The NLECTC System

The National Law Enforcement and Corrections Technology Center (NLECTC) System is critical to the National Institute of Justice’s mission to assist 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.

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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.

Stations may also partner with public safety agencies to provide information that could potentially save lives.

Allan Sadowski, IT manager with the North Carolina State Highway Patrol and a member of the Office of Justice Programs’ National Institute of Justice (NIJ) Communications Technology Working Group, explains that there is growing interest in public safety agencies working with television stations to create datacasting partnerships.

“Every time there is a major incident or event such as an earthquake, a tornado or even a major sporting event, cellular systems get overloaded,” Sadowski says. “Sometimes public safety radio systems (LMR) get overloaded too. When needs exceed system capacity — cellular or LMR — they can just stop working. But with a broadcast model, it doesn’t matter if there is one receiver or 10 million. The data goes through.”

Sadowski adds that a digital television signal may cover anywhere from 8,000 to 12,000 square miles, depending on the type of receiver antenna used, compared to typical cellular site coverage of 50 to 70 square miles.

“It’s way more high-powered than anything being used in public safety today,” he says. “And in rural, tribal, wilderness, maritime and park jurisdictions, where cellular coverage is often lacking, this could provide key alternative coverage. If you can get a TV signal, you can get information.”

“It’s an innovative way of using existing infrastructure at a modest cost,” says Fred Frantz, director of NIJ’s Communications Technology Center of Excellence (CoE). “It’s not going to solve all of our problems, but it’s another tool in the toolbox that allows agencies to be able to move a large amount of data out to specific users at specific times for specific purposes.”

Although the concept of datacasting has been around for many years, the idea of public safety and public or commercial television working together to broadcast crucial information is a relatively new one. The U.S. Park Police recently participated in a demonstration project (see sidebar, “Datacasting Solves Park Police Problems”) and Clark County Schools in Nevada have successfully partnered with a local public television station to implement datacasting. Sadowski is working on coordinating further NIJ research and the CoE is assessing the potential for a future detailed evaluation. Frantz says that he thinks the public safety community as a whole is not very aware of the vast potential that lies in the use of datacasting.

“We’ve been trying to look at technology that falls outside the traditional methods of public safety communication, including datacasting,” Frantz says. “We’ve made visits to places where datacasting has been deployed, including Clark County, where the schools have their own police department. If officers are dispatched to an incident in a school, they use datacasting to send them a package of current information on the building. This project grew out of a longstanding relationship between the station and

Datacasting, a truncated word derived from data and broadcasting, involves broadcasting data over a wide area via radio waves and may describe digital signals sent via television or radio. Television stations may use datacasting to provide information such as news, weather and traffic that may be unrelated to the programs with which the information shares spectrum.*
the school district. For example, they support broadcast of certain classroom teaching to create a virtual high school for students who for one reason or another, such as illness, cannot attend in person. They’ve really found some innovative ways to work together.”

If an agency is interested in datacasting, it needs to find a television station that is willing to join the project, and initial capital expenses are involved in setting up a system. Expenses relate to establishing a transmission control protocol/Internet protocol data feed at the transmission facility, plus supplemental devices to enable laptop and tablet computers to receive the information.

Sadowski estimates costs for datacasting to be significantly lower than other communications solutions. Since datacasting can use an existing digital TV transmitter, the tower, antenna, radio frequency equipment, power and maintenance costs have usually already been covered by the broadcaster, he says.

A key component is the relatively inexpensive datacasting receiver hardware that allows officers to receive encrypted data. If you don’t have the right encryption key, you can’t unlock the data. That prevents unauthorized users from picking up law enforcement-sensitive information along with their stock market reports.

“The encryption can allow all officers to receive data such as Amber Alerts and stolen vehicle lists, or an investigator can call in to request specific information related to a case that will go only to the requester,” Sadowski explains.

“When the United States made the transition to digital television, the channel bandwidth did not change, but improved technology resulted in extra available capacity,” Sadowski says. “The industry had a goal of allowing people riding in cars, trains, buses and so on to also receive TV signals via small handheld sets, which was the genesis of the technology that law enforcement can purchase and use to pick up signals. These devices have the ability to receive data much like as though they were connected to the Internet, so anything that can be found on the Internet can be broadcast on a television signal — video, audio, PDFs, spreadsheets, documents, pictures, even whole websites. Instead of just getting a verbal description of a suspect’s height, weight, and hair and eye color via a dispatcher’s voice, officers can get a photo with datacasting. And any data received can be stored for later review if it comes in when an officer can’t take time out to read it.”

