

VISuite – Milestone Proxy Integration

Integrating VISuite with the Milestone XProtect 2020 R2 Corporate
via Ipsotek Proxy Service

Document Version 0.7



The Open Platform Company



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Approvals

Role	Name	Title	Date
Reviewer	James Black	Head of QA	September 2020

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Definitions and Abbreviations

Acronym	Description
AI	Artificial Intelligence
AIVA	Artificial Intelligence Video Analytics
MDDDB	Meta-Data Data-Base
GUI	Graphical User Interface
VMS	Video Management System
SDK	Software Development Kit
VIS	Visual Intelligence Server
ONVIF	Open Network Video Interface Forum
VCA	Video Content Analysis

Associated Documents

Ref.	Title	Identity
1	VIConfigure Manual	ITM_VIConfig_V11.4


 You can send your comments, corrections, and suggestions about this guide to support@ipsotek.com

Table of Contents

Table of Contents.....	2
1. Introduction	3
1.1 Integration Features	4
1.2 Prerequisites	4
1.3 Video Streaming.....	4
1.4 Feature Compatibility	4
2. Milestone Licensing	5
2.1 Required Licences	5
2.2 Checking Milestone Licensing	6
3. Milestone Cameras	7
3.1 Camera Name Limitations.....	7
3.2 Camera Setup.....	7
3.3 Ipsotek Camera Configuration	10
4. Milestone Users	11
4.1 Create Basic User	11
4.2 Create Basic User Roles.....	11
4.3 Assign Basic User to Role	12
5. Video Streaming Options	14
5.1 System Schematic	14
6. Ipsotek Server Configuration	15
6.1 Camera Setup.....	15
6.2 Enabling XML Export	16
6.2.1 Alarm export parameters.....	17
6.3 Milestone Proxy Installation	18
6.3.1 MilestoneProxy.ini parameters.....	19
7. Metadata Integration.....	20
7.1 Milestone Metadata Streaming Setup.....	20
8. Alarm Integration	24
8.1 Alarm Name Limitations	24
8.2 Enable Analytic and Generic Alarms	25
8.3 Milestone Alarm Configuration.....	26
8.3.1 Creating Milestone Alarm Events for Multiple Cameras	27
8.4 Ipsotek Alarm Configuration	29
9. Example Interface Screenshots	30
9.1 Ipsotek Video Content Analysis Alarm in Smart Client	30
10. Support	31
11. General Information	31

1. Introduction

This document contains the configuration details for the VISuite Milestone integration. Wherever necessary, references with other documents and material are made throughout the document. This document is categorized into 3 sections based on the context and functionality.

- Camera Configuration & Video Streaming** – Video from Milestone XProtect server or directly from the camera will be analysed by Ipsotek’s hardware & software.
- Alarm Configuration & Alarm Linking** – One of the integration’s aims is to notify alarms in Milestone Management client interface. To achieve these alarms in both systems, Milestone and VISuite must be linked.
- Plugins** – Software components developed by Ipsotek which can be hosted in Milestone’s Management client interface.

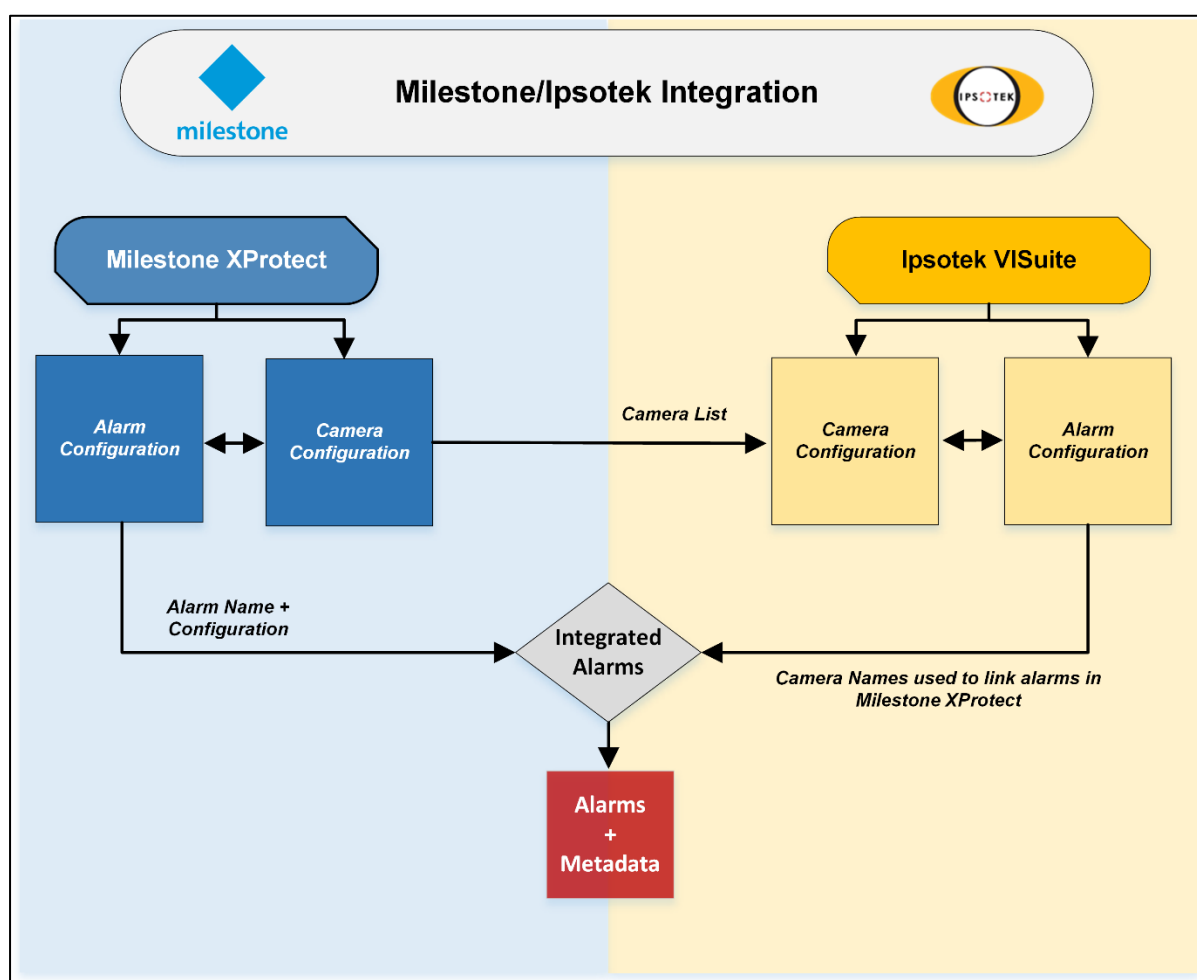


Figure 1: Block Diagram Describing Integration

1.1 Integration Features

Integration with Milestone XProtect supports the following functionality:

- Decode and analyse the IP Video in real-time.
- Raise alarms in XProtect viewing client.
- Display real time tracking and event metadata in viewing client.

1.2 Prerequisites

This integration requires the following components from both the systems.

- ¹Milestone XProtect Corporate 2019/2020 Server.
- ¹Milestone XProtect Management Client 2019/2020.
- ¹Milestone XProtect Smart Client 2019/2020.
- AIVA server. Ipsotek's AIVA hardware server.
- Ipsotek VISuite AIVA 11.4 software, or above.
- Milestone Proxy IpsotekMilestoneProxy11.0.0.2.
- Milestone device pack 8.4 or later
- **Administrator privileged windows account**

1.3 Video Streaming

It is assumed that both Milestone server, AIVA server and IP cameras are on the same network.
It is recommended that the network guarantees a consistent frame rate without any packet drops.

1.4 Feature Compatibility

The table below depicts the supported Ipsotek features on the various Milestone editions.

Integration Features	XProtect Corporate	XProtect Expert	XProtect Enterprise	XProtect Smart Client (32-bit)	XProtect Smart Client (64-bit)
VMS Video Streaming	✓	✓	✓	✓	✓
Raise XProtect Alarms	✓	✓	✓	✓	✓
Display Metadata	✓	✓		✓	✓

¹ Versions tested within QA test environment. Earlier versions may work but have not been fully validated.

2. Milestone Licensing

2.1 Required Licences

There is a simple method of integration supported by the Ipsotek platform as described below. The Milestone licencing model requires the procurement of device license keys (DLK) to support individual devices. The licenses that are required are as follows:

Method: AIVA (Ipsotek) server to receive video streams from Milestone.

Licences Required: **One Milestone DLK per metadata channel**

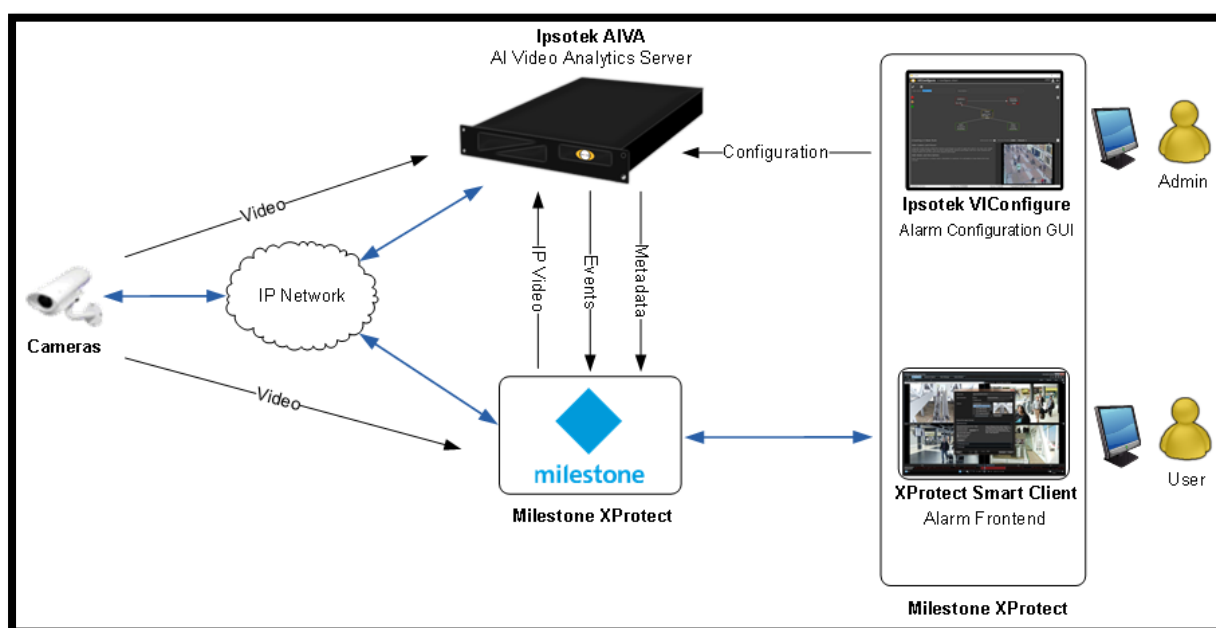


Figure 2: Milestone Metadata Integration System Diagram

2.2 Checking Milestone Licensing

The correct licenses should be acquired prior to any installation/configuration. Licenses and their quantities can be checked in the Milestone XProtect management client by navigating to the **“License Information”** under **“Basics”** on the left hand side tree menu and clicking on the **“License Overview”** button as shown below:

