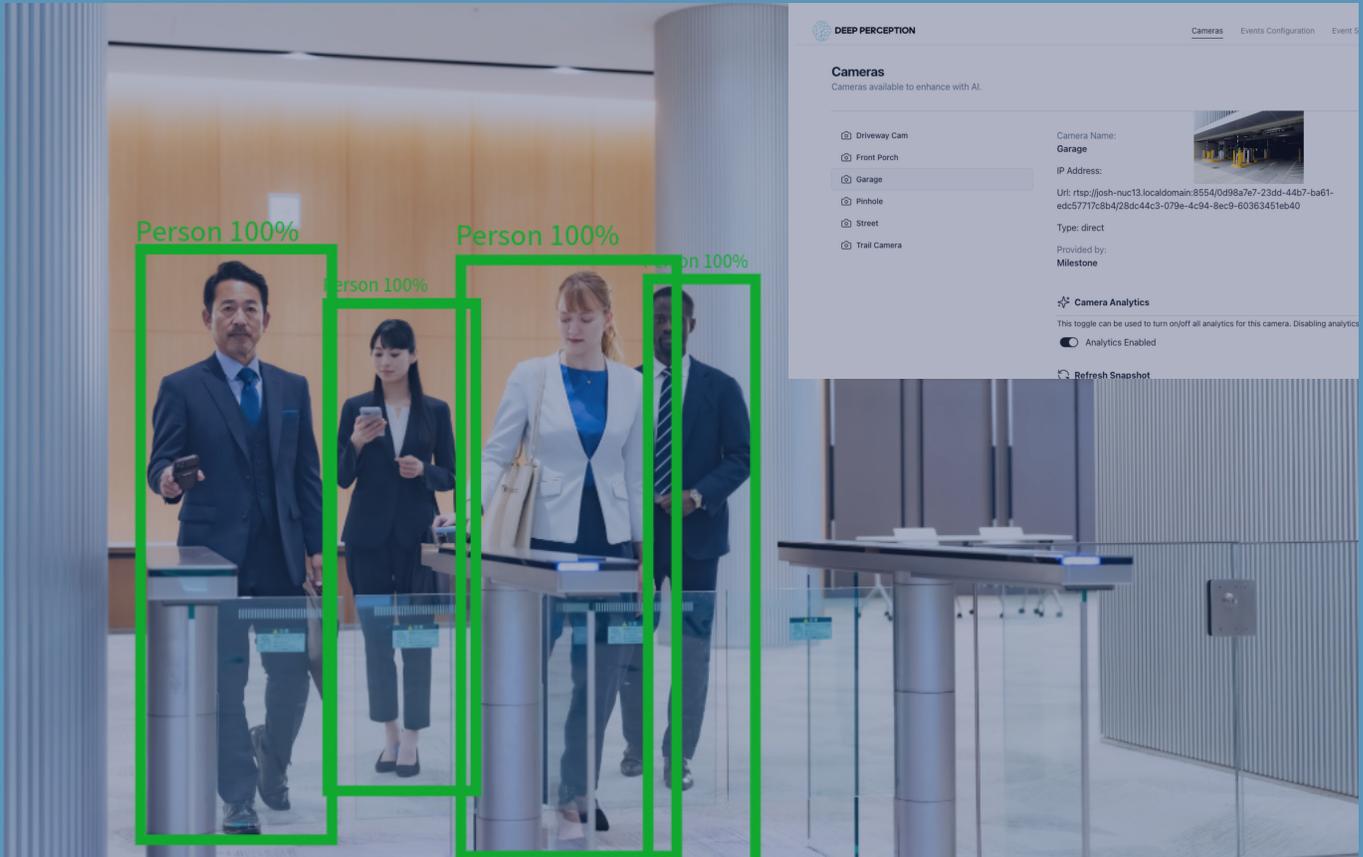


# DEEP PERCEPTION



PerceptEdge User Manual  
Version 1.2 - 2025-May-09



**DEEP PERCEPTION**

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PerceptEdge Milestone Appliance Installation Guide - Version 1.2  
2025-May-09



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# Initial Setup

## Milestone XProtect Initial Configuration

The PerceptEdge AI Appliances support all versions of Milestone XProtect that are 2022R1 or newer. The VideoOS Processing Server plugin must be installed on all systems running the Milestone XProtect Management Client used to configure analytics.

## Software Packages

**Required** - Install the AI Bridge Video Processing Server Plugin on the system running the Milestone XProtect Management Client that will be used to configure the VMS instance for use with the PerceptEdge Appliance.

[https://storage.googleapis.com/deepperception\\_public/milestone\\_components/VideoOS.ProcessingServer.Plugin.Admin.Installer.exe](https://storage.googleapis.com/deepperception_public/milestone_components/VideoOS.ProcessingServer.Plugin.Admin.Installer.exe)

**Recommended** – Install the PerceptEdge Search Agent on all systems running the Milestone XProtect Smart Client

[https://storage.googleapis.com/deepperception\\_public/milestone\\_components/PerceptEdge%20Milestone%20XProtect%20Search%20Agent%20Installer.exe](https://storage.googleapis.com/deepperception_public/milestone_components/PerceptEdge%20Milestone%20XProtect%20Search%20Agent%20Installer.exe)

**Optional** – If SSL is enabled on the VMS instance a PFX certificate file will need to be generated for the appliance. The following PowerShell script can be run on the system with access to sign with the VMS Root Certificate.

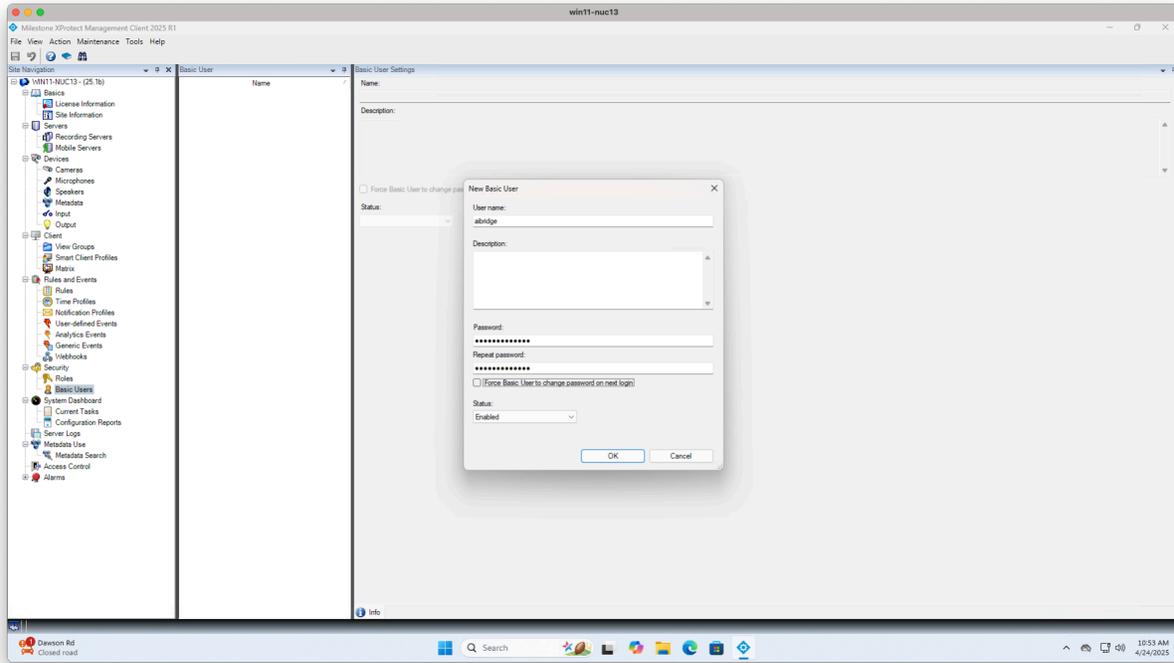
[https://storage.googleapis.com/deepperception\\_public/milestone\\_components/Create\\_SSL\\_DP\\_Appliance.ps1](https://storage.googleapis.com/deepperception_public/milestone_components/Create_SSL_DP_Appliance.ps1)

For more information on SSL and certificates see:

