TechBeat

Dedicated to Reporting Developments in Technology for
Law Enforcement, Corrections and Forensic Sciences

PROTECT YOUR SCHOOL
WITH THE LAUNCH OF AN APP

P.3

POLICE

PROTECT SERVE

NLECTC
National Law Enforcement and
Corrections Technology Center

A Program of the
National Institute of Justice NIJ

TELL US ABOUT YOUR TECHNOLOGY NEEDS

The National Law Enforcement and Corrections Technology Center wants to know your technology needs and requirements as a law enforcement or corrections professional. Use the form at https://www.justnet.org/tech_need_form.html to describe tools that would enhance the safety and effectiveness of your job. This information from practitioners is used to inform the National Institute of Justice (NIJ) research, development, testing and evaluation process and to make recommendations on prioritizing NIJ's investments across its various technology portfolios.

The NLECTC System

The National Law Enforcement and Corrections Technology Center (NLECTC) System is critical to the National Institute of Justice's mission to help state, local, tribal and federal law enforcement, corrections and other criminal justice agencies address technology needs and challenges.

The NLECTC System is an integrated network of centers and Centers of Excellence that offer free criminal justice technology outreach, demonstration, testing and evaluation assistance to law enforcement, corrections, courts, crime laboratories and other criminal justice agencies.

For information, visit www.justnet.org or contact (800) 248-2742.

NCJRS
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For information, visit www.ncjrs.gov.

ANDROID AND IPHONE APPS AVAILABLE

Android and iPhone apps are now available to access *TechBeat*. Keep current with research and development efforts for public safety technology and enjoy interactive features including video, audio and embedded images.

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PROTECT YOUR SCHOOL with the LAUNCH OF AN APP

By Becky Lewis

Download School Safe, the new app from the National Law Enforcement and Corrections Technology Center (NLECTC) that takes you step-by-step through your school to identify and address trouble spots. You can conduct a physical assessment of your campus — inside and out — by walking around and answering a series of simple questions using your hand-held device.

This free app, available for iPhone and iPad, helps promote awareness and foster prevention using Crime Prevention Through Environmental Design (CPTED) principles, and allows school resource officers (SROs), school administrators and other first responders to receive no-cost emergency planning assistance without leaving campus.

"Keeping schools safe is a top priority and everyone in the school community has a part to play," says Sean Burke, president of the School Safety Advocacy Council and school safety consultant with the NLECTC System. "School Safe helps school resource officers and administrators take a good look at their schools, inside and out. It points out trouble spots and reinforces good practices. School Safe presents the pertinent questions for you to consider as you assess the safety of your campus."

Divided into 10 sections, School Safe begins by helping users summarize a school's demographics and assessment history, then examines various internal and external considerations. For example:

Is student access to parking areas restricted to arrival and dismissal times?

Are trailers/portable classrooms connected to the school's central alarm system?

Is exterior lighting checked on a frequent basis?

Do visitors present a photo ID to be scanned through a records-checking system before they are issued a visitor badge that must be visibly worn at all times?

