Gallagher Command Centre

Milestone VMS Integration 9.10

(Supports Command Centre 8.30 or later Command Centre release)

C12730

Release Note

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Contents

1 Introduction

This release note is for the 'Milestone VMS Integration' v9.10 of Gallagher Command Centre.

1.1 Purpose

The 'Milestone VMS Integration' integrates Command Centre with the Milestone Video Management System (VMS). It has been developed using the Milestone SDK 2024 R1.

1.2 Functionality

This integration provides the following functionality:

1. **Live video viewing**
    - Drag and drop a camera icon from a site plan to a camera tile to view live video;
    - Find a camera directly within a camera tile to view live video;
    - Pre-configure a camera tile to constantly view live video from one camera;
    - Pre-configure a camera tile to display live video in response to an event (e.g. Door event or Intercom event);
    - Place multiple camera tiles alongside each other to view video from multiple cameras simultaneously (up to 16 camera tiles can be used to simultaneously display footage on a single Viewer);
    - Adjust the camera's Pan, Tilt, and Zoom - as supported by the camera;
    - Move a camera to a set position (preset) - as supported by the camera;
    - Capture an image of the current frame (the image is saved as a .jpg file to the clipboard);
    - View footage in 4K resolution, achieved with H.265 video codec;
    - Re-size footage to fit the aspect ratio of the camera tile, or display it in its native aspect ratio.

2. **Stored video viewing**

    Video is stored by the Milestone system. Video is retrieved by Command Centre and displayed in the Command Centre VMS user interface.
    - View stored video associated with an alarm (video associated with an alarm is indicated by a filmstrip icon);
    - View pre-alarm and post-alarm video;
    - Search for stored video associated with an alarm;
    - Adjust the speed and direction of video playback;
    - Toggle between stored video and live video, for the camera;
    - Capture an image of the current frame (the image is saved as a .jpg file to the clipboard);
    - View stored video associated with an alarm on a Spot Monitor Viewer.

3. **Instructions from Command Centre to Milestone**

   When a user-configured event/alarm is generated in Command Centre, a message is sent to the Milestone system to move a specified camera to a preset;

   When a user-configured event/alarm is generated in Command Centre, a message is sent to the Milestone system to retrieve stored video.

4. **Milestone events mapped to Command Centre:**

   All events generated in the Milestone server, including motion detection, automatic number plate recognition, and diagnostic can be mapped to Command Centre.

   Note: Common Milestone events are mapped by default. To add an event mapping, refer to section 7 "*Command Centre event configuration*"

5. **Automatic Number Plate Recognition (ANPR) functionality**

   Licence plate numbers are sent from Milestone to Command Centre. The licence plate number is passed to Command Centre as a card number and facility code (via the FTCAPI Middleware Framework). When a camera is assigned as the entry reader for a Door, the card number and facility code are used to identify the Cardholder at the Door.

   The ANPR functionality has been tested using the following licence plate types:

   - Australian (QLD, NSW, and WA)
   - Canadian (Ontario, Québec, and Brunswick)
   - Taiwanese

Note: The following functionality is enabled with the separate Gallagher feature, 'MIP Plugin':

- Share events/alarms between Command Centre and Milestone
- Process Command Centre alarms with Milestone
- Open Command Centre Doors with Milestone
- Display Cardholder PDFs in Milestone

For more details about the 'MIP Plugin' feature, refer to the MIP Plugin release note *"Release Note MIP Plugin (vX.X).pdf"* provided with the MIP Plugin release. For the plugin and/or the release note, contact the Gallagher Support Team.

1.3 Compatibility

This integration introduces the following Gallagher software, which can be provided by Gallagher Support Team:

- Gallagher Milestone VMS Integration v9.10.212
- Gallagher Milestone VMS Middleware v9.10.212

This integration supports the following Gallagher software:

- Gallagher FTCAPI Middleware Framework (FMF) vMF8.70.18 (or later release)
- Gallagher Command Centre vEL8.30.1057 (or later Command Centre release)
- Gallagher Controller 6000 vCR8.30.200512a (or later release)

Command Centre and this integration have been tested using the following:

- Command Centre Server: Windows Server 2019
- Command Centre Workstation: Windows Server 2019, Windows 10 (64-bit)
- Database: SQL Server 2019

This feature supports Milestone XProtect Server 2024 R1, 2023 R3, 2023 R2, 2022 R3, 2022 R2, and 2021 R1.

Ensure the Command Centre workstation has a direct connection to the camera. The configuration of remote items is excluded. Some scenarios where remote items are on a different network will not work.

1.3.1 Equipment tested

This integration has been tested using the following Milestone software:

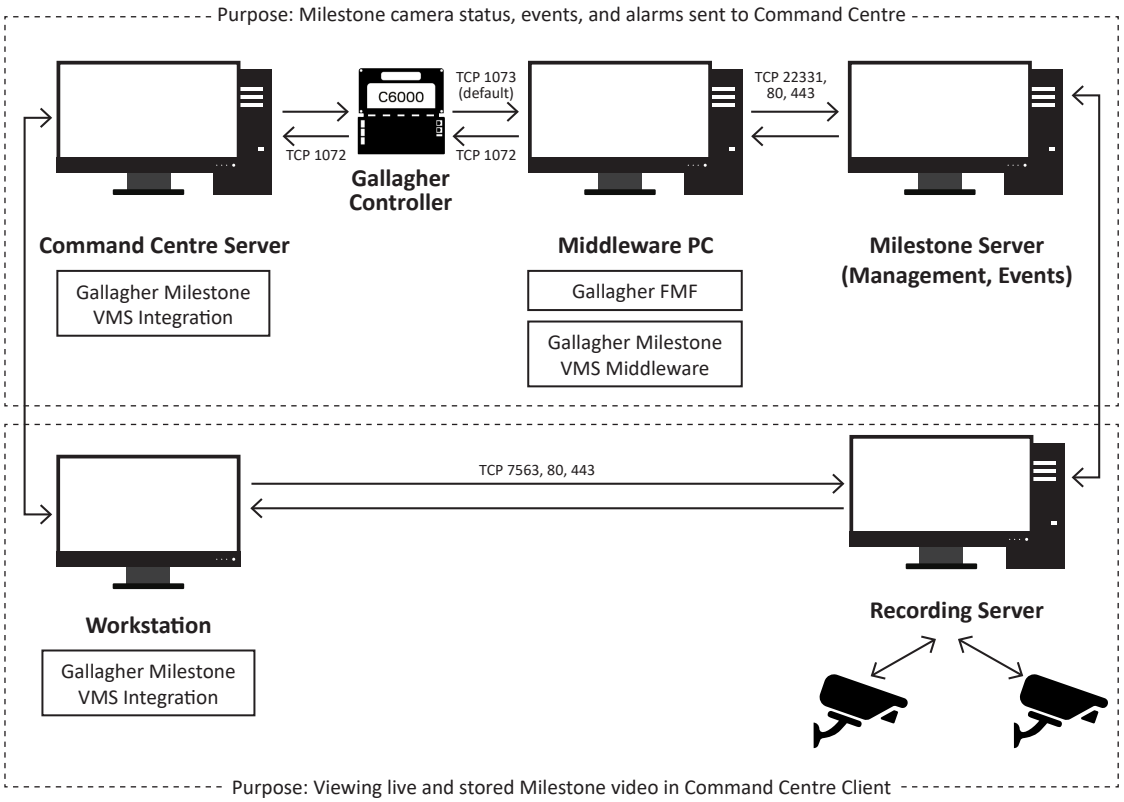
- Milestone XProtect Management Client 2024 R1, Version 24.1a, Build 11269

Previous versions of this integration have been tested with the following Milestone software, and Gallagher understands they will remain supported by this version:

- Milestone XProtect Management Client 2023 R3, Version 23.3a, Build 58
- Milestone XProtect Management Client 2023 R2, Version 23.2a, Build 32
- Milestone XProtect Management Client 2022 R3, Version 22.3c, Build 73
- Milestone XProtect Management Client 2022 R2, Version 22.2a, Build 39
- Milestone XProtect Management Client 2021 R1, Version 21.1b, Build 12177

The Milestone SDK supports a wide variety of cameras. To view the cameras supported by the SDK, refer to Milestone documentation. Gallagher has tested this integration using a small selection of cameras, hence Gallagher cannot guarantee the support for all cameras.

1.4 Deployment architecture



Networking

The default TCP port used to communicate between the Gallagher Controller and the middleware PC is 1073. This is set on the External System Server item when configuring the FMF.

The default ports used for outgoing communication from workstations are 7563, 80 and 443.

For a full list of default port numbers used by Milestone, visit https://www.milestonesys.com/globalassets/techcomm/2018-r1/advvms/english-united-states/index.htm?toc.htm?10099.htm

Gallagher FMF

If required, the Gallagher FMF can be installed on the Command Centre Server or the Milestone server, and this integration will still function.

Licence plate recognition (LPR) server

It is recommended that you install the Milestone LPR server on a different computer than your management server or recording servers.

1.4.1 Setup recommendations

The date and time (time zone) used on all devices must be the same (i.e. the date and time on the Command Centre server, middleware PC, and Milestone devices must be the same). If the time zones are not synchronised, an operator may miss viewing an event associated with an alarm.

2 Using this document

This section describes what you can achieve with this document, and which procedures you should follow to achieve your required result.

The below table indicates which procedures you need to complete in order to achieve certain results. Each procedure is listed against three columns. Each column represents a different result.

The different results include:

Result 1: Video from Milestone to Command Centre

Result 2: Events from Milestone to Command Centre

Result 3: Both Video and Events from Milestone to Command Centre

Pick one of the above-listed results, then for your chosen result, complete all the procedures marked with a ✓ in that result's column. Skip all procedures marked with a × in that result's column. Optionally complete procedures marked with a — in that result's column.

Page	Procedure	Result 1	Result 2	Result 3
11	Before you begin	✓	✓	✓
11	Install the Gallagher Milestone VMS Integration	✓	×	✓
11	Install the FTCAPI Middleware Framework	×	✓	✓
12	Install the Gallagher Milestone VMS Middleware	×	✓	✓
12	Verify the installation	✓	✓	✓
13	Configuring a Preset for a PTZ enabled camera	✓	✓	✓
14	Configuring a Milestone user and enabling rights	✓	✓	✓
15	Command Centre operator privileges	✓	✓	✓
16	Configuring an External System server (only vEL7.80 or later)	✓	✓	✓
16	Configuring a Milestone DVR System	✓	✓	✓
19	Configuring the Milestone server dummy camera	×	✓	✓
20	Configuring a Milestone camera	✓	✓	✓
21	Configuring an Action Plan to associate footage with events	×	✓	✓
22	Event mappings	—	—	—
23	ANPR mappings	×	✓	✓
24	Mapping plate numbers from multiple match lists	×	✓	✓
25	Configuring Event handling in Command Centre	×	✓	✓
26	Configuring a DVR command	✓	×	✓
27	Assigning a DVR command	✓	×	✓
28	Configuring an Action Plan	✓	✓	✓
29	Assigning the Action Plan	✓	✓	✓
30	Assigning Cameras to the Cameras tab	✓	×	✓
30	Assigning cameras to Command Centre Camera tiles	✓	×	✓
31	Creating a 'Text' Card Type	×	✓	✓
31	Assigning the 'Text' Card Type and Cardholder's licence plate number	×	✓	✓
32	Assigning a camera as the Reader for a Door	×	✓	✓
34	Live video viewing	✓	×	✓

3 Installation

Note: If a previous version of this integration has been installed, you need to upgrade to this version. Skip section 3 *"Installation"* and refer to section 13 *"Upgrading"* later in this release note.

Before you begin

Before installing this integration, perform the following:

1. Perform a backup of your Command Centre system.
2. Ensure your licence file contains the following options:

   ```
   [Limits]
   DVR Cameras=X
   ```
   (where `X` is the maximum number of cameras required)

   ```
   [Features]
   Milestone=1
   ```

   ```
   [Plugin]
   PluginX=Milestone
   ```
   (where `X` is a number)

   Note: Additional Milestone server licensing may be required for Command Centre items to integrate with Milestone. Please contact your Milestone representative for assistance.
3. Store the licence file in the following folder on the Command Centre server and the middleware PC: `C:\ProgramData\Gallagher\Command Centre`.
4. Exit Command Centre and stop the Command Centre Services.
5. On the Command Centre server and all Command Centre workstations, install Command Centre vEL9.10.1005 (or later release) from the Command Centre installation media, if not already installed.
6. Unzip the file you have been provided for this integration.

