Gallagher Command Centre Plugin Configuration Guide

Contents

1. Introduction

A CathexisVision plugin has been developed for use within the Gallagher Command Centre software which will allow CathexisVision cameras to be streamed (live and review) from within the Gallagher GUI. This document will detail the steps to configure and operate the integration.

In this REST API integration, CathexisVision sends video and event information to Gallagher for viewing in the Gallagher Command Centre. For a guide on the Gallagher access control solution's integration with CathexisVision (a SDK integration), please refer to the ***CathexisVision Gallagher Integration App-note***. In that integration, CathexisVision receives event information from Gallagher for viewing in CathexisVision.

1.1 Requirements

This integration works by licensing the CathexisVision NVR with a Gallagher plugin license, and installing the Gallagher Plugin application on the same unit that is running the Gallagher Command Centre Software.

1.1.1 Cathexis Requirements

- CathexisVision 2021.2 and later.

- Gallagher Plugin License (CGPL-2000) applied only to the site server on which the Gallagher Event Injector integration is configured.

- Gallagher Plugin application ver. 1.

Note: Without the above plugin license, a notification will be shown in the Gallagher Command Centre indicating an unlicensed NVR.

1.1.2 Gallagher Requirements

- This integration was tested using the Gallagher Command Centre version 8.20.

- This integration also works with Gallagher Command Centre version 8.80.

2. Install and Configure Software

2.1 CathexisVision

2.1.1 Install

If not already installed, follow the CathexisVision installation instructions that can be found in the relevant versions of the *CathexisVision Setup Manual* or the *CathexisVision QuickStart Guide*.

2.1.2 Configure

Ensure that the Gallagher Plugin license (CGPL-2000) is applied to all site CathexisVision NVRs.
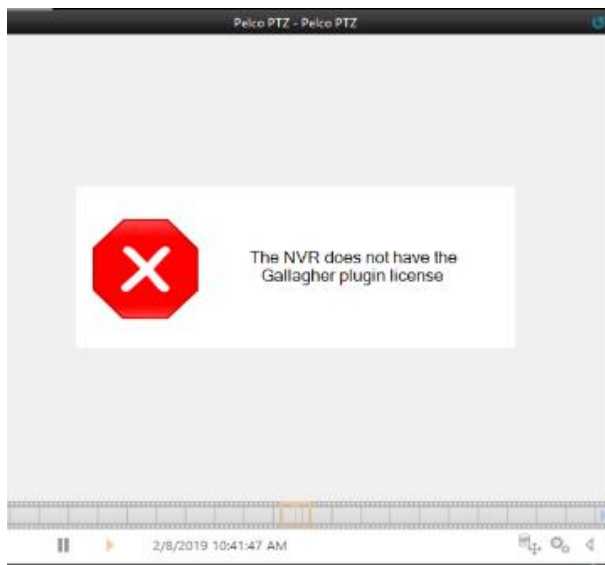
Without this license, the Gallagher Command Centre will show a notification indicating an unlicensed NVR.

2.2 Cathexis Plugin

Download and install the Cathexis Plugin (ver. 1) on the unit that is running the Gallagher Command Centre software. The plugin can be downloaded on the Cathexis website: https://cathexisvideo.com/technology-partners/integration/gallagher-plugin/

Once downloaded, run the setup file and follow the Installation Wizard.

# 3. Gallagher Command Centre Software

3.1 Install

Install the Gallagher Command Centre Software.

Note: This is a basic guide to configuring the Gallagher Command Centre for connection with CathexisVision. For more details on the configuration and functionality of the Gallagher product, please consult the software manufacturer for more details and instruction.

3.2 Configure Users

In order to configure a connection between CathexisVision and the Gallagher Command Centre software, users with relevant permissions must be configured in Gallagher Command Centre.

1. Open Gallagher Command Centre software and navigate to **Administration / Operator Groups** and select the Privileges tab in the window that opens.

2. Click **Assign Privileges** button to modify privileges for the desired operator.
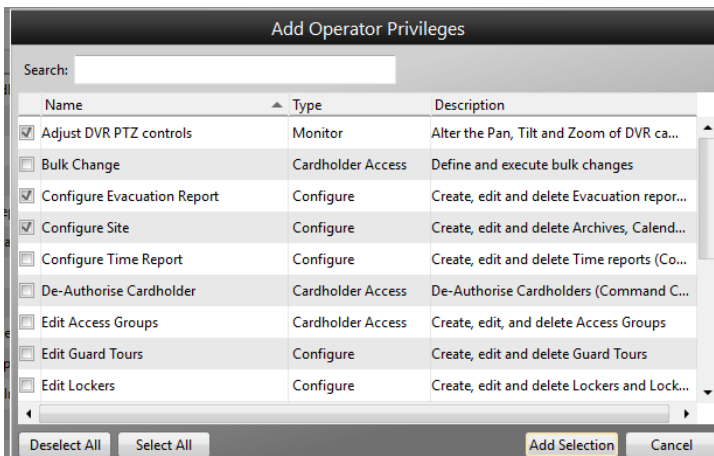

Select all desired privileges.

Note: At least one operator must have the ability to add DVR systems and DVR cameras, as this is required to configure connection with CathexisVision (below).

3.3 Add CathexisVision Server

Once the Gallagher Command Centre and the Cathexis Plugin applications are installed, the Gallagher Command Centre must be configured to connect to the CathexisVision server by adding the CathexisVision server to the Gallagher Command Centre.

Note: Ensure that the operator performing this configuration has been given permission within the Gallagher Command Centre to add DVR systems.
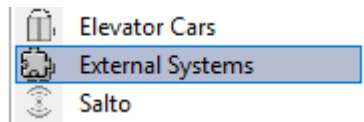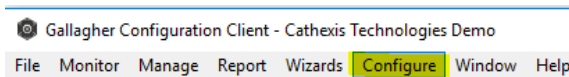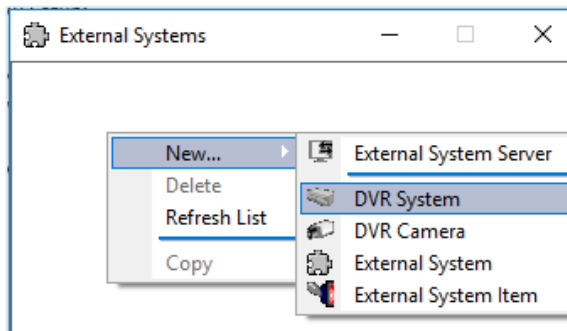
3.3.1 Configuration Client
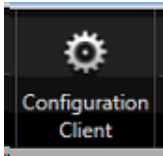
In Command Centre, select Configuration Client on the right-hand side of the window.
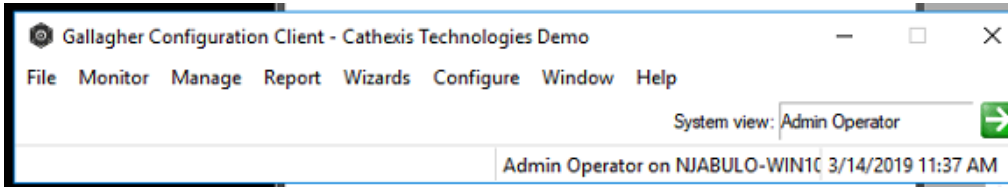
In the client that opens, select the Configure menu.

Select External Systems from the drop-down menu.

In the External Systems window, **right-click anywhere / New / DVR System**.

Note: Ensure that the operator has been given permissions to add DVRs within the Gallagher Command Centre or this option will be greyed out.
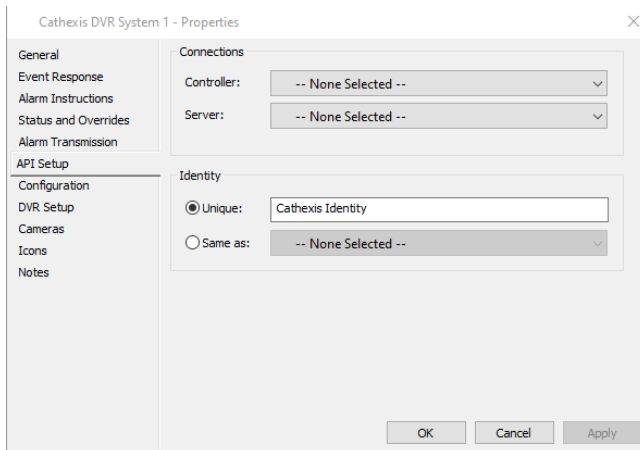
3.3.2 DVR Setup

In the window that opens, enter the details for the CathexisVision server from which Gallagher Command Centre will receive streamed video.

3.3.2.1 General Tab
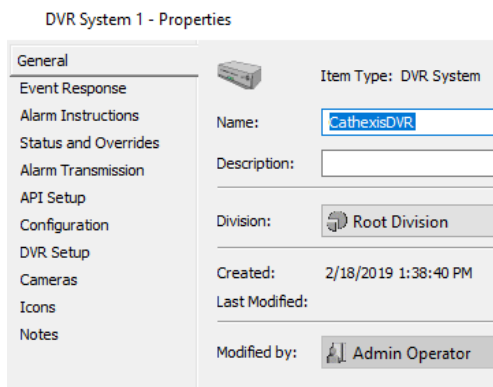
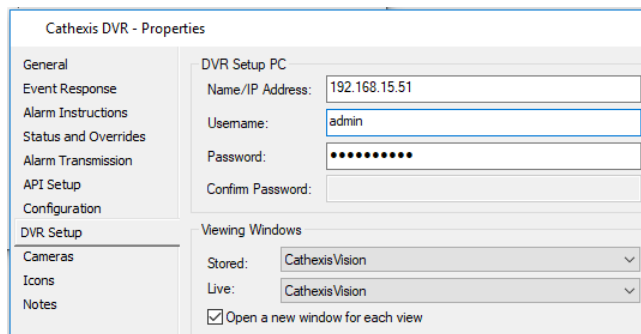In the General tab, give the DVR a name and description.

3.3.2.2 API Setup

Ensure that the **Unique** radio button is selected.

