Gateway Integration & Configuration Guide Milestone XProtect®

This Guide

This integration guide describes the steps for setting up and ensuring communication between the AnyVision Better Tomorrow, VMS Gateway, and Milestone XProtect®, a third-party video management system for IP surveillance.

Table of Contents

1. MILE	ESTONE VMS—ANYVISION: INTEGRATION OVER	RVIEW5
1.1.	About this Integration Guide	5
1.2.	Purpose and Scope	6
1.3.	Concepts, Terms, and Abbreviations	7
2. ABC	OUT THE VMS GATEWAY	8
2.1.	Capabilities	8
2.2.	2. Components	
2.3.	Architecture	9
2.4.	System Requirements	10
3. VMS	S INTEGRATION	12
3.1.	Process Flow	12
3.2.	Gateway and Management Setup	13
3.2	2.1. Installing the VMS Gateway	13
3.2	2.2. Installing Video Management Software	15
3.2	2.3. Connecting to the VMS Driver	25
3.3.	Importing Video for Analytics	25
3.3	3.1. Connecting to Live Video	25
3.3	3.2. Importing Forensic Video	28
3.4.	Managing Alarms	31
3.4	4.1. Confirming BT Communication with VMS	31
3.4	4.2. Configuring MIP Drivers	34
3.4	4.3. Monitoring System Activity	37
INDEX	(38



List of Tables

Table 1. Section Summary	ხ
Table 2. Concepts, Terms, and Abbreviations	7
Table 3. System Requirements	
List of Figures	
Figure 1. AnyVision VMS Gateway. System Architecture	10
Figure 2. Process Flow	13
Figure 3. VMS Gateway. Installation Screen	15
Figure 4. Windows Services. VMS Gateway (with Status as Running)	15
Figure 5. MongoDB Confirmation	16
Figure 6. Contextual Menu. Add Hardware	17
Figure 7. Management Client. Properties	17
Figure 8. VMS Gateway Configuration. Site Navigation	18
Figure 9. VMS Gateway Configuration. ONVIF Bridges	19
Figure 10. Management Client. Recording Servers	20
Figure 11. VMS Gateway Configuration. Adding Hardware	20
Figure 12. Add User. Set Credentials	21
Figure 13. Camera Hardware. Select Device Drivers	21
Figure 14. Hardware Devices. Associate IP Addresses	22
Figure 15. Hardware Devices. Associate Metadata Ports	22
Figure 16. Hardware Devices. Assign Devices to Groups	23
Figure 17. Metadata Definitions	24
Figure 18. Assign Metadata to Cameras	24
Figure 19. "Bounding Box" Providers List	25
Figure 20. AnyVision Configuration. Settings	27
Figure 21. AnyVision. VMS Settings	27
Figure 22. Select Camera Names	28
Figure 23. Import Cameras	28
Figure 24. Edit a Camera Group	29
Figure 25. AnyVision UI. Forensics View	30
Figure 26. AnyVision UI. Upload VMS Playback	30
Figure 27. AnyVision UI. Play Uploaded Video	31
Figure 28. AnyVision BT. Live Cameras view	33
Figure 29. Milestone Event Screen	34
Figure 30. Milestone Alarm Screen	34
Figure 31. Management Client. Navigation Pane	35



Figure 32. Management Client. Recording Servers	35
Figure 33. Management Client. MIP Driver Menu	36
Figure 34. Milestone XProtect. Live Panel	37



Important Notice

Copyright © 2019 AnyVision. All rights reserved.

The information specified herein constitutes proprietary and confidential information of AnyVision.

The information specified herein is provided solely for your internal use and you shall not disclose the Information to any third party. Unauthorized use or disclosure of such information would cause irreparable harm to AnyVision.

The information specified herein is provided "as is" and AnyVision makes no representations or warranties of any kind, express or implied, with respect to the information in this publication, and specifically disclaims implied warranties of accuracy, completeness, merchantability, title, non-infringement and/or fitness for a particular purpose.

AnyVision reserves the right to make changes in or to the said information, or any part thereof, in its sole judgment, without the requirement of giving any notice prior to or after making such changes to the information.

Use, copying and distribution of any AnyVision software described in this publication require an applicable software license.

All product names, logos and brands are property of their respective owners. All company, product and service names used in this website are for identification purposes only.

The AnyVision logo is a trademark of AnyVision.





1. Milestone VMS— AnyVision: Integration Overview

1.1. About this Integration Guide

VMS Gateway is an AnyVision component that enables Better Tomorrow to connect with third-party VMS clients and receive from them video for security monitoring and forensic analytics.

VMS stands for Video Management System. A VMS is a security camera component that collects video from cameras and various devices. A VMS records and stores video to storage devices, and provides an interface for viewing live video, while providing access to recorded video.

This guide describes the steps for integrating the three key components making up the VMS environment. Topics include:

- Installing the VMS Gateway and configuring the VMS client;
- Ensuring correct configuration of components and the ability to import video for analytics by Better Tomorrow (BT);
- Confirming that the VMS client, through the VMS GW, is able to send events to and alarms to AnyVision BT regarding recognition of faces.

VMS integration ensures that AnyVision Better Tomorrow, VMS Gateway computer, and Milestone XProtect® video management software are installed, configured, and able to communicate with one another. Once these components are integrated and configured, AnyVision BT can detect faces, enabling Milestone XProtect to issue alarms, generate events, and monitor security.

See Figure 1 in section 2.3, Architecture, for a high-level visualization of the above components.



IMPORTANT

This document illustrates and explains the full procedure for a fresh installation of video management system, end-to-end. If your VMS has already been configured, fully or partially, some of the procedures, steps, or parameter definitions might not be applicable.

