

Security Management System Configuring Vehiscan LPR Solution Interface

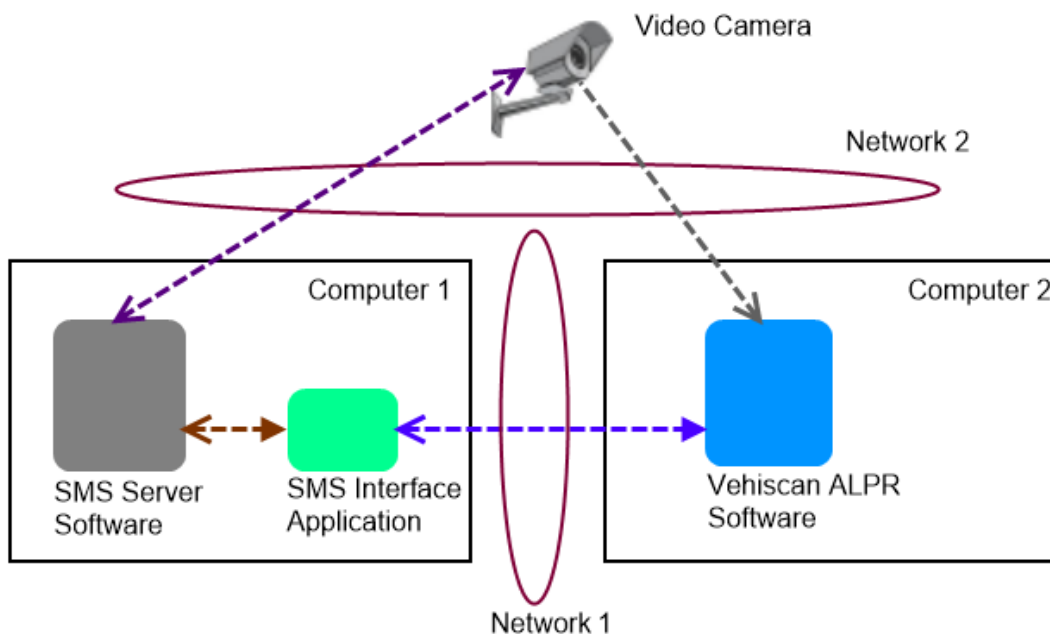
Introduction

Security Management System software is a true open platform VMS software solution. It provides interface for integration with several cameras, encoders, DVRs, video sources, CCTV keyboards, access control systems, building management systems, fire alarm systems, fence control systems, PLCs, 3rd party video analytics solutions, 3rd party face recognition solutions, 3rd party license plate recognition systems etc.

This document describes the steps to configure the integration between 'Security Management System server' software and 'Vehiscan license plate recognition' solution.

Integrated System design

The integrated system works as follows –



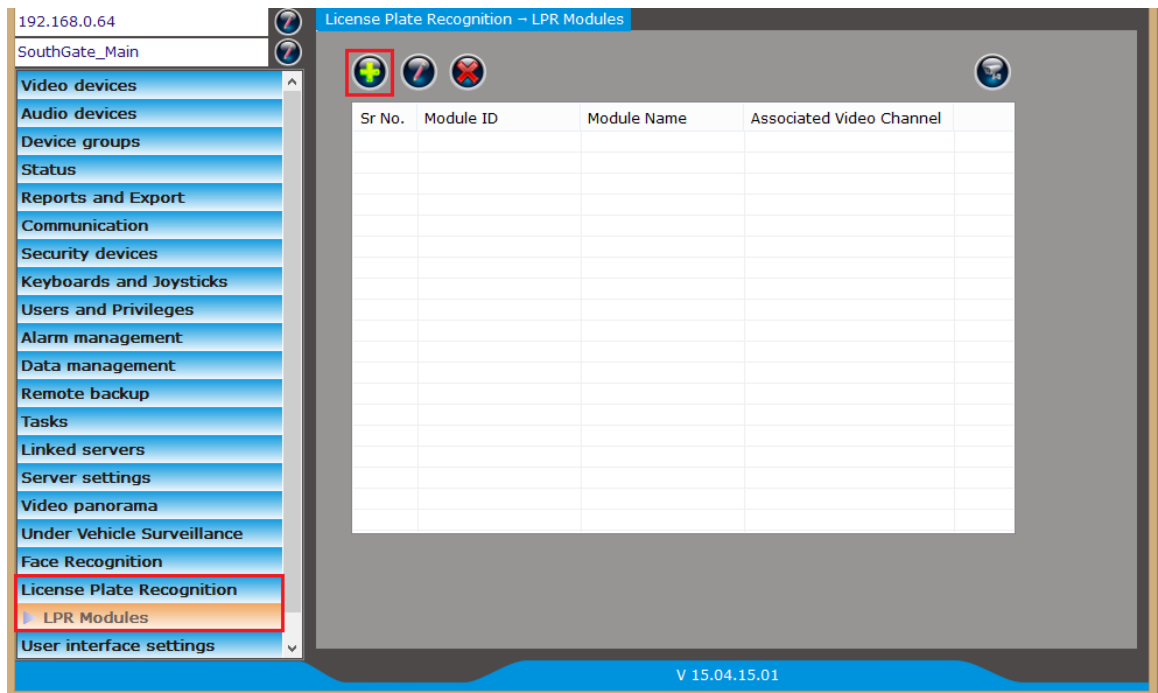
1. 'Vehiscan ALPR software' is installed on a separate computer. It captures video from the video camera independently.
2. 'Security Management System server' software is installed on a separate computer. The video camera is added to 'Security Management System server' software as a normal video source. 'Security Management System server' software communicates with the video camera independently.
3. 'Security Management System server' software installer includes 'SMS Integration Application'. This application runs on same computer where 'Security Management System server' software is running.
4. The 'SMS Integration Application' communicates with the 'Vehiscan ALPR software' through network
5. 'Security Management System server' software communicates with the 'SMS Integration Application'

