











Events

License Plate	Timestamp	Patch	Overview	Information	Login Name
6DYW075	7/3/2008 5:23:26 PM				Laptop
6DYW075	11/14/2009 4:07:56 PM				laptop
6DYW075	12/1/2009 10:37:51 PM				laptop
6DYW075	12/21/2009 9:56:04 PM				laptop
6DYW075	4/10/2010 8:22:37 AM				laptop



BOSS3

Reads Statistics Report



6/17/2014 9:59:05 AM

Mark Elliott

Year	Month	Day	Total Scans	Valid Reads	Misreads	Hits
------	-------	-----	-------------	-------------	----------	------

2014

May

1	34924	34924	0	33
2	44378	44378	0	60
3	53381	53381	0	29
4	38746	38746	0	83
5	25808	25808	0	20
6	31806	31805	1	49
7	33609	33608	1	57
8	36613	36612	1	93
9	47334	47334	0	64
10	54959	54959	0	53
11	41439	41437	2	66
12	29635	29635	0	30
13	46319	46319	0	204
14	28998	28997	1	75
15	32611	32609	2	108
16	47899	47899	0	140
17	48619	48619	0	76
18	39283	39279	4	139
19	25576	25575	1	32
20	28400	28400	0	52
21	28732	28732	0	66
22	34148	34148	0	127
23	33041	33040	1	56
24	46052	46052	0	133
25	37791	37791	0	123



BOSS3

Reads Statistics Report



6/17/2014 9:59:05 AM

Mark Elliott

Year	Month	Day	Total Scans	Valid Reads	Misreads	Hits
		26	32476	32475	1	41
		27	28147	28147	0	52
		28	29107	29107	0	94
		29	27178	27174	4	79
		30	35932	35932	0	128
		31	47778	47778	0	126
May's Totals:			1150719	1150700	19	2488
2014's Totals:			1150719	1150700	19	2488

Begin Date >= 5/1/2014 12:00 AM AND End Date <= 5/31/2014 11:59 PM



BOSS3

Reads Statistics Report



8/10/2012 12:47:38

Jeff Rugel

Year	Month	Day	Reads	Misreads	Hits
		1	27488	0	220
		2	29526	0	142
		3	14338	0	205
		4	19757	0	238
		5	13446	0	59
		6	14700	0	118
		7	28535	0	222
		8	23547	0	152
		9	23885	0	146
		10	25425	0	171
		11	18600	0	43
		12	12092	0	23
		13	7447	0	0
		14	22369	0	121
		15	26336	0	179
		16	22675	0	157
		17	30895	0	426
		18	33428	0	337
		19	13941	0	83
		20	10308	0	68
		21	17348	0	122
		22	17322	0	109
		23	20656	0	201
		24	5616	0	38
		25	9157	0	86
		26	7008	0	30
		27	10524	0	102
		28	20259	0	222
		29	26413	0	315
		30	24818	0	298
November's Totals:			577859	0	4633
December					

Is your shopping mall spying on you?

It might be, if you visit the Mall of America in Bloomington. We know all too well already that police departments in places like Minneapolis are using computers and license plate readers to track vehicles moving through the city.

LPR's — which record photos of license plates — have been installed over various entrances and exits to the Mall of America. What is different than local law enforcement use of LPR is a partnership between a private entity and a local government agency to gather and collect location data on many thousands - if not hundred of thousands - of vehicles, which in turn are tied to people.

In August of 2012, before the LPR cameras were purchased and placed at the Mall of America, Bloomington Police collected 577, 859 LPR scans of vehicles for the month. In May of 2014, the total number of BPD scans topped 1, 150, 719 — it more than doubled.

Through a data practices request, I received a memo of understanding (MOU) between the City of Bloomington and the Mall of America (MOA) that allows the Bloomington Police Department to install LPR cameras - possibly as many as 16 - at the Mall to do surveillance activity.

The LPR's were purchased by the Bloomington Police Department (BPD) with grants from the US Department of Homeland Security and the State of Minnesota Department of Commerce. The agreement highlights that the LPR's are for the "security of the Mall, to identify vehicles that pose a threat to public safety, or have a warrant issued for the vehicle's owner." But also used "for the identification of potential criminals."

The Mall of America has been a focal point of civil liberty and privacy concerns in the past. In reporting done by National Public Radio and the Center for Investigative Reporting there were issues of how the Mall was handling suspicious activities reporting and "disrupting innocent people's lives."

What does the Mall of America specifically do with the data it collects? How long do they keep it? Should Mall of America customers be given notice that their license plate is being searched, examined, and compared against a "hot list?" It is clear the Mall of America gets "identification of vehicles entering the MOAC property." Is this only the picture of vehicle and license plate number? The agreement states that the Mall does not collect from BPD "data relating to the registration or ownership of these vehicles" that are scanned. But it is easy to "buy" bulk lists of drivers license and registration as highlighted in the most recent Minnesota legislative session when the issue of access to drivers license and registration was part of major discussion. Is the Mall of America buying this kind of data and pairing it up with the "identification of vehicle" for numerous purposes?

It is not just law enforcement taking a bite out of your privacy and liberty with the license plate readers, but the Mall of America is doing the same.

Update/Note: I spoke with Chief Potts after this post was initially published and he stated that the Mall of America is not getting any "identification of vehicles" contrary to what I was told by Bloomington Police Department previously. Attempt was made to contact Mall of America public relations to comment on story with message left, but no return call.

Posted by Rich Neumeister at Thursday, October 09, 2014 No comments:



VIGILANT
SOLUTIONS

COMPANY OVERVIEW

Agenda



- Introductions
- Vigilant Overview
- Vigilant Offering
 - ✓ License Plate Recognition
 - ✓ Identity Solutions



Vigilant – Company Snapshot



- Fastest growing company within our market segment of US public safety technology solutions
- Over 3,200 agencies and 30,000 sworn as customer base
- Founded in January 2005; approaching 100 employees
- Rapid sales growth and product innovation
- Headquartered in Livermore, California (HQ)
- Majority ownership of Digital Recognition Network (DRN)

**#1 North American Public Safety Market Provider of LPR
Products & Services**

Vigilant – Our Customers



Federal Government

- Department of Homeland Security
- Department of Justice / Department of Defense

Asset Recovery via DRN

- ~70 million LPR scans monthly
- Exclusive LPR Provider for US Lenders

Law Enforcement Agencies

- >30,000 users at 3,200 agencies
- Local, State, Regional Initiatives



Bank of America



JPMorganChase

HSBC



citi



Mercedes-Benz



Protecting Officers, Families and Communities

- Increased situational awareness / Improved officer safety
- Lead generation to solve more cases, and close them faster
- Proactive Intelligence-Led Policing for intervention of criminal activity and threats to the community
- Reduce and deter crime
- Save lives