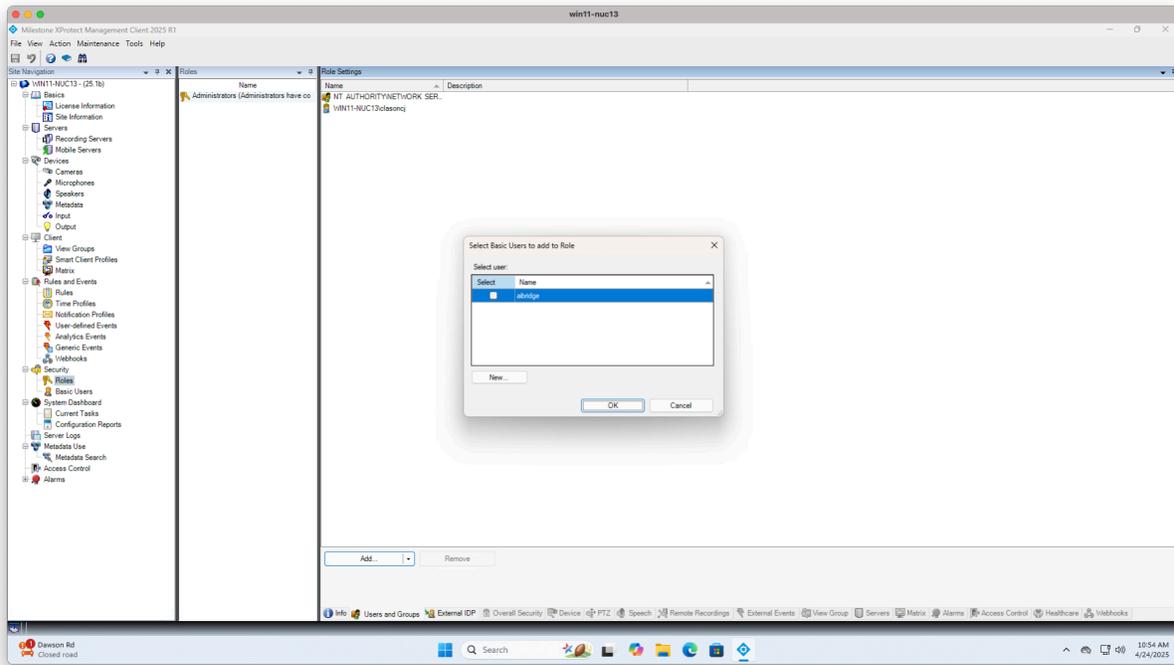
<https://doc.milestonesys.com/latest/en-US/portal/hm/chapter-page-certificates-guide.htm>

## Create Basic User

In order to connect the PerceptEdge Appliance, a new Basic User must be created using the Milestone XProtect Management Client. Make sure to uncheck “Force Basic User to change password on next login”.

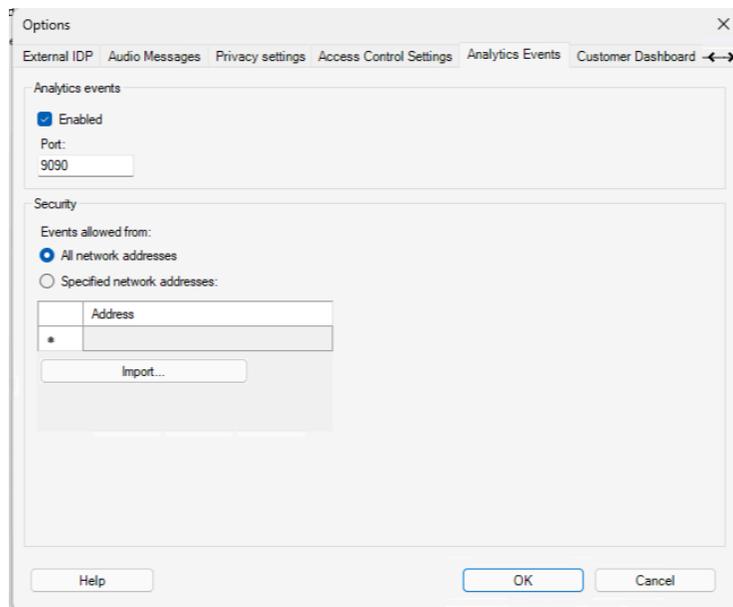


Once the Basic User has been created, add them to the Administrator Role.



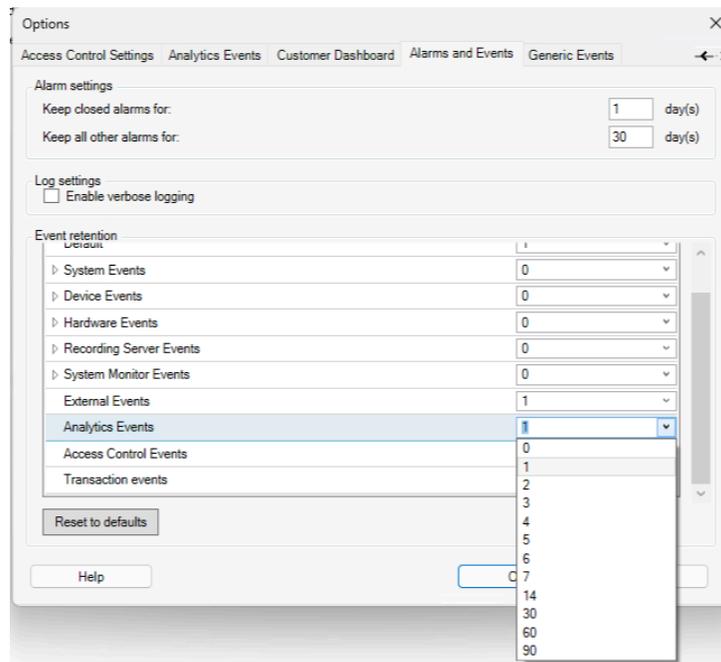
## Enable Analytics Events

In the XProtect Management Client, select Tools → Options and then navigate to the Analytics Event Tab. Enable Analytics by checking the box.



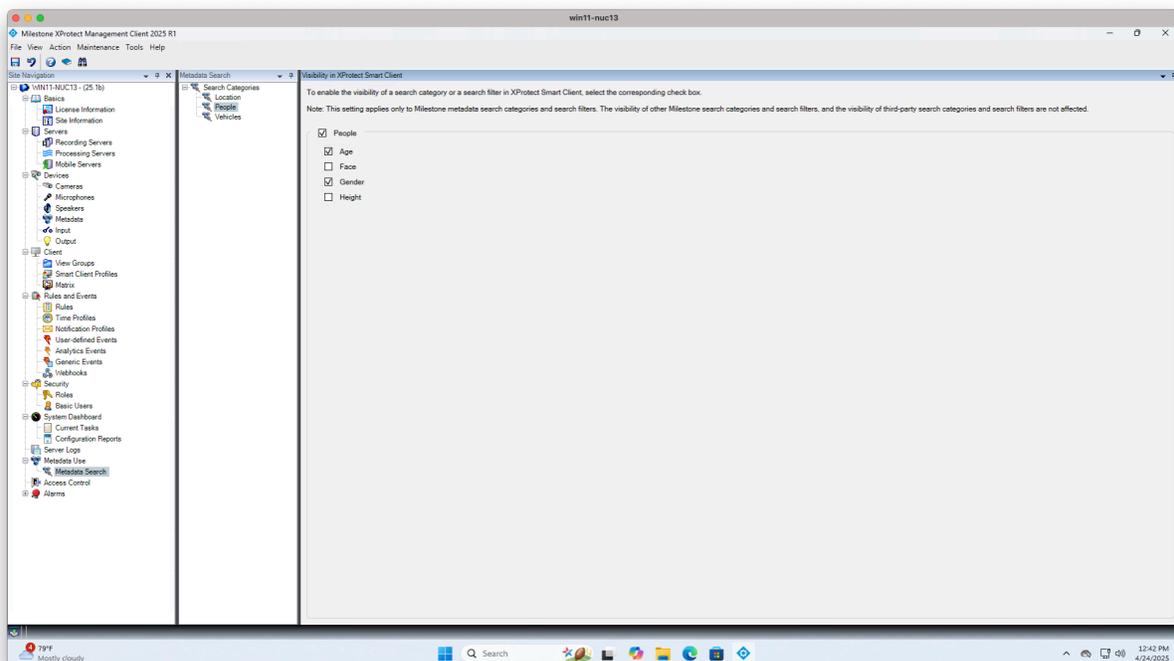


By default analytics events have a 1 day retention period. Adjust as needed from the Alarms and Events tab.



## Enable Metadata Search

To enable Metadata Search in the XProtect Smart Client, navigate to the Metadata Use → Metadata Search settings in the XProtect Management Client and enable the desired options.





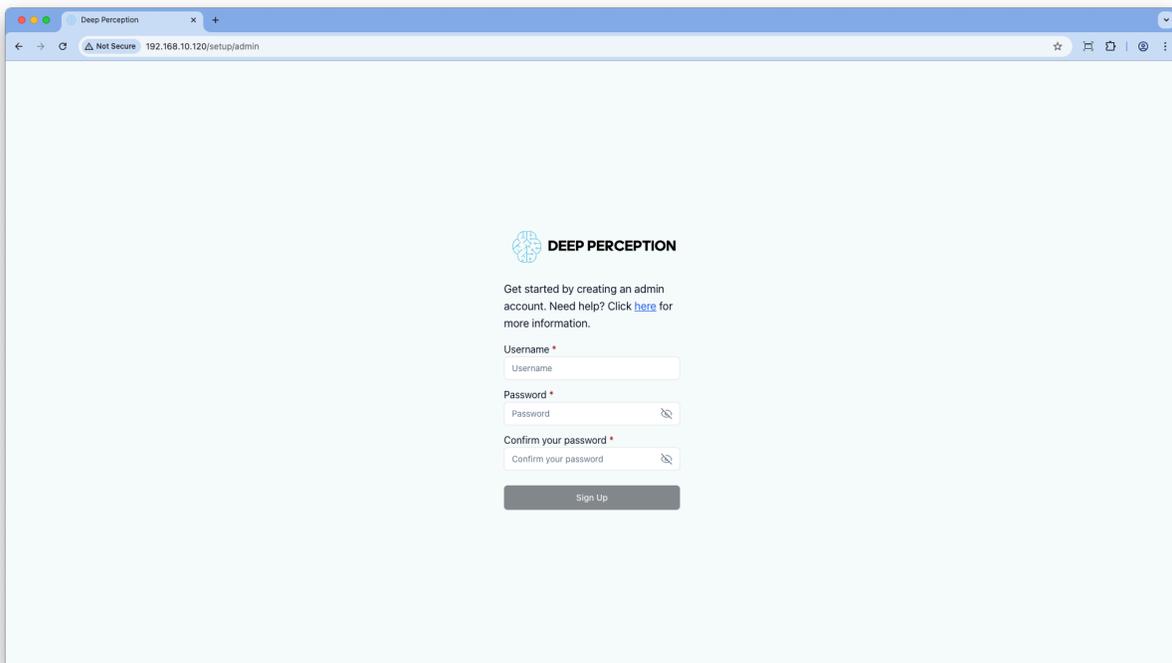
The current PerceptEdge Appliances support the following options with more coming with future updates.