Under the Identity heading, enter a unique identity string in the "Unique" field. For example, Cathexis Identity.

3.3.2.3 DVR Setup Tab

Add the details of the CathexisVision DVR system.

Enter the IP address and login credentials for the CathexisVision Site Master server.

Under Viewing Windows, ensure CathexisVision is selected for both **Stored** and **Live**.

Click **Apply** to save these settings.

3.4 Add DVR Cameras

Once the connection between the Gallagher Command Centre and the CathexisVision server has been configured, details for the camera running in CathexisVision must be entered in order to allow streaming in the Gallagher Command Centre software.

3.4.1 Add a DVR Camera

Open the Gallagher Configuration Client and once again navigate to External Systems (see 3.3.1).
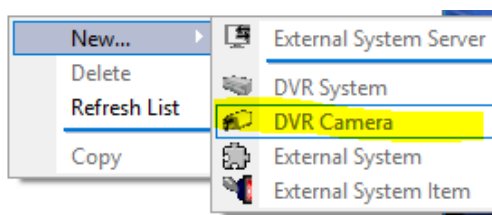
In External Systems, right-click anywhere and select **New / DVR Camera.**

3.4.2 DVR Camera Setup

In the window that opens, enter the details for the camera running in CathexisVision.

3.4.2.1 General Tab

Give the camera a name and description for reference within the Gallagher Command Centre software.

3.4.2.2 Setup Tab

In the Setup tab, select the CathexisVision DVR system that was added in 3.3.

Then enter the internal camera ID for the camera running on the CathexisVision software. See below for locating this ID.

CathexisVision Camera ID

The list of cameras running on the CathexisVision server can be pulled through from any web browser. **Note**: It is recommended that Chrome is used, and the JSONview extension is installed in order to render the text readable.

In the browser, enter the following into the address bar:

http://nvr_ip_address:33104/cameras

(Where nvr_ip_address is the IP address of the CathexisVision server.)

Take note of the ID of the relevant camera and enter it into Gallagher Command Centre software.

3.5 Set the DVR Camera to Stream
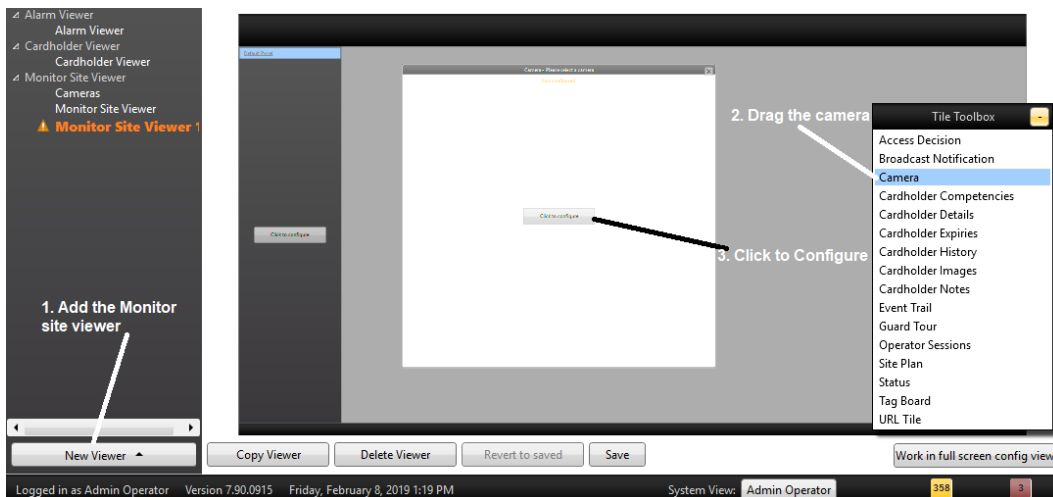
Open the Gallagher Command Centre Software.

Navigate to Viewer Configuration at the top-right of the screen.

3.5.1 Adding a Viewer

If it has not already been configured, a Viewer may be added by clicking New Viewer at the bottom left of the screen.

3.5.2 Add a Camera

From the Title Toolbox, click Camera and drag it to the centre panel.

3.5.3 Configure Camera

Once the camera has been dragged onto the panel, the camera type must be selected. To do this, click **Configure**.

1. Give the camera descriptive name.

2. Select whether to show/hide title headers and camera controls.

3. Select the camera source:

   o **Specific camera**: Select a specific camera from a list.

   o **Operator selected**: Allow operators to select the camera when viewing the camera.

4. The user may also arrange the cameras as desired at this point.

5. Once done configuring the cameras, save the settings and restart the software.
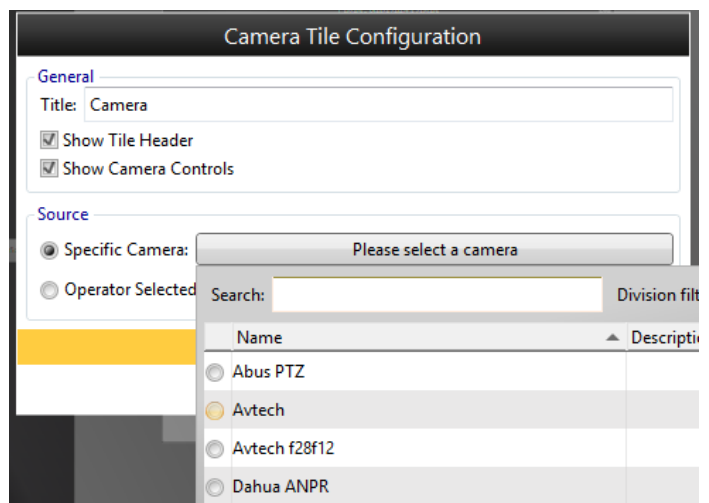
3.6 Stream the Camera

Open Gallagher Command Centre and navigate to **Cameras** where all added cameras will be displayed. Multiple cameras may also be streamed simultaneously.
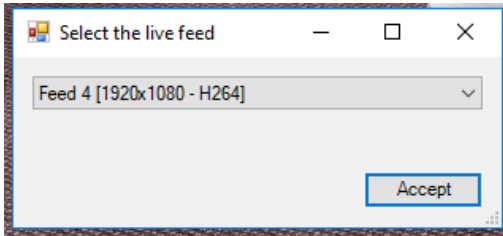
If the selected camera has multiple streams, a popup will prompt the user to select the desired stream.

3.6.1 Operator-selected Camera

If the option for the operator to select the camera was chosen during setup, use the **Find Camera** button to return all configured cameras and select the desired camera for streaming.

To remove the selected camera, click **Clear**.

3.6.2 Set a Live Feed or Review Track to Stream Automatically

It is possible to set a live feed to stream automatically on opening the Gallagher software.

Navigate to DVR Camera setup (see 3.4.2.2).
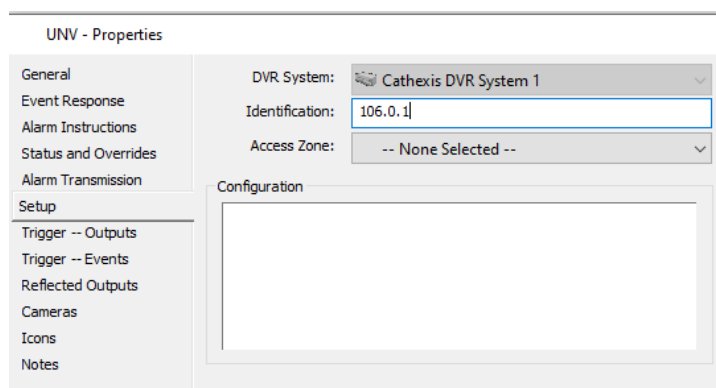
To set a live feed permanently, enter the CameraID:LiveFeed values in the Identification textbox.

To set a review track permanently, enter the CameraID:LiveFeed:ReviewTrack values in the Identification text box.

Then click Apply.

Note: The values entered in the Identification textbox are "CameraID:LiveFeed:ReviewTrack".

An example of this would be "106:0:1".

The LiveFeed:ReviewTrack selection starts at zero, and the values are optional. See example below.

3.6.2.1 Example
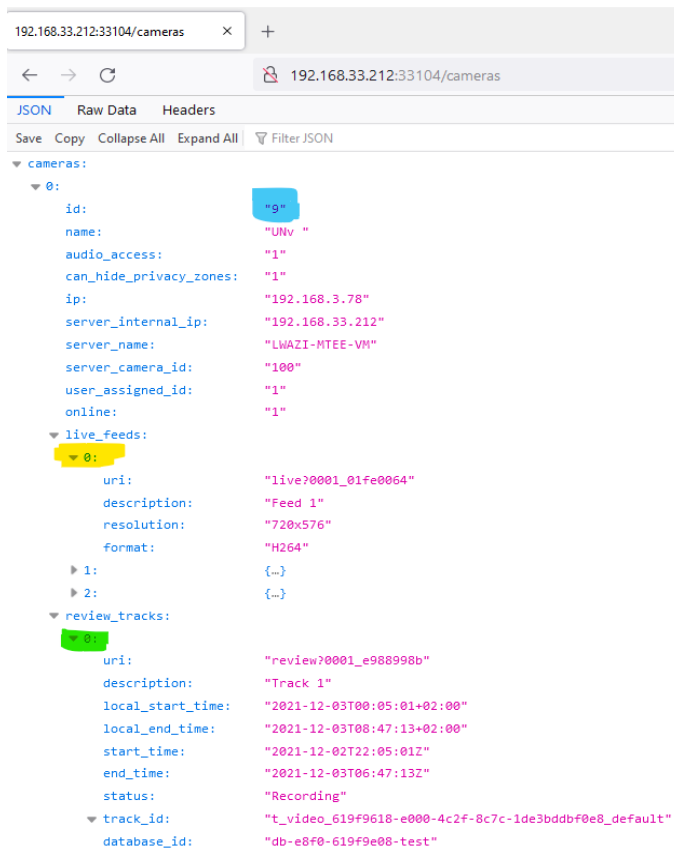
In the image on the left, the CameraID:LiveFeed:ReviewTrack values are highlighted.