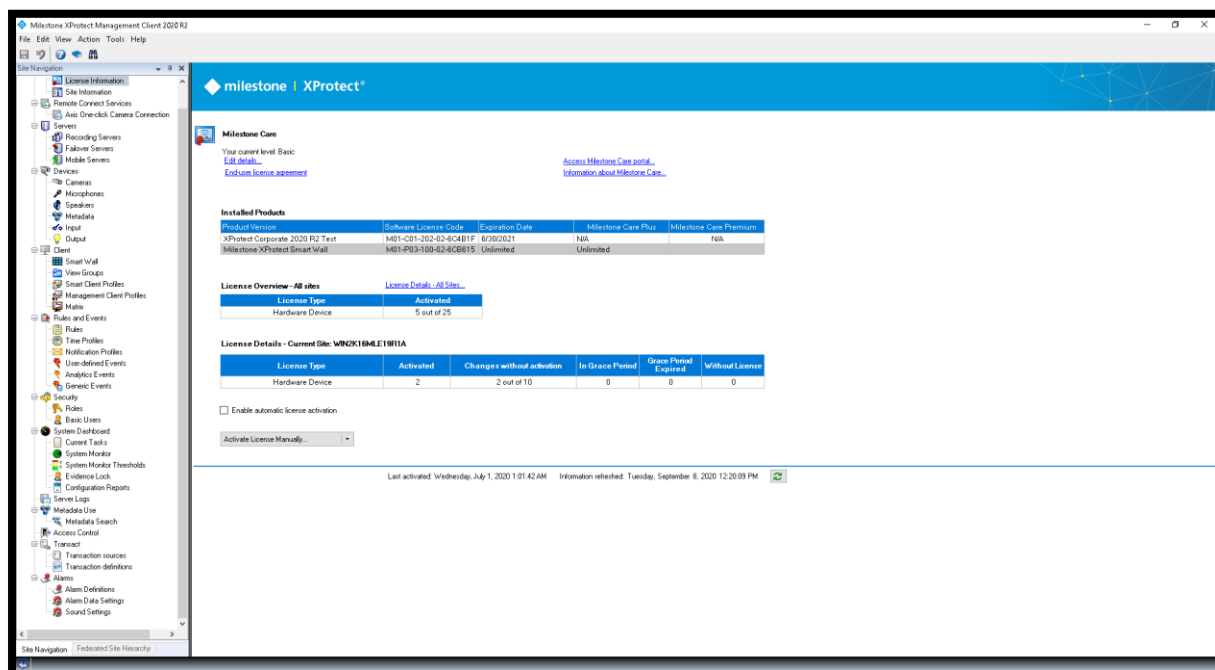


Figure 3: Milestone Licensing

3. Milestone Cameras

In order to perform event detection and overlay metadata, it is assumed that both Milestone server and VIS server are on the same network. It is recommended that the network guarantees a consistent frame rate without any packet drops.

3.1 Camera Name Limitations

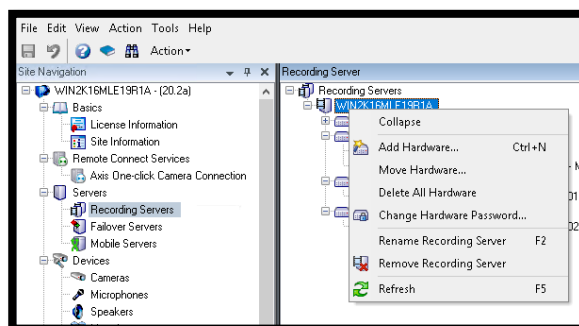
Character Limit (Ipsotek Limitation)	250
Allowed Characters	0123456789 abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ !#\$%() *+,-. : ; => ? @ [] ^ _ { } ~

3.2 Camera Setup

This section provides the steps required for setting up a camera in the Milestone XProtect Corporate/Enterprise Management Client. Cameras should be added to the Milestone platform before seeking to create connections to the Ipsotek AIVA server. Follow the steps below

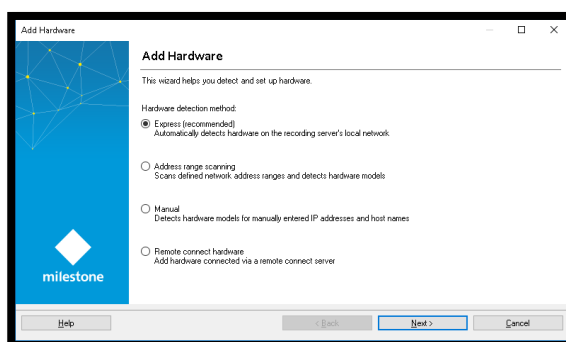
Step 1:

Add camera by selecting **Recording Servers** from the left-hand tree. Right click on the required/displayed server and select **"Add Hardware"** from the drop-down menu.



Step 2:

From the wizard select **"Manual"**



Step 3:

Add camera authentication credentials and enable via the check box.

Step 4:

Select camera manufacturer and model.

Please Note: Selecting a manufacturer will select all subsequent models. You may select the specific model number if known.

Step 5:

Enter IP address of camera.

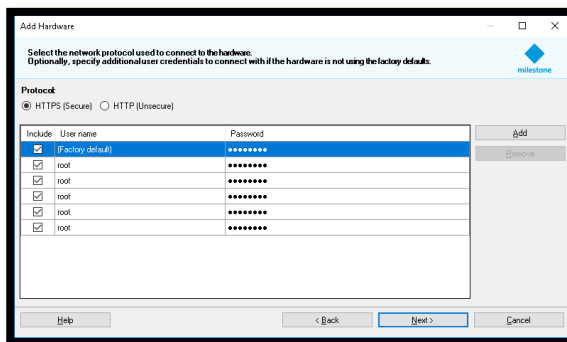
Please Note: You may add multiple device IP's by clicking on "Add".

Step 6:

Acknowledge addition of camera to system.

Step 7A:

Select any additional hardware functions required.

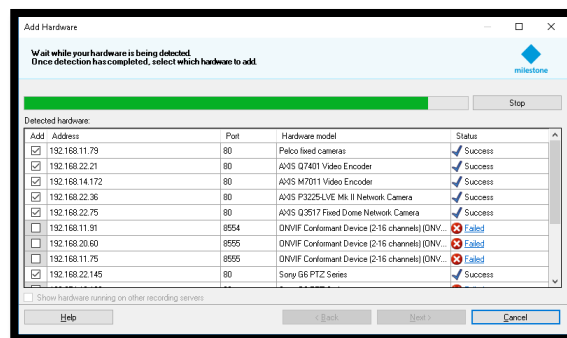


Select the network protocol used to connect to the hardware. Optionally, specify additional user credentials to connect with if the hardware is not using the factory defaults.

Protocol: ☒ HTTPS (Secure) ☐ HTTP (Unsecure)

Include	User name	Password
<input checked="" type="checkbox"/>	[Factory default]	*****
<input checked="" type="checkbox"/>	root	*****
<input checked="" type="checkbox"/>	root	*****
<input checked="" type="checkbox"/>	root	*****
<input checked="" type="checkbox"/>	root	*****
<input checked="" type="checkbox"/>	root	*****

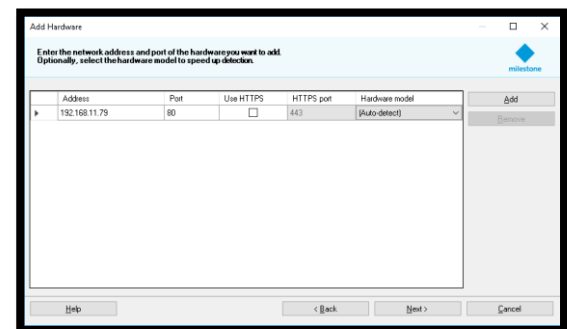
Buttons: Help, < Back, Next >, Cancel



Wait while your hardware is being detected. Once detection has completed, select which hardware to add.