1.2. Purpose and Scope

This guide describes how to install the VMS Gateway and Milestone XProtect video management software and configure AnyVision Better Tomorrow to communicate with third-party video cameras. Here is a brief summary of what you'll find in the sections that follow.

TABLE 1. SECTION SUMMARY

Section 2, About the VMS Gateway	Describes the capabilities, components, and architecture of AnyVision's VMS Gateway, and prerequisite steps to ensure a smooth integration process
Section 3, VMS Integration	
Section 3.1, Process Flow	Provides a workflow walking you through the end-to-end VMS integration process
Section 3.2, Gateway and Management Setup	Describes Gateway and video management software installation, ensuring ANV-client connectivity, and configuring the VMS Gateway
Section 3.3, Importing Video for Analytics	Describes how to configure AnyVision BT, including server settings, and camera selection for live video and forensic import
Section 3.4, Managing Alarms	Describes how to validate integration by sanity checking that live image display occurs in the third-party VMS, that BT can communicate with VMS, and that VMS can issue alarms



1.3. Concepts, Terms, and Abbreviations

Familiarity with the terms, concepts, and abbreviations appearing below could prove useful in helping ease the process of performing integration of AnyVision Better Tomorrow, VMS Gateway, and third-party video management products.

TABLE 2. CONCEPTS, TERMS, AND ABBREVIATIONS

Term, Concept, or Abbreviation	Meaning
ANV	AnyVision
API	Application Programming Interface
ВТ	Better Tomorrow. AnyVision's tactical application for facial recognition that enables detecting, identifying, and obtaining real-time alerts about POIs
GW	Gateway
MIP	Milestone Integration Platform
POI	Person of Interest
RTSP	Real Time Streaming Protocol
SDK	Software Development Kit
V2C	Vendor to Customer
VMS	Video Management System



2. About the VMS Gateway

This section introduces the VMS Gateway in detail, describing its:

- Capabilities (see section 2.1);
- Components (see section 2.2);
- Architecture (see section 2.3);
- System Requirements (see section 2.4).

Taking care to ensure all the items above are in place, from the outset, can best ensure a smooth integration process.

2.1. Capabilities

AnyVision VMS Gateway features the following capabilities. The VMS GW facilitates:

- Importing a list of cameras from the video management software; the BT dashboard displays these devices for selection.
- Obtaining camera names from the VMS, enabling integration engineers and security personnel to identify particular devices in the third-party video management software.
- Receiving video from selected cameras, enabling facial analysis by BT.
 - Live video: interpreting real-time video received by BT from cameras deployed in live surveillance environments;
 - Forensics: analyzing pre-recorded video transferred offline from the VMS to AnyVision BT, based on a specified camera and date-time range.
- Sending events to the VMS. For instance, facial alarms and alert messages triggered by identification of POI in a live video stream, or in playback of offline video.



2.2. Components

The key components operating in the VMS Gateway environment are the following:

- AnyVision Better Tomorrow, running on Ubuntu version 18.04 (BT version 1.20 or later);
- VMS Gateway, running on Windows 10 Professional and Enterprise editions (English only);
- · Milestone XProtect, video management software.

2.3. Architecture

Figure 1 below depicts AnyVision VMS Gateway's architecture, and the exchange of data between the system's components.

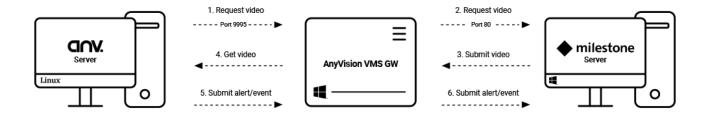


FIGURE 1. ANYVISION VMS GATEWAY. SYSTEM ARCHITECTURE

The following describes the process flow depicted above. Numbers relate to the steps indicated in the flow.

- AnyVision BT Server contacts, via port 9995 and AnyVision API, AnyVision VMS Gateway, with a request for video (live or forensic).
- 2. AnyVision VMS Gateway, via port 80 and 3rd party API, passes that request along to Milestone XProtect.
- 3. Milestone XProtect, through the inverse pathway, returns the video to the AnyVision VMS Gateway.
- 4. The AnyVision VMS Gateway passes that video to AnyVision BT for analysis.



- 5. When a face is detected (recognized or unknown), AnyVision BT declares an event and informs the AnyVision VMS Gateway. The information contained in this event is based on data received from cameras and 3rd party security management software.
- The AnyVision VMS Gateway passes POI alert information to Milestone XProtect.

The VMS Gateway is a service provided by AnyVision. Ordinarily, VMS Gateway runs on the VMS computer. However, occasionally, a third-party might choose to deploy the VMS Gateway on a separate, dedicated machine.

2.4. System Requirements

Table 3, below, covers prerequisites, software, applications, and configuration that must be in place for AnyVision VMS Gateway to install, launch, and function together with Milestone XProtect. These include the following component categories:

- AnyVision BT
- Client hardware and infrastructure
- Client software and VMS

Before getting started with the VMS integration, be sure these requirements, as well as the proper versions, are in place.