CameraID – blue
LiveFeed – yellow
ReviewTrack – green

3.6.3 Camera Controls

3.6.3.1 PTZ

Once the camera is streaming, PTZ controls and presets can be displayed by hovering the mouse over the stream.

3.6.3.2 Review Recorded Footage
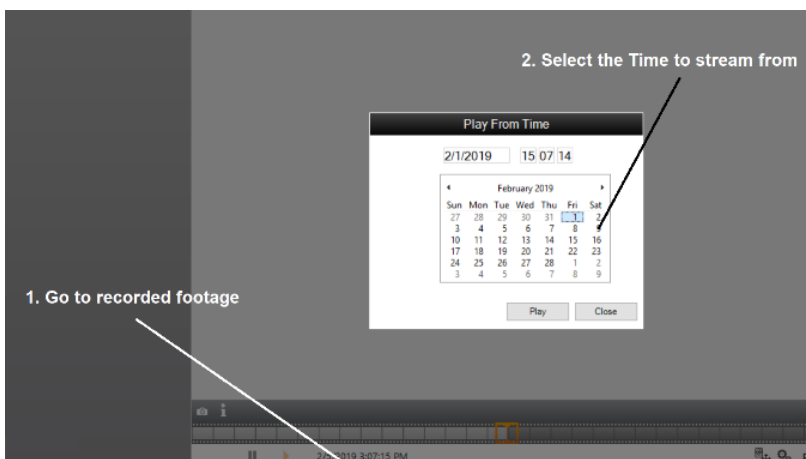
To review recorded footage, click the recorded footage (if there is recorded footage it will be located under the trackbar) and select the review time in the popup window.

If the selected time is not available for review, the software will stream footage which is as close as possible in time to the requested footage.

4. Gallagher Event Injector Setup

4.1 Setup

1. In the main setup, go to **Configure / Services & workstations**.
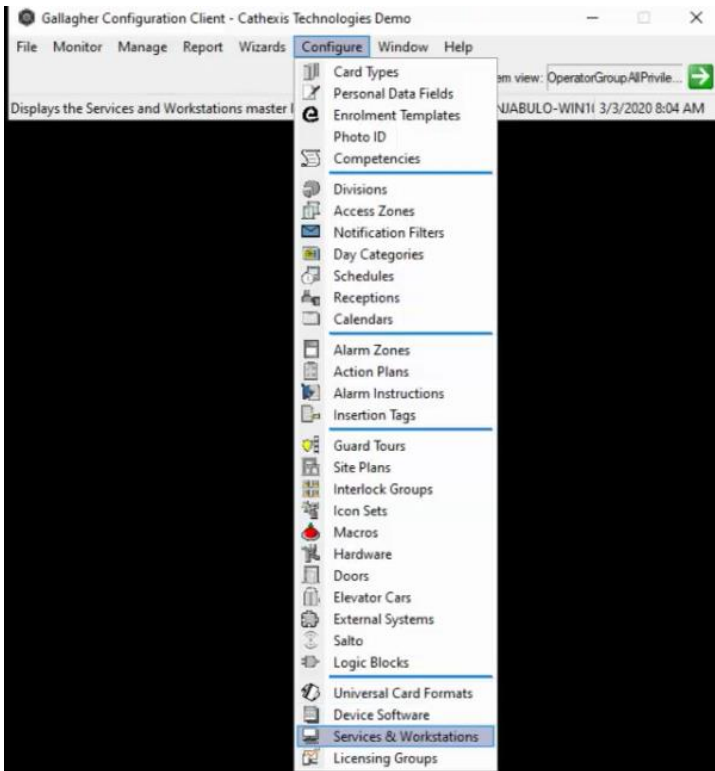
2. Then add a new Rest Client by **right clicking / new / Rest Client**.

3. Rename the Rest client.
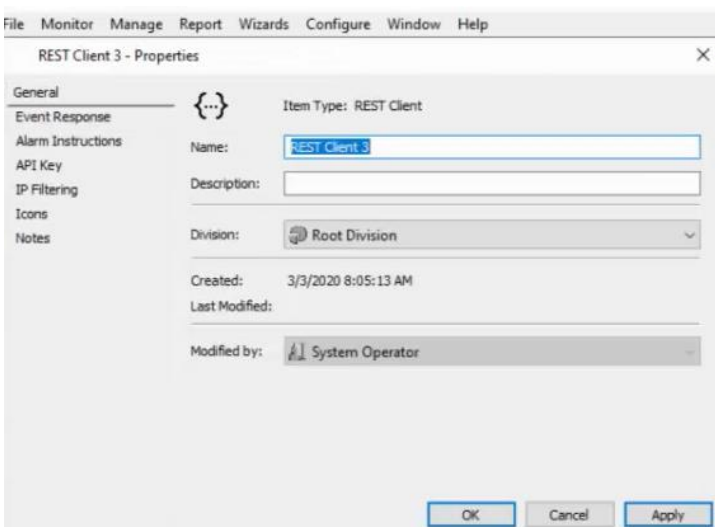
4. Next, go to the API key (it will be needed later). The thumbprint will be added later, so that CathexisVision can communicate with this Rest client.
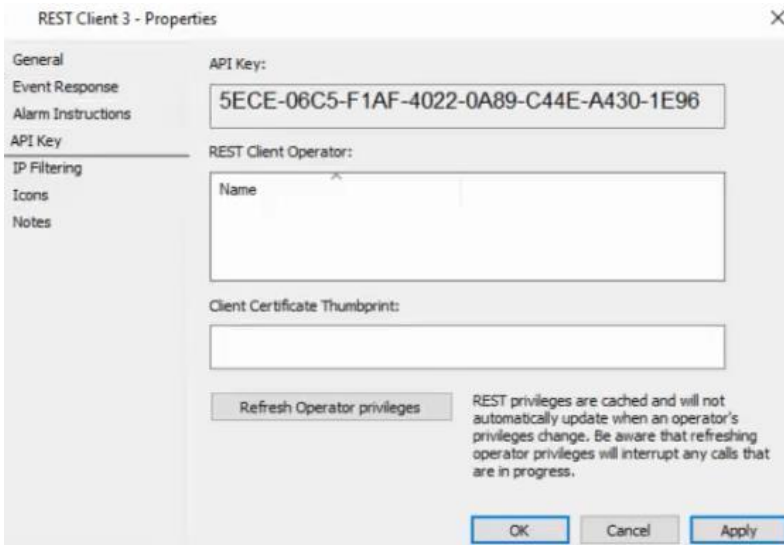
5. Add a cardholder (a cardholder must be added to every Rest Client. Click on Cardholder. Add the operator. Hit Apply, and close.
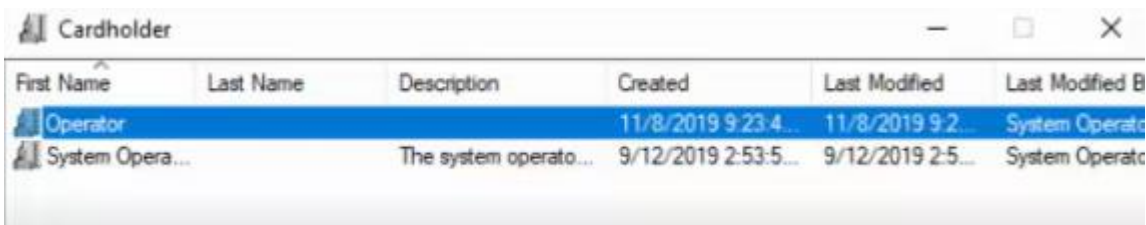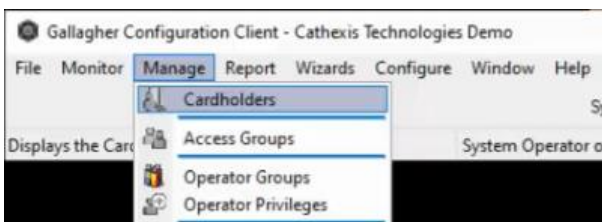
↓ Drag the Operator into the Rest Client.
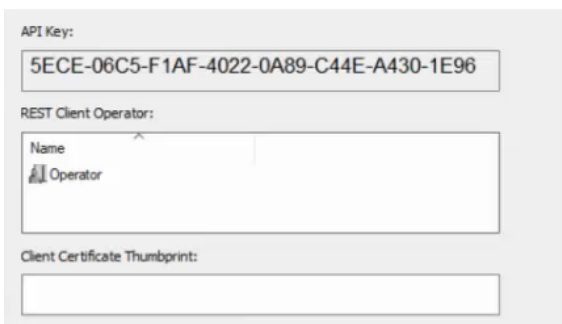
3. Next, go back into the Rest client. If desired, enable IP filtering.
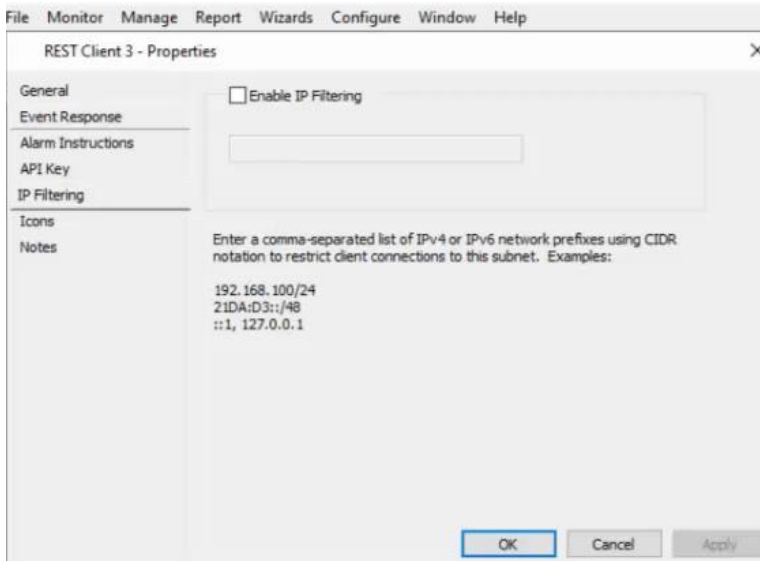
4.2 Create a Certificate

In order to gain permission to access the Gallagher software, it is necessary to create a certificate.