Does each classroom have a To-Go Bag?
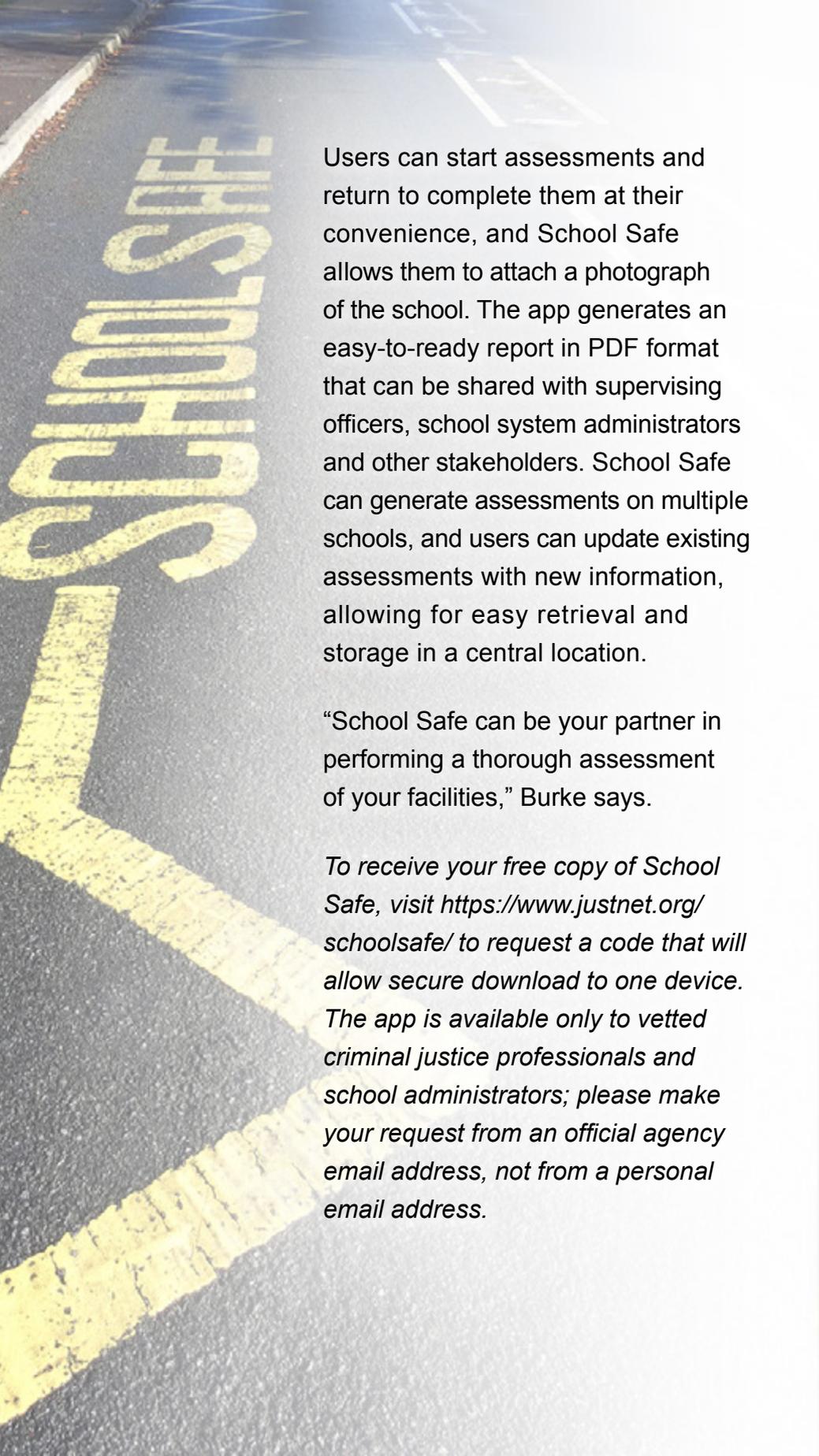
Users can start assessments and return to complete them at their convenience, and School Safe allows them to attach a photograph of the school. The app generates an easy-to-ready report in PDF format that can be shared with supervising officers, school system administrators and other stakeholders. School Safe can generate assessments on multiple schools, and users can update existing assessments with new information, allowing for easy retrieval and storage in a central location.

"School Safe can be your partner in performing a thorough assessment of your facilities," Burke says.

To receive your free copy of School Safe, visit https://www.justnet.org/schoolsafe/ to request a code that will allow secure download to one device. The app is available only to vetted criminal justice professionals and school administrators; please make your request from an official agency email address, not from a personal email address.

An App Beta Tester Says "Thumbs Up"

By Jon E. Carrier

As a beta tester and contributor to School Safe, I found the app easy to understand and believe it can be easily used by most practitioners.

One of the great things about School Safe is that there were contributors from all over our country working in the area of school safety who gave feedback and opinions that helped inform the content.

I found that even to an experienced school safety assessor like myself who has conducted many school security surveys, School Safe proved cost-effective, relevant and full of good questions in a format that was easily understandable and user-friendly. The end product easily translates to a printed report for the user.

School Safe takes into consideration Crime Prevention Through Environmental Design (CPTED) principles, and poses relevant questions for assessors. For example, it includes questions about video cameras, signage and visitor check-in systems. In conclusion, if you are a school administrator, school security director, school security officer or a law enforcement officer working in the area of school safety, School Safe is a valuable addition to your professional tools.

