

Tattile Integration Guide





TABLE OF CONTENTS

1

1.	Int	RODU	JCTION	4
2.	GET	ITING	STARTED	5
	2.1.	Syst	tem Requirements	5
	2.2.	Syst	tem Introduction	5
3.	TAT	ΓTILE	LPR CONFIGURATION & INSTALLATION	6
	3.1.	SQI	L Server Configuration	6
	3.1.	.1.	Database Creation	6
	3.2.	Tatt	ile Configuration	7
	3.2.	.1.	Tattile Configuration Settings	7
	3.3.	Tatt	tile LPR Plugin	8
	3.3.	.1.	Setup Wizard	8
	3.3.	.2.	Smart Client Interface	10
	3.3.	.3.	Management Client Interface	14



TABLE OF FIGURES

1

Figure 1: Create 6SS Database using SQL query	6
Figure 2: Database Created	6
Figure 3: Tattile Configuration Settings	7
Figure 4: LPR Plugin Setup Folder	8
Figure 5: LPR Setup Wizard	8
Figure 6: 6SS LPR Client Installation Folder	9
Figure 7: 6SS LPR Client Installation Setup	9
Figure 8: SQL Server Name	10
Figure 9: Add the Plugin	10
Figure 10: View Live Plugin	11
Figure 11: External (Tattile) LPR History	12
Figure 12: Campus (ARH) LPR History	12
Figure 13: LPR Excel File	13
Figure 14: LPR PDF File	13
Figure 15: External (Tattile) Hotlist	14
Figure 16: External (ARH) Hotlist	15



1. INTRODUCTION

This document is intended to provide a full installation guide of Tattile Vega Smart Camera and its integration with Milestone XProtect. Tattile Vega Smart Camera is an ANPR camera used for free flow tolling, traffic monitoring and security. In this integration we are getting the streams directly from Tattile camera, saving the data into the database and displaying LPR results in Milestone XProtect Smart Client.

Tattile LPR Main Features

- Fully integrated with All Milestone XProtect versions
- Accessed from the Smart Client interface
- Fully integrated with Maps
- Parallel handling and processing of unlimited camera inputs
- Color coding for faster search
- Compatible with any image source: analog, digital, still images and MPEG video streams
- Filter through LPR history based on various criteria
- Flexible search functionality by from-to date, plate number, country and license type
- List of all captured plate numbers including plate type, color, country, state, confidence level, image, camera name and date.
- Option to view a playback video for the period when the plate number was detected
- Scheduled reports on a daily, weekly or monthly basis
- Customizable dashboards and statistics
- Alarming capabilities (Email, SMS)
- Regular expression alerting
- Configurable actions in case of license plate recognition
- Option to save the license plate as Blacklisted or Whitelisted
- Can read the blacklisted file in various formats (DB Table, Excel or CSV)
- Hotlist alarming capabilities
- One click data export in Excel format
- Automatic data retention period handling
- Easy installation and operation
- Customizable upon request



2. GETTING STARTED

2.1.System Requirements

- Windows OS 8.1 or above
- SQL Server 2012 SP1 or above
- Tattile Configuration Application 3.4.0 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.



3. TATTILE LPR CONFIGURATION & INSTALLATION

3.1.SQL Server Configuration

The configuration for the 6SS LPR database needs to be done on the server where Microsoft SQL server is installed.

3.1.1. Database Creation

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FIGURE 1: CREATE 6SS DATABASE USING SQL QUERY

Tattile database is created and appears in SQL server as shown below:



FIGURE 2: DATABASE CREATED



3.2. Tattile Configuration

3.2.1. <u>Tattile Configuration Settings</u>

In this application, all the camera devices needed for LPR streaming are defined here by entering the devices' IP address and 31000 as port number. All the added devices will be displayed in the Device list.

For the integration to work properly, it is crucial to specify the Server IP address that is responsible for receiving the data from the camera along with port number 32000.

After clicking the **Connect** button, the camera devices will stream back to the targeted server and the data will be stored in the SQL Server Database.

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168.0.21			31000		
Paivar				Broadcast parame	tor
Connect	Local IP	192.168.0.185 V Idle 1	timeout [s] 5	Device MAC	
Stop	Receiver Port	32000	Run keep alive	Local IP	192.168.0.185 ~

FIGURE 3: TATTILE CONFIGURATION SETTINGS



3.3. Tattile LPR Plugin

3.3.1. Setup Wizard

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



FIGURE 4: LPR PLUGIN SETUP FOLDER



FIGURE 5: LPR SETUP WIZARD



Choose the path to where the LPR plugin folder will be created as shown in **Figure 7**. Click next to continue and the setup will be installed as shown in **Figure 8**.

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it below or click "Browse".
Browse
Disk Cost
uter:

FIGURE 6: 6SS LPR CLIENT INSTALLATION FOLDER

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Installation Complete				5
6SS has been successfully installed.				
Click "Close" to exit.				
Please use Windows Update to che	ck for any critical update	s to the .NET Framew	vork.	
	Cancel	< Back	C	lose

FIGURE 7: 6SS LPR CLIENT INSTALLATION SETUP

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^{9 | 6}SS Edge LPR – Tattile Integration Guide



3.3.2. <u>Smart Client Interface</u>

Once the installation completes, navigate to Milestone XProtect Smart Client, click connect after entering your credentials and specify the SQL server host name or IP address for first time use only.