1. Bring up run window (Windows + R key) and type Powershell.
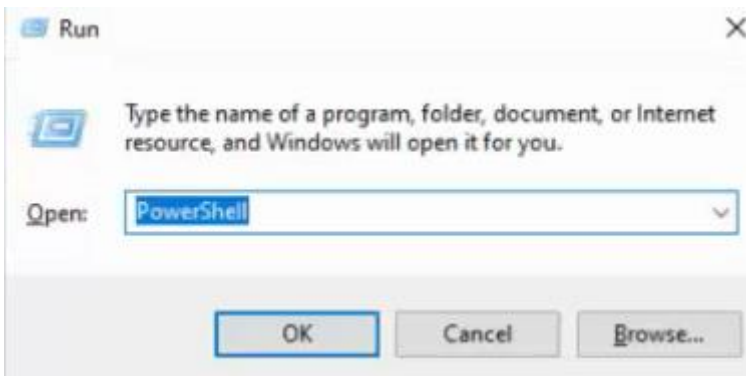
2. Type a command to create a certificate in windows, give it a name: **New-SelfSignedCertificate - certstorelocation cert:\currentuser\my -dnsname GallagherRestClientCert3**.

   The first part of the command is a constant, while the end part, in this instance **GallagherRestClientCert3**, is the name and can be adjusted as desired.
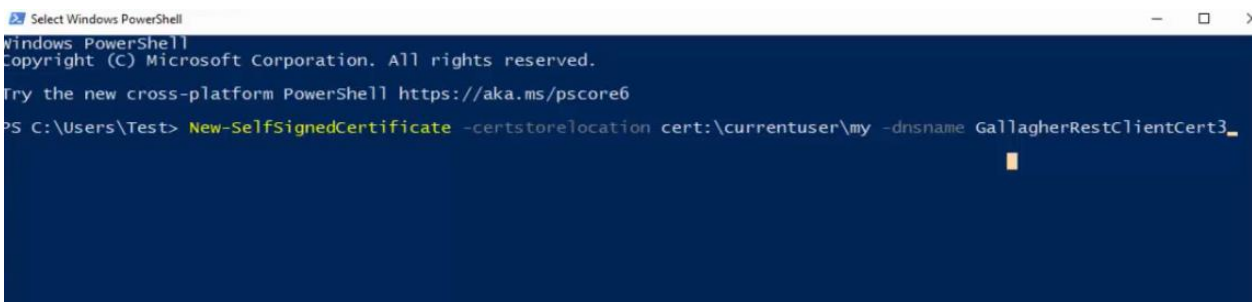
3. Hit Enter. A thumbprint will appear.
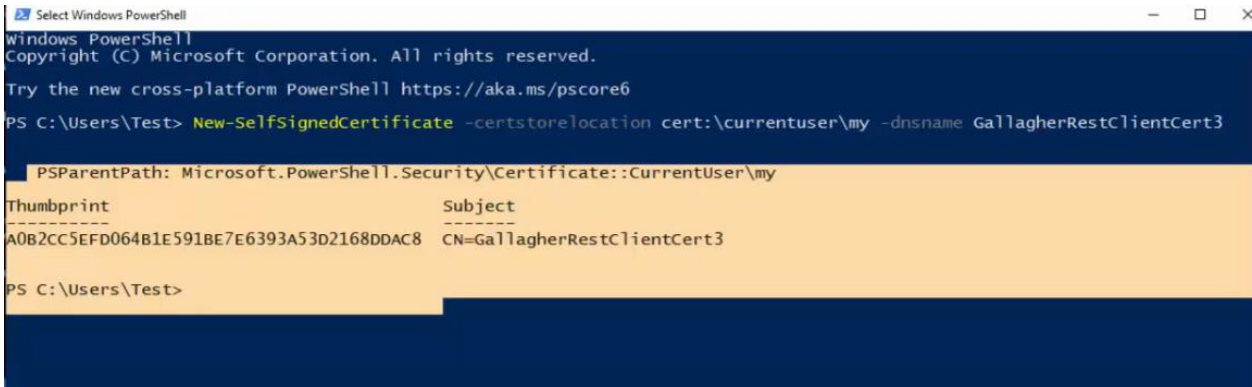
4. Copy the thumbprint onto the Rest client. (Double-click on **Rest Client / Client Certificate Thumbprint / Paste**.)
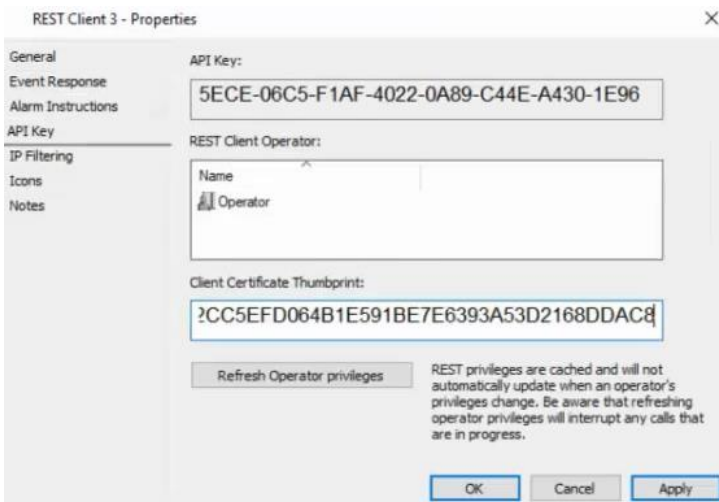
5. Go to the Run window and type MMC. A prompt will appear.
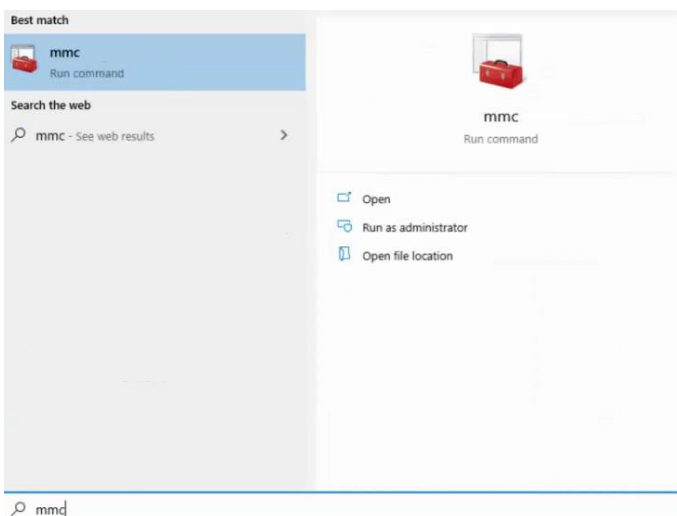
6. Go to file. Then go to add/remove snap ins.
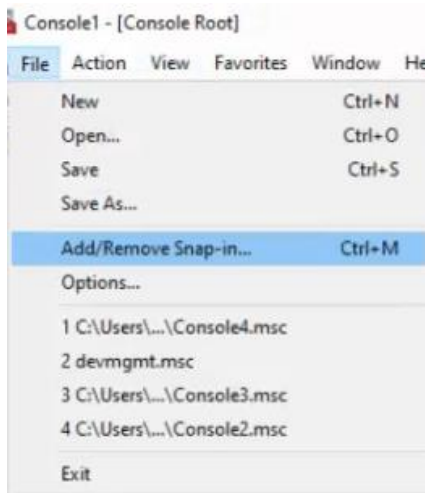
7. Ensure that certificate snap-in is set to current user.
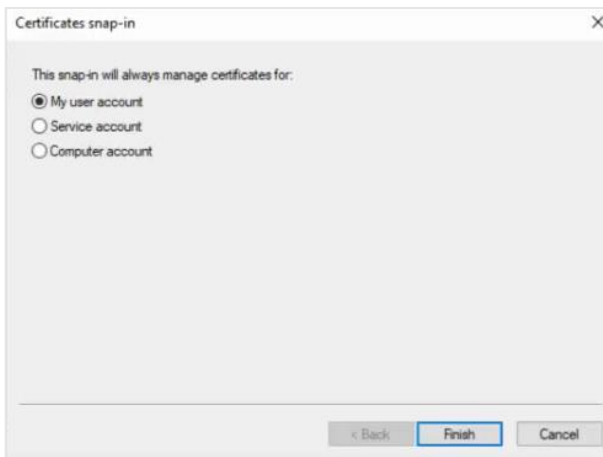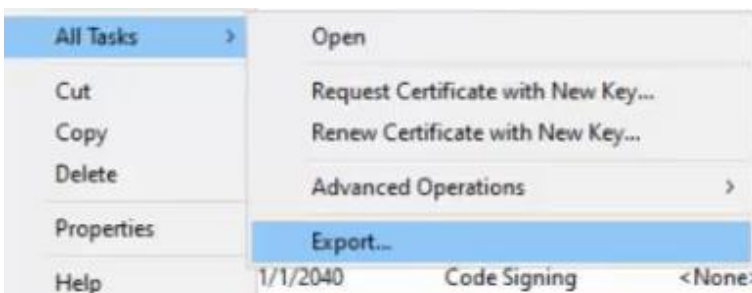

