



Awiros X Milestone Integration Document

Date	Version	Description	Contributor
08-NOV-2022	V 22.2	Awiros X Milestone Integration Document	Sudhir Chaudhary

Versions Used for the Integration:

Awiros App version: 22.2

Milestone VMS version: Milestone Xprotect 2022 R2



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Introduction:

Video is the most pervasive content type today. It forms more than 80% of the entire internet traffic.

Awiros' Video Intelligence is the ideal mechanism to leverage state-of-the-art Deep Learning Frameworks right from training to development to deployment at scale. Awiros lets you leverage the science of Computer Vision and Artificial Intelligence to analyze and interpret videos, converting them into actionable data for various use cases. Awiros tries to solve the aforementioned problems by serving as a unified platform that orchestrates the development, as well as management of all kinds of solutions at any scale. Being an open-platform video analytics solution, Awiros easily and tightly integrates with many VMS including Milestone. This document provides insight on Awiros platforms integration with Milestone XProtect.

Awiros OS Integration with Milestone VMS

Integration and interoperability of video analytics platform with industry leading video management systems is one of the basic and key requirements for smart surveillance solutions.

To cater to this requirement, Awiros platform has been integrated with the Milestone VMS. This allows the user to pull the streams from the VMS and also send alerts to Milestone VMS.



Awiros X Milestone integration through Protocol Integration.

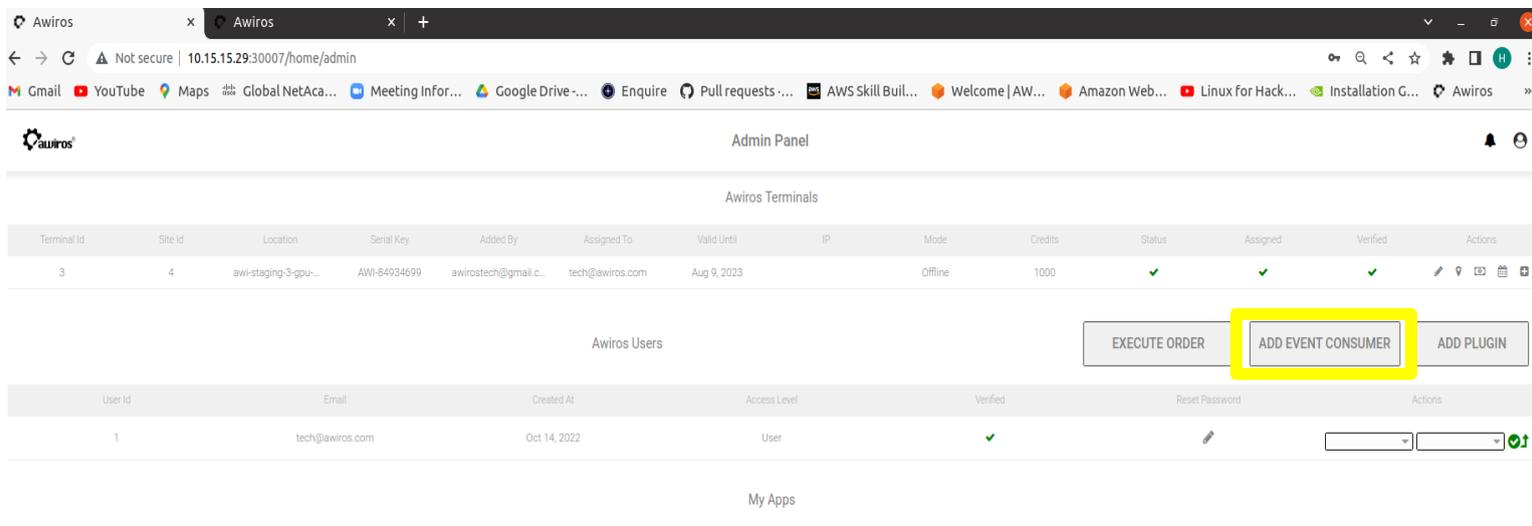
- Awiros can take the Video feed directly from Milestone XProtect.
- Awiros can take the feed directly from the camera as well.
- Awiros sends alarms to Smart Client application.

Awiros Web UI Client:

- Awiros web client connects to Milestone and gets video feed
- The analytic rules are set in Awiros Management client and started as apps.
- The alarms are sent to the Event server of Milestone.
- Awiros sends events to Milestone as well.
- Awiros sends metadata to Milestone.

Configuration Required in Awiros Web Client for Milestone Integration

Add Event Consumer Milestone in the Awiros admin client as shown in image below:

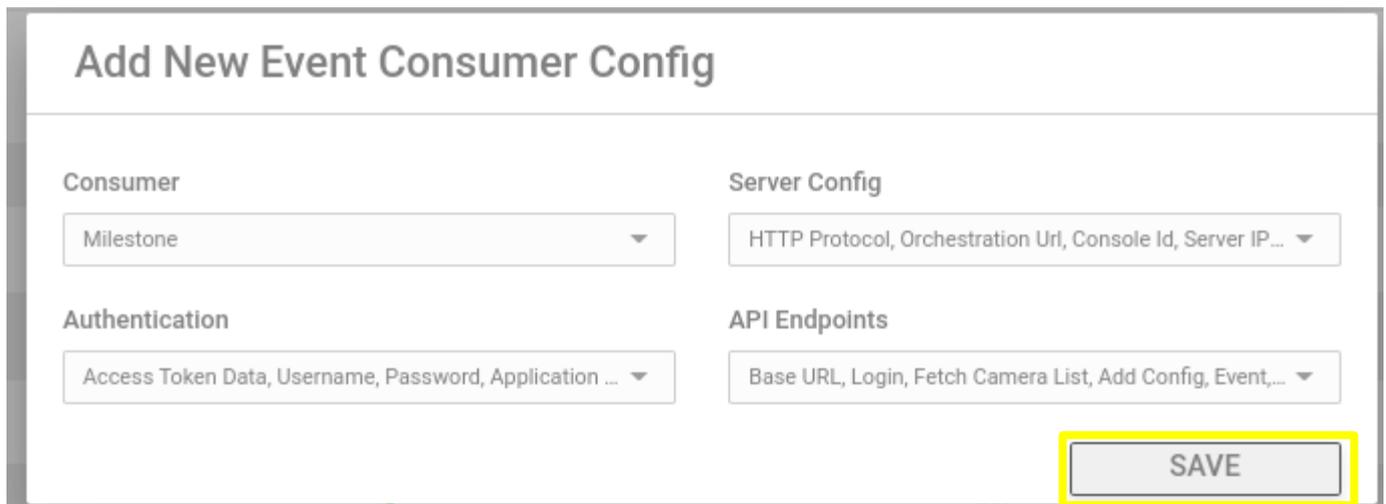


The screenshot shows the Awiros Admin Panel interface. The 'Awiros Users' section is visible, with a table of users and a row of action buttons: 'EXECUTE ORDER', 'ADD EVENT CONSUMER', and 'ADD PLUGIN'. The 'ADD EVENT CONSUMER' button is highlighted with a yellow box.

