

VIT - Certified Integration Support Information

Made by Connex 9-19-2013



The Open Platform Company

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Introduction:

This integration support document is intended to serve as a technical reference for anyone who needs to install, configure, maintain or troubleshoot an integrated system which includes the systems listed below. To install and configure the included systems as standalone entities will require additional documentation and/or training. The details included herein are with respect to the requirements for executing successful system integration between Milestone and VIT. The contents of this document were accurate as of the date listed (9-19-2013), however the components of the integration are subject to change as new versions of the operating system, and software products are introduced.

Milestone SDK Usage:

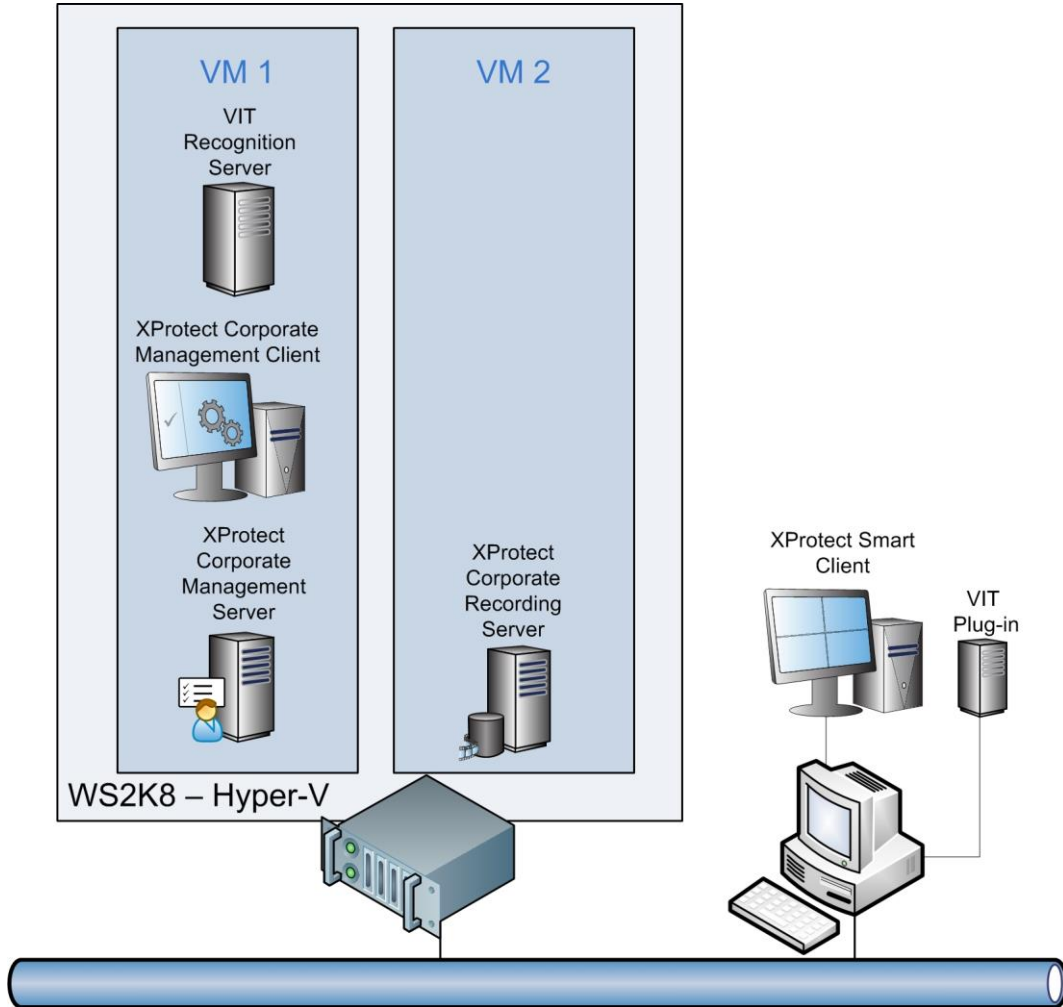
SDK Version	Integration Type
MIP SDK 3.0	Plugin and Component Integrations

Technical Requirements:

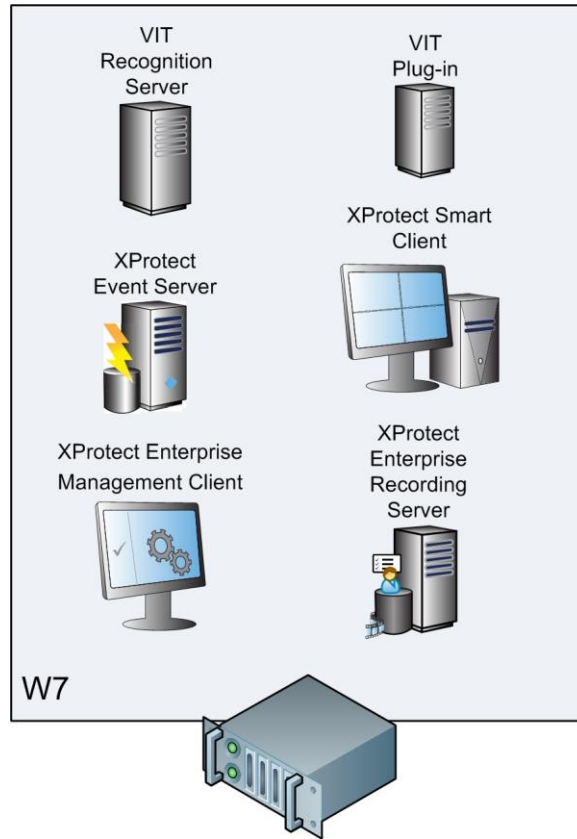
Tested Milestone Products	VIT Components	Client & Server Operating System	Network	Surveillance
<ul style="list-style-type: none">• XProtect® Corporate 2013 (6.0a)• XProtect® Enterprise 8.1a• XProtect® Smart Client 7.0b• XProtect® Smart Client 2013 (8.0a)	<ul style="list-style-type: none">• VIT Recognition Server 1.0• Analytic server 1.0 – 253606349• LPR 1.7 – 178807341• Configurator 2.1 – 252429917• Osammstone.dll required for non-European time stamp configuration	<ul style="list-style-type: none">• Tested to work on Windows XP, Windows 7 and Windows Server 2008	<ul style="list-style-type: none">• No special networking requirements listed.	<ul style="list-style-type: none">• No special video parameters or camera positioning requirements listed.

Integration Architecture:

XProtect Corporate:



XProtect Enterprise:



Outline of Execution for Integration:

1. Milestone:

- a. Install and configure Milestone XProtect VMS according to default practices.
 - i. Document the following data based upon the XProtect® product which is included in the integration

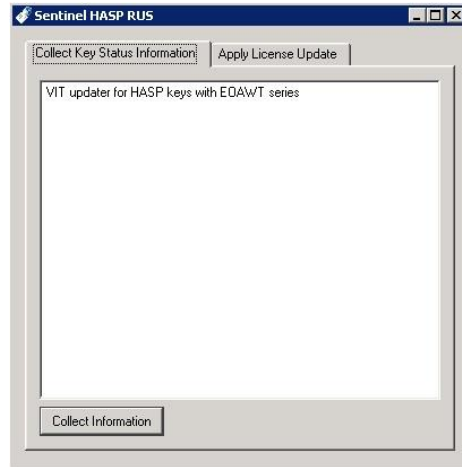
XProtect® Enterprise	XProtect® Corporate
IP address of Master Server	IP address of Management Server
Port Number for Image Server if modified beyond default port. (80 is default)	Authentication Type (Basic, Windows, or Windows (current user))
Authentication Type (Basic, Windows, or Windows (current user))	Username and Password
Username and Password	

2. VIT :

- a. Refer to the “Install Guide and Troubleshooting guide.pdf” document from VIT to determine the proper process for installation of the VIT components.
 - i. After installation of each of the three VIT components: the VIT Configurator module, VIT Analytic server, and VIT LPR module, it is advised to reboot the server.
 - ii. Open the Start menu, and navigate to the All Programs > VIT > LPR > Tools> Hasp Key Manager application and launch the application



- iii. On the “Collect Key Status Information” tab click the “Collect Information” button to create the .C2V file.