Note – Network1 and Network2 can be separate networks or can be a part of a single network.

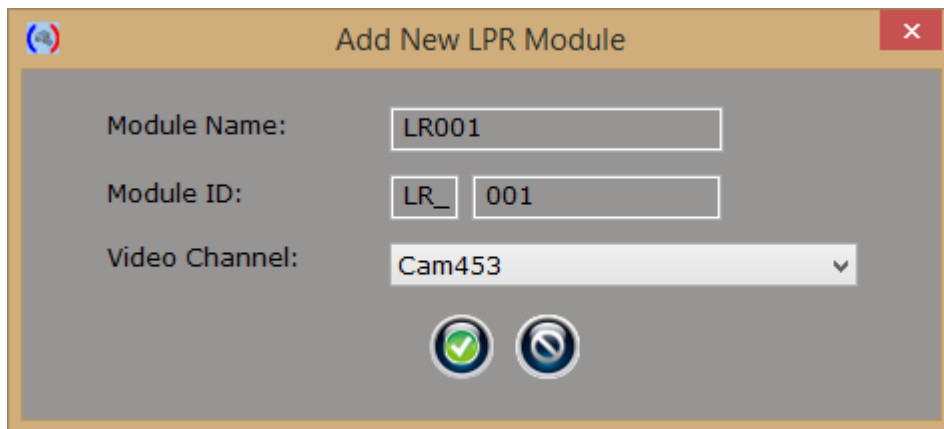
Important – Please refer to 'Vehiscan ALPR software' manual for hardware recommendations, and ensure that requirements are met by 'Computer 2' used in this system.