TABLE 3. SYSTEM REQUIREMENTS

Category	Component/ Prerequisite	Versions	Remarks
AnyVision	Microsoft Visual C++ installation	2010 Redistribution Package (x86)	 Essential for installation of the VMS GW service! The GW can be installed on the VMS computer, or on a dedicated machine. The installation pack is available by Internet download.
	BT Dashboard	1.20+	Access available via AnyVision Support.
	Milestone VMS GW installation file: VMSGateway.Setup	Milestone 1.7.8+	Access available via AnyVision Support.
	Ubuntu	18.02	



Category	Component/ Prerequisite	Versions	Remarks
Client Hardware and Infrastructure	Cameras	Various, depending on manufacturer.	 All cameras deployed in the system must connect directly to the VMS, not from behind a VPN or via an alternative means of connection. All cameras in the VMS environment must have an identical username and password.
Client Software	VMS	2017 R3	The correct OS and client SDK
and VMS			versions are essential for installing, configuring, and
	MIP SDK installation	2017	operating Milestone XProtect software in a VMS GW environment.
			Make certain that proper versions
	Milestone license	Contact software vendor	are installed.Other versions might not work for Milestone VMS!
	ONVIF Bridges	2017	
	Windows	Win10 OS PRO, English only	



3. VMS Integration

3.1. Process Flow

What follows in Figure 2, below, illustrates at an abstract level the activities a security integration engineer performs when setting up AnyVision's VMS Gateway environment. The different colors indicate the particular components—or combination of components—involved in each step of the process.

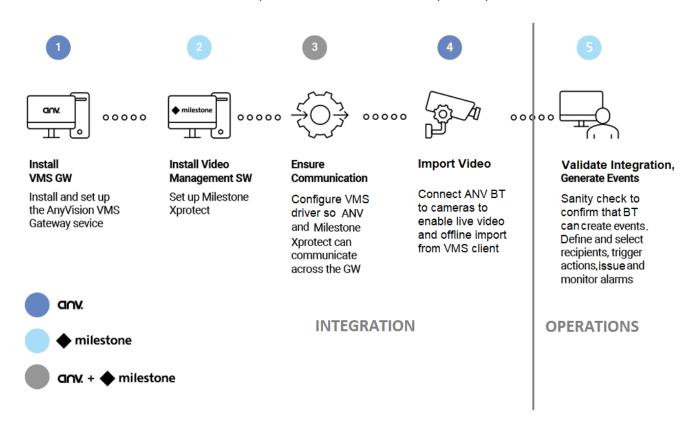


FIGURE 2. PROCESS FLOW

For instructions on installing and configuring the end-to-end VMS and validating the integration, read the following sections.

- Installing the Gateway (see section 3.2.1);
- Installing security and video software (see section 3.2.2);
- Configuring the VMS driver (see section 3.2.3);
- Adding cameras and connecting to live video (see section 3.3.1);



- Transferring offline video for forensic analysis (see section 3.3.2);
- Validating integration and monitoring system activity (see section 3.4).

3.2. Gateway and Management Setup

Setting up the VMS Gateway and security management software takes place on the VMS computer. This involves the following activities:

- Installing the VMS Gateway (see section 3.2.1);
- Installing security management software (see section 3.2.2);
- Configuring the VMS driver (see section 3.2.3).

3.2.1. Installing the VMS Gateway

This sub-section explains how to install and set up the AnyVision VMS Gateway Service. Note that this procedure will also install Mongo DB on your system.

Note: The VMS Gateway can be installed on the same computer as the VMS security client software, or on a separate machine. The procedure detailed below covers both scenarios.

To install the gateway service:

- 1. Obtain access to the AnyVision VMS Gateway installation file by contacting your AnyVision Support representative. Request the executable (EXE) file.
- 2. Run the file VMSGateway.Setup.exe.

This step requires Administrator permissions. To gain access, go to **Services**, right-click on **VMS Gateway**; then, in the popup menu, choose **Administrator**.



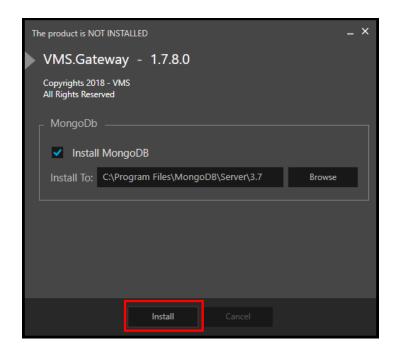


FIGURE 3. VMS GATEWAY. INSTALLATION SCREEN

The VMS Gateway installation opening screen is displayed.

Note: If MongoDB is already installed on the VMS Gateway computer, then remove selection from the MongoDB checkbox.

- 3. Click Install.
- 4. In both of the setup screens that follow, click Next.
- Once installation has completed successfully, in Windows, open Services.
 Access this facility by clicking the Windows button, scrolling down the Start menu, and selecting Windows Administrative Tools > Services.

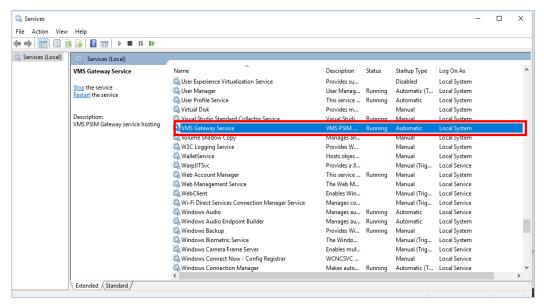


FIGURE 4. WINDOWS SERVICES. VMS GATEWAY (WITH STATUS AS RUNNING)



Note: The above step requires administrator permissions. To gain access, rightclick on VMS Gateway; in the popup menu, choose **Run as Administrator**.

- 6. Check whether a VMS Gateway service is running. If the service is not running, then start it by right-clicking, and in the popup menu, choosing **Start**.
- 7. Check to see whether MongoDB service is running. Perform this step by running the following URL in your browser: **127.0.0.1:27017**.



FIGURE 5. MONGODB CONFIRMATION

8. Confirm that the following expression is displayed in the browser:

"It looks like you are trying to access MongoDB over HTTP on the native driver port."

9. Verify that the firewall is inbound, and that Outbound Rules for **port 9995** is open.

Note: The method for performing this test differs between devices.

