

Eagle Eye Application Note - AN035

Configuring VSP in the Eagle Eye VMS (Vehicle Surveillance Package)

2023-02-28 Revision 2.01

Target Audience

This Application Note is intended for Eagle Eye Networks Cloud VMS administrators that use the Vehicle Surveillance Package (VSP) and are responsible for configuring cameras and making significant VMS-related settings changes. Basic working knowledge of the VMS is recommended prior to making any changes to configuration settings.

If you need additional details on the camera installation side of VSP and LPR, please make sure to review the [Camera Installation Considerations for LPR/ANPR](#) App Note (AN033).

VSP Overview

The Eagle Eye Cloud VMS allows for the use of License Plate Recognition (LPR) cameras to Log, Track, Alert, and Search for vehicles captured by the VSP Analytic.

- Archive
- Downloads
- Installer Tools
- VSP
- Summary
- Search
- Alert
- Rule

License Plate	Timestamp	Type	Status	Cleared By
PDJ6551	2021-11-08 08:02:53 (CST)	Deny	Expired	

Latest Plates

Thumbnail	License Plate	Camera
	 NGC4559	Main Entrance
	 PPG2922	Main Entrance
	 UHH3471	Main Entrance

Theory of Operation

The Eagle Eye VSP allows users to monitor vehicle activity from LPR cameras throughout the entire account. LPR cameras capture and log the following:

- Thumbnails of the camera's field of view
- The detail of what the LPR camera detected (the License Plate)
 - This includes tags of the Camera Name, Location, and a Timestamp on the VSP Summary page within the VMS.

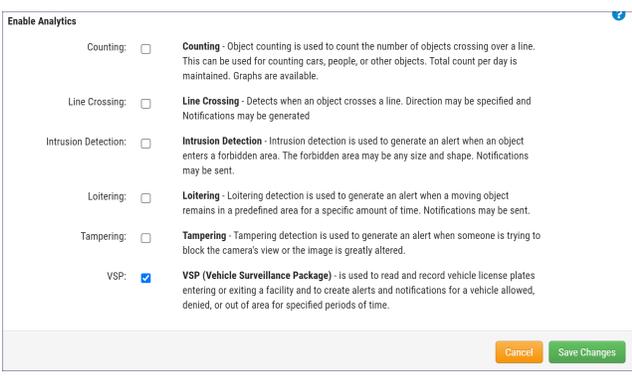
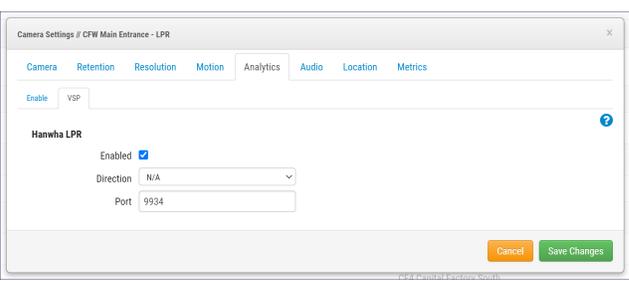
These captured events allow the user an opportunity to Search for a vehicle event, then watch the captured video of the event by simply clicking on the event Thumbnail. Further enhancing the experience is the ability to set specific Rules regarding vehicle details that are captured. Vehicles can then be listed as Allowed, Denied, or Watched for a predetermined amount of time.

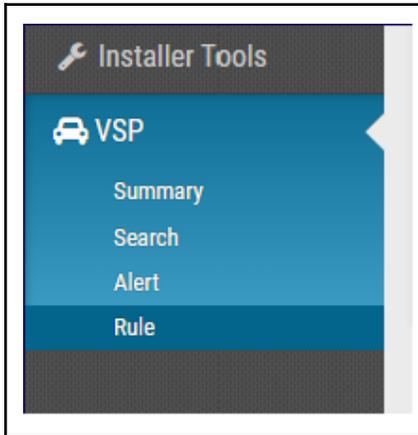
Functionality

VSP works in conjunction with the Eagle Eye LPR solution for compatibility with any supported camera of the VMS. New LPR cameras are not a requirement of the Eagle Eye VSP solution. The Eagle Eye VSP solution can also be used with the Hanwha Vision's (formerly Hanwha Techwin) LPR camera models (XNO-6120R/LPR & XNV-6120R/LPR).