Terminal Id	Site Id	Location	Serial Key	Added By	Assigned To	Valid Until	IP	Mode	Credits	Status	Assigned	Verified	Actions
3	4	awi-staging-3-gpu...	AWI-84934699	awirostech@gmail.c...	tech@awiros.com	Aug 9, 2023		Offline	1000	✓	✓	✓	   

User Id	Email	Created At	Access Level	Verified	Reset Password	Actions
1	tech@awiros.com	Oct 14, 2022	User	✓		<input type="text"/> <input type="text"/> 

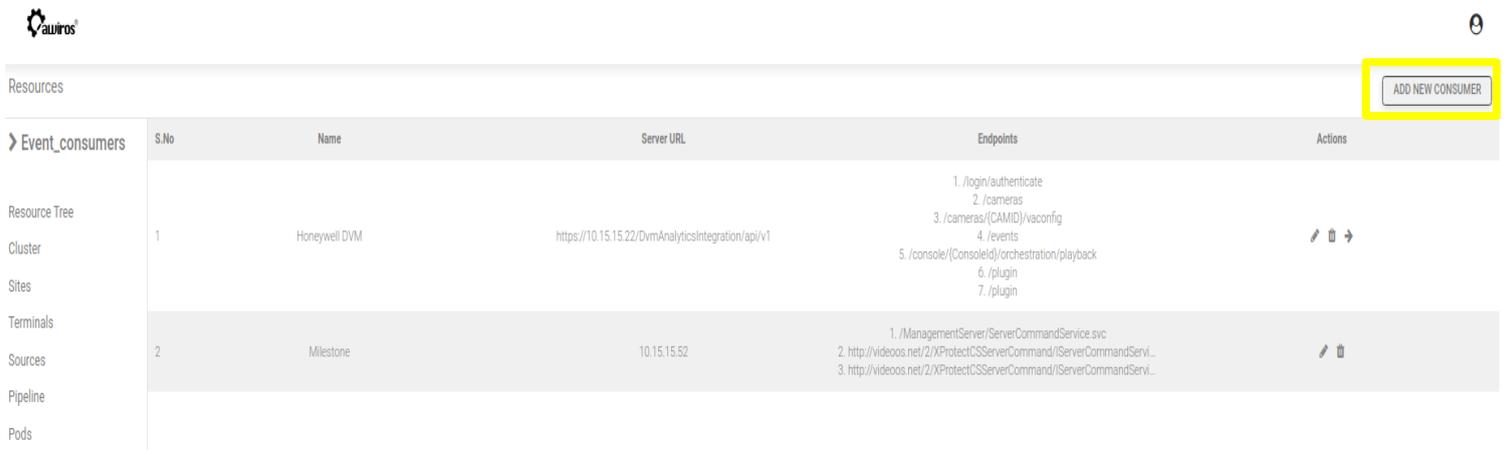
After clicking on Add Event Consumer below screen will popup:



The screenshot shows a dialog box titled "Add New Event Consumer Config". It contains four dropdown menus: "Consumer" (set to "Milestone"), "Server Config" (set to "HTTP Protocol, Orchestration Url, Console Id, Server IP..."), "Authentication" (set to "Access Token Data, Username, Password, Application ..."), and "API Endpoints" (set to "Base URL, Login, Fetch Camera List, Add Config, Event,..."). A "SAVE" button is highlighted with a yellow box in the bottom right corner.

After selecting the config above click on the save button.

Once saved go to Awiros web user client and click on Add new consumer as shown in below image:



The screenshot shows the Awiros web user client interface. On the left is a "Resource Tree" with categories: Event_consumers, Resource Tree, Cluster, Sites, Terminals, Sources, Pipeline, and Pods. The main area displays a table of event consumers. An "ADD NEW CONSUMER" button is highlighted with a yellow box in the top right corner.

S.No	Name	Server URL	Endpoints	Actions
1	Honeywell DVM	https://10.15.15.22/DvmAnalyticsIntegration/api/v1	1. /login/authenticate 2. /cameras 3. /cameras/(CAMID)/veconfig 4. /events 5. /console/(ConsoleId)/orchestration/playback 6. /plugin 7. /plugin	  
2	Milestone	10.15.15.52	1. /ManagementServer/ServerCommandService.svc 2. http://videoos.net/2/XProtectCSServerCommand/ServerCommandServi... 3. http://videoos.net/2/XProtectCSServerCommand/ServerCommandServi...	 

Below window will popup, which will ask to enter the Milestone details.

Add New Event Consumer Config

Consumer
Milestone

HTTP Protocol: HTTP Protocol | Server IP/URL: Server IP/URL | Server Port: Server Port | Stream IP/URL: Stream IP/URL | Streaming Port: Streaming Po | Event IP/URL: Event IP/URL | Event Port: Event Port

Username: Username | Password: Password | Application ID: Application ID

Base URL API Endpoint: Base URL | Login API Endpoint: Login | Fetch Camera List API Endpoint: Fetch Camera List

SAVE

Please fill in the required details above and click on save.

We can add the source from the Milestone server as shown in the below image:

Fetch sources

Terminal: awi-staging-3-gpu-master-29 | VMS: Milestone | Decoder: gstreamer | Filter: All

Search Source:

FETCH LIST

<input type="checkbox"/>	S.No	Label	Stream Type	RTSP URL	RTSP FROM VMS	Select Plugin	Encoding	Is Added	Actions
<input type="checkbox"/>	1	Honeywell HIB2PIV (10.15.1:1)	Select Stream L.	<input type="text"/>	rtsp://test:Test#123@10.15.15.52:554/	Select Plugin		✓	<input type="text"/>
<input type="checkbox"/>	2	Honeywell HIB2PIV (10.15.1:1)	Select Stream L.	<input type="text"/>	rtsp://test:Test#123@10.15.15.52:554/	Select Plugin		✓	<input type="text"/>
<input type="checkbox"/>	3	General IP PTZ Camera (10.1	Select Stream L.	<input type="text"/>	rtsp://test:Test#123@10.15.15.52:554/	Select Plugin		✓	<input type="text"/>

ADD CAMERAS

Once the cameras are searched, we can select the cameras and click on add cameras to add the same.