Add	Address	Port	Hardware model	Status
<input checked="" type="checkbox"/>	192.168.11.79	80	Pelco fixed cameras	Success
<input checked="" type="checkbox"/>	192.168.22.21	80	AVIS 77401 Video Encoder	Success
<input checked="" type="checkbox"/>	192.168.14.172	80	AVIS M7011 Video Encoder	Success
<input checked="" type="checkbox"/>	192.168.22.36	80	AVIS P3225-LVE Mk II Network Camera	Success
<input checked="" type="checkbox"/>	192.168.22.75	80	AVIS Q2517 Fixed Dome Network Camera	Success
<input type="checkbox"/>	192.168.11.91	8554	DNVIF Conformant Device (2-16 channels) (DNV...	Failed
<input type="checkbox"/>	192.168.20.60	8555	DNVIF Conformant Device (2-16 channels) (DNV...	Failed
<input type="checkbox"/>	192.168.11.75	8555	DNVIF Conformant Device (2-16 channels) (DNV...	Failed
<input checked="" type="checkbox"/>	192.168.22.145	80	Sony G6 PTZ Series	Success

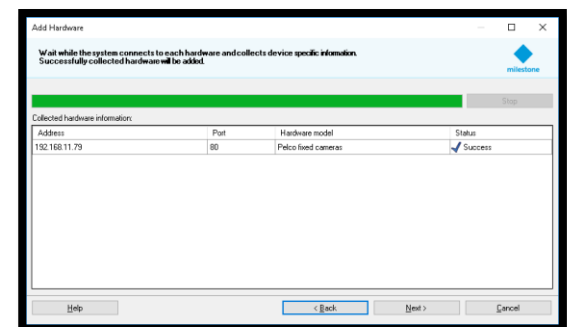
Buttons: Help, < Back, Next >, Cancel



Enter the network address and port of the hardware you want to add. Optionally, select the hardware model to speed up detection.

Address	Port	Use HTTPS	HTTPS port	Hardware model
192.168.11.79	80	<input type="checkbox"/>	443	[Auto-detect]

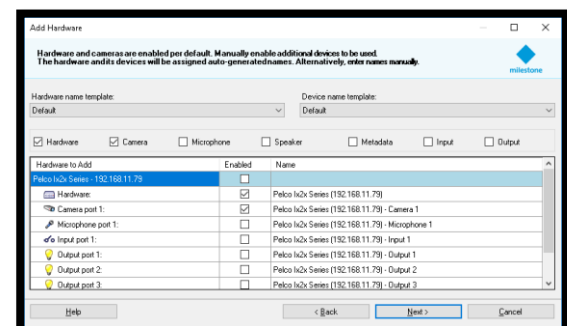
Buttons: Help, < Back, Next >, Cancel



Wait while the system connects to each hardware and collects device specific information. Successfully collected hardware will be added.

Address	Port	Hardware model	Status
192.168.11.79	80	Pelco fixed cameras	Success

Buttons: Help, < Back, Next >, Cancel



Hardware and cameras are enabled per default. Manually enable additional devices to be used. The hardware and its devices will be assigned auto-generated names. Alternatively, enter names manually.

Hardware name template: Default Device name template: Default

☒ Hardware ☒ Camera ☐ Microphone ☐ Speaker ☐ Metadata ☐ Input ☐ Output

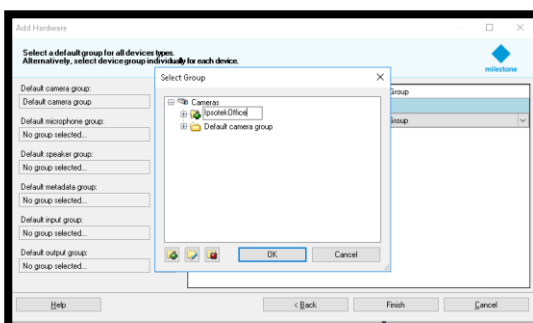
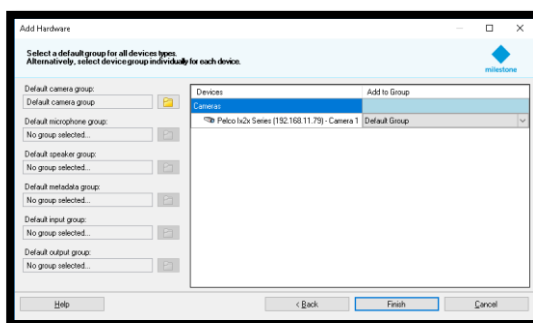
Hardware to Add	Enabled	Name
Pelco iLox Series - 192.168.11.79	<input type="checkbox"/>	
Hardware	<input checked="" type="checkbox"/>	Pelco iLox Series (192.168.11.79)
Camera port 1	<input checked="" type="checkbox"/>	Pelco iLox Series (192.168.11.79) - Camera 1
Microphone port 1	<input type="checkbox"/>	Pelco iLox Series (192.168.11.79) - Microphone 1
Input port 1	<input type="checkbox"/>	Pelco iLox Series (192.168.11.79) - Input 1
Output port 1	<input type="checkbox"/>	Pelco iLox Series (192.168.11.79) - Output 1
Output port 2	<input type="checkbox"/>	Pelco iLox Series (192.168.11.79) - Output 2
Output port 3	<input type="checkbox"/>	Pelco iLox Series (192.168.11.79) - Output 3

Buttons: Help, < Back, Next >, Cancel

Step 7B:

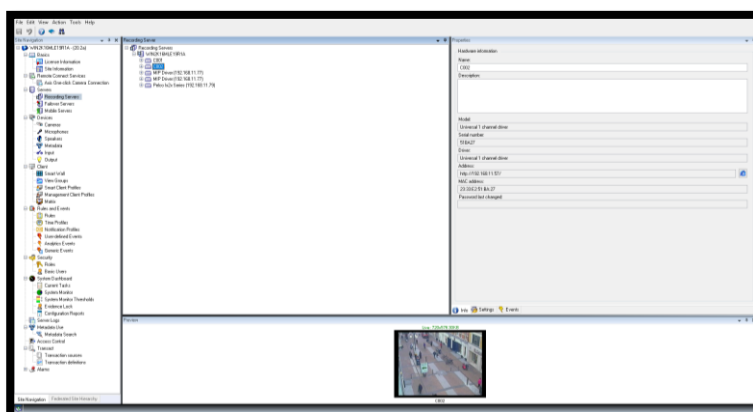
Select camera group by clicking on the highlighted folder. You may also create new groups through this dialogue.

Please Note: It is highly recommended that groups are used to keep cameras in a manageable order.



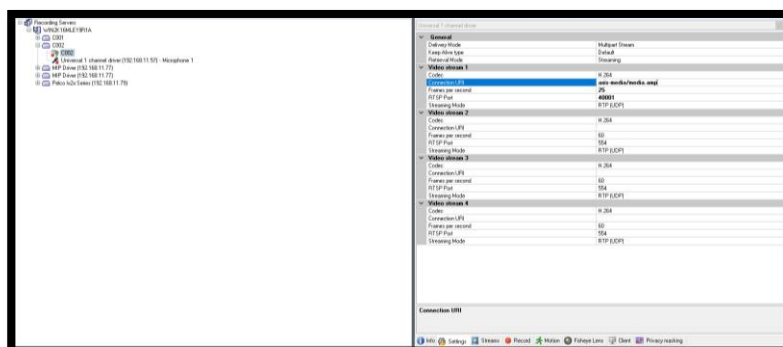
Step 8:

Confirm camera feed via preview pane as shown.



Step 9:

Select supported camera stream from the options by expanding the camera tree and selecting the camera hardware. Navigate to the streams tab in the right-hand pane and select the required stream from the dropdown menu.



Supported Streams:

H.263

H.264

MPEG

3.3 Ipsotek Camera Configuration

The final step in the camera configuration is to name the cameras in VIConfigure to match the camera names configured in Milestone. Refer to the ***VIConfigure manual*** for configuration of rules setup in VISuite.

4. Milestone Users

4.1 Create Basic User

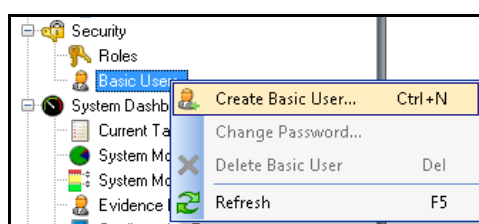
In order for the integrated alarms to be viewed at the end of the integration, a basic user must be created and assigned to a corresponding group.



This step can be skipped if a Windows based account is being used for authentication. The correct permissions are required for Windows based accounts.

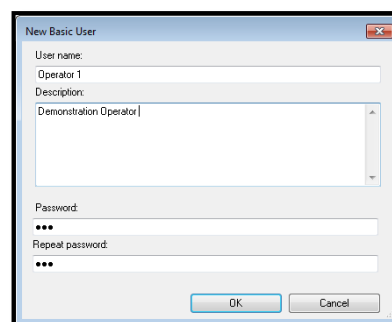
Step 1:

Create a new user by navigating to **Security** from the left hand menu tree. Right click on the “**Basic Users**” item and “**Create Basic Users**” from the drop down menu.



Step 2:

Create a new user by filling out the form provided.

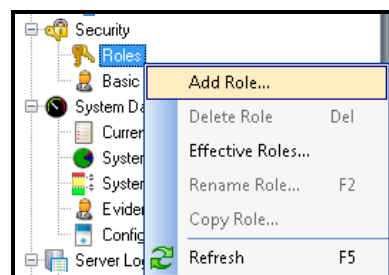


4.2 Create Basic User Roles

In order for the integrated alarms to be viewed at the end of the integration, roles must be created and assigned to a corresponding user.

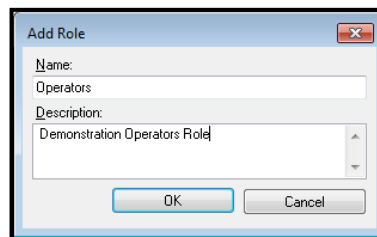
Step 1:

Create a new role by navigating to **Security** from the left hand menu tree. Right click on the “**Roles**” item and “**Add Role**” from the drop down menu.



Step 2:

Create a new role by filling out the form provided.



The 'Add Role' dialog box contains the following fields:

- Name:** Operators
- Description:** Demonstration Operators Role

Buttons: OK, Cancel

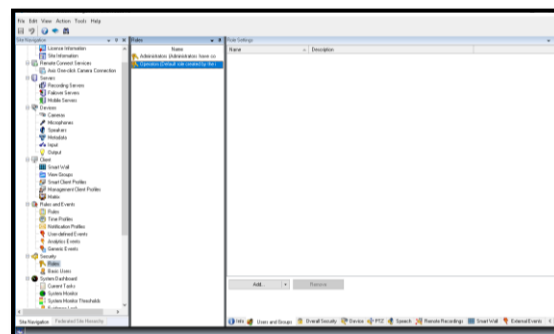
4.3 Assign Basic User to Role

Basic users must be assigned to a corresponding role.

