

INSTALLATION GUIDE

Hexagon Intergraph (CAD) Integration with Milestone XProtect Smart Client

Prepared by:

Maroun Cherfan, Business Development Manager

Table of Content

Overview	2
Licensing	2
Design	2
Requirements and Considerations	3
Installation	3
Configuration	4
Operations	5
Generation of ticket from cameras	5
Generation of ticket from camera from the smart map	6
Videos and snapshots	8
Hexagon Events History	8

Overview

Hexagon (I/CAD) is a plugin inside Milestone XProtect smart client that allows operators to seamlessly share critical event and incidents information with Hexagon Intergraph users. While Surveillance is done through the monitoring of video feeds on a continuous basis by trained operators from the control room, if the operator sees an event of interest on a particular camera(s), they can select the subject camera(s) and generate a ticket that will be sent to the CAD system from Milestone XProtect smart client. The ticket will contain predefined variables like Camera(s) name, description and coordinates, Ticket type with predefined incidents, Customized Notes with multi language support, "Save button" to send ticket to the CAD system, status feedback from the CAD system with color indication that will be stored in Hexagon Events plugin tab inside the Smart Client. The above variables can be customized according to the client needs.

Licensing

Hexagon Intergraph (I/CAD) integration comprise a Management Client Plugin and Smart Client plugin.

Licensing of the plugin is per Smart Client workstation.

To request a license please extract the license request file from the Management Client Plugin and send it to licensing@systeminence.com

Versions Support		
Milestone VMS 2019 and newer	Expert	Corporate

Design

Hexagon (I/CAD) is a multi-component solution that includes SQL database, Hexagon Events Windows service, API and Milestone Management client and Smart Client plugin.

The Management client plugin is used to configure the system and to generate the license request.

The SQL database stores the configuration of the plugin, history about the opened events and API request/reply information.

In case the event(s) generated from Milestone plugin did not reach Hexagon (I/CAD) system and in order to provide a layer of redundancy, the Hexagon Events service will retry to resend the pending events each 30 seconds.

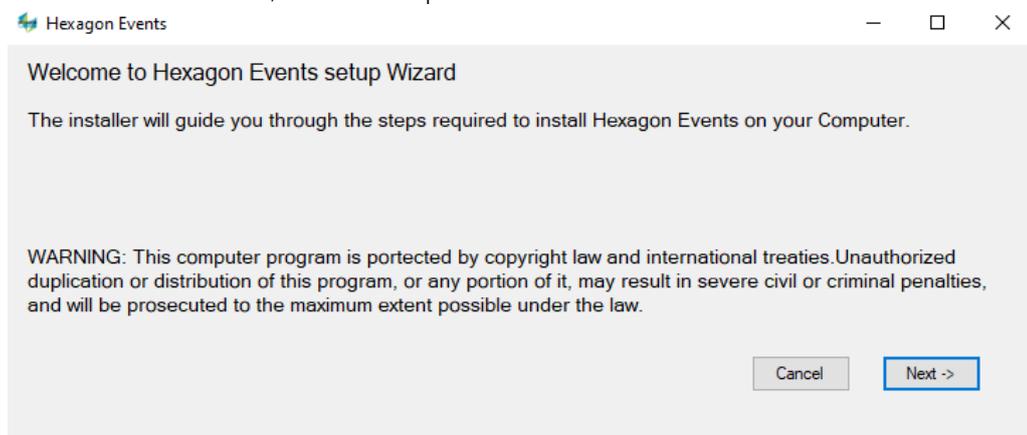
The Smart Client plugin is used by the operator to open new events in Hexagon system. In addition, the plugin has a history tab to review the status of the opened events.

Requirements and Considerations

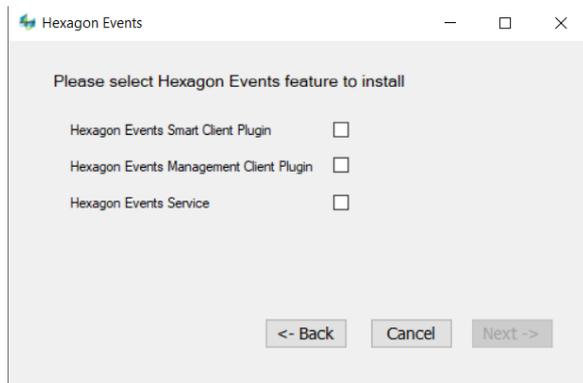
The pre-requisite for a successful installation is to have an SQL server user having the SysAdmin rights, .Net framework 4.7 and above, Smart Client and Management Client installed and the ability to communicate with Hexagon API.