Vigilant – Innovation



Realization that LPR data is valuable investigative tool; vendors begin to offer simple query tools

Vigilant creates NVLS to:

- provide access to commercial LPR data via DRN & other sources*
- facilitate data sharing and interoperability among LE Agencies*

Vigilant begins delivering NVLS data via LEARN for more functionality

- Free sharing for LE data*
- Commercial data via subscription*

Vigilant introduces facial recognition into offering at IACP 2013

LPR is agency specific, used for stolen ID

Vigilant delivers Common Plate & Associate Analytics via LEARN

Vigilant introduces mobile app for collecting & accessing LPR data

The (Near) Future

- Locate Analysis to provide probabilistic assessment of vehicle location based on historical data / public records*
- Public records / LPR / facial recognition fusion*

WHO?



Screenshot of LEARN Data Sharing Map with overlay of Data Density (as of Oct 2013)

- Major Accounts: Orange County (CA), Miami, Atlanta, Dallas, Connecticut CROG, Colorado State Patrol, various federal (CBP)



Vigilant Successes



- Literally hundreds of testimonials every year from customers
 - Homicide, rape, burglary, identity theft, organized crime, etc
- Much of this information can not be shared due to adjudication, ongoing investigations, or desire by agency not to advise other criminals of the tools they are using
 - All press releases and other marketing efforts require coordination and approval with the Agency Customer

**Now for some real-life examples of how we protect officers,
families and communities...**

Vigilant Case File: CounterTerrorism



- Failed terrorist plot to attempt car bomb in Times Square
- No connection between registered owner of vehicle and terror plot
- LPR data from Vigilant was key to locating suspects; one of which was apprehended boarding a flight to the Middle East



Vigilant Case File: Drug Cartel



- Vehicle stop in Maryland with \$500K in cocaine hidden in secret compartment
- Search of Vigilant LPR data shows vehicle in four different apartment complexes in Houston metro dating between 2011 and 2013; car is registered in state other than Texas
- Second vehicle identified with same registered address (different owner) also seen at same apartment complexes
- Analysis of Vigilant LPR data yields >20 additional vehicles frequenting same four apartment complexes; one of these vehicles stopped in Mississippi with 9,000 doses of cocaine also in a hidden compartment
- Investigation uncovers major narcotics cartel operating out of Texas and trafficking narcotics in multiple states

“The historical LPR data and investigative tools from Vigilant are solely responsible for us identifying the apartment complexes and over twenty (20) vehicles to date that are a part of this cell. I am confident that our investigation, enabled by Vigilant, will result in identify many more vehicles, allow us to seize more drugs, and ultimately bring about the downfall of this large drug trafficking operation.” Interdiction Officer Thompson

Vigilant Case File: Civilian Life Saved



- Elderly mother reports daughter missing after being unable to reach her for over a week
- Detectives use LPR data from Vigilant to locate her vehicle on three occasions in the same apartment complex in the prior week
- Detectives work with property management to identify the apartment
- Door bolted from inside; detectives hear a soft moan and make entry into the apartment
- The woman is on the floor, unable to help herself, and near death according to emergency responders

“Emergency personnel responded and stated that the woman had been without food or water for several days. Her condition was critical, and she was very near death. Clearly, the information provided from Vigilant saved this woman’s life.” Detective Dan Cucchi

Vigilant Case File: Child Abduction



- Fifteen year-old girl abducted by illegal immigrant in NY
- Taken to another state (MD) and held as sex slave
- LPR data from Vigilant located the vehicle and allowed for rescue of victim and apprehension of suspect

Vigilant Solutions License Plate Recognition Data Aids in Locating a Child Abducted by an Illegal Immigrant

LIVERMORE, CALIFORNIA (January 22, 2013) – Vigilant Solutions announces today that its license plate recognition (LPR) data was used in helping to locate and recover a missing child in an Amber Alert. The child was abducted by an illegal immigrant.

On August 14, 2012, a fifteen (15) year-old girl was abducted from her home by Edgar Daniel Mazariegos-Cifuentes, a forty (40) year-old illegal immigrant from Guatemala illegally residing in New York. Mazariegos was a close friend of the victim's family, frequently visiting the girl's home, and communicating with the girl for approximately one year prior to the abduction. Following an argument with her mother, the girl called Mazariegos because she was upset.

Mazariegos abducted the girl the following day, telling her that he was taking her to see her uncle in Boston. When the girl attempted to call her uncle, Mazariegos took her phone away and told her that he was taking her away to begin a new life together. Mazariegos then drove her to Maryland where he checked them into a hotel and forced her to have sex on multiple occasions over an eleven (11) day period.

Aided by license plate recognition data from Vigilant Solutions, a task force consisting of Maryland State

Mobile LPR



- Color & infrared (IR) cameras w/ optical character recognition
- Up to four (4) cameras per vehicle
- Seamless Integration with LEARN intelligence suite
- Unmatched performance – Winner of CHP “shootout”
- Real-time interdiction and localized data collection
- Intuitive user interface with exclusive features



Simple and Intuitive Interface



- Large, easy to use buttons
- Day / Night Modes to avoid illumination of officers on patrol at night
- Color image of vehicle / infrared image of plate
- Scrolling plate history
- Audible and visual alerts for vehicles of interest

The screenshot displays the Vigilant Solutions software interface. On the left is a vertical menu with buttons for Setup, Import Hot-List, Start Shift, Add Plate, Search, Day/Night, Minimize, and Exit. The main area is divided into several sections: a map showing a search area around Santa Ana, CA; a video feed of a black car with license plate 58GW383; a video feed of a white car with license plate 6DOL530; and a detailed alert window for the white car.

