JNET Traffic Stop Application

CATEGORY: INFORMATION COMMUNICATIONS TECHNOLOGY (ICT) INNOVATIONS

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Executive Summary

Many law enforcement professionals will tell you, there is no such thing as a routine traffic stop. However, traffic stops occur routinely as part of an officer's job. In most cases, the officer is alone along the side of a road, perhaps at night, with one or more unknown individuals in a stopped vehicle. Along with training, one of the most powerful tools available to an officer in this situation is information about the vehicle, its driver and any passengers.

While in-car computer terminals and more recently mobile devices enable officers to access driver and vehicle data, this information resides in multiple databases and applications, which can be challenging to navigate on a small screen. In 2015, the Pennsylvania Justice Network deployed a mobile-friendly web application called Traffic Stop, which utilizes information from multiple data sources and packages them into a single, user-friendly interface.

Unlike other criminal justice application development efforts which focus on the data at the user wants and using the available technology to make it available, Traffic Stop was developed around a business process. JNET relied on input from subject matter experts to understand the nature of a traffic stop, what happens, what could happen, and what information is needed to better prepare the officer. Along with improving officer safety, Traffic Stop benefits citizens by providing new avenues to identify wanted individuals and, when applicable, remove them from the streets before they can commit additional crimes.

Based on user feedback, JNET added a feature shortly after deployment that allows users to change the display to better suit the time of day; white screens with blank print can be overly bright at night when an officer may not want that type of brightness illuminating from their vehicle. With one click, the Traffic Stop application and all its display screens change to a black/dark grey background with white print, significantly reducing the level of brightness from the screen.

Traffic Stop was deployed in April 2015 and averages over 42,000 hits per month. Feedback from the user community about the application has been overwhelmingly positive.

Concept

The Pennsylvania Justice Network (JNET) is an integrated portal that provides authorized users with access to public safety and criminal justice information from federal, state and local sources. Over 35,000 municipal, county, state and federal justice professionals use JNET to access critical information and securely conduct investigations. JNET provides role-based access to over 40 distinct applications. In addition, JNET uses a service oriented architecture (SOA) model to broker the exchange of over 800 million messages annually between business partners. The JNET infrastructure connects all 67 Pennsylvania counties, 38 state agencies, and 42 federal law enforcement agencies.

JNET's mission includes a commitment to provide integration leadership in support of public safety. Police officers in Pennsylvania pull over thousands of vehicles every day. While most traffic stops can be routine in nature, the risk of the unknown always exists. Any information an officer can have about the vehicle being pulled over and the driver reduces potential risks. It is common practice for an officer to enter the license plate number of a stopped vehicle into PennDOT's vehicle database prior to approaching it. This will tell the officer who the owner of the vehicle is and whether the vehicle is stolen or suspended. Unfortunately, PennDOT does not have a direct integration from the vehicle owner to the owner's driver license information, which means the officer has search several additional databases using the vehicle owner's name. If these searches are done after the initial interaction with driver, the searches will be much more accurate as they can be done using the driver's license number rather than just the name which can return multiple records if the name is not unique.

Other searches can be made through JNET into Pennsylvana State Police (PSP) data, Administrative Office of Pennsylvania Courts (AOPC) data, and Department of Human Services (DHS) Domestic Relations data. At this point, the officer would have at least 4 separate applications open with data from multiple sources, including some applications with multiple results. Navigating through all this data from a desktop would be challenging enough; trying to do so from a law enforcement vehicle using a mobile data terminal or from a smartphone or other mobile device is both cumbersome and inefficient.

To address these challenges, JNET developed the Traffic Stop mobile web application to gather all the required information from various data sources and delivers it through a single collaborated application that works anywhere on any device.

Information needed during a traffic stop can be split into two categories; the vehicle and the driver. Information about the vehicle requires data from PennDOT and PSP. Information about the driver requires data from PennDOT, PSP, AOPC and DHS Domestic Relations. It is these two categories that frame the JNET Traffic Stop solution. The application contains two searchable areas, one to search for vehicle information using its license plate number and state, and the second to search for driver information using the driver license number or the name and date of birth.