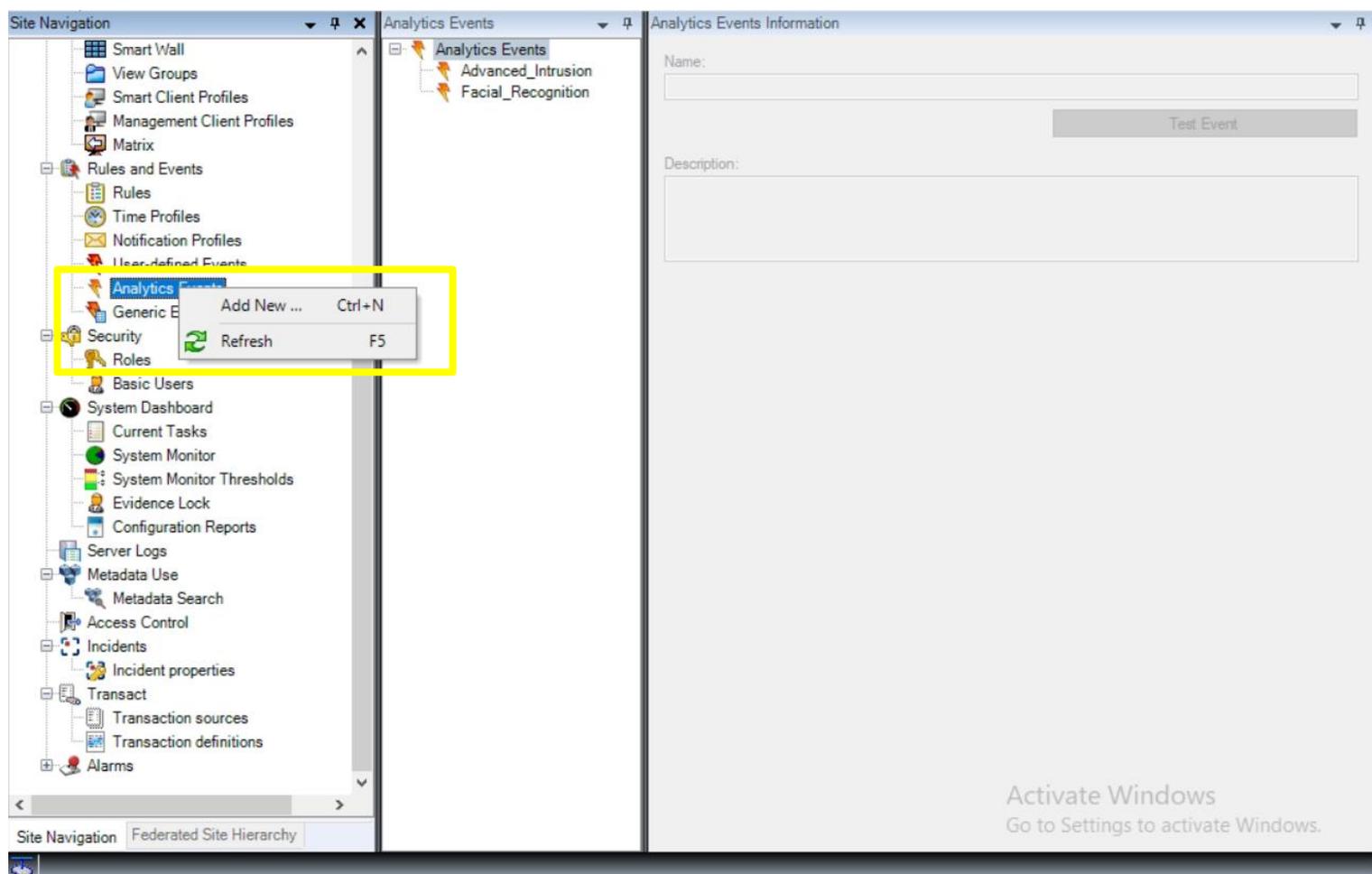
Analytics Event Configuration in Milestone

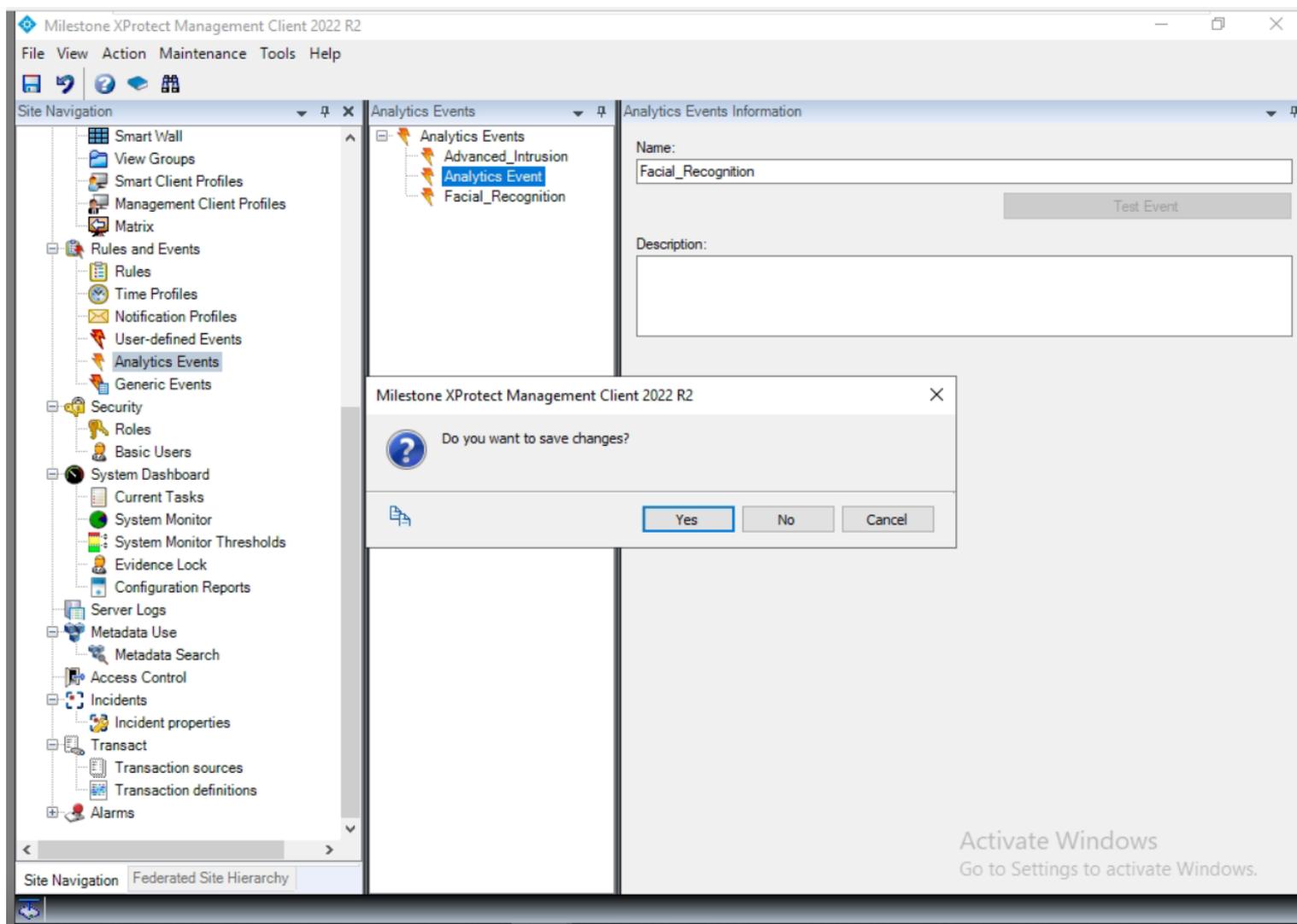
Awiros alarms can be used as external events in Milestone to trigger applications like Matrix Pop-up, Sound Alarms, E-mail, Event based Recording, triggering Camera Output etc.