Car Jacking Alert

Exact match

6DOL530

CA - 6DOL530

Driver Side

Comments / Message / Log

Subject: [input field] [Add]

[New Comment]

Close

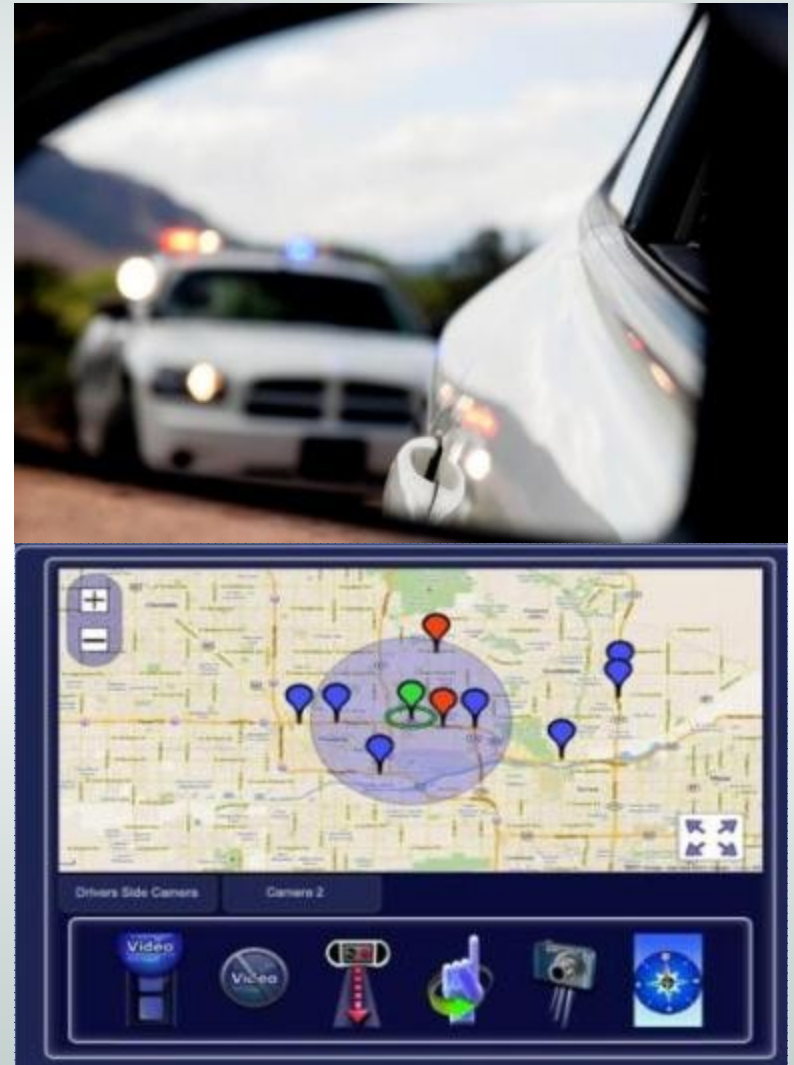
Alert Type	Car Jacking
Hot-List Source	CDMAS Client
State	CA
Alarm Priority	High Level
Warning	Suspects armed and dangerous
Date of Load	01-16-13
Date of Order	01-16-13
Date of Scan	01-16-13
Time of Scan	07:48:35 PM

Vigilant Exclusive – Mobile Hit Hunter



- Optional service for Vigilant Mobile LPR
- Matches ~70 million monthly reads of “private” data against law enforcement client hotlists
- Delivers hits to active mobile LPR systems within 3-mile radius of match
- Greatly enhances officer efficiency

“Mobile Hit Hunter is incredible. It’s like shooting fish in a barrel.”

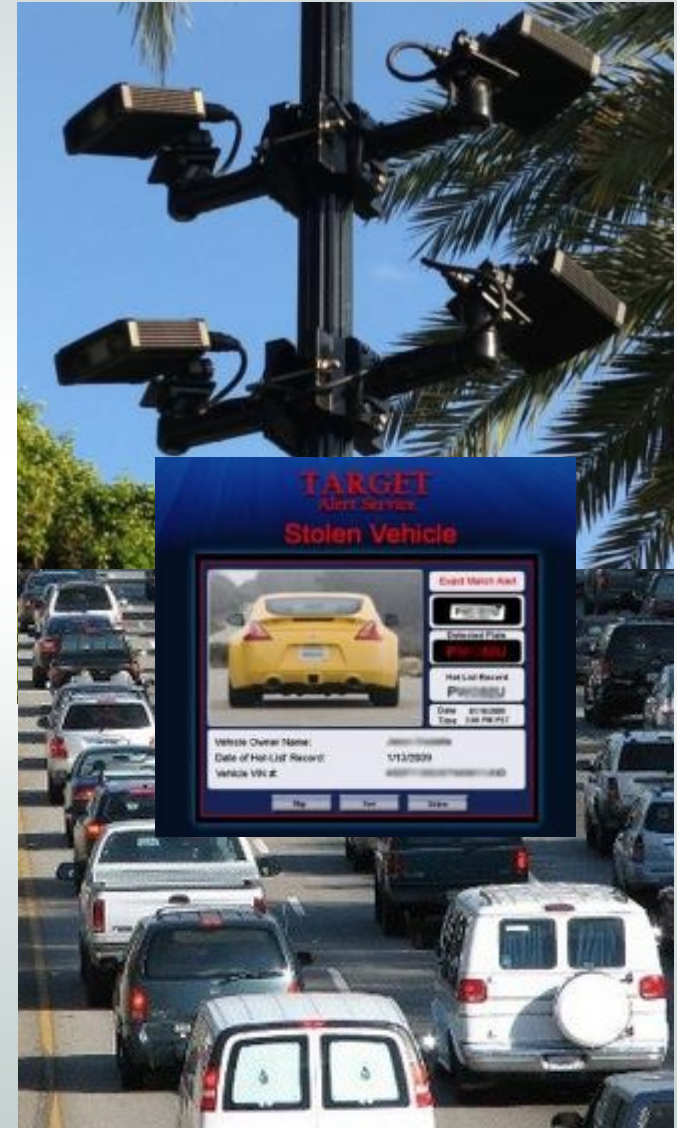


Fixed LPR



- For perimeter security of your City or Region – identify and intervene
- Unmanned LPR for high capacity operations
- Seamless Integration with LEARN for automated alerting, hotlist management, data sharing and remote updates
- Target Alert Service for remote alerting on virtually any device

“The use of Fixed cameras has really complemented our overall LPR program. We know when wanted vehicles are entering our community and can take action.”



Vigilant Exclusive – Mobile Companion



- Scan license plates from Android device or iPhone
- Share with agencies nationwide
- Perform LPR searches
- Receive hotlist alerts

“Mobile companion has greatly expanded our use of LPR in the field. It is an extremely useful tool for officers that do not have an LPR-equipped vehicle and for use in special events where vehicles are tightly parked.”

Where Does the Data Come From?