FIGURE 8: SQL SERVER NAME

Once connected click on **Setup** button, create a view and drag and drop "Live LPR" under **System Overview**, as shown in **Figure 10**, into the created view.



FIGURE 9: ADD THE PLUGIN

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Click again on **Setup** to view the Live plugin by selecting a camera using the button "Select Camera" in the bottom right corner. The button will be renamed by the camera's name. Each captured plate number by the specified camera will be shown in the right panel.

Note that in Figure 11, External LPR/Campus LPR list is added that allows the user to select the LPR source if there is integration with other than Tattile camera for example ARH.



FIGURE 10: VIEW LIVE PLUGIN

After installing the LPR plugin setup you will notice that an additional tab named "LPR" has been added next to the **Alarm Manager** tab. In this tab you can easily find the list of all captured plate numbers with its related information based on the specified LPR source and the chosen camera (Tattile/ARH).

Use the filters in the right panel to filter the LPR list as convenient and click on "Refresh" button to update the LPR table. You can anytime generate an excel file (**Figure 14**Figure 14) and a pdf document (**Figure 15**) for your evidence proof or later investigation.



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FIGURE 11: EXTERNAL (TATTILE) LPR HISTORY

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Camera			Туре	Plate Number	Country	State	Confidence	Date	Plate Color	Image	•	· · · · · · · · · · · · · · · · · · ·	1
DirectShow	v Virtual Video Ser	ver (0.0.0.1) - Camera 2	с	83417 C	United_Arab_Emirates	RAK	62	12/6/2019 2:34 PM	WHITE	83417	Country	y Y Tex	
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	с	C 71061	United Arab Emirates	RAK	45	12/6/2019 2:34 PM	WHITE	C == 71061	State	Cole	
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	к	K 59513	United Arab Emirates	Dubai	66	12/6/2019 2:34 PM	WHITE	K uno 50512	Confide	ence(>) 0	l\$
DirectShor	v Vintual Video Ser	Ter (0.0.0.1) Camam 2		6169 C	United Arab Emirates	PAK	= 1	12/6/2010 2:24 PM	WHITE	-5158-	Туре		~
Directionov	i virtual video sei	(ver (0.0.0.1) - Camera 2		0100 €	chited_Arao_Elairates	K-1K		12/0/2019 2:54 FM	white	63417	Camera	a	~
DirectShov	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	с	63417 C	United_Arab_Emirates	RAK	20	12/6/2019 2:34 PM	WHITE	10200	From	11/13/2019	
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	A	10288 A	United_Arab_Emirates	RAK	14	12/6/2019 2:34 PM	WHITE	AUL A IL	тш	12/13/2019	
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	I	134784	United_Arab_Emirates		50	12/5/2019 6:22 PM	WHITE	I 34784			
DirectShow	r Virtual Video Ser	rver (0.0.0.1) - Camera 2	т	T 34784	United_Arab_Emirates		26	12/5/2019 6:22 PM	WHITE	I 34784	R	Kefresh Excel	PDF
DirectShow	v Virtual Video Ser	ver (0.0.0.1) - Camera 2	м	M 6661	United_Arab_Emirates	RAK	72	12/5/2019 6:22 PM	WHITE	M 6661			
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	с	C 24887	United_Arab_Emirates	RAK	78	12/5/2019 6:22 PM	WHITE	C 24887			
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	A	78828 A	United_Arab_Emirates	RAK	75	12/5/2019 6:22 PM	WHITE	78828			
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	с	52083 C	United_Arab_Emirates	RAK	66	12/5/2019 6:22 PM	WHITE	52083			
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	17	17 74943	United_Arab_Emirates	Abu Dhabi	33	12/5/2019 6:22 PM	WHITE	17 74943			
DirectShow	v Virtual Video Ser	ver (0.0.0.1) - Camera 2	A	A 43045	United_Arab_Emirates	RAK	81	12/5/2019 6:22 PM	WHITE	A 43045			
DirectShow	Virtual Video Ser	ver (0.0.0.1) - Camera 2	U	U 58360	United_Arab_Emirates	Dubai	63	12/5/2019 6:22 PM	WHITE	U 58360			
DirectShow	v Virtual Video Ser	ver (0.0.0.1) - Camera 2	с	74445 C	United_Arab_Emirates	RAK	63	12/5/2019 6:22 PM	WHITE	74445			
DirectShow	r Virtual Video Ser	ver (0.0.0.1) - Camera 2	A	6874A	United_Arab_Emirates	RAK	56	12/5/2019 6:22 PM	WHITE	-6874-			
DirectShow	Virtual Video Ser	ver (0.0.0.1) - Camera 2	E	E 84973	United Arab Emirates	Dubai	23	12/5/2019 6:22 PM	WHITE	F 84973	-		