- People
  - Age
  - Gender
- Vehicles
  - Color
  - Vehicle Type

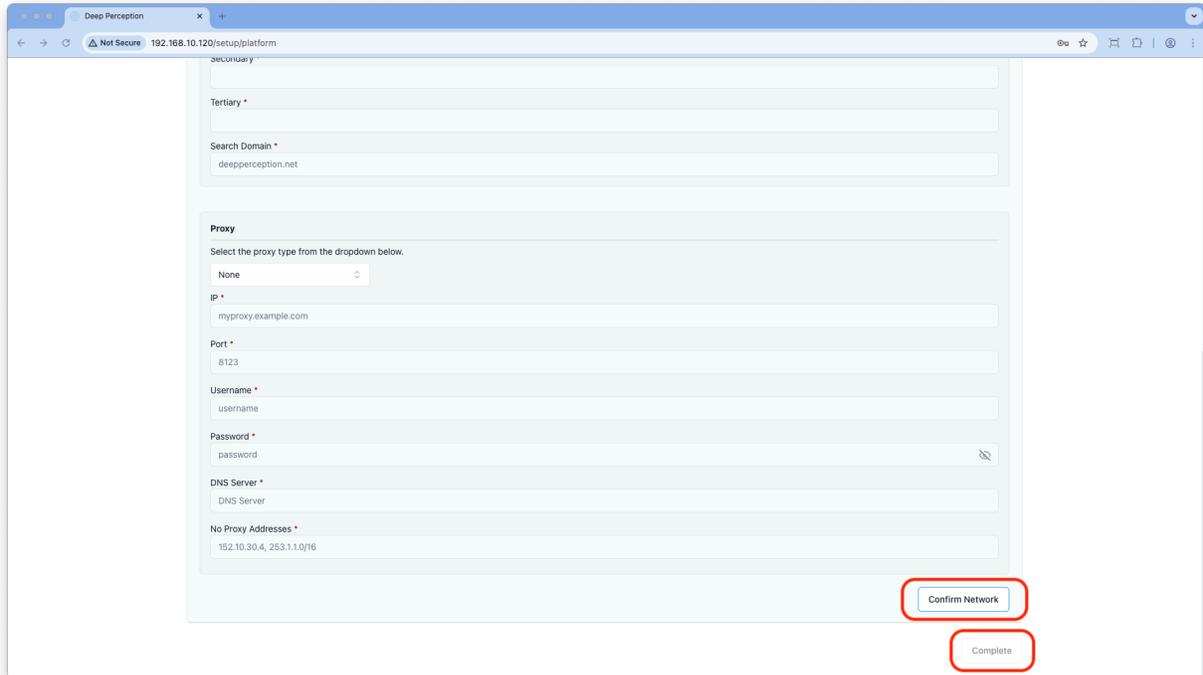
## PerceptEdge Appliance Setup

The PerceptEdge appliance will arrive set to DHCP and will easily connect to your local network. Locate the IP address of the PerceptEdge appliance on your network. Alternatively connect a keyboard, mouse and monitor to the appliance and configure through the local browser interface.

During the initial setup of the PerceptEdge appliance, you will be prompted to create an admin account through the UI.



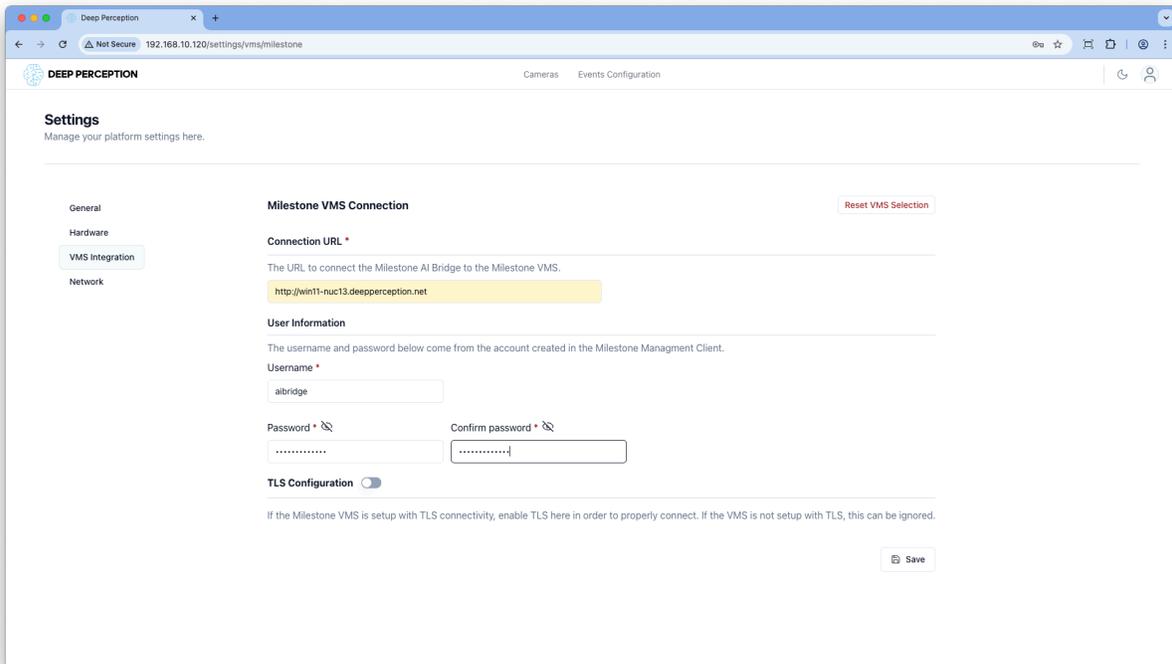
After creating the administrator account you will be prompted to confirm or modify the network settings for the appliance. If you have SSL enabled on your Milestone XProtect VMS instance, it is strongly recommended you configure the appliance to use a static IP address since the SSL certificates will reference both the hostname and IP address of the appliance.



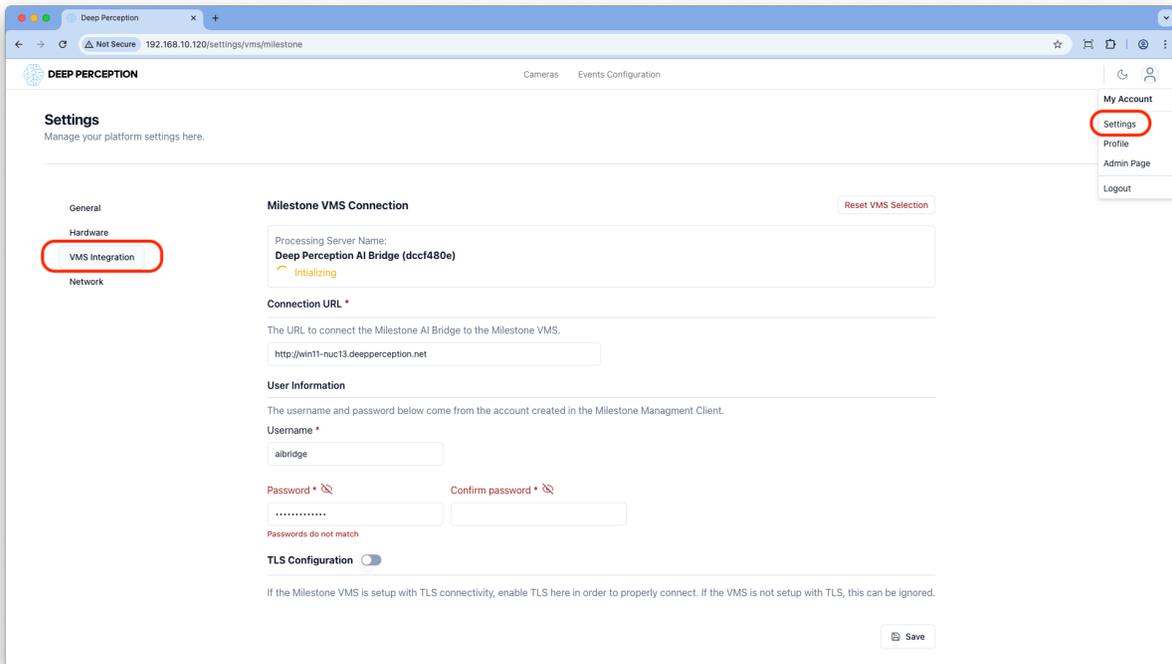
Changing network settings will trigger a reboot of the appliance. Once you are happy with the setting, click “Confirm Network” and then “Complete” to exit the initial setup.

