate Configuration:** Select the regional license plate format that needs to be recognized by the camera.
   - **Pre-Event Record Time:** Enter the amount of time that video is recorded before the license plate is recognized.
   - **Post-Event Record Time:** Enter the amount of time that video is recorded after the license plate is recognized.
   - **Minimum Confidence:** Move this slider to set the minimum confidence that is required for a detected license plate to be recognized. The default value is 80%.
   - Select the **Enable this lane** check box to enable LPR for the lane.
   - **Max Image Analysis Rate:** Enter an image rate between 1-60 ips. This setting specifies the maximum frame rate analyzed by the LPR service. The default value is 15.
     - If this setting is higher than the camera's image rate, the LPR service will analyze all of the frames from the camera, increasing the processing time.
     - If this setting is lower than the camera's image rate, the system will reduce the number of frames it will analyze, reducing the processing time.

4. Move and adjust the green overlay until it spans the width of the traffic lane in the camera's field of view. LPR is only performed in the green area.

   > **Note:** A red overlay means the license plate detection area is too large and cannot be used.

5. Click **OK**.

LPR is now configured for your site and you can add or update your Watch Lists.

Adding a Watch List

When you add a new Watch List to your site, you can import or manually add each license plate that needs to be detected. Each license plate has a Minimum Confidence setting that determines how similar the detected license plate must be for it to be considered a match.

> **Note:** For ACC software version 6.12 and later, the Minimum Confidence is the probability that the

detected license plate number matches a license plate in the Watch List. For earlier ACC software versions, the Minimum Confidence is the percent difference between the detected license plate and the license plate in the Watch List.

Tip: If you receive too many false alarms for a license plate, increase that license plate's Minimum Confidence. If you are missing alarms for a license plate, decrease that license plate's Minimum Confidence.

1. In the server Setup tab, click **License Plate Watch List**.
2. Click **Add**. The Add Watch List dialog box is displayed.
3. Enter a **Watch List Name:** and **Watch List Description:**.
4. Click **Add** to add a license plate to your Watch List.
5. Enter the license plate number and select the **Minimum Confidence** with the slider.
6. Click **OK**. The license plate is added to the Watch List. Continue adding all required license plates to the Watch List.
7. Click **OK** to save the Watch List.

Configuring Avigilon Control Center System Events in the Gallagher Command Centre Software

To monitor Avigilon Control Center system events in the Gallagher Command Centre software , you must create three placeholder cameras to receive event information from Avigilon. This allows you to monitor the health of the Avigilon Control Center system in the Gallagher Command Centre software. Avigilon Control Center system events can include server errors, database issues and low storage availability.

1. In the Gallagher Configuration Client, open the External Systems Master List Window.
2. Right-click the window and select **New > DVR System Camera**.
3. In the **General** tab, give the placeholder a name.
4. Select the **Setup** tab, and complete the following fields:

- **DVR System:** select the Avigilon Control Center Site you want to receive system information from.
- **Identification:** enter one of the following. Make sure the Identification is spelled exactly as listed or the system events will not be received by the Gallagher Command Centre software.
  - `ACC Server Events` — for Avigilon Control Center Server events.
  - `ACC Database Events` — for video indexing, video metadata and configuration data related events.
  - `ACC Storage Events` — for network video recorder storage events.

5. Click **OK**.

6. Repeat this procedure until you have a placeholder for each of the three event types.

Each of the events are mapped to an External Event Group ID in the Gallagher Command Centre software. When an event occurs, the Gallagher Command Centre software will respond using the Action Plan assigned to the event. To change the Action Plan, see *Configuring Action Plans for Avigilon Events* on the next page.

Configuring Action Plans for Avigilon Events

Configure an Action Plan to respond to events generated by the Avigilon system and cameras.