Install the Gallagher Milestone VMS Integration

7. On the Command Centre Server and those Command Centre workstations that will be using this integration, run the installation executable **Gallagher Milestone VMS Integration Setup 9.10.xx.msi** that you have been provided.

   Note: You only need to install this integration on workstations that will be used to view video.

   ClickOnce
   This integration is not automatically deployed via ClickOnce. You must run the installation executable **Gallagher Milestone VMS Integration Setup 9.10.xx.msi** on the all ClickOnce workstations that will be using this integration.

Install the FTCAPI Middleware Framework (FMF)

The middleware PC needs to have the FTCAPI Middleware Framework (FMF) installed.

8. To install the FMF, refer to the document *"Middleware Framework_vMF8.xx"* located in the Gallagher installation media in the following folder:
   `Utilities\System Interfaces\Middleware Framework vMFx.xx.xxx`
9. Ensure the middleware PC's Firewall is configured to allow the FMF to listen on the port you configure in the External System Server item (e.g. port 1073).

Install the Gallagher Milestone VMS Middleware

10. On the middleware PC, run the installation executable **Gallagher Milestone VMS Middleware Setup 9.10.xx.msi**

    Note: If the Gallagher FTCAPI Middleware Framework (FMF) has been installed on the same PC as the Command Centre server, ensure the FT Services have been stopped before running this installation executable.

11. Restart the Command Centre Services and Command Centre.

Verify the installation

12. To ensure this integration has installed correctly, select the **Programs and Features** utility from the Windows Control Panel.

    The following programs should be listed as currently installed on the Command Centre server and all workstations that will be using this integration:

    - Gallagher Command Centre
    - Gallagher Milestone VMS Integration

    The following programs should be listed as currently installed on the middleware PC:

    - Gallagher FTCAPI Middleware Framework
    - Gallagher Milestone VMS Middleware

4 Milestone configuration

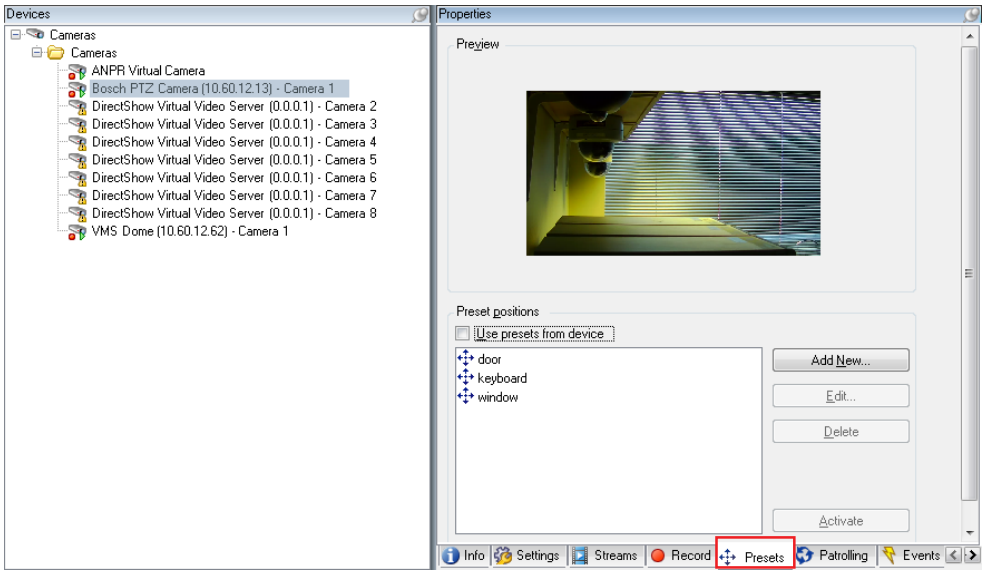
Perform the following procedures in the Milestone Management Client:

4.1 Configuring a preset for a PTZ enabled camera.
4.2 Configuring a Milestone User and enabling rights

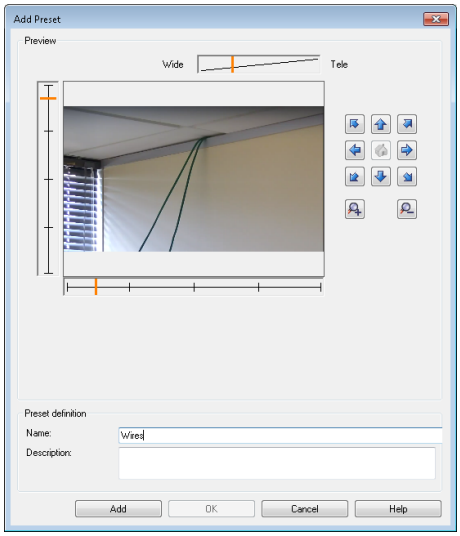
4.1 Configuring a preset for a PTZ enabled camera

The following procedure describes how to configure a preset for a PTZ enabled camera within the Milestone system.

1. Open the Milestone XProtect Management Client on the Milestone Management Server.
2. Select **Cameras** from within the **Site Navigation** panel.
3. Select the PTZ enabled camera from the list of cameras.
4. Select the **Presets** tab located at the bottom of the **Properties** window for the camera.



5. Click the **Add New...** button to create a new preset.
   The **Add Preset** window opens.



6. Move the camera to the required position.
7. Enter a name for the preset. This name will appear within the Command Centre VMS user interface **PTZ Presets** dialog box.
8. Click **Add**, then click **OK**.
9. Click the **Activate** button to trail the preset.

4.2 Configuring a Milestone user and enabling rights

For Command Centre to be able to perform the actions necessary for this integration's functionality, a Milestone User with certain permissions must be used. This is achieved by creating a Role with the required permissions and creating a User that possesses this Role.

To create a Role and create a User with this Role, see the 'Security' chapter under 'Configuration' in the Milestone documentation:
https://doc.milestonesys.com/latest/en-US/portal/htm/chapter-page-mc-administrator-manual.htm

To assign permissions to a Role, see the 'Security node' chapter under 'User interface details' in the Milestone documentation. Assign the following permissions...

Under the **Cameras** security group:

- Read
- View Live
- Playback
- Retrieve remote recordings
- Read sequences
- Export
- AUX commands
- Manual PTZ
- Activate PTZ presets or patrolling profiles
- Manage PTZ presets or patrolling profiles
- Lock/unlock PTZ presets
- Reserve PTZ sessions
- Release PTZ sessions

Under the **Management Server** security group:

- Connect
- Read
- System Monitor
- Status API
- Authorize users

5 Command Centre operator privileges

The following Command Centre operator privileges are applicable for this integration:

Privilege	is required to...
Adjust DVR PTZ controls	alter the Pan, Tilt and Zoom of DVR cameras
Edit Site	create, edit and delete most Site Items
View Digital Camera	view the feed from a Digital Camera
View Events and Alarms	view Events and Alarms
View Site	view Site Items

Assign the appropriate privileges to the appropriate operators. For instructions on assigning operator privileges, refer to the topic *"Setting up Operator Groups"* in the Configuration Client Help.

Viewers

Ensure the appropriate Viewers are assigned to the appropriate operators. For example, an operator may wish to view video from an Alarm Viewer, Monitor Site Viewer, and Spot Monitor Viewer.

Within the Viewer Configuration, select the **Assign to Operators** button (located near the Viewer name) and select the appropriate Operator Groups to assign the Viewer to.

Reports

Ensure the appropriate Reports are assigned to the appropriate operators. For example, an operator may wish to run an Activity report to view the occurrence date and time for specific events. The operator can then search for the stored video associated with an event, by entering the occurrence date and time into the VMS user interface.

Within the Report Configuration, select the **Assign to Operators** button (located near the report name) and select the appropriate Operator Groups to assign the report to.

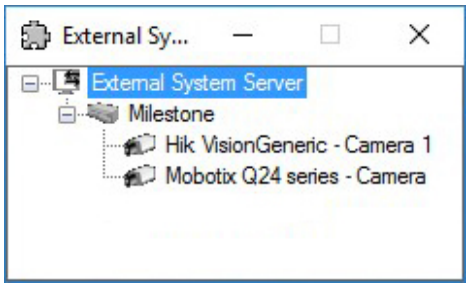
6 Command Centre configuration

To configure this integration, perform the following procedures on the Command Centre server:

6.1 Configuring an External System server
6.2 Configuring a Milestone DVR System
6.3 Configuring the Milestone server dummy camera
6.4 Configuring a Milestone camera
6.5 Configuring an Action Plan to associate footage with events

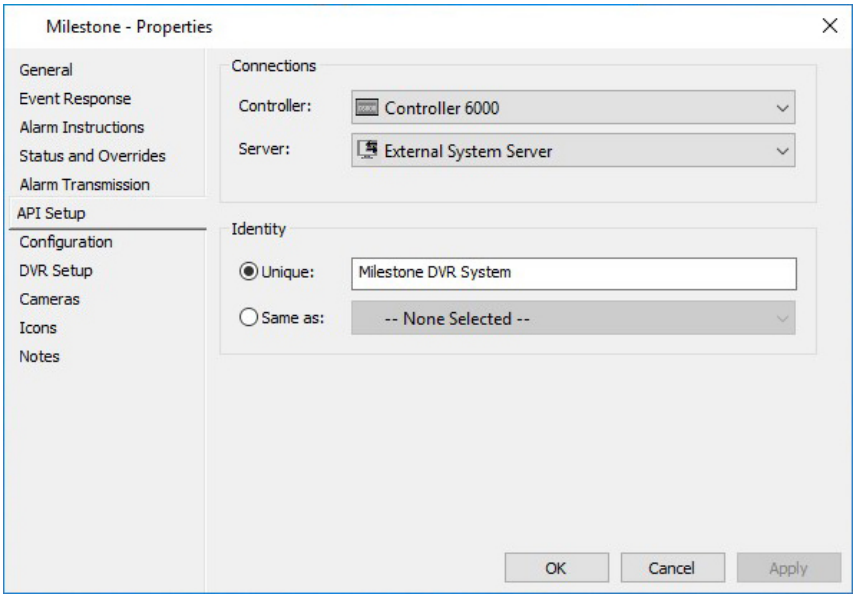
6.1 Configuring an External System Server

To configure an External System Server, refer to the topic *"Configuring an External System Server"* in the Gallagher Configuration Client Help.

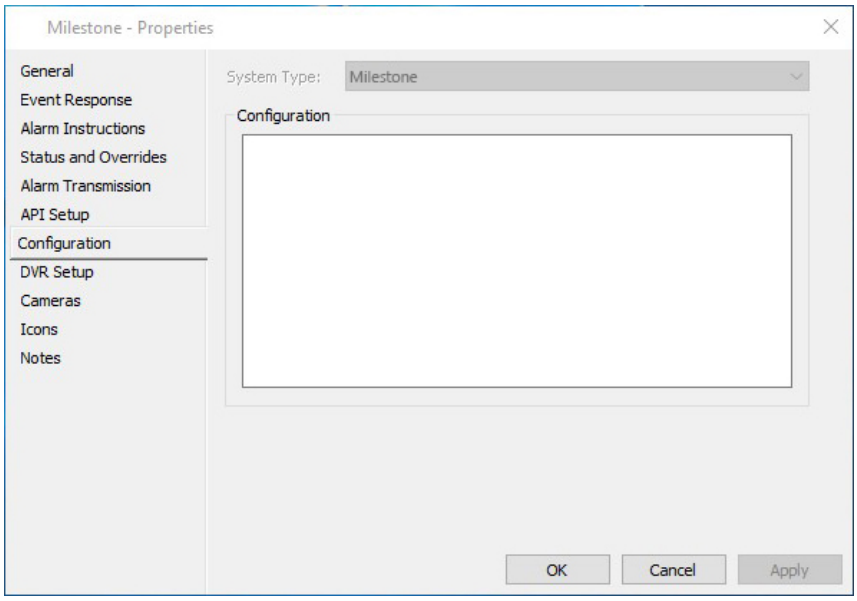


6.2 Configuring a Milestone DVR System

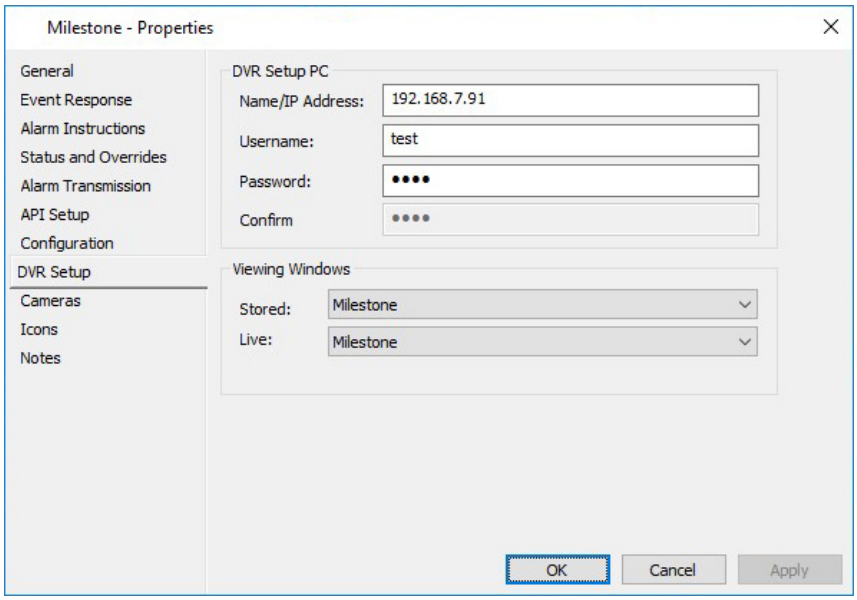
1. In Configuration Client, open the External Systems list window.
2. Right-click and select **New...** > **DVR System**.
3. Type in the Name and Description, and select the Division.
4. Click the **Event Response** tab and assign a primary Alarm Zone for all events.
5. Click the **API Setup** tab.