Jon E. Carrier is the current president of the Maryland Association of School Resource Officers (MASRO), a member of the Executive Board of Directors of the National Association of School Resource Officers (NASRO) and a full-time school resource officer with the Anne Arundel County Police Department in Maryland. Anne Arundel County Public Schools are ranked No. 42 on the list of largest school districts in the United States, according to the 2014 American School & University Top 100 (http://asumag.com/research/2014-asu-100-largest-school-districts-us-enrollment-2012-13).
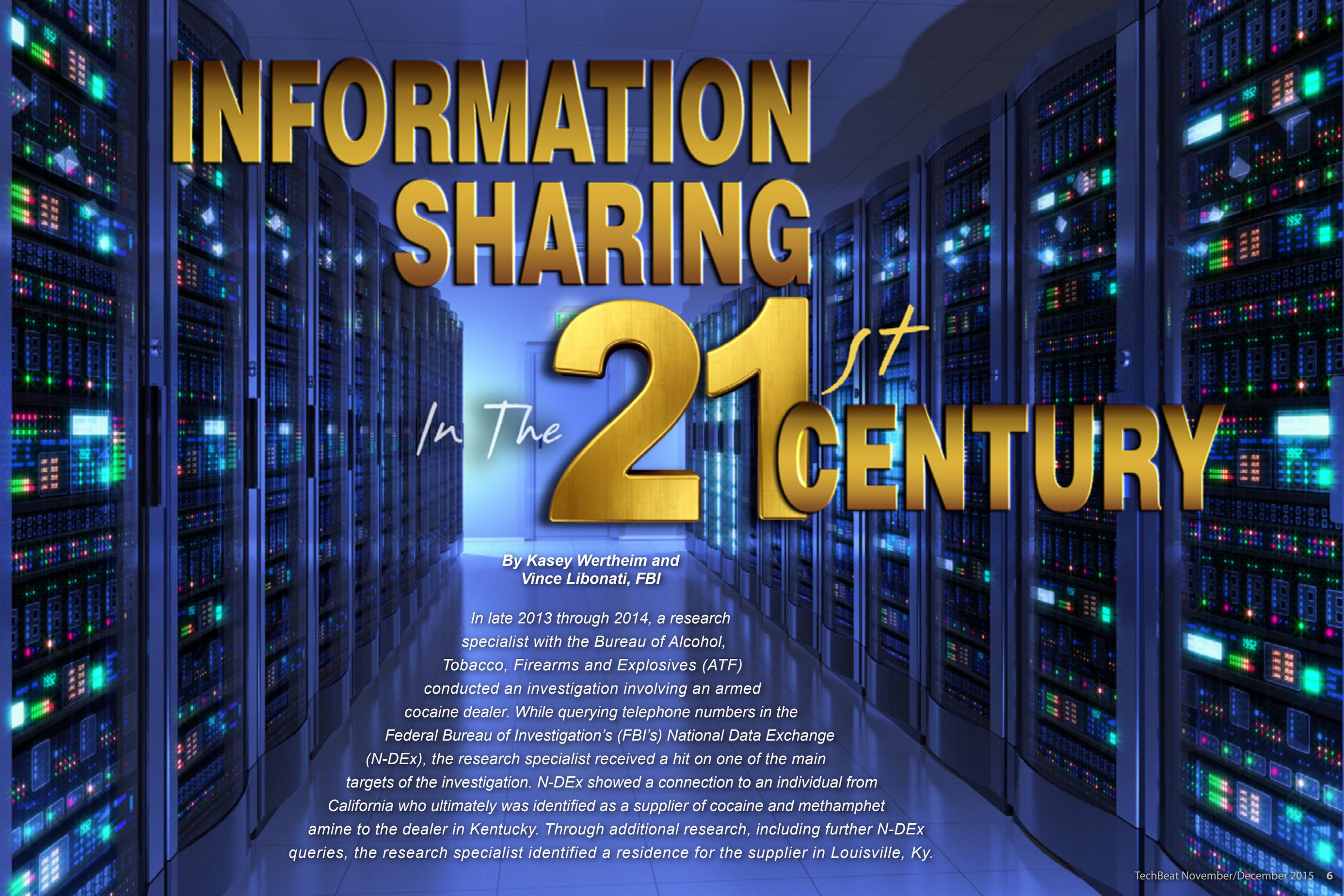
INFORMATION SHARING In The 21st CENTURY

By Kasey Wertheim and
Vince Libonati, FBI

In late 2013 through 2014, a research
specialist with the Bureau of Alcohol,
Tobacco, Firearms and Explosives (ATF)
conducted an investigation involving an armed
cocaine dealer. While querying telephone numbers in the
Federal Bureau of Investigation's (FBI's) National Data Exchange
(N-DEx), the research specialist received a hit on one of the main
targets of the investigation. N-DEx showed a connection to an individual from
California who ultimately was identified as a supplier of cocaine and methamphet
amine to the dealer in Kentucky. Through additional research, including further N-DEx
queries, the research specialist identified a residence for the supplier in Louisville, Ky.