For more information on datacasting, contact Allan Sadowski at the North Carolina State Highway Patrol Technical Services Unit at (919) 662-4440 or allan.sadowski@ncdps.gov. For more information on NIJ’s Communications Technology portfolio, contact Program Manager Joe Heaps at Joseph.Heaps@usdoj.gov. For more information on the programs of the Communications Technology Center of Excellence, contact Director Fred Frantz at fred.frantz@l-3com.com.

Datacasting Solves Park Police Problems

July Fourth on the Mall in Washington, D.C. Being part of the event is the realization of a dream for many visitors, and coping with the logistics is an annual nightmare for the U.S. Park Police. However, after the agency’s 2011 implementation of datacasting technology to share video, one logistical difficulty has faded out.

Prior to the annual Independence Day celebration, the U.S. Park Police and a Virginia-based technology services company, SpectraRep, launched a pilot datacasting project using spectrum provided by public television station WETA. The project enabled the agency to share video of the event with more than 25 other local agencies, and the Park Police quickly learned that datacasting solved four major problems the agency grappled with when using the previous system. As the pilot project wound down in early 2012, the Park Police began financial negotiations with SpectraRep to make the project a permanent one.

“We deploy tactical video for large-scale events or incidents, such as the Fourth of July, the Martin Luther King Memorial dedication and the August 2011 earthquake,” says Capt. David Mulholland, technology services commander. “We previously set up cameras that communicated using the cellular infrastructure, attached to IP-based cameras or video encoders attached to a router in a cellular card. Every time we gave another user viewing access, the quality degraded until it reached the point where it became almost unusable. The fact that there is a lot of general cellular traffic going on at the same time just made it that much worse.”

Because datacasting uses television airwaves, degradation is no longer an issue, so for the 2011 Independence Day celebration, Mulholland could provide access to all agencies that had a public safety concern related to the event, such as the American Red Cross, the U.S. Department of Health and Human Services, and the National Center for Missing and Exploited Children.

Datacasting also does not limit the number of users from each agency, eliminating another problem with the cellular technology.

“During the last inauguration, we had a couple of video servers hooked into one camera and each could have 20 users,” Mulholland explains. “I gave five agencies permission to allow one person to log into the video servers. They quickly discovered that more than one person could use the login at the same time, and when I went to log in myself, the stream was full because of unauthorized logins.”

Other benefits derived from datacasting include freeing up more of the cellular infrastructure for other uses and the ability to immediately cut off a feed if circumstances dictate. Also, Mulholland says, if a terrorist attack or natural disaster took out the cellular infrastructure, datacasting could continue to provide video and other essential emergency information.

“It’s been a very useful tool for us. We took the capability and ran with it,” Mulholland says. “The end benefit to public safety is it allows us to significantly expand our capability for sharing information securely. The capabilities are phenomenal. It addresses all of our significant concerns and issues and we look forward to continuing to use it.”

For more information on the U.S. Park Police datacasting project, contact Capt. David Mulholland at (202) 610-5282 or David_Mulholland@nps.gov.
For a small law enforcement agency, the prospect of building and launching a website can seem as daunting as assembling one of those 1,000-piece jigsaw puzzles that are just one solid color.

Now, thanks to a new initiative from the Small, Rural, Tribal and Border Regional Center (SRTB-RC), agencies with fewer than 50 sworn officers can get website help from a team of “puzzle experts” — the Web team from SRTB-RC and its sponsor, The Center for Rural Development.

SRTB-RC is part of the National Law Enforcement and Corrections Technology Center System, which is a program of the Office of Justice Programs’ National Institute of Justice.

SRTB-RC will supply agencies that need help in establishing a Web presence with a template. The template document lists all of the information an agency needs to supply in order to have SRTB-RC create a website. An agency just needs to check off some boxes and attach text files, photos and even video.