Configuring 'Security Management System server' software

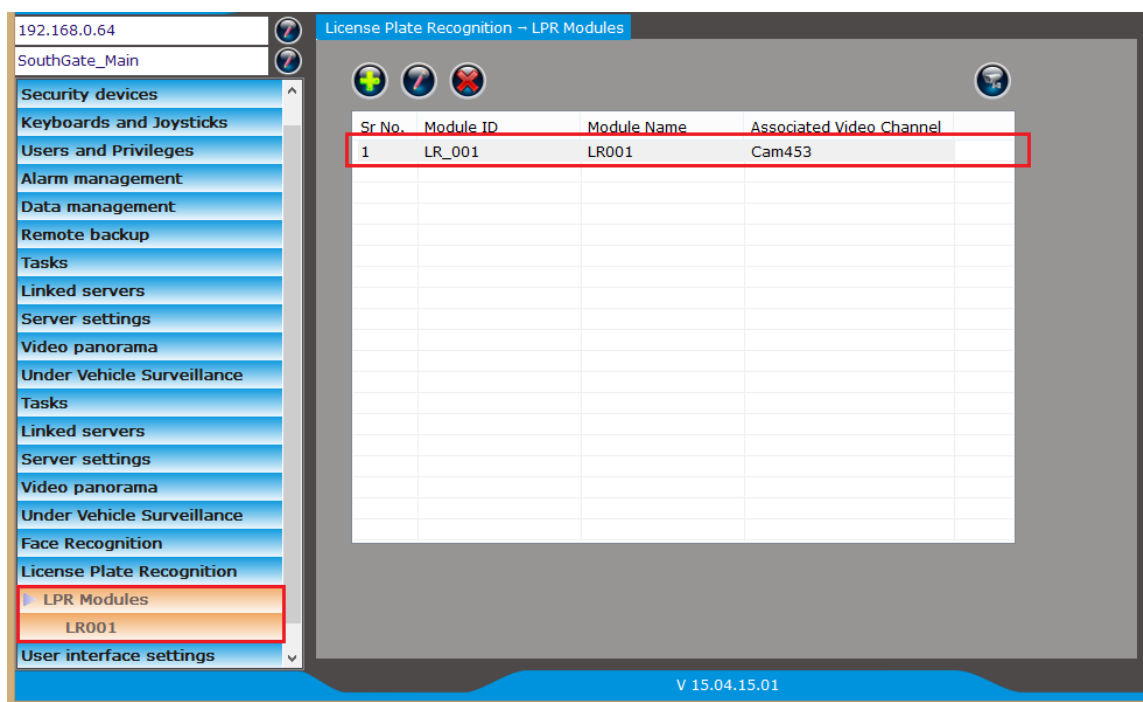
1. Execute 'Security Management System Server' software.
2. Add required cameras to 'Security Management System Server' software. One of these cameras should be the Vehiscan IP camera used for 'License Plate Detection'. It is the same camera which is accessed by the Vehiscan software independently.
3. Navigate to the 'License Plate Recognition -> LPR Modules' page from the left-hand side navigation menu.



4. Click on the 'Add LPR module...' button. This will pop-up the 'Add New LPR Module' dialog box.



5. Provide the required inputs on the 'Add New LPR Module' dialog box.
 - (a) 'Module Name' must be same as 'Camera Name' provided in Vehiscan LPR Solution.
 - (b) 'Module ID' is unique string which is internally used by the 'Security Management System server' software.
 - (c) Please select 'Video Channel' which is same Vehiscan IP camera used by with 'Camera Name' provided as module name.
6. Click on the 'OK' button to finish adding the LPR module
7. The newly added LPR module will be then displayed in list of the LPR Modules



8. A separate link will be available for each of the added LPR modules. Clicking in the link will show the information about the LPR module, the video of the associated video channel. Video from the associated video channel will also be displayed on this page. If required, the associated video channel can be changed.