The N-DEx System brings together a wealth of information ranging from incident reports to arrest records, from booking and incarceration data to pretrial investigations – even traffic warnings or citations and probation and parole records.

This information allowed the ATF to establish a pole camera at the residence. In late February 2014, one of the investigation's targets was observed arriving at the supplier's stash house, along with two other individuals, visibly carrying guns. The Louisville Metro Police Department's Special Weapons and Tactics (SWAT) team was notified and quickly responded, likely saving the life of the person who was staying at the residence.

N-DEx, the only national criminal investigative information-sharing system offered at no cost to criminal justice agencies and users, is the FBI's response to the 911 Commission's call for better information sharing among local, state and federal criminal justice agencies. Created in 2008 at the FBI's Criminal Justice Information Services (CJIS) Division in Clarksburg, W.Va., the N-DEx System brings together a wealth of information ranging from incident reports to arrest records, from booking and incarceration data to pretrial investigations — even traffic warnings or citations and probation and parole records.

As of July 2015, the system contained 265 million records, and that number grows daily. Data providers span the entire criminal justice spectrum from local, state and tribal entities through federal organizations, including the Bureau of Prisons, the U.S. Drug Enforcement Administration, ATF, the U.S. Marshals Service and of course, the FBI itself. In all, there are more than 5,200 data contributors to the system and N-DEx additionally leverages several partner systems to provide a host of data from the U.S. Department of Homeland Security as well as the International Criminal Police Organization (INTERPOL).

Over the past seven years, a growing number of agencies have elected to share their data with N-DEx. One participant, Sheriff Lawrence Stelma of the Kent County Sheriff's Office in Michigan, says, "I get just as much benefit from having my records in N-DEx as I do

from using the system. Other investigators from around the country are constantly bumping into my files and discovering associations that were not previously known. By having my records in N-DEx, I am essentially enlisting the aid of other investigators from around the country in solving crimes from my county."

The N-DEx Program Office also partners with other organizations to facilitate the efficient searching of N-DEx through the agencies' existing systems. For example, the Los Angeles County Sheriff's Office secured a federal grant to make N-DEx available to CopLink users. Participating CopLink node users can simply select the N-DEx "neighborhood" and search both systems. Through a similar partnership, users of the U.S. Department of Defense's LInX system can also search N-DEx (see sidebar, "Collaborative Results"), and a partnership with the Regional Information Sharing Systems (RISS) is in the works.

Users don't need to belong to a partnership to search the system; anyone with an account on www.cjis.gov can request access through his or her state N-DEx Sub SIG, or Special Interest Group. Users can then conduct a Google-style search of key words or phrases,

such as name and date of birth or Social Security number, that appear anywhere in records. Rather than simply searching and retrieving records, N-DEx also correlates the data within an agency's files and between the files of different agencies, returning an Integrated Person Entity View that contains a snapshot of the person's name, aliases, identifiers, locations and even the most recent photo (if available).

Users can also conduct structured searches on vehicles, locations, telephone numbers, crime characteristics and more, and large-volume searches can be formatted into a comma-separated value file and loaded as a batch query. The N-DEx System also features collaboration sites where cross-jurisdictional fusion centers or task forces can communicate and share files of any type or size. And all of this information is available 24/7/365 from any secure Internet-connected device, including mobile devices.

For assistance with obtaining N-DEx access, contact the help desk at ndex@leo.gov.

265 MILLION RECORDS
LOCATIONS
CRIME CHARACTERISTICS
Aliases
TELEPHONE NUMBERS
VEHICLES

COLLABORATIVE RESULTS

Every day, someone uses the N-DEx System to solve and prevent crime and promote public safety. One example became the N-DEx Program's 2014 Success Story of the Year.

In 2012, a Maryland highway patrol officer conducted a traffic stop on a truck transporting three storage containers. A National Crime Information Center (NCIC) search of the vehicle and driver's information did not produce any red flags, but the officer took the additional step of searching the name on each bill of lading through LInX, which also generated an N-DEx query. Within seconds, N-DEx indicated the renter of one storage container was the subject of an ongoing federal investigation.