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

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

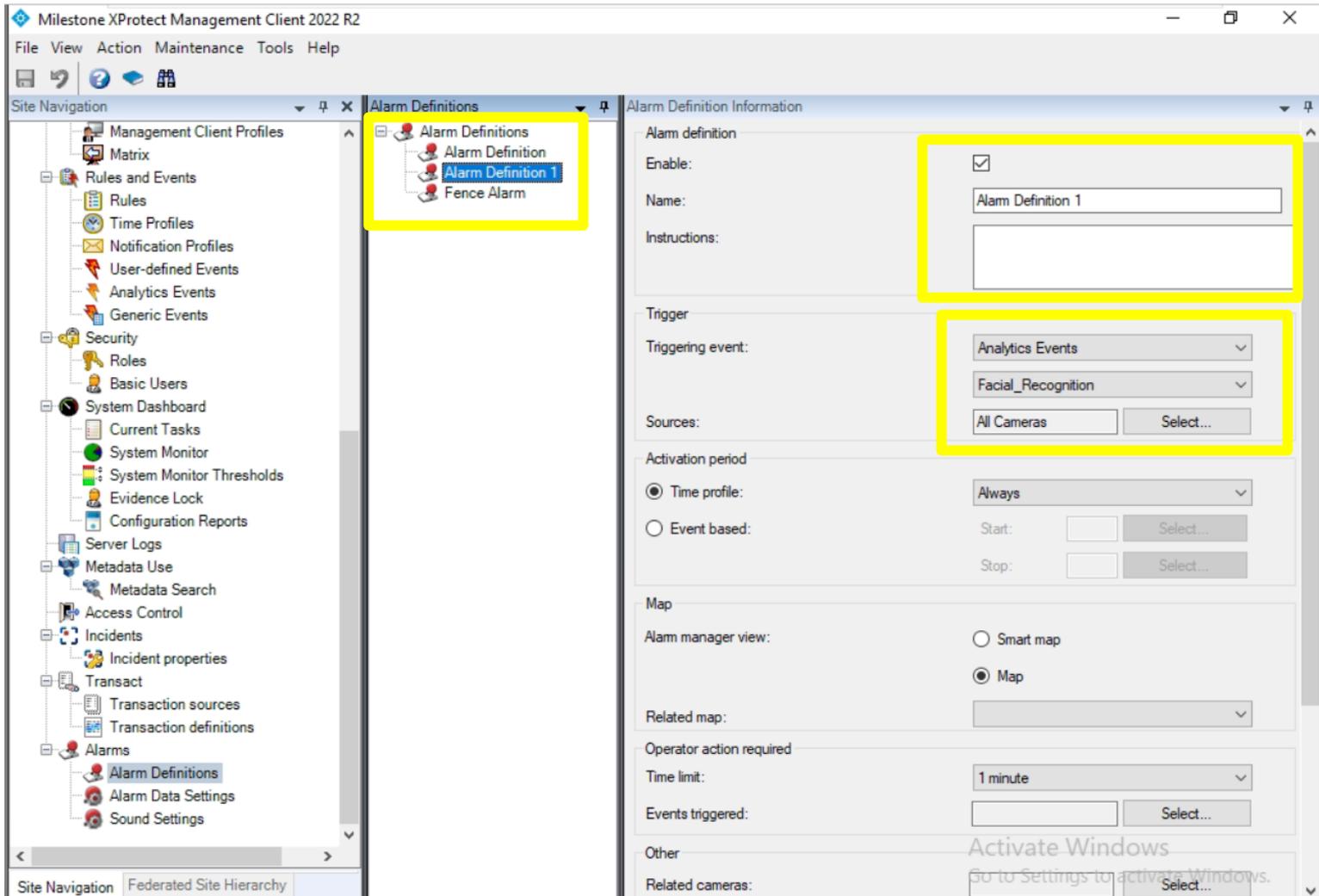
1. Select Analytics Events under Rules and Events tab.
2. Under Analytics Events tab, right click and select Add New to create a new event.





