



Welcome to the 1st Annual Texas LPR User Group Meeting



AGENDA

- Housekeeping Items – parking, lunch, sign-in sheet, emergency exits
- Introductions / Goals (Lieutenant Shilson / Sergeant Marthiljohni)
- Vigilant Overview - QUICKLY (Brian Shockley)
- LPR Best Practices (data retention, privacy, policies) (Brian Shockley)
- Data Sharing (Hannah Karr)
- Lunch / Demo of New Interface and Tools (Mike Budz)
- Future Vision (Brian Shockley)
- Wrap-up / Q&A
- Additional Demo Time (if needed)



Sponsored by:





VIGILANT SOLUTIONS – AN OVERVIEW
Brian Shockley, VP of Marketing



VIGILANT
SOLUTIONS
Protecting Officers, Families and Communities

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VIGILANT – COMPANY SNAPSHOT

- Fastest growing company within our market segment of US public safety technology solutions
- Over 2,500 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

- >50 million LPR scans monthly
- Exclusive LPR Provider for US Lenders

Law Enforcement Agencies


- 30,000 users at 2,500 agencies
- Local, State, Regional Initiatives



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: 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: 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 Chantres, 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



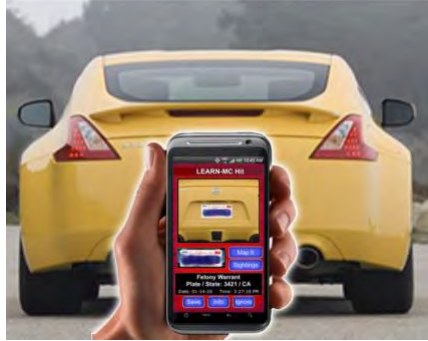
VIGILANT EXCLUSIVE – MOBILE HIT HUNTER

- Optional service for Vigilant Mobile LPR
- Matches >40 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.”



VIGILANT EXCLUSIVE – MOBILE COMPANION



- Optional service for Vigilant LEARN / NVLS Users
- Scan license plates from Android device or iPhone
- Share with agencies nationwide
- Perform LPR queries
- 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.”



FIXED LPR

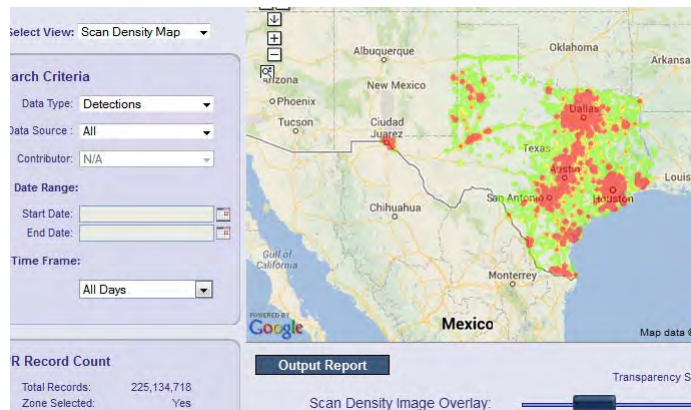
- For perimeter security of your City or Region – identify and intervene
- Unmanned LPR for high capacity operations
- Seamless Integration with LEARN for automated alerting, hotlist management, data sharing and remote updates
- Target Alert Service for remote alerting on virtually any device

“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 – LPR DATA NETWORK (NVLS)

- The nation's first and largest national LPR data sharing initiative
 - Over 1.2 billion records total
 - ~50 million records added per month
 - Over 10 million per month in TX
 - Over 225 million all time in TX



WHERE DOES THE DATA COME FROM?