6. Select the appropriate **Controller** from the drop-down list.
7. Select the previously created External System Server from the **Server** drop-down list.
8. Click the **Unique** radio button in the 'Identity' section, and enter a unique identity string (e.g. Milestone DVR System). Maximum 64 characters.
9. Click the **Configuration** tab.



10. From the **System Type** drop-down list, select **Milestone** (the middleware plugin to be used).
11. Click the **DVR Setup** tab.



12. Enter the **IP Address** of the Milestone server.
13. Enter the **Username** and **Password** of a Milestone administrator account configured on the Milestone server that uses basic authentication (not Windows authentication) to log on to the Milestone server.
14. From the drop-down lists in the 'Viewing Windows' section, select the following:

    Stored: **Milestone**
    Live: **Milestone**

    Note: By installing this integration, these selections became available in the 'Viewing Windows' drop-down lists.
15. Click **OK** to close and save your changes.

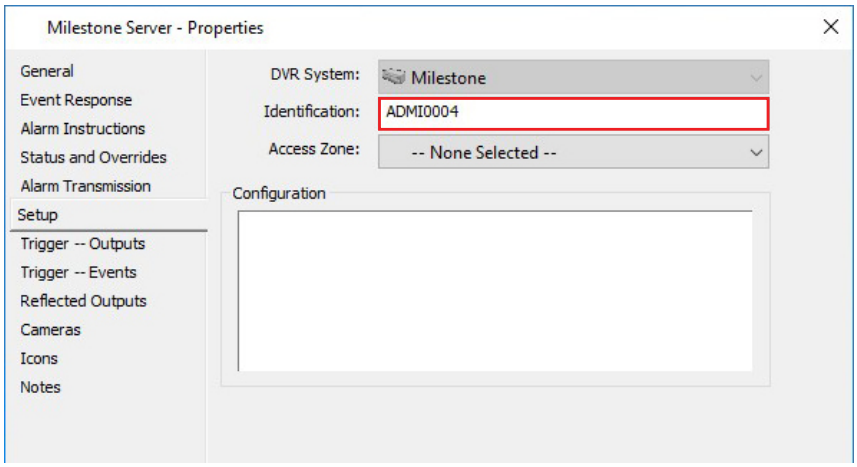
6.3 Configuring the Milestone server dummy camera

You need to configure either one or two dummy DVR Cameras to log Milestone events in Command Centre that do not map to any configured camera (i.e. events from the Milestone server and recording server). This includes Milestone server online and server offline events.

If your Milestone server and recording server have the same name, create one dummy DVR Camera with the 'Identification' field set to this name. If your Milestone server and recording server have different names, create two dummy DVR Cameras: one with the 'Identification' field set to the name of the Milestone server, and one with the 'Identification' field set to the name of the recording server.

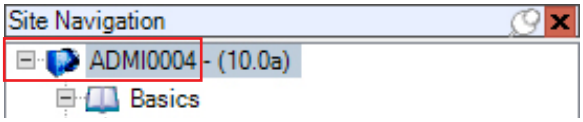
To create a dummy DVR Camera, perform the following procedure:

1. In Configuration Client, open the External Systems list window.
2. Right-click and select **New...** > **DVR Camera**.
3. Type in an appropriate Name and Description, and select the Division.
4. Click the **Event Response** tab and assign a primary Alarm Zone for all events.
5. Click the **Setup** tab.



6. Select the previously-configured **DVR System** from the drop-down list.
7. Enter the name of the Milestone server or recording server (excluding the version number) into the **Identification** field. This will enable the logging of Milestone events in Command Centre from the Milestone server.

   Note: This field is case sensitive.



8. Click the **Icons** tab.

   If you wish to change the icon set to differentiate the dummy camera from real cameras, create a new icon set for the DVR Camera item type. Refer to the topic *"Creating a new Icon Set"* in the Gallagher Configuration Client Help. Once created, assign the new icon set to the dummy camera.

9. Click **OK** to close and save your changes.

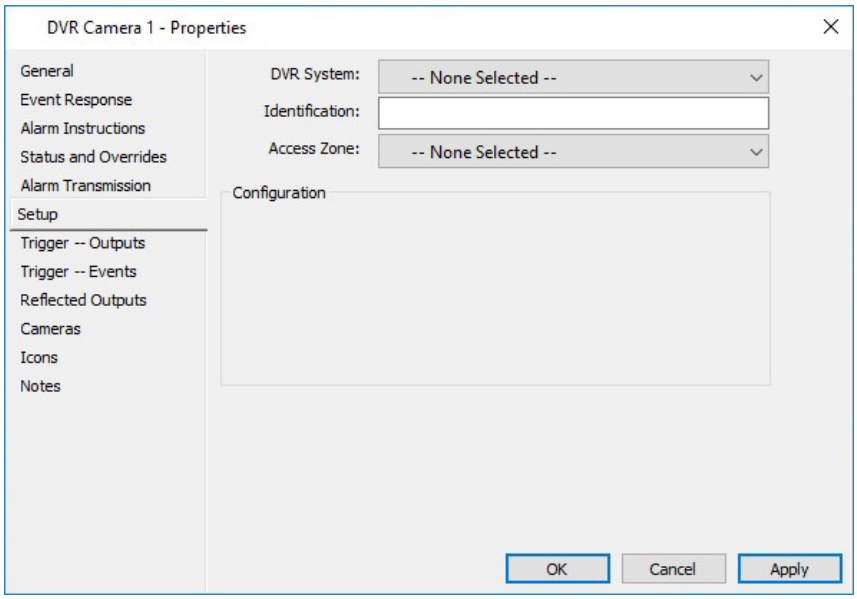
6.4 Configuring a Milestone camera

Bulk configuration of cameras

The below procedure describes how to configure one DVR Camera item. This procedure would need to be repeated for each camera.

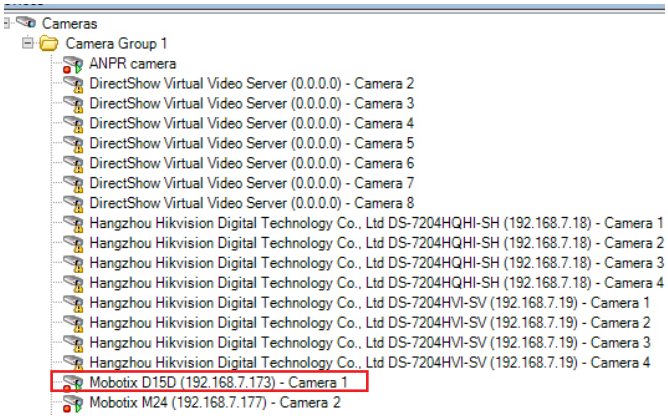
However, the Gallagher Bulk Configuration Tool can alternatively be used to configure and import many (or all) DVR Camera items into Command Centre, in one batch. This is time-saving and suited for sites that have a large number of cameras. The Bulk Configuration Tool is supported for Command Centre vEL8.70 and later versions only. For more information about the Bulk Configuration Tool, contact the Gallagher Support Team.

1. In Configuration Client, open the External Systems list window.
2. Right-click and select **New...** > **DVR Camera**.
3. Type in the Name and Description, and select the Division.
4. Click the **Event Response** tab and assign a primary Alarm Zone for all events.
5. Click the **Setup** tab.



6. Select the previously-configured Milestone DVR System that the camera is connected to from the **DVR System** drop-down list.

7. Enter the camera name as shown in Milestone into the **Identification** field. Maximum 64 characters. To locate the camera name within the Milestone, select **Cameras** from within the **Site Navigation** panel.



Note: The camera name is checked for uniqueness within the same DVR System. The camera name does not have to be unique across the entire set of cameras, as cameras belonging to different DVR Systems may share the same name, but the **Identification** field cannot be left blank.

8. Click **OK** to close and save your changes.

6.5 Configuring an Action Plan to associate footage with events

To have Milestone camera footage be associated with an event, you must assign a camera to an Action Plan, then assign the Action Plan to one or more Event Groups/Types of an alarm-generating Command Centre item (e.g a Door or alarm sensor).

When an alarm from this Event Group/Type is raised, the Action Plan will associate its camera with the alarm. As a result, when viewing an alarm in Command Centre client, a camera tile can show footage from this associated camera from the time which the alarm occurred, i.e. show what was happening at that Door/sensor when it raised the alarm.

To achieve this, perform the following procedure:

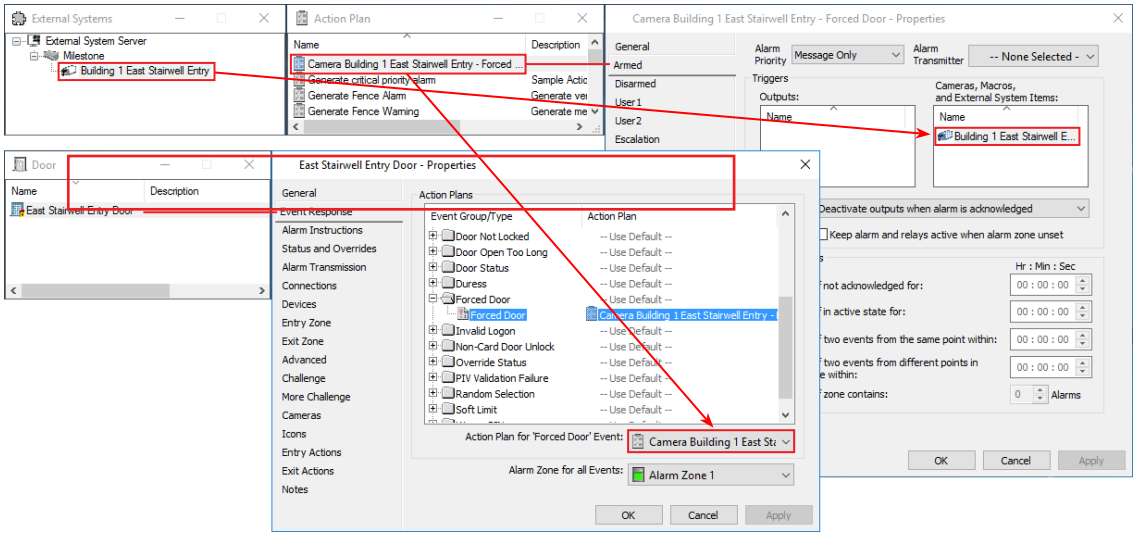
1. In Configuration Client, open the Action Plan list window (**Configure** > **Action Plans**).
2. Right-click and select **New...** > **Action Plan**.
3. Enter a name and description. We recommend naming the Action Plan after the camera that you assign to it and the Event Group/Type you assign it to, for recognisability.
4. Click the **Armed** tab.
5. Drag and drop a Camera from the External Systems list window into the **Cameras, Macros, and External System Items** grid.

   This Camera will be associated with any Event Groups/Types that this Action Plan is assigned to.
6. Click **OK** to close and save your changes.
7. Open the properties for an alarm-generating item (e.g. Door) that the Camera records footage of.
8. Click the **Event Response** tab.
9. Select an Event Group or Type that you wish to associate the Camera with.
10. From the **Action Plan for '*X*' Events** drop-down list, select your configured Action Plan.