Installation

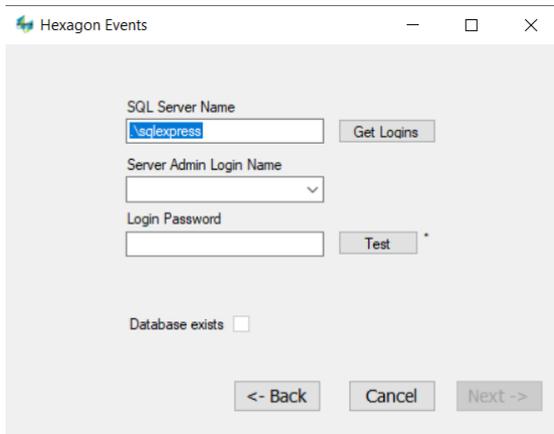
To start the installation, run the Setup.exe as administrator and click next on the welcome page



On the next page, select the components that needs to be installed. Note that Hexagon Events Smart Client Plugin should be installed on each Smart Client machine that will be using the plugin. The Hexagon Events Management Client Plugin should be installed on Milestone management client machine for system configuration. The Hexagon Events Service should be installed on the Machine that is responsible for the communication with the API of Hexagon Intergraph.



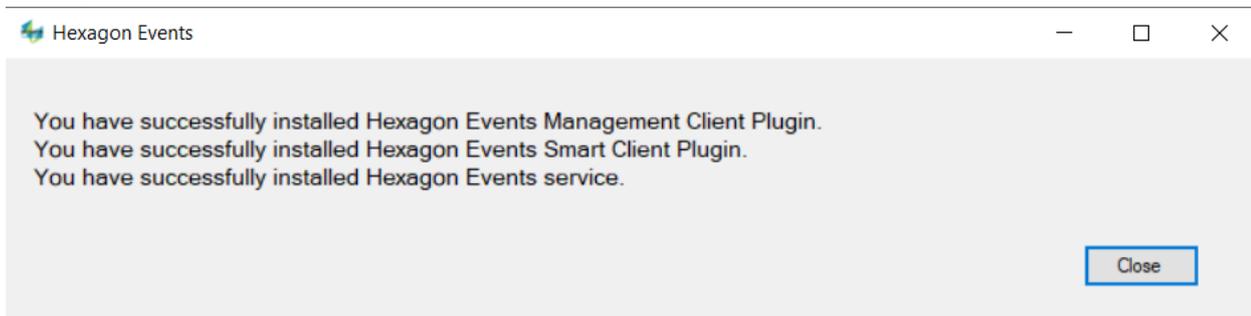
To configure SQL server, provide the SQL server name, SQL login and password.



The image shows a Windows-style window titled "Hexagon Events". It contains a configuration form with the following elements:

- SQL Server Name:** A text input field containing the text "\sqlexpress". To its right is a "Get Logins" button.
- Server Admin Login Name:** A dropdown menu.
- Login Password:** A text input field. To its right is a "Test" button.
- Database exists:** A checkbox that is currently unchecked.
- At the bottom, there are three buttons: "<- Back", "Cancel", and "Next ->".

The below successfully installed message will be displayed once the selected components were installed.



Configuration

To configure Hexagon Events, open the Management client and click on Hexagon Events tab. The SQL Configuration tab is used to update the SQL configuration parameters.

On the configuration tab, you can configure the plugin behavior and the CAD integration.

For Plugin configuration:

- **Video Export start:** The export of the video will start before the amount of seconds provided in this field. For example, if I click export in the Smart Client, the video will be exported 5 seconds before the moment of the selected event.
- **Bookmark Start:** The bookmark of the video will be saved for the configured seconds until the moment of the event. For example, if the value is 10 seconds, when the user clicks on the event, the bookmark will be saved 10 seconds before the event was clicked.