8. Double-click on certificate.
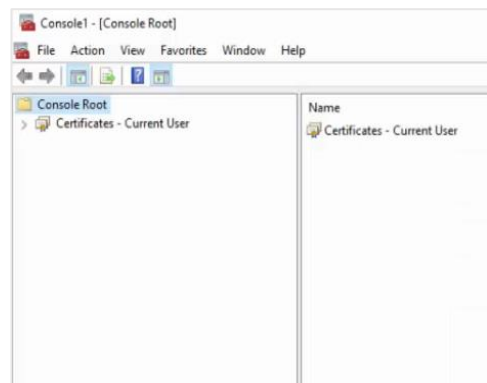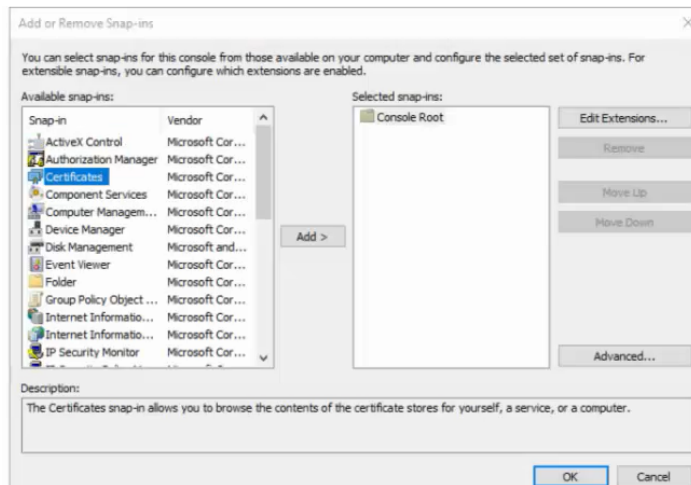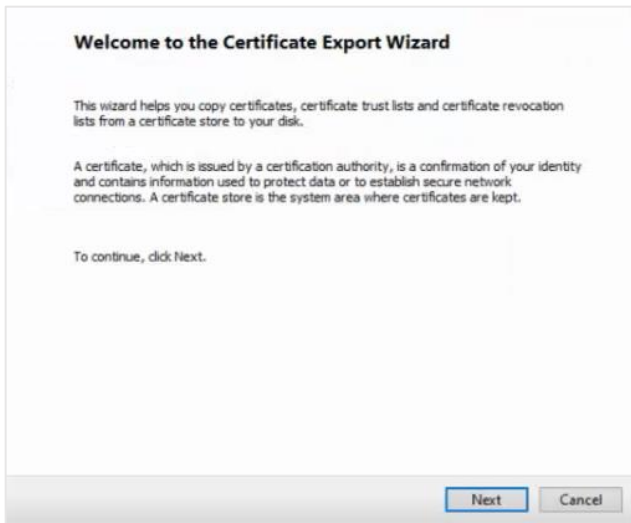
9. Go to New. Certificates will appear. Go to Personal.
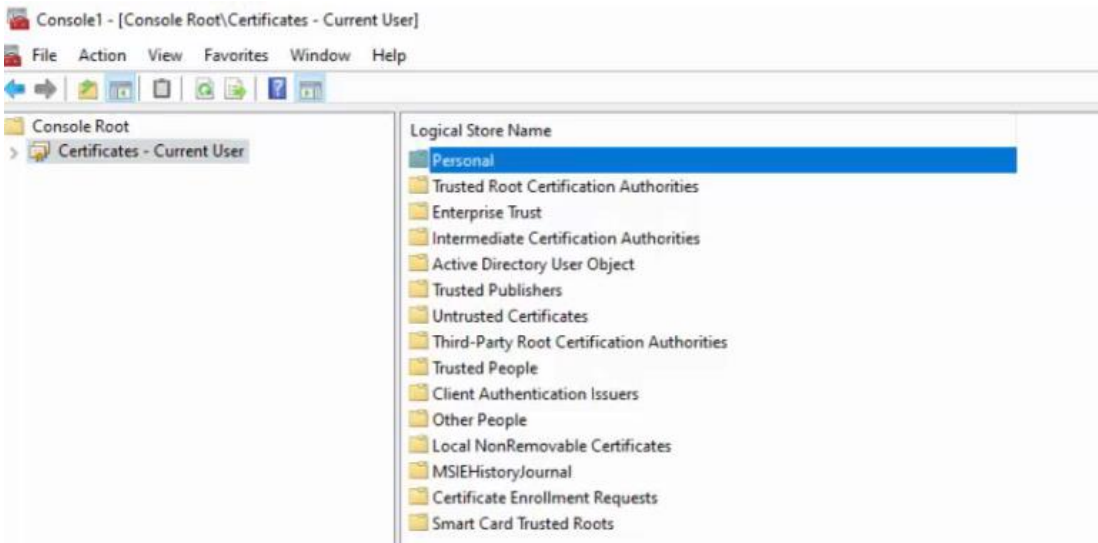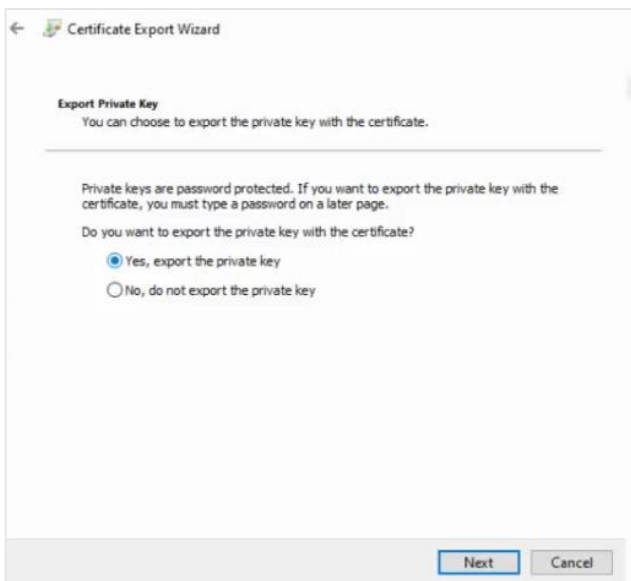

10. The Gallagher certificate will display.
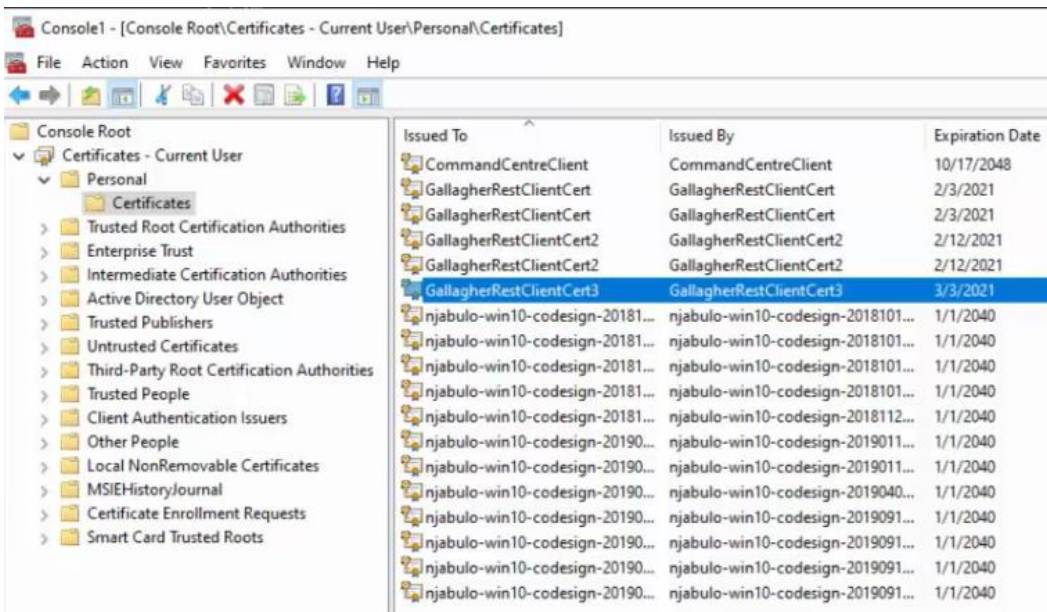
11. **All tasks / Export…**

12. Enter the certificate export wizard. Click **Next**.

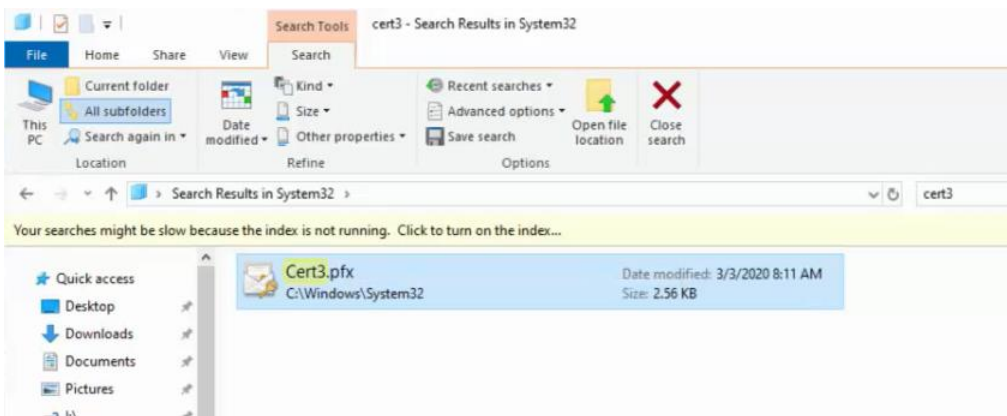13. Click **Yes** to export the primary key, and leave other details as default.