Setup:

Once the camera has been added to an account, Turn on VSP in the Camera Settings.

	
<p>This analytic becomes an option in the camera settings whenever one of compatible LPR cameras from Hanwha or Eagle Eye LPR is added to an account.</p>	<p>Once enabled, the VSP dashboard will appear in the End User account.</p>



The VSP dashboard is seen on the bottom **Left Hand Menu** of the Eagle Eye VMS. It includes a **Summary** of activity, the **Search** page, the **Alert** menu, and the **Rule** creation page.

- The Account **Summary** page lists current activity for all LPR cameras, Latest Alert events, and the last 10 license plates (Latest Plates) read.

Account Summary				
Last Hour	Today	Month To Date	Year To Date	Total
41	254	12,191	15,731	15,731

Latest Alert								
License Plate	Timestamp	Type	Status	Cleared By	Clear Reason	Cleared At	Camera	Location
8E95411	2021-10-26 10:17:31 (CDT)	Deny	Active				Main Entrance LPR	CF3 West
E95411	2021-10-25 13:24:08 (CDT)	Deny	Active				Main Entrance LPR	CF3 West
PDJ6551	2021-10-04 08:06:27 (CDT)	Watchlist	Expired					

Latest Plates				
Thumbnail	License Plate	Camera	Location	Timestamp
	 JLP7603	Main Entrance LPR	CF3 West	2021-11-15 12:27:38 (CST)

Below the Plates is a Camera Summary which lists all attached VSP cameras.

Camera Summary					
Camera	Last Hour	Today	Month To Date	Year To Date	Total
Main Entrance LPR	40	249	4,688	8,040	8,040
CF3 Warehouse LPR	1	5	7,503	7,691	7,691

- The **Search** page includes a search menu, including plate input, date range, location, and camera filters. A Google Map showing the physical location of VSP cameras and the Thumbnails for all historic VSP events.
- Every license plate event has license plate predicted, evidence thumbnail, Crop of the license plate, and data & time with camera and location details included. In addition to license plate detail, Eagle Eye LPR also predicts both the vehicle Make and Color.

Q VSP Search

License Plate:

Date Range: 2023/02/21 0:00:00 - 2023/02/25 0:00:00

Location: Any location

Camera: Any camera

Search

Showing 11 to 20 of 636 entries

Thumbnail	License Plate	Camera	Location	Timestamp	Make Model	Color
	 DGX138	EEN HQ Entrance LPR	Capital Factory West	2023-02-24 05:09:11 (GMT+5:30)	Mercedes-Benz	Gray
	 KXC9506	EEN HQ Entrance LPR	Capital Factory West	2023-02-24 04:50:54 (GMT+5:30)	Volkswagen	White
	 RBZ6093	EEN HQ Entrance LPR	Capital Factory West	2023-02-24 04:49:29 (GMT+5:30)	Nissan	Black

- The **VSP Alerts** page allows users to manage and search through all events that took place due to one of the established **Rules**

🔔 VSP Alerts

Status: All

Date Range: 2023/02/17 0:00:00 - 2023/02/25 0:00:00

Type: All VSP Alerts

Cleared by: Any

License Plate:

Location: Any location

Search

Showing 1 to 10 of 29 entries

License Plate	Timestamp	Type	Status	Cleared By	Clear Reason	Cleared At	Camera	Location
JWH6952	2023-02-23 05:06:17 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West
PMT7648	2023-02-23 05:01:52 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West
SHC2768	2023-02-23 04:55:39 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West
SMH3063	2023-02-23 04:49:39 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West
JGJ4867	2023-02-23 04:45:43 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West

