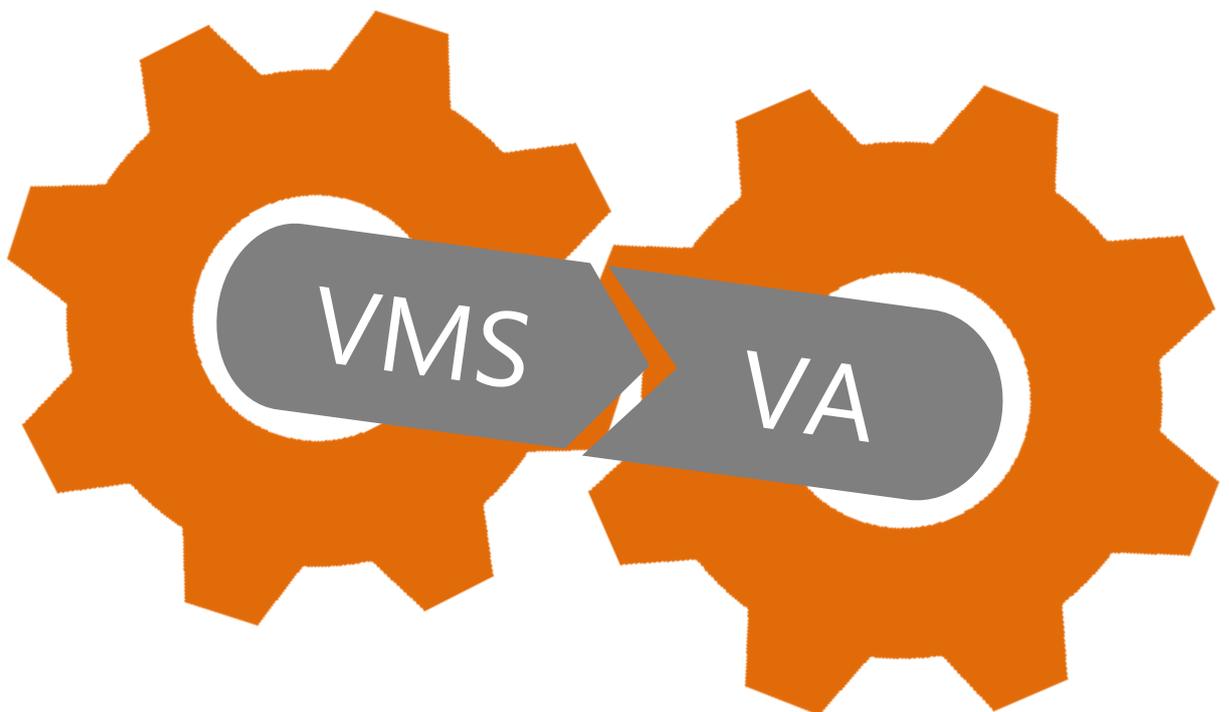


VMS Integration Document

AllGoVision Video Analytics | Milestone VMS

Version 4.0

Release Date: February 2019



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INTRODUCTION

AllGoVision is a Video Analytics software product for actionable intelligence in security installations. The product provides excellent return on investment for a wide range of applications, including City Surveillance, Building Surveillance, Business Intelligence, Loss Prevention, Consumer Behavior Analysis, Monitoring Traffic Flow, Parking Management and many more.

The technology evaluates the contents of video to determine the specific information about the video contents. The product analyzes rapidly the video for specific data, behavior patterns, tracking movement of people/objects in monitoring zones.

Being an open-platform video analytics solution, AllGoVision easily and tightly integrates with many VMS including Milestone. This document provides details on AllGoVision's integration with Milestone VMS.

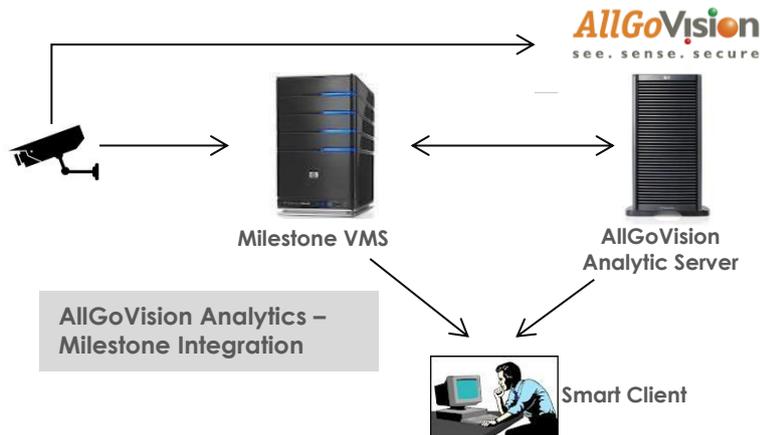
SYSTEM REQUIREMENT

AllGoVision analytics has the following system hardware and software requirements.

CATEGORY	REQUIREMENT
Operating System	Workstation: Windows 10 Server: Windows Server
Network	Ethernet, 1 Gbit or higher recommended.
Hardware Requirement	x86 Platform, 64 bit, AVX2 support 6 th Gen or higher
Server requirement (for QVGA resolution)	Core i7 (6 Cores), 3 GHz, 8 GB RAM for up to 15 channels Xeon 6 core, 3 GHz, 8 GB RAM for up to 15 channels Xeon 12 core, 3 GHz, 16 GB RAM for up to 30 channels (approx. 2.5 channels per core, suitable to add multiple CPUs in single server) Supports Nvidia GPU acceleration for Face Capture & Recognition (approx. 1 channel per 2 cores for Face Recognition based features) Note: Actual Configuration will be based on the use-cases and features
Frame Rate Requirement	>8 fps for Security Analytics (Perimeter Protection/Intrusion), Face Recognition >15 fps for PTZ Analytics, People Counting, Traffic features and LPR.
Stand Alone version camera support (Works with/without VMS)	Models from Axis, Pelco, Bosch, Sony, Honeywell, Hikvision, Dahua, Panasonic, Brickcom, IndigoVision, Cisco, Samsung, Acti, Vivotek, FLIR, Digital Watchdog, and others (ONVIF Cameras). Any other camera requires URL to connect camera and get video feed. Supports MJPEG, H.264, MPEG4 Supports ONVIF camera, ONVIF PTZ control
VMS Software	Milestone (Express/Expert/Professional/Enterprise/Corporate)

INTEGRATION WITH MILESTONE

- AllGoVision application provides the flexibility in installation. It can be installed either in same machine with Milestone VMS or separate machine.
- AllGoVision can take the Video feed directly either from Milestone VMS or Camera.
- AllGoVision send alarms to Smart Client application.
- AllGoVision application can run as a windows service.



AllGoVision Management client

- AllGoVision Management client connects to Milestone and gets video feed
- The analytic rules are set in AllGoVision Management client and started as service
- The alarms are sent to Event server of Milestone
- AllGoVision sends events to Milestone as well
- AllGoVision sends metadata to Milestone so that it can be seen in Live view
- AllGoVision provides plugin for ANPR and FR to view alarms with details for Smart Client
- AllGoVision WEB UI plugin provides inside Smart Client for configuration and viewing the alarms.

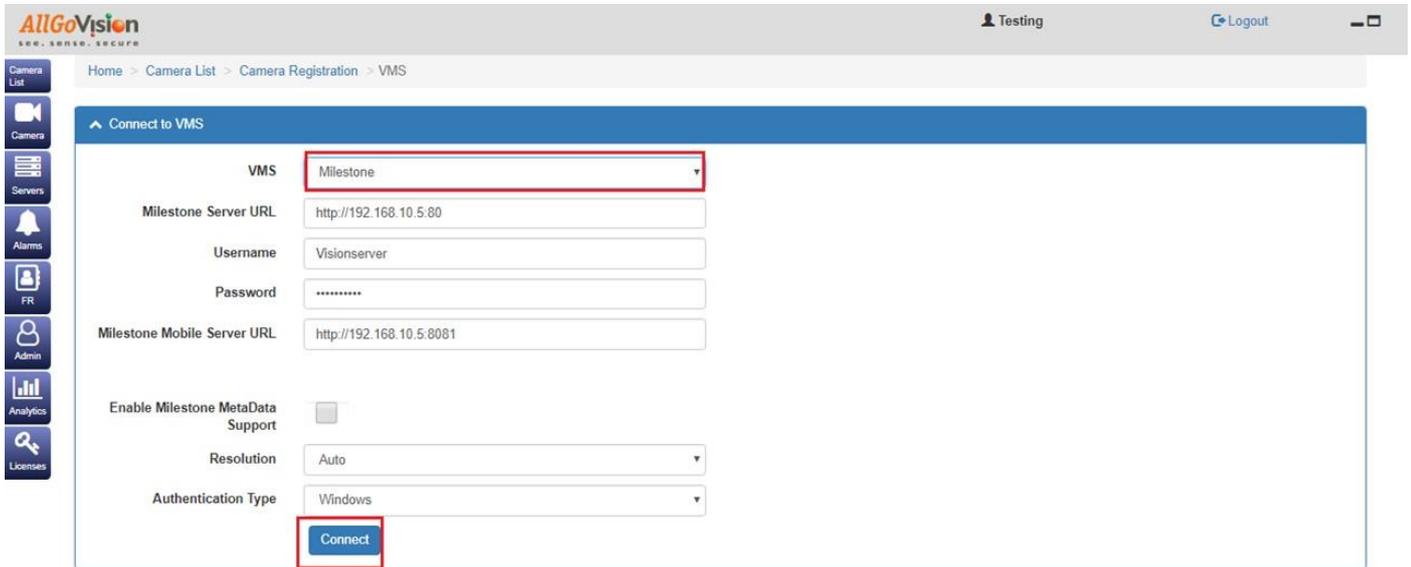
Camera Registration in AllGoVision WEB UI

The screenshot shows the AllGoVision WEB UI interface. At the top, the logo and navigation links are visible. The main content area is titled "Camera Registration" and contains four buttons: "Scan for cameras", "Manually register cameras", "Add Recorded Video", and "Connect to VMS". The "Connect to VMS" button is highlighted with a red box. A sidebar on the left contains navigation icons for Camera List, Camera, Servers, Alarms, FR, Admin, Analytics, and Licenses.