3.2.2. Installing Video Management Software

This sub-section explains how to install and set up Milestone XProtect video management software, and how to ensure it integrates with AnyVision BT. This involves:

- Adding video cameras (see section 3.2.2.1);
- · Creating an ONVIF Bridge User (see section 3.2.2.2);
- Configuring metadata sources (see section 3.2.2.3);
- Assigning metadata ports (see section 3.2.2.4).



3.2.2.1. Adding Video Cameras

This sub-section explains how, in the Milestone XProtect Management client, to add video cameras.

To add video cameras:

- 1. In the Milestone XProtect Management client, open the recording server contextual menu.
- 2. Click Add Hardware.

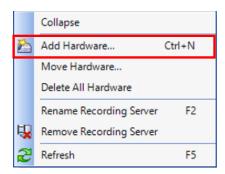


FIGURE 6. CONTEXTUAL MENU. ADD HARDWARE

3. For each camera you wish to add, fill out the relevant information in the appropriate fields in the Properties pane.

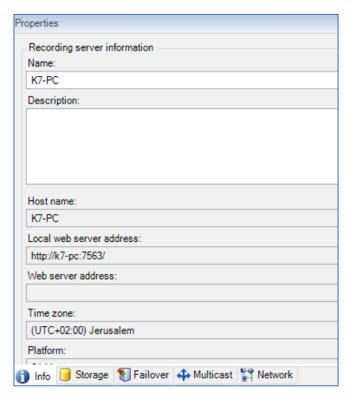


FIGURE 7. MANAGEMENT CLIENT. PROPERTIES

Once you have added the cameras, the next stage is to create an ONVIF Bridge user.



3.2.2.2. Creating an ONVIF Bridge User

Setting up ONVIF Bridges is part of installing Milestone XProtect.

To install and set up Milestone XProtect:

- 1. Run installations for the following programs:
 - MIPSDK;
 - ONVIF BRIDGES.

Note: The installation process differs among various devices.

- 2. In the Management Client application, create a new ONVIF Bridges user.
 - a. In the Site Navigation pane, select ONVIF Bridges.

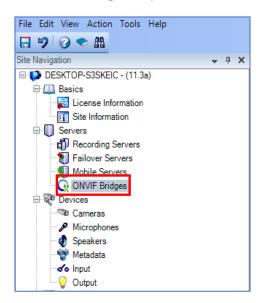


FIGURE 8. VMS GATEWAY CONFIGURATION. SITE NAVIGATION



- b. In the **ONVIF Bridge Information** pane, fill in the following user information; then, click **Add User**.
 - Username = Admin;
 - Password = 1234.

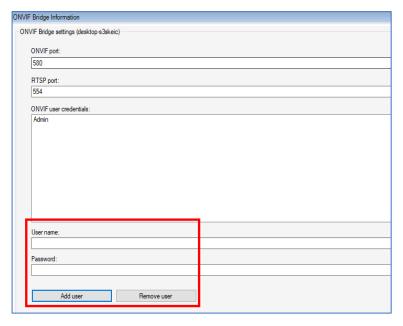


FIGURE 9. VMS GATEWAY CONFIGURATION. ONVIF BRIDGES

Note: If you wish to modify the above values, be sure to do so in the VMS Gateway configuration file.

Once the ONVIF Bridge and user information are in place, the next step is to add and configure metadata sources.

3.2.2.3. Configuring Metadata Sources

Adding and configuring metadata sources enables detection overlays in surveillance images, and enables receiving events from AnyVision BT.

For each camera operating in the Milestone XProtect ecosystem, metadata configuration involves adding and initializing metadata hardware, and associating MIP drivers with metadata ports.

Notes:

Only after all the cameras have been added, as described in the sub-sections above, can you configure the metadata for hardware devices.

Before you perform this procedure, make sure the AnyVision Gateway hosting service is running.



To configure metadata:

- 1. Launch the Milestone XProtect Management client.
- 2. Make sure the AnyVision Gateway hosting service is running.

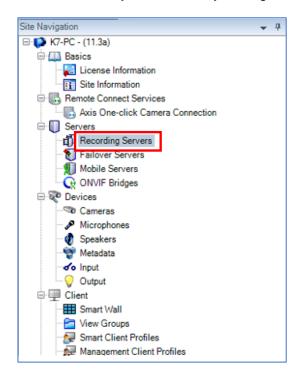


FIGURE 10. MANAGEMENT CLIENT. RECORDING SERVERS

3. In Site Navigation, right-click Recording Servers and choose Add Hardware.

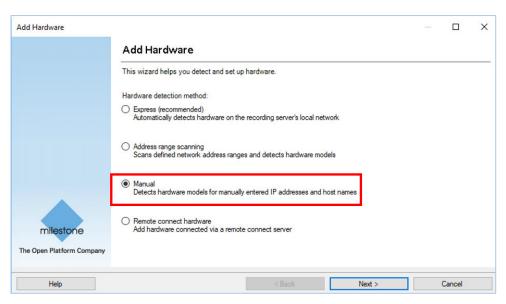


FIGURE 11. VMS GATEWAY CONFIGURATION. ADDING HARDWARE

- 4. In the Add Hardware wizard, select Manual; click Next.
- 5. Add a user with the following credentials (use the MIP password):



- User = admin;
- Password = 1234.

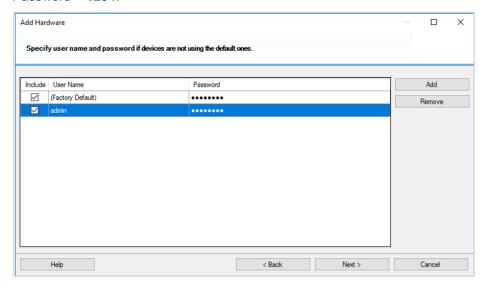


FIGURE 12. ADD USER. SET CREDENTIALS

- 6. Click Next.
- 7. For the various camera hardware devices, select drivers. In the drivers list, select the **MIP Driver** (only).