After about a year in project development, SRTB-RC was ready to name an initial test site and the (LES) in Parker, Ariz., applied for and received that designation. Design work for the CRIT police department began in January 2012 and the site launched in March. A five-man department in Montgomery, La., also joined in the initial test phase, which will expand to 10 beta test sites before SRTB-RC opens the project to all comers later this year.

SRTB-RC staff will create sites in the order that they receive requests, and there's no limit on the amount of participants the project can handle. SRTB-RC staff are creating a guide for agencies interested in participating so that they can collect the necessary information in the appropriate formats before signing up for a site.

The SRTB-RC design team uses a content management system that's behind millions of websites, and they set the agencies up as a subdomain of SRTB-RC's own website. SRTB-RC recommends that agencies go out and register their own URL, which will be redirected to from the SRTB-RC site. That way the only cost to participating agencies would be that URL registration fee.

SRTB-RC will do the initial setup and make sure all the correct links are in place, and ensure that everything is just the way the participating agency wants it. All the agencies have to do is provide the information. After the site is up and running, they will be shown how to update the content so they have control over what content is available on their site.

CRIT LES did a terrific job with providing information, says Lonnie Lawson, who is the president and chief executive officer of The Center for Rural Development and the principal investigator for the center. The department became involved through the efforts of the Tribal prosecutor, and the collection of information was coordinated by Hannah Ward-Harper, administrative coordinator for the Motor Vehicle Injury Prevention program. Ward-Harper says her primary responsibility is coordinating a traffic safety grant focused on reducing injuries and fatalities by decreasing drinking and driving and promoting seat belt use. However, other projects also come her way, including this one, her first foray into the Internet world.

“I was actually very pleasantly surprised by how positive the experience was,” Ward-Harper says. “I’d never heard of SRTB-RC before, and I didn’t know there was a center that helped small departments like ours with technology.
The whole process was really smooth and easy. I had a tight deadline to gather all the information I needed from our various divisions in a one-week timeframe, but after that I just gave SRTB-RC the information and let them create the site. The design they put together is really nice. It was a great opportunity for us to get a website without having to pay someone to develop it.”

Lawson had similar praise for CRIT LES, which got the nod to become the pilot site by promising a fast turnaround, and then coming through. Ward-Harper says she had great cooperation within the department.

“We sat down and talked about it with all of the different divisions and asked them to provide some information on their services, including photos,” she says. “All of the information had to get the approval of the CRIT Attorney General’s Office, and the Tribe’s attorney reviewed it and got it right back to me. It was definitely a coordinated effort on everyone’s part,” she says, adding, “The feedback we’ve gotten internally has been positive, everyone likes it a lot. We’re just starting to promote it to the public, and we think it will be a real boost for the department because the public may not be fully aware of what services we offer to the community or the different types of programs we are currently working, such as our Motor Vehicle Injury Prevention, Highway Safety and Sex Offender Registration and Notification programs. It should also help with future grant applications to have information out there on the Internet as well as on local radio and in print.”

Lawson says he’s excited by the interest from the pilot sites, and he’s anxious to see how much interest the full project generates among SRTB-RC’s target community.

“We’re going to promote it through conferences, through training, through our e-mail list,” he says. “We’ll be waiting to see if we’re bombarded or if it comes in a slow and steady stream. We’re going to do our very best to take care of everybody who needs this service.”

For more information on the Small, Rural, Tribal and Border Regional Center’s website assistance project or to be a beta test site, contact SRTB-RC at info@srtbrc.org. For more information on the services of SRTB-RC, contact Executive Director Dave Mather at dmather@srtbrc.org, go to www.justnet.org/srtb, or contact the federal program manager, Michael O’Shea, at michael.oshea@usdoj.gov.
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. 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, JUSTNETNews, an online, biweekly 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 JUSTNETNews receive the news summary directly via e-mail. To subscribe to JUSTNETNews, go to https://www.justnet.org/subscribe.html on NLECTC’s website, or e-mail 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.

License Plate Recognition (LPR) Systems: Function, Performance and Considerations for Small, Rural, Tribal and Border Agencies

Small, Rural, Tribal and Border Regional Center

The Small, Rural, Tribal and Border Regional Center (SRTB-RC) has produced a report to help law enforcement agencies that are considering purchasing a license plate recognition (LPR) system.

