



**License Plate Recognition
Law Enforcement Archival & Reporting Network (LEARN)
LEARN Data Subscription Proposal**



**Prepared for
New York City Police Department
April 2014**



The New York City Police Department (NYPD) currently has 50 Detectives assigned to the Real Time Crime Center that are using LEARN and providing investigative analysis to field Detectives based upon the commercially harvested data and analytics contained therein. LEARN Data Subscriptions are offered on an annual, per user licensing schedule as defined below.

The New York State Division of Criminal Justice Services (DCJS) has an existing agreement with Vigilant to provide a LEARN Data Subscription into the Regional Crime Centers operated and funded by DCJS. This data subscription was priced upon the standard model offered by Vigilant as an Agency license and not on a per user basis. DCJS negotiated a per user pricing model and made available to any Agency in the State of New York the ability to use LEARN as described above.

While several per user software service models currently in use by DCJS were discussed during initial conversations, as noted by Vigilant representatives there are major differences in the manner that LPR data in LEARN differs from those software services in use by DCJS.

Vigilant stands different in that all of the data provided is cultivated, housed, maintained and funded strictly within the Vigilant Solutions realm. The significant cost and infrastructure maintained places a level of value beyond that of a software service that collects publicly available data or Agency provided data for criminal investigations and makes that available via 3rd party services.

This proposal contains a per user pricing model, structured to provide a sliding scale discount dependent upon the number of users.

As this service has not been offered for bid by the NYS OGS, the proposal is modeled for to offer this as a sole source product, and facilitate the assignment of user licenses via LEARN.

Per user licensing fees based upon an annual subscription basis:

1 – 40 users:	\$3000.00 Per User Annually
41 – 99 users:	\$2250.00 Per User Annually
100 + users:	\$1250.00 Per User Annually

This model is based upon a minimum of 40 user licenses annually. Additional licenses over 40 are considered as an "add" to the 40 user minimum. Subject to a maximum 8% annual increase after year 1 unless otherwise contracted.



**License Plate Recognition
Law Enforcement Archival & Reporting Network (LEARN)
Private LPR Data Subscription Overview
Scope of Work**



**Prepared for New York City Police Department
Real Time Crime Center
June 2014**

Introduction

This document is provided to highlight insight into how Vigilant Solutions' License Plate Recognition (LPR) data and Law Enforcement Archival & Reporting Network (LEARN) Enterprise LPR application can aid Law Enforcement Officers (LEOs) in their mission and respective enforcement practices. Vigilant is the leading LPR provider in North America serving over 30,000 US based law enforcement officers amongst more than 3,000 Law Enforcement Agencies (LEAs) with Vigilant LPR products and services.

Private LPR Data

As an integral part of its LPR Enterprise 'Total Solution', Vigilant makes available access to the nation's largest repository of collected 'Private LPR Data'. Nationwide, Vigilant has deployed more LPR cameras than any other LPR company in the North American market collecting over 2.2 Billion LPR data records in total and growing at a rate approaching 100,000,000 new LPR data records every month. Vigilant's LPR data is collected in almost every major metro in the United States, as seen in the below density map.