    Note: You can assign this Action Plan to as many Event Groups/Types as required.
11. Click **OK** to close and save your changes.

Result: The Action Plan's assigned Camera will be associated with all alarms raised within the chosen Event Group/Type of this Command Centre item (e.g. Door).

Visualisation of this procedure:



7 Command Centre event configuration

The Gallagher Milestone VMS Middleware installs with a default configuration that maps some Milestone events to specific Command Centre External Event Groups.

7.1 Event mappings

The default event mappings are as follows:

Milestone event	is mapped to...
Camera Online	External Event Group 1 (hard-coded)
Camera Offline	External Event Group 2 (hard-coded)
Motion Detected	External Event Group 4 (defined in the mappings file)

These may suit your requirements. However, if these event mappings need to be customised/ added to to meet your specific requirements, you need to follow the procedures in this section.

Milestone Event Scanner utility

To map Milestone events, certain Milestone event information is required (e.g. Major and Minor event types). To capture details of the events generated in the Milestone Server, run the Milestone Event Scanner utility. For this utility and supporting information, ask Gallagher Technical Support for the 'Milestone Event Scanner utility'.

Although it is possible to change the default Action Plan for External Event Groups via Server Properties or at an individual camera level, you may wish to alter the behaviour of the event handling for the Milestone integration (e.g. on sites where it is not practical to change Server Properties or define them individually for each camera).

Milestone event definitions and mappings are stored in the file **MilestoneEventMappings.xml**. This file enables you to enter the Milestone major and minor event log type (as found with the Milestone Event Scanner Utility), and then the Command Centre External Event Group you wish to map the event to.

Regular Expressions

The `\d+` and other expressions can be used in the `MilestoneEventTypeMinor`, `MilestoneEventTypeMajor` and `MilestoneRestoralEventTypeMinor` parameters to identify strings of text of particular interest, such as words, characters, or patterns of characters. The `\d+` expression represents one or more digits.

```
MilestoneEventTypeMajor="System Event"
MilestoneEventTypeMinor="Motion Detected \d+"
EventTypeMinorIsRegex="true"
EventMessage="Motion detected on camera '%1'"
CommandCentreEventNum="4"
```

The above example will capture Milestone minor events such as: "Motion Detected 1", "Motion Detected 12", "Motion Detected 777" and so on.

IMPORTANT: The event mappings file will be overridden upon upgrade or reinstallation of the integration. To keep your existing event mappings, move the **MilestoneEventMappings.xml** file to a different location (i.e. your Desktop), then upgrade/reinstall the integration, then move the file back to C:\Program Files(x86)\Gallagher\FTCAPI\Middleware Framework\Plugin and replace the newly installed file.

To use the Milestone Event Scanner utility to get Milestone event information and add event mappings to the **MilestoneEventMappings.xml** file, perform the following procedures:

Getting event information

Before you can map a Milestone event to Command Centre, you need to know the event's MilestoneEventTypeMajor and MilestoneEventTypeMinor values.

1. Obtain the Milestone Event Scanner utility. If you do not have this utility already, contact the Gallagher Support Team.
2. Unzip the file you have been provided. Two files are extracted: 'MilestoneEventScanner.exe' and 'MilestoneEventScanner.exe.config'.
3. Move these two files to the following folder on the middleware PC:

   ```
   C:\Program Files (x86)\Gallagher\FTCAPI\Middleware Framework\Plugin
   ```

4. Open the file 'MilestoneEventScanner.exe.config' (e.g. with Notepad).
5. Change the following line's value to the IP address of your Milestone server:

   ```
   <add key="MilestoneServer" value="your Milestone server IP" />
   ```

   For example:

   ```
   <add key="MilestoneServer" value="192.168.10.20" />
   ```

6. Optionally change the below line's value to the location the event log output will be saved:

   ```
   <add key="CSVExportFolder" value="C:\MilestoneEventCaptures" />
   ```

7. Save and close the file.
8. Open Windows Command Prompt and enter the following line:

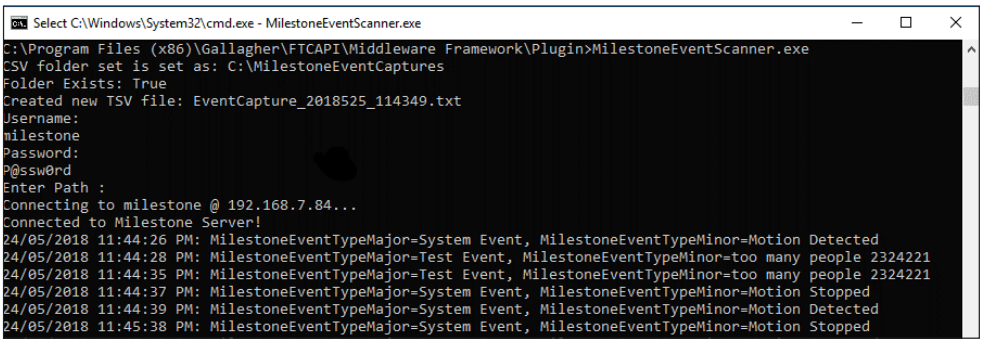
   ```
   CD C:\Program Files (x86)\Gallagher\FTCAPI\Middleware Framework\Plugin
   ```

9. Then, enter the following:

   ```
   MilestoneEventScanner.exe
   ```

10. Enter a username and password to log on to the Milestone server.

    The utility will connect to the Milestone server at the IP address you configured.



    All events generated by the Milestone server now appear in the Command Prompt window as they occur. They are also logged in an 'EventCapture_xxxxxxx_xxxxxx' CSV file at the location specified in the 'MilestoneEventScanner.exe.config' file.

    The logged events include 'Camera', 'MilestoneEventTypeMajor', and 'MilestoneEventTypeMinor' values.

Adding the event mapping

In Milestone, generate the event you wish to map to Command Centre. Then, get the event's MilestoneEventTypeMajor and MilestoneEventTypeMinor values using the above procedure. Perform the following to map the event:

1. On the middleware PC, navigate to the following folder:

   ```
   CD C:\Program Files (x86)\Gallagher\FTCAPI\Middleware Framework\
   Plugin
   ```

2. Open the file 'MilestoneEventMappings.xml' (e.g. with Notepad).

3. Each event mapping is represented by a block like this:

   ```
   <EventMapping
       MilestoneEventTypeMajor="Test Event"
       MilestoneEventTypeMinor="Too many people \d+"
       EventTypeMinorIsRegex="True"
       EventMessage="This appears in Command Centre"
       CommandCentreEventNum="3"
   />
   ```

4. Paste a copy of this block at the bottom of the 'MilestoneEventMappings.xml' file.

5. Change the values in the new block as required:

Parameter	Value
MilestoneEventTypeMajor	Set this to the 'MilestoneEventTypeMajor' value of the Milestone event you wish to map. Get this value from the previous procedure.
MilestoneEventTypeMinor	Set this to the 'MilestoneEventTypeMinor' value of the Milestone event you wish to map. Get this value from the previous procedure. **Note:** You may include regular expressions in this value. For example, if the MilestoneEventTypeMinor includes a variable number of one or more digits, you should use `\d+` to represent the number.
EventTypeMinorIsRegex	If your MilestoneEventTypeMinor value includes regular expressions, set this value to true. Otherwise, set it to false.
EventMessage	**If...** / **then...** you are mapping a default Milestone camera event (e.g. Motion Detected), → Set this to the event message that will be used when this event is raised in Command Centre. you are mapping a Milestone User-defined event or Milestone Alarm → Set this to the 'Camera' value of the Milestone event you wish to map. Get this value from the CSV file in the previous procedure.
CommandCentreEventNum	Set this to the Command Centre External Event Group number that this Milestone event will map to.

6. Save and close the file.

7. The event mapping is added. Generate the event on the Milestone server and test that it is raised as expected in Command Centre.

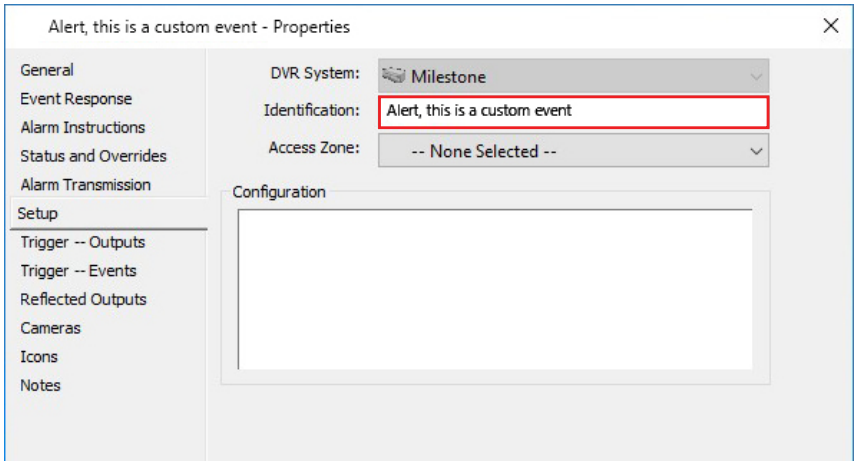
Configuring a dummy camera for User-defined events or Alarms

When mapping a default Milestone camera event (e.g. Motion Detected), this procedure is not required. For Milestone User-defined events and Milestone Alarms, since these events do not come from real cameras, you must configure a dummy camera in Command Centre for each User-defined event or Alarm to be raised against.

Perform the following for each User-defined event and Alarm you have added to the MilestoneEventMappings.xml file:

1. In Configuration Client, open the External Systems list window.
2. Right-click and select **New...** > **DVR Camera**.
3. Type in an appropriate **Name** and **Description**, and select the **Division**.

   You may wish to set the 'Name' to the name of the User-defined event or Alarm.
4. Click the **Event Response** tab and assign a primary Alarm Zone for all events.
5. Click the **Setup** tab.



6. Select your previously-configured **DVR System** from the drop-down list.
7. In the **Identification** field, enter the 'Camera' value of the Milestone User-defined event or Alarm you are mapping (obtained from the 'EventCapture...' CSV file). This is the exactly the same as the value that was entered as the '[EventMessage]' for the event mapping in the previous procedure.

OccurrenceTime	Camera	MilestoneMajorType	MilestoneMinorType
19/06/2022 21:59	[redacted]	[redacted]	[redacted]
19/06/2022 22:35	Alert, this is a custom event	[redacted]	[redacted]
19/06/2022 23:11	[redacted]	[redacted]	[redacted]
19/06/2022 23:47	[redacted]	[redacted]	[redacted]

8. Click the **Icons** tab.

   If you wish to change the icon set to differentiate this dummy camera from real cameras, create a new icon set for the DVR Camera item type. Refer to the topic *"Creating a new Icon Set"* in the Gallagher Configuration Client Help. Once created, assign the new icon set to the dummy camera.
9. Click **OK** to close and save your changes.
10. Generate the User-defined event or Alarm on the Milestone server and test that it is raised as expected in Command Centre.

7.2 ANPR mappings

You will need to configure the Automatic Number Plate Recognition (ANPR) mappings. The following ANPR mapping example has been provided in the **MilestoneEventMappings.xml** file

```
<ANPRMappings>
   <ANPRMapping
      MilestoneEventType="LPR Event"
      ANPRMatchList="Employee Cars"
      BadgeAsCard="true"
      LogANPREvent="true"
      CardFacilityCode="A00005"
      EventMessage="License plate '%platenumber%' detected at camera
      '%1'"
      CommandCentreEventNum="1"
      IsUTC="true"/>
</ANPRMappings>
```

Parameter	Description
`MilestoneEventType`	Where `LPR Event` is a Milestone ANPR event.
`ANPRMatchList`	Enter the name of a Licence plate match list, as shown in Milestone. **Exception:** Gallagher found that for the Licence plate match list named 'Unlisted license plates' in Milestone, it must be entered as 'Unlisted license plate' (without the 's') in the configuration file. **Note:** If the name is changed in Milestone, this configuration file will need to be updated to match.
`BadgeAsCard`	When set to `true`, will log a card badge event in Command Centre. Enter `false` to not log a card badge event.
`LogANPREvent`	When set to `true`, will log an ANPR event in Command Centre. Enter `false` to not log an ANPR event.
`CardFacilityCode`	Enter the facility code for the Card Type assigned to Cardholders in Command Centre. The facility code and licence plate number will be used to identify the Cardholder in Command Centre.
`EventMessage`	Customise the event message if required where `%platenumber%` is the licence plate number and `%1` is the camera name.
`CommandCentreEventNum`	The External Event Group that this event will be mapped to in Command Centre.
`IsUTC`	When set to `true`, timestamps are *not* converted to UTC timestamps; they are sent to Command Centre as they are received. Enter `false` to have timestamps converted to UTC timestamps before they are sent to Command Centre.