For CAD API configuration

- **CAD URL:** Provide the CAD API URL provided by Hexagon team
- **Identity URL:** Provide the Identity URL provided by Hexagon team
- **Client ID:** This ID will be a unique ID for the installation provided by Hexagon Team
- **Client Secret:** Password provided by Hexagon team

On the Event types tab, you can add the events that will be created in Hexagon through the plugin. To add an event, click Add Event Type and provide the below information:

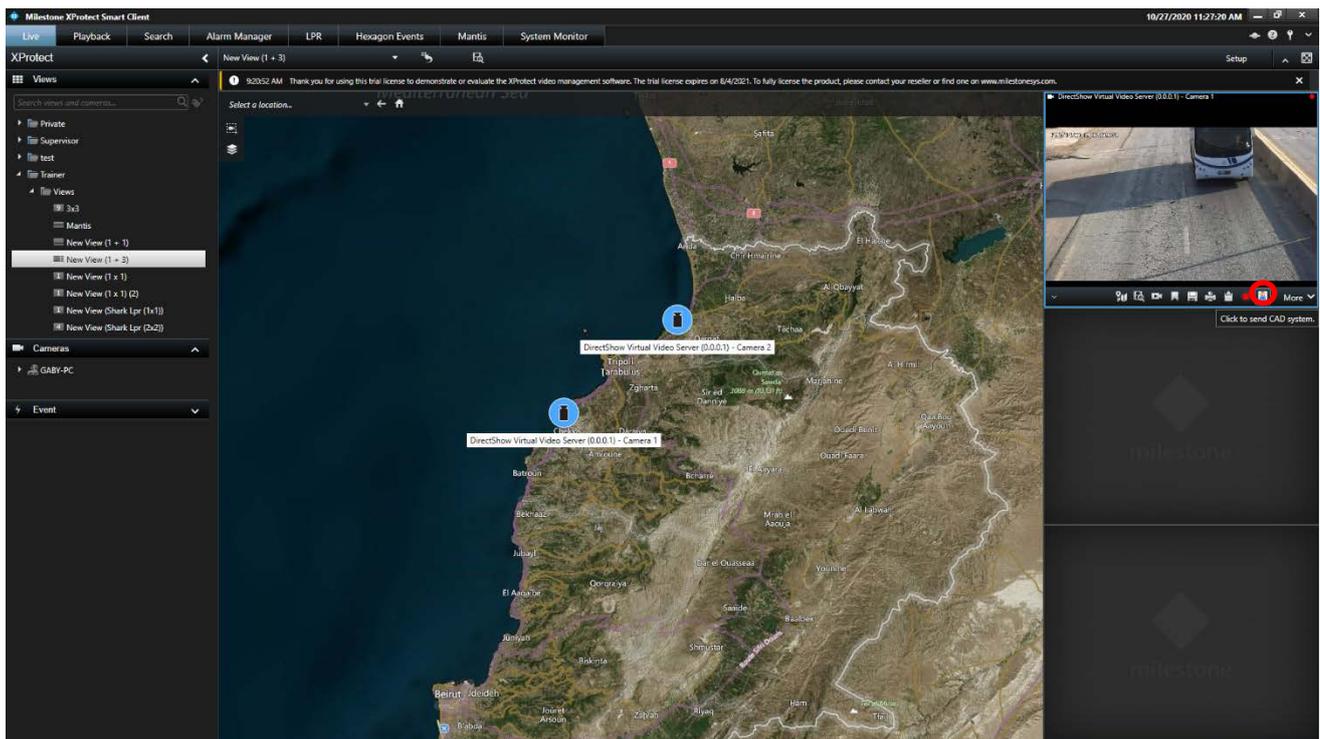
- Name: name of the event
- CAD reference:
- Sub Type: You can add many sub type events for a single Event, for example, if we create an event called "Fire", we can add sub type events like car fire, building fire, ...

To edit an event, click the event name, click "Edit". To delete the event, click on "Delete".

