Honeywell Camera Installation Guide



6SS L.L.C.

Bryant Ave N-Brooklyn Park-MN 55444 USA Tel: +1-651-233-0977 E-mail: info@6ss.co Web: www.6ss.co

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1. INTRODUCTION

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This document is intended to provide a full installation guide of Honeywell Camera and its integration with Milestone XProtect.

For this purpose, Onvif Device Manager (ODM) is installed and used as a tool to read all the detected events from Honeywell camera, save them into SQL database, and in turn pushing these metadata into Milestone Smart Client.

Honeywell LPR Main Features

- On-board ANPR camera
- Fully integrated with all Milestone XProtect versions
- View Live Detection from the Camera
- Filter through LPR history based on various criteria
- One click data Excel/PDF Export
- Alarm Hotlist capabilities
- Auto data retention period handling



2. GETTING STARTED

2.1. System Requirements

- Windows OS 8 or above
- SQL Server 2012 or above
- Onvif Device Manager v2.2.250 or above
- Milestone XProtect Management Client (2016 or above)
- Milestone XProtect Smart Client (2016 or above)

2.2. System Introduction

The server part of the system consists of 2 main components: Management and LPR servers. Each LPR system contains only one Management server, and one or more LPR servers, depending on the project size and the system's distributed architecture. Both processes can be installed and ran on the same server, but each with its own configuration. The machine has to be licensed first before doing anything on the LPR system after the installation.

Below is a figure describing the architecture of the system.



FIGURE 1: 6SS LPR EDGE BASE ARCHITECTURE



3. INSTALLATION OF ONVIF DEVICE MANAGER

3.1. Onvif Device Manager Setup

Download onvifdm.msi setup-file using the following link (http://sourceforge.net/projects/onvifdm/).

Right-click odm-v2.2.250 \rightarrow Click Install \rightarrow Run onvifdm.msi.



FIGURE 2: RUN WIZARD

Setup Wizard will check if Microsoft .NET Framework 4 is installed on the computer, if not click "Yes" to install it.

😸 ONVIF Device Manager	8
This setup requires the .NET Framework version and run this setup again. The .NET Framework you like to do this now?	on 4.0. Please install the .NET Framework k can be obtained from the web. Would
Yes	No

FIGURE 3: MISSING .NET FRAMEWORK

Windows User Account Control may ask for permission, click yes to continue with the installation.



FIGURE 4: ONVIF DEVICE MANAGER SETUP

Choose the destination folder and click Next, then choose Install to start the installation.

ONVIF Device Manager v2.2.250 Setu	2		- 23
Destination Folder Click Next to install to the default folder	or click Change to choose anot	her.	
Install ONVIF Device Manager v2.2.250 t	o:		
C:\Program Files (x86)\Synesis\ONVIF D	evice Manager\		
Change			
	Back Next		Cancel

FIGURE 5: DESTINATION FOLDER





FIGURE 6: INSTALLATION BUTTON

To complete the ONVIF Device Manager Installation process,

3.2. Starting Onvif Device Manager

Launch ONVIF Device Manager from the desktop or via the Start menu.

During the first launch, Windows Firewall may ask for permission to open access to the network for onvifdm.exe as shown in Figure 7, click "Allow access".



FIGURE 7: WINDOWS FIREWALL ALERT



After ONVIF Device Manager has been launched, the Honeywell camera is automatically detected and displayed in the device list on the left. If the device has not been detected automatically, check the connection and click Refresh as shown in Figure 8.



FIGURE 8: ONVIF DEVICE LIST



4. HONEYWELL INTEGRATION WITH MILESTONE

4.1. Setup Wizard

Unzip the Release folder and open to run the setup wizard for the LPR plugin.



FIGURE 9: LPR PLUGIN SETUP FOLDER



FIGURE 10: LPR SETUP WIZARD



Choose the path to where the LPR plugin folder will be created as shown in **Figure 11**. Click next to continue and the setup will be installed as shown in **Figure 12**.