- Click to edit the outline text format

- Second

Law Enforcement & Commercial Applications



fourth level



Vehicle Asset Recovery

General Security

Law Enforcement



DRN Digital Recognition Network
a Vigilant Solutions Company

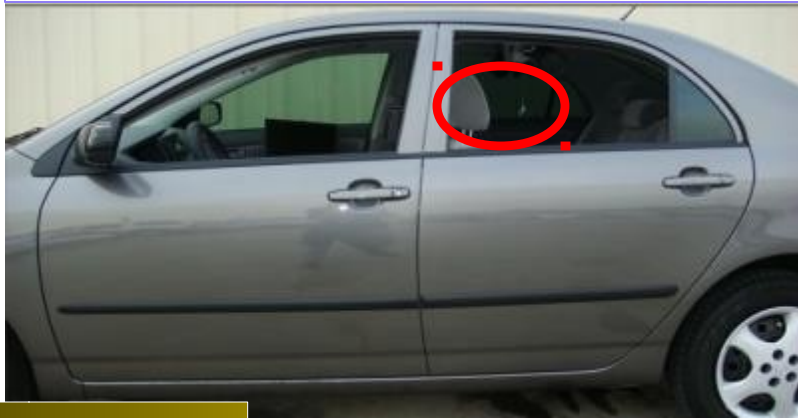
- Mobile and Fixed LPR
- Vigilant Customers
- ALL Major Competitors
- Shared at no cost to Law

- Casinos
- Malls and Retail
- Parking & Access Control

DRN-to-Vigilant Data Flow



DRN Scout Vehicles Collect Data for their Clients



Data scans are sent to the DRN data center (TX)



Data is copied to Vigilant's Law Enforcement Data Center (VA)



What is Included in the Data?



- Click to edit the outline text format

Each LPR Record

Contains:


- Color Image of Vehicle
- Infrared Image of Plate
- Plate Interpretation
- Date and Time of Detection
- Latitude and Longitude
- Information on Collector (Agency, User, System, Camera)
- Nearest Address
- Nearest Intersection

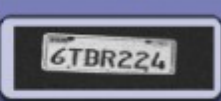
NO PERSONAL INFORMATION

License Plate Number 6TBR224



Powered By:





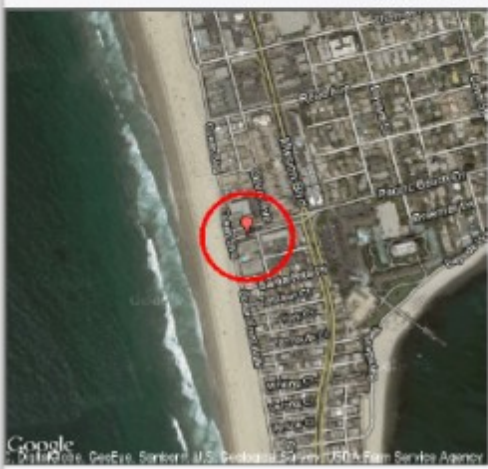


Vehicle Images

Vehicle Spotted:
03-01-13 at 6:11:10 AM PST

Detection Details:

Detection Data	
<p>Vehicle Info:</p> <p>Plate # 1 6TBR224 Plate # 2 6TBB224 Date 03-01-13 Time 6:11:10 AM Longitude -117.254855 Latitude 32.790567</p>	<p>Camera Info:</p> <p>Agency N/A User Private Data System Private System Camera N/A Type N/A</p>
<p>Nearest Address: 707 Pacific Beach Drive San Diego, CA 92109</p> <p>Nearest Intersection: Pacific Beach Dr Strand Way</p> <p style="font-size: small;">Disclaimer: The address listed above is ONLY an estimate.</p>	



Who Owns the Data?

A screenshot of the Vigilant Solutions web interface showing the "Data Sharing" configuration page. The page is divided into two main sections: "Detection Sharing (External)" and "Detection Sharing (Internal)".
Detection Sharing (External)
 Contribute Detections to NVLS
 Allow LPRD Detection Sharing
 Share LPR Data with External LEARN Servers
Detection Sharing (Internal)
Share With:
A dropdown menu shows "Vigilant Solutions Northeast" and "Vigilant Solutions Southwest". To the right are "Add" and "Remove" buttons.
Accept Shares From:
 --All--
 Vigilant Solutions Southwest

For Law Enforcement Contributed Data

- Data is property of Agency, not Vigilant
- Data is subject to retention policy set by Agency
- Data is NOT shared to any entity by Vigilant; Agency controls its Sharing
 - Contribute to NVLS National Data Sharing Pool
 - All of the above still hold true
 - Allow LPRD Sharing
 - Share with external (non-hosted) servers
 - Agency specific sharing

For “Private” Data from DRN and other Commercial Sources

- Vigilant owns the data and manages its retention

Where Does the Data Reside?



- Vigilant's Law Enforcement Data Center is managed by Verio, a leader in cloud computing to many Fortune 500 and Federal customers
 - Data Center Security
 - Redundant Power Sources & Fiber Connectivity
 - HVAC Environmental Monitoring
 - Secure Physical Access Control
 - Physical Escort for Onsite Visitors
 - Multiple Diesel Fuel Generators
 - Active Fire Prevention & Suppression
 - 24 X 7 Monitoring and Operational Support
 - Onsite System Administrators/Engineers
 - Certified & Capable Support Staff
 - Certified Information System Security Professional (CISSP)
 - Cisco Certified Network Associate (CCNA), Internetwork Expert (CCIE), Design Professional (CCDP), Network Professional (CCNP), Design Associate (CCDA)
 - CompTIA A+, CompTIA i-Net+, CompTIA Security+
 - Sun Certified System Administrator (SCSA)
 - Microsoft Certified Systems Administrator (MCSA), Systems Engineer (MCSE), Professional (MCP)
 - Alteon Certified Administrator
 - Solaris 8 System Administrator
 - Red Hat Certified Engineer (RHCE)



Who Can Access the Data?



Simple answer: Only law enforcement can access the data center, Vigilant online investigative tools, and the data itself.



How Do I Access the Data?