## Connection to Milestone XProtect

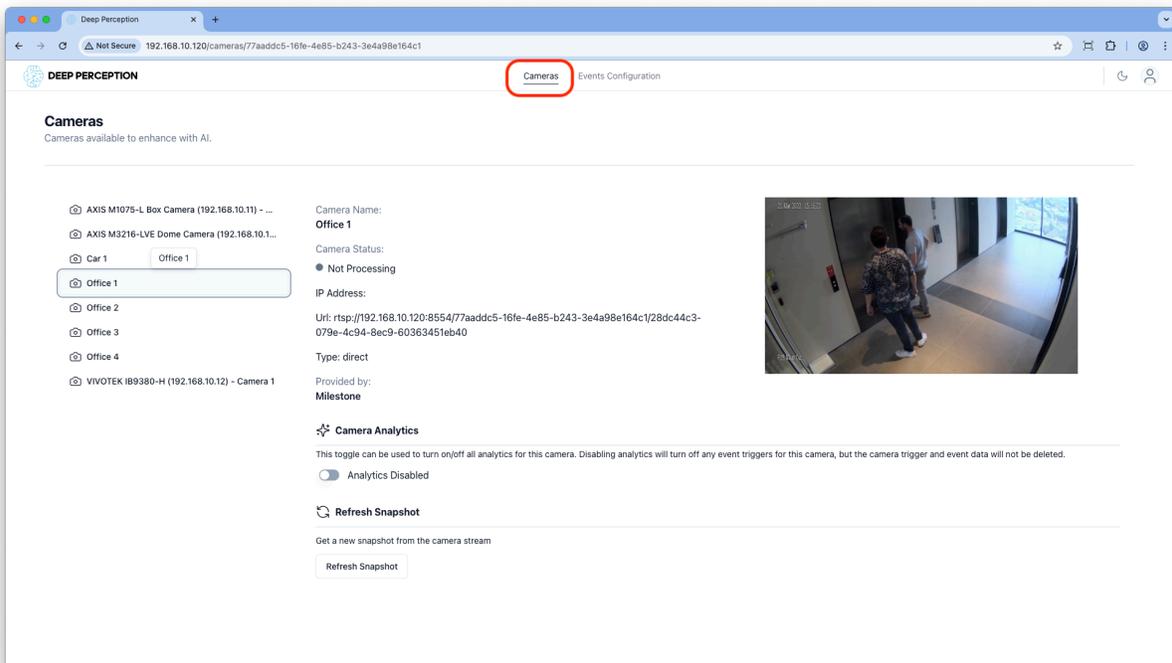
Enter the connection URL plus information for the Basic User created above. If the VMS instance has TLS enabled, use “https” in the connection URL plus upload the PFX file.



Upon clicking save, the PerceptEdge appliance will reboot and initiate the connection to the Milestone VMS instance with the provided credentials. To monitor the connection status, log back in and navigate to the VMS Integration page.



Once the connection completes, navigate to the Cameras page to continue the setup process.



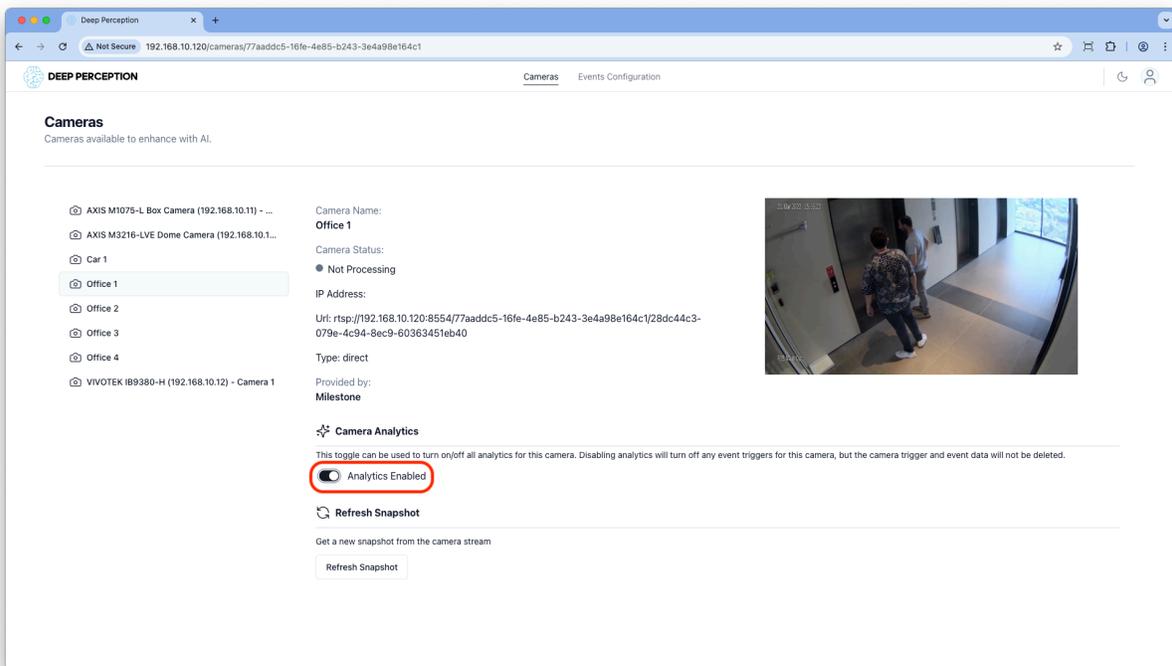
## Camera Setup

Deep Perception offers a variety of PerceptEdge Appliances that support 8, 16 or 24 active analytics channels. You may activate up to the number of supported channels for your particular appliance model.

The camera(s) need to be enabled in both the PerceptEdge UI and in the XProtect Management Client following the procedure below.

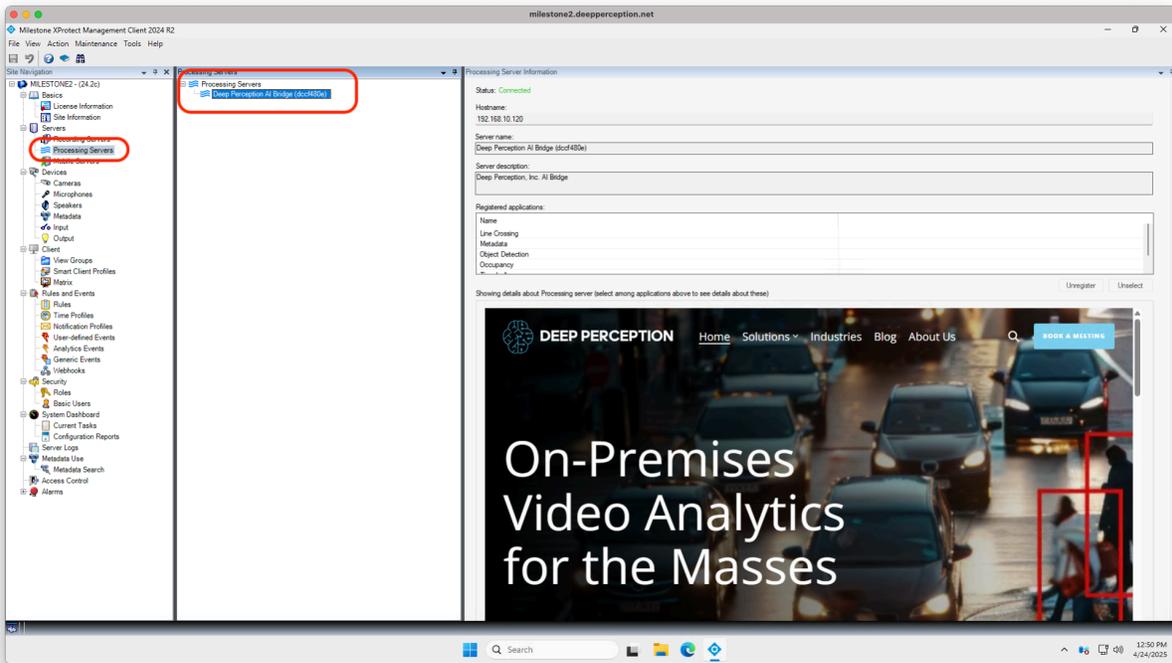
## PerceptEdge UI

From the Cameras View, enable analytics on the desired camera(s)