Law Enforcement & Commercial Applications



Vehicle Asset Recovery



Law Enforcement



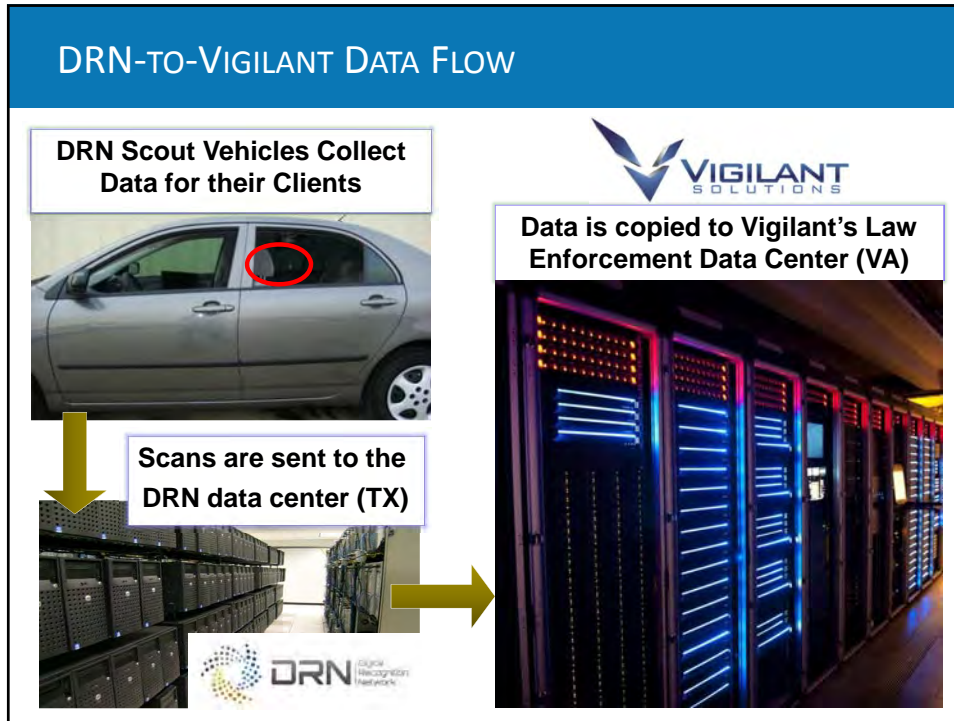
General Security



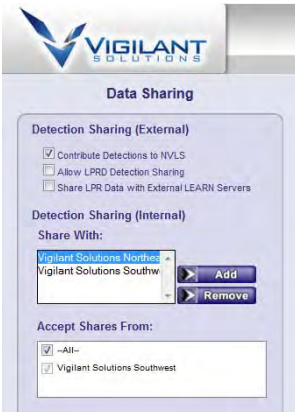
- Mobile and Fixed LPR
- Vigilant Customers
- ALL Major Competitors
- Shared at no cost to Law Enforcement

- Casinos
- Malls and Retail
- Parking & Access Control





WHO OWNS THE DATA?




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



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"



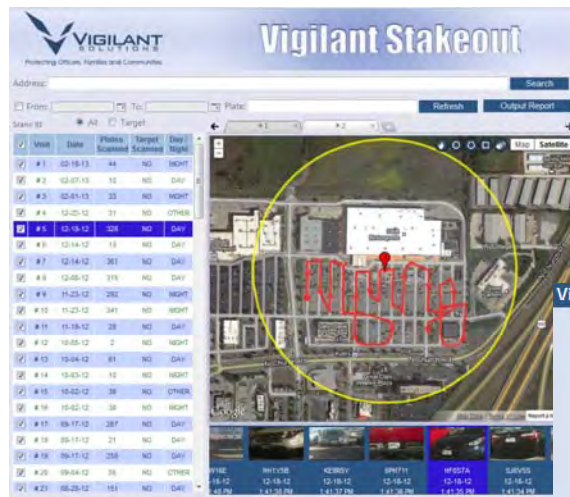
- Sacramento County reference stats -

LEARN ENTERPRISE LPR INTELLIGENCE

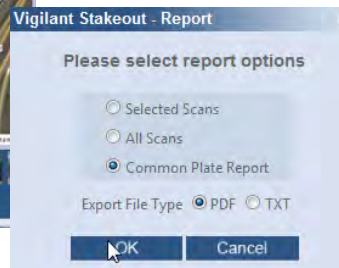
- Web-based LPR management solution
- No software or servers to manage
- Centralized, secure and hosted data warehousing
- Inherent interoperability and data sharing
- Time and geo-coded queries / analytics
- Auditing and reporting
- DEMO later