Through subsequent collaboration with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), the vehicle was allowed to continue to its destination, where the renter was intercepted when he claimed the contents. Inside, agents found 3,000 cartons of counterfeit cigarettes, and the suspect was charged with, and later convicted of, multiple crimes. Members of both the Maryland State Police and ATF received awards from N-DEx for their efforts in the case.

Some agencies have also found creative ways to use the system. For example, the Oklahoma County Sheriff's Office (OCSO), like many other sheriffs' offices across the United States, houses illegal aliens in its detention centers. Because the U.S. Department of Homeland Security's Immigration and Customs Enforcement often prohibits the release of these individuals prior to completion of the adjudication process, local agencies can incur significant housing expenses. Congress has funded a program to help with the cost of processing certain illegal aliens through detention centers and the judicial system through the State Criminal Alien Assistance Program, but an agency must verify either a felony conviction or two misdemeanor convictions.

Although felony convictions can easily be verified through NCIC or the Interstate Identification Index, discovering misdemeanor convictions can be challenging and time-consuming. However, thanks in part to N-DEx, OCSO estimates that the agency has saved thousands of dollars in incarceration expenses in the past year. The program manager, Capt. David Baisden, says, "N-DEx is a tremendous tool for law enforcement, and in my opinion, is vastly underutilized."

A "COMPANION"
to see you
SAFELY HOME

By Becky Lewis

Glancing at the time on her phone, she realizes the library closed five minutes ago, and that means her roommate should be on her way home. Just as she begins to worry about her friend's safety, she receives a push message: On the other side of the campus, her roommate has opened the app that sent out the push, a message that asks her to be her friend's virtual "companion" as she walks home. She answers yes, and the worry dissolves, because as a virtual companion, she will know where her roommate is on every step of her way to safety.

Companion, a free mobile app available in both iPhone and Android versions, allows users to place family and friends on a contact list, whose members receive requests to act as virtual companions whenever the app is opened. Accepting a request links them to an interactive map that shows the user virtually walking a designated route. In the meantime, the user simply drops the phone into a pocket and starts moving, keeping

aware of surroundings and letting Companion (and the virtual companions) keep an eye on things as well.

Companion detects changes in movement created by actions such as running or falling, deviations from the designated route, and disconnects between headphones and jack. When activated by any of these triggers, Companion immediately asks the user "OK?" If 15 seconds pass without a response, the app alerts the designated companion(s) that the user may be in trouble; simultaneously turns the phone into a noisy personal alarm; and, if the user attends a college or university that collaborates with the app, instantly notifies campus police/security. (The user, if able, may also call 911.)

Version 2.0.3, released in August 2015 to a worldwide market, has received extensive national and international publicity. The resulting hundreds of thousands of downloads in a short time has been a startling and welcome surge of growth for the team of University of Michigan students that created the app in 2014.

Lexie Ernst, a co-founder and business major, says a group of friends were bouncing around ideas about what they could do to address the important issue of campus safety by leveraging technology, and they came up with the idea to create Companion. Winning the Michigan Business Challenge through the university's Ross School of Business and Zell Lurie Institute helped get the project underway.