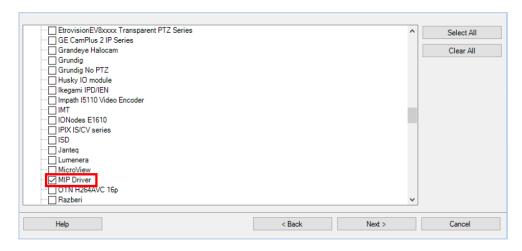


FIGURE 13. CAMERA HARDWARE. SELECT DEVICE DRIVERS

- 8. Click Next.
- 9. For the various hardware devices, associate the relevant IP address and port **52123**; click **Next**.



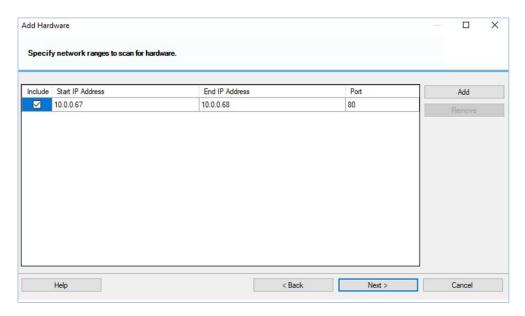


FIGURE 14. HARDWARE DEVICES. ASSOCIATE IP ADDRESSES

10. Select all relevant metadata ports (one per camera); click **Next**.

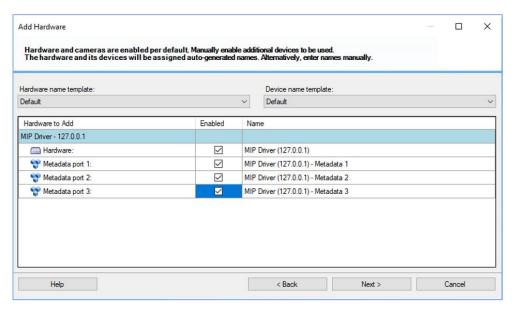


FIGURE 15. HARDWARE DEVICES. ASSOCIATE METADATA PORTS



11. Assign the hardware devices to a group; click **Finish**.

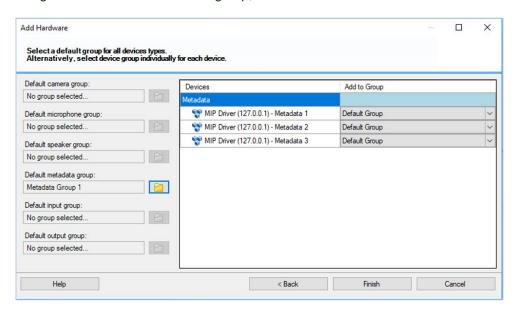


FIGURE 16. HARDWARE DEVICES. ASSIGN DEVICES TO GROUPS

When the wizard has completed, you then need to assign a metadata port to a camera, as a one-to-one relationship.

3.2.2.4. Assigning Metadata Ports

Once you have configured the system's camera metadata, go ahead and assign metadata ports to cameras.

To assign metadata ports:

1. Return to Site Navigation and create a new camera group; add to that group the camera(s) you defined above (see section 3.2.2.3, above).



2. In **Management Client Application**, add hardware metadata (with user = admin, password = 1234).

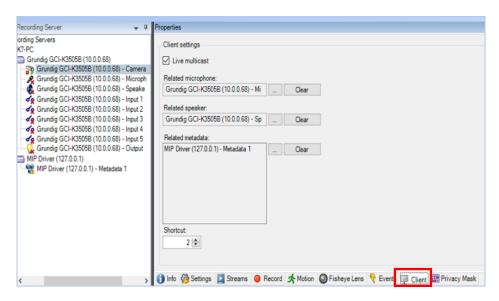


FIGURE 17. METADATA DEFINITIONS

3. Click the **Client** button; under **Related Metadata**, declare metadata (MIP driver) definitions for the various cameras.

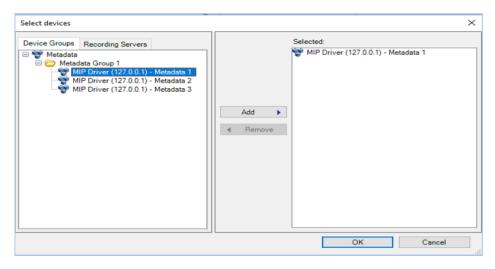


FIGURE 18. ASSIGN METADATA TO CAMERAS

4. Add Metadata 1 and assign it to Camera 1; click OK.

For each camera, repeat steps 3 and 4, above.

5. To request service, use the camera's unique identifier, for instance: Camera 1 = Grundig GCI-K3505B (10.0.0.68).



6. Start the smart client and choose the relevant camera. In setup mode, verify that bounding boxes are enabled, and that the new metadata device is present in the "Bounding Box" Providers list.

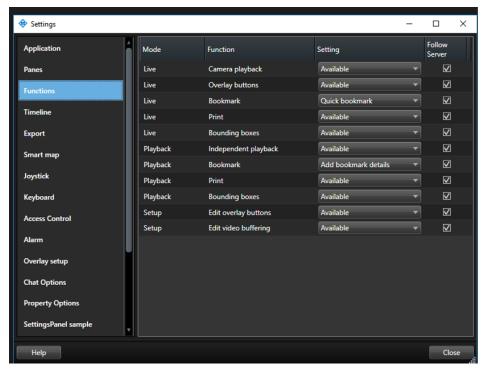


FIGURE 19. "BOUNDING BOX" PROVIDERS LIST

Assuming all the above steps in this section have been performed successfully, the Milestone XProtect client will display all the cameras tracked by AnyVision BT. These include detection bounding boxes and generated events.