ANALYTIC TOOLS - STAKEOUT




- Conduct surveillance on physical address(es)
- View LPR visit(s) and associated LPR data
- Select multiple locations and run common plate analysis for suspect(s) or witness identification





LPR BEST PRACTICES
Brian Shockley, VP of Marketing



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LPR BEST PRACTICES

Major Cities Chiefs
Monday, January 28th, 2013

- Have a written policy*
- Know the issues*
- Classify your data as Exempt / Confidential / FOUO
- Consider Statute of Limitations when developing retention policy; keep it reasonable
- Involve your legal team



Other Best Practices:

- Share data*
- Have a training program
- Take advantage of all features and capabilities
- Keep LPR units active / grid your area
- Use wildcards / Victimology 101
- Get ahead of public and media / emphasize benefits

**More detail to follow*



HAVE A WRITTEN POLICY

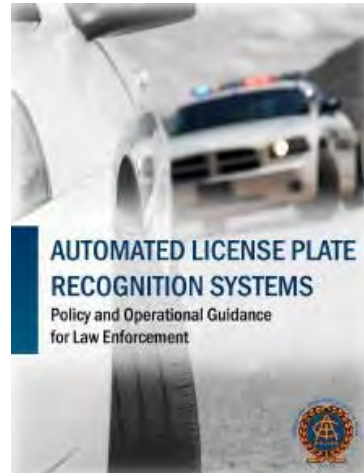
THE SINGLE most important thing you can do; one of the most often overlooked (MCC survey says only 46% of agencies have this in place)

Elements:

- Training requirements
- Proper Use / Improper Use
- Patrol & Response Procedures
- Oversight and Discipline
- Retention Policy
- Classification of LPR Data (Exempt / Confidential / FOUO)

Samples available from Vigilant and/or IACP Policy and Operational Guidance document.

www.vigilantsolutions.com/texaslpr



KNOW THE ISSUES & GET AHEAD OF THEM

Certain groups and the media love to stir the pot:

- LPR is used to track innocent citizens
- It's an invasion of privacy

How to prepare and respond:

- Get ahead of it – spin off some PR on the increased safety it is providing, tell successes from around the country that garner more emotion than the “privacy” scare (Amber Alerts, homicides, etc)
- Be versed on your written policy; state that per your agency policy the system's use is monitored and audited on a regular basis. A reason for query and case number is required for each and every access into the system.
- Remind your audience that the system does nothing that officers have not already been doing since the advent of the license plate.
- Remind the audience that the system is only looking at a plate, not an individual...and that there is no personally identifiable information used. The system sees all plates equally, does not discriminate, and only alerts the officer if the LP is wanted in connection to a crime.



http://lapd.com/blog/protecting_officers_and_the_public_with_lpr_technology/

DATA SHARING

Why share data?

- To enable investigators and analysts to solve more cases
- To enable broader analytics and pattern analysis
- To locate and bring more criminals to justice
- To save lives

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DATA SHARING – VIGILANT USERS

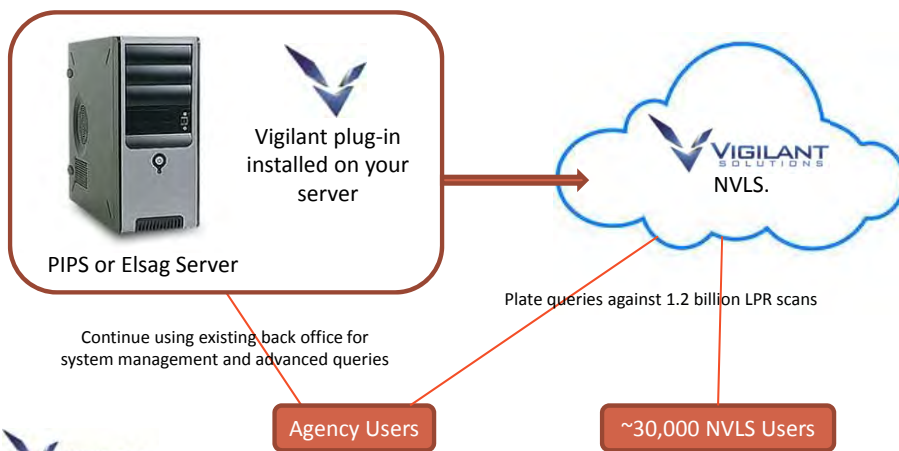
The screenshot displays the Vigilant Solutions software interface. On the left, the 'Data Sharing' section is visible, with the 'Contribute Detections to NVLS' checkbox checked. An arrow points from the 'Add' button in the 'LPR Detection Sharing By Agency' section to a dialog box on the right. The dialog box, titled 'LEARN - Data Sharing', prompts the user to 'Select the Agencies for data sharing' and lists several agencies with checkboxes. The 'Marietta Police Department' checkbox is checked.