7.3 Mapping plate numbers from multiple match lists

If you wish to map plate numbers from multiple Milestone licence plate match lists, repeat the mapping (as shown in the example below), but enter the new Licence plate match list name.

Additionally, this functionality enables you to map licence plate numbers in a different Milestone licence plate match list to a different Command Centre External Event Group.

```
<ANPRMappings>
   <ANPRMapping
      MilestoneEventType="LPR Event"
      ANPRMatchList="Employee Cars"
      BadgeAsCard="true"
      LogANPREvent="true"
      CardFacilityCode="A00005"
      EventMessage="License plate '%platenumber%' detected at camera
'%1'"
      CommandCentreEventNum="1"
      IsUTC="true"/>
   <ANPRMapping
      MilestoneEventType="LPR Event"
      ANPRMatchList="VIP Cars"
      BadgeAsCard="true"
      LogANPREvent="true"
      CardFacilityCode="A00005"
      EventMessage="License plate '%platenumber%' detected at camera
'%1'"
      CommandCentreEventNum="2"
      IsUTC="true"/>
</ANPRMappings>
```

7.4 Configuring Event handling in Command Centre

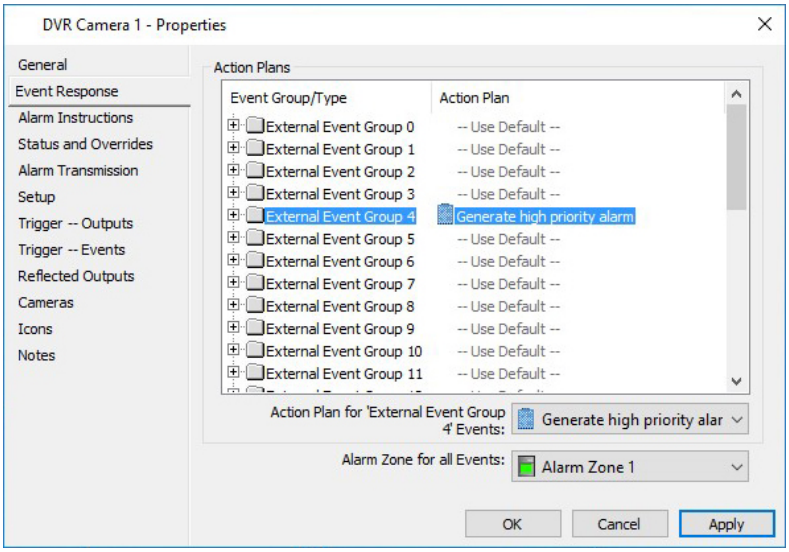
If you want to handle an event that falls within a particular External Event Group, you can change the Action Plan to be carried out by changing the Event Response of the specific camera (e.g. you may want to raise a High Priority alarm if motion is detected in certain key areas).

A custom Action Plan can also be created and assigned to an individual camera if required by following section 8.3 *"Configuring an Action Plan"* later in this release note.

For example, by default, motion events are placed in External Event Group 4, which generates a Medium-Low Priority alarm. This can be changed to "Generate High Priority alarm" or "Log an Event" by performing the following steps:

1. In Configuration Client, open the External Systems list window.
2. Right-click on the camera which you want to change and select **Properties**.
3. Click the **Event Response** tab.
4. Click the External Event Group you want to change, and select the desired Action Plan from the drop-down list.

   Note: To see which Milestone events are mapped to which External Event Groups, view event mappings in the file **MilestoneEventMappings.xml** located in the directory: `C:\Program Files(x86)\Gallagher\FTCAPI\Middleware Framework\Plugin` (Refer to section 7.1 *"Event mappings"* earlier in this release note).



5. Repeat Step 4 for any other events you want to modify the Action Plan for.
6. Click **OK** to close and save your changes.

8 Configuring DVR commands

If a user-configured event/alarm is generated in Command Centre, the Milestone server can be configured to respond (e.g. by moving a camera to a preset).

For the Milestone server to respond, you need to configure a DVR command (Output) and assign the DVR command to a camera. You then need to configure an Action Plan (assign the DVR command to the Action Plan) and assign the Action Plan to a camera, so the camera responds when an event/alarm is generated.

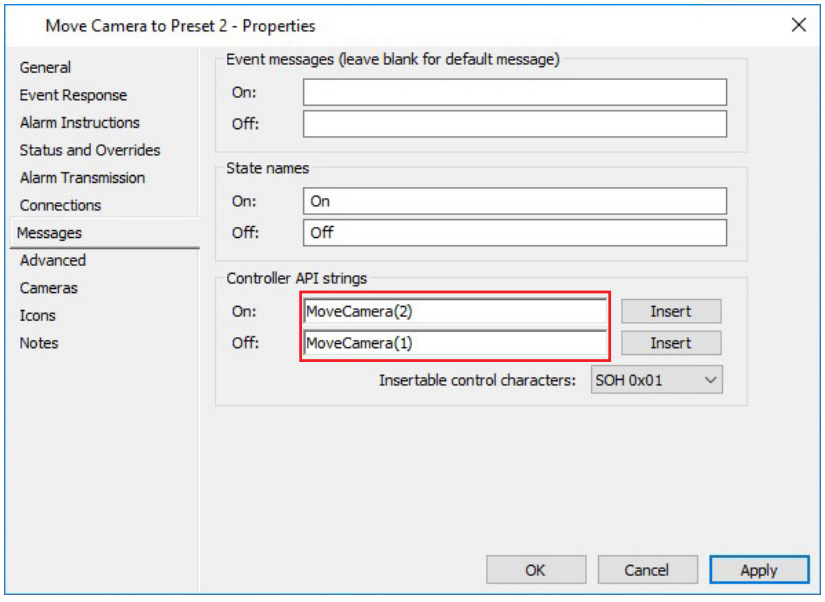
To configure a DVR command, perform the following procedures:

8.1 Configuring a DVR command
8.2 Assigning a DVR command
8.3 Configuring an Action Plan
8.4 Assigning the Action Plan

8.1 Configuring a DVR command

A DVR command is created using a virtual Output. You will need to configure a virtual Output for each DVR command you wish to issue.

1. In Configuration Client, open the Hardware list window.
2. Right-click and select **New...** > **Output**.
3. Type in the Name and Description, and select the Division.
4. Click the **Event Response** tab and assign a primary Alarm Zone for all events. Use the primary Alarm Zone assigned to the Controller, that this virtual Output will be assigned to.
5. Click the **Messages** tab.



6. Enter a DVR command (API string) into the **Controller API strings** fields.

   The API string used to move a PTZ camera to a preset is:
   MoveCamera(preset number)
   Where the preset number (e.g. 1) shown in the API string is the preset defined against the camera within the Milestone server.

7. Click **OK** to close and save your changes.
8. Assign the virtual Output to the **Virtual Outputs** tab of a Controller.

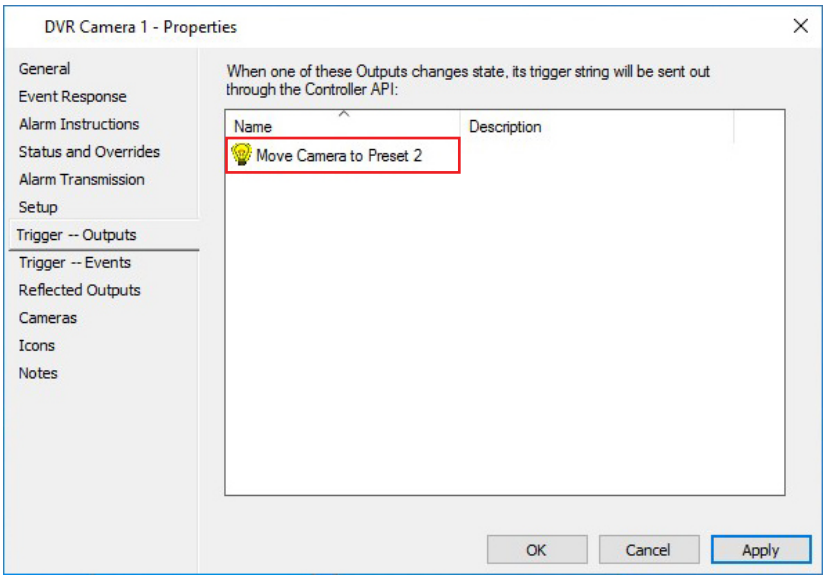
8.2 Assigning a DVR command

You need to assign the DVR command to a camera for the camera to respond when a user-configured alarm occurs.

Notes:

- You can assign more than one DVR command to a camera (e.g. in order to move the camera to multiple presets).
- You need to assign the DVR command to all cameras you wish to control.

1. In Configuration Client, open the External Systems list window.
2. Right-click on the required PTZ camera and select **Properties**.
3. Click the **Trigger--Outputs** tab.



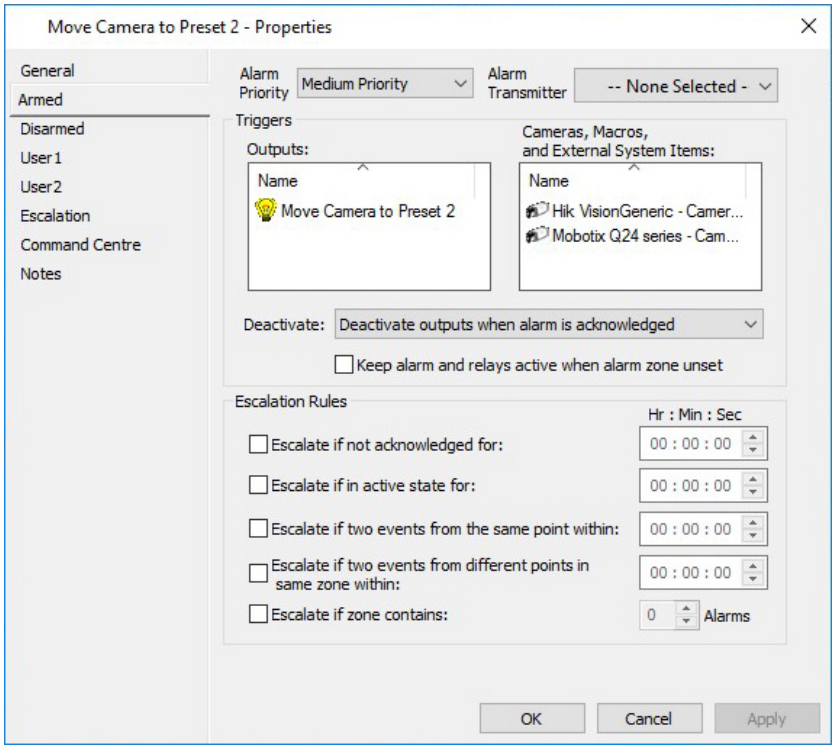
4. Drag and drop the virtual Output (DVR command) that you require to activate into the **Output** grid
5. Click **OK** to close and save your changes.

   Result: When the Output is activated, it sends the string configured on its Messages tab to the PTZ Camera.

8.3 Configuring an Action Plan

You need to configure an Action Plan and assign the Action Plan to a DVR Camera in order to generate an event/alarm in Command Centre, execute DVR commands, and/or record video when a camera event occurs (e.g. motion detected or camera offline).

1. In Configuration Client, open the Action Plan list window.
2. Right-click and select **New...** > **Action Plan**.
3. Type in the Name and Description, and select the Division.
4. Click the **Armed** tab. These settings define the responses when the DVR Camera's Alarm Zone is Armed.