192.168.0.64
SouthGate_Main

License Plate Recognition ~ LPR Modules ~ LR001

Module ID: LR_001
Module Name: LR001

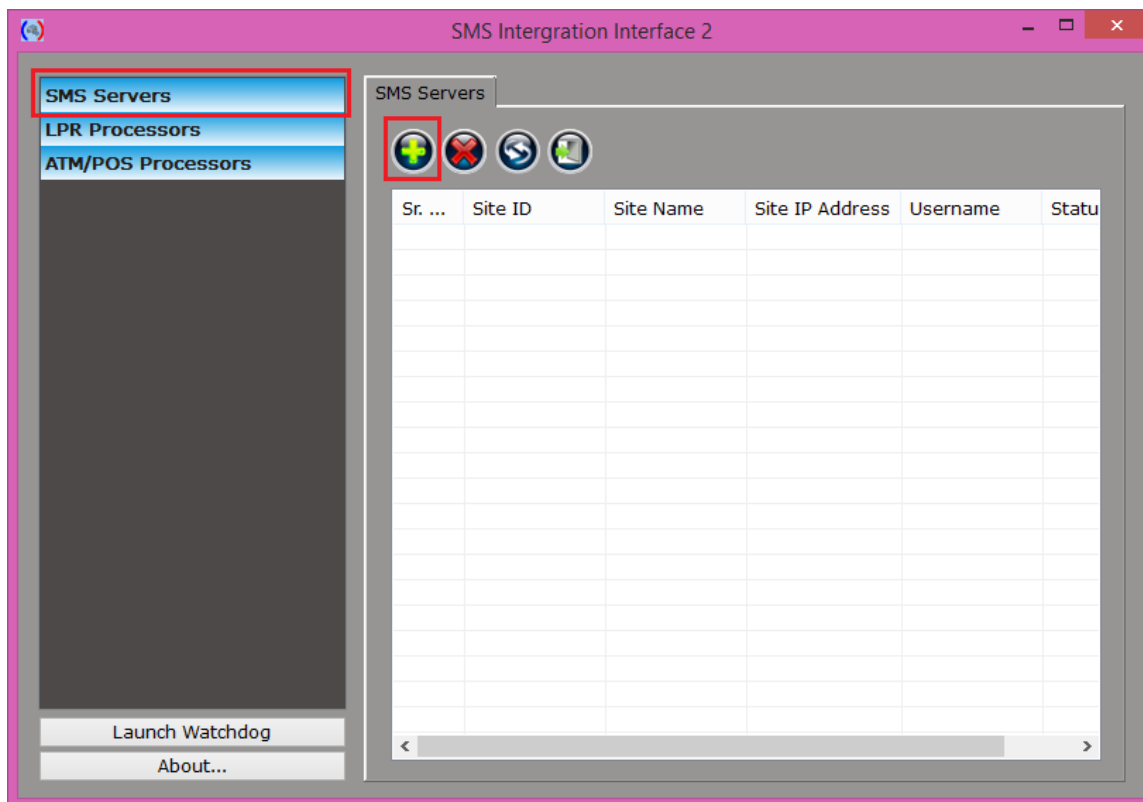
Primary video channel

Video Channel
Primary: Cam455

V 15.04.15.01

Configuring 'SMS Integration Interface' Application

1. Execute 'SMS Integration Interface 2' application from the programs menu shortcut
'Security Management System -> Server -> Extension Apps -> SMS Integration Interface 2'



2. Navigate to the 'SMS servers' page from the left-hand side navigation menu
3. Click on the 'Add new site' button to add a new 'Security Management System server'. This will pop up 'Add SMS server' dialog box

Add SMS Server

Connect using: IP Address Name

Server IP Address: 192 . 168 . 0 . 64

Administrator Username: admin

Administrator Password:

'Port forwarding' enabled at server

TCP Port 1: 5500 RTSP Port(TCP): 1024

HTTP Port(TCP): 9900 RTP Port(UDP): 20000

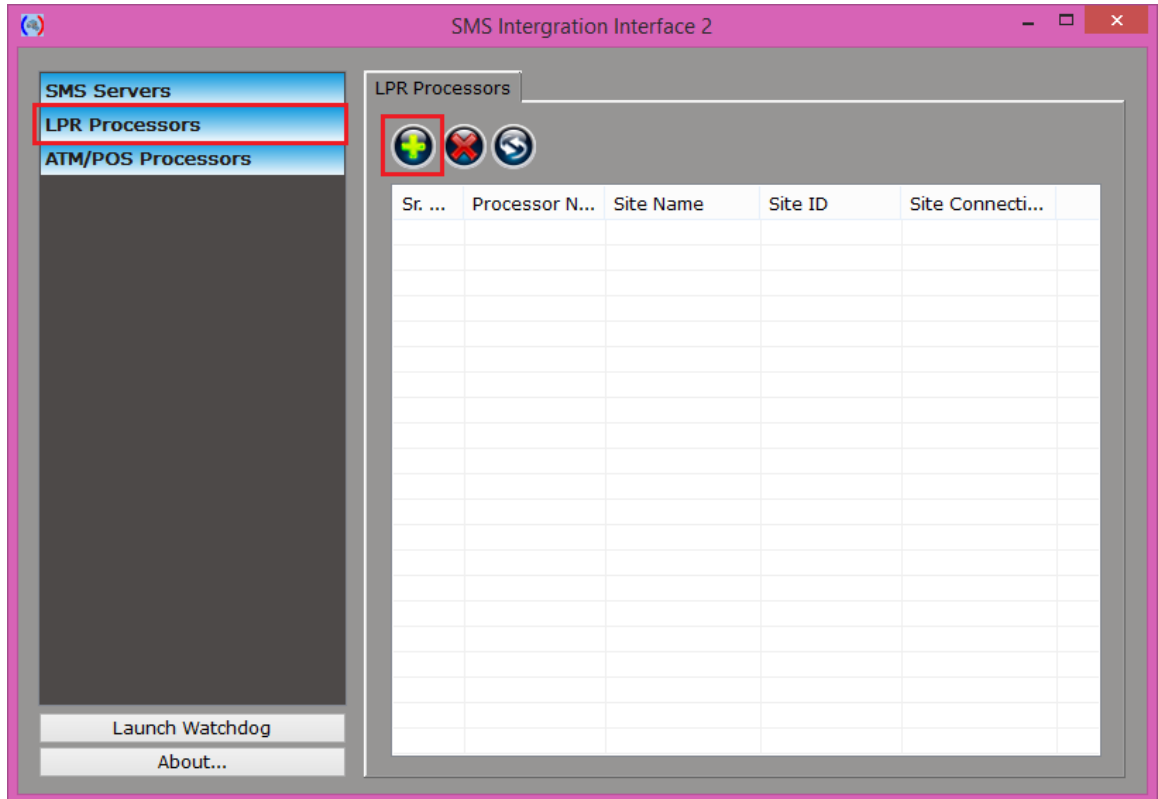
 RTCP Port(UDP): 20001

4. Type the IP address and port number of the 'Security Management System server' software.
 - (a) 'Security Management System server software' IP address is displayed at the top-left corner in the 'Security Management System server' software.
 - (b) Port number is always 5500

