



Homeland Security

# Interoperability Today

A RESOURCE FOR THE PUBLIC SAFETY COMMUNITY

**DIRECTOR'S MESSAGE** .....

## Partnerships Prove Critical to Advancing National Interoperability

As the nation strives to become interoperable, cooperation across agencies—federal, state, and local—is essential. Partnerships have proven invaluable to the Department of Homeland Security's (DHS) Office for Interoperability and Compatibility (OIC) as it strengthens and integrates its efforts to improve public safety preparedness and response at all levels of government.

Managed by the Science and Technology Directorate's Office of Systems Engineering and Development, OIC has partnered with many different agencies on a number of ambitious initiatives in support of communications interoperability, including:

- Statement of Requirements (SoR);
- RapidCom Initiative;
- Statewide Communications Interoperability Planning (SCIP) Methodology;
- Regional Communications Interoperability Pilots (RCIPs) in Nevada and Kentucky;
- 1401 Technology Transfer Program; and, Project 25 (P25) Compliance.

**Statement of Requirements:** OIC and the Department of Justice's (DOJ) National Institute of Justice's (NIJ) CommTech Program partnered to formulate and release the first-ever SoR for public safety communications and interoperability. The SoR provides the Nation's 60,000 public safety agencies with a document defining future communications requirements for crucial voice and data communications in day-to-day, task force and mutual aid operations.

An updated version of the comprehensive SoR document – SoR v1.1 – is in the final stages of review and is targeted for release later this year. This upgraded version of the SoR v1.0 will include refinements based on input from the public safety community.

**RapidCom Initiative:** The OIC was established on the heels of RapidCom, another collaborative effort

in which SAFECOM—now an OIC communications program—coordinated with the Office of State and Local Government Coordination and Preparedness (SLGCP), the DOJ's 25 Cities Program, and the DHS Wireless Management Office. The RapidCom initiative ensured that a minimum level of public safety interoperability was in place in ten participating high-risk urban areas. SAFECOM and its partners worked closely with public safety leaders in Boston, Chicago, Houston, Jersey City, Los Angeles, Miami, New York, Philadelphia, San Francisco, and the Washington Metropolitan Area to assess their communications capacity and interoperability needs and to identify and implement solutions. With the on-time completion of the RapidCom initiative, incident commanders in each of the urban areas now have confirmed they have the ability to adequately communicate with each other and their respective command centers within one hour of an incident.

**Statewide Communications Interoperability Planning Methodology:** State planning efforts provide a great opportunity for federal agencies to work together to enhance interoperability. With support from NIJ, OIC partnered with the Commonwealth of Virginia to develop a strategic plan for improving statewide interoperable communications. Based on the lessons learned from the Commonwealth of Virginia's planning process, OIC released the SCIP Methodology, a tool that outlines a step-by-step planning process for developing a locally-driven, statewide strategic plan to enhance communications interoperability.

**Regional Communications Interoperability Pilots in Nevada and Kentucky:** Additionally, in carrying out two RCIP projects, authorized by Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458), OIC, through SAFECOM, will coordinate with the SLGCP Interoperable Communications Technical Assistance Program (ICTAP) to assist the State of

Nevada and the Commonwealth of Kentucky as they develop their own interoperable communications plans, using the SCIP Methodology as a model.

**1401 Technology Transfer Program; and, Project 25 Compliance:** On technology issues, OIC and the Department of Defense's Office of the Assistant Secretary of Defense for Homeland Defense (OASD (HD)) in collaboration with the DOJ, are leading an effort, the 1401 Technology Transfer Program, to identify and transfer relevant federal technology and equipment including interoperable communications, personal protective equipment, detection devices (weapons, bio-hazards, etc.), vehicles, and other capabilities to the state and local public safety community nationwide. The development of the transfer process was accomplished through a series of interagency meetings between OASD(HD) and representatives from OIC and NIJ.

The OIC is also working to improve the rate of P25 compliance, by working with the National Institute of Standards and Technology and other federal partners to develop a P25 Conformity Assessment Program. The Program will ensure that public safety agencies purchasing wireless devices and systems designated as P25-compliant can be confident that the purchased equipment actually meets P25 standards.

On behalf of OIC, I would like to thank you for your ongoing diligence and contributions to the interoperability priority. We welcome your feedback on our efforts and the utility of our tools and resources. I look forward to continuing our work and I am confident that together we can make great strides in the coming year.

Sincerely,  
David Boyd, Ph.D.  
Director, OIC

**INTEROPERABILITY INSIGHTS** .....

## New Technologies for First Responders Highlighted at DHS/DOJ Conference

The latest in public safety-related technology and training tools were presented at the 7<sup>th</sup> Annual Technologies for Critical Incident Preparedness Conference and Exposition, October 31-November 2 in San Diego, California. Attendance at the three-day conference topped that of last year with nearly 1400 attendees, who ranged from first responders to industry representatives and academicians to government officials. Attendees shared insights on new critical incident technologies, discussed ever-evolving preparedness needs, and vetted potential solutions to existing challenges.

The Departments of Homeland Security (DHS) and Justice (DOJ) collaborated with the Department of Defense (DOD) to present the conference. DHS's Science and Technology Directorate, the National Institute of Justice's Office of Science and Technology and the DOD's Office of the Assistant Secretary of Defense for Homeland Defense hosted the event.

Attendees listened to keynote remarks delivered by Dr. Charles E. McQueary, Under Secretary for Science and Technology, DHS; David Hagy, Deputy Assistant Attorney General, Office of Justice Programs, DOJ; Peter F. Verga, Principal Deputy Assistant Secretary of Defense for Homeland Defense, DOD; and Alan Pratt, Director, Home Office Scientific Development Branch, United Kingdom.