DATA SHARING – OTHER USERS

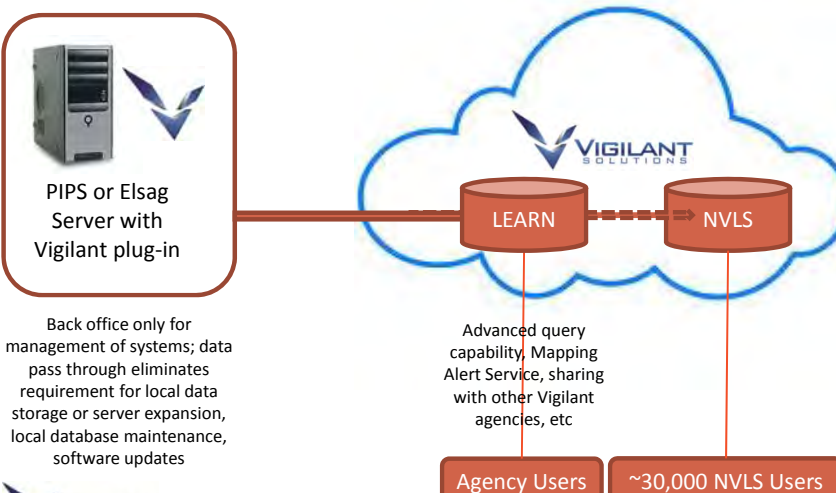
No worries – several scenarios, proven with both PIPS and Elsg

SCENARIO 1: Keep your existing server; share only to NVLS



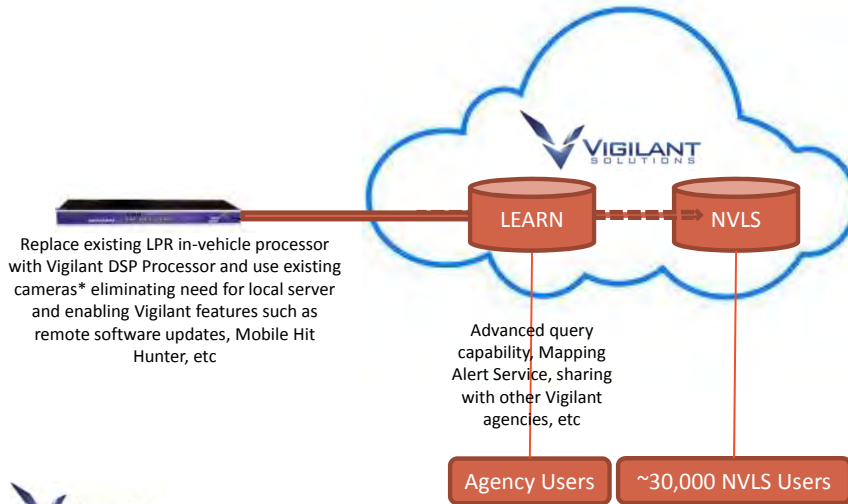
DATA SHARING – OTHER USERS

SCENARIO 2: Use existing server as pass through; create LEARN account



DATA SHARING – OTHER USERS

SCENARIO 3: Conversion Kits* to use existing PIPS / Elsag cameras with LEARN



LUNCH TIME

Grab a sandwich and hurry back; we will continue while we eat.