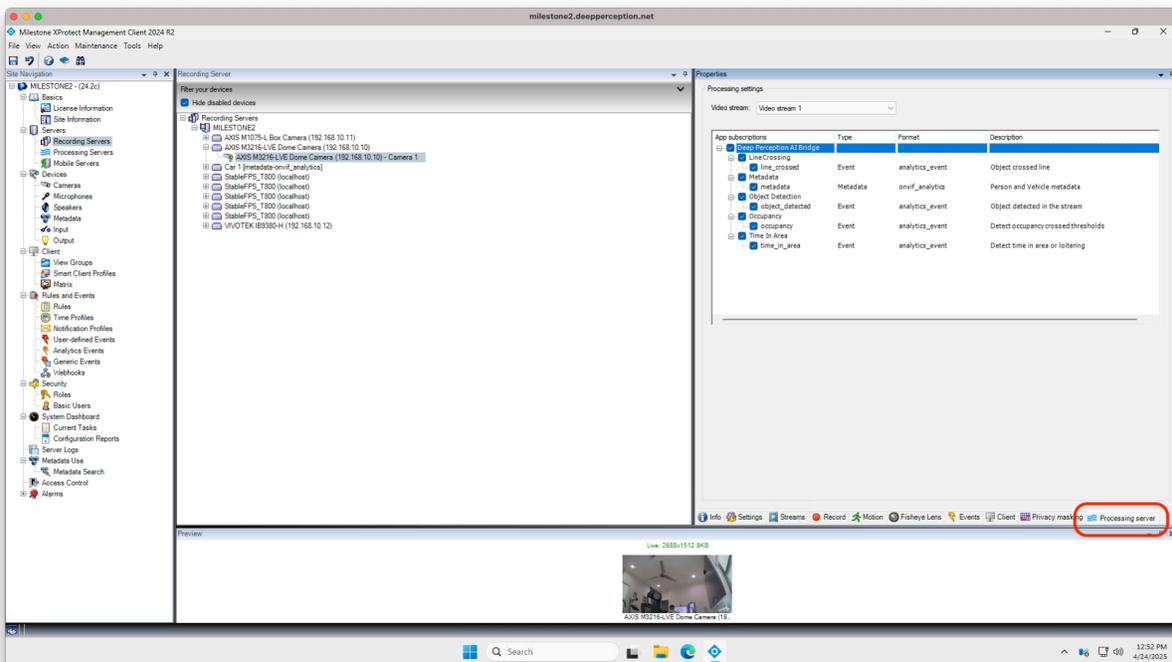


## Milestone XProtect Management Client

First verify the Processing Server Plugin is properly installed by navigating to the Processing Servers menu item. You should see an entry for the connected appliance. If you do not see the Processing Server entry under navigation, please make sure the Processing Server Plugin listed above is installed and reload the Management Client.



Next for each camera that you plan on using with the PerceptEdge AI Appliance, navigate to the Processing Server tab and check the box for “Deep Perception AI Bridge” under app subscriptions.



This process will automatically configure the metadata VPS driver and add the necessary events to the VMS instance.

## Analytics Configuration

### Object Detection

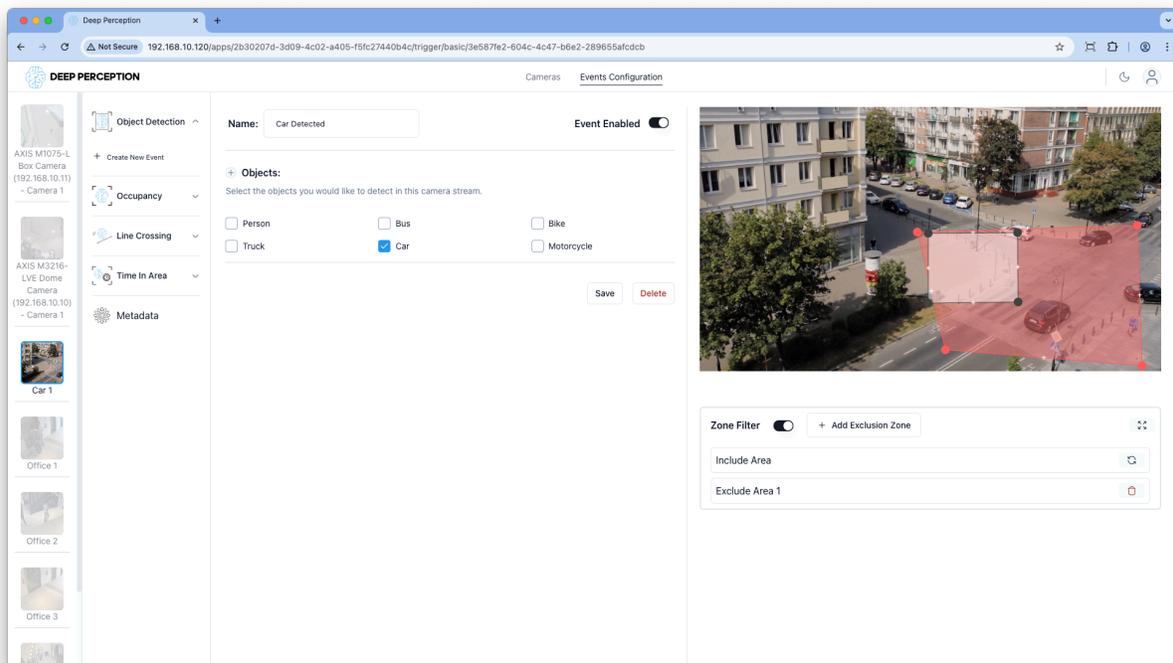
Sends an event when an object is detected.

#### Required

- Event Name
- Object Type (1 or more must be selected)
- Event Enabled - must be toggled on for events to trigger

#### Optional

- Zone Filter
  - Include Area - object must be within the zone for the event to trigger
  - Exclude Area(s) - allows a portion of a zone to be carved out to prevent triggers
  - Additional manipulation points can be created by clicking the white “+” on the line segments



## Occupancy

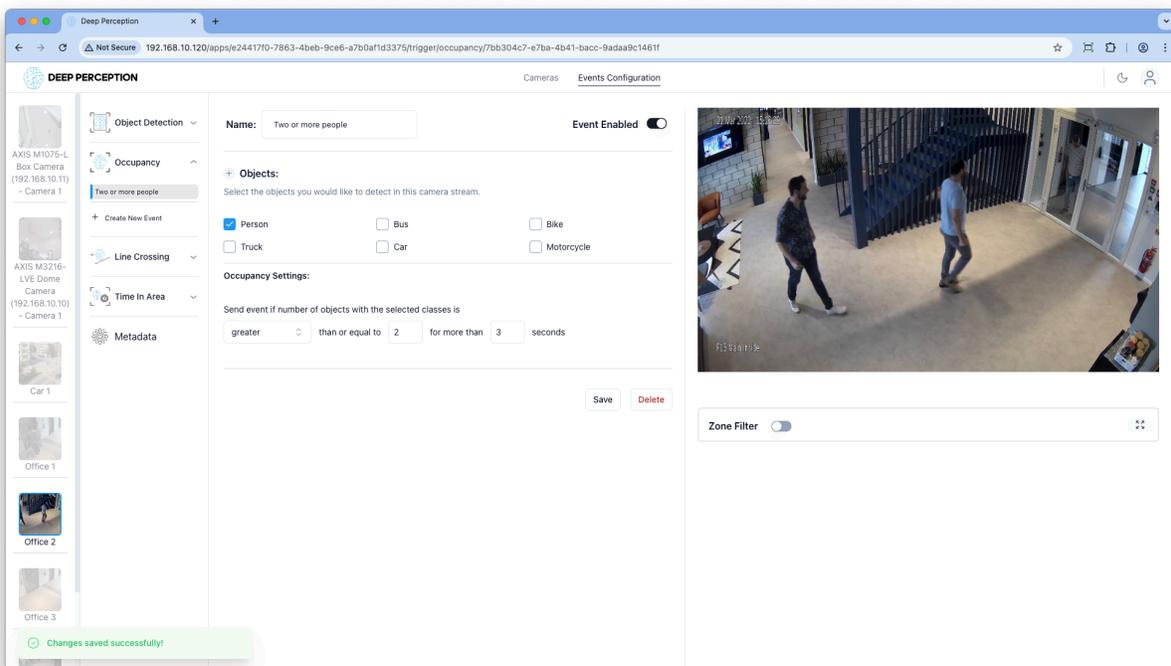
Sends an alert with the count of objects is less than or greater than a specified number for a set time interval.

### Required

- Event Name
- Object Type (1 or more must be selected)
- Occupancy Settings including greater/less than, count and duration
- Event Enabled - must be toggled on for events to trigger

### Optional

- Zone Filter
  - Include Area - object must be within the zone for the event to trigger
  - Exclude Area(s) - allows a portion of a zone to be carved out to prevent triggers
  - Additional manipulation points can be created by clicking the white “+” on the line segments



## Line Crossing

Sends an event when an object crosses a line segment with the object of specifying the direction.