😸 6SS LPR Client			—		×		
Select Installation Folde	r						
The installer will install 6SS LPR Client to	the following folder.						
To install in this folder, click "Next". To in	stall to a different fol	der, enter it belo	ow or cl	ick ''Brov	vse".		
<u>F</u> older:							
C:\Program Files\Milestone\MIPPlugir	C:\Program Files\Milestone\MIPPlugins\6SS\						
			D	isk Cost.			
Install 6SS LPR Client for yourself, or fo	or anyone who uses t	his computer:					
CEveryone							
 Just me 							
	Cancel	< Back		Nex	•>		

FIGURE 11: 6SS LPR CLIENT INSTALLATION FOLDER

륒 6SS		19 11	Ę	X
Installation Complete				5
6SS has been successfully installed.				
Click "Close" to exit.				
Please use Windows Update to check f	or any critical update:	s to the .NET Fram	ework.	
	Cancel	< Back		Close
		-H	1.11.2.1	

FIGURE 12: 6SS LPR CLIENT INSTALLATION SETUP



4.2. Management Client Interface

Open Milestone XProtect Management Client then click "HONEYWELL LPR" under MIP Plugins as shown in

Figure 13.Error! Reference source not found.

In the first tab enter the server name or IP address in case the SQL Server is installed on a different device otherwise

you can keep it blank (local host).



FIGURE 13: HONEYWELL LPR- SQL SERVER

Then, you need to specify Honeywell camera settings for first time use by entering the camera IP address and port number, click "Set Connection Info" to save your settings.

Mar	age Serve	ers Inform	ation						
- Mai	Server	HoneyV	License	Alerts					
	Camer	ra Setting							
	Camer	ra IP	02						
	Camer	ra Port	80 🚔						
	Set Connection Info								

FIGURE 14: HONEYWELL LPR- CAMERA SETTINGS



As for the LPR license, click "Get Computer ID" button and send to <u>info@6ss.co</u> the issued product ID with the number of licenses needed to activate the LPR. Upon receiving the license file, click "Import License" button to import the latter.

Note that for each camera used a license is required. The license is paid once with no expired date, with a yearly optional upgrade (18 % of the license fee for each camera) for any additional features, maintenance, and enhanced versions.

Milestone XProtect Management Client 2018 R1	
File Edit View Action Tools Help	
Site Navigation - 4 X Man	age Servers Information
Smart Client Profiles	Server HoneyWell Camera License Alerts
Management Client Profiles	License
Matrix	
Rules and Events	Product ID :
Time Profiles	
Natification Profiles	Computer ID : Get Computer ID
Iver-defined Events	License ID : Import License
Generic Events	
Security	
Roles	
👷 Basic Users	
System Dashboard	
Current Tasks	
System Monitor	
🛛 🔒 Evidence Lock	
Configuration Reports	
E Server Logs	
System Log	
Audit Log	
Rule Log	
Access Control	
I ransaction sources	
MIP Plug-ine	
HONEYWELLIPR	
in none interest in the second	

FIGURE 15: HONEYWELL LPR- LICENSE SETTINGS

The last tab is for alerts. Here you can specify the plate number you want to fire an alarm for when detected by the camera, either as a blacklisted or whitelisted. You can also attach an event for this alarm in order to trigger a certain action. Use the button "Add Alert" to activate the alarm.

Man	age Serv	ers Information			•
	Alert Plate	Number 6805 Type BlackListed V Status Enabled	Event /Action Honeywe	ilEvent01 V Add Ale	rt Update Status Delete Alert
		Plate Number	Туре	Status	Event
	۶.	6805	BlackListed	Enabled	HoneywellEvent01

FIGURE 16: HONEYWELL LPR- ALERTS SETTINGS



4.3. Smart Client Interface

Open Milestone XProtect Smart Client. In the live tab select your intended camera as shown in the bottom right corner of Figure 17.

When the camera detects license plate number, the latter will be shown as a snapshot of the plate number in the right panel above the button "Select Camera".