- The **VSP Rule** page allows users to set rules for captured license plates. The rules create alerts for three specific reasons.
 - **“Allow”** keeps a log of all plate reads for vehicles allowed on-premises, as well as the ability to alert any or all users.
 - **“Deny”** keeps a log of all plate reads for vehicles disallowed on-premises, as well as the ability to alert any or all users.
 - **“Watch”** creates a timed event that will notify users when the vehicle is captured and then again if it is not re-captured in a set amount of time (for example, if a “watched” vehicle departs but does not return within an expected amount of time, send a user a notification).

VSP Alerts

Status: All | Date Range: 2023/02/17 0:00:00 - 2023/02/25 0:00:00

Type: All VSP Alerts | Cleared by: Any

License Plate: | Location: Any location

Search

Showing 1 to 10 of 29 entries

License Plate	Timestamp	Type	Status	Cleared By	Clear Reason	Cleared At	Camera	Location
JWH6952	2023-02-23 05:06:17 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West
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JGJ4867	2023-02-23 04:45:43 (GMT+5:30)	Allow	Active				EEN HQ Entrance LPR	Capital Factory West

The **“Watch”** Type has duration settings from 15 to 120 minutes.

VSP Rule

License Plate: | Location: Any location | Type: Watch | Duration: 15 Minutes | Recipients: 1 user

Save

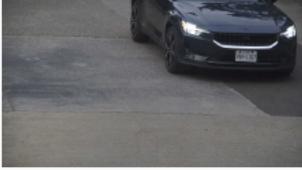
Limit: 10

License Plate	Location	Type (Watch / Allow / Deny)	Date-Time Created	Recipients	Actions
No Result					

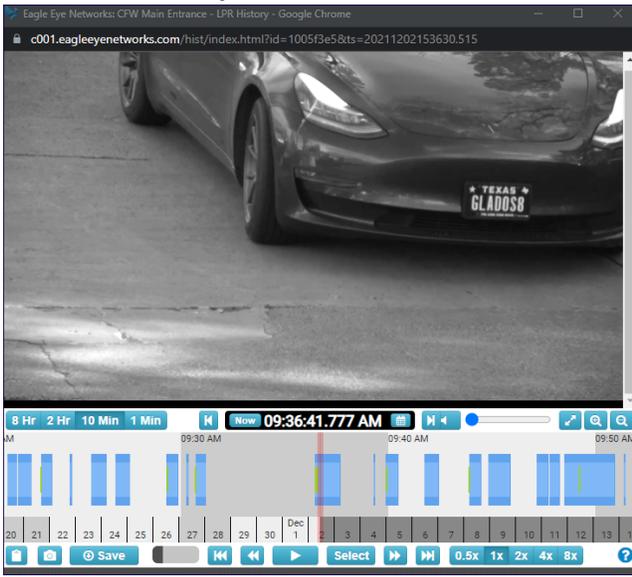
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Application

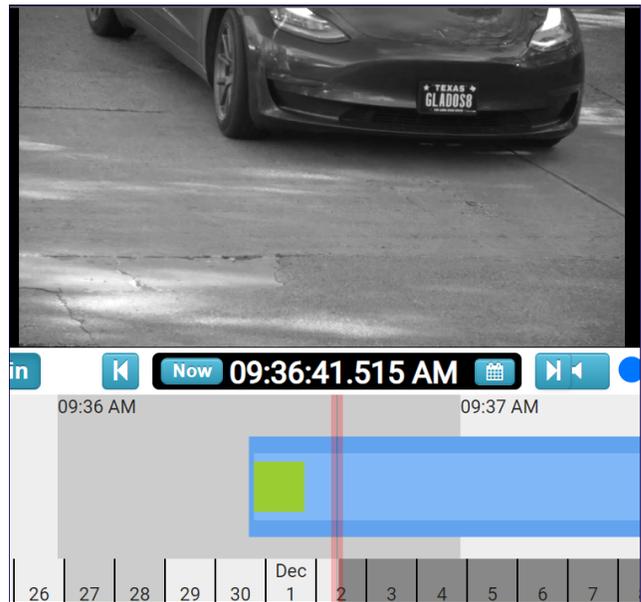
VSP is an Eagle Eye Networks VMS application that can provide further security and operational data to an organization. Users will have the ability to easily review video of any LPR event from the VSP dashboard in both the **Summary** and **Search** pages.