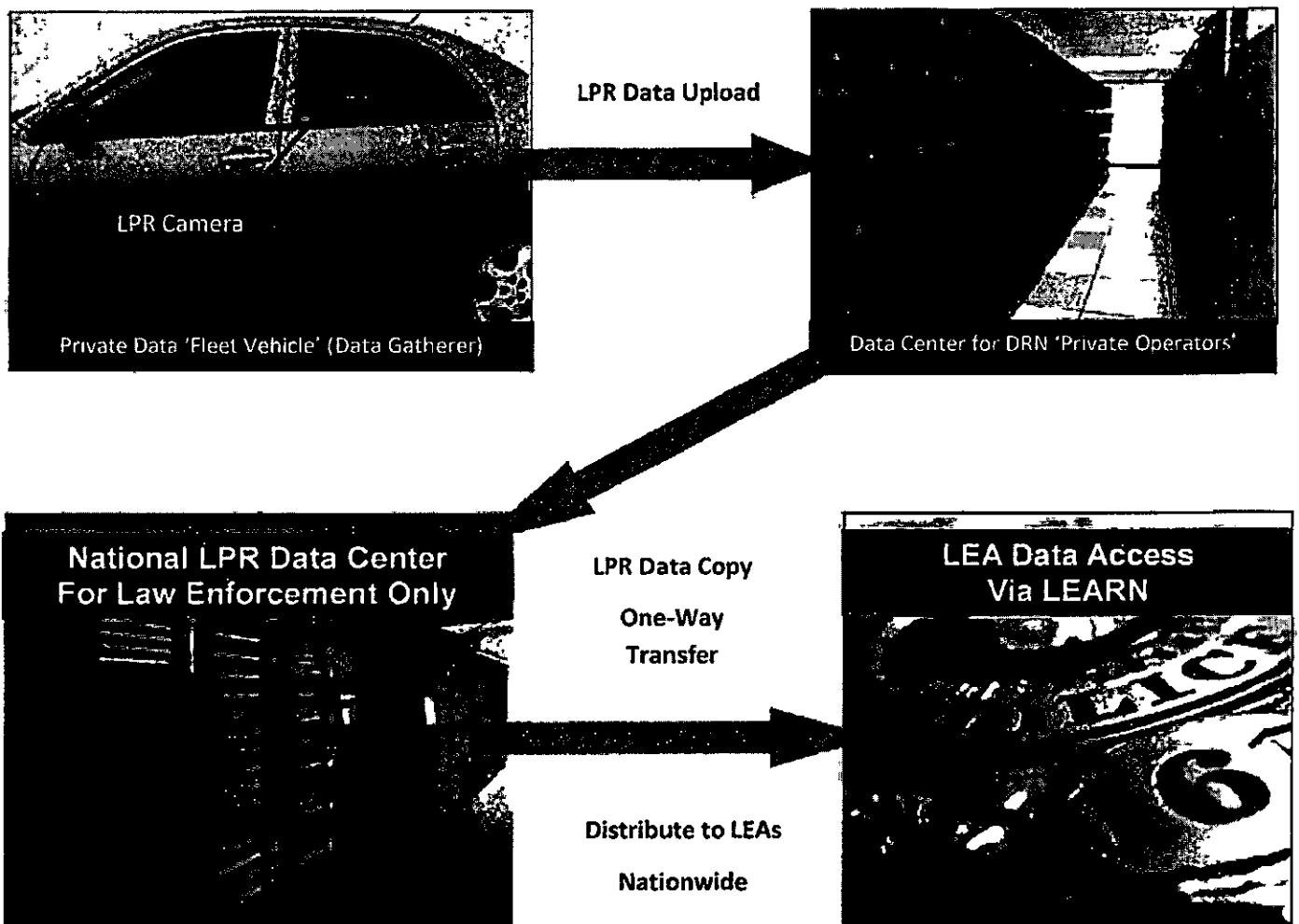
*Nationwide Scan Density Map – Private LPR Data
Approaching 2.2 Billion Total Database Vehicle Location Records
Approximately 80,000,000 New Records Monthly*

This "private LPR data" is made available via Vigilant's national law enforcement data sharing initiative known as the LEARN Database. To accomplish this, Vigilant created a company called Digital Recognition Network (DRN) to service non-law enforcement market segments. DRN, and its customers, provide copies of all LPR scans to Vigilant for law enforcement use. Vigilant does not share any of its information back to DRN or any other entity; Vigilant's sole purpose is to serve its law enforcement customers.

DRN holds a dominant market share position in deploying LPR technology into the asset recovery market and has created strong business relationships with thousands of private LPR Fleet Operators (LFOs) who utilize

Vigilant's LPR products to gather vehicle license plate data in the course of conducting their business. LFOs, for business reasons, gather vehicle license plate data in locations where vehicles may reasonably be expected to remain or re-appear for an extended period of time (i.e. residential areas, apartment complexes, retail areas, and business office complexes with large employee parking areas). This is in contrast to the majority of LPR data gathered by LEAs wherein data is typically gathered from vehicles "in-transit" so that the LEA might have the additional benefit of immediate intervention of an occupied vehicle of interest. For these reasons, Vigilant's network of private LPR data significantly complements the data gathered by LEAs and greatly enhances the investigative opportunities.