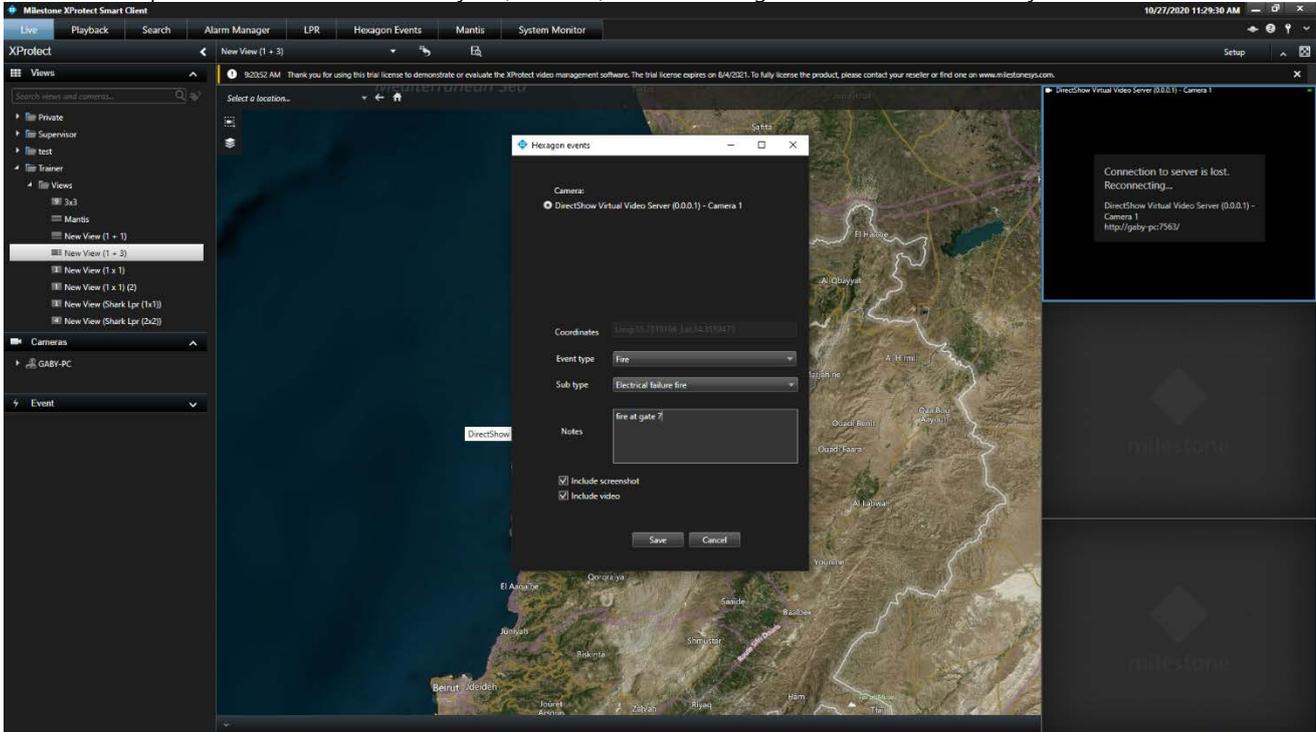
Operations

Generation of ticket from cameras

On the live tab of the smart client, In the lower right corner of every camera, click the MIP button  to open the CAD ticket.