1. Email this file to VIT: key.management@vit.ua
 2. Indicate in your email to VIT if the operating system where the VIT Analytics server is hosted is a virtual machine, as this will change the type of license you will require.
- iv. Once you receive the .V2C file back from VIT, switch to the “Apply License Update” tab and click the “Apply Update” button to load the .V2C file



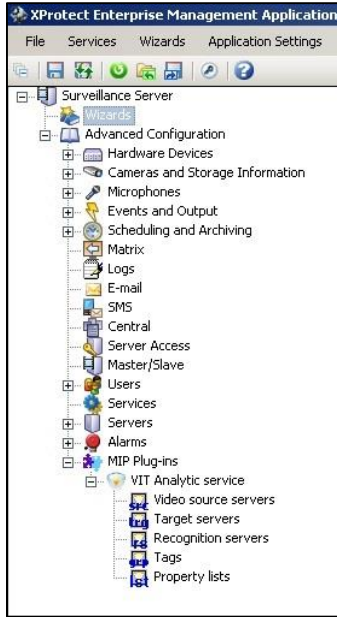
- b. Right click on the VIT logo in the service tray to open the context menu.
 - i. Verify that the “Start Analytic Server” option is unavailable
 1. If this text is grey, and cannot be selected, then the service started automatically.



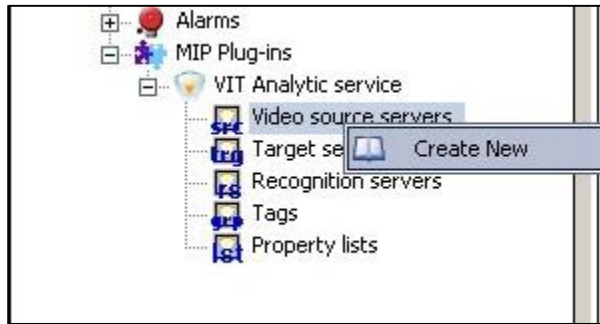
- ii. Choose the “Activate Manager” option from the context menu.
 1. Navigate to the XProtect tab on the left hand side of the VIT Analytic Server Manager window.
 2. Enter the IP address of the Management Server/Master Server which will be used for authentication, specify the port number if it has been changed from the default value (80), choose the authentication method, and enter the username and password required for authentication.



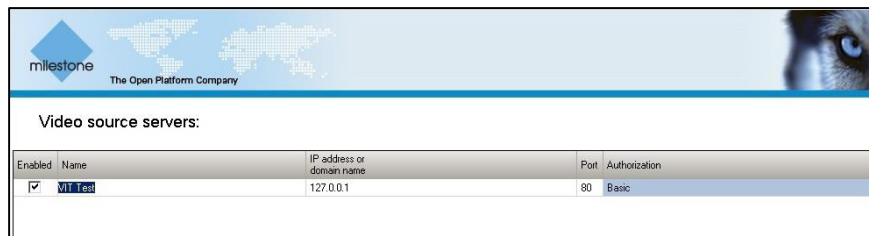
3. Click the “Load Configurations” button and verify that the “XProtect Server Connection Status” is connected.
 4. Save and Apply the configuration.
3. VIT MIP Plug-in within XProtect Management Client/Application:
 - a. Open the XProtect Management Client/Management Application.
 - b. Expand the MIP Plug-ins node on the directory tree on the left hand pane of the client.



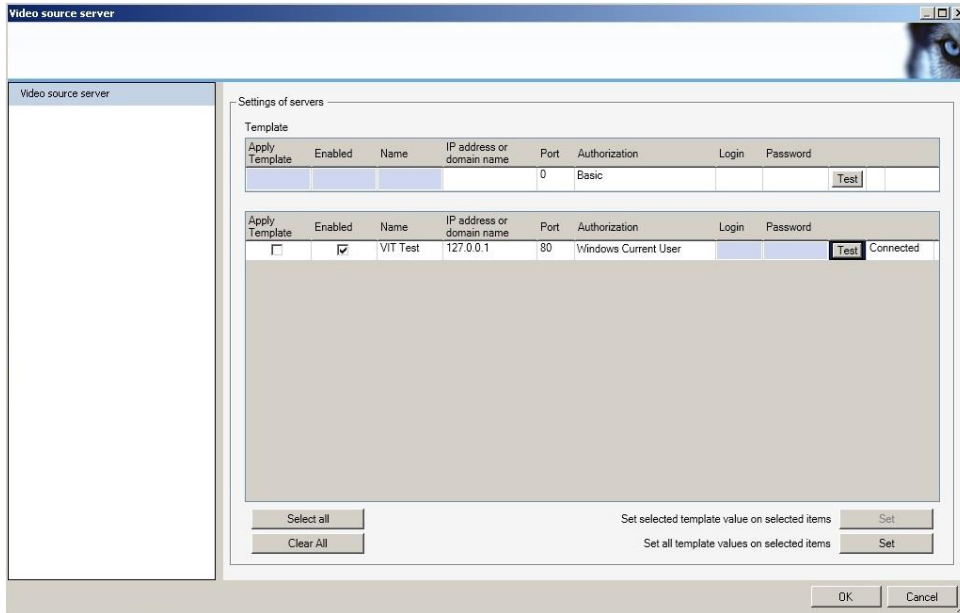
- c. Right click on the “Video source servers” node and select “Create New” from the context menu.