Step 1:

Navigate to **Security** from the left hand menu tree. Select **"Roles"** and the corresponding role **"Operators"** from the list in the middle tree.

Navigate to **"Users and Groups"** located in the bottom tabs as shown in the diagram.



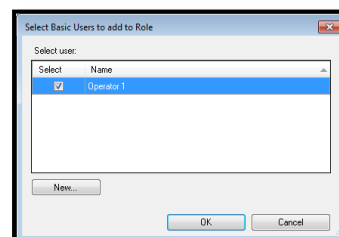
Step 2:

Select **"Add"** and **"Basic User"**.



Step 3:

Select created basic user.

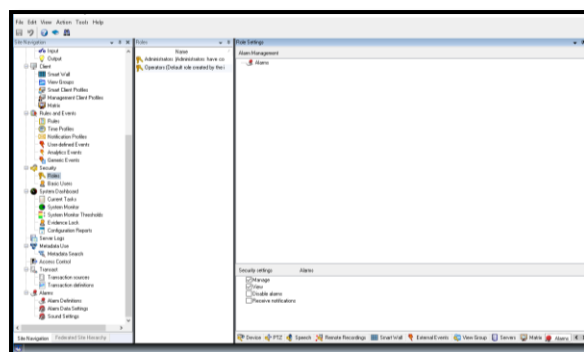


Step 4:

Navigate to the Alarms tab and select **"Alarms"**

Select and Tick the following items:

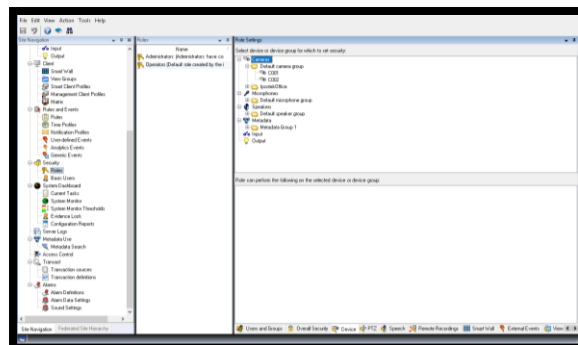
- **Manage**
- **View**



Step 5:

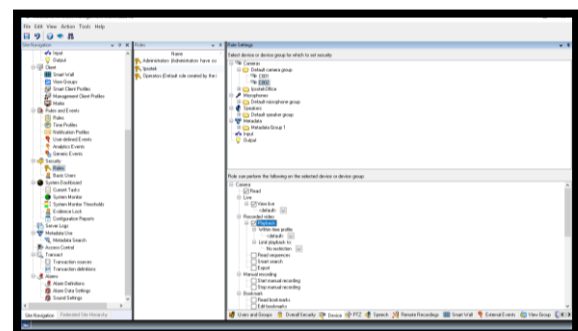
Navigate to the Device tab and select Cameras.

Select the associated cameras which will display analytic events.



Step 6:

Enable Camera **“Read”** on the corresponding cameras to receive analytic events.

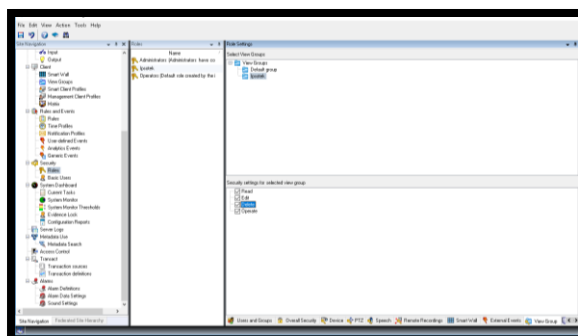


Step 7:

Navigate to the View Group tab.

Select View Groups in which the operators will be able to see the AIVA alarms in the **“View Group”** tab.

Set security constraints for view groups as shown.



5. Video Streaming Options

The integration between Milestone XProtect and Ipsotek VISuite 11.4 can operate as follows:

- AIVA (Ipsotek) server to receive unicast or multicast video stream directly from IP cameras
- Upon the receipt of video, analysis in real time occurs and events will be raised into Milestone XProtect Smart Client as live analytics events.
- Metadata is provided by Ipsotek to Milestone via the proxy as a MIP's Stream. This can then be used as an overlay within milestone that highlights the cause of the alarm via bounding boxes drawn on the image.

5.1 System Schematic

The proxy integration has been improved to only send metadata overlay information to Milestone Management server. The Milestone Proxy Server uses the concept of a centralized proxy where the Ipsotek's VIS servers will connect to Milestone VMS. Milestone Proxy then will be responsible to maintain the communication to the Milestone VMS, trigger alarms and transmitting metadata through the MIP Message communication service.

It is assumed that both Milestone, VIS server and cameras are on the same network. It is recommended that the network guarantees a consistent frame rate without any packet drops. It is also assumed that all servers and cameras are **synchronised** to the same **NTP time source**.

Events and metadata are handled by the Ipsotek XProtect Proxy Service. The proxy provides the integration with the Milestone system through the MIP Message Communication driver.

This proxy is a centralised service that can receive analytic metadata from several Video Analytics servers and parsed it to Milestone Management Server for event detections and metadata overlay to be consumed by Milestone Smart Client.

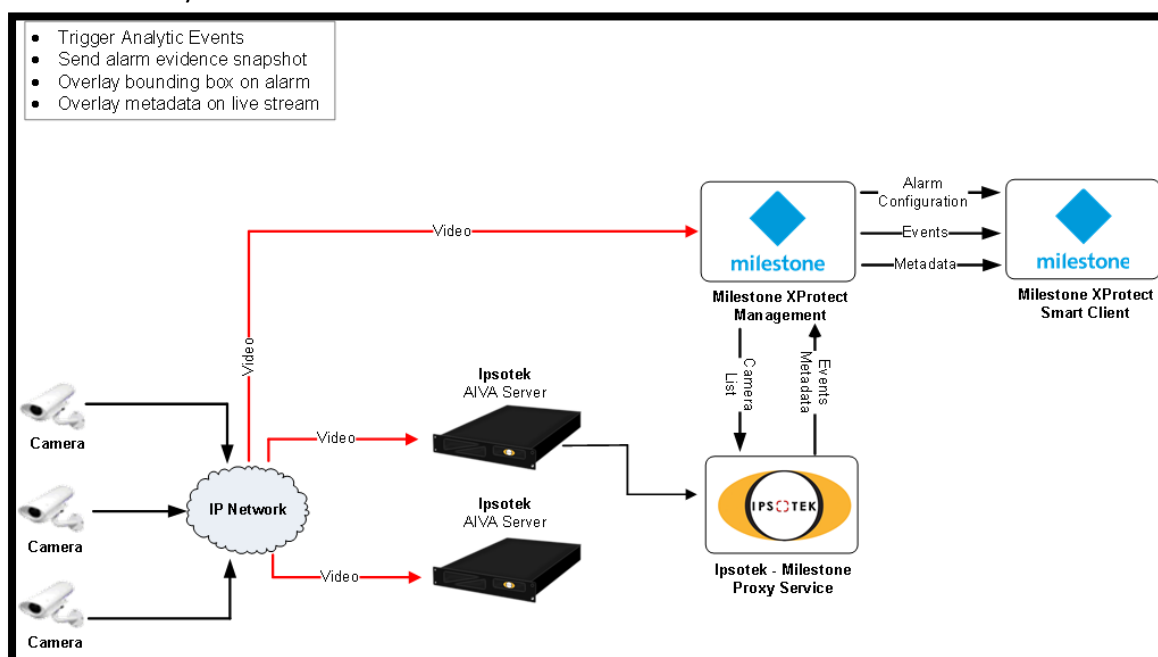


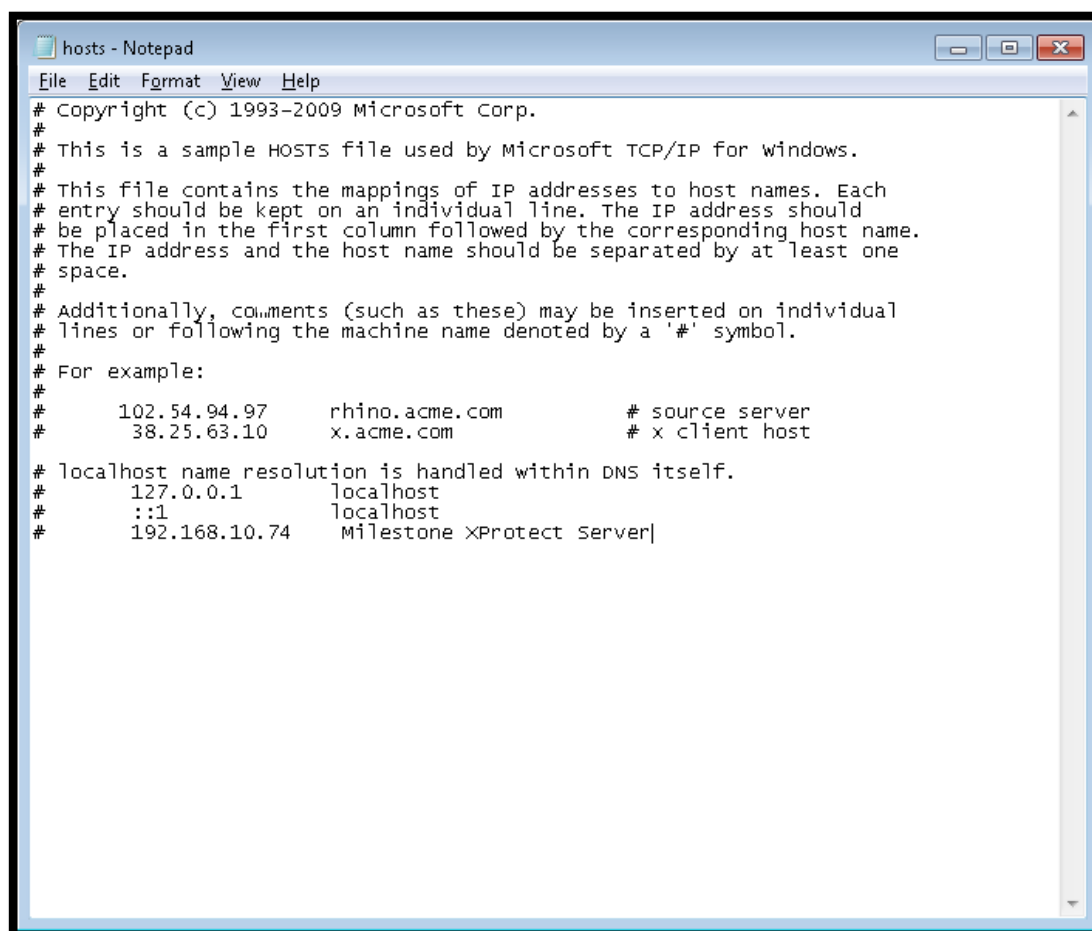
Figure 4: System Schematic

6. Ipsotek Server Configuration

6.1 Camera Setup

Before getting started with any configuration within VISuite, an entry to the windows “hosts” file must be made to send alarm data to the named milestone server(s).