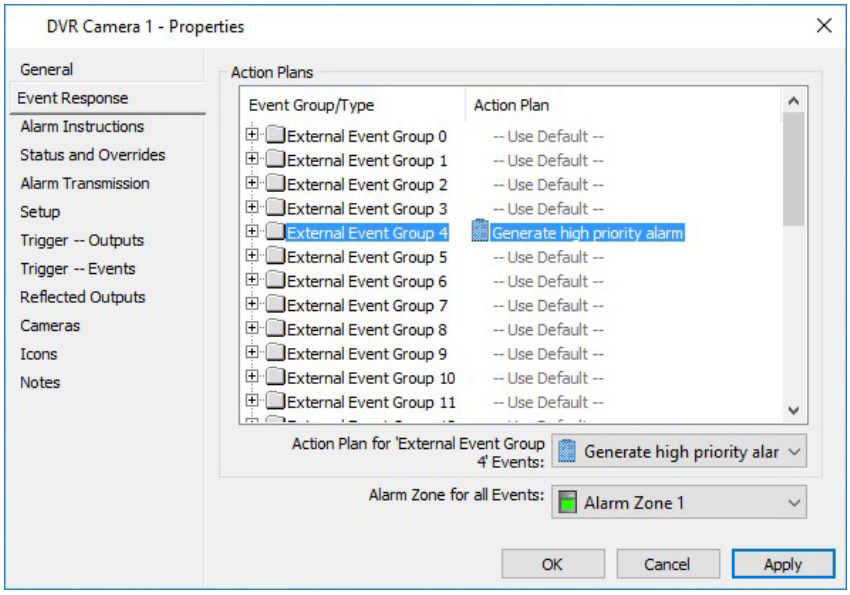
5. Specify the priority of events or alarms generated, from the **Alarm Priority** drop-down list.

   Note: If the Alarm Priority is set to 'Not an Event' or 'Message only' the virtual Output won't be activated.

6. Drag and drop the virtual Output that is required to activate into the **Output** grid. This virtual Output will move the camera it has been assigned to when triggered.
7. If required, drag and drop a camera (any camera) to display footage associated with an alarm if this Action Plan causes an alarm to be generated, into the **Cameras, Macros, and External System Items** grid.
8. Click the **Disarmed** tab, and repeat Steps 5–7. These settings define the responses when the DVR Camera's Alarm Zone is Disarmed.
9. Configure the settings on each of the remaining tabs as appropriate. For the full procedure, refer to the topic *"Creating a new Action Plan"* in the Gallagher Configuration Client Help.
10. Repeat this procedure for each camera that you want to configure a specific event/alarm for.

8.4 Assigning the Action Plan

1. In Configuration Client, open the External Systems list window.
2. Right-click on the required camera and select **Properties**.
3. Click the **Event Response** tab.
4. Highlight the appropriate External Event Group. Refer to the **MilestoneEventMappings.xml** file (mentioned earlier in this document) for a definition of which Milestone events map to which Command Centre External Event Groups.
   The Action Plan drop-down list is then enabled.
5. Click the drop-down menu box and select the appropriate Action Plan for the selected External Event Group.
6. Repeat Steps 4 and 5 for each External Event Group.



7. Click **OK** to close and save your changes.
8. Repeat this procedure for each camera.

9 Configuring the Cameras tab

A DVR Camera can be configured to have its own and/or other camera's feeds display in a Command Centre Alarm Viewer when that DVR Camera generates an alarm. This is done by assigning one or more cameras to the DVR Camera in the DVR Camera's **Cameras** tab, then configuring the Alarm Viewer.

To achieve this, perform the following procedures:

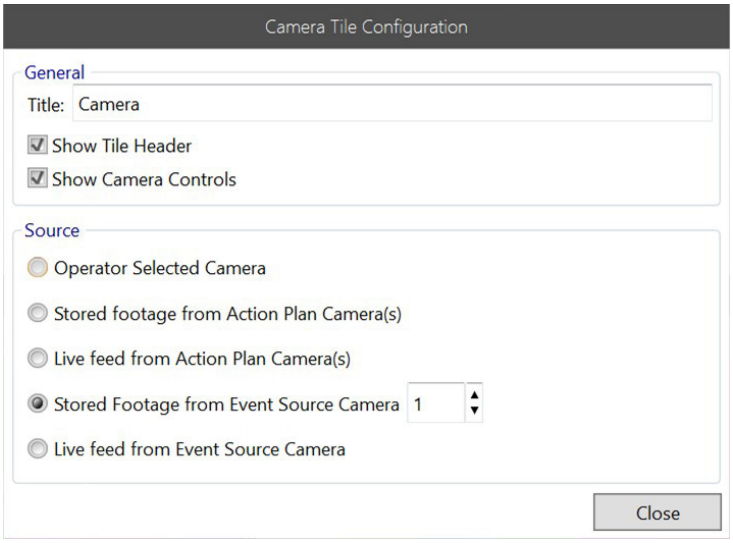
9.1 Assigning Cameras to the Cameras tab
9.2 Assigning Cameras to Command Centre Camera tiles

9.1 Assigning Cameras to the Cameras tab

For instructions on how to assign DVR Cameras to a DVR Camera's **Cameras** tab, refer to the topic *"Cameras tab"* in the Gallagher Configuration Client Help.

9.2 Assigning cameras to Command Centre Camera tiles

1. In Command Centre Client, go to the required Alarm Viewer and click **Viewer Configuration**.
2. Add a Camera tile to the viewer, or edit an existing Camera tile. Refer to the topic *"Configuring a Camera Tile"* in the Gallagher Command Centre Help
3. In the Camera Tile Configuration window, select either **Stored Footage from Event Source Camera** or **Live feed from Event Source Camera**. Refer to the help topic for more information.



4. In the field next to your selected option, enter the 'position in list' number of the associated camera that you want to display when this camera raises an alarm.

   The 'position in list' number of an associated camera is determined by the order it is stacked in, in the **Cameras** tab of the event source camera.

   Note: If the specified index does not exist for the event source camera (e.g. index is set to 3, but the event source camera only has two associated cameras), no footage displays.

   Click **Close** to save this tile's configuration, then click **Save** to save the viewer.

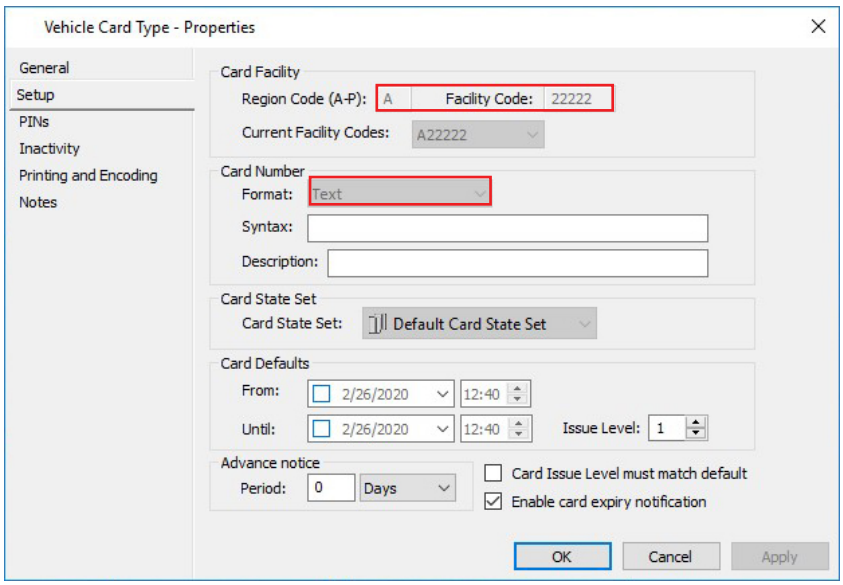
10 Configuring the ANPR functionality

To configure the ANPR functionality, perform the following procedures:

10.1 Creating a 'Text' Card Type
10.2 Assigning the 'Text' Card Type and Cardholder's licence plate number
10.3 Assigning the camera as a Reader for a Door

10.1 Creating a 'Text' Card Type

Create a 'Text' Card Type in Configuration Client. Select **Text** from the **Format** drop-down list on the **Setup** tab in the Card Type's properties. Ensure the Facility Code matches the Facility Code in the **MilestoneEventMappings.xml** file.

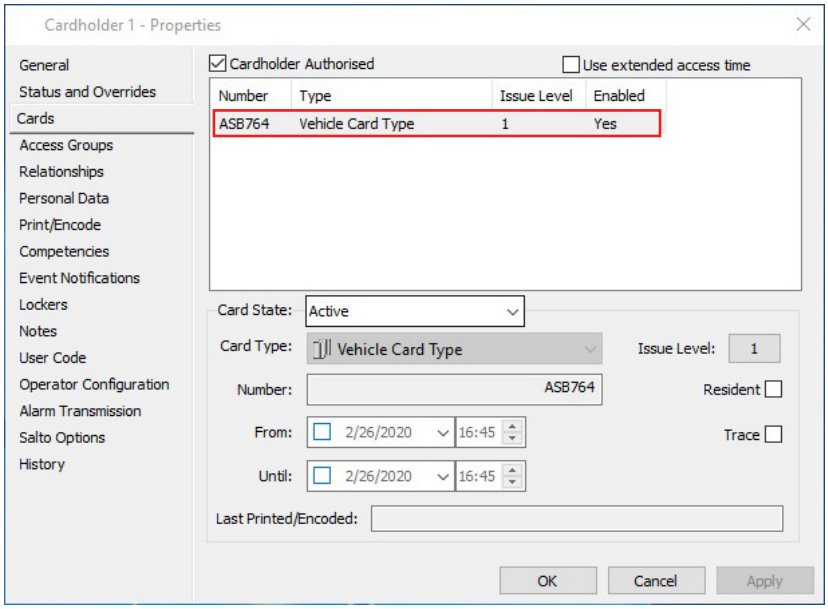


10.2 Assigning the 'Text' Card Type and Cardholder's licence plate number

Open the properties for a Cardholder. Add the previously created 'Text' Card Type to the Cardholder. Enter the Cardholder's licence plate number as the card number. Repeat this procedure for each Cardholder that requires the ANPR functionality.

Notes:

- The licence plate number entered must match a licence plate number in Milestone (i.e. listed on a Milestone licence plate match list which is referenced in the **MilestoneEventMappings.xml** file).
- The Card **Number** field is case sensitive.



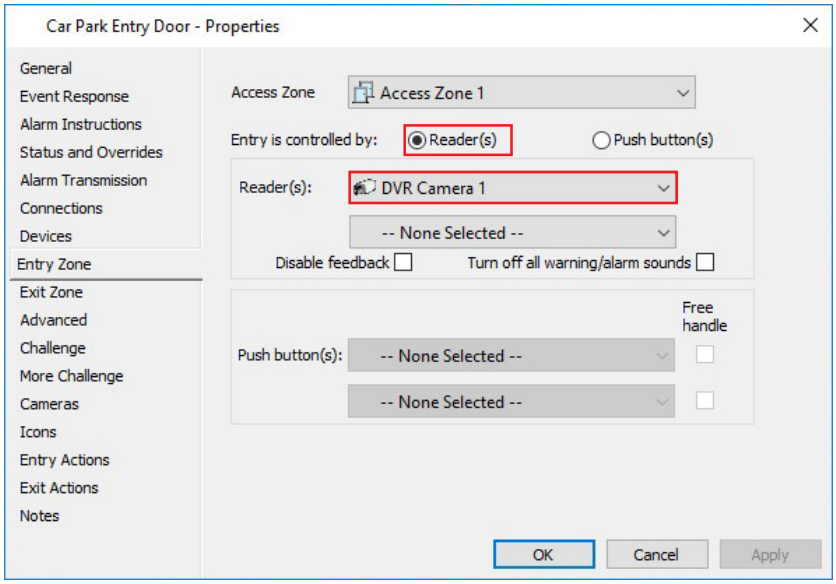
10.3 Assigning a camera as the Reader for a Door

Assign a camera as the Reader for a Door. Ensure the **Reader(s)** radio button is selected, then select the appropriate camera from the **Reader(s)** drop-down list.

A licence plate number recognised at this camera, that matches a card number in Command Centre will be treated as a card event. If the Cardholder's Access Group provides access to the entry zone, the Cardholder will be granted access at this Door.

Notes:

- If you wish to use dual authorisation (i.e. both number plate recognition and an access card) select a reader from the second **Reader(s)** drop-down list. Ensure this access zone has been configured for dual authorisation (i.e. the 'Text' Card Type and another Card Type - to be presented at the Reader).
- A PIN cannot be entered when a camera is assigned as the Reader for a Door.