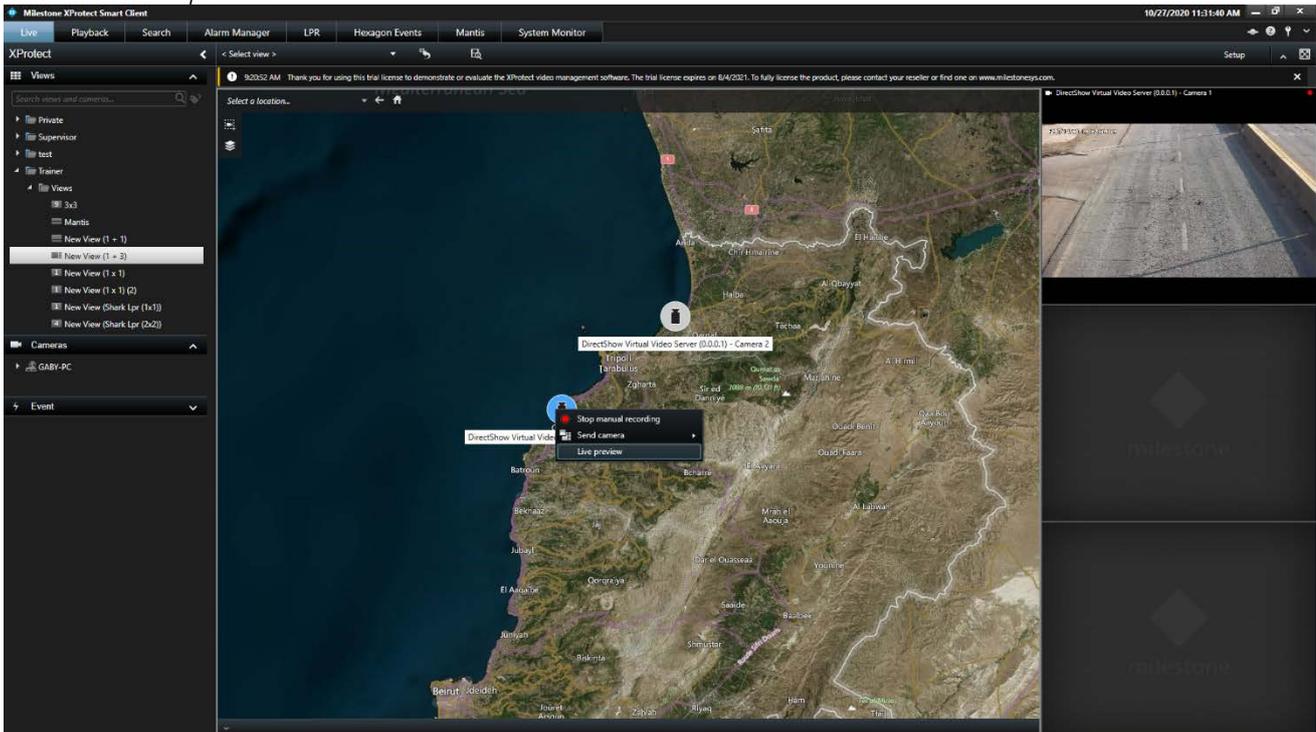


The Hexagon event window will open in which the operator can select the event type, sub type, add notes and include a snapshot or a video (selected by default) before submitting the ticket to the CAD system.