A process diagram of operations is as follows:

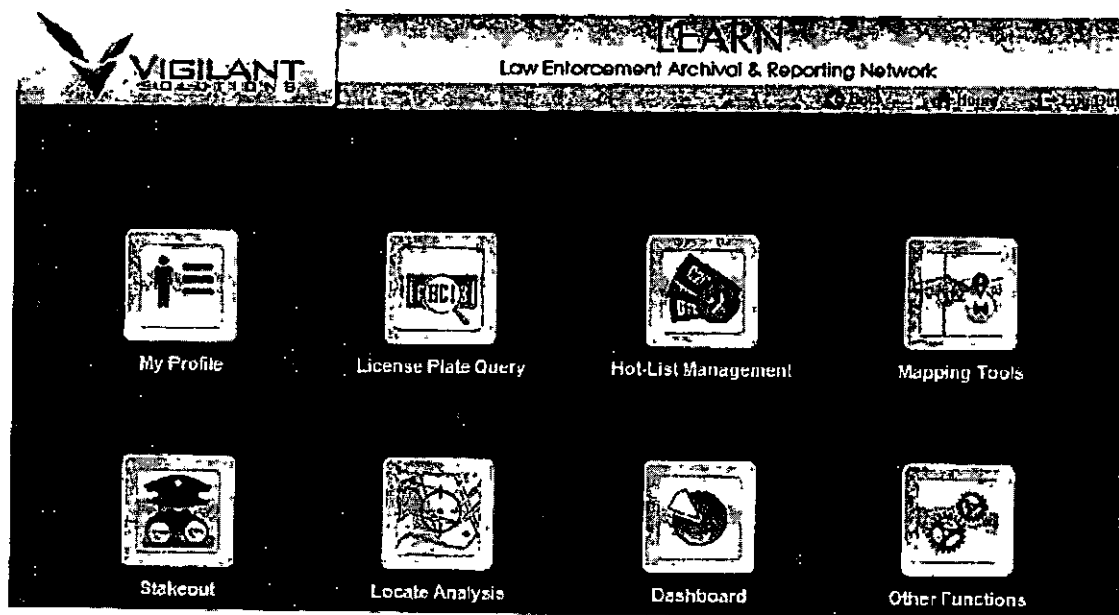


Notes:

1. Vigilant's national LPR data depository and Private Operator LPR servers are different physical server platforms
2. All data transfers to the national law enforcement data center are one-way in nature. There is no reciprocal sharing of data.
3. No civilian data access permissible via Vigilant's National LPR Data Center; access is restricted to law enforcement only.

LEARN Interface

Access to Vigilant's Private Data LPR records, and shared LEA LPR records is made available to law enforcement via Vigilant's LEARN server application. LEARN is the industry-leading enterprise LPR data management and analytics platform.



*Law Enforcement Archival Reporting Network - LEARN
Enterprise LPR Management & Analytic Platform*

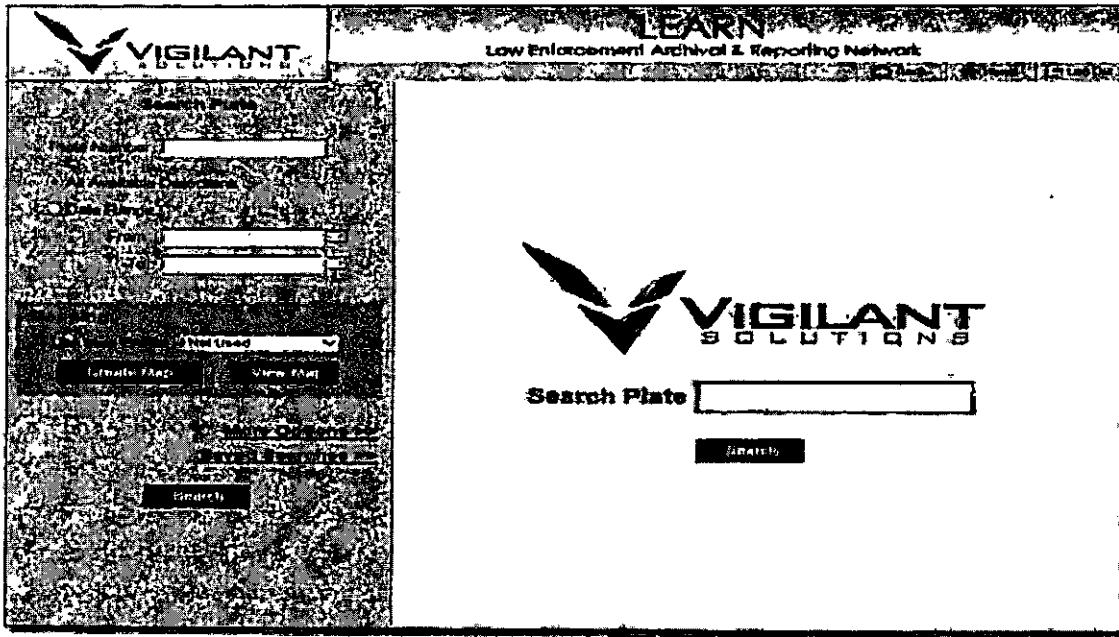
Featuring a full suite data analytics tools, and combined with Vigilant's LPR data, LEARN provides the investigative staff with:

- Unsurpassed data driven intelligence
- Assistance in locating vehicles of interest resulting
- Apprehension of offenders
- Prevention of crime
- Improved officer safety
- Situational Awareness

Key Features

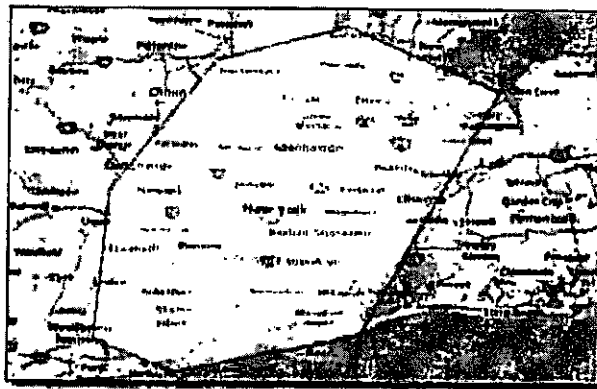
License Plate Query

LEARN allows the user to leverage Vigilant's LPR data in a number of ways, including advanced vehicle location query capabilities. Whether using a known license plate number, full or partial, date/time, and/or a geographical location as input criteria, the user-friendly interface simply and quickly conducts historical and real time queries against the search parameters. Filters can be applied to include or exclude variables such as the source of the LPR data, systems, users, and more. Search criteria may also be saved for later review against incoming (refreshed) data to further enhance the success of any investigation.



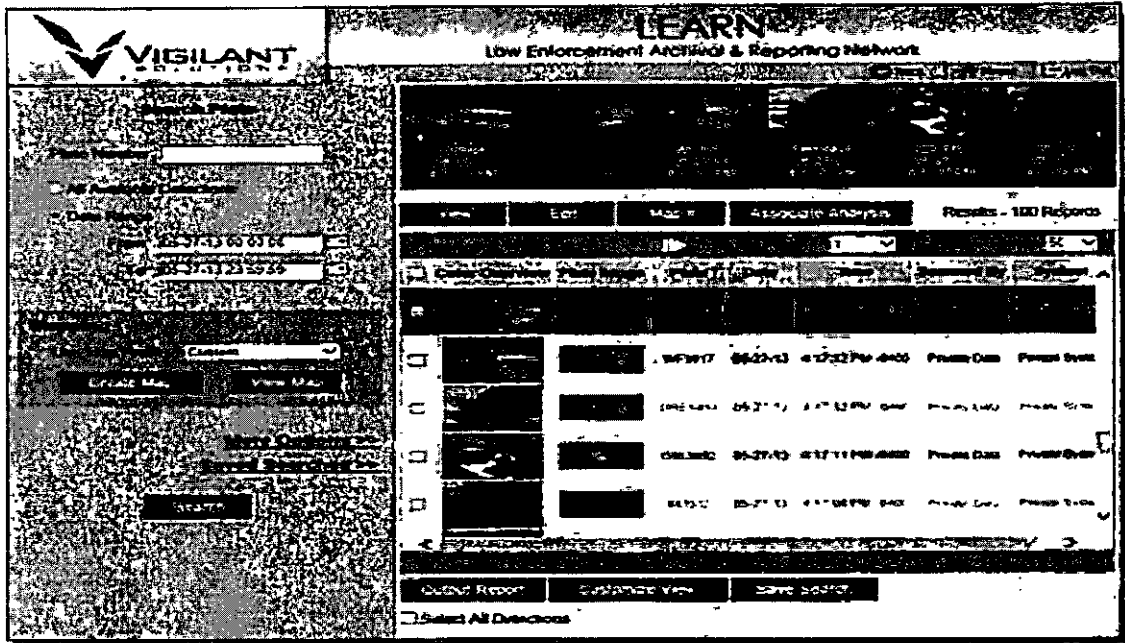
License Plate Query Search Page – Basic Search

Geo-zoning allows the user to actively search an area of interest as it relates to the suspicion of criminal activity within a given geographic area including additive target time frame. A simple map interface allows the user to draw polygonal shapes to define a region of interest. These user-created geo-zones may be saved for quick reference in a library of target geographical zones, therefore eliminating repetitive re-creation of target maps.