The vehicle search returns information from PennDOT about the vehicle including owner's name and address, vehicle title and identification number, year, make, model, odometer reading, liens, title brands, any vehicle suspensions, and if stolen. Additional information is returned from through the PSP from their Commonwealth Law Enforcement Assistance Network (CLEAN) which includes data from the FBI's National Crime Information Center (NCIC). This information includes stolen vehicle information, if the vehicle is a possible match involved in a reported felony, and if the vehicle owner has any protection orders against them.

The driver license search returns PennDOT information including the driver's demographics and photo, classes of licenses, restrictions, driver history, and emergency contacts. This also includes an option to view a certified driver history and, if needed, print the certified driver history. The search also returns information from PSP CLEAN if the person is wanted or has any outstanding warrants in Pennsylvania and NCIC if the person is wanted or has any outstanding warrants in other states. AOPC and DHS Domestic Relations return information if the driver is wanted or has any outstanding warrants. The wanted and warrant results will include known demographics and details as to type, date, offense, issuing county and related docket numbers. Dockets are searchable through other JNET applications and can be utilized if further investigation is required after the traffic stop.

JNET incorporates its role based user model into all of its applications to ensure authorized access to all data available. Users with the highest level of access receive all

data available through Traffic Stop. Users with a reduced role do not receive results from PSP CLEAN or NCIC.

The application provides all the critical information an officer needs to perform a traffic stop with officer safety being the paramount. Approaching a vehicle can present a variety of situations. Traffic Stop allows an officer to approach a vehicle in a suitable manner aligned to the vehicle and/or driver that got pulled over.

Significance

The significance of Traffic Stop is easily summarized into one word: safety. Not only does Traffic Stop provide a single solution to access all pertinent information required to assist police officers during a traffic stop, it also incorporates new data not previously available to the officers. Summary warrants and domestic relations warrants were not available to officers prior to Traffic Stop. This information allows the officer to better understand their situation and act accordingly and can result in more arrests that otherwise might never happen.

While many traffic stops are routine in nature, they all pose a potential danger. Officer safety is increased through Traffic Stop by presenting the officer all the information available about the vehicle and the driver. A stolen vehicle, a vehicle used in a felony, a wanted person, a violent criminal; these are just some of the scenarios an officer can be facing as he approaches a vehicle. Being able to access this information on the spot from one source provides a tremendous benefit.

JNET's approach to building Traffic Stop is ground breaking for how criminal justice data providers develop applications. Until Traffic Stop, these efforts focused on using technology to make data that users wanted available to them. Traffic Stop is unique in that it was developed around a business process. Subject matter experts were used to help JNET understand the nature of a traffic stop, what happens, what could happen, and what information is needed to better prepare the officer. Designed with an officer's perspective in mind, from what information to include, the order in which to present it, and how it is displayed, Traffic Stop is a true game changer for how to approach, develop, and design criminal justice applications. JNET plans to continue this approach moving forward.

Impact

The benefits of Traffic Stop are far reaching. Traffic Stop benefits state and local police officers across Pennsylvania by providing the data required to conduct a traffic stop in a safe and efficient manner. It benefits the citizens of Pennsylvania by providing new avenues to identify wanted individuals and, when applicable, remove them from the streets before they can commit additional crimes. It benefits other JNET users who can also enjoy the convenience of Traffic Stop and the efficient manner it returns data about a vehicle and a driver.

Since Traffic Stop was deployed in April 2015, its usage through February 2016 averages over 42,000 hits per month.

Feedback from users has been overwhelmingly positive:

 "It's the best officer safety tool currently available as it brings all information essential to our safety on traffic stops within seconds," said Robert Wood, Northern Berks Regional Police Department, Berks County.

"The application is amazing. I can run information quicker than a dispatcher. I have already made several arrests for expired and suspended registrations," said Nathan Groft, Carroll Valley Borough Police Department, Adams County.

"I stopped a vehicle the other day operated by an Ohio resident. When I queried his Ohio driver's license through Traffic Stop it revealed that he had two outstanding traffic-related warrants issued out of my county," said Jeremy Davis, Hermitage Police Department, Mercer County.

"I caught a person with an AOPC Warrant for a traffic violation and Domestic Relations Warrant for $11,000 in arears while using the application," said Joseph Scalera, West Shore Regional Police Department, Cumberland County.

The most significant benefit is the model that Traffic Stop is based on which isolates a criminal justice process and tailors the application to align with the business needs of that process. JNET will reuse this model as it continues to strive to lead the way in how data is delivered to criminal justice and public safety practitioners.