License Plate Recognition Systems: Function, Performance and Considerations for Small, Rural, Tribal and Border Agencies, provides an informative overview of the technology generally, including functionality, limitations and other considerations for law enforcement agencies contemplating purchase and deployment of this technology. The report covers a definition of LPR systems, how they work, the various types presently on the market, performance and expectations, and considerations and conclusions.

Under a 2006 grant, the National Institute of Justice funded the Sheriffs’ Association of Texas, as host to the Border Research and Technology Center, to conduct research, testing and evaluation in operational environments of LPR systems for law enforcement. Beginning in 2010, SRTB-RC took on continuing research in this area with the development of a self-contained deployable trailer that can be moved to high-traffic areas, allowing officers to continue patrols and still receive immediate information on vehicles of interest. The report was produced as a follow-on to this research.

To download the report, go to https://www.justnet.org/pdf/LPR-Report-Lowres.pdf. For more information, contact Tod Depp of the SRTB-RC at (512) 660-7782 or TDepp@SRTBRC.org.

NIJ Bomb Suit Standard Available

National Institute of Justice

NIJ has released two new products related to bomb suits: A standard and a certification program requirements document.

Public Safety Bomb Suit Standard, NIJ Standard-0117.00 was developed by a panel of practitioners, technical experts and others with experience in standards development and conformity assessment. It is a voluntary performance standard for bomb suits used by certified public safety bomb technicians. This NIJ standard defines both performance requirements and the methods used to test performance.

In order for a manufacturer or supplier to claim that a particular bomb suit model satisfies the NIJ standard, the model must comply with the standard, as described in the associated document, Public Safety Bomb Suit Certification Program Requirements, NIJ CR-0117.00.

Public safety agencies that purchase bomb suits should consider purchasing only bomb suits that meet the minimum performance requirements spelled out in the NIJ standard.

To download the bomb suit documents, go to http://www.nij.gov/pubs-sum/227357.htm. For more information, contact Debra Stoe of NIJ at debra.stoe@usdoj.gov.

Report on Human Factors in Latent Print Examination

National Institute of Justice, National Institute of Standards and Technology

A report is available that examines human factors in latent print analysis and recommends actions to reduce the risk of error.

Latent Print Examination and Human Factors: Improving the Practice through a Systems Approach, was produced through a partnership between the National Institute of Justice and the National Institute of Standards and Technology’s Law Enforcement Standards Office, with funding from NIJ. It is the product of a working group that included experts from forensic disciplines, statisticians, psychologists, engineers and legal scholars.

The recommendations and suggestions of the working group address issues such as courtroom testimony, laboratory design and equipment, training and education, and research into emerging methods for associating latent prints with exemplars.

To download the report, go to http://nij.gov/pubs-sum/latent-print-human-factors.htm. For more information, contact Gerald LaPorte of NIJ at Gerald.laporte@usdoj.gov.
The detectors, which are the size of a pager, were developed with the collaboration of the Illinois Terrorism Task Force (ITTF), the Illinois Law Enforcement Alarm System (ILEAS), the Mutual Aid Box Alarm System (MABAS), the Illinois Emergency Management Agency (IEMA), the Illinois State Police (ISP) and nuclear scientists at the Argonne National Laboratory. The program was funded through DHS State Homeland Security and Chemical Buffer Zone Protection grants.

ILEAS is a mutual aid consortium of all law enforcement agencies in Illinois. Ron Ellis, field training manager for ILEAS, said Illinois is the first state to provide specialized training and deploy radiation detectors to public safety agencies in large numbers. The Illinois program is statewide rather than city based. Specialized training was developed in-house rather than being provided by federal contractors, and is delivered by state personnel and designees.

"Radiation detection traditionally has been for hazmat personnel. Now we are putting it in beat cops hands," says Tom Seif, a health physicist and Preventive Radiological/Nuclear Detection program manager with the IEMA Division of Nuclear Safety.

Following a 1½-year pilot program, ILEAS purchased 6,200 of the detectors to distribute to police and fire departments across the state, beginning in 2010. Following the devastating 2011 earthquake and tsunami that crippled nuclear reactors in Japan, due to the critical life-saving need for detectors there, the state provided 2,000 to the Japanese government to aid first responders.