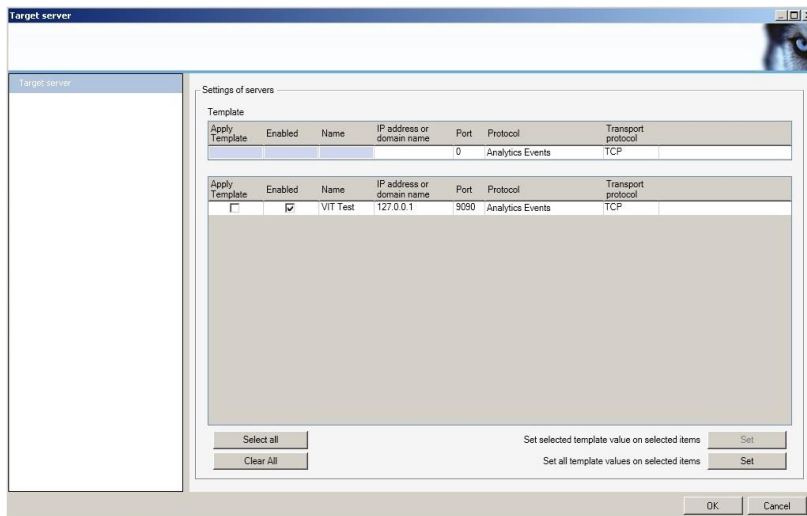
- i. Add a name for the Video source server.
- ii. Double click on the Video source server, which is created in the right hand pane of the client.



- iii. In the resulting window add the IP address of the Milestone XProtect Management Server, specify the port number, choose an authentication method, and enter the username and password required for authentication.
- iv. Click the “Test” button to verify the connection parameters are correct.

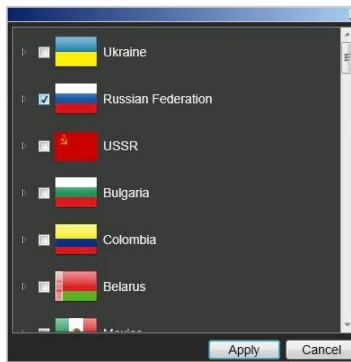


- v. Click “Ok” to save the settings.
- d. Right Click on the “Target Servers” node and select “Create New.”
 - i. Provide a name for the new Target Server.
- e. Expand the Target Servers node
 - i. Right click the newly created Target Server and select “Properties,” or double-click the new Target Server to launch the same menu.
 - ii. In the Properties of the Target Server enter the port number 9090, ensure that the IP address is the same as the XProtect Management Server/Master Server, and choose TCP as the protocol.



- iii. Click OK to save the configuration.
- f. Right Click on the “Recognition Server” node and choose “Create New.”
 - i. Name the new Recognition Server.

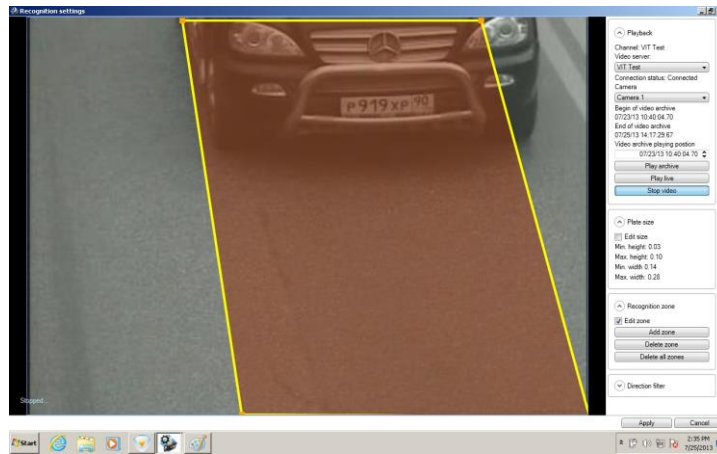
- g. Expand the Recognition Server node.
- h. Expand the newly created node which is named for the Recognition Server you created above.
 - i. Right click the “Channels” node and select “Create New.”
 - 1. Name the new Channel.
 - ii. Open the Properties menu of the newly created Channel by right clicking on the node and selecting “Properties” or by double-clicking on the entry created in the right hand pane of the Management Client/Application.
 - iii. In the “General Settings” tab, click the “Set” button under the “License Plate Types” category.
 - 1. Choose the license plate required for your location, and click the “Apply” button, on the license plate selection pop-up window.