14. Add a password. Click **Next**.
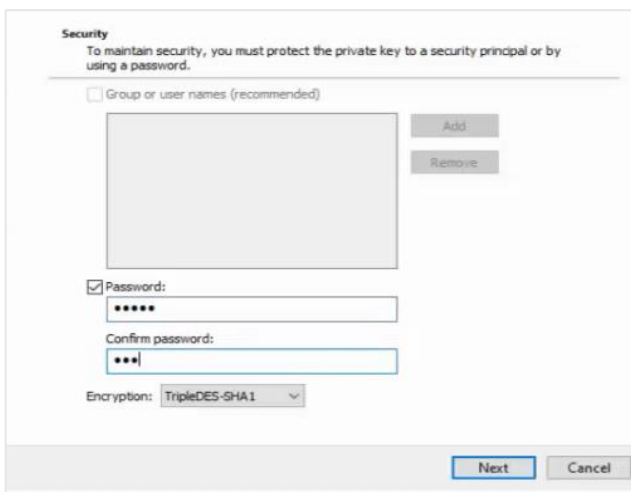
15. Add a filename. For example, Cert 3.
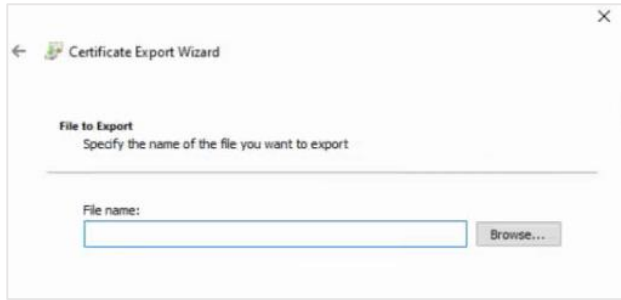
16. By default, the certificate saves to Windows, system 32 folder. Copy and paste it onto the desktop for easy access and save the Console file. Copy the certificate onto the computer where the software is running.
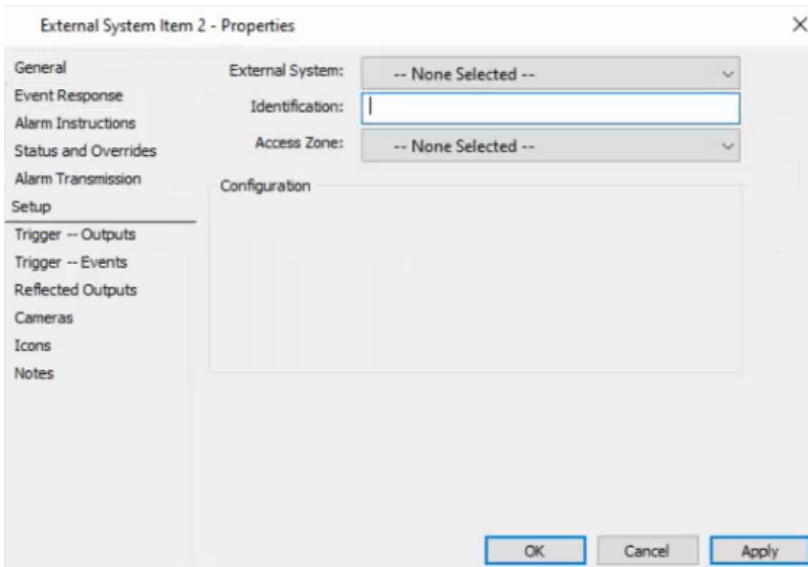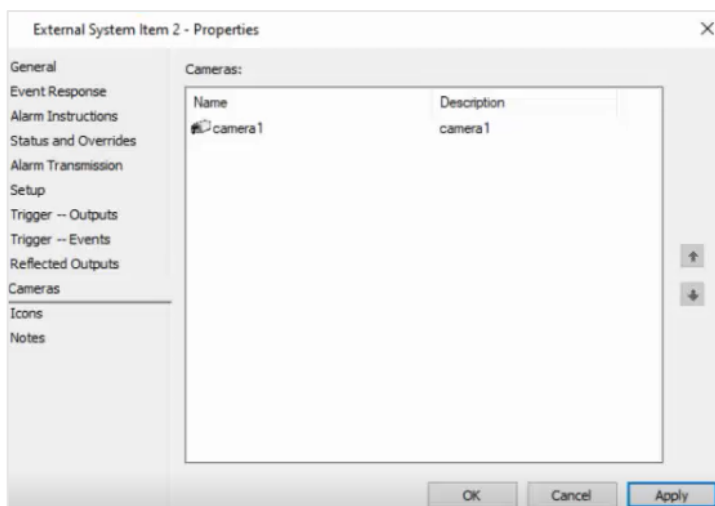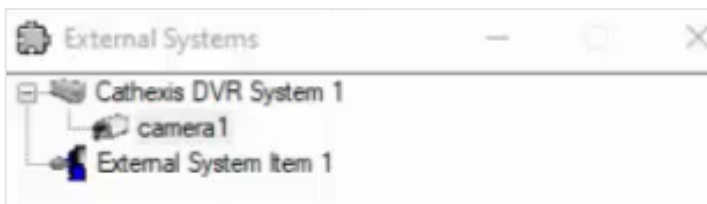

4.3 Set Up External System Item

1. Go to New… / External system item. Give the external item a name. Add a description. Go to Setup, give it an identification, and click Apply.
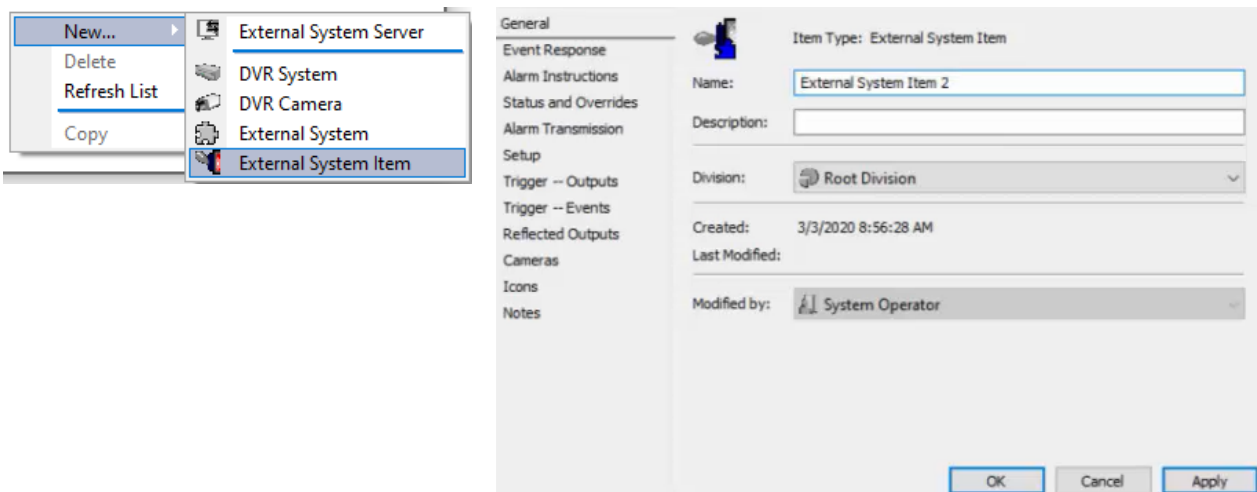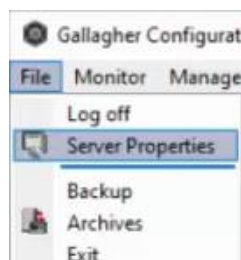
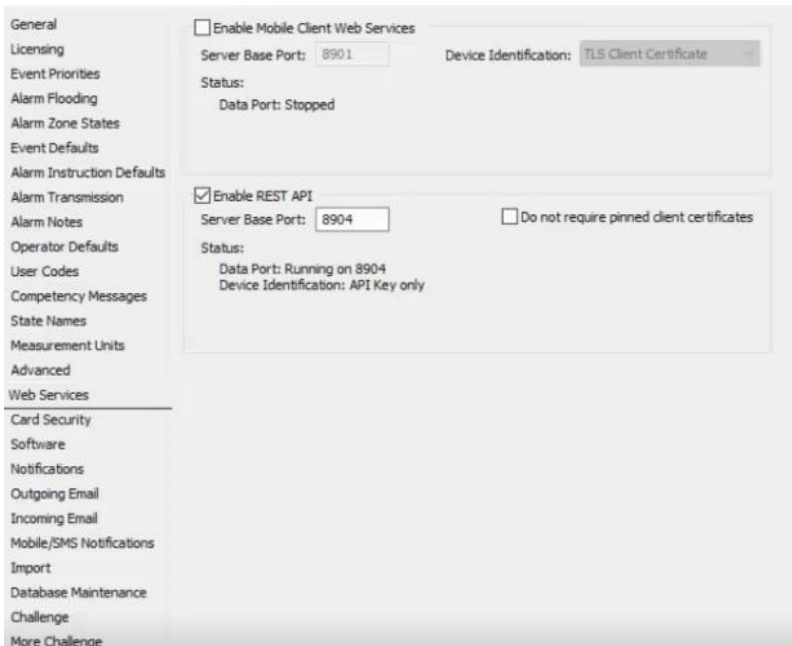2. Next, go to Setup. Specify an identification. Click Apply.

3. Drag and drop cameras into the cameras section. This associates the camera with the Gallagher software. Click **OK** and **Apply**.

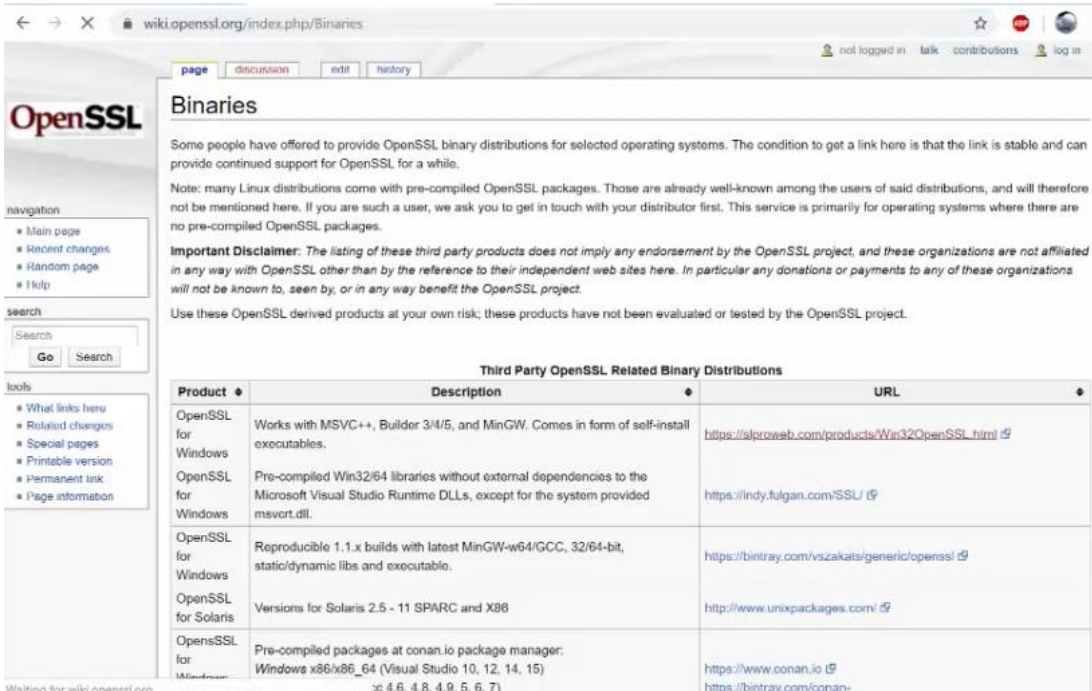4. Next, **File / Server Properties / Web services**.