FIGURE 12: CAMPUS (ARH) LPR HISTORY



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te 🙀 × → B I U × 🕀 × ▲ × board 5 Font 5	Alignment	Aerge & Center + 💲 +	% •	*.0 .00 Con .00 *.0 Forn	ditional Format natting * as Table * Si Styles	Cell tyles + De Cell tyles - Ce	elete * Sort & Find & rmat * 2 * Filter * Select * ells Editing
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033 LPR			From	2019-06-06			
			Eff	2019-06-07			
Camera	Plate Number	Country	State	Confidence	Date	Plate Color	Image
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	288297	United_Arab_Emirate	s SHJ	82	2019-06-06 15:14	WHITE	88297 السارت 2
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	P38794	United_Arab_Emirate	s Dubai	61	2019-06-06 15:14	WHITE	P 38794
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	N30197	United_Arab_Emirate	s <mark>Dubai</mark>	76	2019-06-06 15:13	WHITE	N 30197
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	A41786	United_Arab_Emirate	s RAK	78	2019-06-06 15:13	WHITE	A = 41786
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	G43125	United_Arab_Emirate	s Dubai	80	2019-06-06 15:13	WHITE	G 43125
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	44381B	United_Arab_Emirate	s RAK	71	2019-06-06 15:13	WHITE	44381 B
	A B B Font B Font B Font Camera DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 DirectShow Virtual Video Server (0.0.0.1) - Camera 1	A B 6SS LPR A Camera Plate Number DirectShow Virtual Video Server (0.0.0.1) - Camera 1 P38794 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 P38794 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 P38794 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 A11786 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 A11786 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 A11786 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 A41786 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 A41786 DirectShow Virtual Video Server (0.0.0.1) - Camera 1 A41786	A B C B I I A A B C B I I A A E E If I A A B I I I A If I A If I If I A If I If I A If I If I <th< td=""><td>A B C D B I I A I I A I I A I I A I I I A I</td><td>India India Page layout Formulas Data Refere View Family Image layout <td< td=""><td>India India <thindia< th=""> <thindia< th=""> <thin< td=""><td>Indian Page Layout Fond of the second o</td></thin<></thindia<></thindia<></td></td<></td></th<>	A B C D B I I A I I A I I A I I A I I I A I	India India Page layout Formulas Data Refere View Family Image layout Image layout <td< td=""><td>India India <thindia< th=""> <thindia< th=""> <thin< td=""><td>Indian Page Layout Fond of the second o</td></thin<></thindia<></thindia<></td></td<>	India India <thindia< th=""> <thindia< th=""> <thin< td=""><td>Indian Page Layout Fond of the second o</td></thin<></thindia<></thindia<>	Indian Page Layout Fond of the second o

FIGURE 13: LPR EXCEL FILE

			6SS LPR Report	From :2019-08-07	12:00:00 AM To:	2019-08-07 11:59	:59 PM		
Camera	Plate Number	State	Confidence	Date	Plate Color	id	Image	Туре	Country
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	G43125	Dubai	78	2019-08-07 10:32:20 AM	WHITE	86990	G 43125	G	United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera	288297	SHJ	80	2019-08-07 10:32:19 AM	WHITE	86987	2 2 88297		United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera	A41786	RAK	76	2019-08-07 10:32:13 AM	WHITE	86977	A 55 41786	A	United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera	44381B	RAK	78	2019-08-07 10:32:13 AM	WHITE	86976	44381	В	United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera	N30197	Dubai	78	2019-08-07 10:31:55 AM	WHITE	86972	N 30197	N	United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	G43125	Dubai	78	2019-08-07 10:31:53 AM	WHITE	86969	G 43125	G	United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera	288297	SHJ	82	2019-08-07 10:31:52 AM	WHITE	86964	2 88297		United_Arab_Emi ates
DirectShow Virtual Video Server (0.0.0.1) - Camera 1	P38794	Dubai	74	2019-08-07 10:31:51 AM	WHITE	86962	P 38794	P	United_Arab_Emi ates
DirectShow Virtual Video Server	A41786	RAK	76	2019-08-07 10:31:46 AM	WHITE	86955	A 🚟 41786	A	United_Arab_Emi ates

FIGURE 14: LPR PDF FILE



3.3.3. <u>Management Client Interface</u>

Open Milestone XProtect Management Client, click connect after entering your credentials and navigate to MIP Plug-ins- LPR- LPR under **Site Navigation.**



The LPR Hotlist is mainly used to alert users when a specific plate number is detected by the camera. Specify the plate number, plate type (blacklisted or whitelisted), status (enabled/disabled), and the event/action that may be attached to this plate number as shown in the below figure. Click **Update Status** if you need to change the Alarm Status and click **Delete Alert** button to delete the Alert from the list.



FIGURE 15: EXTERNAL (TATTILE) HOTLIST



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te Na	Allowed					
Niga	Plate Number Type	Status V F	vent / Action	✓ Add Alert Update Status	Delete Alert	
lion						
	Plate Number	Туре	Status	Event / Action		
	· · · ·					

FIGURE 16: EXTERNAL (ARH) HOTLIST