Use of the devices by Illinois agencies is voluntary. The program has proved popular, and most of the devices have either been deployed or are spoken for, according to Seif. The majority of the devices went to local and state police and special local law enforcement SWAT teams; about 500 were distributed to fire departments.
"We had a limited number of detectors, so distribution was on a first-come, first-served basis," Seif says. "Due to the scope of the effort, the inventory has always been less than the potential target audience. We recognize the need for more financial support as we expand the program, and are pursuing all possible avenues from our local, state and federal partners with the ultimate goal of having radiation detectors available to all first responders in Illinois."

The detectors can be mounted in a squad car with a holster and charger, and can be removed by an officer and carried on a duty belt.

A key component of the program is the potential interdiction of terrorist activities associated with radiological dispersal devices, or dirty bombs. In developing the program, the Illinois partners worked with the DHS Domestic Nuclear Detection Office (DNDO).

"We are gratified by Illinois’ focus on this vital homeland security mission," says Tom Bourne, assistant director at DNDO. "We rely on the commitment of our state and local partners for the ultimate success of our layered defense and detection architecture."

Radioactive materials can be used in a variety of medical, commercial and industrial activities. An accident or fire could result in the release of dangerous levels of radiation. The pilot program allowed the state to determine the sensitivity setting necessary to detect radiation sources of interest, while avoiding "false" alarms caused by items that may contain naturally occurring radioactive materials.
Users can set the devices to various degrees of sensitivity. The device can provide various alarm sequences to get an officer’s attention, including audible, vibrating and flashing light alarms.

The program includes a “reach-back” system of experts armed with advanced detectors to provide support, if necessary, in the event an officer locates radioactive materials. If the source and extent of the radiation is in question, a second level of responders with more sophisticated equipment can be dispatched to assist. Fire department hazmat units with radio isotope identification devices and ISP commercial vehicle enforcement officers can be called to the scene to help identify the radiation source and the specific type of radio isotope (medical, industrial, military). A third tier of support is IEMA nuclear safety specialists, who have more sophisticated equipment and can trigger federal support if needed.

“We not going to leave them hanging out there; we share the burden, and we share the call 24/7,” Seif says.

Ellis said the detectors, made by Polimaster, are rugged and water resistant. Each detector cost $679, less than half the regular cost because the agency bought in bulk. If purchasing an individual detector, the cost would be in the neighborhood of $1,500, according to Seif.

The impetus for the Illinois program began nearly a decade ago when IEMA was asked to recommend radiation detectors for law enforcement officers in the field. Research indicated that the technology on the market at the time would not be suitable, so manufacturers were asked to submit proposals for a personal radiation detector.

“Nine different manufacturers submitted 13 different instruments,” Seif says. “We selected four of them and had the vendors build us units, which then underwent about a year’s worth of evaluation by Argonne National Laboratory and a few police and fire units to select a device to go forward with in a pilot program.”

Officers in departments receiving the devices must take an online, self-paced tutorial before the devices are issued. Once the detectors are issued to an agency, IEMA provides hands-on training with officers to ensure they know how to use the device and interpret the alarms.

IEMA also provides training for the agency point of contact that covers troubleshooting and ensuring the device is working properly.

In addition to alerting to a dangerous situation, Seif points out that the devices can help avoid unnecessary evacuations and road closings. In one instance, a pickup truck rolled over on an Illinois interstate highway on-ramp. The officer’s detector alarmed. The truck contained a moisture density gauge with radiation stickers on it, which in the past would have automatically caused police to shutdown the on-ramp and affect the flow of interstate traffic. Gauges containing radioactive sources are used for determining the density of asphalt, soil, aggregate (usually gravel or crushed rock), and concrete as well as the moisture content of the soil or aggregate.

Alarm levels on the detectors are set at specific levels. The initial alarm is low in order to give early indication of a source of radiation to the officer. The second alarm is set at 2 mR/hr (milli REM per hour), a regulatory limit. Licensees authorized to use radioactive materials or registrants using X-ray equipment must conduct operations so that the dose to members of the public in any unrestricted area does not exceed 2 mR in any one hour. The officer noted that radiation readings on the on-ramp were well below that level. The shipping container for the gauge showed no indication of breached integrity, so there was no potential for a ruptured source and resultant contamination on the roadway, allowing for the continued use of the on-ramp to the interstate.