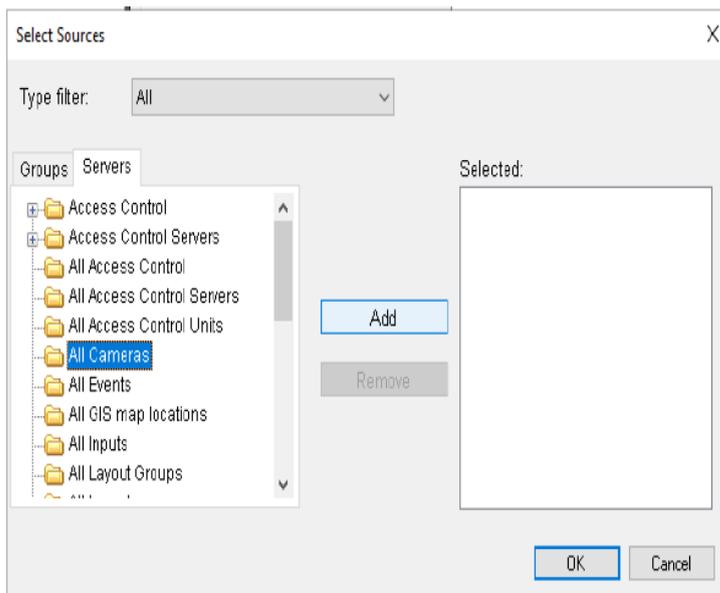
Enter the name and description of the Analytics event under properties tab and click save.

Now we will right click under the Alarms option and click New:



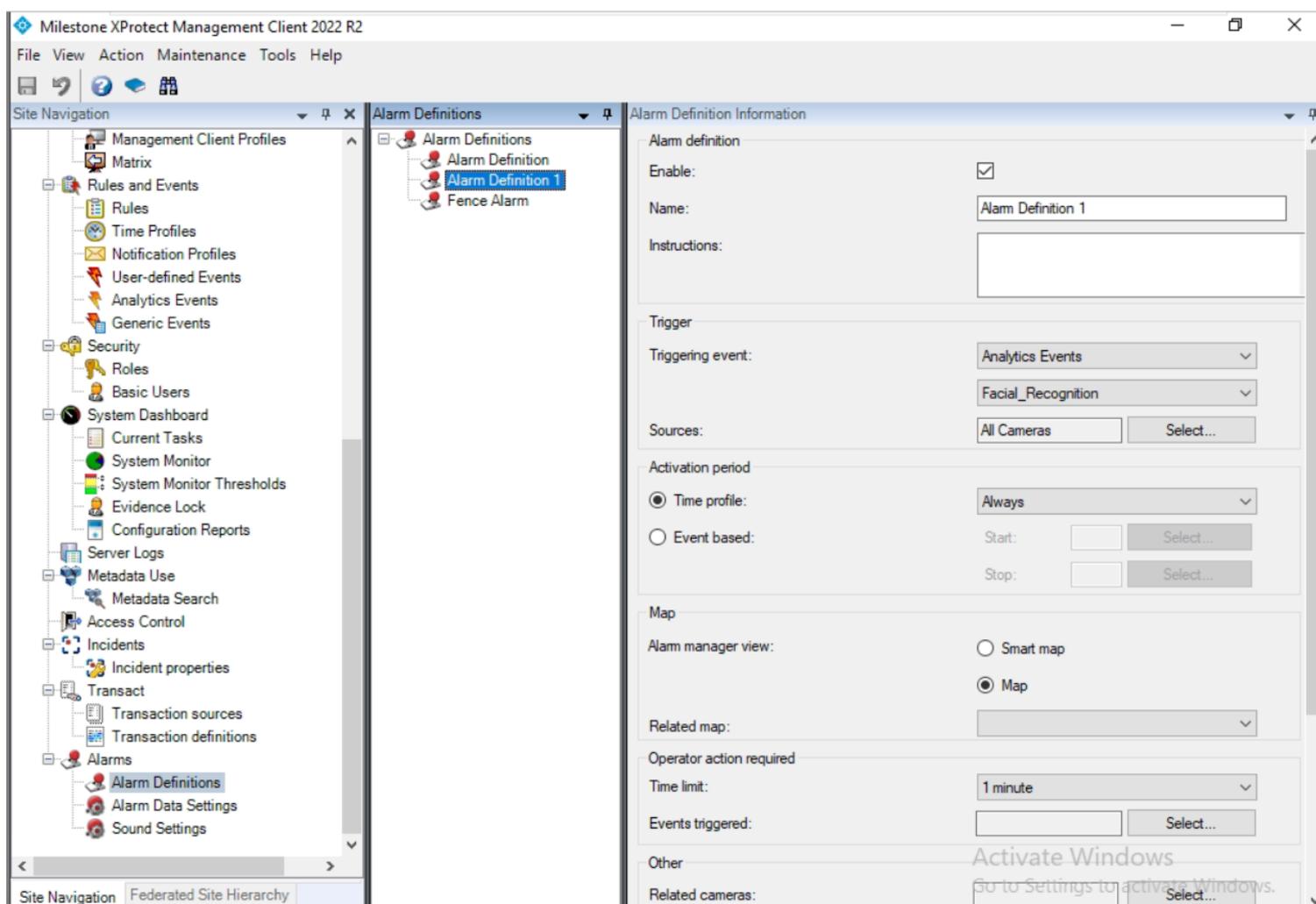
Right click on Alarm definition and select new.

- Name: Face_Recognition
- Triggering event: choose Analytics Events in the upper list and Facial_Recognition in the lower list as shown above
- Sources: click Select; in the Select Sources screen that opens, open the Servers tab, choose All cameras and Add it to the Selected list as shown below



Exit the screen and select Save when prompted.