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This screenshot shows the "Connect to VMS" section of the AllGoVision WEB UI. A dropdown menu is open, displaying a list of VMS providers. The dropdown is highlighted with a red box. The list includes: Maxpro, Samsung, Bosch, Wave Store, Verint Nextiva, Honeywell DVM, DW Spectrum, Milestone, Cisco VSM, Honeywell EBI, Genetec, PSIA compliant VMS, and Network Optix.

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Home > Camera List > Camera Registration > VMS

Connect to VMS

VMS: Milestone

Milestone Server URL: http://192.168.10.5:80

Username: Visionserver

Password:

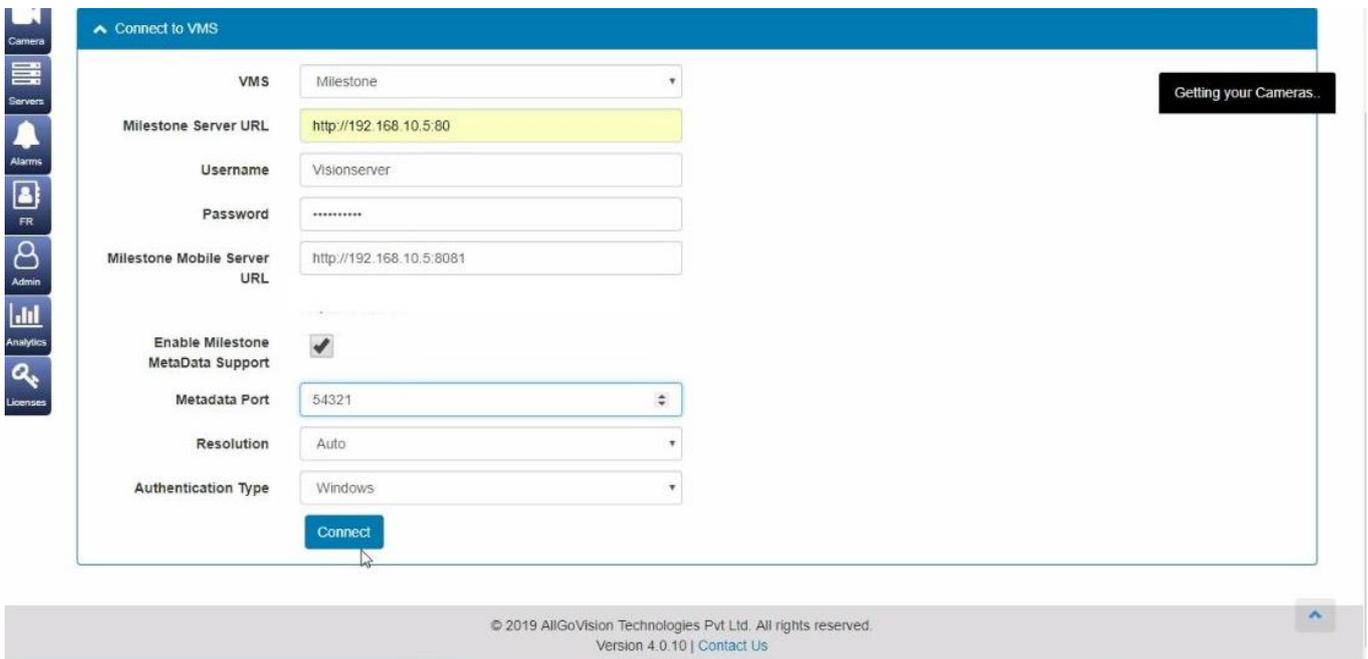
Milestone Mobile Server URL: http://192.168.10.5:8081

Enable Milestone MetaData Support:

Resolution: Auto

Authentication Type: Windows

Connect



Connect to VMS

VMS: Milestone

Milestone Server URL: http://192.168.10.5:80

Username: Visionserver

Password:

Milestone Mobile Server URL: http://192.168.10.5:8081

Enable Milestone MetaData Support:

Metadata Port: 54321

Resolution: Auto

Authentication Type: Windows

Connect

Getting your Cameras...

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AllGoVision see. sense. secure Testing [Logout](#)

Home > Camera List > Camera Registration > VMS

Connect to VMS

List of Cameras

Show 10 entries Search: [Select all](#) [None](#) [Add Camera](#) [Export to Excel](#)

Id	Name	Camera Type	Site
c7f39857-fc6d-4cef-9491-5360d548b391	AXIS PTZ 192.168.10.50		Testing

Showing 11 to 11 of 11 entries 1 row selected [Previous](#) [1](#) [2](#) [Next](#)

Camera List
Camera
Servers
Alarms
FR
Admin
Analytics
Licenses

Cameras Added: 1 Cameras not added: 0 [DISMISS](#)

192.168.10.37:9000/VMSconnection#

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License Plate Recognition Video Output

Date: 8/2/2019 16:43:57

Vehicle Recognized: 222

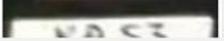
Camera Name: DirectShow Virtual Video Server (0001) - Camera 1



Alarm Id: 22426
🚗 KA53B8308
Fri, 08 Feb 2019 16:43:56



Alarm Id: 22424
🚗 KA039699
Fri, 08 Feb 2019 16:43:50




[Open in VLC](#) [Help for VLC](#)



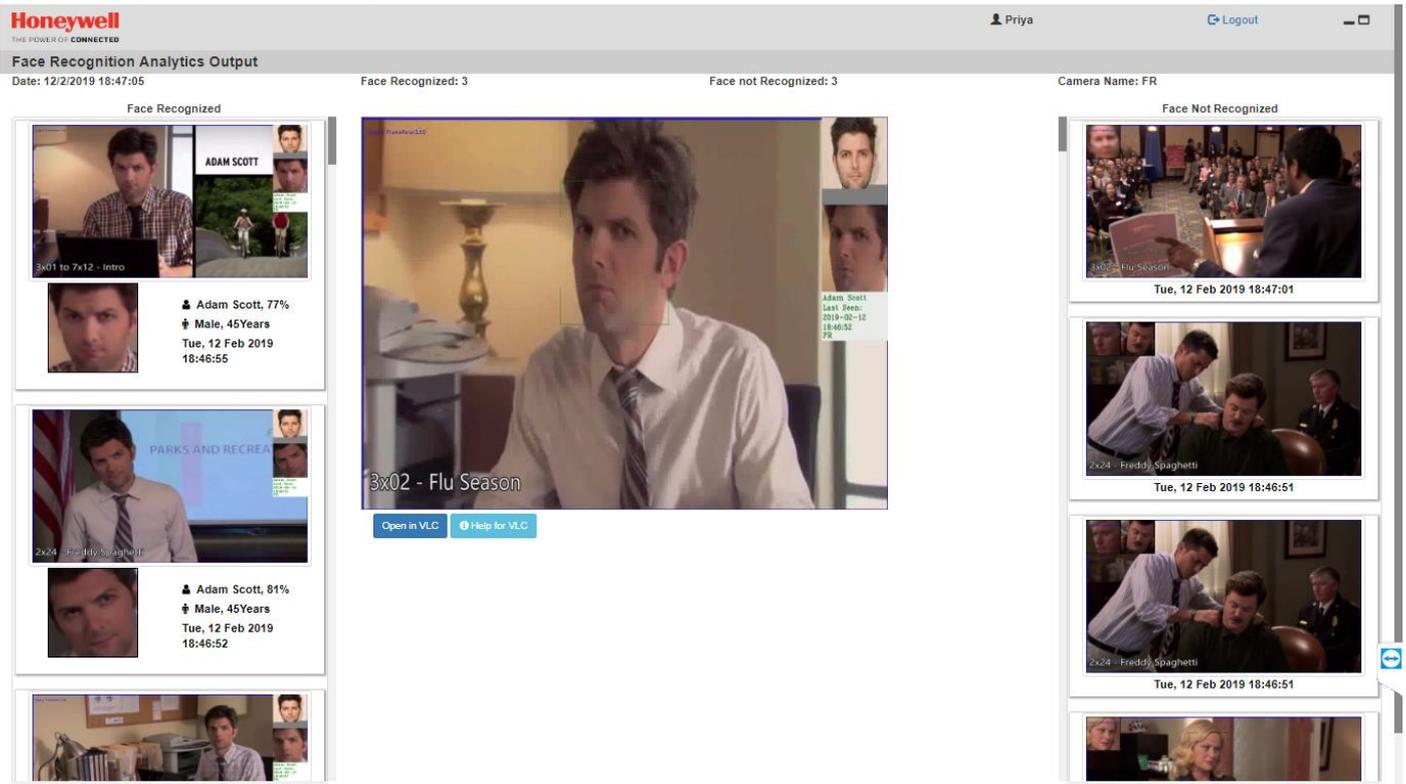
Alarm Id: 22425
🚗 KA01AD3130
Vehicle Type: Vehicle
Vehicle Color: Red