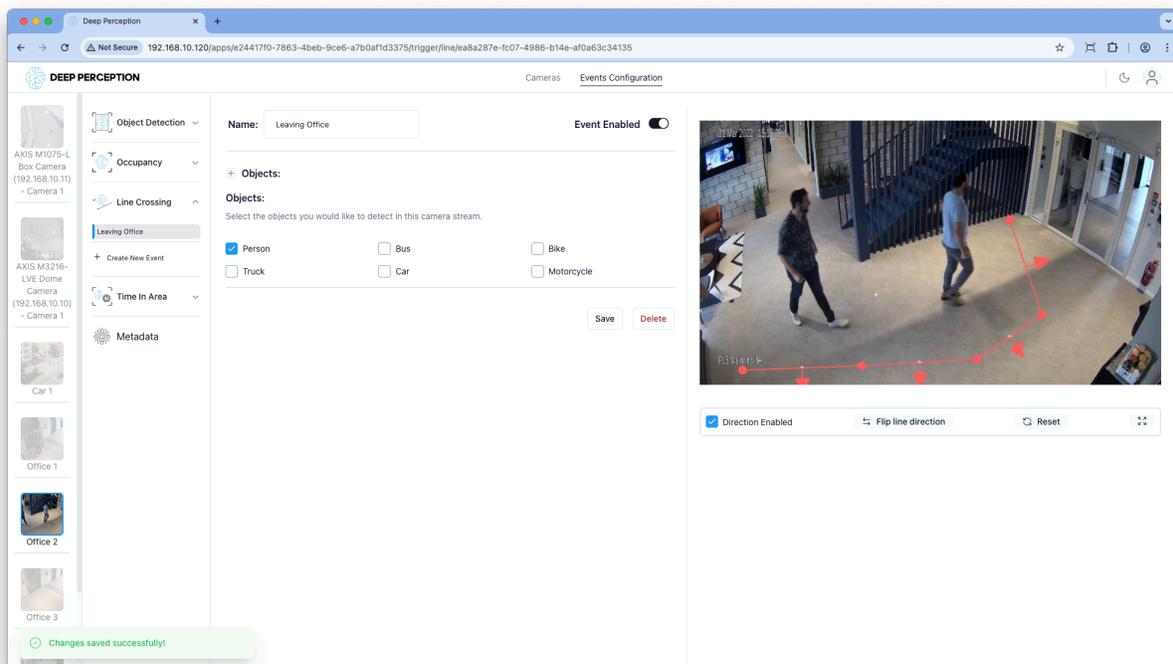


## Required

- Event Name
- Object Type (1 or more must be selected)
- Line Segment
- Event Enabled - must be toggled on for events to trigger

## Optional

- Line Crossing Direction



## Time in Area

Sends an event when an object is detected for longer than a set time period.

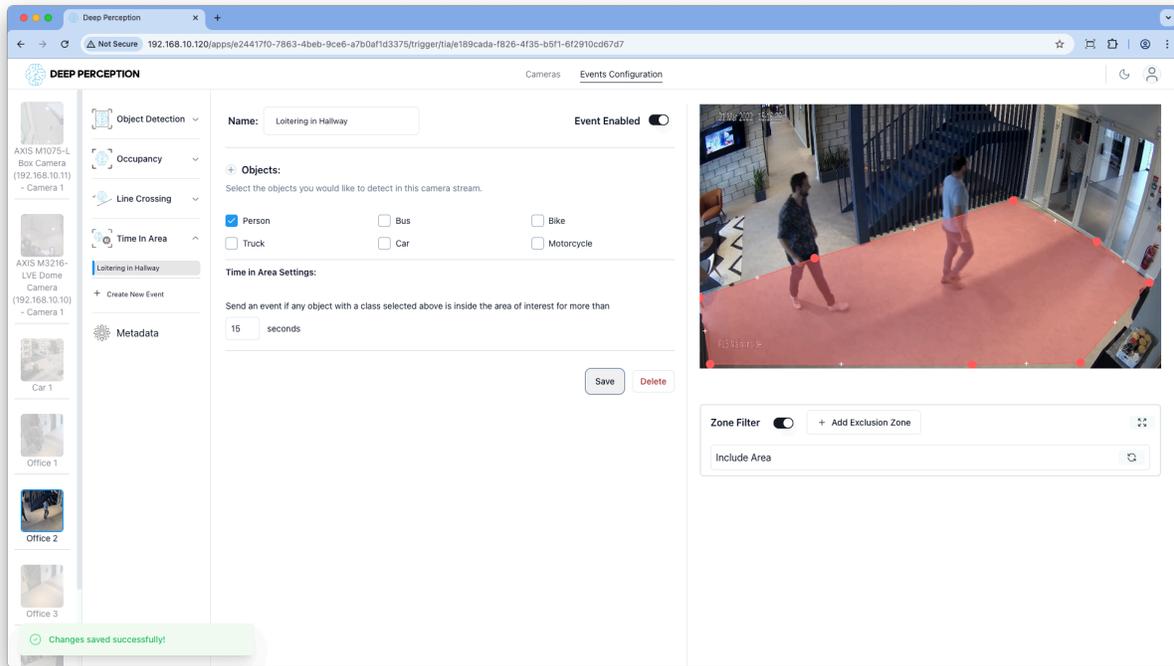
## Required

- Event Name
- Object Type (1 or more must be selected)
- Event Enabled - must be toggled on for events to trigger
- Time period in seconds to trigger the event

## Optional

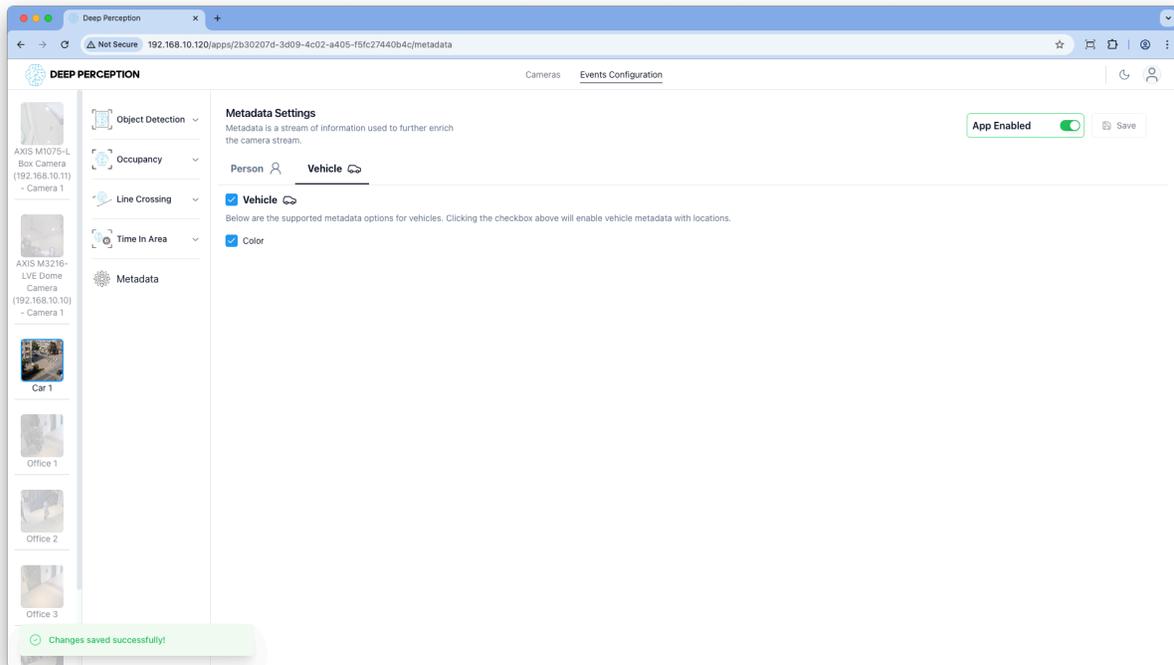
- Zone Filter
  - Include Area - object must be within the zone for the event to trigger
  - Exclude Area(s) - allows a portion of a zone to be carved out to prevent triggers

- Additional manipulation points can be created by clicking the white “+” on the line segments



## Metadata

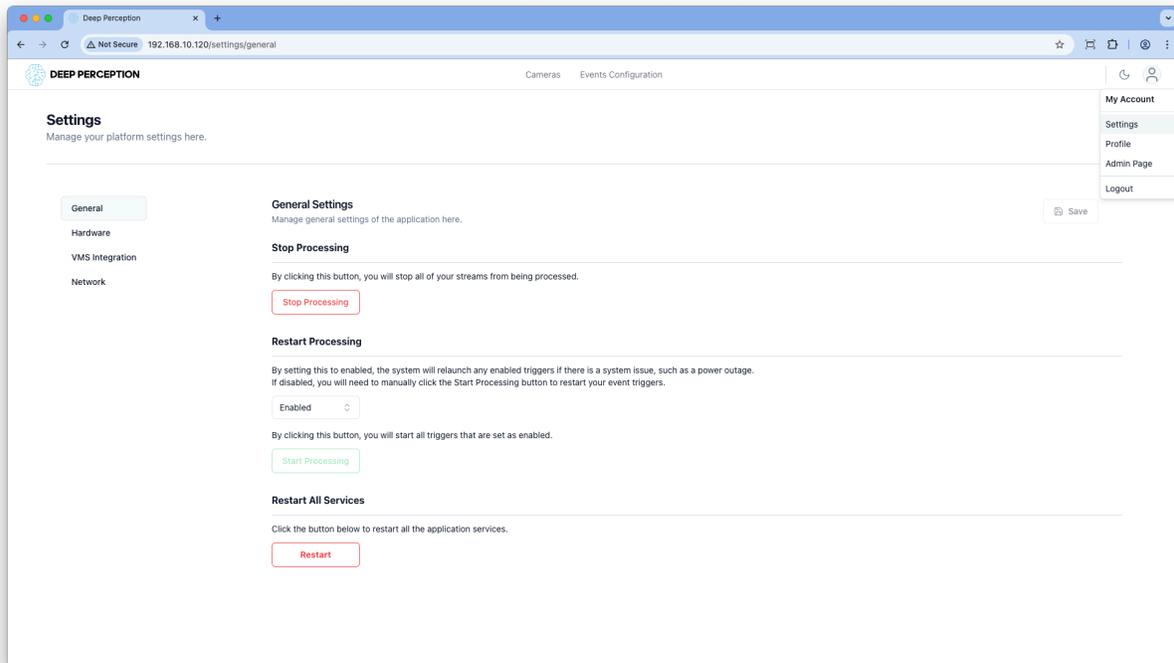
Metadata is configured on a per camera basis. Person and vehicle metadata options may be enabled at the same time.