	 JGL1582	<p>Zoom-in on Plate Thumbnails (The History Browser can be accessed by clicking the Thumbnail)</p> 
	 DS5L842	
	 RHR9115	
	 RBP3397	

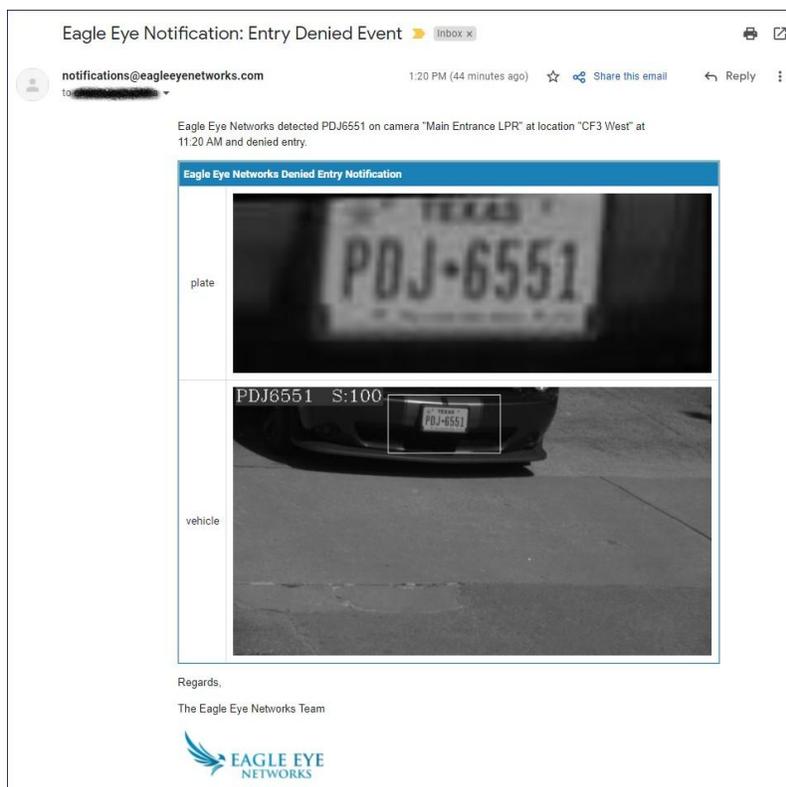
Clicking on the Thumbnail brings up the standard History Browser



The History Browser, with a Green Analytic Alert Notification on the Timeline



An account with VSP enabled will give users an option to receive Alert Notifications generated by Rules, which can provide security when vehicles have been barred from the premises, or allow for the tracking of authorized and unauthorized vehicle usage as seen below.



Alerts are managed via the **Alert** page. All Types of alerts have a Status of Active until the alert is Cleared by an authorized user.

Showing 1 to 3 of 3 entries Limit 10

License Plate	Timestamp	Type	Status	Cleared By	Clear Reason	Cleared At	Camera	Location	Actions
543E4U	2021-12-01 12:53:46 (CST)	Deny	Active				CFW Main Entrance - LPR	CF3 West	<button>Clear alert</button>
543E4U	2021-12-01 12:53:44 (CST)	Allow	Active				CFW Main Entrance - LPR	CF3 West	<button>Clear alert</button>
543E4U	2021-12-01 12:53:42 (CST)	Watchlist	Active				CFW Main Entrance - LPR	CF3 West	<button>Clear alert</button>

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'Clear Reasons' are as follows: Override, Authorize, or Incorrect.