Alarm Id: 22424
🚗 KA039699
Vehicle Type: Vehicle

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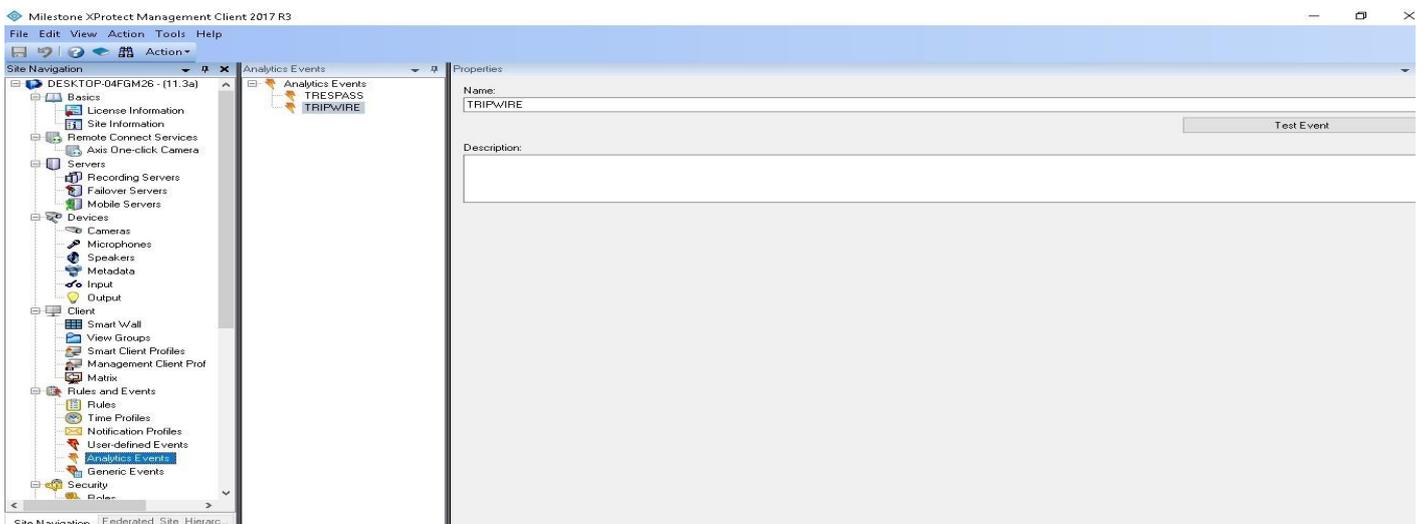
Face Recognition Video Output



EXTERNAL EVENT CONFIGURATION IN MILESTONE

AllGoVision alarms can be used as external events in Milestone to trigger applications like Matrix Pop-up, Sound Alarms, E-mail, Event based Recording, triggering Camera Output etc.

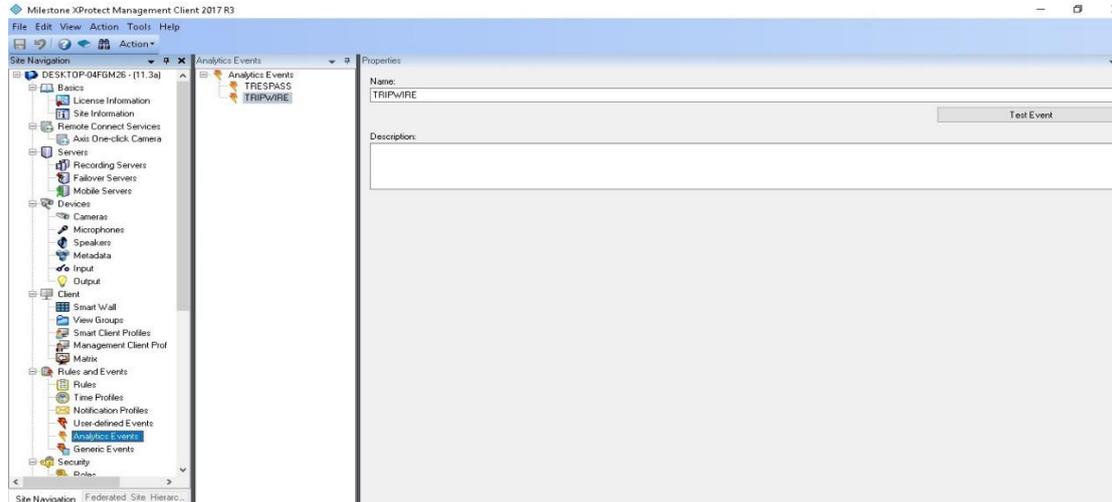
For triggering above mentioned applications in Milestone XProtect Corporate, **Analytics events** have to be created and then **rules** need to be defined under **Rules and Events**



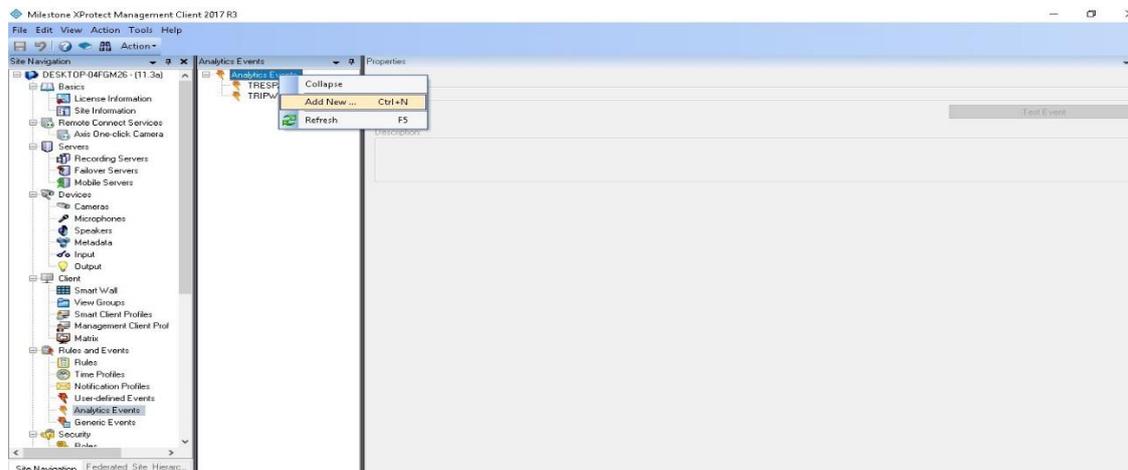
AllGoVision sends external events as "**AlarmName_CamerName**". For example, if camera name is Highway1 and Loitering application is running in AllGoVision, whenever AllGoVision detects Tripwire alarm, it sends the alarm to Milestone and external event as "Loitering_Highway1".

For example, if we want to generate alarms for Loitering application running in AllGoVision, the below mentioned steps must be followed:

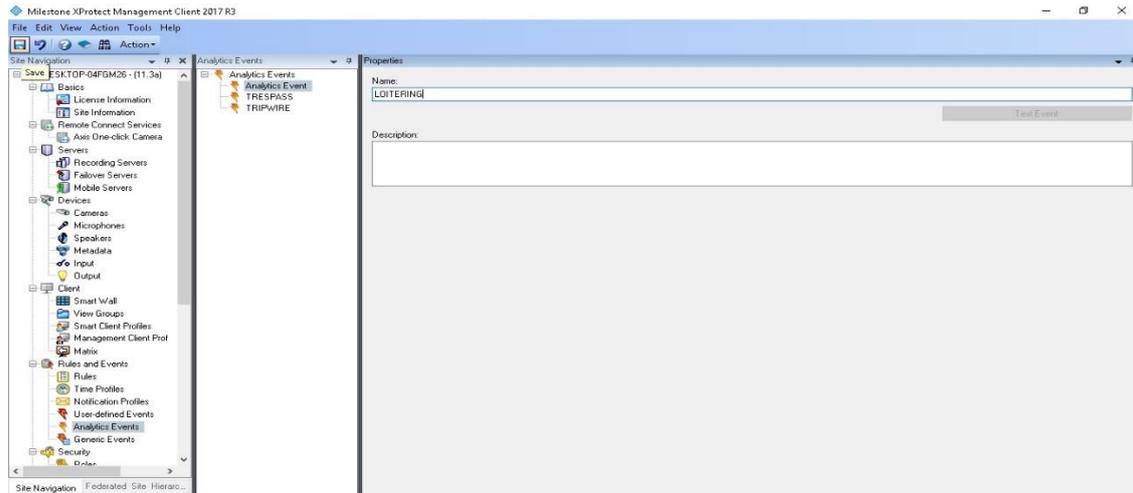
- i) Select **Analytics Events** under Rules and Events tab.