STAY CONNECTED

YOU
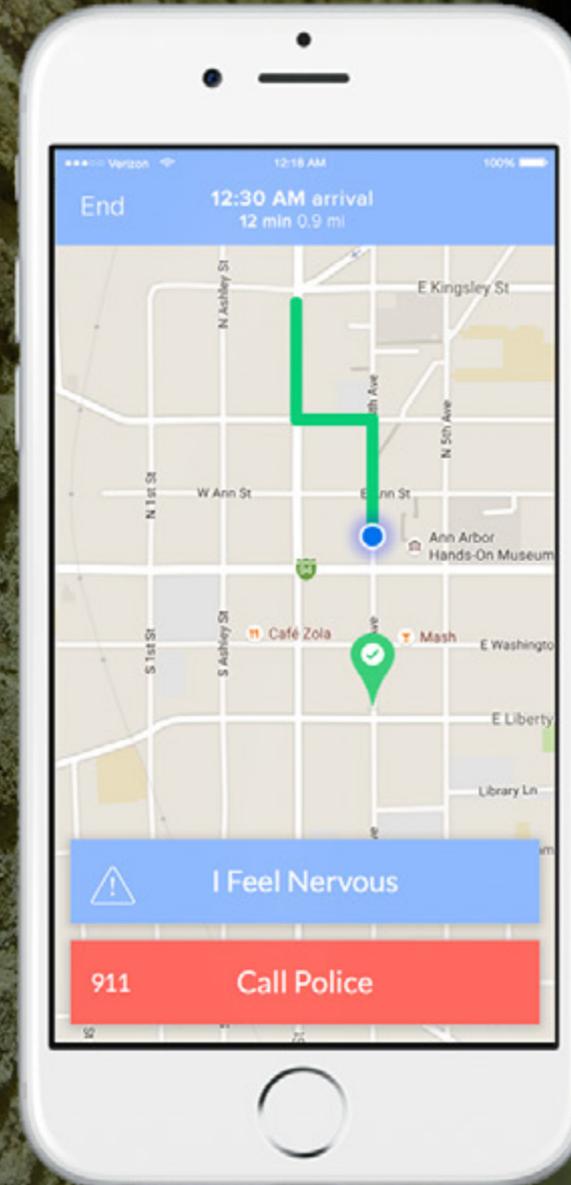
YOUR COMPANION
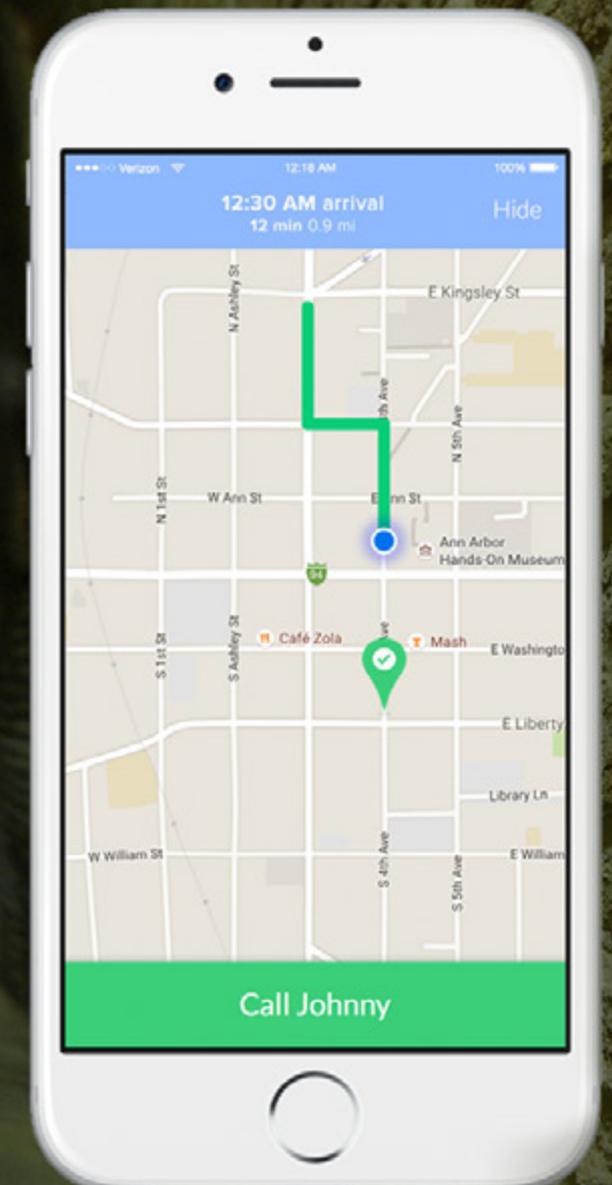
IT JUST WORKS

"We worked on it for a few months and released Version 1.0 in November 2014. It was a slow growth student startup, with a few thousand downloads over a few months, and it was exciting for us because it was our first project," Ernst says, adding "When we hit 5,000 users, we had a huge party."

The burst of publicity after the release of the revised version, including articles in *Business Insider* and *Tech Times*, resulted in a hundred times as many downloads. "We didn't know what hit us. Overnight, it seemed, we had a half-million users," Ernst says.

Interest in Companion has spread from college campuses to include parents who want to use the app to keep track of their young children and to working adults concerned about elderly parents. And while the user base spreads and grows, the team makes plans to expand its collaboration beyond the Ann Arbor Police Department to other campus police/security departments across the country, getting them to tie into the app so it can contact them directly. They're also working on collecting data on spots where users pull out their phones and activate Companion's "I feel nervous" feature, with plans to analyze reports and map trouble spots that might merit increased public safety attention. The Companion team is also exploring further potential funding sources.

"It's very important to us to keep this free to users," Ernst says. "I have a heavy school schedule and a lot going on and it all makes life crazy, but I know we're doing some really important work here. We live in an information age where so many things are possible. If you feel there's an issue that needs to be addressed, today's technology makes it possible for you to do something … and we are."