One of Two Ways:



NVLS Web Portal

- Simple License Plate Queries
 - Full plate lookup ONLY
 - Daily / Weekly Query Limits



LEARN with Private Data Subscription

- Advanced License Plate Queries
 - Partial Plates
 - Geo-fences
- Analytics
 - Pattern Crimes / Common Plates
 - Possible Associates
- Mapping Alert Service
 - GIS Interface to private data "Hits"

LEARN Enterprise LPR Intelligence



- Web-based LPR management solution
- Centralized, secure and hosted data warehousing
- Inherent interoperability and data sharing
- Time and geo-coded queries / analytics
- Data fusion & analytics
- Auditing and reporting



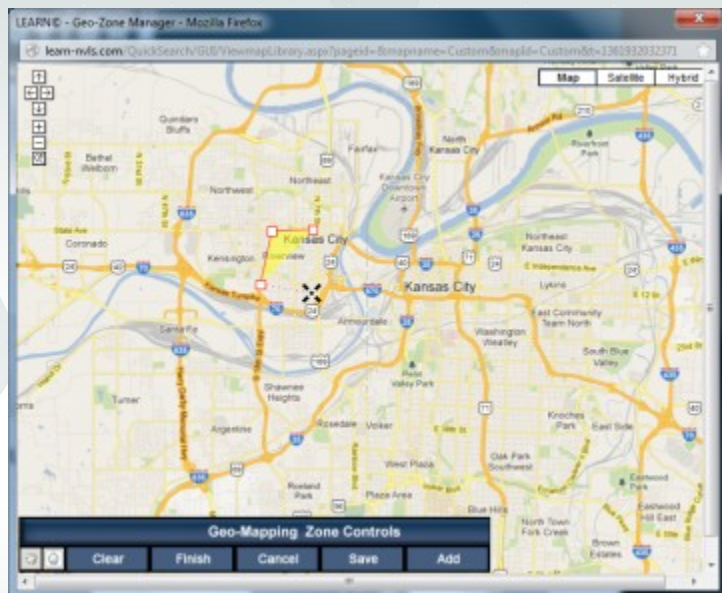
Investigative Queries – Simple Search



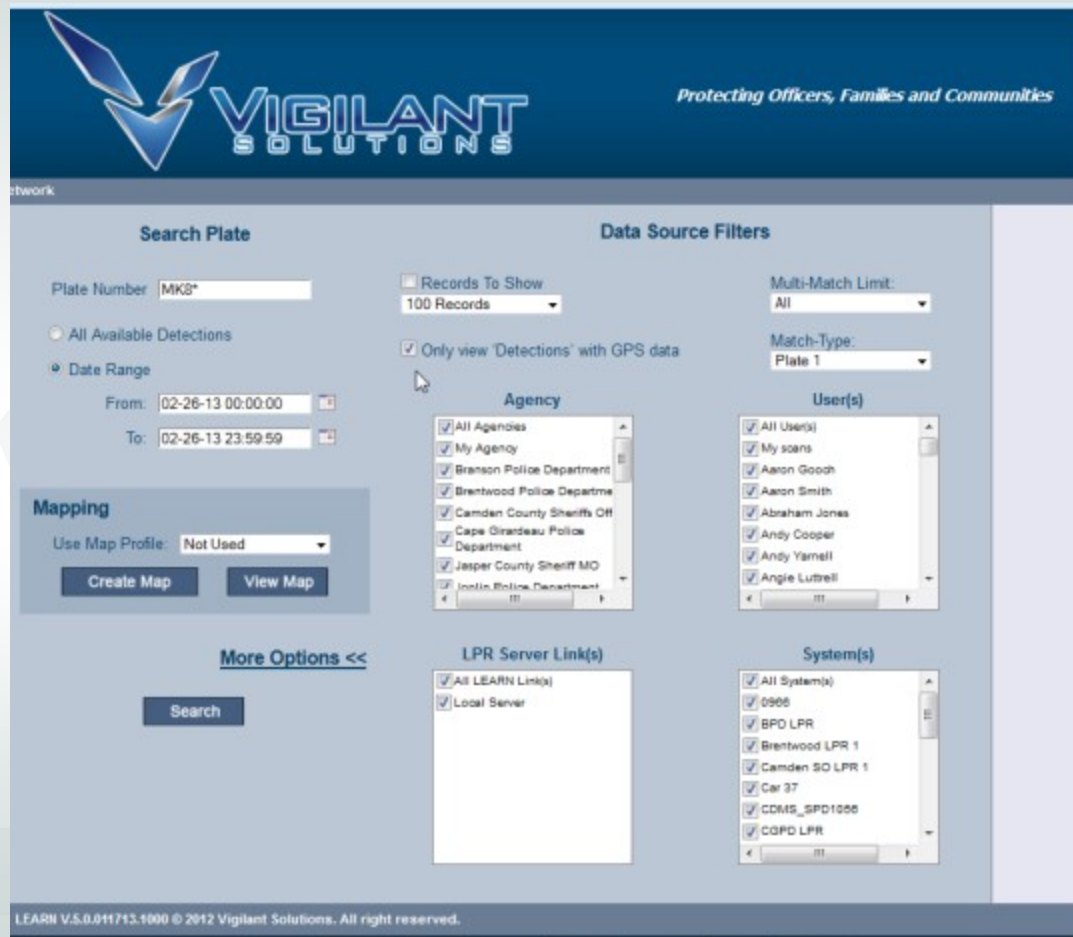
The screenshot displays the Vigilant Solutions web interface. At the top, the logo and tagline "Protecting Officers, Families and Communities" are visible. Below this, a navigation bar reads "Welcome to the Law Enforcement Archival Reporting Network". The main content area is divided into a left sidebar and a larger central panel. The sidebar contains a "Search Plate" section with a text input field containing "MK8*", radio buttons for "All Available Detections" (selected) and "Date Range", and two date input fields labeled "From:" and "To:". Below this is a "Mapping" section with a "Use Map Profile" dropdown set to "Not Used" and two buttons: "Create Map" and "View Map". At the bottom of the sidebar is a "More Options >>" link and a "Search" button. The central panel features the Vigilant Solutions logo, a "Search Plate" label, a text input field with "MK8*", and a "Search" button. The footer contains the text "LEARN V.5.0.011713.1000 © 2012 Vigilant Solutions. All right reserved."

- Full of partial plate numbers using wildcard character (*)
- Time / Data filter
- Geographic filter
- More Options for Advanced Search

Investigative Queries – Advanced Search



- Draw Geo-zone(s) on map
- Additional filters by Agency(ies), User(s), Server(s), and System(s)



Query Results



VIGILANT SOLUTIONS
Protecting Officers, Families and Communities

Welcome to the Vigilant Solutions web application. The interface includes a search bar for plate numbers (currently showing "MK8*"), a date range selector (From: 02-26-13 00:00:00, To: 02-26-13 23:59:59), and a mapping section with a "Use Map Profile" dropdown set to "Custom".