“We with the detectors, we don’t need to close a road and agitate the public unnecessarily,” Seif says.

For more information on the Illinois Preventive Radiological/Nuclear Detection program, contact Ron Ellis of the Illinois Law Enforcement Alarm System at ron.ellis@illinois.gov or (217) 871-6010, or Tom Seif of the Illinois Emergency Management Agency at tom.seif@illinois.gov or (217) 557-1883. For information on the DHS Domestic Nuclear Detection Office, contact Thomas Bourne, assistant director of the DNDO Operations Support Directorate, at thomas.b.bourne@dhs.gov.
Television in correctional facilities can potentially be used to modify and reward inmate behavior and keep inmates connected to the outside world. An Oregon county jail has tapped into technology that allows administrators to easily manage inmate television viewing, provide information and training to inmates, and present training to staff as well.

“I had a long-term vision to take control of the TVs inside the corrections facility,” says Sgt. Tom Graham of the Lincoln County Sheriff’s Office Jail Division. “Usually, correctional facility TVs have cable or satellite service and a remote with either staff members or inmates regulating the channels, depending on where they are housed. The new system allows deputies to make the channel selection from a Web browser anywhere in the building, thus eliminating the need for the remote to be in their hands. If the inmates have the remote, they can continue to select channels, but scheduled or unscheduled programming of the administration’s choice will override in cases where it is deemed necessary, again done from a Web interface. Basically, inmates can control the cable channel choice when we give them that ability; the rest of the time it will be media we choose for very specific reasons, such as self-help videos or announcements from staff.”

Graham is assigned to manage the Lincoln County Jail training system, the building, and all of its technology. He worked with vendors over 18 months to establish technology in the jail similar to that used in broadcast news and other businesses. It provides features such as a scrolling ticker at the bottom of the screen that jail staff can use to broadcast information to inmates. Staff can also interrupt a TV program at any time to provide training or other messages.

“We were able to take that technology and install it in the jail,” Graham says. “It allows us to stream in the video we want. If we want to allow inmates to watch cable TV, we can. Or, we can interrupt whatever program is on to broadcast bloodborne pathogen training to inmates. We are controlling what they watch and we can also broadcast information on the ticker line about changes in the facility and changes in rules.”

The jail is in the process of compiling a large repository of educational and media sources that can be broadcast at any time. Also, on the side of the TV screen is a screen that displays information from the community on employment assistance and other programs such as treatment facilities, which provides inmates with contact assistance before they are released from the jail.

The jail, which is in Newport, Ore., has a capacity for 161 male and female inmates, and space for all security levels, from minimum to maximum. The facility has seven TVs in the housing units, and staff can direct information to a specific group of inmates.

“The system allows us to target the audience, so if I want to show inmates in maximum security a behavior video, I can send it to just their machine,” Graham says.

The jail is also building a web page from which staff will be able to change the viewing schedule and control the TVs. The web page could also be used to broadcast a
lock down order or an “emergency in cell” alert.

The jail provides a commissary program for inmates to purchase additional hygiene and food items that are not otherwise provided. The $25,000 cost of the TV system was paid for with funds from the commissary system, so there is minimal cost to taxpayers.

Tight budgets have reduced funds available for sending staff to outside training. Graham says the jail is also using the system to create an internal training database for staff, who can access the training from the jail briefing room TV or from a computer. Training topics include new hire videos on how to control contraband and how to communicate with inmates and training for all staff on bloodborne pathogens. Jail officials are also working with other agencies in the state to spark interest in building a statewide system for online training that would reside on a common server.

“At the very core of it all is allowing us to do what we want when we want to do it and get the messages out to inmates,” Graham says, adding that the other aspects of the system such as staff training, “are like having your cake and eating it too.”

Graham says initially inmates were annoyed with the messages and information scrolling on the screen, but they began asking staff about the information, such as how to sign up for the GED (general educational development) program at the jail. Since the system was installed, the jail has seen an increase in communication between inmates and staff about resources and programs available inside and outside of the facility.

“We are adjusting to younger inmates, who are technologically driven,” Graham says. “We are adapting what we do to get their attention.”