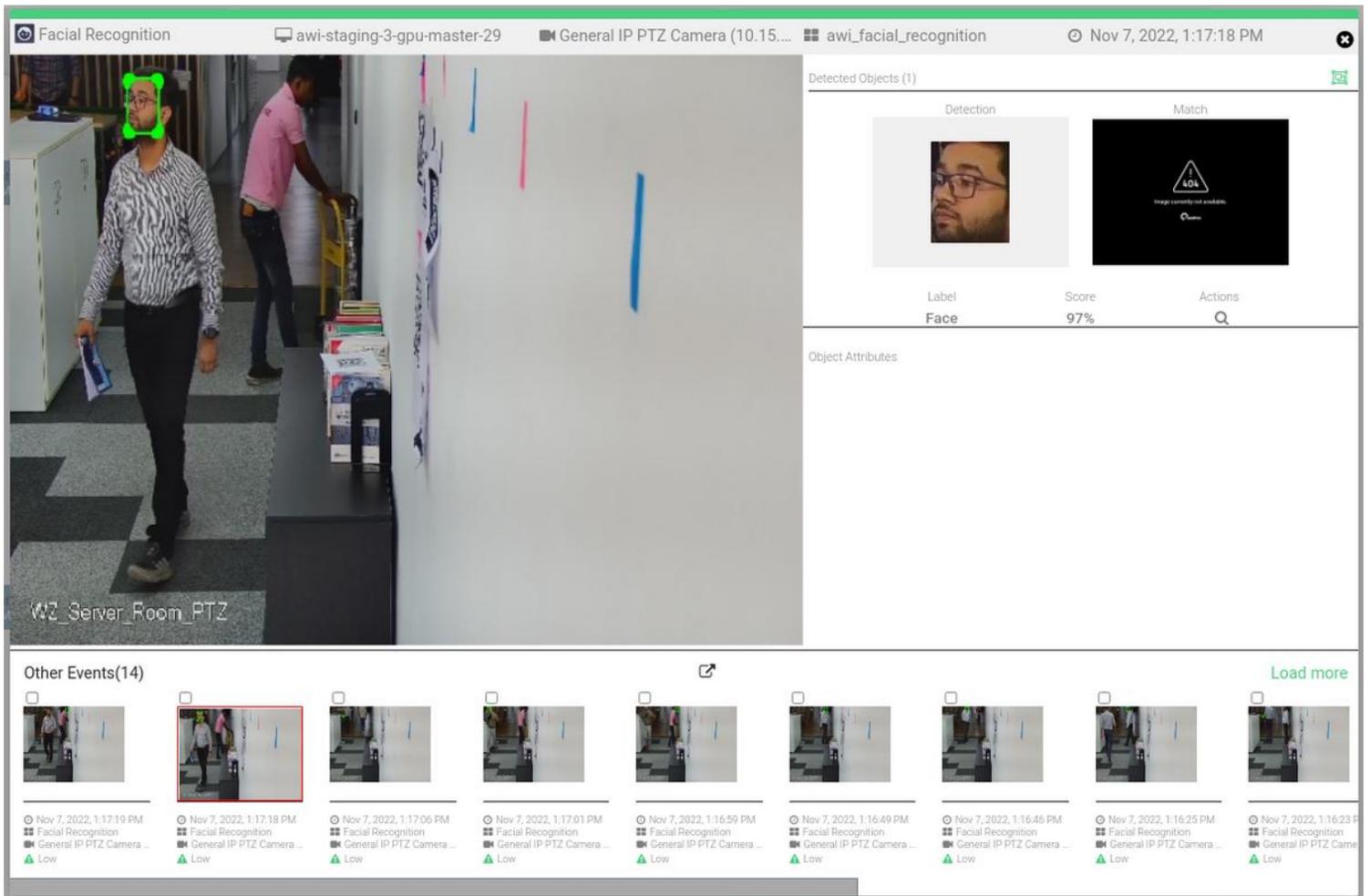
The Output should be as shown below:



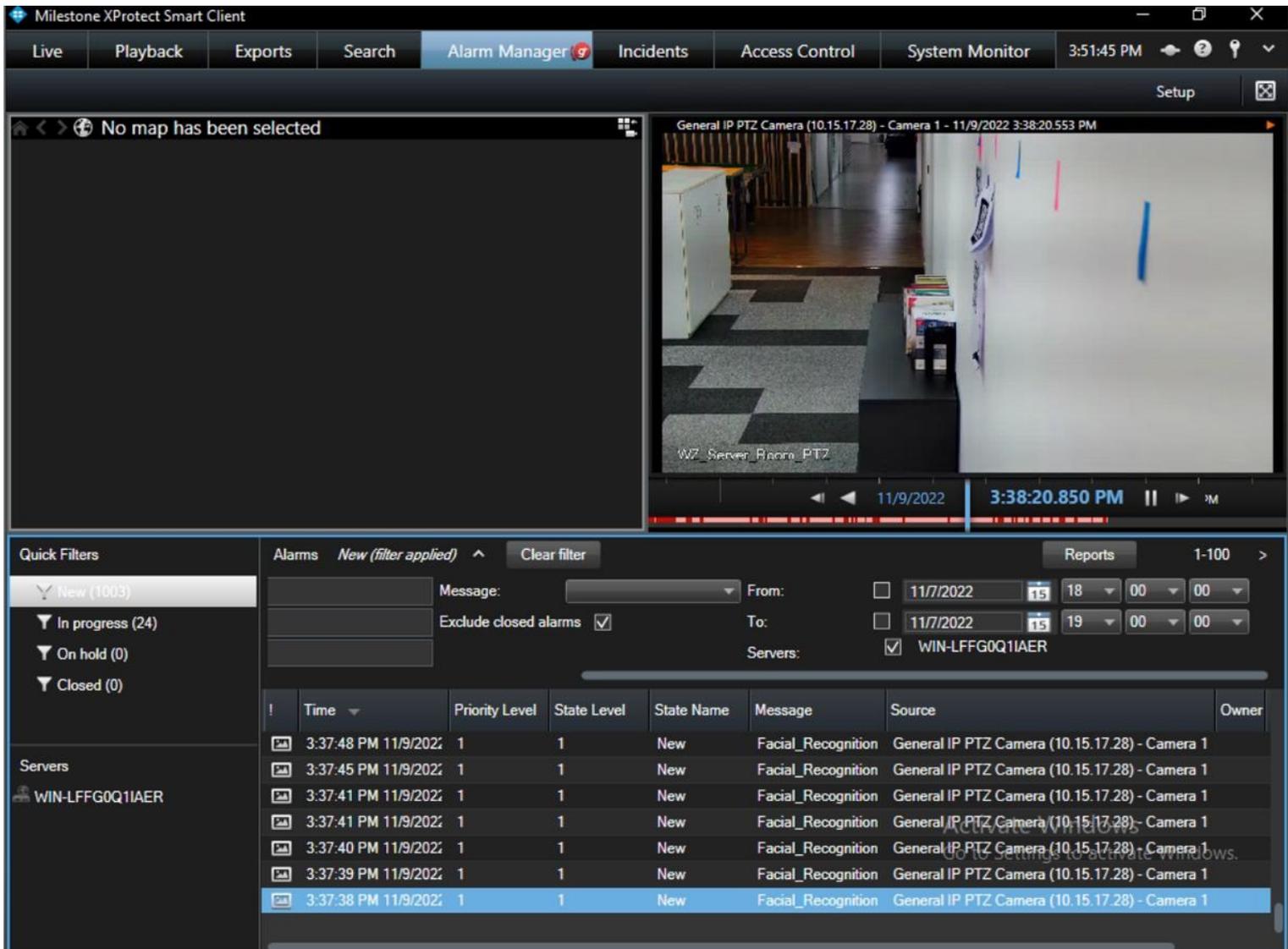
View Alarms in Milestone Smart Client:

Once the Alarms are configured and working in Awiros UI we will check the same alerts in the Milestone Smart client.