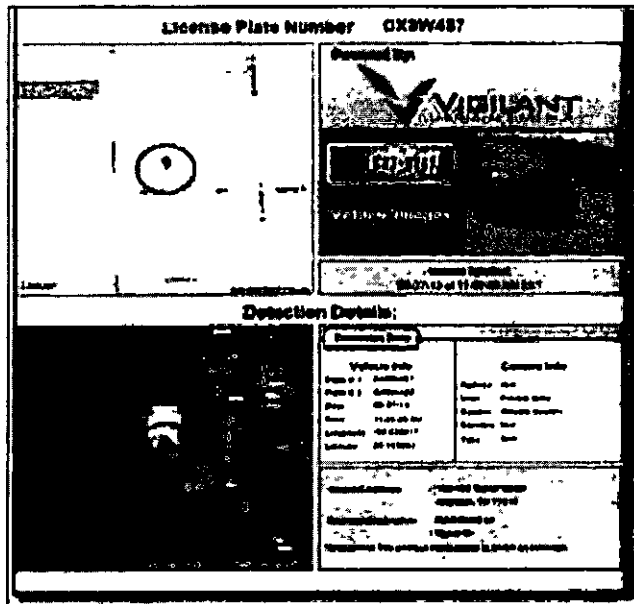
License Plate Query – Sample Geographic Search

Query results include a color overview image of the vehicle, a picture of the license plate, the system's interpretation of the license plate, date and time of the scan, latitude and longitude, as well as the user and system that created the scan. The system also provides a feature that resolves the geographic coordinates to a nearest physical address and nearest intersection which is helpful for situations requiring immediate dispatch.



License Plate Query - Search Results

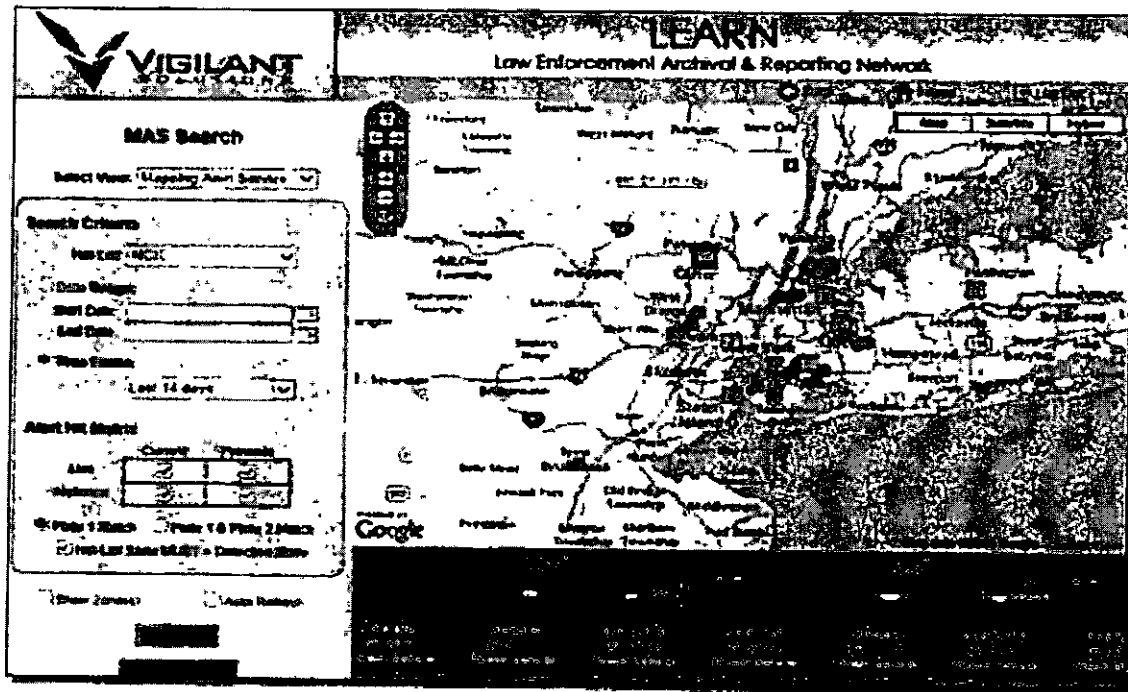
A filmstrip appears at the top of the return page, allowing the user to scroll through the list of color overview photos, and hovering on a photo produces a large image for more thorough inspection of the photograph. Individual or multiple license plate scans may be viewed for further analysis, exported to a PDF or Excel document for inclusion in a case file, or plotted on a map for location and clustering analysis.