Casey Hendren (Capital Factory)
12:58:00

Clear alert X

Clear reason:

- OVERRIDE
- AUTHORIZE
- INCORRECT

Cancel
Clear alert

Location

License Plate	Timestamp	Type	Status	Cleared By	Clear Reason	Cleared At	Camera	Location	Actions
543E4U	2021-12-01 12:53:46 (CST)	Deny	Active				CFW Main Entrance - LPR	CF3 West	<button>Clear alert</button>
543E4U	2021-12-01 12:53:44 (CST)	Allow	Active				CFW Main Entrance - LPR	CF3 West	<button>Clear alert</button>
543E4U	2021-12-01 12:53:42 (CST)	Watchlist	Active				CFW Main Entrance - LPR	CF3 West	<button>Clear alert</button>

Once Cleared, the Alert will show the user who cleared it and the reason it was cleared:

License Plate	Timestamp	Type	Status	Cleared By	Clear Reason	Cleared At	Camera	Location	Actions
543E4U	2021-12-01 12:53:46 (CST)	Deny	Cleared	Casey Hendren	AUTHORIZE	2021-12-01 12:58:22 (CST)	CFW Main Entrance - LPR	CF3 West	<button>Cleared</button>
543E4U	2021-12-01 12:53:44 (CST)	Allow	Cleared	Casey Hendren	OVERRIDE	2021-12-01 13:01:36 (CST)	CFW Main Entrance - LPR	CF3 West	<button>Cleared</button>
543E4U	2021-12-01 12:53:42 (CST)	Watchlist	Cleared	Casey Hendren	INCORRECT	2021-12-01 13:01:42 (CST)	CFW Main Entrance - LPR	CF3 West	<button>Cleared</button>

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Notes and Other helpful details

It is very important for the camera to be installed correctly. The Hanwha Vision LPR camera has very specific settings that need to be set for optimal performance, as well as an

integrated LPR Application that needs to be configured properly in order for the Eagle Eye Cloud VMS to receive plate reads and all relevant data for the VSP Analytic. Even when set properly, there is no way to guarantee that the camera will be 100% accurate. It is important to evaluate the accuracy of your installation for the best user experience. In an investigation, it may be important to search for “incomplete” data in order to make sure there are no instances where VSP Search could miss incomplete plate results.

In the example below, an incomplete search for plate data you are looking to investigate actually includes more results because there could be instances where the plate was mislabeled and a search for only an exact match would not include the partial data.

<p>Q VSP Search</p> <p>License Plate: <input type="text" value="529"/> Date Range: <input type="text" value="2021/11/25 0:00:00"/></p> <p>Location: <input type="text" value="Any location"/> Camera: <input type="text" value="Any camera"/></p> <p><input type="button" value="Search"/></p>	<p>Q VSP Search</p> <p>License Plate: <input type="text" value="PTH5295"/> Date Range: <input type="text" value="2021/11/25 0:00:00"/></p> <p>Location: <input type="text" value="Any location"/> Camera: <input type="text" value="Any camera"/></p> <p><input type="button" value="Search"/></p>																																												
<p>Showing 1 to 10 of 23 entries</p> <table border="1"><thead><tr><th>Thumbnail</th><th>License Plate</th></tr></thead><tbody><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PIH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PI115295</td></tr></tbody></table>	Thumbnail	License Plate		PTH5295		PTH5295		PTH5295		PIH5295		PTH5295		PI115295	<p>Showing 1 to 10 of 14 entries</p> <table border="1"><thead><tr><th>Thumbnail</th><th>License Plate</th></tr></thead><tbody><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr><tr><td></td><td>PTH5295</td></tr></tbody></table>	Thumbnail	License Plate		PTH5295																										
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