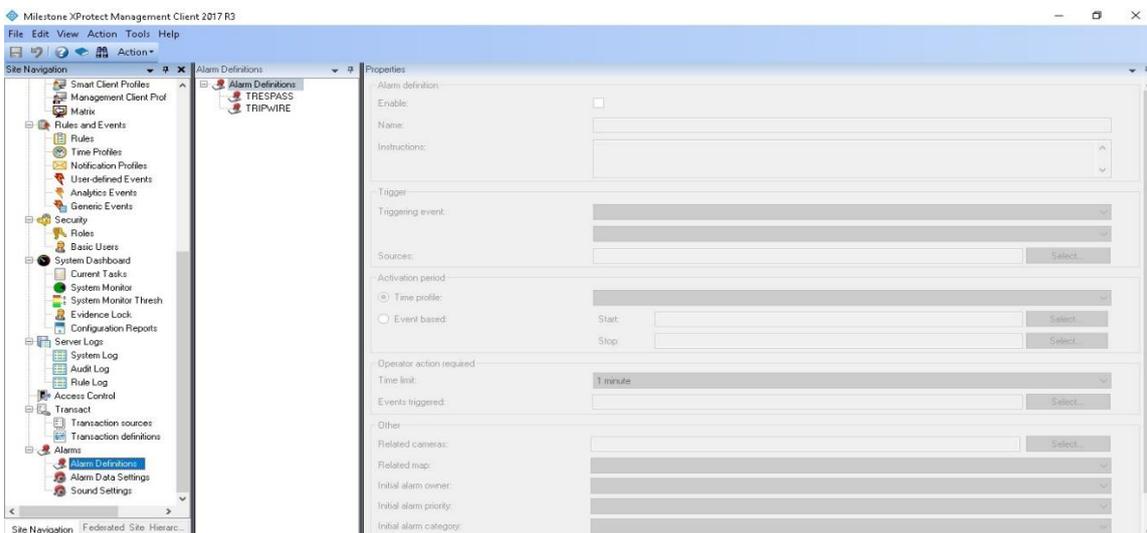
- ii) Under Analytics Events tab, right click and select **Add New** to create a new event.



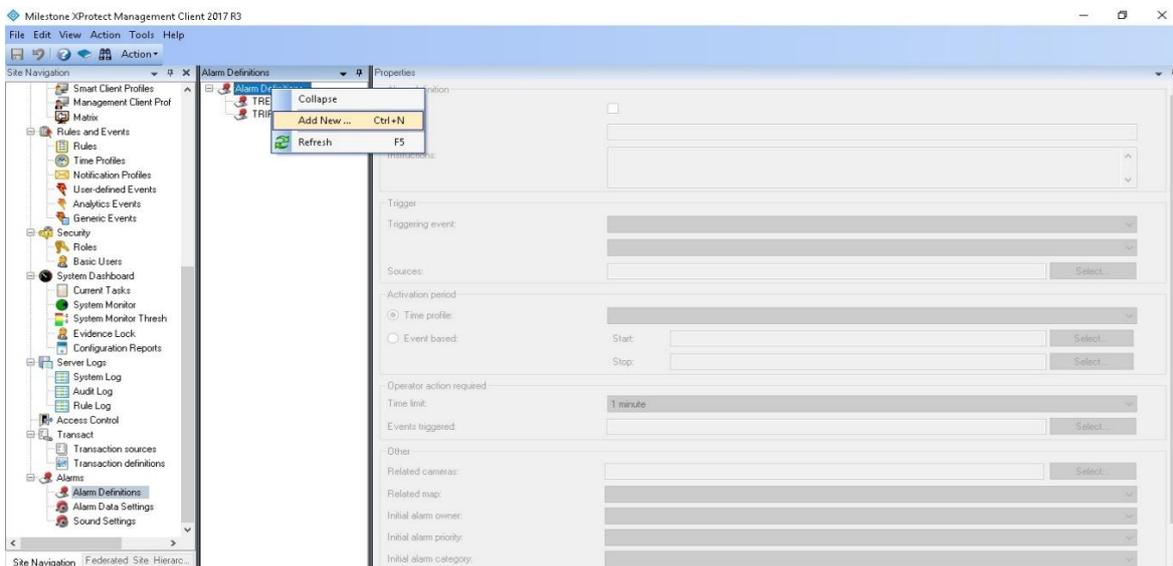
- iii) Under Properties tab, mention the required Alarm **Name** and **Description**.



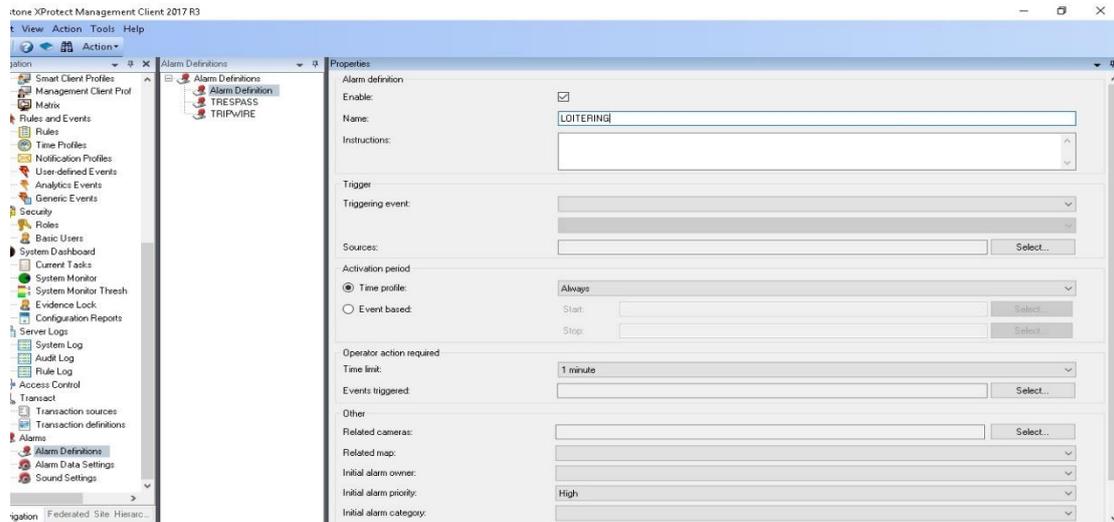
iv) Next, select **Alarms** from the Site Navigation panel. Choose **Alarm Definitions**.



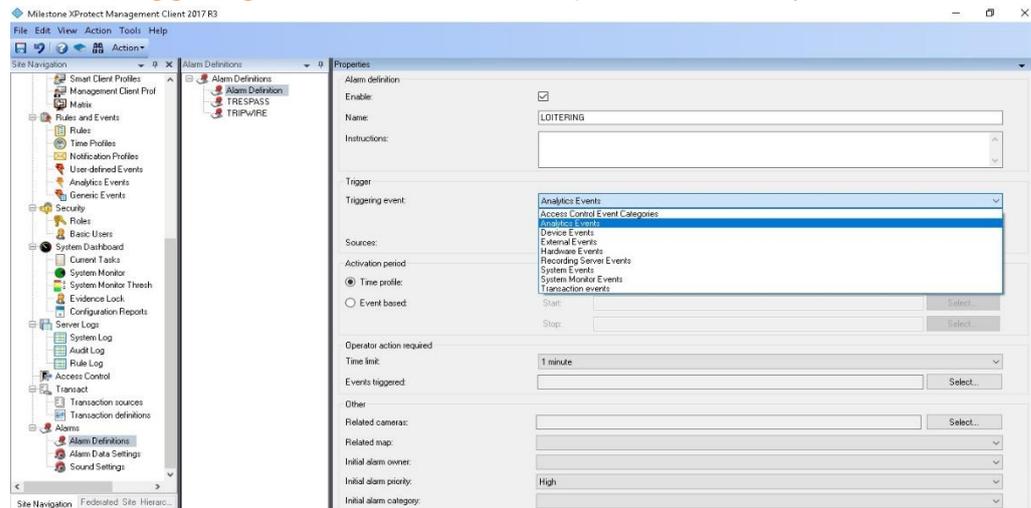
v) Under Alarm Definitions, create a new alarm with the **Add New** option.