Vehicle Detection Report in PDF Format

Mapping Alert Service

LEARN has an integrated utility called Mapping Alert Service (MAS). The MAS utility allows clients to access Private Data in a Geographical Information Systems (GIS) user interface. The accessible records are a product of Private Data records, matched against client loaded target vehicle Hot-Lists. This means you enter the target vehicle license plate, and Vigilant matches Private Data vehicle locations and plots them in a GIS environment. Each time a new data record is transferred to the national LPR server, it is matched against the existing Hot-List records and plotted. All positive matches are immediately made available for the client user to access (with appropriate permissions) via LEARN User account.



Mapping Alert Service - Result Page

Hit matches are made available and displayed in the MAS interface as customizable Icons (representative of alert classification) geo-located within the designated/zoned area, and plotted on a multi-view map interface. All LPR records may be viewed by the LEARN user with full detail including:

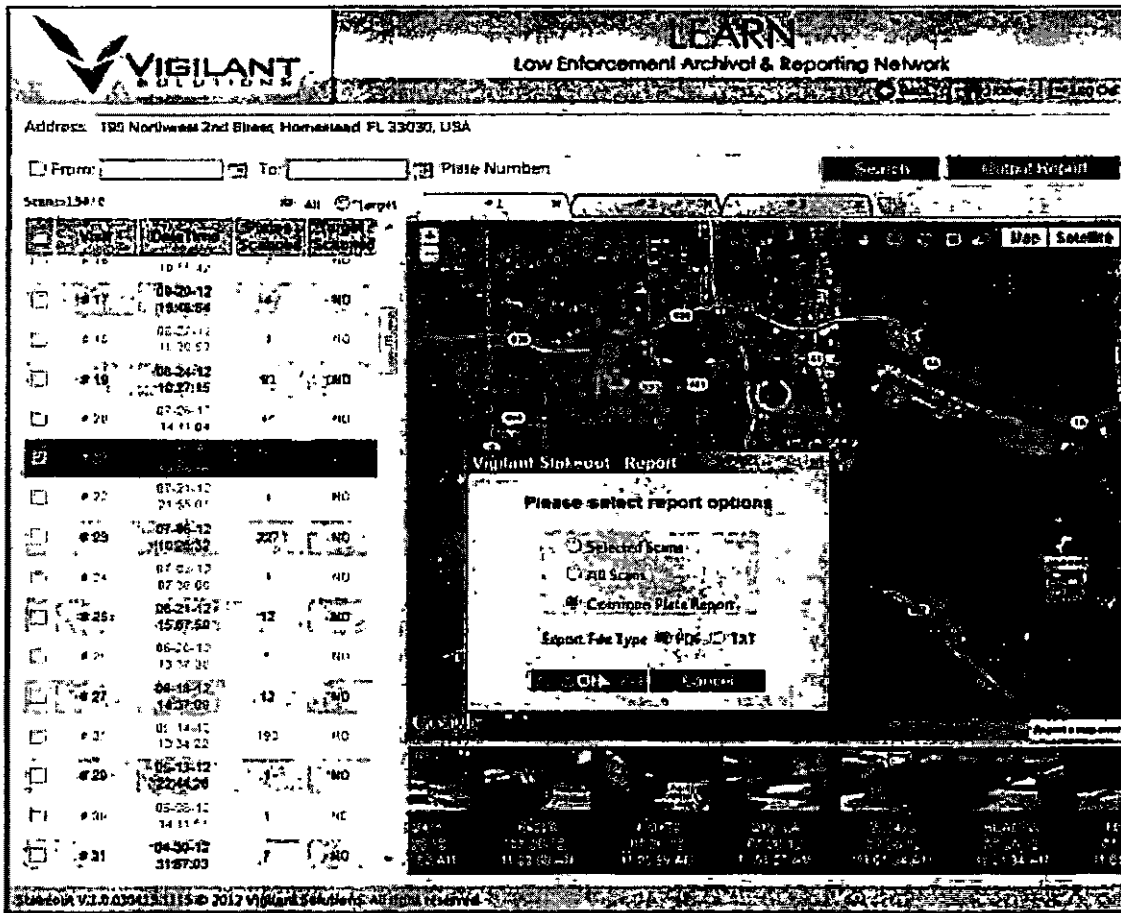
- Color vehicle overview image
- Infrared license plate image
- License plate number translation
- Date/Time of field event
- GPS coordinates / map location
- Associated Hot-List metadata

All LPR data is made available within moments of field acquisition. Depending on network latency and server operations, the average time for Private Data records to become available within LEARN is a fraction of a minute.