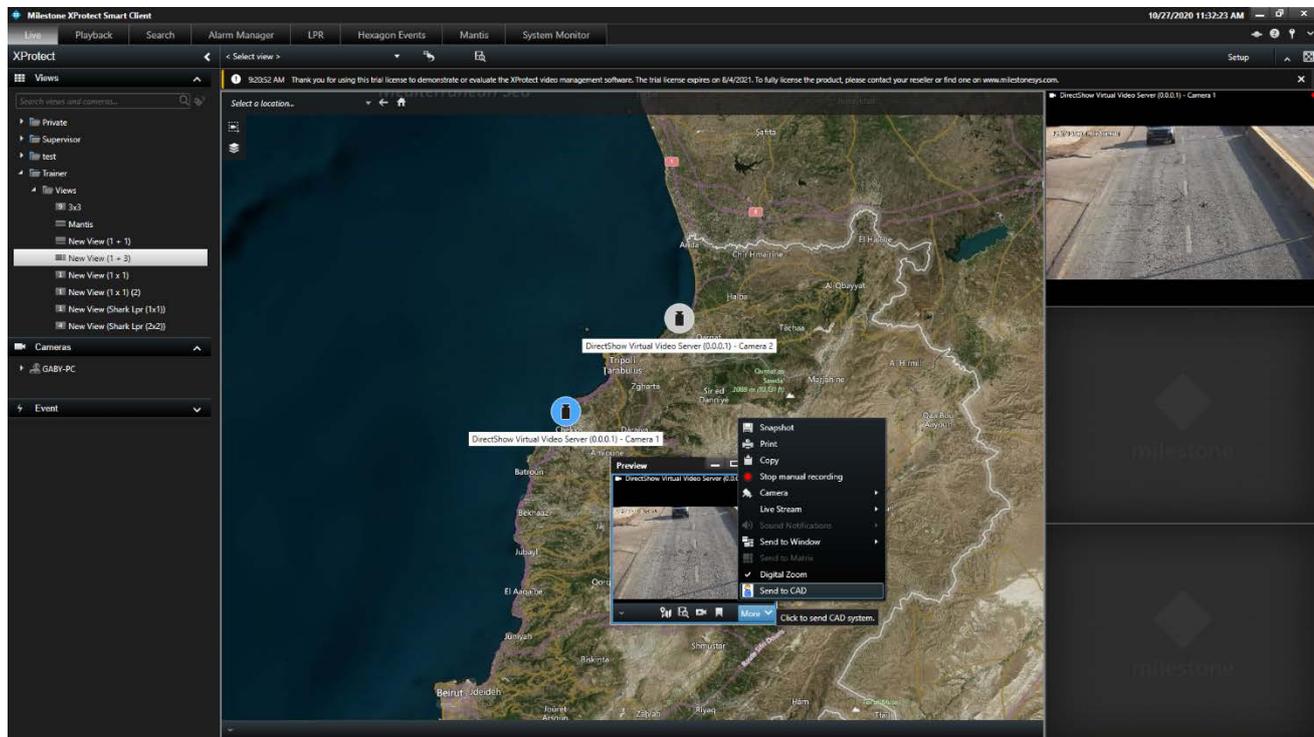


Generation of ticket from camera from the smart map

CAD event can also be generated from the smart map view. On the smart map, select one camera, right click and click on live preview

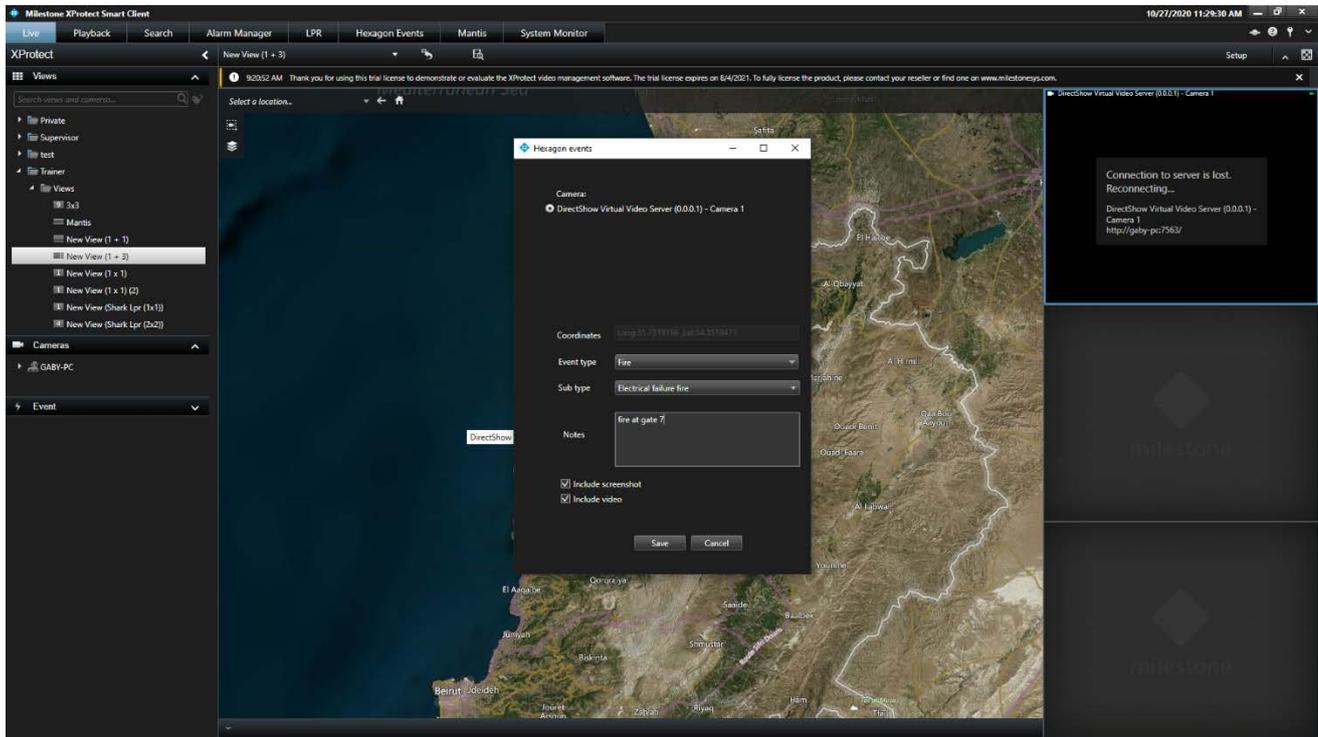


A pop up window will open with the selected camera view. click on more, send to CAD