Next Up: Demo of New Tools & Future Plans



THE FUTURE – GUIDING PRINCIPLES

Minimize training – app concept – KISS

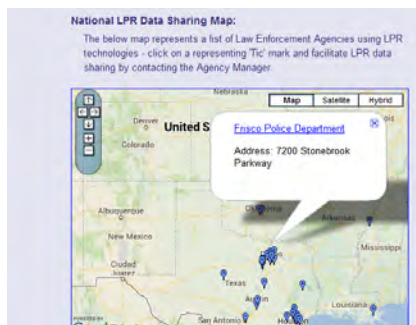
Its all about the data – what else can we do with the data?

- Integrating public records with LPR, improve officer safety with proactive warnings of vehicles and/or addresses with prior criminal conviction history
- Use historical LPR data to provide a virtual stakeout of an address
- Use historical LPR data to find common plates seen at multiple crime scenes or places of interest.



NEAR-TERM ROADMAP

- Alert Notification Filters (agency & hotlist)
- Hit Dispositions / Action Taken
- Sharing Map (completed)
- Alert Segregation (Mobile Companion, TAS, Mobile Hit Hunter, Email)
- Wildcard Characters (*, ?, _)
- Include State on Agency Data Sharing List
- Simplified / intuitive hotlist sharing
- Many, many, many more...a word on our development process



FACESEARCH FACIAL RECOGNITION – BASICS

- Highly accurate biometric facial recognition
 - ✓ 95%+ success with NIST database at matching top 5 nearest; controlled environment / benchmark only*
 - ✓ Real world accuracy above 80% including off-axis images, illumination challenges, and other variables
 - ✓ Minimal impact from hair styles, facial hair, and slight aging
 - ✓ Integrated illumination adjustment to reduce challenges of shadows
- Hosted on Top-Tier Data Center
 - ✓ Designed for hot-list management in tens of millions of faces
 - ✓ Speed of querying against 10 million records: less than 3 seconds
- Pre-populated facial images
 - ✓ Web crawler auto-updates sexual predator and Crimestopper facial images from thousands of websites
 - ✓ Ability to easily import agency facial records



FACESEARCH WEB - INVESTIGATIVE QUERIES

Search Face

Upload Image:

View Detail | Go To Search

Results: 10 records(s) - Time: 0.431 seconds

Hot Face	Score	Full Name	State	DOB	Alert	Owner
	65.8	summers randall duane	IA	07/19/1986	Sex Offender	Reflection
	59	thomas edward titus	MO	11/05/1959	Sex Offender	Reflection

Top 10

	79.7	summers randall duane
	67.7	summers randall duane
	67.7	summers randall duane



FACESEARCH MOBILE

- Android mobile application provides capture, query and identity validation capabilities in the field



OFFICER SAFETY – PROTECTION ALERT (IN THE CAR)

- Facial records – DMV = vehicle associations
- No hit alerts, but a distinct audible and visual indication that a vehicle is associated with someone with known criminal history
- Facial images embedded into LPR record
- Consider sex offender travelling with young child or burglar with tools in back seat



WHAT IDEAS DO YOU HAVE?

What ideas do you have?

Simple changes – move this button over there

Process oriented – when I get an alert, I want it to do this...

New functionality – I have a problem, it would be great if you could find a way to...

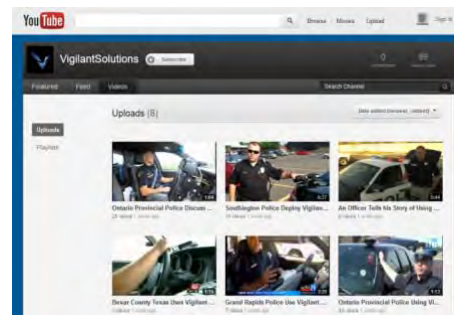
The only stupid idea is one unspoken.



FOR MORE INFORMATION



www.vigilantsolutions.com



www.youtube.com/VigilantSolutions

Lieutenant Brian Marshall, Marietta PD
Brian Shockley, Vigilant Solutions
Mike Budz, Vigilant Solutions
Hannah Karr, Vigilant Solutions