Search Results Summary:
Results - 3 Records
Page 1 of 1
Go to Page: 1
Records Per Page: 50

Color Overview	Plate Image	Plate	Date	Time	Scanned By	System
		MK8F9C	02-26-13	1:24:49 PM		
		MK8F9C	02-26-13	1:24:47 PM		
		MK8BSJ	02-26-13	1:42:18 AM		

Buttons: View, Map It, Output Report, Customize View, Select All Detections

Footer: LEARN V.5.0.011713.1906 © 2012 Vigilant Solutions. All right reserved.

- View and Map Result(s)
- Resolve Geo-coordinates to Physical Street Address
- Output Vehicle

LEARN - Detection Record Detail
Powered By: VIGILANT SOLUTIONS

Vehicle Images:

Map It | Show Address | Output Report

Vehicle Info:		Camera Info:		Scanned By:	
Plate # 1	MK8F9C	Name	Driver Rear	Agency	Brentwood Police Department
Plate # 2	MKBF9C	Type	CDMS Mobile Camera	User	Josh Bowersox
Date	02-26-13	Longitude	-90.339850	System	Brentwood LPR 1
Time	1:24:49 PM CST	Latitude	38.629246	Server	Local

Comments Section:
Enter New Comment:
Enter Subject:
Last Comment:

Analytic Tools - Stakeout



Visit	Date	Plates Scanned	Target Scanned	Day / Night
#1	02-18-13	44	NO	NIGHT
#2	02-07-13	10	NO	DAY
#3	02-01-13	33	NO	NIGHT
#4	12-23-12	31	NO	OTHER
#5	12-18-12	328	NO	DAY
#6	12-14-12	13	NO	DAY
#7	12-14-12	361	NO	DAY
#8	12-08-12	315	NO	DAY
#9	11-23-12	292	NO	NIGHT
#10	11-23-12	341	NO	NIGHT
#11	11-19-12	28	NO	DAY
#12	10-05-12	2	NO	NIGHT
#13	10-04-12	61	NO	DAY
#14	10-03-12	10	NO	NIGHT
#15	10-02-12	39	NO	OTHER
#16	10-02-12	38	NO	NIGHT
#17	09-17-12	267	NO	DAY
#18	09-17-12	21	NO	DAY
#19	09-17-12	258	NO	DAY
#20	09-04-12	55	NO	OTHER
#21	08-28-12	151	NO	DAY

- Conduct surveillance on physical address(es)
- View LPR visit(s) and associated LPR data
- Select multiple locations and run

Vigilant Stakeout - Report

Please select report options

Selected Scans

All Scans

Common Plate Report

Export File Type PDF TXT

Powerful Reporting



VIGILANT SOLUTIONS

LEARN
Law Enforcement Archival & Reporting

Activity Search

Duration
 Interval: Last 7 Days
 Period: Start Date: [] End Date: []

Data Contribution View
Type: Detections
Mode: Pie Charts
System: Mobile and Fixed

Filters

Agency
 1 Branson Police Department
 2 Brentwood Police Department
 3 Camden County Sheriffs Office
 Select All Agency

User
 1 Aaron Gooch
 2 Aaron Smith
 3 Abraham Jones
 Select All User

System
 1 0966
 2 BPD LPR
 3 Brentwood LPR 1
 Select All System

Schedule

Agency

User

System

Accuracy

Hit Ratio

LEARN - Dashboards Detail

LPR Detection - Agency

Last 7 Days
Total Detections: 63,309

Contributor	Agency	Detections
1	Brentwood Police Department	30,876
2	Branson Police Department	6,857
3	Sikeston Police Department	6,808
4	Camden County Sheriffs Office	6,830

Output Report Close

- View statistics across agency(ies), users, systems
- View effectiveness of system (hit ratio)
- Filter by agency, user
- Output reports
- Schedule automated reports

Why and What?

- At Vigilant's core is image recognition, management of Big Data, and simplification of complex analytics and user interfaces.
- Several very functional and full-featured facial recognition systems exist in the market, but many agencies simply cannot justify the high cost associated nor make use of the full functionality.
- Vigilant's Identity Solutions offering makes use of the latest technologies to deliver something that all agencies can use and afford.
- Vigilant's Identity Solutions offering includes both facial recognition and CCTV facial cataloguing systems that can operate independently of one another or as an integrated solution.

Identity Solutions: Facial Cataloguing



LineUp Facial Cataloguing

- Analyzes CCTV video for facial content
- Catalogs faces with time/date/location for efficient investigative purposes
- Integration to FaceSearch for facial recognition & alerting of “known” faces seen by CCTV
 - ✓ Urban areas – terrorists, wanted felons
 - ✓ Schools – registered sex offenders
 - ✓ Airports – terrorists
 - ✓ Jail visitation – gang members / associates

The screenshot shows the Vigilant Solutions LineUp software interface. On the left, there is a sidebar with the company logo and navigation options. The main area is divided into two sections: a video feed and a list of detected faces. The video feed shows a group of people walking on a sidewalk. Below the video feed, there is a "Face Image" section showing a close-up of a man's face. To the right of the video feed is a table of detected faces.

Scan No.	Event	Hot Face 1	Score	Full Name
289		Unidentified	0.88	Unidentified
288		Unidentified	0.88	Unidentified
287		Unidentified	0.88	Unidentified
286			86.20	Pablo Smith

The screenshot shows a "Suspected Terrorist" alert in the Vigilant Solutions software. The alert is displayed in a blue-bordered window with a red border. It features a video feed of a group of people walking on a sidewalk. To the right of the video feed, there is a "Hot Face" section showing a close-up of a man's face, identified as Pablo Smith, with a score of 82.88%. Below the video feed, there is a metadata section with the following information:

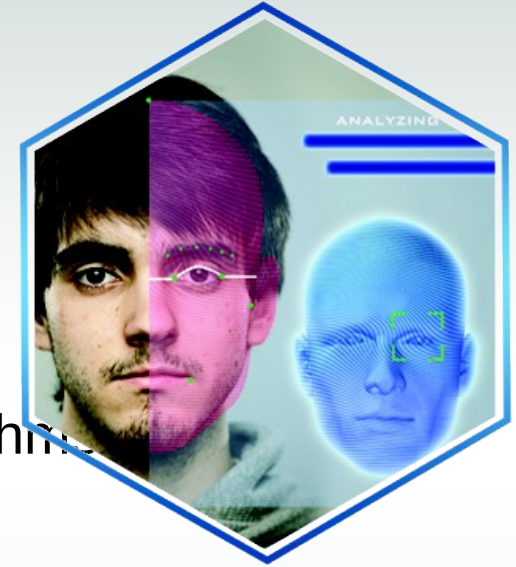
Date: 11/15/2013
Time: 09:09 AM
Camera Name: NYC Sidewalk Cam 22
Latitude: 0.0000000
Longitude: 0.0000000
HLR Source: LINEUP Client

At the bottom of the window, there are three buttons: "Verify", "Re-Recognize", and "Close".