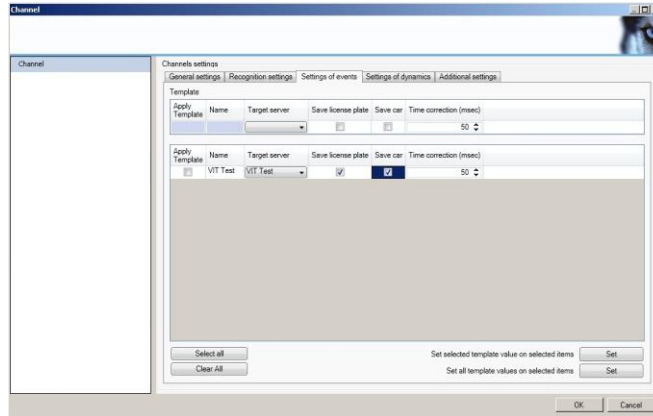
- iv. In the “Recognition settings” tab open the “Video Source Server” drop down menu and select the Source Server you created above. The system will automatically connect if everything is configured properly and the first camera in the system will automatically populate into the “Camera” drop down menu.
 - 1. Select the proper camera from the drop down menu.
- v. Click on the “Edit” button under the “Recognition settings” category.
- i. The resulting window will play video from the selected camera. Wait until a suitable license plate is captured in the video and click the “Stop Video” button.



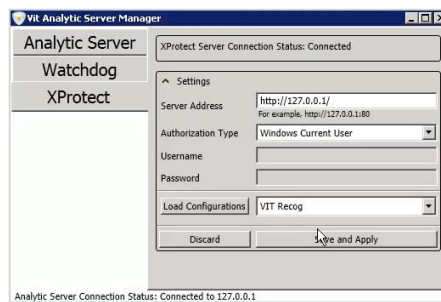
- j. In the Plate Size pane on the right hand side of the window fill the “Edit size” checkbox and a pair of orange and yellow rectangles will appear in the image. Size these rectangles by clicking and dragging the corners of each, so that the smaller yellow rectangle is at least 10% smaller than the smallest possible license plate you want to recognize, and the orange rectangle is at least 10% larger than the largest license plate you want to recognize.
 - i. There needs to be a difference between the small size and large size near 30%.
 - ii. The difference can be seen by comparing the min and max height and width values in the Plate Size pane.
 - iii. Uncheck the “Edit size” checkbox to save the settings



- k. In the “Recognition Zone” pane on the lower right hand side of the window, place a check in the “Edit zone” checkbox.
 - i. Click the “Add zone” button.
 - ii. Configure the zone by clicking and dragging the four corners of the rectangle which appears on the image. This area should cover the entire area of the image where the number plates or license plates will appear.
 - iii. Uncheck the “Edit zone” box to save the settings.
- l. Press the “Apply button on the bottom of the window to save all the recognition settings.
- m. Switch to the “Settings of events” tab.
- n. Choose the Event Server, populate both checkboxes and save the settings.

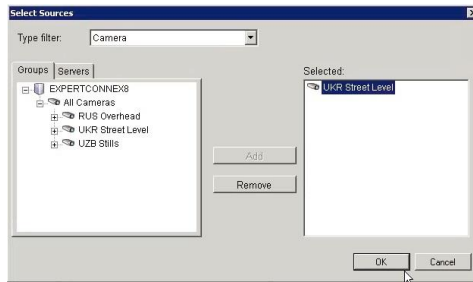


- o. Switch to the “Settings of dynamics” tab and verify that the “Profile” type matches the characteristics of the scene where you will be capturing license plates or number plates.
 - i. Refer to the Recognition servers (Enterprise).pdf – VIT Recognition Server: Recognition Servers Management document for more details on how to configure the Settings of dynamics tab and the “Additional settings” tab.
- p. Click the “OK” button to save the Channel Properties.
- q. Go back to the system tray and enter the VIT Analytic Server Manager.
 - i. Reload the configuration
 - ii. Save and apply.