Sr No.	Module ID	Module Name	Associated Video Channel
1	LR_001	LR001	Cam453

V 15.04.15.01

5. Type the user name and its password to connect to the 'Security Management System server'. This user should have 'Administrator' privilege in the 'Security Management System server' software.
6. Navigate to the 'LPR Processors' page from the left-hand side navigation menu



7. Click on the 'Add' button to add a new LPR Processor. This will pop up 'Add LPR Processor' dialog box

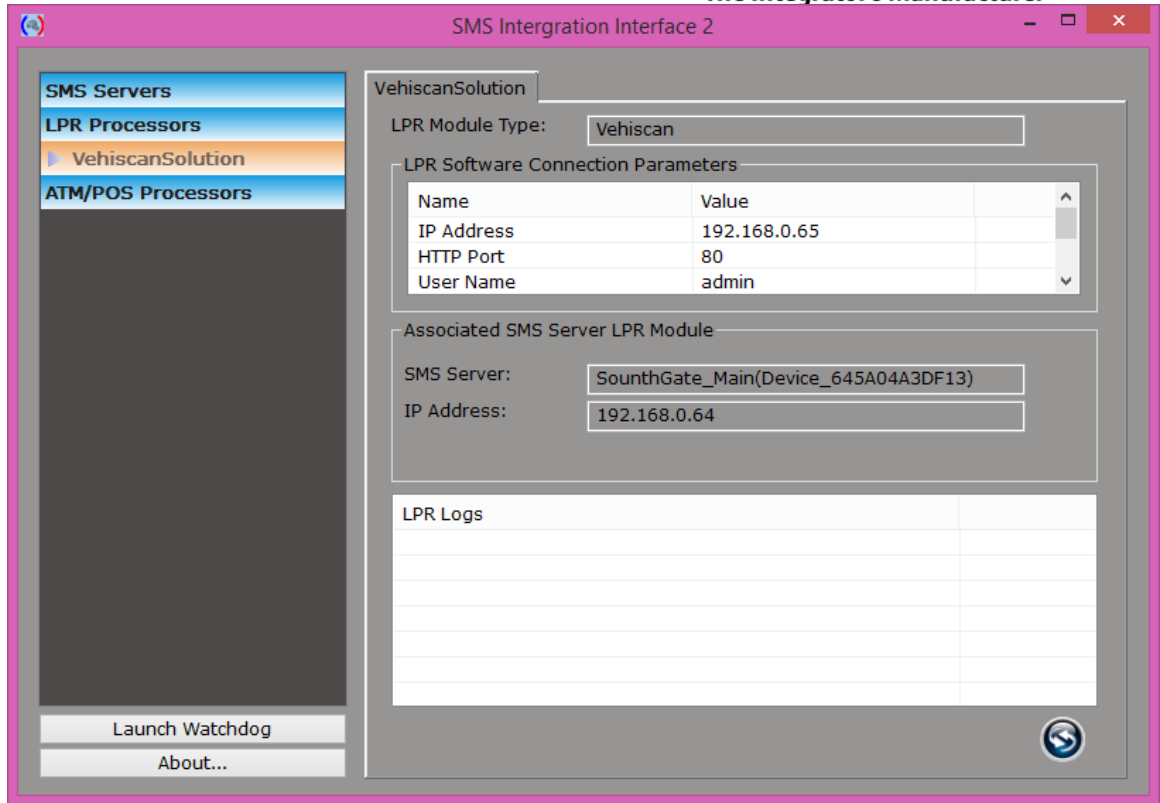
Add LPR Processor

LPR Processor Type
LPR Processor Type: Vehiscan
LPR Processor Name: VehiscanSolution