Other informational and training topics for inmates include short videos on inmate behavior and jail rules and regulations. Using a webcam, jail staff can make their own low-cost videos or short vignettes for training inmates, which saves time and money.

“I have not found any other correctional facility doing this,” Graham says. “When I first started I thought someone must have a managed correctional TV system, but all I found was cable or satellite tailored to prisons. What we are using is the same technology being used in other industries such as hospitals and hotels; we are just applying it to a correctional setting.”

“It’s been a partnership with the two companies that have provided a lot of the equipment at cost to us in order to break into the market and allow our site to be a test site,” he adds. “I really appreciated the effort the companies have put into it — just taking my vision and running with it.”

For more information, contact Sgt. Tom Graham at tgraham@co.lincoln.or.us or (541) 265-0702. For information on the Office of Justice Programs’ National Institute of Justice Corrections Technology Portfolio, contact Program Manager Jack Harne at jack.harne@usdoj.gov.
In April 2012, the National Law Enforcement and Corrections Technology Center (NLECTC) System's Corrections Technology Center of Excellence (CoE) released Version 4.0 of its Field Search suite via JUSTNET, the NLECTC System’s website. Field Search, a free software product designed for use in the field by nontechnical criminal justice personnel, allows users to quickly and efficiently search a target computer and create a detailed report of the findings. Originally released in 2006 and developed with funding from the Office of Justice Programs’ National Institute of Justice, Field Search can be launched from a USB drive and works live on a suspect computer to quickly find potential evidence such as Internet histories, images, multimedia files and results from text searches. The latest update includes a number of new features drawn from a “wish list” created by users.

“Our team is in contact with end users continuously,” says CoE Director Joe Russo. “One of the highest priorities came from Canadian agencies who are using Field Search in a nationwide pilot and who really needed to access commands in both English and French. We’ve added an open-source software component that changes the interface language just by changing a few lines of XML code. Pictures, URLs, they’re basically the same in any language, but users generally just feel more comfortable executing commands in their native language. This software will convert the commands to any language that uses the same alphabet.

Parlez-vous Français? ¿Habla Español? Field Search does, as well as “speaking” any other language that uses the Latin alphabet.
as English: French, Spanish, Italian and so on.”

Russo says that another high priority need identified by users involved the relatively new browser interface, Google Chrome.

“More and more people are moving to this as their browser of choice,” he says. “It has about a 20-percent market share right now. The new version of Field Search can pull complete browser history from Google Chrome in the same way it can from older, established browsers such as Internet Explorer, Netscape, Firefox and Opera.”

Other new features include:

- **RegEditor tool.** This tool helps users define registry keys to examine using Field Search. Many users know that there is something called a registry but have no idea where it is or what it does, Russo says. Windows stores a great deal of information about user behavior in the registry and if properly extracted, this information can often make or break a case.

- **Media file support.** The new release recognizes and views more than 20 different video formats, vastly expanding its ability to detect inappropriate/illegal video files.

- **GUI (Graphical User Interface).** Reorganization of the GUI interface made it more intuitive and visually separated basic functions from more advanced ones, including the addition of the capability to display different languages mentioned above.

- **Improved report functions.**

- **Improved and expanded media file handling.**

- **Overall improved speed.**

Russo says that none of these improvements would have been possible without the volunteer efforts of two individuals: Dr. Jim Tanner of KBSolutions and Jim Persinger of PM Investigations. Tanner, a nationally recognized expert in a number of areas including computer forensic investigations and sex offender management, served as project coordinator and software designer for the original version, which Persinger, a certified forensic examiner, commercial software developer and private investigator, developed. Tanner and Persinger did all of the work on the new version on their own time.

Since its original launch, the various versions of Field Search have been downloaded more than 10,000 times, and Russo says that “users consistently tell us that Field Search is user friendly and has proven invaluable in supporting violations and providing evidence to pursue new criminal charges against sex offenders and others.”

*Field Search is available free of charge to qualified law enforcement and corrections personnel. For more information on Field Search, including how to download a copy, please visit https://www.justnet.org/fieldsearch/fs_main.html, or contact Joe Russo at the CoE at (800) 416-8086 or Joe.Russo@correctionscoe.org*
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