5. This is where the user can un-check "Do not require pinned client certificates".
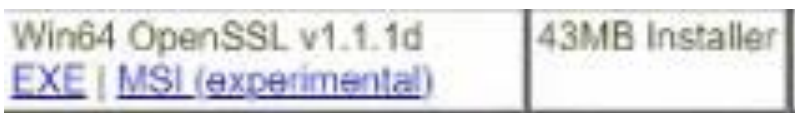

4.4 Create PEM File for Windows

1. Change filetype to PEM file. **Note**: **this is only required ON WINDOWS.** Go to website /
https://wiki.openssl.org/index.php/Binaries

2. Go to first link:

3. Scroll down and select software for relevant Windows version (for example, 32-bit or 64-bit) / download. Install this software.
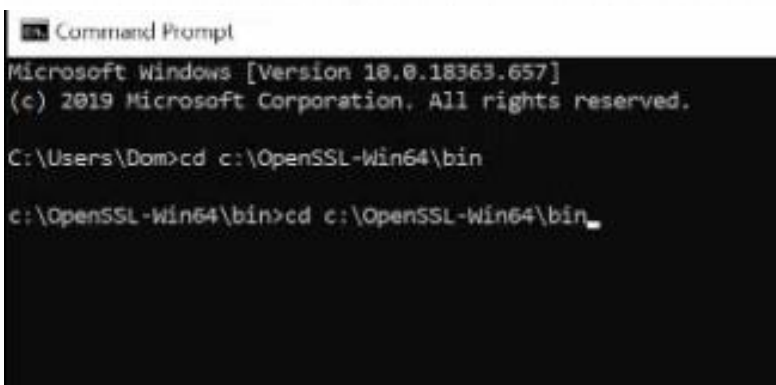

4. Create a file in the C drive. Create a folder called certs.

5. Open the command prompt to being the converting process.

6. Open from the bin file of the software:

Open command prompt and change into the OpenSSL\bin directory: cd %homedrive%\OpenSSL\bin

7. Run the following command to convert the PFX file to an unencrypted PEM file:

(all in one line): openssl pkcs12 -in c:\certs\yourcert.pfx -out

c:\certs\cag.pem –nodes

8. Paste the command.

9. Change the name of the certificate that is added. Change the filename back to the name saved for the certificate file.

10. Change the certificate name in the PEM file:

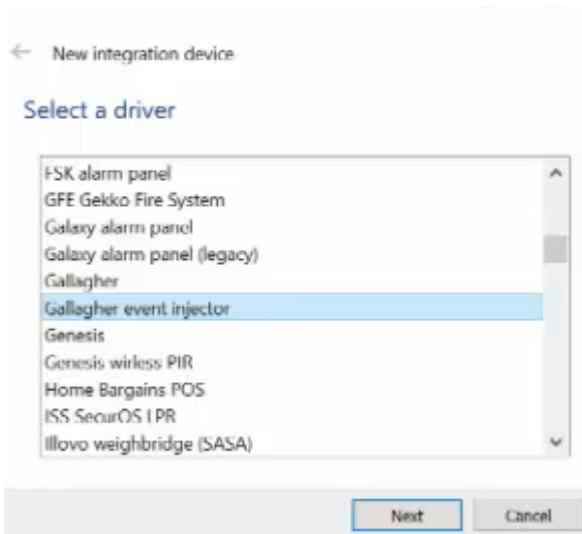
11. Hit Enter and enter the password for that file.

12. Go into certificates. The PEM file will be there.
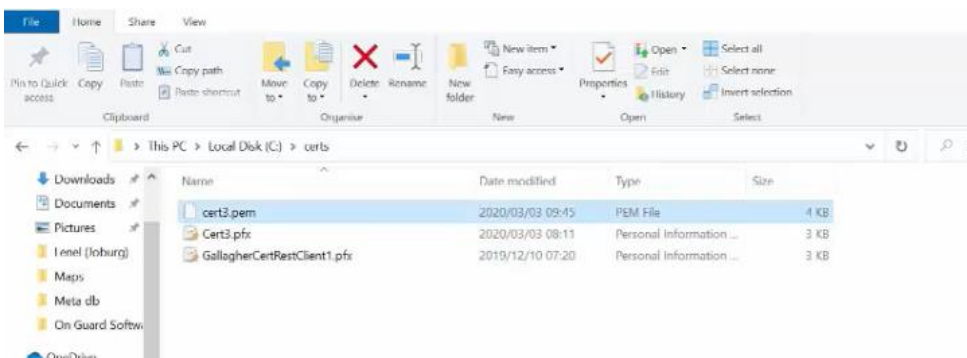
Note: this is only for Windows, and is not required on Ubuntu.

4.5 Adding the Gallagher Event Injector in CathexisVision

1. Select the Gallagher Event Injector driver.

2. Add the IP address of the unit that the Gallagher software is on.

3. The port number can remain as default.

Note: Details for admin username and password are for Cathexis Software. The API key can be found on Res client 3 (see setup section). Add the location of the PEM file.
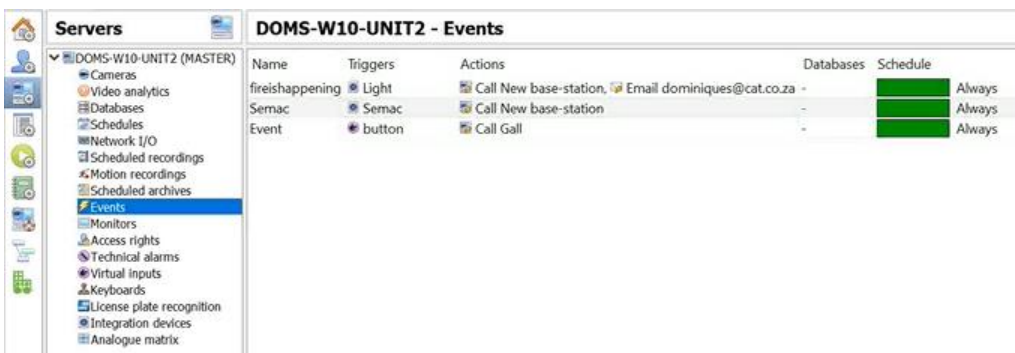
(Example: C:\Users\domain\Desktop\cert.pem). Enter the password of this particular file.
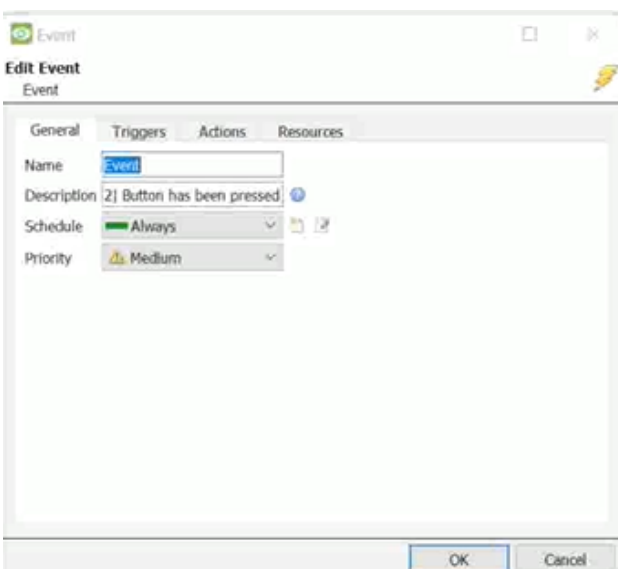
4.6 Events

This section demonstrates how events are sent to the Gallagher unit.
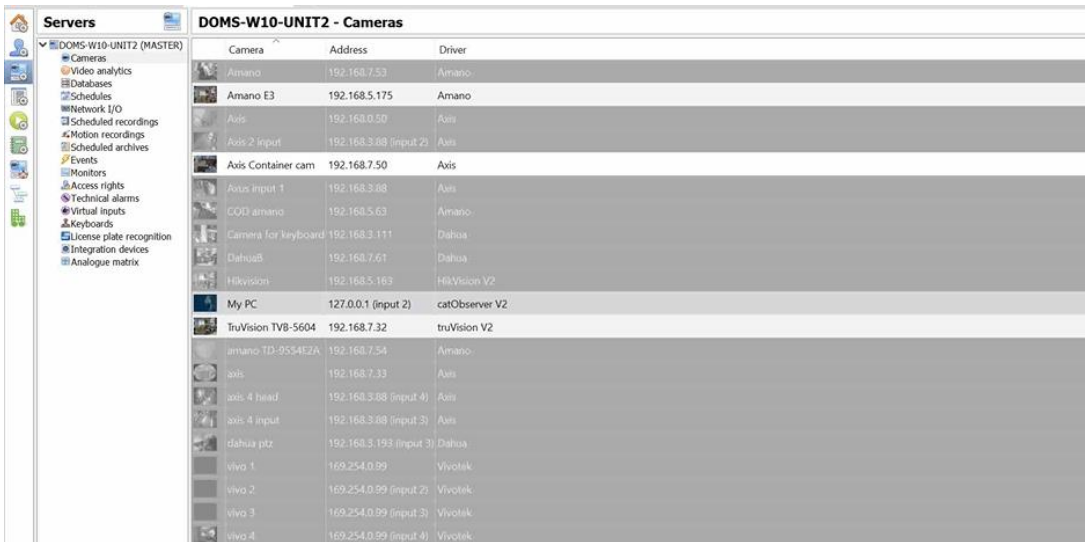
1. Access the Event tab.