Once the Alerts pop up in the Awiros UI as shown below:



The alert will be sent to Milestone smart client and the same can be seen in the Alarm manager tab. Click on the event to see the video and details of the same as shown in the image below:

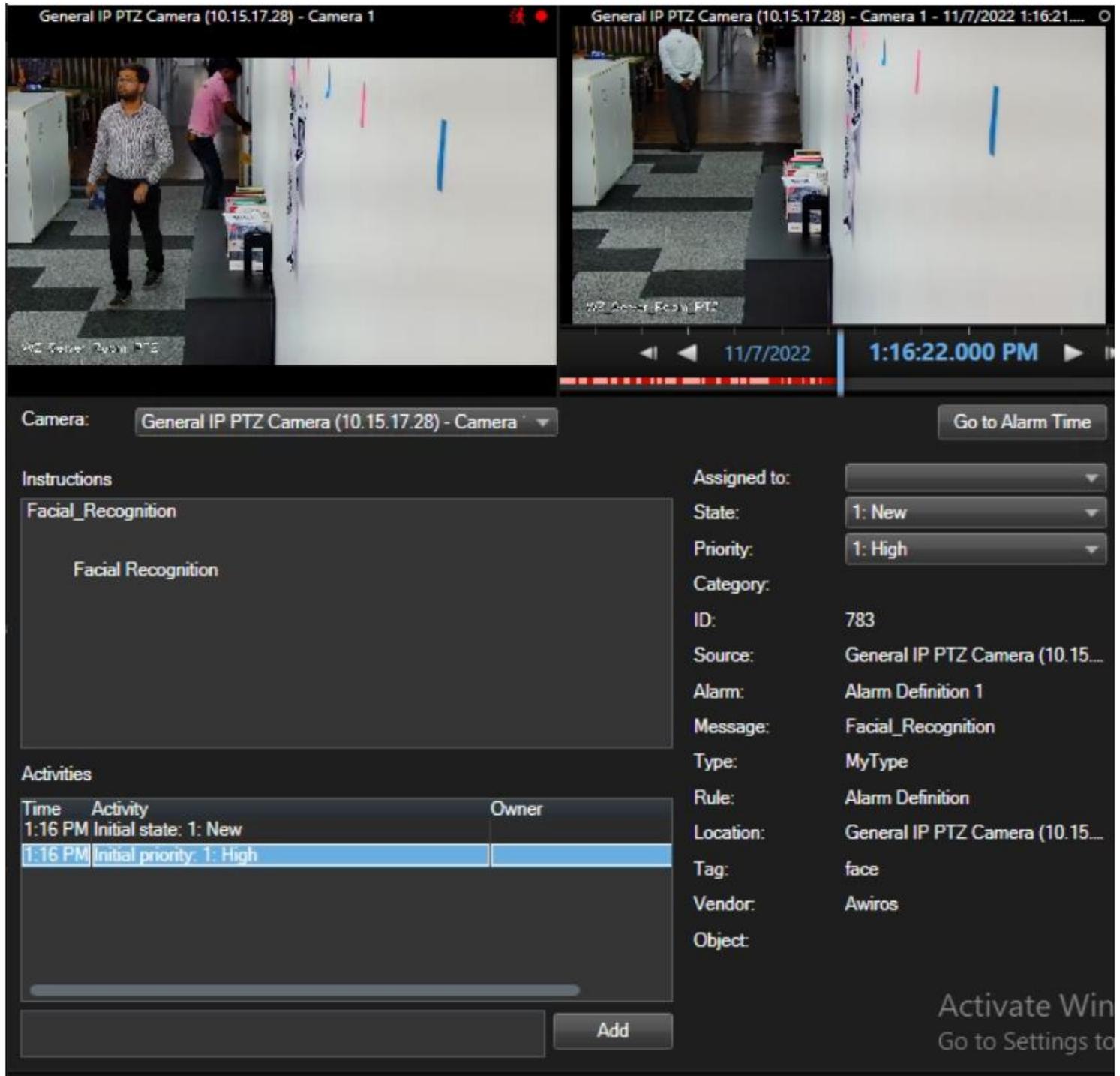


The screenshot displays the Milestone XProtect Smart Client interface. The top navigation bar includes tabs for Live, Playback, Exports, Search, Alarm Manager (active), Incidents, Access Control, and System Monitor. The main area is split into two panes: the left pane shows a map with the message "No map has been selected", and the right pane shows a video playback from a "General IP PTZ Camera (10.15.17.28) - Camera 1" at 3:38:20.850 PM on 11/9/2022. The video shows a server room with a checkered floor and a whiteboard.

Below the video, the "Alarms" section is visible, showing a list of events. The selected event is highlighted in blue:

Time	Priority Level	State Level	State Name	Message	Source	Owner
3:37:48 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
3:37:45 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
3:37:41 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
3:37:41 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
3:37:40 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
3:37:39 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
3:37:38 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	

Below are the event details and meta data sent to Milestone Smart client which can be seen as shown below:



The screenshot displays the Milestone Smart client interface. At the top, there are two camera feeds from 'General IP PTZ Camera (10.15.17.28) - Camera 1'. The left feed shows a man in a patterned shirt walking in a hallway. The right feed shows a man in a white shirt standing in a hallway. Below the feeds is a playback control bar showing the date '11/7/2022' and time '1:16:22.000 PM'. Below the playback bar, the 'Camera' dropdown is set to 'General IP PTZ Camera (10.15.17.28) - Camera 1'. The 'Instructions' section shows 'Facial_Recognition' and 'Facial Recognition'. The 'Assigned to' section shows '1: New' for State and '1: High' for Priority. The 'Activities' section contains a table with the following data:

Time	Activity	Owner
1:16 PM	Initial state: 1: New	
1:16 PM	Initial priority: 1: High	

The 'Add' button is visible at the bottom right of the activities table. The right side of the interface shows event details: ID: 783, Source: General IP PTZ Camera (10.15...), Alarm: Alarm Definition 1, Message: Facial_Recognition, Type: MyType, Rule: Alarm Definition, Location: General IP PTZ Camera (10.15...), Tag: face, Vendor: Awiros, and Object: (empty). At the bottom right, there is a 'Go to Alarm Time' button and a partially visible 'Activate Win' button.