FaceSearch Facial Recognition

Organically Developed by Vigilant:

- Does not use any COTS facial recognition algorithms
- Over 350 facial vectors developed by Vigilant



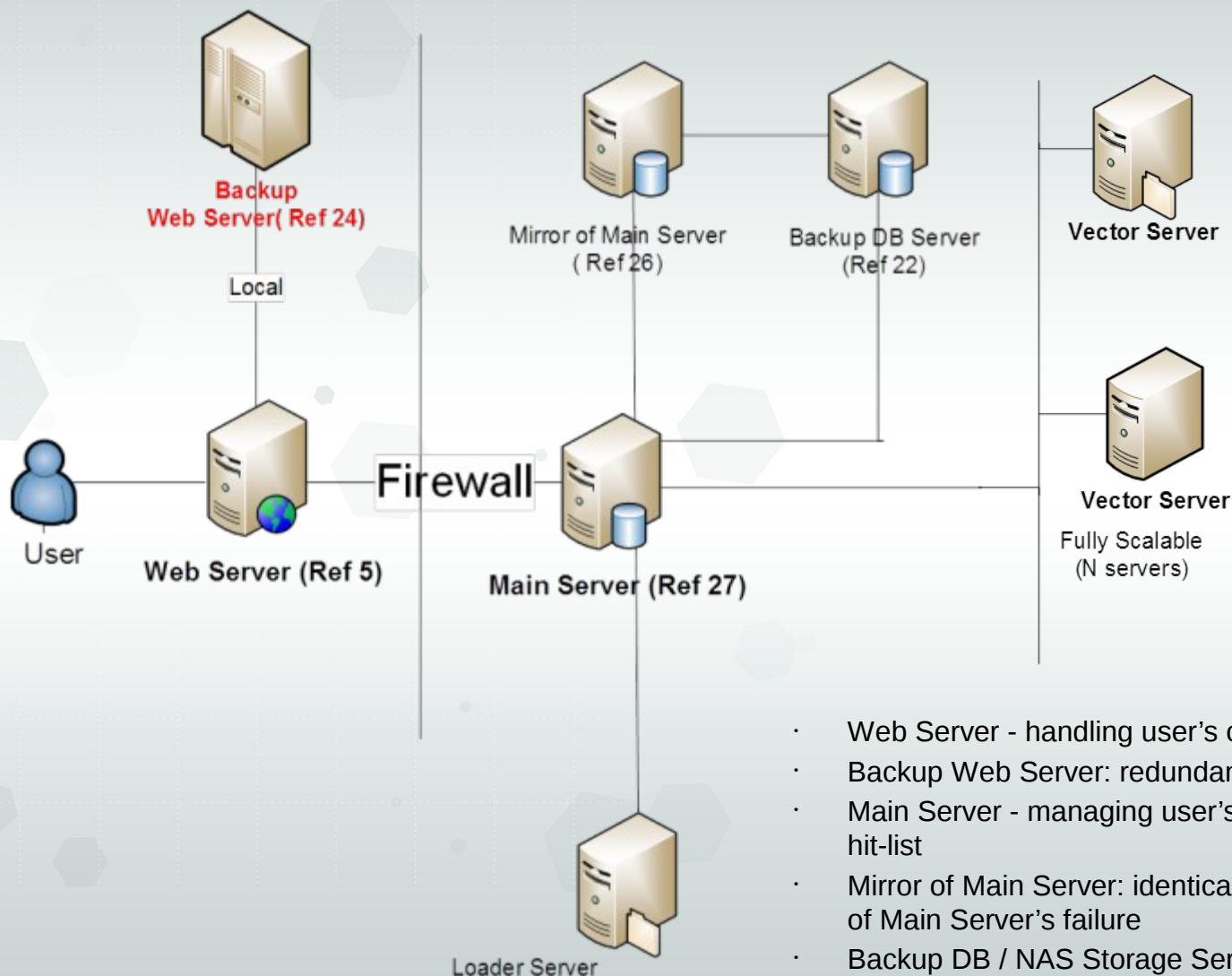
	1 server (2.0 GHz, 16 core, 64 GB Ram)	FaceSearch Cloud
PERFORMANCE		
✓ Vectoring speed	21 hours /1 million face catalog	3 hours /1 million face catalog
✓ Searching speed	5s/image (with 1 million face catalog)	1s /image (with 10 millions face catalog)*

Hosted on Top-Tier Data Center

- Designed for hot-list management in tens of millions of faces
- Speed of querying against 10 million



Structure of FaceSearch Cloud



- Web Server - handling user's command via Internet
- Backup Web Server: redundant failover Web Server
- Main Server - managing user's information, hot-list, and hit-list
- Mirror of Main Server: identical to Main Server, used in case of Main Server's failure
- Backup DB / NAS Storage Server: storing backup snapshots of database of Main Server
- Loader Servers - parallel servers for vectoring face images
- Vector Servers - parallel servers for executing search.


FaceSearch - Investigative Queries



FACE SE
National Face Lockdown

Search Face

Upload Image: [Browse](#)


www.iowasexoffenders.com
RANDALL DUANE SUMMERS
March 2012
[Adjust](#)

Data Filters:




Agency:

Country:

Alert Type: All
 Most Wanted
 Sex Offender
 Staff

[View Detail](#) [Go To Search](#)

Page 1 of 1

Hot Face	Score	Full Name
 RANDALL DUANE SUMMERS March 2012	89.5	summers
 RANDALL DUANE SUMMERS September 2012	72.3	summers
 RANDALL DUANE SUMMERS March 2012	70.4	summers

- Simple Query Interface
- Browse to an Image or Capture Image from Tablet or Smartphone
- Import Image from any Source (social media, SMS)
- Filter Results by Agency, Alert Type, State, and

FaceSearch – Viewing Data



Results: 10 Record(s) - Time: 3.433 second(s)

FACE SEARCH - Hot Record Detail

Name: ANDRES ZUNIGA **State:** MO
DOB: 02/06/1967 **Alert:** Sex Offender
Reference: <http://www.mshp.dps.mo.gov/CJ38/OffenderDetails?page=0&column=name&id=1104965&lastName=Zuniga&suffix=&firstName=Andres&middleName=>