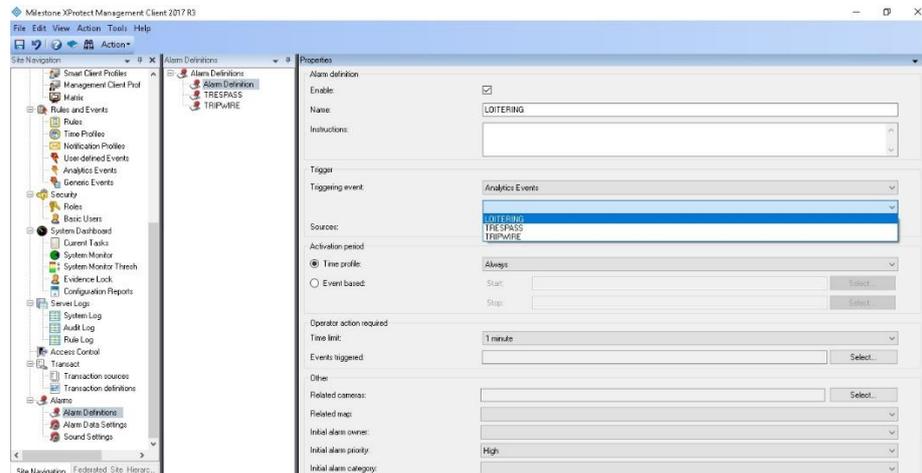
vi) Under the Properties panel, specify the Alarm Name.



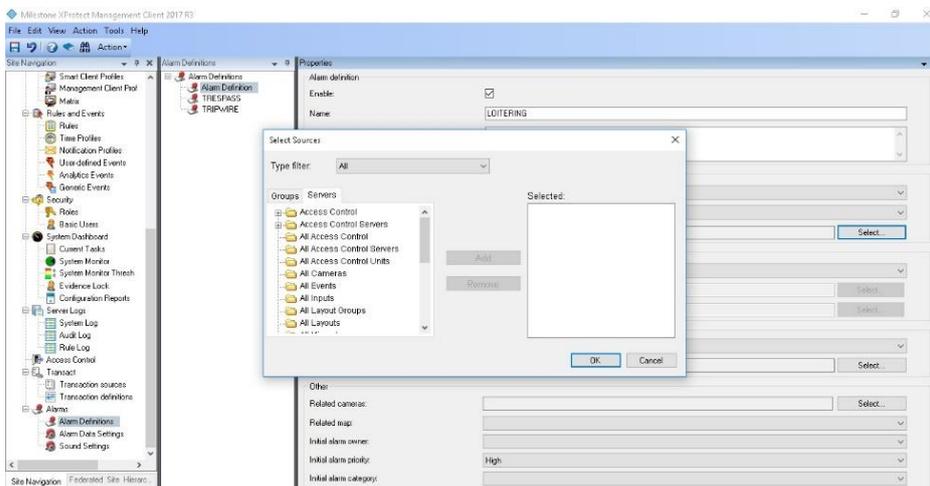
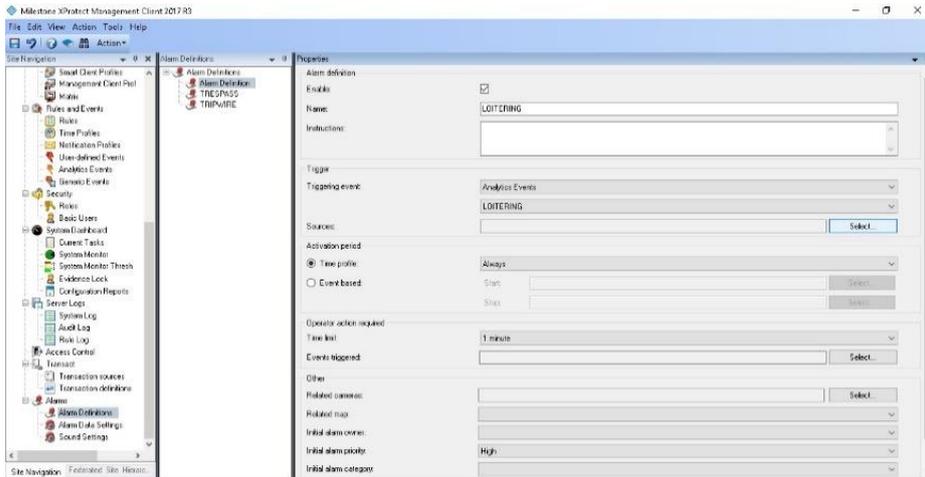
vii) Under Triggering event, select Analytics Events option from the first dropdown



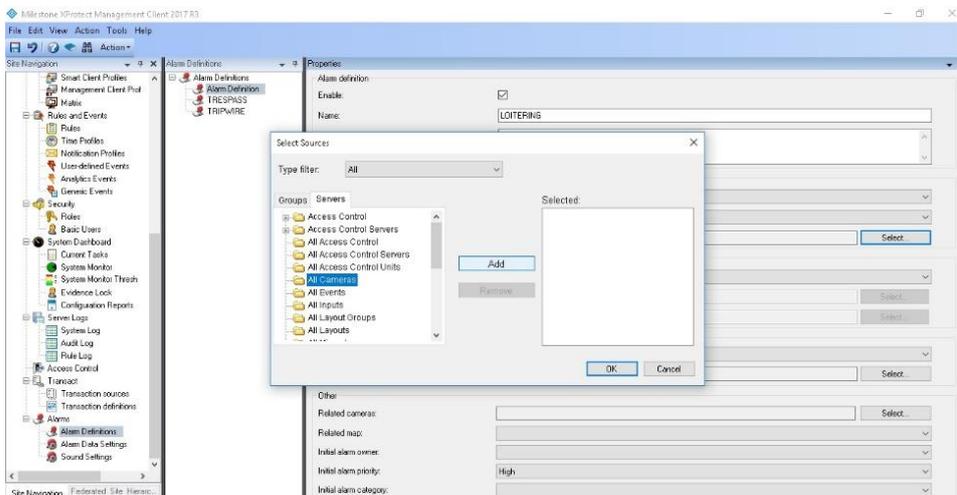
viii) Select Loitering option from the second dropdown.

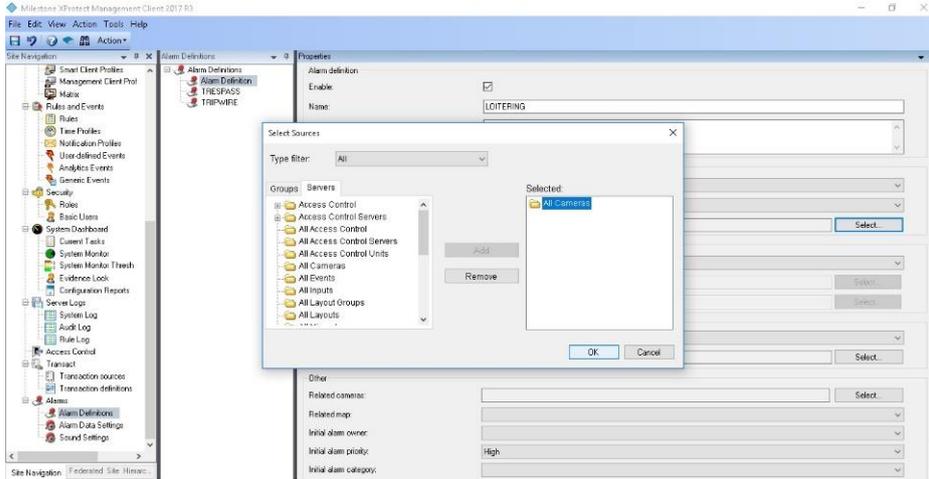


ix) Click on **Select**.



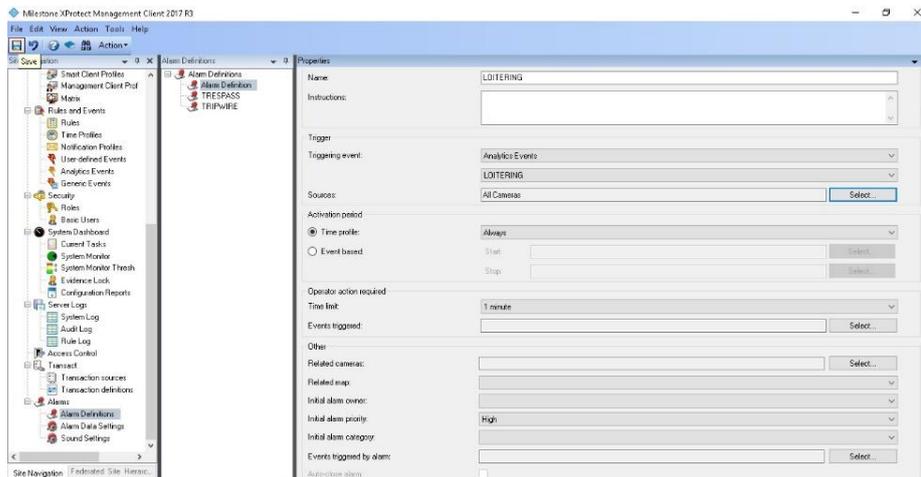
A popup appears, select **Servers** > **All Cameras** > **Add** as shown.