Intrusion Alert in Awiros UI:



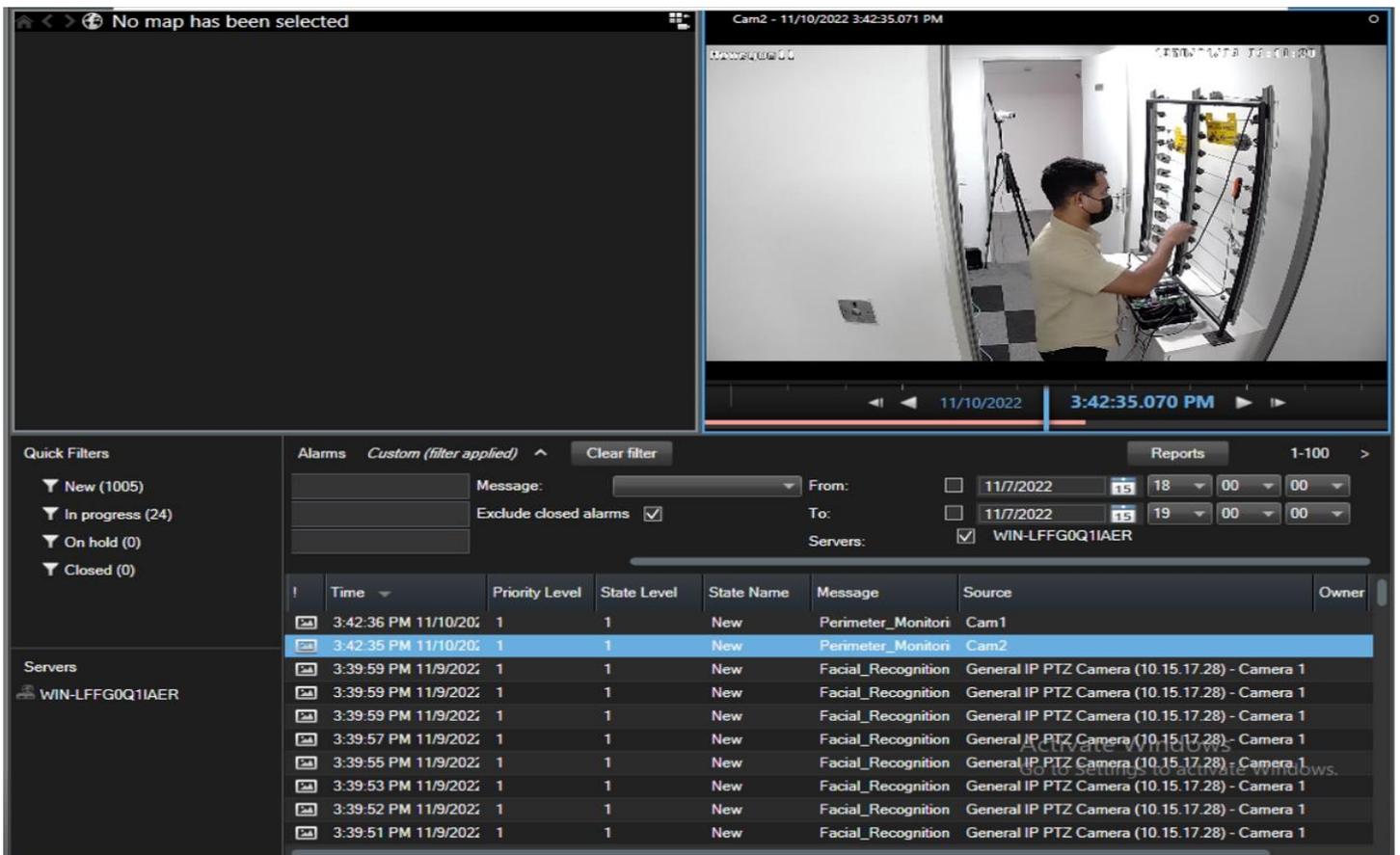
Perimeter Monitoring Honeywell HIB2PIV (10.15.17.6) Nov 10, 2022, 3:42:35 PM

1970/01/01 04:11:17

Detected Objects (1)

Detection	Match
	
Label	Score
Zone_2 Perimeter Breach	99%

Intrusion Alert in Milestone:



No map has been selected

Cam2 - 11/10/2022 3:42:35.071 PM

11/10/2022 3:42:35.070 PM

Quick Filters

- New (1005)
- In progress (24)
- On hold (0)
- Closed (0)

Servers

- WIN-LFFG0Q1IAER

Alarms Custom (filter applied) Clear filter

Exclude closed alarms

From: 11/7/2022 15:18:00

To: 11/7/2022 15:19:00

Servers: WIN-LFFG0Q1IAER

!	Time	Priority Level	State Level	State Name	Message	Source	Owner
	3:42:36 PM 11/10/2022	1	1	New	Perimeter_Monitori	Cam1	
	3:42:35 PM 11/10/2022	1	1	New	Perimeter_Monitori	Cam2	
	3:39:59 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
	3:39:59 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
	3:39:57 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
	3:39:55 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
	3:39:53 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
	3:39:52 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	
	3:39:51 PM 11/9/2022	1	1	New	Facial_Recognition	General IP PTZ Camera (10.15.17.28) - Camera 1	

Intrusion Alert with Details:

1318 Perimeter_Monitoring - Cam1
— □ ×





◀ ◀ 11/10/2022 3:42:33.000 PM ▶ ▶

Camera: Cam1

Instructions

Perimeter_Monitoring

Perimeter_Monitoring

Perimeter Monitoring

Activities

Time	Activity	Owner
3:42 PM	Initial state: 1: New	
3:42 PM	Initial priority: 1: High	

Add

Assigned to: ▼

State: 1: New ▼

Priority: 1: High ▼

Category: ▼

ID: 1318

Source: Cam1

Alarm: Alarm Definition 2

Message: Perimeter_Monitoring

Type: MyType

Rule: Alarm Definition

Location: Honeywell HIB2PIV (10.15.17.3)

Tag: Zone_1 Perimeter Breach

Vendor: Awiros

Object:

Go to Alarm Time

Help
Print...
OK

Contact Awiros Support:

- Use the Awiros Contact Us form on Awiros's website:
<https://awiros.com/contact>
- Email: support@awiros.com

Notice

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THANK YOU