Hot Faces

Hot List Data

Full Name	andres zuniga	Agency	Reflection Images
Country	United States	User	RI_Missouri
State	MO	Gender	Male
County	N/A	Race	WHITE
Source	Reflection Images	DOB	02/06/1967
Alert	Sex Offender	Date2	N/A

- View all confirmed matches
- View source / reference and all meta-data

FaceSearch – Mobile Devices











- Capture and Query in the Field for Real-time Identity Validation
 - ✓ Field Interviews
 - ✓ Disoriented People
 - ✓ Dead Bodies
- Web interface for almost universal compatibility with any mobile device
- Android application available



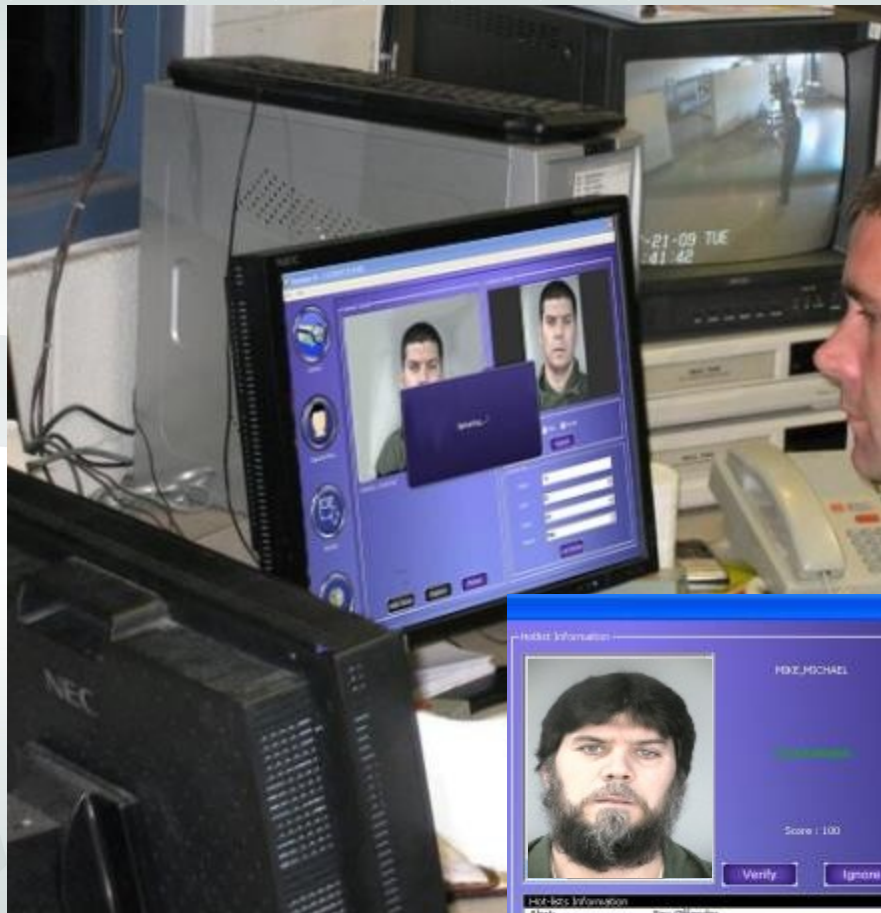
FaceSearch - Facial Image Clustering



- Facial Image Clustering Engine for fraud prevention & intelligence gathering on large image sets
- Detect Fraud in Drivers License and Other Documentation
 - ✓ Same images with multiple names
 - ✓ Same names with multiple images

 63 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split LUIS LEON MORALES	 61 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split LUIS LEON	 57 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split LUIS LEON MORALES	Different Names			
 62 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split HERMAN A COLON	 69 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split HERMAN A COLON	 53 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split HERMAN A COLON			 68 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split HERMAN A COLON	 70 <input type="checkbox"/> Verify <input type="checkbox"/> Delete <input type="checkbox"/> Split HERMAN A COLON

FaceSearch – PC Enrollment App



- Simple PC Interface for Enrollment with Integrated Canon Camera
 - ✓ Jail Booking Stations
 - ✓ Security Checkpoints
 - ✓ School Security
 - ✓ Business Membership Programs
- Enroll New Faces & Match Against Existing

Identity Solutions – Summary

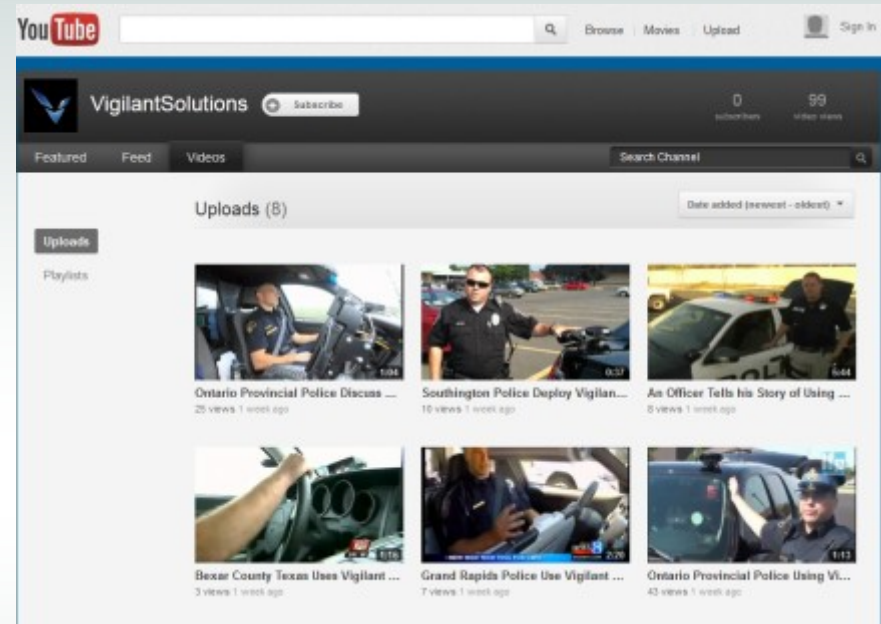
- LineUp Leverages Existing CCTV Infrastructure for Facial Cataloguing
- FaceSearch is Multi-Platform, Feature-Rich Facial Recognition
- Leverage Available Content from Vigilant & Upload your Own
- Hosted & Secure
- Easy to Use & Intuitive
- Scalable & Versatile
- Affordable for All Agencies
- Vigilant Innovation



For More Information



www.vigilantsolutions.com



www.youtube.com/VigilantSolutions

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