Once the security management software is installed, continue to the next section to ensure connection with the VMS Gateway driver.



3.2.3. Connecting to the VMS Driver

With connectivity now established, you can go ahead and ensure connection with the VMS driver.

To connect to the VMS driver:

1. Connect to the VMS driver by accessing the following location: http://localhost:9995/VMS.Gateway/Connect.

In response, the VMS driver provides a token.

- 2. Using the token provided by the VMS driver, issue additional requests to the driver.
- 3. Once the original token has expired, acquire an additional token by reconnecting to the VMS driver, as per step #1, above.

3.3. Importing Video for Analytics

There are two key aspects to communication between AnyVision BT and the VMS client:

- Connecting to live video (see section 3.3.1);
- Transferring offline video from the VMS to AnyVision BT (see section 3.3.2).

For both the live and offline scenarios, you acquire video in AnyVision BT via the settings window.

3.3.1. Connecting to Live Video

The procedure below explains how to configure AnyVision BT settings and select cameras for live video import.

To select cameras for live video import:

1. In AnyVision BT, click the **Configuration** () icon to open the **Settings** window.



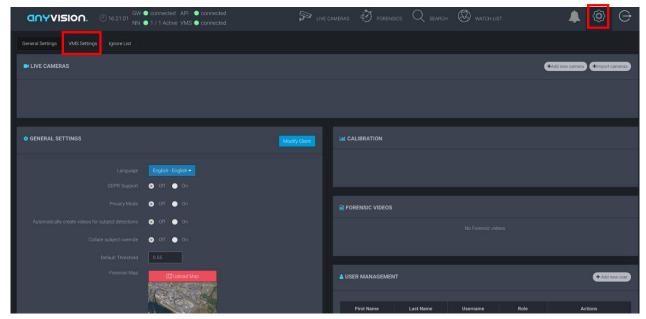


FIGURE 20. ANYVISION CONFIGURATION. SETTINGS

2. Toward the top of the screen, click the VMS Setting tab.

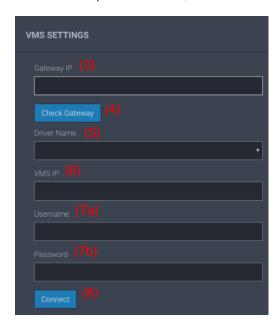


FIGURE 21. ANYVISION. VMS SETTINGS

The Gateway IP is an internal interface that communicates with the SDKs of third-party VMSes.

- 3. In the **Gateway IP** field, enter the IP address of the VMS Gateway (as described in the procedure covered in section 3.2.2.3). This field is essential for enabling a 3rd-party VMS to communicate with the VMS Gateway.
- 4. Click **Check Gateway** to ensure connectivity.

If the VMS provider, in this case, Milestone, appears among the options in the Driver Name menu, a working connection is in place.



- 5. In **Driver Name**, open the menu and select the name of the driver to which you would like to connect. In this case, choose **Milestone**.
- 6. In VMS IP, specify the IP address of the VMS Gateway.
- 7. In the remaining fields, enter the VMS' **Username** and **Password**.
- 8. To connect with the VMS using the values you specified, click **Connect**.

A list of cameras associated with the selected VMS is displayed.

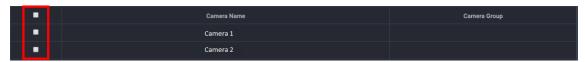


FIGURE 22. SELECT CAMERA NAMES

9. For each camera you wish to add to your system, select the corresponding checkbox and click **Import Cameras**.



FIGURE 23. IMPORT CAMERAS

10. Select the **Camera Group** and **Pipe**.

Note: Camera groups are defined in BT, where unique settings are assigned to parameters, per group.

11. In the Import Cameras dialog, click Import.

For the cameras belonging to a camera group, parameters are set in VMS. Once you import a camera group, those parameters are transferred to BT, where they will be available for selection.

BT generates new cameras with the relevant parameters of those cameras imported from the VMS. These parameters include camera name, RTSP URL, username and password. The remaining parameters use default parameters.

You edit the parameters of new cameras in General Settings.

- 12. Toward the top of the AnyVision Settings screen, click the **General Settings**
- 13. Review the settings of the recently added cameras by selecting a camera group and clicking its corresponding **Edit** button.



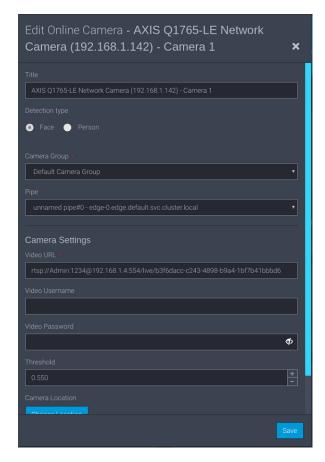


FIGURE 24. EDIT A CAMERA GROUP

Your system is now ready to detect faces and, when appropriate, generate alarms to notify security monitors regarding persons of interest!

3.3.2. Importing Forensic Video

Through the Milestone UI and AnyVision BT dashboard, you can request video residing in the VMS for analysis and interpretation. Through the import of offline video from the VMS, AnyVision BT can perform forensic investigation functions on the captured video.

To transfer offline video:

- 1. In the client UI, go to the playback view, select a camera, and pick a starting point in the video timeline.
- 2. Begin playing the video.
- 3. In AnyVision BT, click FORENSICS.