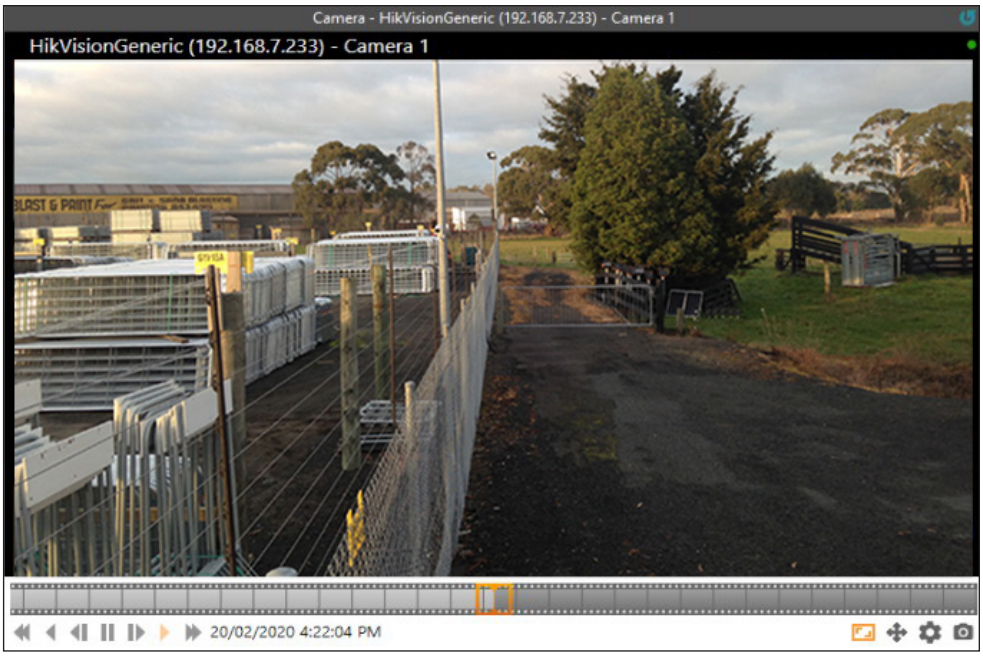
11 Viewing video

11.1 Live video viewing

A Camera tile in the Command Centre Client can be configured to display live footage from a camera. Refer to the topics *"Adding Tiles to Panels"* and *"Configuring a Camera Tile"* in the Gallagher Command Centre Help.

To view live video in Command Centre:

1. From the Command Centre Client toolbar, select the **Viewer** that has been configured with a Camera tile. The Camera tile displays.



Note: The status bar shown above the footage is a property of the Milestone system. The camera name is shown to the left. The green dot in the top-right indicates that the video stream is live. A red dot indicates that the video stream is being recorded.

11.2 Stored video viewing

There are two ways to view stored video: from an alarm and from a Camera tile.

Viewing stored video from an alarm

When alarms occur that have associated stored video, these alarms can be recognised in the Alarm Viewer Navigation Panel by the Film Strip icon to the left of the alarm message.

Note: Operators require the "View Digital Camera" and "View Events and Alarms" operator privileges to perform this procedure.

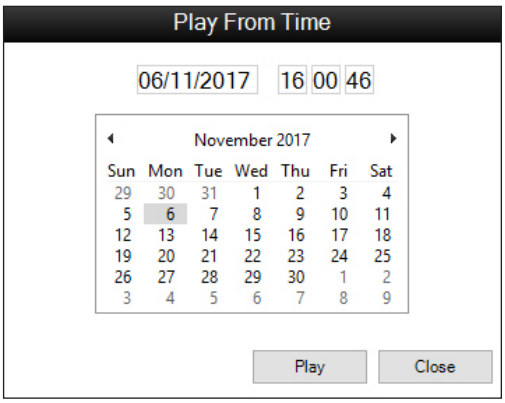
1. From the Command Centre Client toolbar, select the **Alarm Viewer.**
2. Select the appropriate alarm that has the Film Strip icon to the left of the alarm message.
3. If a Camera tile has been configured for the Event Group associated with the alarm, the Camera tile displays.
4. If multiple cameras have been configured for the Action Plan associated with the alarm Event Group, select the appropriate camera tab.

Viewing stored video from a Camera tile

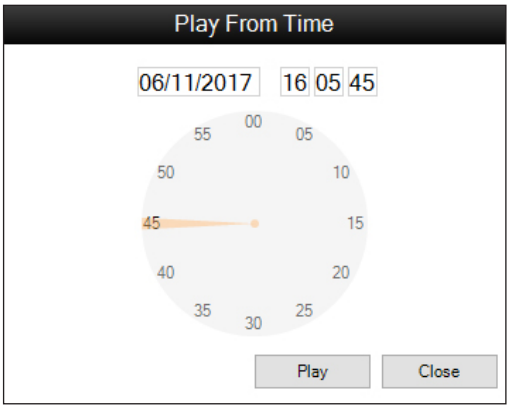
To play stored video from a specific date and time, perform the following procedure:

1. Click the date and time label from below the trackbar in a Camera tile.
   The 'Play From Time' pop-up displays.

   Note: The date and time label displays the date and time for the current frame.

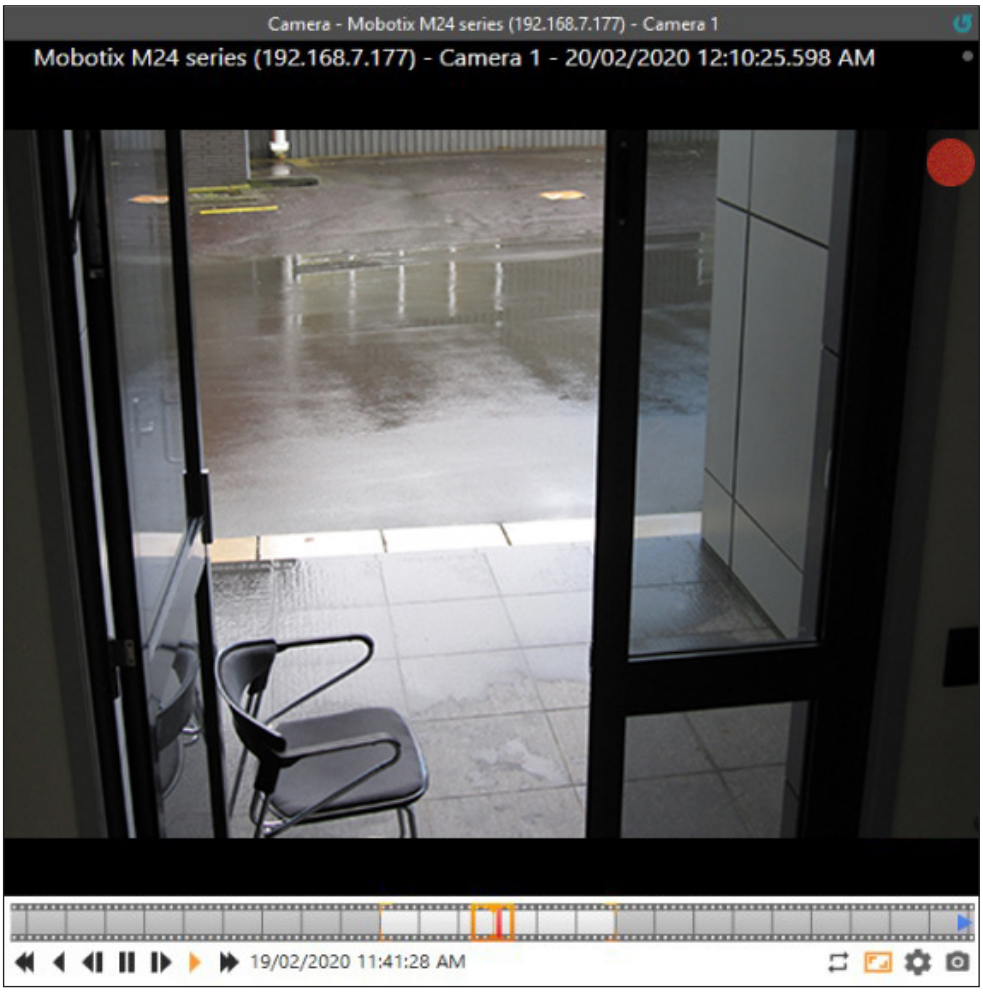


2. Click within the date field and enter a date. Alternatively, select a date from the date picker.
3. Click within the time field and enter a time. Alternatively, select a time from the time control.



4. Click the **Play** button.
The video for the date and time selected displays.

Note: Selecting a future date or time will return you to the current live video.



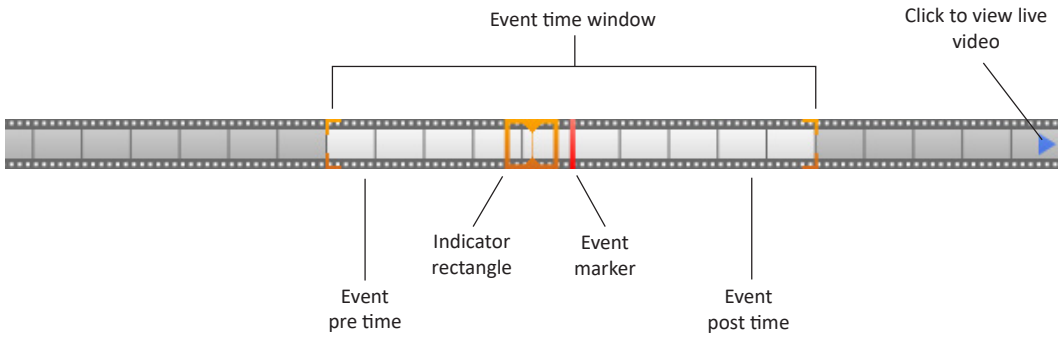
12 VMS user interface functionality

The Command Centre VMS user interface appears within the camera tile. This chapter describes the functionality of the VMS user interface.

Refer to the appropriate topic:

12.1 Using the trackbar

The trackbar represents the video being played. The current time is represented by an indicator rectangle that sits within the centre of the trackbar. The trackbar filmstrip moves either forward or backwards depending on the direction and speed that the video is being played at.



An operator can drag the indicator rectangle forward and backwards to view video from a specific time. When you click and drag the indicator rectangle, the orange marker will remain at the point you are currently viewing until you release the mouse button.

The time within the event pre and post time is shown in white, the time outside this is in light grey, and the time beyond the current live time is shown in dark grey.

An event marker (red marker) indicates the location of the event. When off-screen an event arrow (red arrow) indicates the direction of the event marker. Hovering over either the event arrow or the event marker displays the event date and time. Clicking the event arrow will jump playback to the event pre-time.

To view the live video, an operator can either drag the indicator rectangle forward until they 'hit' live time or they can click the live arrow (blue arrow) which displays when live video is off-screen and when the forward event arrow is not visible.

12.2 Using the playback speed and direction controls

The following table describes the functionality of the playback speed and direction controls.

Button	Mode	Description
	Fast Rewind	Click to play backwards at a speed of x2, then x4, x8, x16, x32, and x64. If the button is clicked again, the play backwards speed will return to normal.
	Rewind	Click to play backwards at normal speed.
	Slow Rewind or Step backward	When held for more than a second, the video begins playing backwards at a slower than normal playback speed. When clicked, the video pauses and steps backwards one frame per click.
	Pause	Click to pause video playback.
	Slow Play or Step forward	When held for more than a second, the video begins playing forward at a slower than normal playback speed. When clicked, the video pauses and steps forward one frame per click.
	Play	Click to play forward at normal speed.
	Fast Forward	Click to play forward at a speed of x2, then x4, x8, x16, x32, and x64. If the button is clicked again, the play forward speed will return to normal.

12.3 Changing the event playback mode

The event playback mode button is only visible when an event is present. Clicking this button toggles between the following modes:

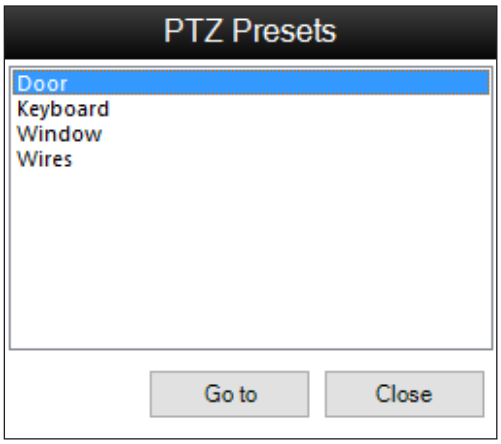
Button	Mode	Description
	Pause	When video playback reaches the end of the event playback window, the video will pause. This also functions in reverse (i.e. when playing backwards, the video will pause when the start of the event window has been reached).
	Loop	When video playback reaches the end of the event playback window, the video will begin playing from the start of the event window. This also functions in reverse (i.e. when playing backwards, the video will begin playing from the end of the event window when the start of the event window is reached).
	Continue	When the end of the event playback window is reached, video playback will continue as normal. This also functions in reverse (i.e. when playing backwards and the start of the event playback window is reached, the video will continue to play backwards).