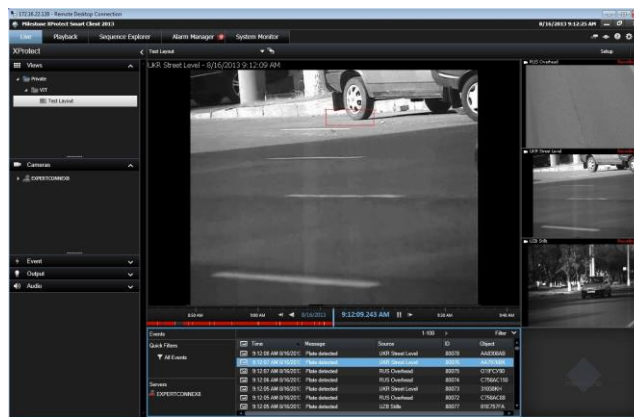
4. XProtect Alarm and Event Linking

- a. Refer to the “Milestone_MA_CONFIGURATION (Enterprise).pdf” entitled: VIT Recognition Server: Milestone MA Configuration. On pages eight through ten, the manual demonstrates the Analytics Event Configurations. Apply these configurations.
- b. Enable Analytics Events on the VMS through port 9090.
- c. Create Alarms which are triggered by each Analytics Event and associated to the camera which will be used to detect the license plates or number plates.
 - i. The source for the trigger of the alarms should be cameras.

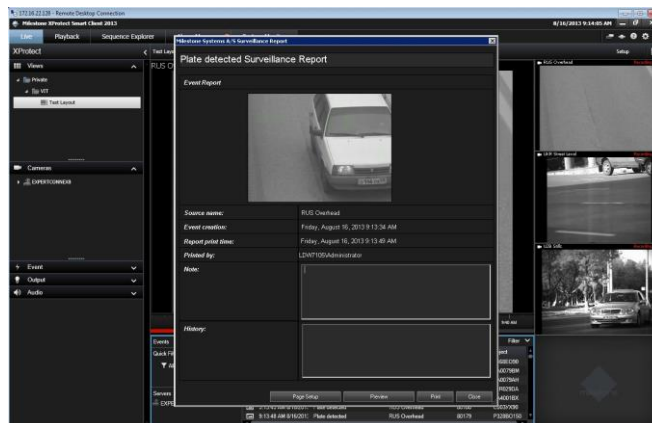


5. XProtect Smart Client:

- a. In the Setup mode of the XProtect Smart Client add the Alarm List item to a view in the Smart Client, also add the Alarm Preview item.
 - i. Switch the Alarm List to display Events instead of alarms.
 - ii. Return to Live mode.



- b. You will be able to click on individual detections, with the license plate numbers indicated in the Alarm List in the Object column.
 - i. Bounding boxes appear on the Alarm Preview pane to show where the plate was when it was “read” by the VIT Analytics Server.
- c. Right click an event and select “print” to view an image of the license plate.



Useful documentation:

- Install guide and troubleshooting.pdf (VIT Recognition Server Installation Guide)
- Milestone_MA_Configuration (Enterprise).pdf (VIT Recognition Server Milestone MA Configuration)
- Analytic Server. Analytic Server Manager.pdf (VIT Analytic Server Analytic server management)
- Recognition adjustment. Quick guide (Enterprise).pdf (VIT Recognition Server Recognition adjustment. Quick guide)
- Recognition servers (Enterprise).pdf (VIT Recognition Server Recognition Servers Management)
- Source servers (Enterprise).pdf (VIT Recognition Server Source Servers Management)
- Target Servers (Enterprise).pdf (VIT Recognition Server Target Servers Management)
- How_to_firmware_HASP_key.pdf (HASP key User guide)

General Troubleshooting:

- When integrating with the XProtect VMS in locations that use non-European timestamp mechanisms, after the installation you may need to add the “osammstone.dll” file to the following location on the Milestone machine:
 - C:\Program Files\VIT\AutoCode Milestone\aoorp
 - You can contact VIT to obtain this file if required

MSP Partner Support Details:

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- +38 044 585 48 42