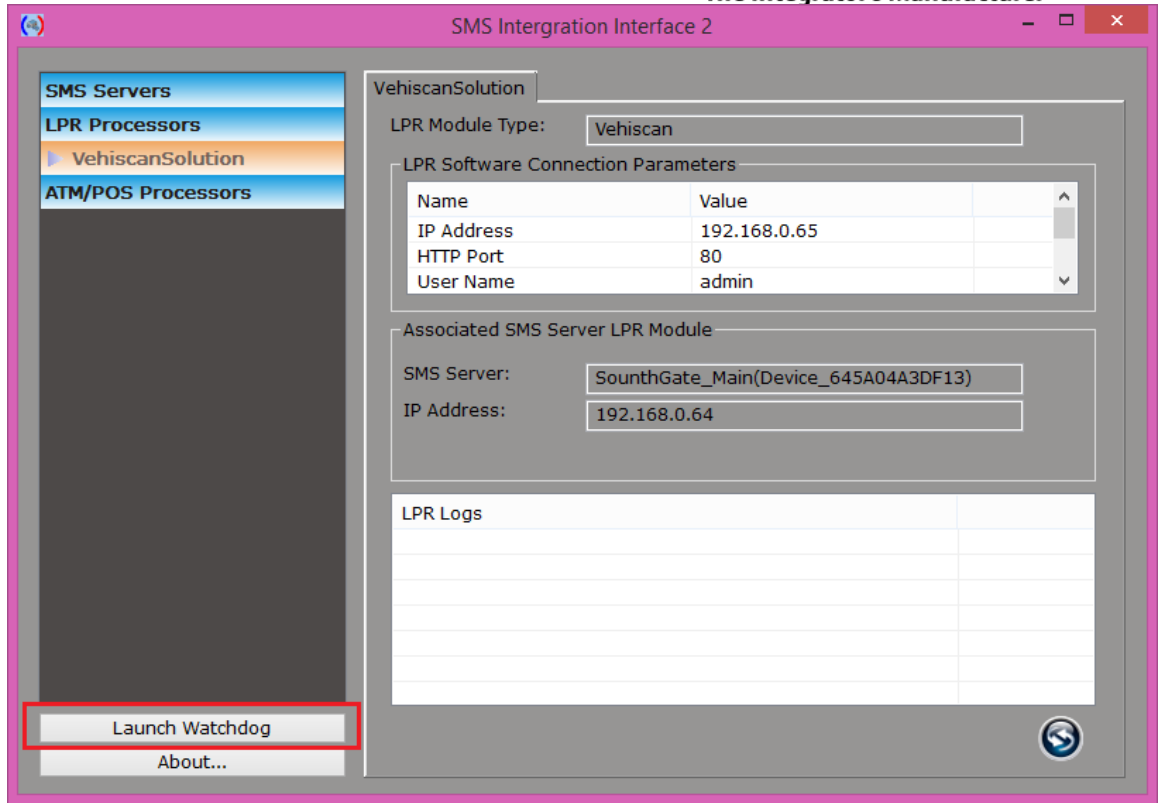
LPR Software Connection Parameters
IP Address: 192 . 168 . 0 . 65
HTTP Port: 80
User Name: admin
Password: ●●●●

Associated SMS Server LPR Parameters
SMS Server: SounthGate_Main(192.168.0.64)

8. Provide the parameters –
 - (a) Select 'LPR Processor Type' as 'Vehiscan'
 - (b) Provide valid 'LPR Processor Name'
 - (c) Under 'LPR Software Connection parameters', provide valid IP Address, port number, user name and password for Vehiscan LPR solution server.
 - (d) Select the target 'SMS server' from the dropdown menu.
9. Click on the 'OK' button to finish adding the LPR processor.
10. Click on LPR Processor name on left hand side navigation menu