The file is located at: **C:\Windows\System32\drivers\etc**



```

hosts - Notepad
File Edit Format View Help
# Copyright (c) 1993-2009 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97       rhino.acme.com           # source server
#       38.25.63.10       x.acme.com              # x client host
#
# localhost name resolution is handled within DNS itself.
#       127.0.0.1         localhost
#       ::1               localhost
#       192.168.10.74     Milestone XProtect Server
  
```

Figure 5: Addition of Milestone IP Address

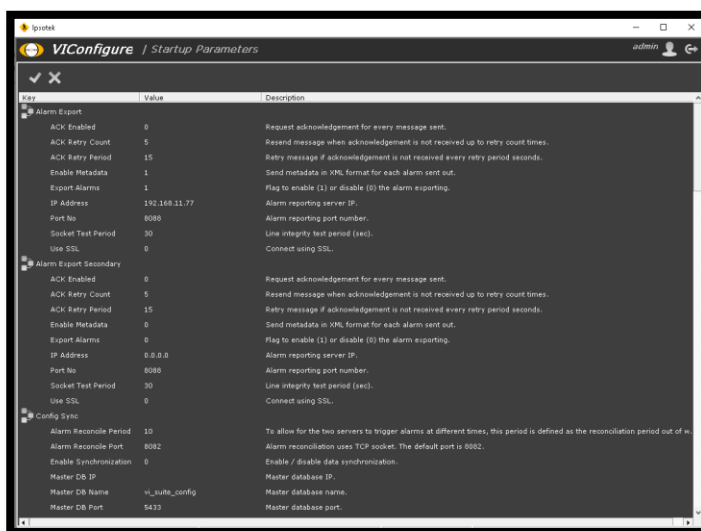
6.2 Enabling XML Export

To establish a connection where alarms are sent with metadata overlay to Milestone Management, an XML connection is required to be initiated from the AIVA server to the Milestone proxy. To create this type of connection, follow the steps described below:

Step 1:

In the VIConfigure interface navigate to:

Server Settings > Startup Parameters > Alarm Export



Step 2:

Enter the relevant connection details within the Alarm Export Settings.

Ensure that the IP address is pointing towards where the proxy is installed and not to the VMS.

Key	Value
Alarm Export	
ACK Enabled	0
ACK Retry Count	5
ACK Retry Period	15
Enable Metadata	1
Export Alarms	1
IP Address	192.168.11.77
Port No	8080
Socket Test Period	30
Use SSL	0

6.2.1 Alarm export parameters

Export Alarms via a primary and/or secondary XML source to a third party system.

Parameter	Description
ExportAlarms	Export alarms via TCP. Set to 1 to enable exporting of alarms to export via specified IP address and port number. Alarm will be sent with XML data.
IPAddress	Defines export IP address, this is to be set to the IP of the server running the Milestone Proxy. It is recommended to use absolute addresses.
PortNo	Defines export port number. Default 8088.
UseSSL	Force SSL connection if required. Default 0.
SocketTestPeriod	Interval period (seconds) used to send test message to every socket to guarantee a stable connection to the server. Default 30.
ACK Enabled	Enable XML acknowledgment feedback. Default 0.
ACK Retry Count	XML acknowledgment feedback message retry count. Default 5.
ACK Retry Period	XML acknowledgment feedback message retry interval period. Default 15.
Enable Metadata	Include metadata information with XML export message. Set to 1 to enable metadata export.

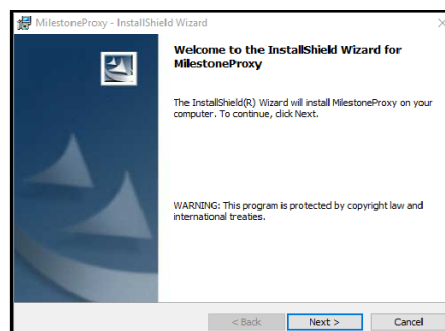
6.3 Milestone Proxy Installation

Step 1:

Install MilestoneProxy.exe

The installer will install to

"C:\Program Files\Ipsotek\MilestoneProxy"



Step 2:

Edit

MilestoneProxy.ini

Run **"Notepad"** as Administrator

Navigate to my computer and press the **alt** key.

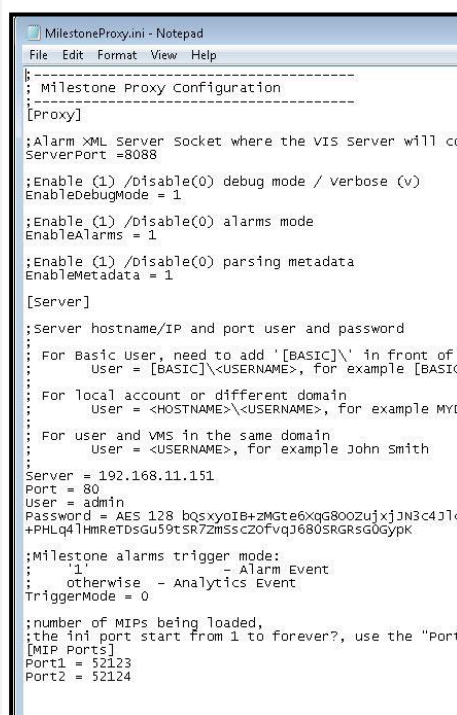
At the top of the window you will see a toolbar open.

Go onto **Tools → Folder options**

A new window will open, navigate to the **view** tab and ensure **"Show hidden files, folders and drives"** is selected.

Then **Open** file **"C:\ProgramData\Ipsotek\MilestoneProxy\MilestoneProxy.ini"** for editing.

Under **[Server]** input the **IP address of the VMS server** with the relevant login details.



6.3.1 MilestoneProxy.ini parameters

The following settings are available in the **ini file**, only the one highlighted green are required.

Parameter	Description
[Proxy]	
ServerPort	The server port opened by the proxy. The alarm export port configured in VIConfig should match this port number.
LogPath	Log storage path, if left blank defaults to "C:\ProgramData\Ipsotek\MilestoneProxy"
EnableDebugMode	1 = Debug mode for verbose logging 0 = Normal mode for error logging
EnableAlarms	1 = Alarm Handling Enabled 0 = Alarm Handling Disabled
EnableMetadata	1 = Metadata Handling Enabled 0 = Metadata Handling Disabled
[Server]	
Ip	IP Address of the Milestone server
Port	Control port of the Milestone server, default 80.
User	Milestone username
Password	Milestone password (Note: Password will be automatically encrypted after first successful connection)
Trigger Mode	0 for Analytics event by default; 1 for Alarm event.
MIP Port 1	MIP port used
MIP Port 2	MIP port used

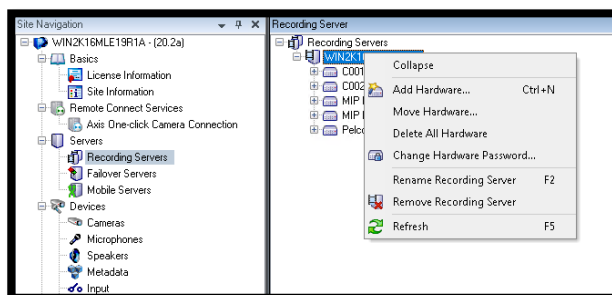
7. Metadata Integration

7.1 Milestone Metadata Streaming Setup

This integration now includes the ability to display metadata on live camera streams and recorded alarm footage. Metadata streams are required to be configured in order to enable this functionality. Follow the steps below:

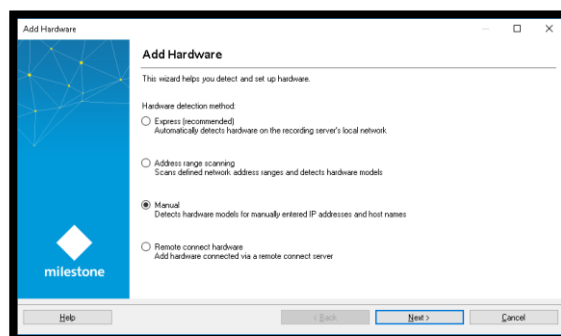
Step 1:

Add metadata stream by right clicking on the server and selecting **Add Hardware**



Step 2:

From the wizard select **Manual**

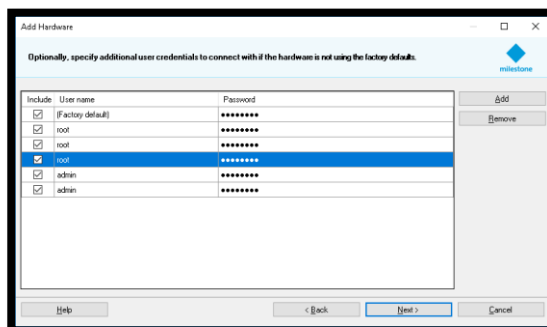


Step 3:

Add server authentication credentials and enable via the check box.