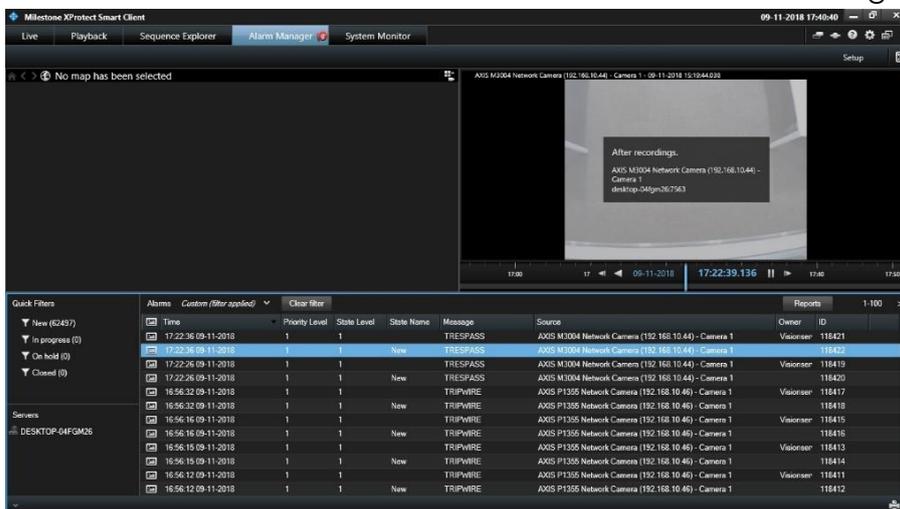
Click on **Ok**.

- x) All other inputs (**Time Profile**, **Time Limit**, **Initial Alarm Priority**) under the Properties panel should reflect as below.



The above nomenclature should be followed for creating an External Event.

- xi) The external event would be shown as below in Alarm Manager:



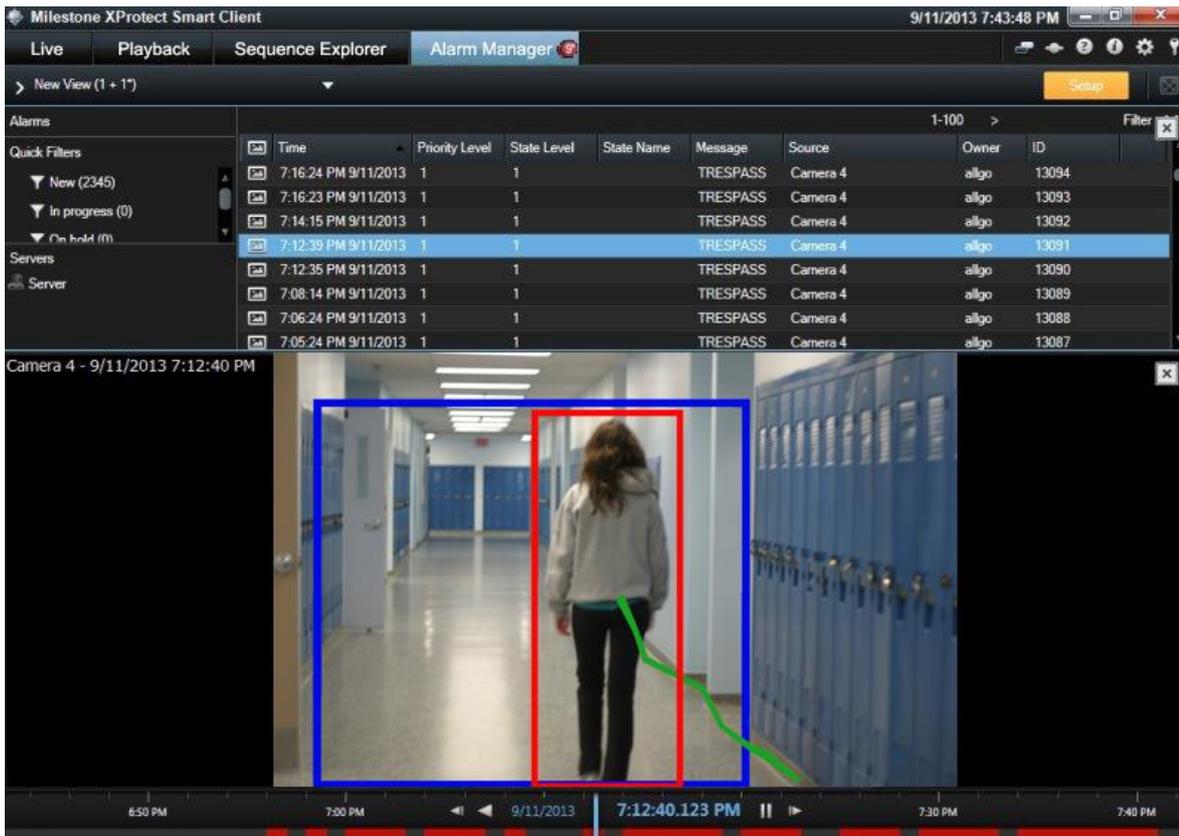
External Event in Milestone Smart Client Alarm Manager

ALARM VIEWING IN MILESTONE SMART CLIENT

AllGoVision sends Alarms/Events to Event Server of Milestone for storage and viewing in Smart Client application.

Alarms can be viewed in either of the following 2 ways:

1) The **Alarm Manager** displays alarms in real time and would be able to search alarms.



The screenshot shows the Milestone XProtect Smart Client interface. The top navigation bar includes 'Live', 'Playback', 'Sequence Explorer', 'Alarm Manager', and 'System Monitor'. The main view is split into three sections: a camera layout on the left, a video playback window in the center, and an 'Alarm Details' panel on the right. The video shows a white SUV with a red bounding box around it. The 'Alarm Details' panel displays the following information:

Time Stamp:	05-02-2019 14:17
Camera:	DirectShow Virtual Video Server (0.0.0.1) - Camera 1
Vehicle Type/Model:	NA
Category:	UNKNOWN_LIST
Entry/Exit:	Entry

Below the video, a table lists recent alarms:

Time	Priority Level	State Name	Message	Source	Owner
14:17:50 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:17:19 05-02-2019	1		(KL57FW9306.NA,UNKNOWN_LIST,I	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:13 05-02-2019	1		(KA51D3947.NA,UNKNOWN_LIST,Er	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:11 05-02-2019	1		(KA01ML8844.NA,UNKNOWN_LIST,I	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:10 05-02-2019	1		(KA02AA6055.NA,UNKNOWN_LIST,E	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:08 05-02-2019	1		(AS01MD1950.NA,UNKNOWN_LIST,I	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:04 05-02-2019	1		(KA41B9204.NA,UNKNOWN_LIST,Er	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:03 05-02-2019	1		(KA51P2975.NA,UNKNOWN_LIST,Er	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:02 05-02-2019	1		(TN37AZ8365.NA,UNKNOWN_LIST,E	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:15:19 05-02-2019	1		TRIPWIRE	AXIS PTZ 192.168.10.50	Visionserver
14:14:03 05-02-2019	1		TRIPWIRE	AXIS PTZ 192.168.10.50	Visionserver

The screenshot shows the Milestone XProtect Smart Client interface with the ANPR/FR plugin active. The 'Alarm Manager' tab is selected. The main view shows a camera layout on the left, a video playback window in the center, and an 'Alarm Details' panel on the right. The video shows a person's face with a red bounding box. The 'Alarm Details' panel displays the following information:

Name:	Shalini
Age:	NA
Gender:	NA
Category:	
Time:	05-02-2019 14:18
Camera:	g Wisenet Cameras (192.168.10.47) - C

Below the video, a table lists recent alarms:

Time	Priority Level	State Name	Message	Source	Owner
14:18:32 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:18:28 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:18:20 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:18:09 05-02-2019	1		FACE_RECOGNITION (30, Shalini, I	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:17:59 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:17:56 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:17:50 05-02-2019	1		FACE_NOT_RECOGNIZED (NA,NA)	Samsung Wisenet Cameras (192.168.10.47) - Camera 1	Visionserver
14:17:19 05-02-2019	1		(KL57FW9306.NA,UNKNOWN_LIST,I	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:13 05-02-2019	1		(KA51D3947.NA,UNKNOWN_LIST,Er	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:11 05-02-2019	1		(KA01ML8844.NA,UNKNOWN_LIST,I	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:10 05-02-2019	1		(KA02AA6055.NA,UNKNOWN_LIST,E	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver
14:17:08 05-02-2019	1		(AS01MD1950.NA,UNKNOWN_LIST,I	DirectShow Virtual Video Server (0.0.0.1) - Camera 1	Visionserver

ANPR/FR Plugin inside Smart Client Under Alarm Manager

2) Alarms sent by AllGoVision can be seen in **Live** Video of Milestone Smart client

AllGoVision provides plugins for live view alarm, popup and alarm playback.