Stakeout Analytics – Common Plate and Associate Analysis

LEARN provides powerful analytics to provide previously unseen insights into LPR data. The Stakeout feature of LEARN allows investigators to virtually “stakeout” a location on a given time and date, providing visibility to LPR “visits” around that location within a user-drawn geo-fence.

The Stakeout feature of LEARN allows investigators to virtually stakeout a location on a given (geographic zone, date and time), providing visibility to LPR “visits” around that location within a user-drawn geo-fence. With a selection of multiple like kind criminal areas, Vigilant’s Stakeout quickly processes ‘Common Plates’ to offer suspect leads that otherwise would not be available. This includes leads for serial crimes to identify a common vehicle to multiple locations of interest, indicating potential witnesses and/or suspects.

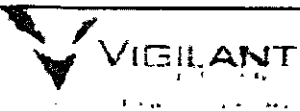


Stakeout

Similarly, the Stakeout feature interfaces with the License Plate Query tool to provide “Associate Analysis”. Simply query LEARN for vehicle locations of a known license plate, select one or more detections, and use the ‘Associate Analysis’ tool to send the results to Stakeout. The resulting “Common Plate Report” will provide investigators with other vehicle license plates commonly seen in close proximity to the known suspect. These could be possible associates of the suspect, or conversely could be used to establish pre-meditation or stalking of a victim.

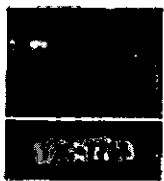
Locate Analysis

Locate Analysis is a feature only available in LEARN, and provides a detailed analysis of the most likely locations to find a vehicle of interest based upon a number of statistical measurements. Analysis is conducted based upon the number of times a vehicle has been scanned at or near an address, how many total LPR visits were made to that location, whether the location is a public or private area, date first seen, date last time, vehicle popularity at the location, and whether the vehicle is most likely to be seen during day or night hours. A Locate Analysis report can be generated and presented to an investigative unit in a clear and concise format.




Locate Analysis Report

TARGET LICENSE PLATE: FMC7788
First Seen: 05/05/2012 05:15 AM
Last Seen: 11/23/2013 05:11 AM



Most Recent Sighting:
11-23-13
05:11:36 AM



Most Recent Daytime Sighting:
09-20-13
12:16:51 PM

Total Addresses Analyzed: 4
Total Detectors: 14

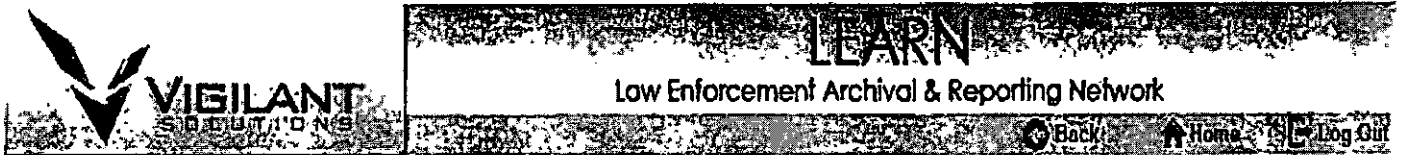
Location Summary

PLATE	Address	Address Type	Count	Popularity	First Seen	Last Seen	Image
FMC7788	121 West 24th Street, New York, NY 10011, USA	Public	1	25%	05/05/12	11/23/13	
FMC7788	111 Ocean Street, New York, NY 10013, USA	Public	1	25%	05/05/12	11/23/13	
FMC7788	100 West 18th Street, New York, NY 10011, USA	Public	1	25%	05/05/12	11/23/13	
FMC7788	11 Liberty Street, Washington Heights, Borough of Manhattan, NY 10011, USA	Public	1	25%	05/05/12	11/23/13	

Locate Analysis also provides the user with the ability to enter the best public records address of the vehicle owner, as well as populate any DMV address information. Those areas may then be searched via Locate Analysis to determine if the vehicle has been scanned at or near the address, as well as provide the number of times an LPR equipped vehicle has been at that location.