The Hexagon event window will open and show the selected camera(s). Even though the camera list will show all the available cameras, only the main camera coordinates will be sent to the CAD system. Please note that the generated ticket from the smart client plugin can include multiple cameras that can be seen from the hexagon history tab inside the smart client but will not show in the CAD system.

The operator can choose the event type, the sub type, add notes and include a snapshot or a video before submitting the ticket to the CAD system.



Videos and snapshots

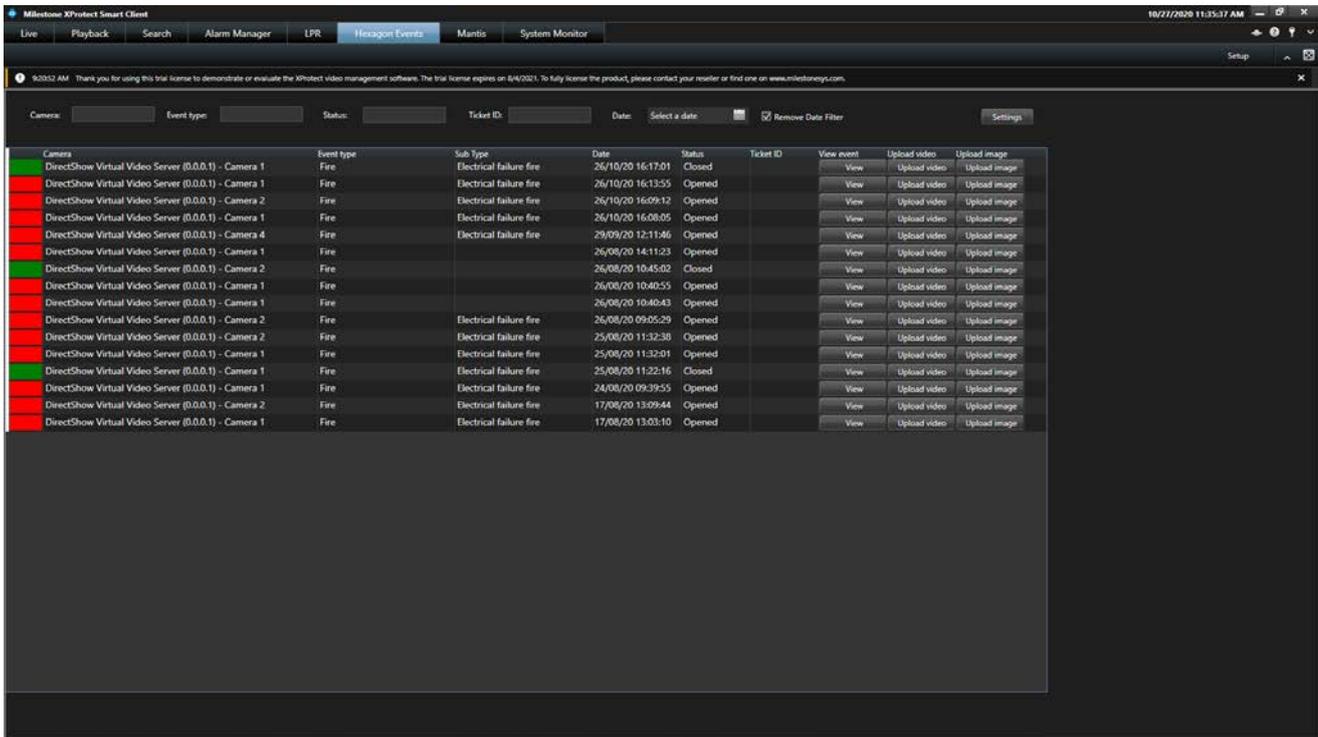
The snapshot and video check boxes will be selected by default when the operator generates a ticket. The system will take a screenshot of the camera when the operator clicks on the save button.