The plugins need to be copied to below destination folder:

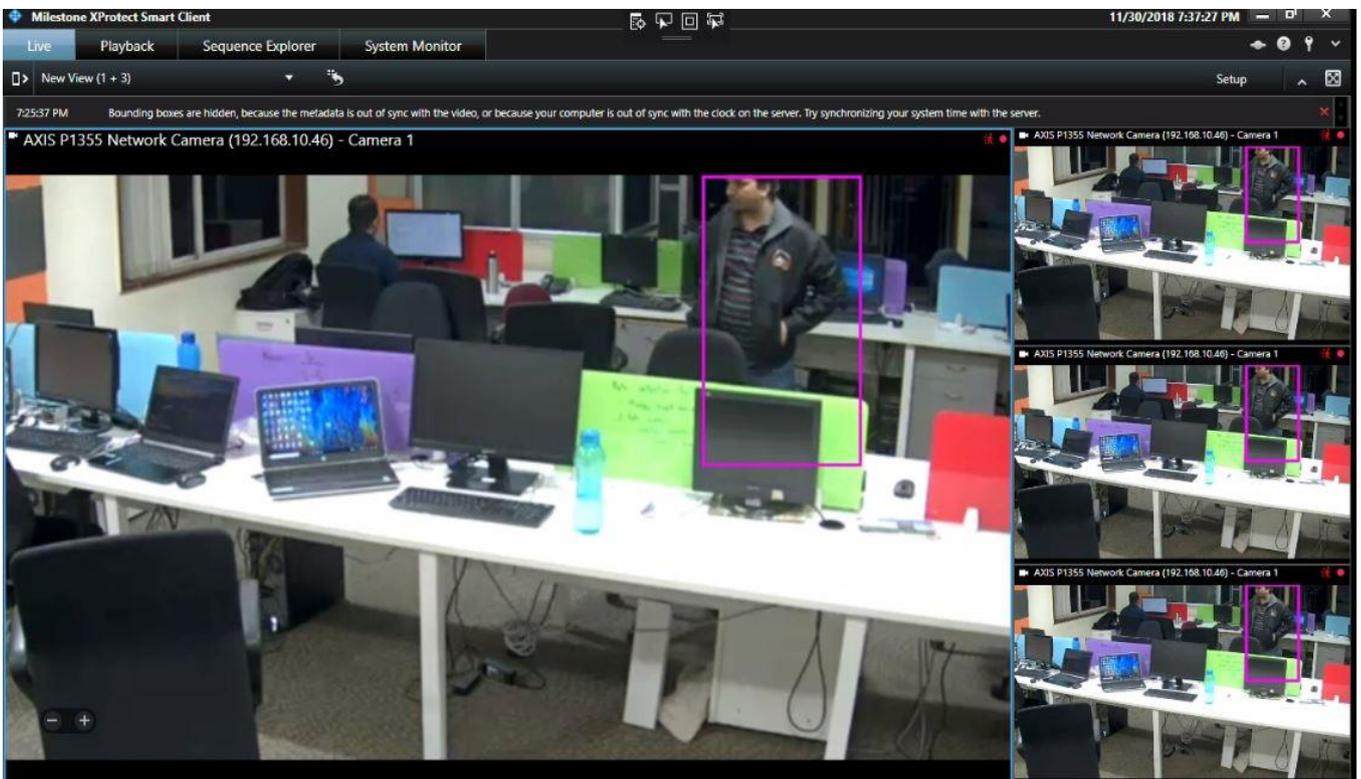
If Smart Client is 32 bit application:

C > Program Files (x86) > Milestone > XProtect Smart Client > MIP Plugins

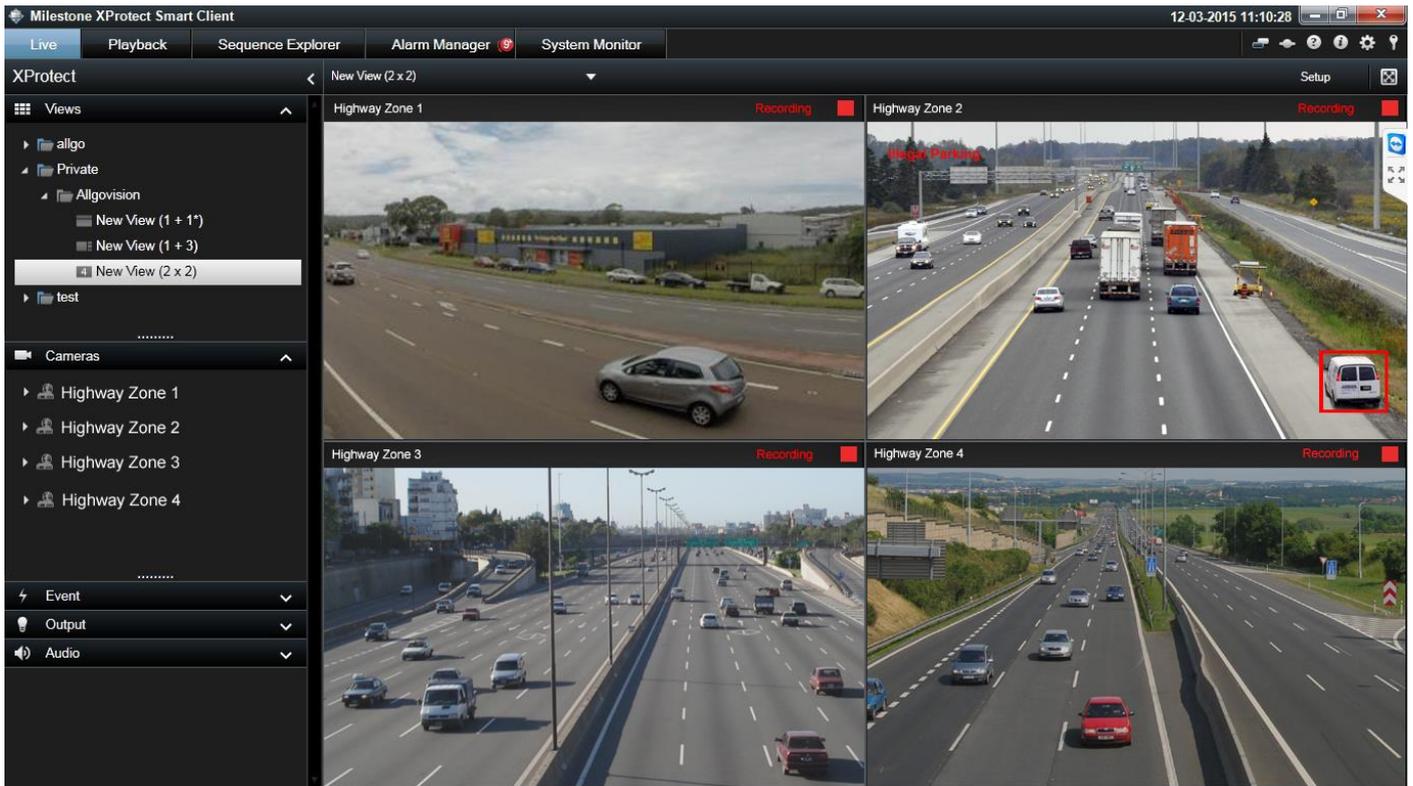
If Smart Client is 64 bit application:

C > Program Files > Milestone > XProtect Smart Client > MIP Plugins

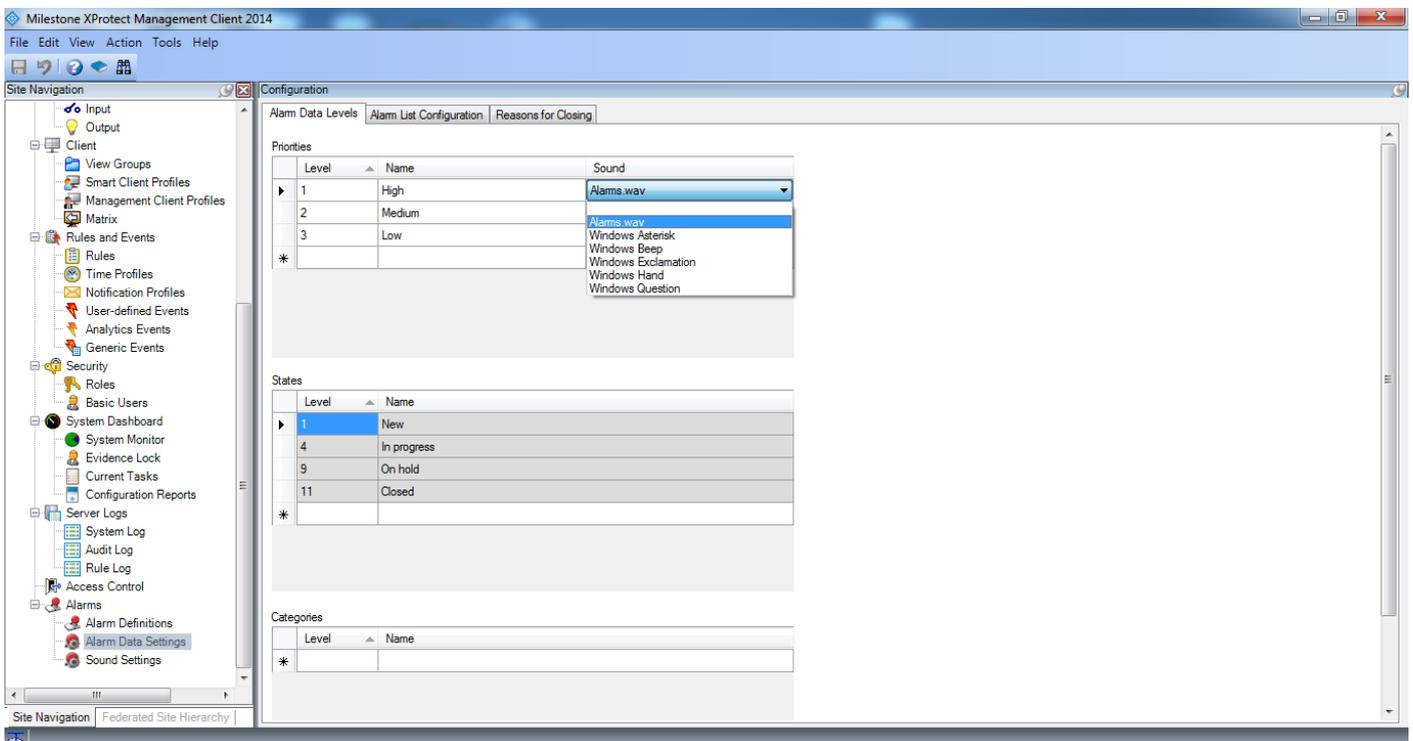
The alarms are shown on the Live Video



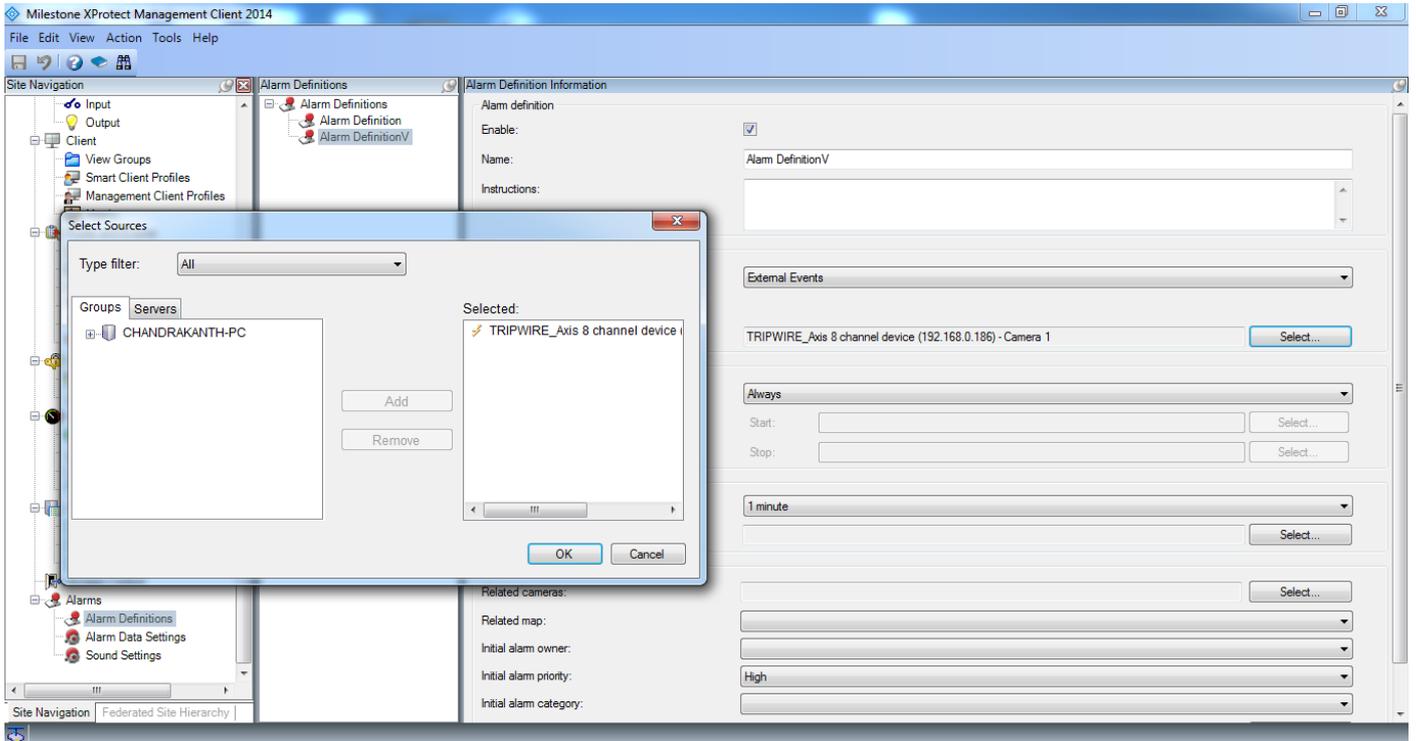
Metadata output in Smart Client Live View



For creating sound on alarms, select **Sound** for Alarm Priorities in **Alarm Data Levels** under **Alarms > Alarm Data Settings**.

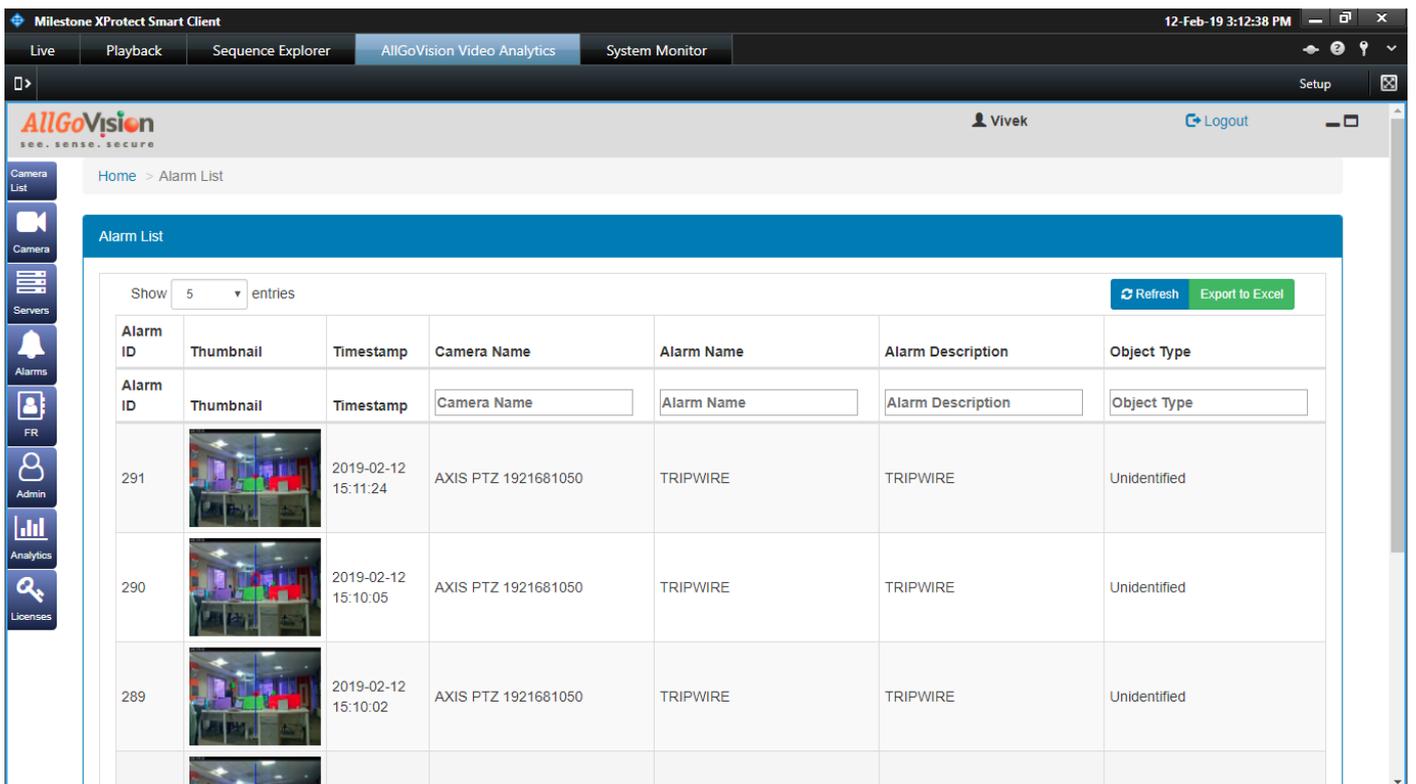


Then go to **Alarms > Alarm Definitions**, select **External Events**, and select the **event name** from the list of External Events, set **time** for alarm sound and alarm **priority**.



For more details on external event creation and setting rules, refer Milestone XProtect Administrator's Manual

Note: AllGoVision provides a workspace for Milestone Smart Client which hosts our Web UI. A user can also perform all the operations required for configuration and viewing the alarms .



Milestone XProtect Smart Client 12-Feb-19 3:14:42 PM

Live Playback Sequence Explorer AllGoVision Video Analytics System Monitor

Home > Camera List > Dashboard > Feature Setup

General Setup Security Safety Operations Management Face Recognition Traffic Management Advanced Setup Summary

Security (Camera: AXIS PTZ 1921681050, IP : 192.168.10.5, Resolution: 1920 x 1080)

Perimeter Security Suspicious Incidences PTZ

- Camera Tampering
- Tripwire/ Line Crossing
- Tailgating
- Face Capture
- Trespass / Zone Crossing

Add Region 1 9 Regions left

Priority Very Low Region

Area Analytics Line Analytics

Entry Exit Both Directions

Draw/ Reset

Save Reset Config

Start View Output Stop