2. Edit Event. The description is how the event gets sent to the Gallagher unit.

Note: The description has three sections. The first, **External Event 0**, refers to the object type in the Cathexis integration device (see point 1 in section 4.7 below). The second, **External System Item 2 or Camera name**, refers to the system item or camera that is on the Gallagher unit. (See section 3.4.1)

The first two segments must be set up on the Gallagher end and **must be laid out as shown in the example below** (ensuring that there are no spaces on either side of the first vertical bar, and no space before the second vertical bar). The third section, in this instance 'button has been pressed', is the alert Gallagher will receive. The user can change this as desired.
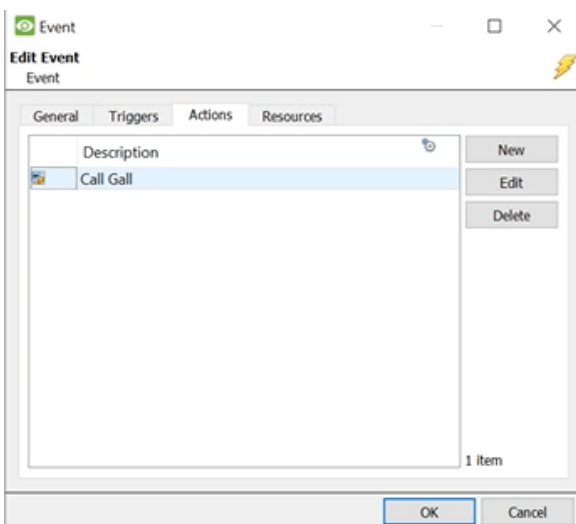
External Event 0|External System Item 2|Button has been pressed

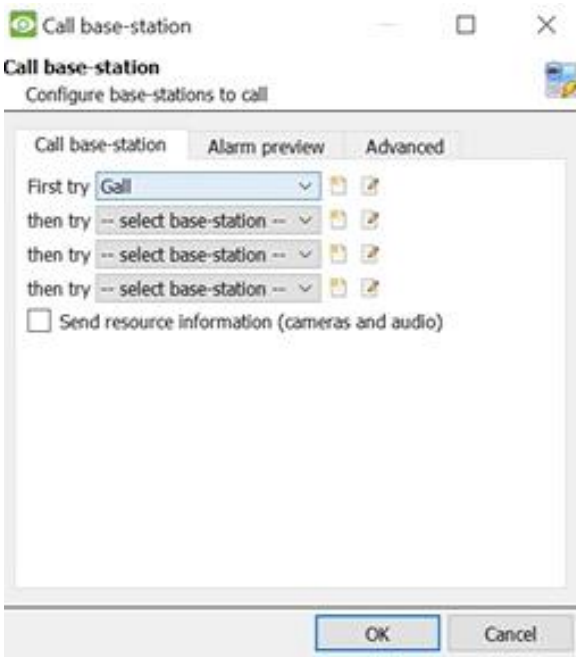**External Event 0|Camera name|Cam button pressed**
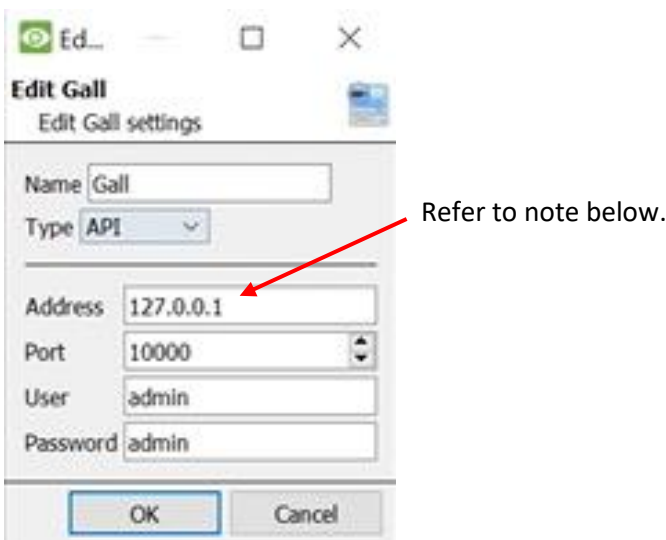
3. Adjust trigger settings as desired.
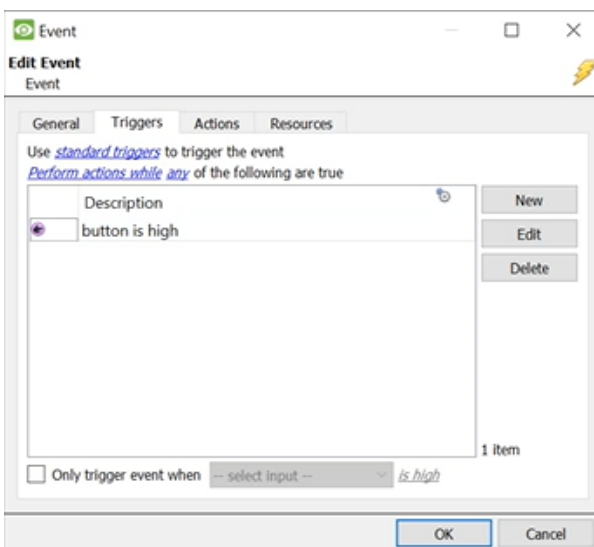
4. Set Actions.

5. Set base-station settings.

6. These are the base-station details required. The name and IP address may be changed. Click OK.

Refer to note below.

Note:

- The 127.0.0.1 IP address is used on the server on which the licensed Gallagher Event integration is configured.
- **All** other site servers must have the IP address of the server on which the Gallagher Event integration is configured. This configuration requires a single Gallagher Event license.
- Every server for which the local 127.0.0.1 IP address is configured will require a separate Gallagher Event license.

4.7 Event Priority

1. Event priority may be changed. First, go to Integration devices.

2. Event priority can be set as low, medium or high.

3. Adjust Event Settings.

4. The event will now display in the Event section.
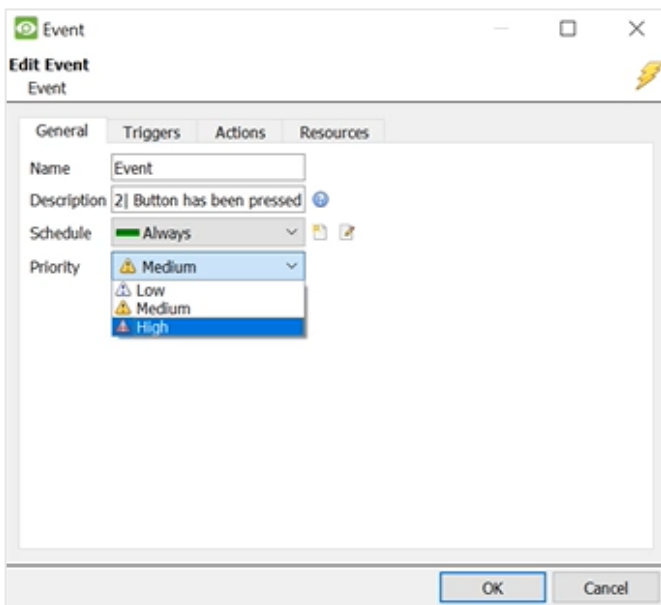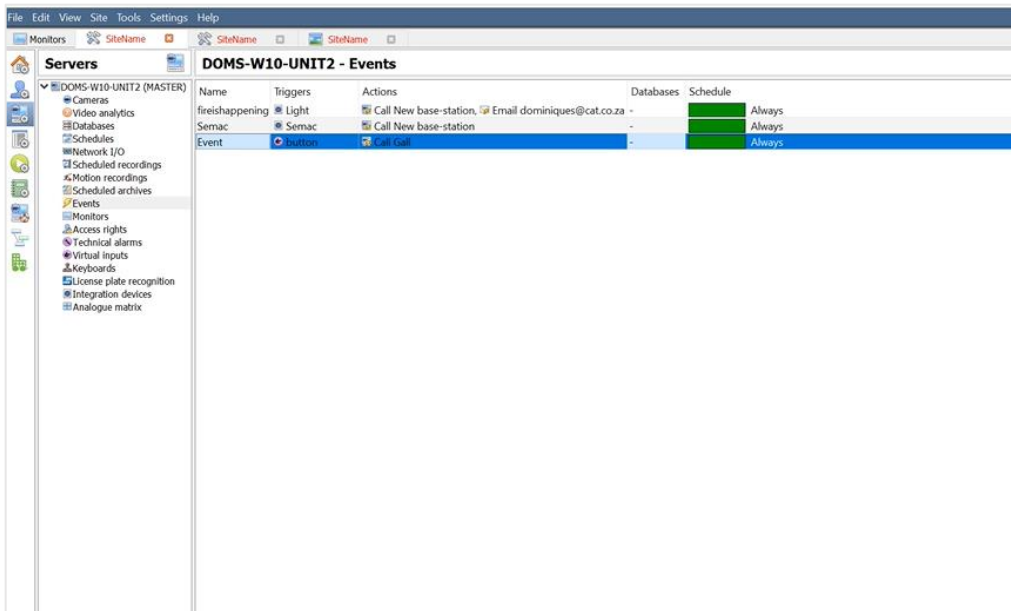
5. Conclusion

Note that this app-note was created specifically to deal with this integration. For more information, please consult the Cathexis website (cathexisvideo.com), contact support@cathexisvideo.com, or consult the relevant product manufacturer.

A NOTE ON CAMERA CHANNELS

The CathexisVision software packages have **limits on camera channels**. A multi-sensor camera is physically a single device (camera) but it requires a camera channel for each one of the internal cameras. The same applies to an encoder: a 16-channel encoder will account for 16 camera channels on the CathexisVision software, even though it is a single device. Even when a camera or device only uses a single IP license, the camera channel limit will still apply.

USEFUL LINKS

*To view **tutorial videos** on CathexisVision setup, visit https://cathexisvideo.com/resources/videos*

*Find answers to Cathexis **Frequently Asked Questions**: https://cathexis.crisp.help/en/?1557129162258*