To learn more about Companion, send an email to founders@ companionapp.io, or visit the website at http://www.companionapp.io/.

Interest in Companion has spread from college campuses to include parents who want to use the app to keep track of their young children and to working adults concerned about elderly parents.

MAPP●NG APP

Can Provide Detailed Scene Information for

FIRST RESPONDERS

By Michele Coppola

A mapping application developed in a California police department seeks to bridge an information gap for first responders at an emergency scene.

James Toomey, a programmer with the Torrance Police Department, developed the app in response to the National Institute of Justice (NIJ) Ultra-High-Speed (UHS) Application Challenge, which sought the creation of apps that are compatible with UHS networks and measurably improve the efficiency and effectiveness of criminal justice and public safety services and operation. The Torrance UHS mapping app, which won the $50,000 second place prize, stores a list of website URLs for schools, cities, businesses or other locations that want to share detailed information with first responders, such as floorplans, diagrams, video and whether dangerous chemicals are present at the location.

"When I first read about the Challenge, I thought about where data transfer is limited and thought back to conversations with police and fire department personnel who wanted to see maps of places they were responding to, like college campuses, refineries and big buildings, and that's where I thought I could provide an information bridge," Toomey says.

Torrance, with a population of about 147,470, is a coastal city located in the South Bay area of Los Angeles County.

Toomey used an iPad touch screen tablet to write the app, but the programming code could be altered to work on a desktop or another platform if necessary.

For information sharing, users often have to send their data to a centrally managed website. Toomey says one advantage of the app is decentralization; data will not be stored on one central server. Any participating public or private organization would provide data on its own servers and house it there, providing more flexibility than housing all data on one central server managed by an administrator.

The app has buttons for maps, settings and help. When a user pushes the map button, a map appears with pushpins showing the various locations for which information has been added. The availability of detailed location information can improve first responder safety and facilitate field operations. Responders can view maps and photos before arriving at a scene or entering a building, which can aid tactical decisions.

"The app will give first responders an easy way to find data from lots of different locations, especially outside of our city," Toomey says. "A lot of cities are happy to share information but don't have an easy way to show it to us. A participating organization can put its pictures or maps on its website and whoever is using the app enters the URL and the app will go to that site and pull down data."

Schools, businesses and other participants can password protect their data and provide user credentials to first responder agencies.

"The Torrance Police Department is committed to using technology to enhance safe operations and efficiencies," Chief Mark Matsuda says. "We are extremely fortunate to have James Toomey as a member of our police department. My thanks and congratulations go out to him for developing this app and for taking part in the competition."

For more information, contact James Toomey at jtoomey@TorranceCA.gov.

To learn more about NIJ Challenges and the UHS App Challenge, visit http://nij.gov/funding/Pages/challenges.aspx, and read the article in the September/October 2015 issue of TechBeat at https://justnet.org/InteractiveTechBeat/index.html. For information on other federal government agency Challenges, go to www.challenge.gov.

TECHshorts
Technology News Summary

TECHshorts is a sampling of the technology projects, programs and initiatives being conducted by the Office of Justice Programs' National Institute of Justice (NIJ) and the National Law Enforcement and Corrections Technology Center (NLECTC) System, as well as other agencies. If you would like additional information concerning any of the following TECHshorts, please refer to the specific point-of-contact information that is included at the end of each entry.

In addition to TECHshorts, *JUSTNET News*, an online, weekly technology news summary containing articles relating to technology developments in public safety that have appeared in newspapers, newsmagazines and trade and professional journals, is available through the NLECTC System's website, www.justnet.org. Subscribers to *JUSTNET News* receive the news summary directly via email. To subscribe to *JUSTNET News*, go to *https://www.justnet.org/app/puborder/subscribe/subscribe*. aspx, email your request to asknlectc@justnet.org or call (800) 248-2742.

Note: The mentioning of specific manufacturers or products in TECHshorts does not constitute the endorsement of the U.S. Department of Justice, NIJ or the NLECTC System.

Free App Gives First Responders Access to Information on Potential Railcar Hazards

AskRail

The AskRail™ app is a collaborative effort among all North American Class I railroads, the Association of American Railroads, Railinc Corp. and The Transportation Technology Center, Inc. The app provides data on the type of hazardous materials a railcar might be carrying, which first responders can use when responding to a rail emergency. For security reasons, only qualified emergency responders who have completed rail emergency training sponsored by one of the Class I freight railroads or at the Security and Emergency Response Training Center can download and use the AskRail app. Also, railroads can offer the app to known emergency responders along their routes.