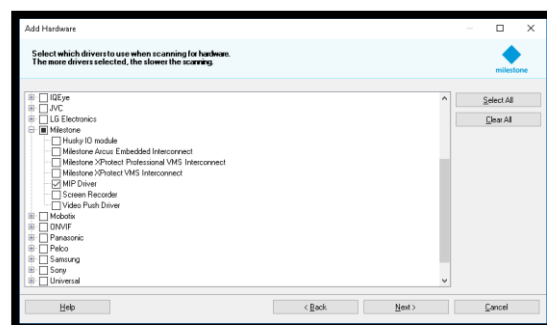
Username: **root**

Password: **password**



Step 4:

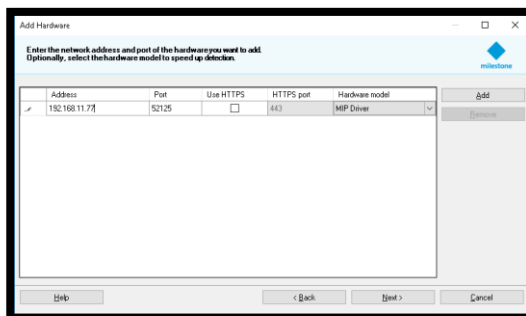
Under the Milestone category select **MIP Driver**



Step 5:

Enter IP address of server and specify Port number. Select MIP Driver from drop down list.

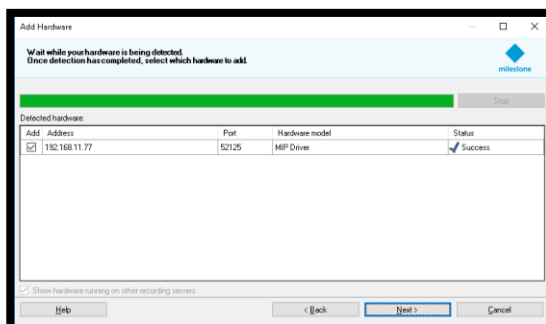
Please Note: Port is required to match specified number set in VIconfigure. Each camera will require its own port number.



Address	Port	Use HTTPS	HTTPS port	Hardware model
192.168.11.77	52125	<input type="checkbox"/>	443	MIP Driver

Step 6:

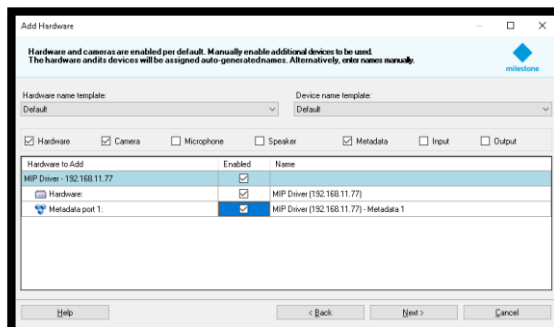
Acknowledge addition of metadata stream to system



Add	Address	Port	Hardware model	Status
<input checked="" type="checkbox"/>	192.168.11.77	52125	MIP Driver	Success

Step 7:

Select additional metadata port as shown.

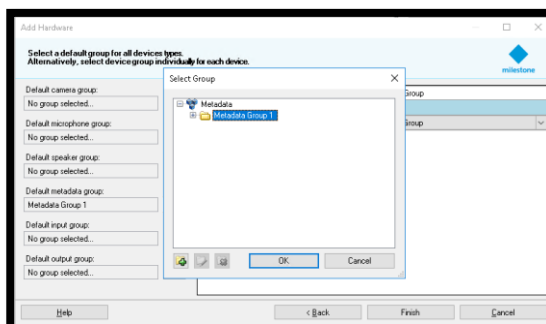


Hardware to Add	Enabled	Name
MIP Driver - 192.168.11.77	<input checked="" type="checkbox"/>	MIP Driver (192.168.11.77)
Hardware	<input checked="" type="checkbox"/>	MIP Driver (192.168.11.77)
Metadata port 1	<input checked="" type="checkbox"/>	MIP Driver (192.168.11.77) - Metadata 1

Step 8:

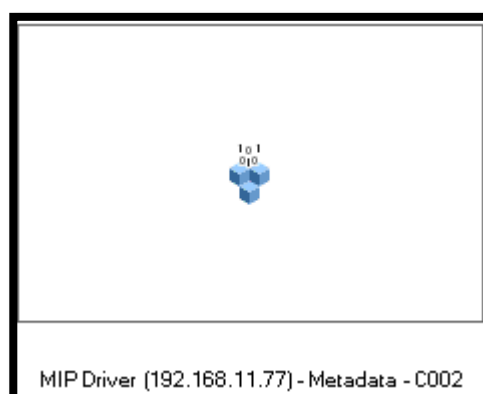
Select metadata group by clicking on the highlighted folder. You may also create new groups through this dialogue.

Please Note: It is highly recommended that groups are used to keep metadata feeds in a manageable order.



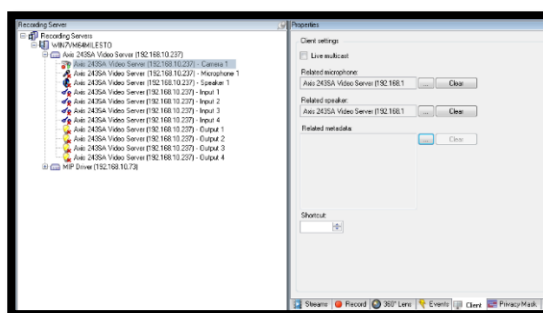
Step 9:


Check metadata stream by observing the icon in the preview pane. The icon should be seen to receive the 0's and 1's to confirm receipt of metadata information

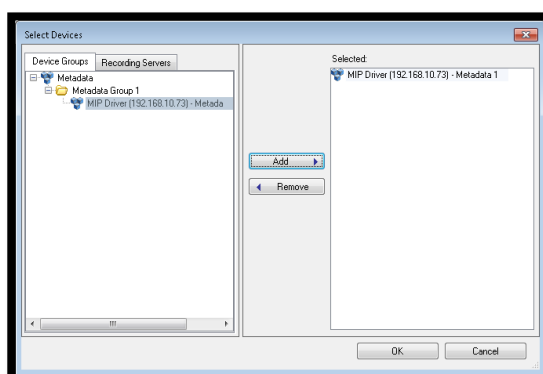


Step 10:

Assign metadata channel to camera
Select supported camera stream from the options by expanding the camera tree and selecting the camera hardware.
Navigate to the **Client** tab in the right hand pane and click on the highlighted button to reveal the allocation options.



Save settings by clicking on the  icon or pressing ctrl+s.



The screenshot below shows the completed Ipsotek metadata integration in Milestone Smart Client.

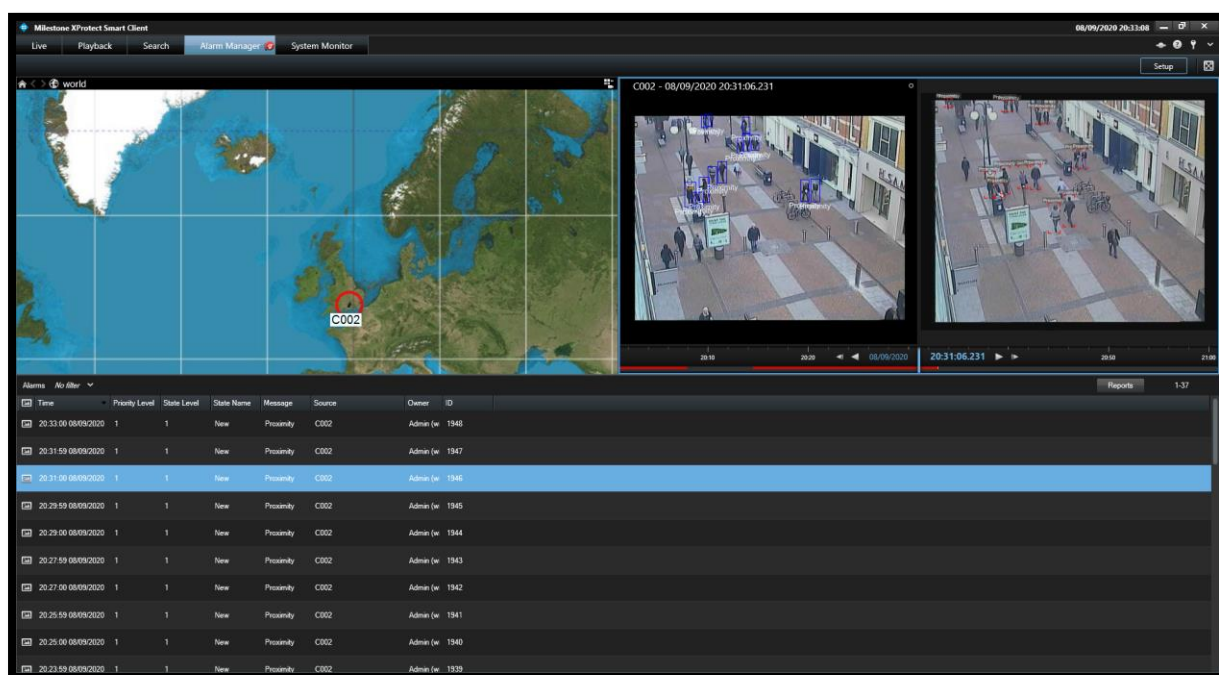


Figure 6: Metadata in Smart Client

8. Alarm Integration

With the input video source correctly set up, VISuite now analyses the video, generates alarms and triggers the corresponding alarms in the Milestone system. The following section details the steps required for creating alarms on both platforms.