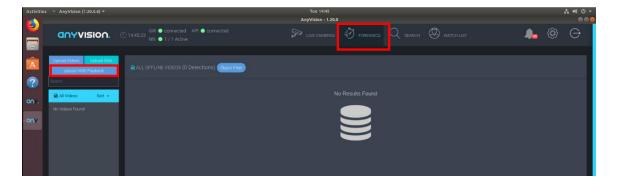


FIGURE 25. ANYVISION UI. FORENSICS VIEW

4. In the left-side navigation pane, click **Upload VMS Playback**.

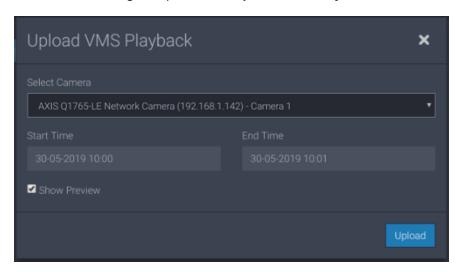


FIGURE 26. ANYVISION UI. UPLOAD VMS PLAYBACK

- 5. Open the **Select Camera** menu and choose a video camera.
- 6. Click on the **Start Time** field; from the calendar, select a starting date, and then, from the list of available times, click your start time selection.
- 7. From the **End Time** field, do the same as described in step #6 for your ending date and time.
- 8. Click Upload.

The selected segment uploads to AnyVision BT, which inspects the imported video. BT scans for faces and generates alerts, which it submits to the client VMS.

A preview window is displayed.



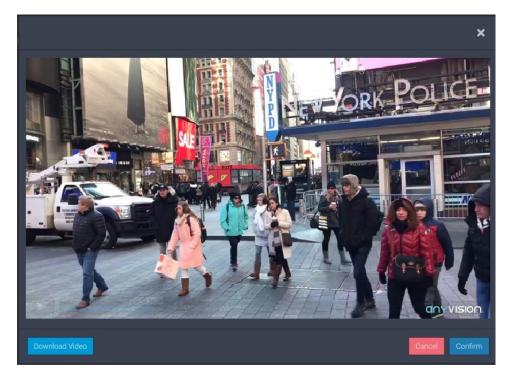


FIGURE 27. ANYVISION UI. PLAY UPLOADED VIDEO

- 9. To save the selected video segment to AnyVision BT, click Confirm.
 - Alternatively, to remove the video segment, click Cancel.
- 10. If you wish to save the video segment to the computer's desktop, click **Download Video**.

Your system is now ready to perform forensic analysis of recorded video! Continue to section 3.4 to generate alarms.



3.4. Managing Alarms

This section explains how to validate integration by sanity checking that the three components—BT, VMS GW, and VMS client—are installed, properly configured, and connecting to video. This validation step is performed by setting up alarms and issuing alarms using the VMS client.

Alarm management includes configuring MIP drivers. Correct MIP driver settings are necessary in order for the VMS client to communicate with AnyVision BT through the VMS Gateway. Once MIP support is in place, you can verify image display and begin managing alarms with Milestone XProtect. The following topics are covered:

- Confirming BT communication with VMS (see section 3.4.1);
- Configuring MIP drivers (see section 3.4.2);
- Monitoring System Activity (see section 3.4.3).

3.4.1. Confirming BT Communication with VMS

Once you have verified that BT can import live stream and forensic video from VMS, you can confirm that BT is issuing to VMS AI regarding facial identification.

When VMS receives intelligence from BT with regard to identified faces (recognized and unknown), BT could prompt an event. That BT event appears, in the VMS UI, as an alarm or event in the VMS UI.

This sub-section describes how to confirm that BT is communicating with VMS and providing actionable information in the manner of Al-prompted events.

To confirm BT-VMS communication:

1. In AnyVision BT, open the Live Cameras view.



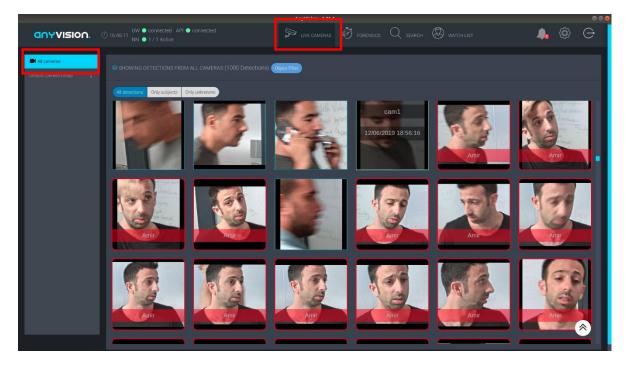


FIGURE 28. ANYVISION BT. LIVE CAMERAS VIEW

2. In the navigation pane, select **All Cameras**.

Alternatively, select a Camera Group, or in the main window, use the Object Filter and buttons to limit the display of facial detection to a subset of cameras.

When BT detects a face, it issues an event to the VMS containing a description of the POI. An event contains the following fields:

- Name
- Class
- Type
- Suspect ID
- Suspect Group ID
- Message
- Time
- 3. Open the **Smart Client** application.
- 4. Click on the Alarm Manager tab.
- 5. Point your mouse to the bottom of the window and click; then choose **Setup**.