1. In the External System Master List Window, right-click an Avigilon camera or placeholder and select **Properties**.
2. In the DVR Camera—Properties dialog box, select the **Event Response** tab.
3. In the **Event Group** list, select the External Event Group you want to edit. For a detailed list of the External Event Group ID assigned to each Avigilon event, see *Gallagher External Event Group ID List* on page 40.
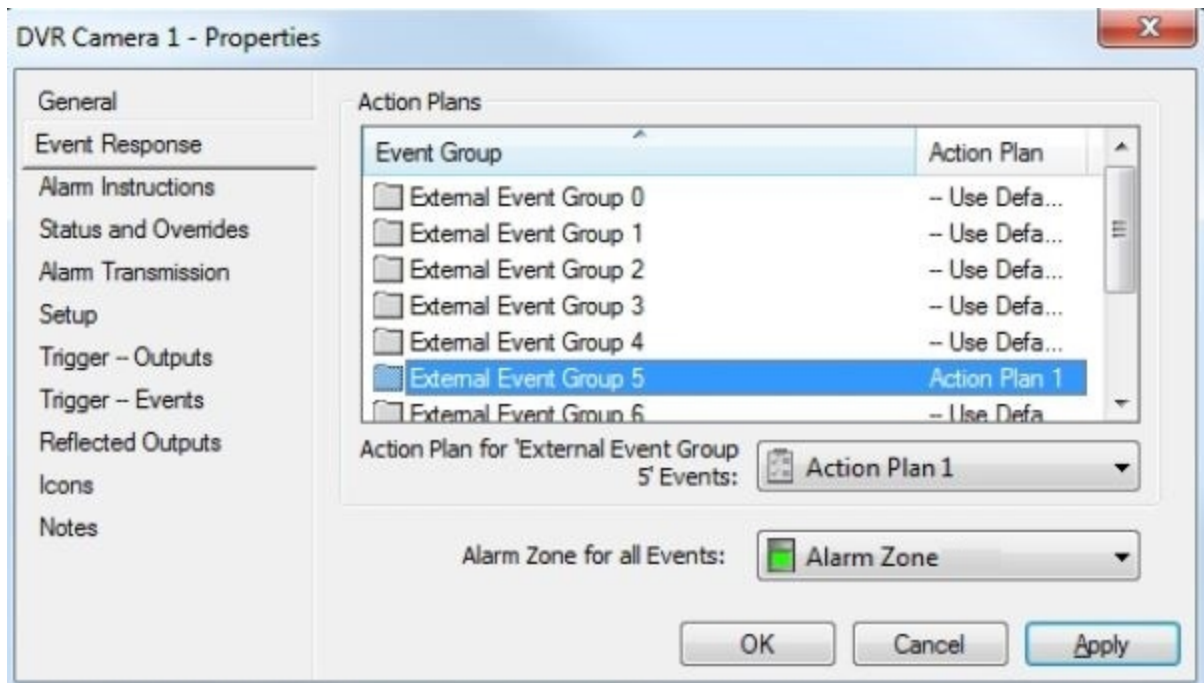
4. In the **Action Plan for External Event Group** drop down list, select an Action Plan.

   If you want to view the recorded video for a motion event, select an Action Plan that includes the Avigilon camera. For more information, see *Adding Avigilon Cameras to a Gallagher Command Centre Software Action Plan* on page 17.

5. In the **Alarm Zone for all Events** drop down list, select an alarm zone for this alarm.
6. Click **OK**.

Troubleshooting

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

Integration Fails

After you install the integration, the following issues arise:

- You are able to add the Avigilon server and cameras but all the devices are displayed as offline in the Gallagher software. When you open the Avigilon Control Center Client software, the server and cameras are online and functioning.
- The Avigilon to Gallagher API service displays a *Started* status, but the FT Controller service is stuck in the *Starting* status.

The issue may occur if there is a port conflict between Gallagher Command Centre and the Gallagher Controller API (FTCAPI). To resolve the issue, complete the following steps:

1. If the FTCAPI is installed on any middleware machine, make sure the license file (`CommandCentre.lic`) is present on that server. The location for the license file is defined in *Server* on page 3.
2. Restart the FT Controller Service.

When you launch the Gallagher Command Centre software again, the Avigilon server and cameras should be listed as online.

Avigilon Camera Will Not Display Video

After you install the integration, the following issue arises. You are unable to watch live video from an Avigilon camera and a ⃠ symbol is displayed over the camera in the Gallagher software. When you try to display live video from the same camera in the Avigilon Control Center software, it displays correctly.

This issue occurs if the integration was unable to connect with the camera. Confirm the following then test the connection again:

- The license file received for integration support has CCVMS SDK support. To verify, open the license file `CommandCentre.lic` and check if it contains the string **CCVMS SDK =1**. The location for the license file is defined in *Server* on page 3.
- The camera is connected to the Avigilon Server it was assigned to in the Gallagher Camera Setup procedure.
- The camera's logical ID matches the Identification assigned to the camera during the Gallagher Camera Setup procedure.
- The FTCAPI was installed properly.
- The installation and configuration procedures were completed in full.

Video in Gallagher Application is Incomplete or Discolored

After you install the integration, the following issue arises. Video displayed in the Gallagher applications appear clipped, incomplete or shows discoloration.

This issue typically occurs in complex network environments where UDP traffic between Gallagher and Avigilon server may be blocked.

To test if this is the issue, install the Avigilon Control Center (ACC) Client software on one of the affected systems, then complete the following steps:

a. In the ACC Client software, login to the site that manages the cameras used in the integration.

b. Display the affected video.

   The video is clipped, incomplete or show discoloration like in the Gallagher applications.

c. Open the Client Settings dialog box, and select the **Site Networking** tab.

d. Select the site that you are logged in to, and change the **Connection Type:** drop down list setting from LAN to **WAN (Secured)**.

e. Check the displayed video again.

   Video displays correctly, without any of the previously noted issues.

If video displays correctly after you switch to the WAN setting, complete the following steps to resolve the issue:

1. Navigate to `..\Command Centre\Bin` and copy the `CCFT.exe.config` file to your desktop.

   The full folder path is typically: `C:\Program Files (x86)\Gallagher\Command Centre\Bin`.