Through AskRail's mobile interface, emergency responders can use a simple railcar ID search to see whether a railcar on a train is carrying hazardous materials and view emergency contact information for all Class I railroads.

For more information, visit http://askrail.us/.

Multistate Criminal History Patterns of Prisoners Released in 30 States

Bureau of Justice Statistics

A report from the Bureau of Justice Statistics found that an estimated 11 percent of the 404,638 prisoners released in 30 states during 2005 were arrested at least once in another state within five years following release. The report, *Multistate Criminal History Patterns of Prisoners Released in 30 States*, also examined the characteristics of released prisoners and factors affecting the likelihood of prisoners being arrested in another state following release.

Nearly three-quarters of prisoners in the study were granted conditional release and placed on parole, probation or other form of community supervision; about a quarter were granted unconditional release. During the follow-up period, state prisoners released unconditionally were arrested in another state at a higher rate than those released conditionally. An estimated 9 percent of prisoners released conditionally were arrested in another state compared to 15 percent of prisoners released unconditionally.

Findings are based on prisoner records from the BJS National Corrections Reporting Program and on criminal history records from the FBI and state repositories. For more information, go to http://www.bjs.gov/index.cfm?ty=pbdetail&iid=5407.

PUBLIC SAFETY TECHNOLOGY
In The News

JUSTNET

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FUNDING ASSISTANCE

NLECTC is offering tools and assistance to help Law Enforcement and Corrections agencies locate and apply for funding opportunities.

Federal Funding Opportunities:

See www.nij.gov or www.grants.gov.

Give Us Your Tech Ideas

We are actively seeking ideas to help us identify technology needs and requirements as part of the National Institute of Justice's Research, Development, Testing, and Evaluation process.

Following are abstracts on public safety-related articles that have appeared in newspapers, magazines and websites.

Kits to Allow Emergency Workers to Halt Overdose

The Journal Gazette, (10/30/2015), Niki Kelly

Under a new grant program, more first responders in Indiana will be equipped with an antidote that reverses opioid overdoses. First responders are now regularly carrying naloxone hydrochloride, also known as Narcan, to combat opioid and heroin overdose. To date, 55 law enforcement agencies across Indiana have been trained and equipped with naloxone. There are about 480 agencies statewide.

http://www.journalgazette.net/news/local/indiana/Kits-to-allow-emergency-workers-to-halt-overdose-9621358

Minnesota Jail Rolls Out Iris-Scanning ID System for Inmates

GovTech.com, (10/22/2015), Shannon Prather for the Star-Tribune

The Anoka County (Minn.) jail has become the first in that state to use an eye-scanning system to identify inmates. Every inmate booked into the facility will have irises photographed and stored in a national database for future reference. Approximately 11,000 inmates pass through the facility each year.

http://www.govtech.com/dc/articles/Minnesota-Jail-Rolls-Out-Iris-Scanning-ID-System-for-Inmates.html

New Helicopter Technology to Fight Crime in Nassau County

Eyewitness News 7, (10/26/2015), Kristen Thorne

The Nassau County (N.Y.) Police Department recently implemented new technology that allows the department's helicopter cameras to send images directly to the laptops of others officers in their squad cars. The video can also be live-streamed to tablets and iPhones. The helicopter cameras can zoom in on license plates from heights in excess of 800 feet, and the ability to provide ready access to these images could change the way policing is implemented on the ground.

http://abc7ny.com/technology/new-helicopter-technology-to-fight-crime-in-nassau-county/1052290/

Click here for recent public safety-related articles from the news media. **Go**

WWW.JUSTNET.ORG

JUSTNET News. Includes article abstracts on law enforcement, corrections and forensics technologies that have appeared in major newspapers, magazines and periodicals and on national and international wire services and websites.

Testing Results. Up-to-date listing of public safety equipment evaluated through NIJ's testing program. Includes ballistic- and stab-resistant armor, patrol vehicles and tires, protective gloves and more.

Calendar of Events. Lists upcoming meetings, seminars and training.

Social Media. Access our Facebook, Twitter and YouTube feeds for the latest news and updates.

Do More With Less. Highlights creative programs and resources to help agencies meet challenges as budgets shrink and demands on departments grow.

Tech Topics. Browse for information on specific topics such as biometrics, cybercrime, forensics and corrections.

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