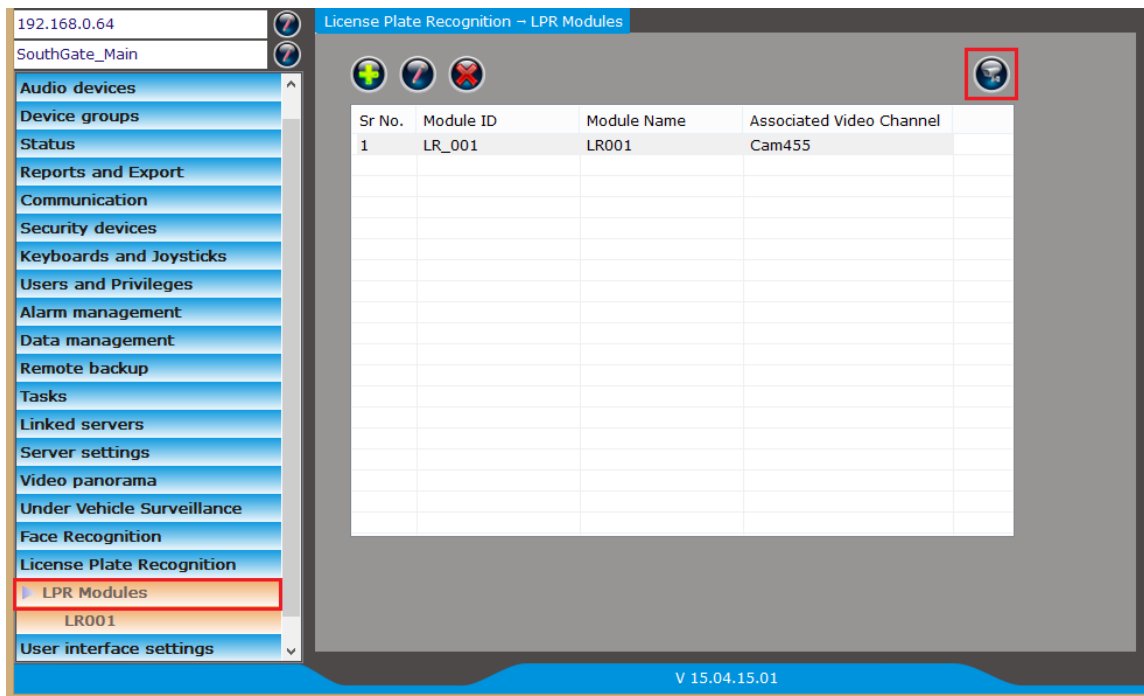
11. 'LPR Logs' list will display recent communication between associated software modules.
12. If the software is being set up for deployment, please click on the 'Launch watchdog' button to start the watchdog application.



A confirmation message box will be displayed. Click on the 'Yes' button to accept and to launch the watchdog application.
Once watchdog application is started, it will also get added to computer's start-up. Hence watchdog and the 'SMS Integration Interface 2' will start automatically after computer reboot.

License Plate Detection Monitor Screen

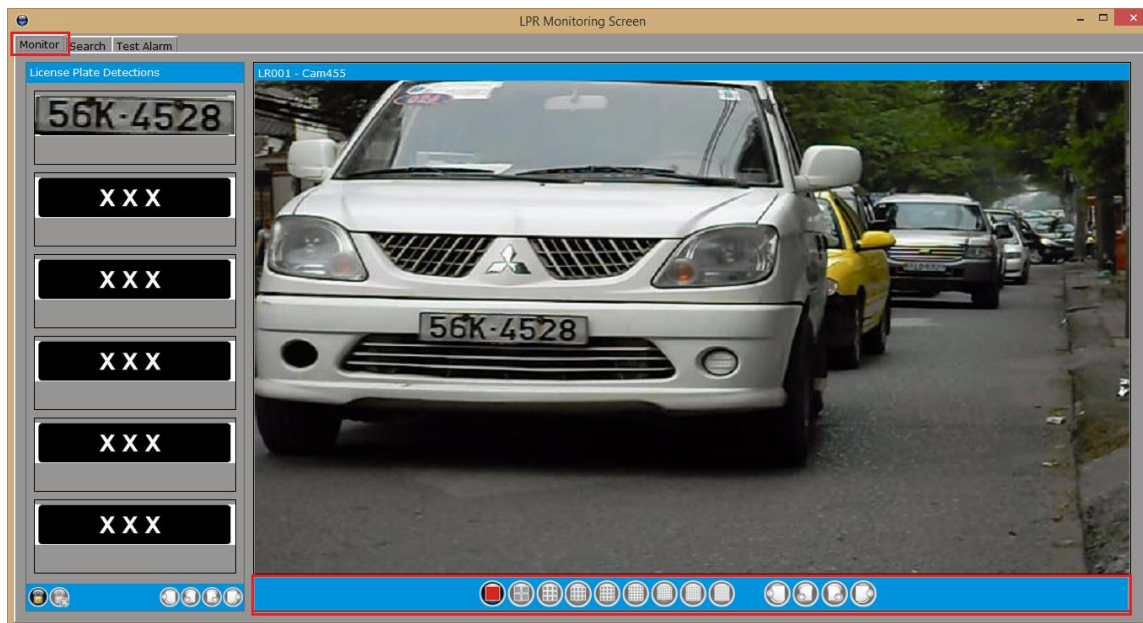
1. In 'Security Management System server' software, navigate to the 'License Plate Recognition -> LPR Modules' page from the left-hand side navigation menu.