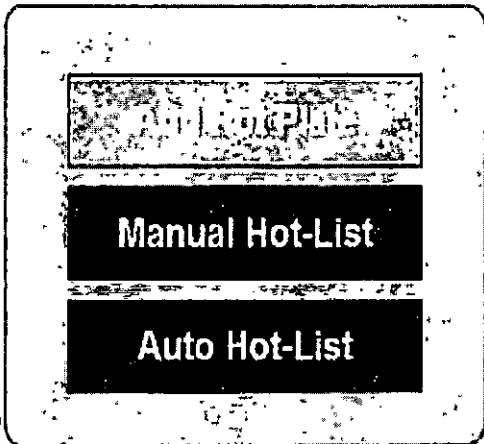
Hot List Management

Users maintain the ability to add an unlimited number of "hot list" license plates into LEARN. Using this feature, a license plate is entered into LEARN and becomes an active hot listed plate. Should any of the privately operated LPR scout vehicles scan a license plate that matches the hot list vehicle entered, the user receives an email alert that the vehicle has been scanned. This scope may be further expanded by entering the email address of a person that is not a registered user in LEARN, but has an immediate need to receive notification that the vehicle of interest has been scanned. Furthermore, by using LEARN, should the hot list plate be scanned anywhere in the Country, the user will be notified via email with the exact location of the scan. Transgressing the boundaries of locally harvested data, LEARN provides a broader scope of investigative lead sources.



Hot-List Upload Activities

Hot Plate Attributes



Step 2 : Select Hot-List Record Information

Date of Load:

Order Date:

Assign Alert Level:

Distribution:

Email Recipient(s):

Make Inactive after:

Generate historical Hits for last: Days (Optional)



Agency Management

LEARN provides extensive agency management controls including:

- Management of Users – Users may be added and deleted, user privileges established and modified, and user alert settings configured
- Hot-List Management – Hot-Lists of almost any variety can be imported and configured within LEARN for automated updating based on an agency-defined schedule. These hotlists are consolidated within LEARN and made available to connected LPR systems, and also for used for locating vehicles of interest in Vigilant’s “private” data and made known through LEARN’s Mapping Alert Service, or in a mobile LPR system via the Mobile Hit Hunter feature
- Auditing – LEARN provides auditing of all user activity for proper governance and oversight. All user queries and reports are clearly visible to Agency Managers for reporting purposes

Data Migration

Vigilant stands alone as the only commercially available data hosting Company with the ability to combine existing LPR data together with the advanced analytic tools of LEARN.

Using a web services application, Vigilant is able to migrate all LPR data from an existing LPR server (regardless of vendor), transform the images and data into a LEARN compatible format, and offer the end user a single point of reference for investigative resources. Additionally, actively acquired field scans from existing LPR units (mobile or fixed) will be transferred in near real time as well.

Data migration comes without interruption to existing LPR units, resulting in no down time of previously installed equipment, and works seamlessly after migration without the end user having seen any change in operation of the unit.

In the immediate case, the RTCC will benefit by adding the investigative tools only available in LEARN, and having a true “force multiplier” by gaining access to private data being acquired daily in the field. The addition of actively acquired Law Enforcement data shared for analysis by criminal investigators will greatly enhance the resources available to the RTCC.

Data migration services are outside the scope of LEARN data subscriptions and would be negotiated separately from any portion of LEARN data access.

Data Subscription Overview

Private Data subscriptions are exclusively available to law enforcement agencies, and are accessible through one of two methods:

1. **LEARN Private Data Subscription:** Vigilant's LEARN product, enabled with a private data subscription, allows for private data to be used in conjunction with the full scope of LEARN as defined in this document.
2. **Application Programming Interface (API):** Available only with a LEARN Private Data Subscription, the API allows for integration of Vigilant's private data into external third-party analytic tools. The API does NOT provide ownership rights to the data, only access during the subscription period.

LEARN Private Data Subscriptions are normally sold on an annual basis as an agency-wide subscription including access to all LPR data contained in the Vigilant Law Enforcement Data Center as described earlier in this document. However, in the case of the NYPD RTCC, Vigilant has elected to offer a per user licensing model tailored around the New York State DCJS pricing levels. In some special cases, multi-year agreements may be negotiated. Multi-year agreements will reflect a year over year increase in subscription cost; however will be scaled to a lower rate than the published maximum annual increase percentages.