2. Navigate to `..\Command Centre\Client\CCVMS` and copy the `AvigilonSdkGallagherProxy.exe.config` file to your desktop.

   The full folder path is typically: `C:\Program Files (x86)\Gallagher`.

3. Open the two .config files in a text editor and add the following line after the `<configuration>` tag:

   ```
   <appSettings>
    <add key="NetworkConnectionType" value="WAN"/>
    </appSettings>
   ```

4. Save and close the files.

5. Open a new text file and enter the following lines:

   ```
   <?xml version="1.0"?>
   <configuration>
   <appSettings>
    <add key="NetworkConnectionType" value="WAN"/>
   </appSettings>
   </configuration>
   ```

6. Save the new file as `AvigilonGallagherFTCAPI.exe.config`.

7. Close the following Gallagher applications if they are open:
   - Gallagher Command Centre
   - Gallagher Configuration Client
8. Copy the `CCFT.exe.config` file into the `..\Command Centre\Bin` folder:

   If you are prompted, allow the system to overwrite the unmodified version of the files in the folder.
9. Copy the `AvigilonGallagherFTCAPI.exe.config` file into the `..\Gallagher\Gallagher FTCAPI` folder:

   If you are prompted, allow the system to overwrite the unmodified version of the files in the folder.
10. Copy the `AvigilonSdkGallagherProxy.exe.config` file into the `..\Command Centre\Client\CCVMS` folder:

Video in the Gallagher applications should now display correctly without issue.

Unable to Select Date to Play Video from the "Play from time" control

This issue typically occurs when the date and time format for Gallagher Command Centre server installed systems is not in Date/Month/Year format. To resolve this issue, make sure Gallagher Command Centre installed system has date time format set to dd/mm/yyyy.

Overlays Are Not Displayed in Video

To display overlays, the `AvigilonSdkConfig.cfg` file must be located in `..\Gallagher\Command Centre\Client\CCVMS`.

List of Presets is Not Appearing in Gallagher's Monitor Site Viewer

Install CCVMS SDK version 7.60.08 or higher.

Avigilon Server Status is "Device is not responding"

This issue occurs if the integration was unable to connect with the camera. Confirm the following then test the

Appendix

Gallagher External Event Group ID List

To change the way Gallagher handles each Avigilon Control Center software event, change the Action Plan assigned to the Gallagher External Event Group ID. For more information, see *Assigning Action Plans to Events in the Gallagher Software* on page 18.

Avigilon Control Center Events	Gallagher External Event Group ID
ACC Server Events	
Network interface removed	9
Device connection error	7
Out of resources	6
Hardware event	5
Server terminated unexpectedly	4
Server stopped	3
License expiry	2
ACC Database Events	
Database lost	5
Database environment and databases forcefully deleted	4
Database environment deleted	3
Database reindex	2
Database environment recovered	1
ACC software storage events	
Volume failed	9
Image volume initialization	8
Writes failed	7
Writes blocked	6
Write queue full	5
Low disk space	4
Device specific events	

Avigilon Control Center Events	Gallagher External Event Group ID
Device LPR plate found	10
Communication error	9
Recording interrupted	8
Video signal lost	7
No camera data	6
Motion started	5
Lost frame packets	4
License plate match	3
Firmware upgrade error	2
Analytics started	1

Disabling Classified Object Bounding Boxes

If you are using an Avigilon Control Center video analytics device, you can choose to disable the classified object bounding boxes from displaying in the live and recorded video stream.

To disable the bounding boxes, you must have access to the computer that the Gallagher Command Centre software is installed on, and permission to edit the configuration files.

1. Locate and open the `AvigilonSdkConfig.cfg` file in a text editor.

    The file is typically located at:

    ```
    C:\Program File (x86)\Gallagher\Command Centre\Bin
    ```

2. In the text editor, locate this line:

    ```
    <ConfigItem name="DisplayAnalyticsOverlay" type="Boolean"
    value="1"/>
    ```

3. Change the `value=` from **1** to **0**.
4. Save the file.

Next time you watch video from the analytics camera in the Gallagher Command Centre software, the bounding boxes are no longer displayed.

Updating the Command Centre License File Path

1. Open the `AvigilonGallagherFTCAPI.exe` config file located at C:\Program Files (x86)\Gallagher\Gallagher FTCAPI\.

2. Change the value of the license path corresponding to the **LicensePath** key. This is the location where the license file for Command Centre is located.

   ```
   <add key="LicensePath" value="C:\ProgramData\Gallagher\Command
   Centre\CommandCentre.lic"/>
   ```

3. Save the file.

Comparing Only License Plate Numbers for ACC Watch List Match Events with Cards Configured in Gallagher

1. Open the `AvigilonGallagherFTCAPI.exe` config file located at C:\Program Files (x86)\Gallagher\Gallagher FTCAPI\.

2. Locate the **LprDataEventSent** key.

3. Change the **LprDataEventSent** corresponding value from 0 to 1.

   ```
   <add key="LprEventDataSent" value="1"/>
   ```

4. Save the file.