2. Click on the 'View Monitor Screen' button to open the LPR monitoring screen.
3. The monitor screen has 3 tabs – 'Monitor', 'Search' and 'Test Alarm'

Monitor tab

1. The 'Monitor' tab has following user interface elements -



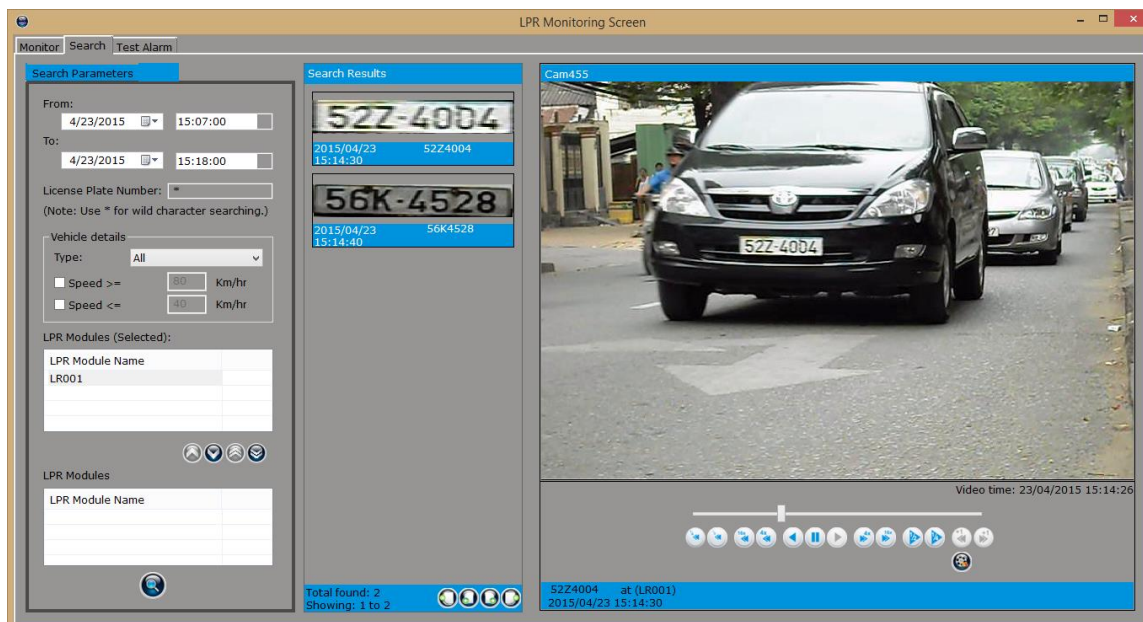
- (a) Live video display: Which displays live video feeds for the associated LPR modules on the right side of the screen. The video toolbar can be used to control the video displays.
 - (b) License Plate Detections: Which is available on the left side of the screen and displays the list of detected license plates. Right click on any of the detected license plate images and select 'LPR Event Details...' to view the 'details window' displaying larger size images and the details about the license plate.
2. 'License Plate Detections' list will be refreshed real-time and display the latest detections.
 3. To view earlier alarms from these lists, please click on the 'Freeze' button available in the control toolbar below the lists. This will enable the page navigation in the list.



4. The real-time list refresh will get disabled while 'Freeze' is in action. Please click on the 'Unfreeze' button to returns to the real-time view mode.

Search Tab

1. The 'Search' tab has following user interface elements –



- (a) Search Parameters section: Which is available on the left hand side. Search parameters can be provided in this section and new search can be initiated.
 - i. Search Time Duration – to specify the search time duration 'From' time to 'To' time
 - ii. License Plate Number – It supports wild card search by typing * character as wild card search string. Typing * as search string returns all detected license plates in selected time duration.
 - iii. Vehicle Details – Extra search parameters can be provided including type of vehicle and speed.
 - iv. LPR Modules – it is possible to select one or more LPR modules which will be included in the search operation.
 - v. 'Search' button is available at the bottom of this section. Clicking on the 'Search' button performs the search operation and displays the search results
- (b) Search Results section: Which displays the search results, as a list.
 - i. Any of the search result can be clicked to view the recorded video associated with license plate detected.
 - ii. Page navigation buttons are available at the bottom of the search results list.
 - iii. Right click on search result and select 'LPR Event Details...' to view 'Details window' which displays larger size image and extra information about detected license plate.

Test Alarm tab

The 'test alarm' tab is not used during normal operations. It is used during configuration and fine tuning of the system, for generating test / dummy data.