The video check box will export the video under certain predefined time that can be configured from the configuration page, for example 5s before the button click and 10 sec after the button click.

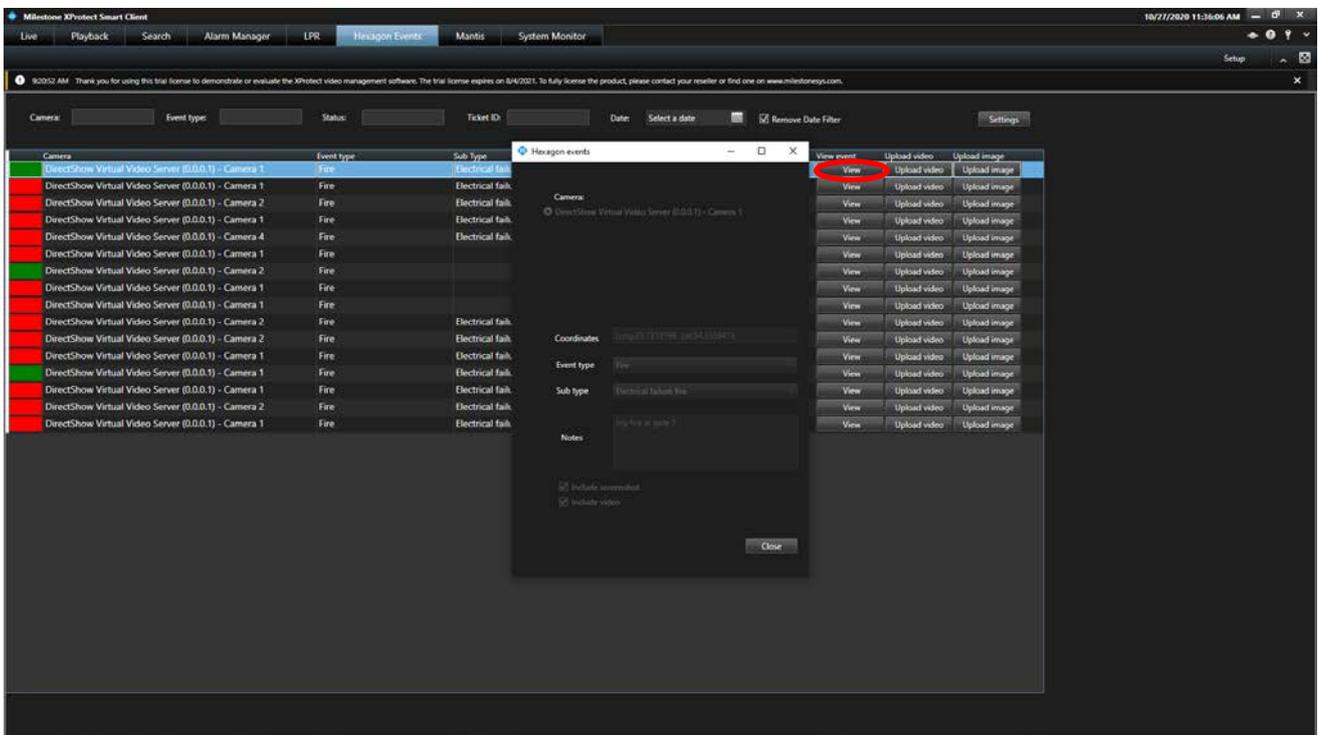
The screenshot and the video will be sent automatically to the CAD system using the API request that will be provide after we receive the ticket id from cad system.

Hexagon Events History

Under the Hexagon event tab, the operator can view and search all the generated tickets with their Camera name, event type, event sub-type, priority which will be defined by the CAD operator, date status, ticket ID (generated from the CAD system) and event viewer.



The Operator can view the event details and notes by clicking on the view event button.



ABOUT SYSTEMINENCE

SYSTEMINENCE is a software development company and video surveillance consultancy. As Milestone XProtect technology partners and customization experts, we work hand in hand with Milestone Resellers and leverage Milestone SDK to provide their clients with tailored cost-effective and reliable surveillance solutions allowing their business processes to be more intuitive, connected and integrated.

www.systeminence.com

ABOUT MILESTONE

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group.

www.milestonesys.com/community/marketplace