8.1 Alarm Name Limitations

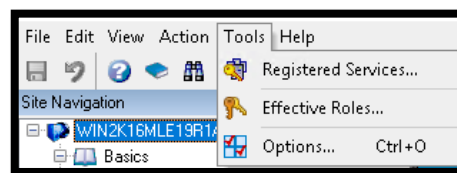
Character Limit (Milestone Limitation)	31
Allowed Characters	0123456789 abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ !#\$%&()*+,-.:;=>?@[]^_{} }~

8.2 Enable Analytic and Generic Alarms

Step 1:

Open Milestone Management Server

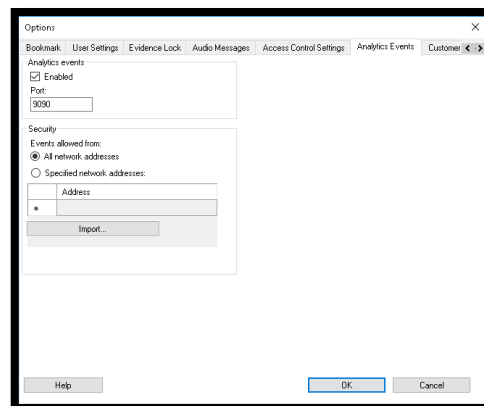
Navigate to **Tools > Options**



Step 2:

Navigate to Analytics Events

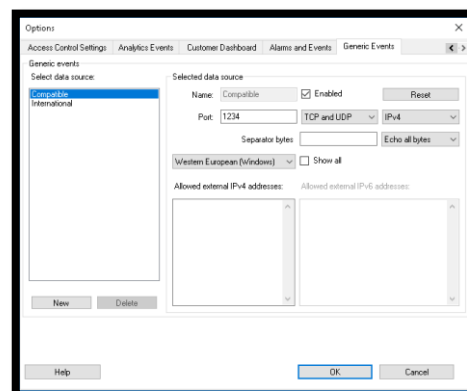
Enable Analytic Events



Step 3:

Navigate to Generic Events

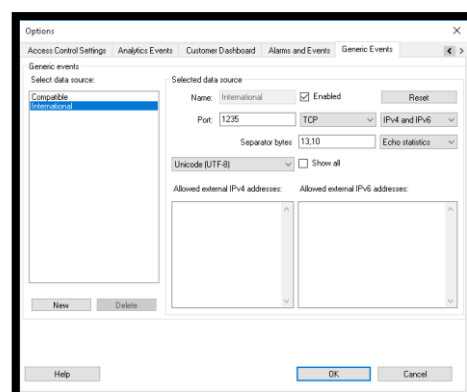
Enable Generic Events



Step 4:

Select **"International"** from data sources

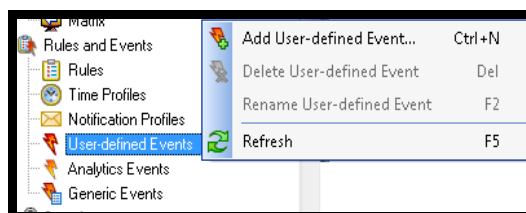
Enable International Events



8.3 Milestone Alarm Configuration

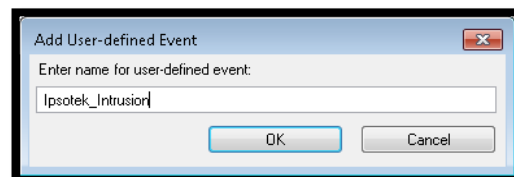
Step 1:

Navigate to **User-defined Event** under the **Rules and Events** menu in the left hand tree.
Right click to reveal the menu
Add a new User-defined Event



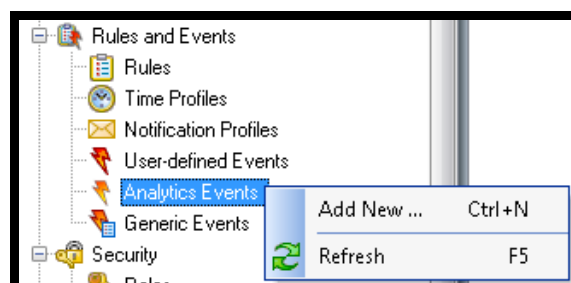
Step 2:

Create event




Step 3:

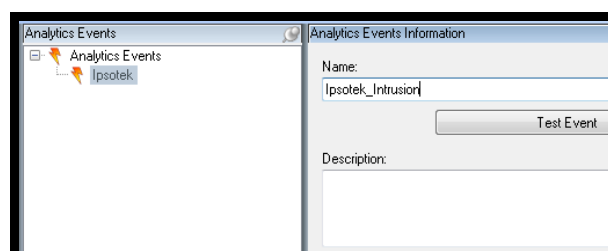
Navigate to **Analytic Events** under the **Rules and Events** menu in the left hand tree.
Right click to reveal the menu
Add a new Analytic Event



Step 4:

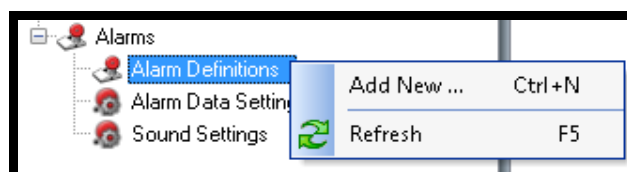
Create event in the right hand pane

Save settings by clicking on the  icon or pressing **ctrl+s**



Step 5:

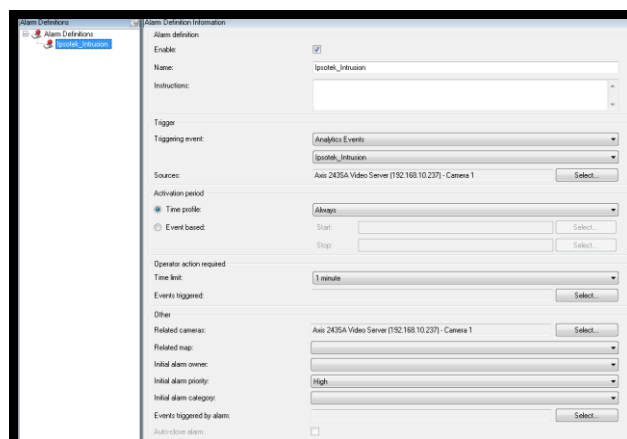
Navigate to **Alarm Definitions** under the **Alarms** menu in the left hand tree.
Right click to reveal the menu
Add a new Alarm Definition



Step 6:

Complete alarm definition information.

Please Note: Alarm definitions should be matched to their corresponding triggering event camera as previously set.



8.3.1 Creating Milestone Alarm Events for Multiple Cameras

In the earlier integration stages with Milestone Management server in which **Analytics Events, User-defined Events & Alarm Definition** were defined for each camera by a **unique name** for the triggering of alarms pushed from IPSOTTEK servers to the Milestone Smart Client.

Now Milestone have updated this feature in the Analytical and Alarm events since Milestone Management 2016, in which the alarm type can be created once and linked to several cameras. This feature will be shown in the steps below.

But before entering to new integration features, the requirements recommended for the integration are:

- Ipsotek VISuite 11.4.0 or later
- Milestone Management Server 2020 R2
- Milestone Smart Client 2020 R2 (64-bit)

8.3.1.1 Milestone User Defined Events

In the **User-defined Events**, an event can be created once instead of creating the same events multiple times for different cameras as shown in the **Figure 7** below:

- **Yellow highlight** - One Abandoned Object event has been created.
- **No highlight** – Abandoned Object events created for specific cameras.

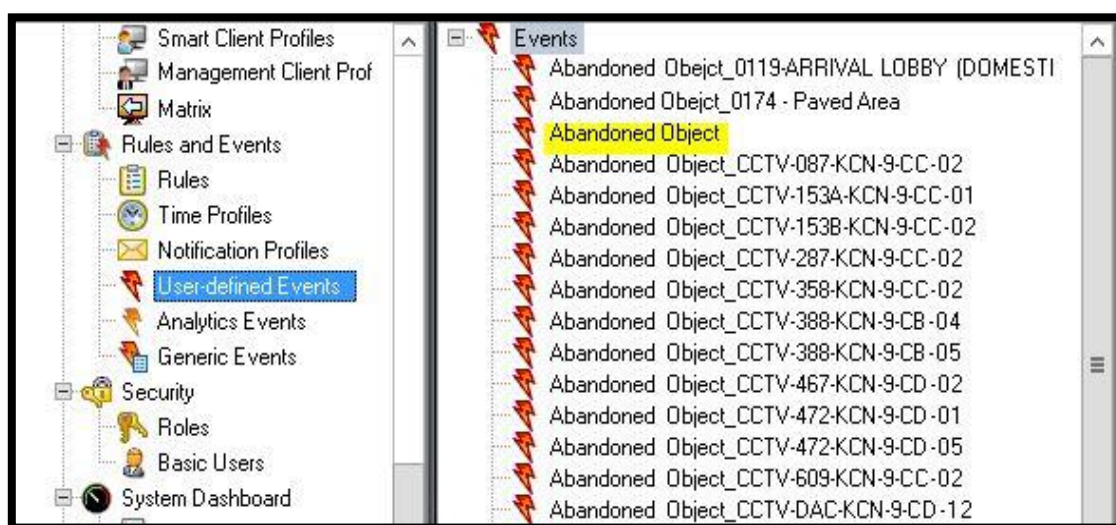


Figure 7: Milestone User Defined Event

8.3.1.2 Milestone Analytic Events

In the **Analytics Events**, an event can be created once instead of creating the same events multiple times for different cameras as shown in the **Figure 8** below:

- **Yellow highlight** - One Abandoned Object event has been created.
- **No highlight** – Abandoned Object event created for specific cameras.