6. Choose Alarm or Event.

The Milestone XProtect UI displays an image similar to the following:

For an event:

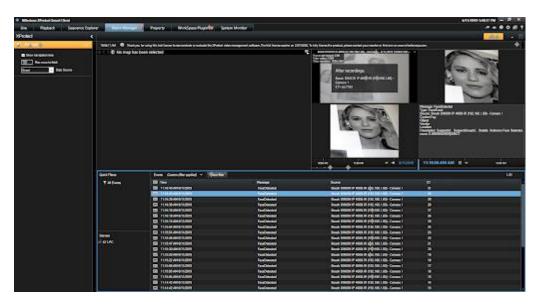


FIGURE 29. MILESTONE EVENT SCREEN

For an alarm:

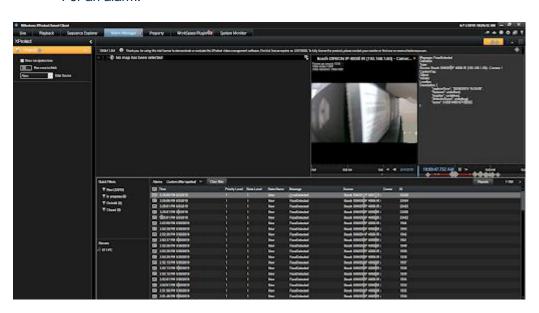


FIGURE 30. MILESTONE ALARM SCREEN

Now that you have confirmed BT is issuing AI-prompted events to the VMS, you can go ahead and manage those events and alarms using the VMS UI.

Refer to Milestone documentation for instructions on monitoring live system activity, managing alarms, and playing back incidents. The sub-sections that follow describe how to configure MIP drivers and set alarms.



3.4.2. Configuring MIP Drivers

Sending events externally from Milestone XProtect requires VMS support of the MIP driver being utilized. MIP support is necessary in order to enable the camera to display an image.

To adjust MIP driver settings:

1. After defining the MIP driver, in the Milestone XProtect Management Client, go to the navigation pane.

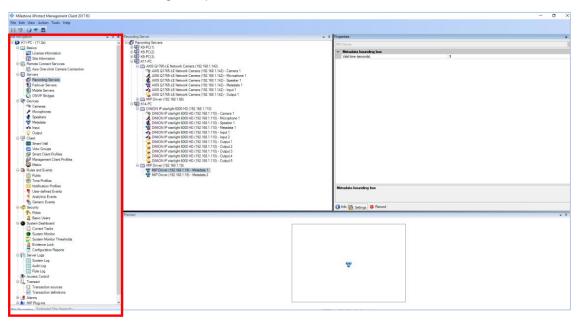


FIGURE 31. MANAGEMENT CLIENT. NAVIGATION PANE

2. Choose Servers > Recording Servers.

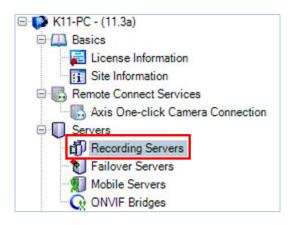


FIGURE 32. MANAGEMENT CLIENT. RECORDING SERVERS

3. Under **Recording Servers**, expand the MIP Driver menu and choose a relevant server.



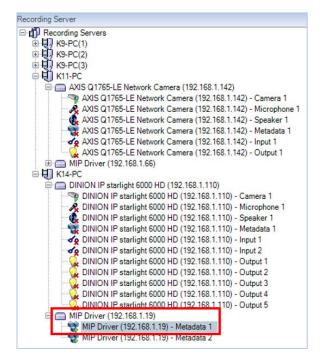


FIGURE 33. MANAGEMENT CLIENT. MIP DRIVER MENU

Under Properties, click Settings; in Metadata Bounding Box > Settings > Valid Time, specify 1.

The RTSP is obtained by the SDK.



3.4.3. Monitoring System Activity

Once the VMS and Gateway configurations are in place, communication confirmed, and MIP drivers updated, you can begin monitoring system activity.

To monitor system activity:

In Milestone XProtect, select the Live panel and verify display of a live image.

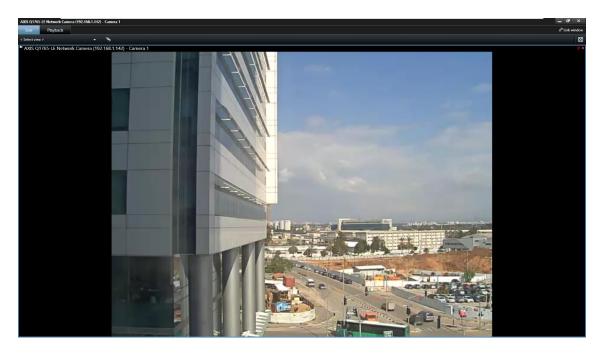


FIGURE 34. MILESTONE XPROTECT. LIVE PANEL

Refer to Milestone documentation for instructions on monitoring live system activity, managing alarms, and playing back incidents.



Index

A	P
Alarm management, 37 Alarms, 37; issuing, 5, 31	Ports: 9995, 25
Archiecture. See VMS Gateway, architecture	R
С	Requirements: client hardware, 10; infrastructure, 10; VMS, 10
Camera groups, 15 Capabilities. See VMS Gateway, capabilities	Requirments: AnyVision, 10
Components. See VMS Gateway, components Control software, installation, 15	S
E	Security management: installation, 15 Security, monitoring, 5
Events: generating, 31	Т
F	TCP, 25 Transfer offline video. <i>See</i> Forensic video import
Facial detection, 5 Forensic video import, 28	U
Н	Ubuntu, 9
Hardware. See Camera groups	UDP, 25
1	V
•	Video management: configuration, 16; installation,
Import transfer offline, 28	15
Import video: forensic import, 28; live, 25	VMS: driver installation, 25; environment, 5 VMS Gateway: architecture, 9; capabilities, 8; components, 9; installation, 13; requirements, 10
M	VMS integration: end-to-end process, 12 VMS Server: camera selection, 25; configuration, 25
Metadata: bounding, 36; configuration, 18; ports,	
22; related, 23 MIPSDK, 17	W
0	Windows 10, 9
	Workflow. See VMS Integration Process, end-to-end



ONVIF Bridges, 17