Milestone XProtect Smart Clier	nt			201	9-02-05 8:40:52 PM 🗕 🗆 🗙	
Live Playback	Sequence Explorer	Alarm Manager 🧔	HONEYWELL LPR	System Monitor	◆ Ø १ 丶	~
XProtect	<	New View (1 x 1)	- "5		Setup	3
Views	^					Π
Search views and cameras	Q 💊					
🔺 🛅 Private						
🔺 🔚 New Group						
4 🔚 New Group						
New View (1 x 1)						
4 New View (2 x 2)						
Cameras	~					
+ Event	~					
🛠 MIP Plug-ins	~					
					Select Camera	

FIGURE 17: MILESTONE LIVE INTERFACE

All the alerts previously defined in the management client are shown in the "Alarm Manager" tab with a red flag indicating the number of alarms fired as shown in Figure 18. If you click on a certain alarm the live and recording videos will be shown along with the alarm's information.

💠 Milestor	ne XProtect Smart C	lient								2019-02-	-05 8:41:57 PM		×
Live	Playback	Seq	uence Explorer	Alarm M	lanager 🍘	HONEYWE	LL LPR	System Monitor				+ 0	۴ ~
												Setup	\boxtimes
<u>∧ < ></u> ⊕	No map has bee	n selec	ted					HELGG2 - 2019 0	2.02 455:17509 PM ●	Message Esternal Event Definition Alarm Type: System Alarm Source MyAnatyticsEvent0 Custom Tag: Object Verdor Location Description: 4:55:17.686 PM	1 I ►	520 PI	м
Quick Filters		Ala	arms New (filter applied)	~ (Clear filter					-	Reports	1-100	0 >
Y New (1	5483)	4 🖂	Time		Priority Level	State Level	State Name	Message	Sou	ce		Own	ner
T In prog	ress (0)		4:55:00 PM 2019-02-02		1	1	New	External Event	My/	nalyticsEvent01			
▼ On hol	4 (0)		4:55:00 PM 2019-02-02				New	External Event	Myź	nalyticsEvent01			
T Church	u (0)		4:55:00 PM 2019-02-02				New	External Event	Myź	nalyticsEvent01			
T Closed	1(0)	-	4:55:00 PM 2019-02-02				New	External Event	My	nalyticsEvent01			
Servers			4:55:00 PM 2019-02-02				New	External Event	My/	inalyticsEvent01			
🐣 6SS			4:55:00 PM 2019-02-02				New	External Event	Myź	nalyticsEvent01			
			4:55:00 PM 2019-02-02				New	External Event	My	nalyticsEvent01			
			4:55:00 PM 2019-02-02				New	External Event	My	inalyticsEvent01			
			4:55:01 PM 2019-02-02				New	External Event	My/	nalyticsEvent01			
		4 (E I

FIGURE 18: MILESTONE ALARM INTERFACE



In the "Honeywell LPR" tab you can check all the LPR events captured by which camera, in which category and country, at what confidence level detected at a certain date along with the plate number and its image. You can use the filters shown in the right panel of Figure 19 as well as to export the listed events to excel file.

When you click on an event line you can use the bottom right video to play back the video frame from the first moment the plate number is captured.

🔶 Milestor	ne XProtect Smart	Client					2019-02	-05 8:56:46 PM 🗕	□ ×			
Live	Playback	Sequence Explore	Alarm Manager 📢	HONEYWELL LPR	System Monitor			+	0 9 ×			
								Setup	~ 🛛			
8:43:38 PM	84338 PM 😵 Configuration data operation failed. The connection to the server failed. The server might not be available.											
Camera		Category Pla	te Number Coun	ry Confidence	Date Image	Text						
						Categ	bry					
						Confie	ence(>=) 0		<u>+</u>			
						From	2019-01-01					
						Tal	2019-02-05					
							Refresh	Excel				
							<	11	**			

FIGURE 19: MILESTONE HONEYWELL LPR INTERFACE