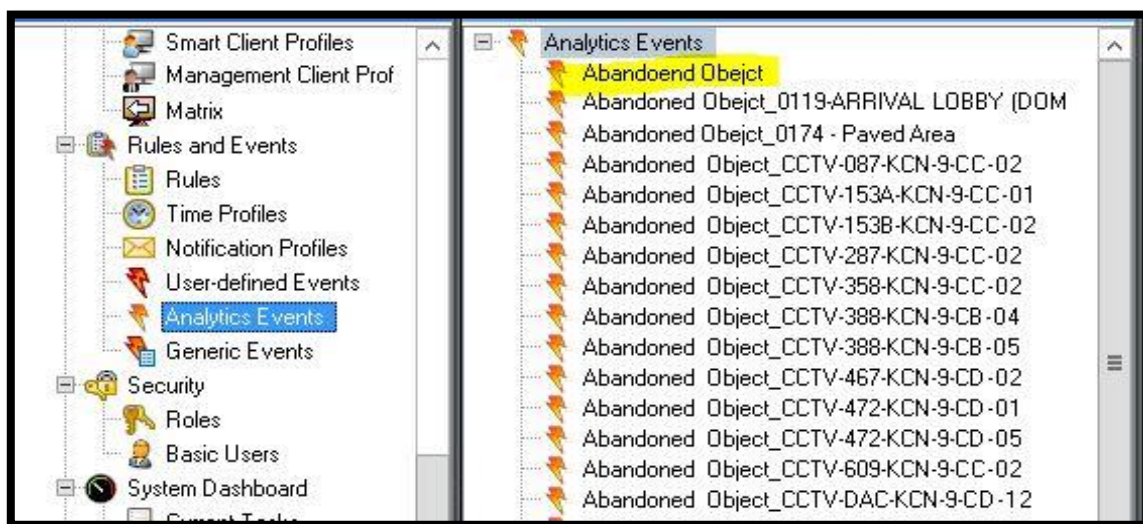


Figure 8: Milestone Analytic Events

8.3.1.3 Milestone Alarm Definition

In the **Alarm Definition**, an alarm can be created once instead of creating the same alarm 14 times for the 14 cameras as shown in the **Figure 9** below in **Yellow highlight**.

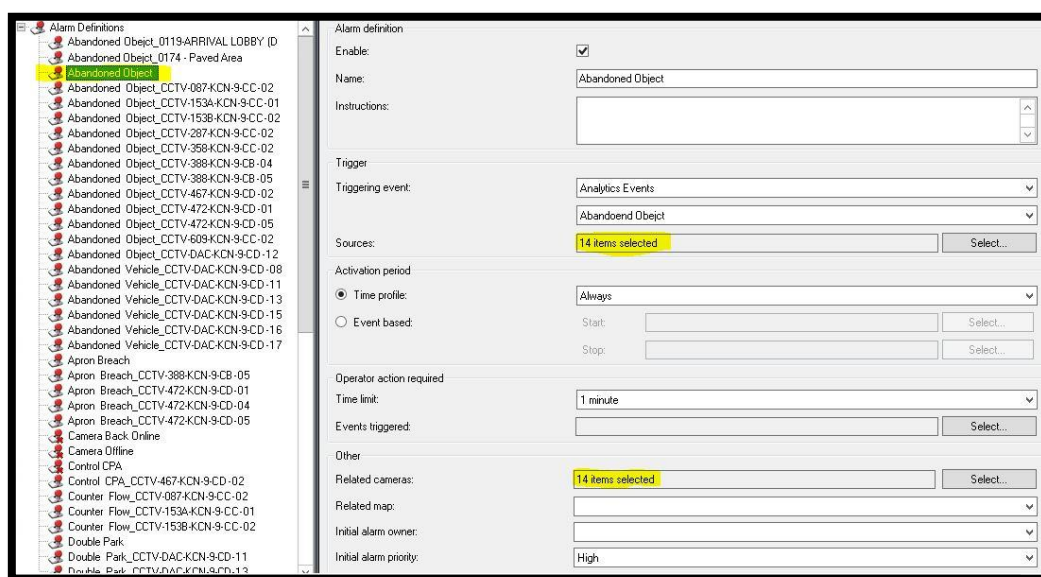


Figure 9: Milestone Alarm Definition

8.4 Ipsotek Alarm Configuration

The final step in the alarm configuration is linking the created alarm in ViConfigure to the alarms configured in Milestone XProtect Management Client. Refer to the *ViConfigure manual* for configuration of rules and actions in VISuite.



Figure 10: Rules page in ViConfigure with configured intrusion alarm

IMPORTANT NOTES

- Cameras and Alarms **must have the same name** in both the **AIVA Server** and **Milestone Server**.
- It is recommended that the Camera and Alarm names on the AIVA Server are reviewed to check consistency with the Milestone Server.

9. Example Interface Screenshots

9.1 Ipsotek Video Content Analysis Alarm in Smart Client

The images below show an Ipsotek Video Content Analysis alarm being raised in Milesone XProtect Corporate Smart Client 2020 R2.

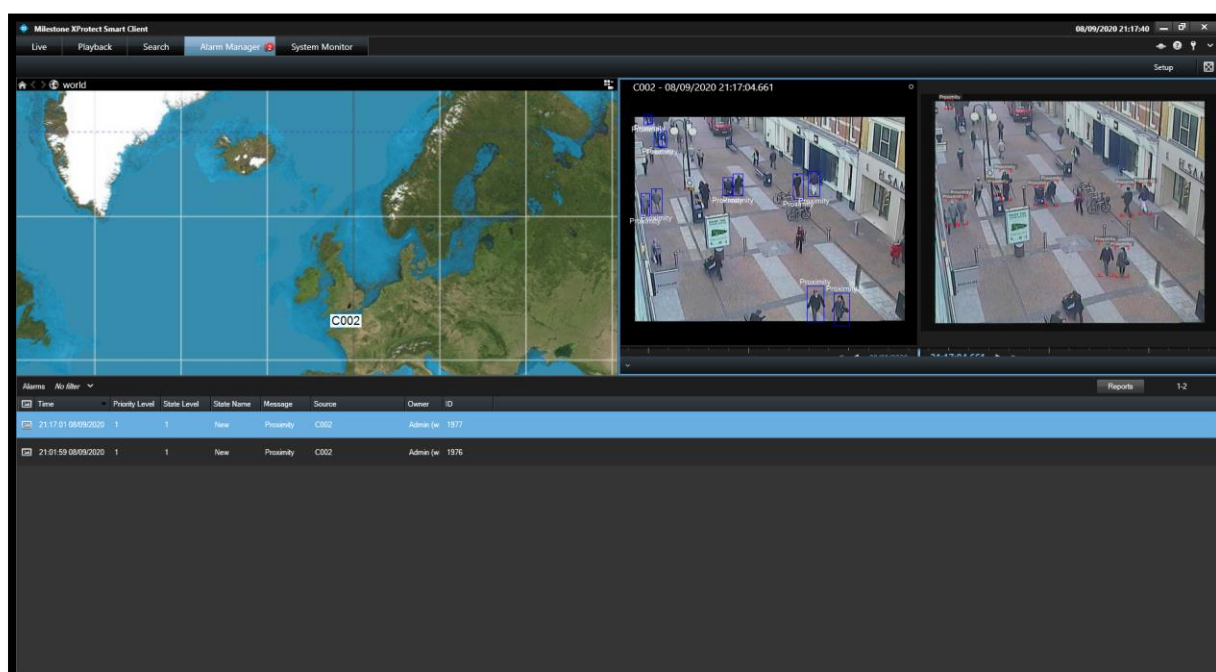


Figure 11: Ipsotek Alarm in Smart Client 2020 R2 with Metadata

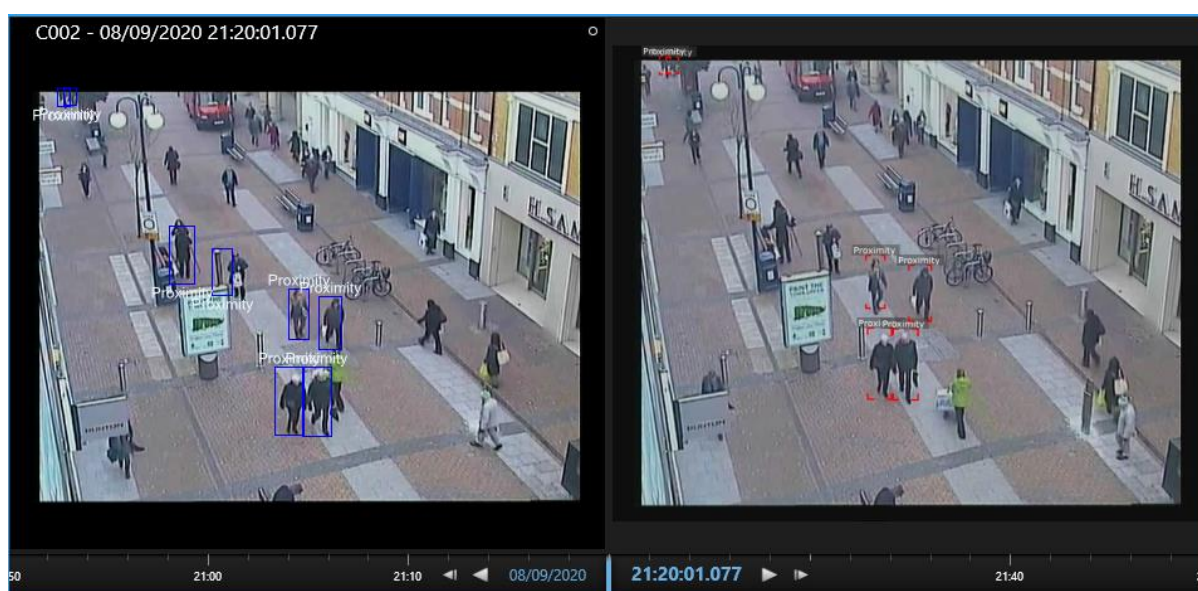


Figure 12: Close up of alarm video – left and snapshot – right.

10. Support

If you require technical support, please use the following details to contact us directly.

Support Telephone	+44 (0) 208 971 8301
Ipsotek Ltd Telephone	+44 (0) 208 971 8300
Support Email	support@ipsotek.com

11. General Information

If you have any further questions non-specific to the VI software, please use the following details below to contact one of our representatives.

Ipsotek Ltd Telephone	+44 (0) 208 971 8300
Ipsotek Ltd Fax	+44 (0) 20 8879 6031
Email	sales@ipsotek.com
Address	Ipsotek Ltd, PO Box 54055, London, SW19 4WE, United Kingdom.
Registered Address	Acre House, 11-15 William Road, London, NW1 3ER, United Kingdom.

**Company registered in England and Wales. Number
4272419.**