## Additional Options

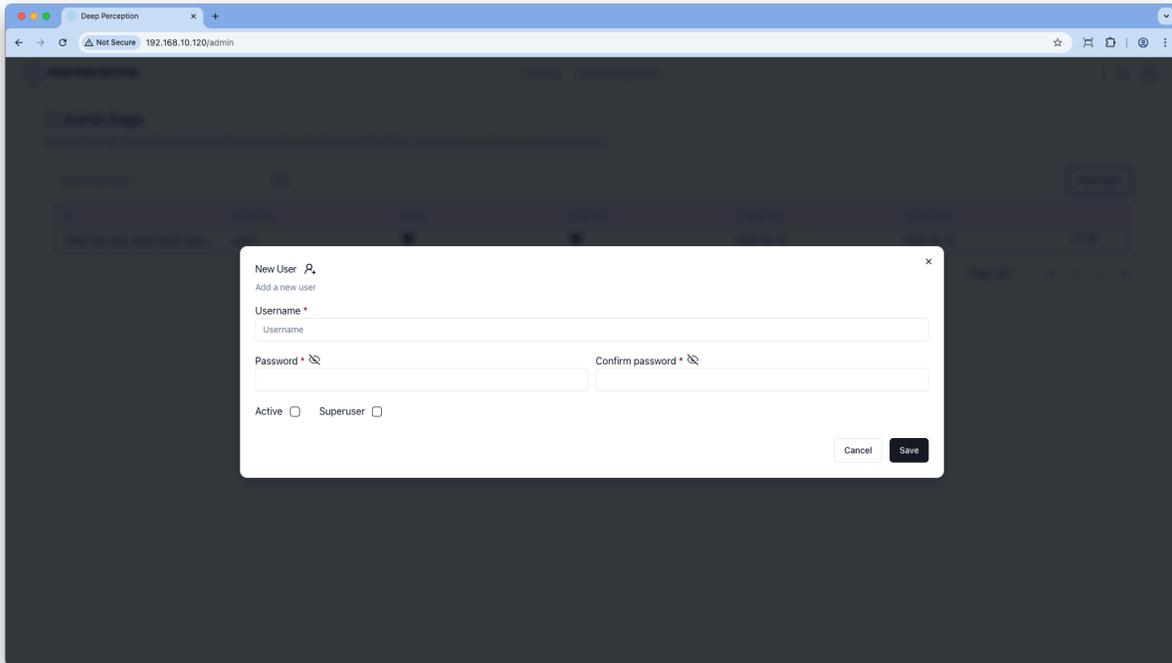
### Settings Menu

The settings menu can be used to view information about the PerceptEdge Appliance in addition to modifying the VMS Integration and Network Settings after the initial setup.



## Admin Page

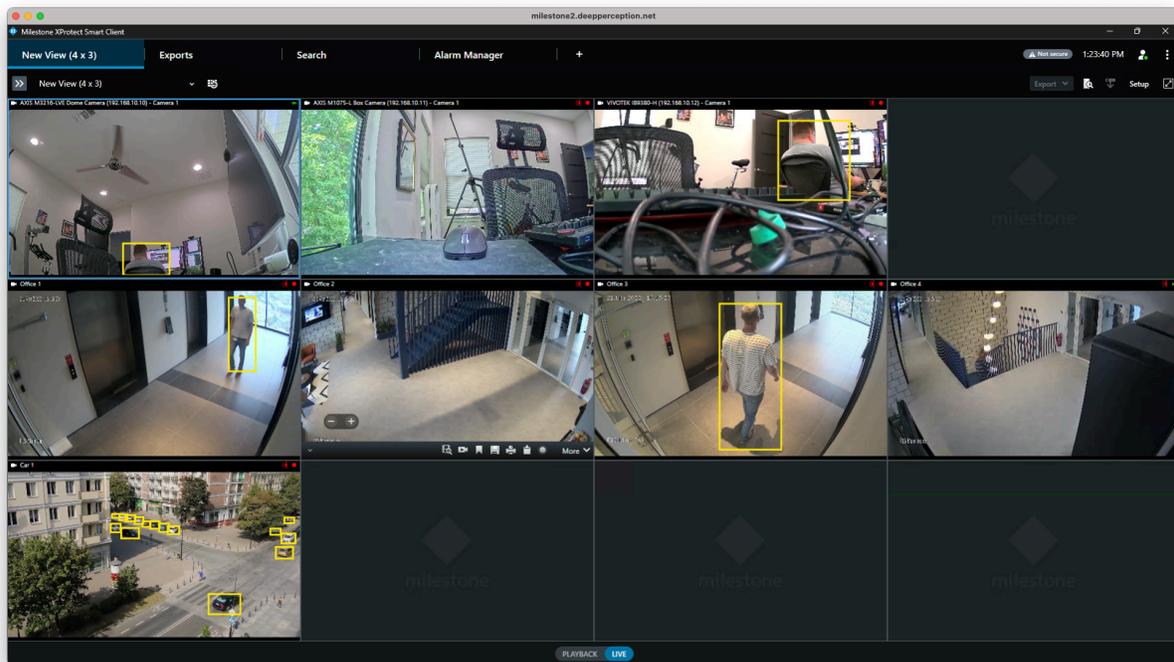
The Admin Page can be used to create new users in addition to modifying the user settings including passwords and permissions.



# Milestone XProtect Smart Client Integration

## Live View

Bounding Boxes will be displayed in the Live View for all cameras that have Metadata enabled.

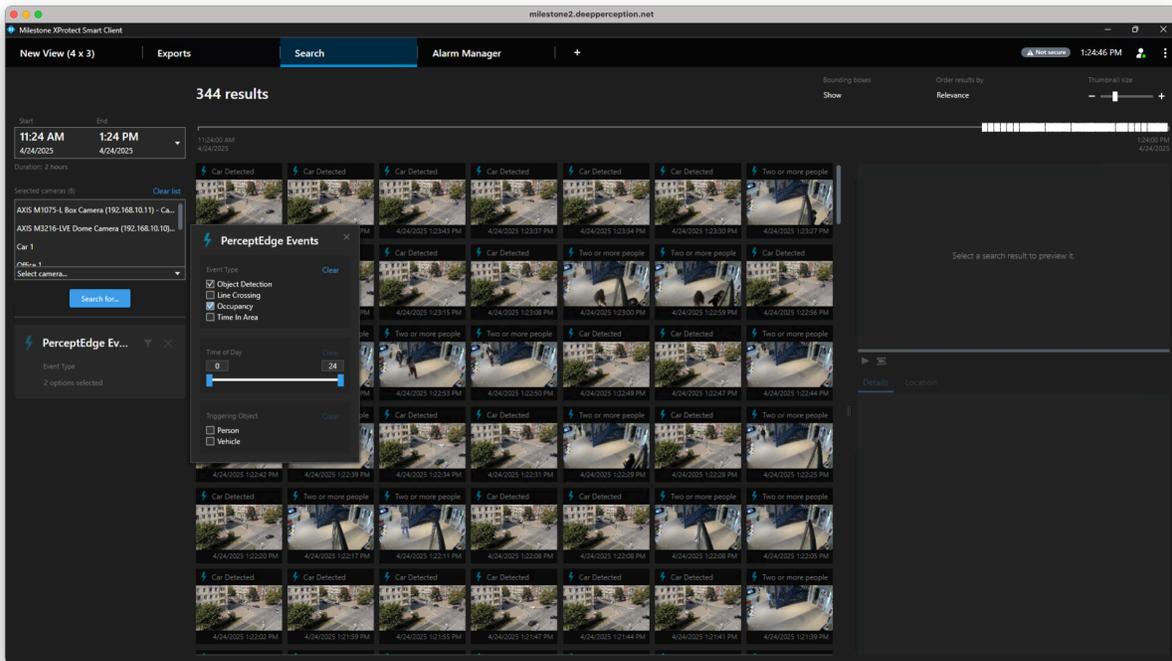


## PerceptEdge Event Search

When the PerceptEdge Search Agent is installed, advanced event drill down search is supported.