12.4 Selecting a PTZ preset

The PTZ presents button displays only when viewing live video. This button displays if the camera is PTZ enabled. An operator requires the "Adjust DVR PTZ controls" operator privilege to select a PTZ preset.

To select a PTZ preset, perform the following procedure:

1. Click the button.
   The PTZ Presets pop-up displays.



   This window displays the presets available for the camera. However, not all presets will be configured within Milestone. If a preset is selected that hasn't been configured, the camera will not move.
2. Select the required preset.
3. Click the **Go to** button.

12.5 Controlling a PTZ camera

An operator requires the "Adjust DVR PTZ controls" operator privilege to control a PTZ camera.

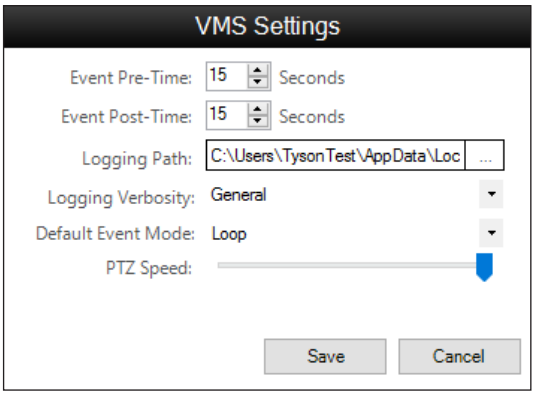
Control	Function
On-screen pan/tilt	For a PTZ enabled camera, hover the cursor over the video. The cursor will change to a directional arrow showing the PTZ direction that will take effect once the left mouse button is clicked. The direction is calculated based on the position of the directional arrow from the centre of the video control.
Mouse-wheel zoom	Use the mouse wheel to zoom in and out.
Keyboard PTZ	Use the keyboard arrow keys to pan/tilt. Use the keyboard **+** and **-** keys to zoom in and out respectively.

12.6 Editing the VMS settings

To edit the VMS settings, perform the following procedure:

Note: VMS settings are applied to all camera tiles configured for the workstation.

1. Click the button.
   The 'VMS Settings' pop-up displays.



2. Edit the VMS settings as required.

Option	Description
Event Pre-Time	When viewing stored video associated with an alarm, this is the period of time that will be displayed prior to the event occurrence time. Hence, this option defines the start point for the event time window. Default 15 seconds. Range 0–300 seconds.
Event Post-Time	When viewing stored video associated with an alarm, this is the period of time that will be displayed post the event occurrence time. Hence, this option defines the end point for the event time window. Default 15 seconds. Range 0–300 seconds.
Logging Path	Defines the location of the log files MilestoneCCVMSLog.log and gglMilestoneProxy.log
Logging Verbosity	Defines the level of detail of logging. • General: Low-level logging. • Debug: Medium-level logging. • Trace: High-level logging. Set the logging verbosity to trace when supplying the log file to Gallagher Technical Support. Gallagher recommends you restrict access to Trace-level log files.
Default Event Mode	Defines the event playback mode. • Pause: Video will pause when playback reaches the end of the event time window. • Loop: Video will loop when playback reaches the end of the event time window. • Continue: Video will continue when playback reaches the end of the event time window.
PTZ Speed	Defines the pan, tilt and zoom speeds for PTZ-enabled cameras.

3. Click the **Save** button.
4. Refresh the Viewer for the changes to take effect.

12.7 Capturing an image

Click the button to capture an image of the current frame. The image is saved as a .jpg file to the clipboard.

12.8 Adjusting the footage aspect ratio

Click the button to have the aspect ratio of the footage stretch to fit the camera tile.

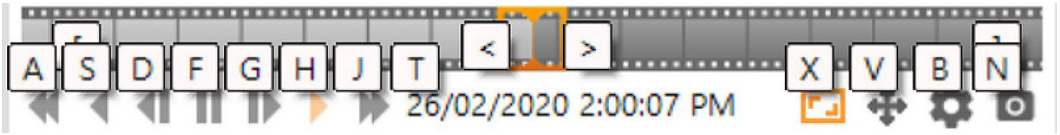
While the button is active (orange), the aspect ratio displays as the source aspect ratio, and black bars may be apparent on the top/bottom or sides of the camera tile. While the button is inactive (grey), the aspect ratio is stretched to fit the size of the camera tile.

Note: This button may not be visible if the camera tile is too small.

12.9 Using keyboard hotkeys

The VMS user interface is usable from the keyboard.

When **Ctrl** is pressed (and no pop-up is open), the interface hotkeys appear.



Note: The hotkeys will not work if the camera tile is configured to not show camera controls or if the tile is minimised so that camera controls are not visible.

The following table lists the available hotkeys:

Hotkeys	Function
F5	Refresh the camera tile
CTRL – A	Fast rewind
CTRL – S	Rewind
CTRL – D	Step backward
CTRL – F	Pause
CTRL – G	Step forward
CTRL – H	Play
CTRL – J	Fast forward
CTRL – T	Open the 'Play From Time' pop-up
CTRL – C	Toggle event playback mode
CTRL – X	Stretch/Un-stretch the footage aspect ratio to fit the tile.
CTRL – V	Open the 'PTZ Presets' pop-up
CTRL – B	Open the 'VMS Settings' pop-up
CTRL – N	Capture image
CTRL – [	Click left trackbar arrow (if available)
CTRL –]	Click right trackbar arrow (if available)
CTRL – <	Press and hold to move trackbar playback left
CTRL – >	Press and hold to move trackbar playback right

13 Upgrading

13.1 Upgrading this integration from vEL8.60 (or earlier) to vEL9.10 (or later)

1. Perform a backup of your Command Centre system.
2. Back up the **MilestoneEventMappings.xml** file.

   Note: The event mappings file will be overridden upon upgrade or reinstallation of the integration.
3. Exit Command Centre and stop the Command Centre Services.
4. Using the Windows **Programs and Features** utility, remove the following programs from the middleware PC:
   - Gallagher FTCAPI Middleware Framework
   - Gallagher Milestone VMS Middleware
5. Upgrade Command Centre to vEL9.10.1005 (or later release). Refer to the document *"3E0068 Release Note Gallagher Command Centre vEL9.10.1005 (Upgrade Procedures).pdf"* located on the Gallagher installation media.
6. Unzip the new folder you have been provided and run the installation executable **Gallagher Milestone VMS Integration Setup 9.10.xx.msi** on the Command Centre Server and those Command Centre workstations that will be using this integration.

   Note: You only need to install this integration on workstations that will be used to view video.

   ClickOnce
   This integration is not automatically deployed via ClickOnce. You must run the installation executable **Gallagher Milestone VMS Integration Setup 9.10.xx.msi** on the all ClickOnce workstations that will be using this integration.
7. Install the Gallagher FTCAPI Middleware Framework vMF8.10.xxx (or later) on the middleware PC. Refer to the middleware framework installation instructions earlier in this release note.
8. From the folder you have been provided, run the installation executable **Gallagher Milestone VMS Middleware Setup 9.10.xx.msi** on the middleware PC.
9. Restart the FT Services and Command Centre.
10. To ensure this integration has installed correctly, select the **Programs and Features** utility from the Windows Control Panel.

    The following programs should be listed as currently installed on the Command Centre server and all workstations that will be using this integration:
    - Gallagher Command Centre
    - Gallagher Milestone VMS Integration

    The following programs should be listed as currently installed on the middleware PC:
    - Gallagher FTCAPI Middleware Framework
    - Gallagher Milestone VMS Middleware

13.2 Upgrading this integration on vEL9.10 or later

1. Perform a backup of your Command Centre system.
2. Back up the **MilestoneEventMappings.xml** file.

   Note: The event mappings file will be overridden upon upgrade or reinstallation of the integration.
3. Exit Command Centre and stop the Command Centre Services.
4. Using the Windows **Programs and Features** utility, remove the program 'Gallagher Milestone VMS Middleware' from the middleware PC.
5. Unzip the new folder you have been provided and run the installation executable **Gallagher Milestone VMS Integration Setup 9.10.xx.msi** on the Command Centre Server and all Command Centre workstations that will be using this integration.

   Note: You only need to install this integration on workstations that will be used to view video.

   ClickOnce
   This integration is not automatically deployed via ClickOnce. You must run the installation executable **Gallagher Milestone VMS Integration Setup 9.10.xx.msi** on the all ClickOnce workstations that will be using this integration.
6. From the folder you have been provided, run the installation executable **Gallagher Milestone VMS Middleware Setup 9.10.xx.msi** on the middleware PC.
7. Restart the Command Centre Services and Command Centre.

14 Uninstallation

To permanently uninstall this integration, perform the following procedure:

1. Perform a backup of your Command Centre system.
2. Delete all Command Centre items configured for this integration.
3. Exit Command Centre and stop the Command Centre Services.
4. Using the Windows **Programs and Features** utility, remove the program 'Gallagher Milestone VMS Integration' from the Command Centre server and all Command Centre workstations.
5. Using the Windows **Programs and Features** utility, remove the following programs from the middleware PC:
   - Gallagher Milestone VMS Middleware
   - Gallagher FTCAPI Middleware Framework (if not used elsewhere)
6. Restart the Command Centre Services and Command Centre.

15 Error messages

The following describes the error messages that may display within the Camera tile.

Message	Description
Viewer is currently not licenced	You are not licenced for this integration.
Failed to connect to Milestone	Milestone has been disconnected from the Command Centre server.
Connection to device has been lost. Attempting reconnection...	Most likely the camera has been disconnected from the network or the Milestone server is offline.
Command initialize failed to execute successfully	The camera you have assigned to the Camera tile may not exist. Check the camera name is correct and that the DVR setup is correct, or try refreshing the Camera tile.
No live viewer control was assigned to the camera in the Command Centre Configuration Client	Navigate to the Command Centre DVR System item and add the Milestone stored and live options.
Camera name invalid	The camera name is invalid or cannot be found in Milestone.
No video footage found at specified time	No stored video can be found.
Connecting to [VMS Server Name]. This may take a few minutes...	A connection to the OnSSI server is being established.

16 Known issues

- Gallagher has observed the '*No video footage found at specified time*' error message fails to display when using some more recent versions of Milestone XProtect. The Camera tile instead displays as a frozen frame for the duration of the missing footage.
- If the indicator rectangle located on the trackbar is dragged backwards in fast backwards/play backwards mode, the stored video will pause. Click a play button to continue playback.
- DVR Cameras (within the External Systems list window) don't show as offline when the External System (parent Milestone DVR System) is offline.
- When a Camera tile or Camera Viewer is first opened, an operator will be unable to move the Indicator Rectangle (located on the trackbar) until the camera is fully initiated.
- The VMS user interface is not available in the Configuration Client (i.e. live and stored camera footage is available in the Command Centre Client only). When attempting to view a camera in the Configuration Client the message *"This VMS integration is not supported in the Configuration Client. Please launch the Command Centre Client in order to view video footage using this integration*" displays.
- A PIN cannot be entered when a camera is assigned as the Reader for a Door.
- If you receive the message *"Connection to server failed. Retrying..."* within the VMS user interface, specify a DNS server within your network settings.
- If a camera is reporting an incorrect status, perform a 'Push Configuration' on the camera item, or restart the FTCAPI Router Service on the middleware PC.

17 Troubleshooting

- **Camera tile error**
  If you are running this integration on a Milestone server 2018 and the camera tiles are displaying an error and not showing any footage, installing Microsoft .NET Framework 3.5 on the workstations experiencing this issue may resolve the error.
- **Command Centre VMS log files**
  Log files may help you with troubleshooting. Log files are stored in the file path you specify in section 12.6 *"Editing the VMS settings"*.
- **FMF log files**
  You can also enable FMF logging. To enable FMF logging, refer to the document *"Middleware Framework_vMF8.xx"* located in the Gallagher installation media in the following folder: `Utilities\System Interfaces\Middleware Framework vMFx.xx.xxx`
- **Cameras displaying ? icon and 'Awaiting status from Controller' status**
  If the Controller that the DVR Cameras are hosted on is restarted (e.g. through an upgrade or Reset override), restart the FTCAPI Router Service on the middleware PC in order for the DVR Cameras to return to a normal status.
- **Cameras in offline status**
  When upgrading Milestone XProtect, the Milestone account that is used by your External System (in Gallagher Configuration Client) may become locked out, causing DVR Cameras to go offline. To fix this issue if it occurs, stop the FTCAPI Router Service and reset the password in the Milestone system. Then, enter the new password assigned to the External System in Gallagher Configuration Client, and restart the FTCAPI Router Service.