The PerceptEdge Search Agent enables filtering of events by the following:

- Event Type
  - Object Detection
  - Line Crossing
  - Occupancy
  - Time in Area
- Time of Day - allows search between the same time window on multiple days
- Triggering Object Type
  - Person
  - Vehicle



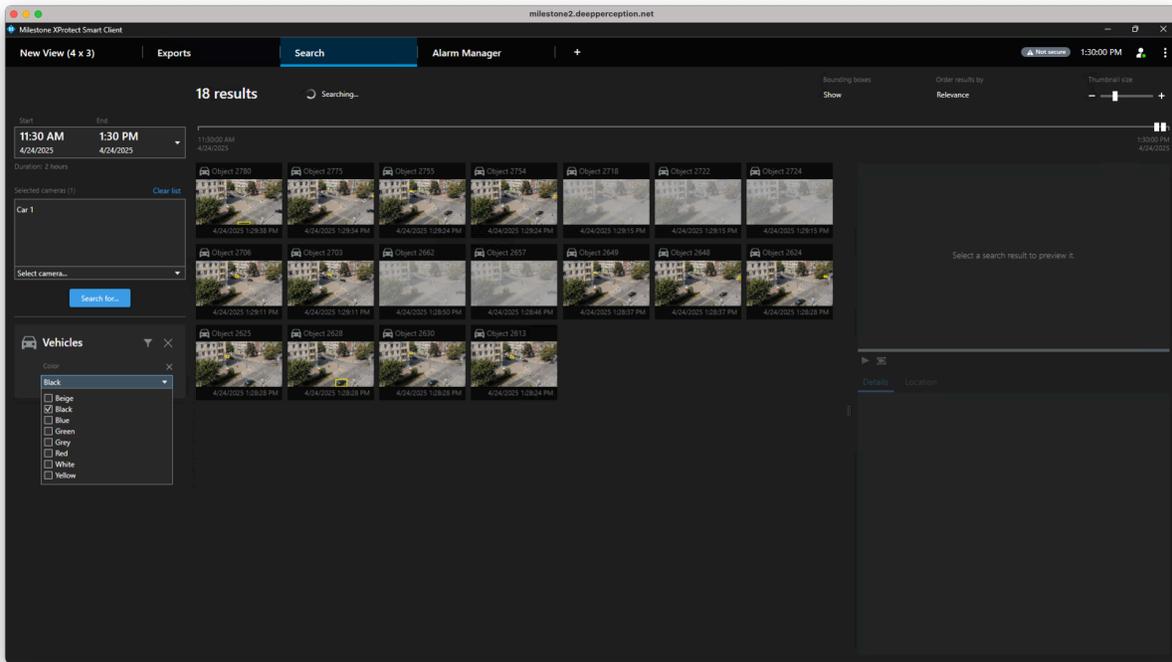
Without the search agent, the standard event search functionality is still available.

## Metadata Search

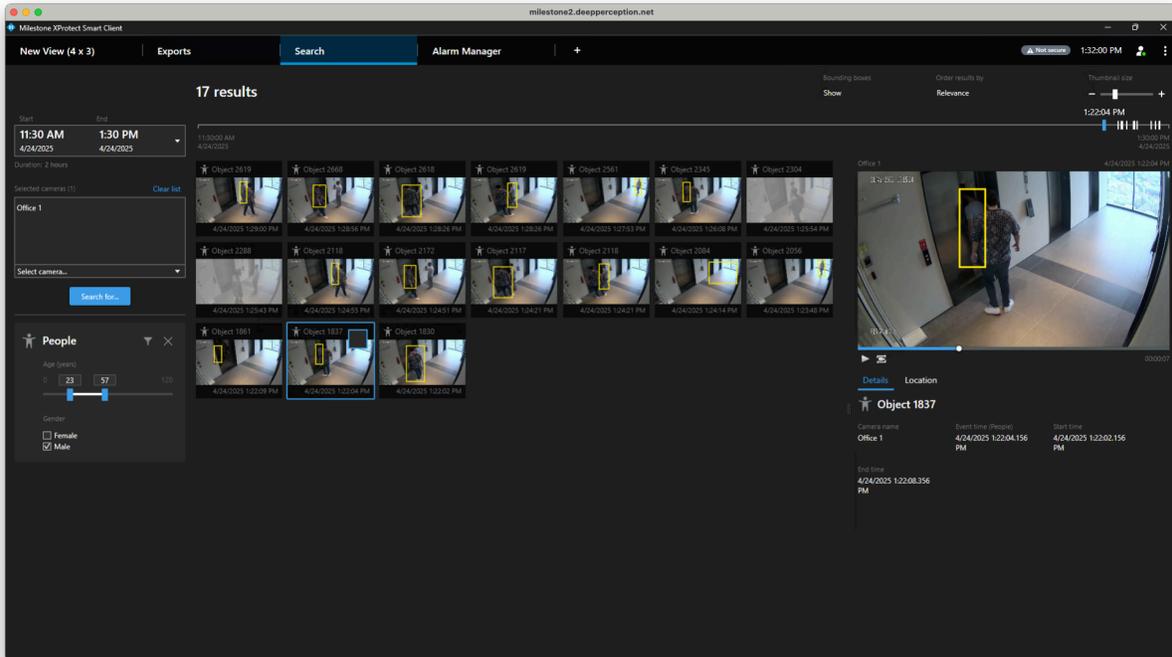
The built in Metadata Search functionality can be used to search for people and vehicles including support for filtering.



## Vehicles



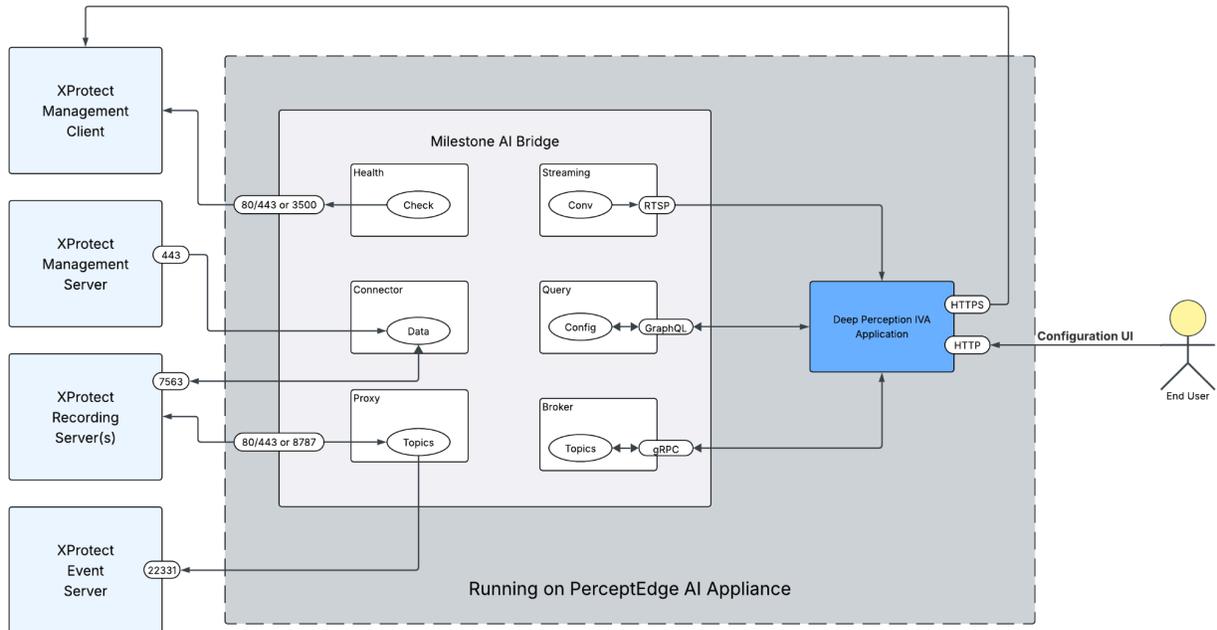
## People





# Appendix

## Architecture Diagram



## Milestone Verified

### Confirmation of Compatibility

**Partner :** Deep Perception

**Product Type :** Analytics (General)

**Partner Product :** PerceptEdge v1.0

**Integration Method :** AI Bridge / Search Agent

**Milestone XProtect® version verified with :** XProtect Professional+ 2025 R1

**Milestone XProtect® version supported (\*) :** All newer with encryption

**Date of Verification :** 2025-05-09



### Summary of Verification Documentation

Partner provided a remote desktop session to Milestone where the Partner Product proved to be compatible with XProtect® version applied.

The Partner Product's compatibility is verified by Milestone Engineers. Partner provided Milestone with the following for the verification process:

- Architecture diagram showing the data flow
- Screenshots
- Additional Documents such as user and administrator manuals

### Conclusion

Milestone confirms to have reviewed the verification documentation and on the date of such review, and to the best of our knowledge, the Product is compatible with the Milestone XProtect version applied in the testing environment. For information on the testing environment and the verification documentation please contact our Partner.

### About Milestone Verification

Milestone Verification is intended to verify the compatibility of the partner's specific product, based on the documentation submitted, with a current Milestone XProtect® video management software (VMS).

Milestone provides guidance, tools, and suggested methods for the verification. The verification setup, configuration, testing, and operations are conducted by the partner, and the test result is verified by Milestone.

Milestone does not warrant our partners' products nor functionalities. Milestone only verifies compatibility with the Milestone XProtect version applied in verification tests. Milestone does not verify product compatibility for installations not comparable with the testing environment.

(\*) Product tested outside of the verification by partner and found compatible with these products.  
Larger defined as more advanced (Essential+ < Express+ < Professional+ < Expert < Corporate)