Sessions included—

- A workshop on National Incident Management System (NIMS) compliance, with an overview of a new Web-based tool designed to aid state, local, and tribal jurisdictions in assessing their capabilities and compliance. Representatives of the NIMS Integration Center hosted this session;
- A discussion on response and recovery that featured two presentations. Robin Murphy, Director of the University of South Florida's

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Homeland Security



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## The Future is Now: Emergency Medical Services (EMS) Communications Advances Can Be as Important as Medical Advances When it Comes to Saving Lives

By Kevin McGinnis, MPS, EMT-P

In the early 1970's, when modern Emergency Medical Services (EMS) communications systems were initially implemented, channels in the VHF and UHF ranges were employed to dispatch crews, allow Emergency Medical Technicians (EMTs) and



paramedics to notify hospitals of their impending arrival with a patient, and send Electro-KardioGrams (EKGs) and receive medical orders via radio exchanges with hospital staff. Little has changed over the past 35 years. However, with recent advances in voice, visual, and data com-

munications technology that support potentially life-saving applications – applications that would have seemed unimaginable to EMS responders three decades ago – change may be on the horizon.

The high quality, real-time, and audio-video capabilities of “telemedicine systems” allow specialists to provide diagnosis and treatment to patients in remote or rural clinics. These systems also enable trauma surgeons to monitor and guide stabilizing procedures in smaller hospitals before a patient is transferred to a larger medical center.

In addition, broadband capabilities have great potential to improve upon the current “state of the art” 12 lead EKG transmissions, and offer clear cross-over applications to other monitoring devices. As EMS and other medical and public safety services have improved their overall capabilities to support one another during emergencies, the need to

ensure effective communications with one another has increased.

In the fall of 2004, the Intelligent Transportation Society of America Public Safety Advisory Group – which encourages transportation and public safety agencies to better integrate their on-scene incident response and to foster partnerships that improve interoperable communications systems and incident management procedures – held a series of forums with EMS, medical, and public safety providers to address communications issues. Forum participants identified a “future vision” for EMS communications, based on available technology and technology under development.

### Current State vs. Future Vision: “I wonder...” vs. “I know...”

In examining a day in the life of an EMS responder, the forum participants noted that more often than

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## SPOTLIGHT

### Spotlight On Mike Morgan

Assistant Fire Chief  
County of Los Angeles Fire Department

#### From the Classroom to the Front Lines: Chief Mike Morgan Teaches the Importance of Making Interoperability a Priority

In the early 1980's, Mike Morgan was a junior high school science teacher with a pre-med education and a knack for computers. Today, he is an Assistant Fire Chief serving more than three million citizens in one of the nation's largest fire departments, and an ardent supporter of research and development for public safety wireless communications and interoperability improvement.

“It was not my lifelong ambition - it was actually kind of a fluke,” Morgan says, of how he made the switch from the classroom to the front lines. “I enjoyed teaching, but with my science background, I was intrigued by the Emergency Medical Services field, and I thought about becoming a paramedic,” he said.

Since then, Chief Morgan has gone on to become a twenty-year veteran of the County of Los Angeles Fire Department, serving the public as a firefighter, firefighter-paramedic, firefighter specialist, fire captain, battalion chief, and assistant fire chief in multiple aspects of fire and rescue operations and management assignments. Morgan has conducted research on predictive wildfire computer modeling and resource management in partnership with Los Alamos National Laboratories and he has worked with the Aerospace Corporation on tools to enhance the rapid detection of wildfires.

Morgan became concerned with interoperability while evaluating the effectiveness of the Los Angeles County Fire Department's responses to the civil unrest incidents in South Central Los Angeles in 1992 and to the wildfires that ravaged Southern California in 1993. Based on his observations of these events, Morgan knew that interoperability issues would be enduring challenges for the public safety community.

“This issue of responders on the scene not being able to communicate with one another kept coming up – there was no interoperability between agencies, causing command and control challenges and creating delays in decision-making, among other prob-



lems,” Morgan said. “The lesson was clear – you can't work together if you can't communicate.”

Morgan's personal interest in interoperability coupled with the experience he gained designing educational software during his teaching career made Morgan a prime candidate for appointment to numerous local and

regional working groups that focused on public safety communications technology.

It wasn't long before Morgan's expertise in the field of communications interoperability was recognized on a national level and he was invited to join the Public Safety Wireless Advisory Committee and the Public Safety Wireless Network Executive Committee. Currently, Morgan serves as a member of the SAFECOM Advisory Group.

Although he has spent the past 20 years beyond the walls of the “formal” classroom, Chief Morgan still considers himself a teacher, imparting lessons about the importance of interoperability to the public safety community.

“I spend quite a bit of time working with my team to research and develop direction and understanding within our organization as we move forward to improve our own communications systems and equipment. My role at this point in life is sharing or teaching the communication needs of the fire service on a local, regional, state, and national level. A leader should never stop learning...or teaching.”

### Q&A with Mike Morgan

Chief Mike Morgan is originally from Rotan, Texas. He lives in Coto de Caza, California with his wife and two daughters.

#### Q. In your opinion, what is the biggest interoperability challenge?

A. On a national level, I am concerned that the public safety community will “take their eye off the ball” by becoming satisfied with the “quick fix” when it comes to interoperability solutions. Our

challenge is to maintain the level of interest in achieving the ultimate goal of nationwide public safety communications interoperability. In addition, we need to secure the appropriate spectrum to support interoperability as well as the funding to facilitate improvements.

#### Q. What do you think is the best interoperability solution?

A. I believe that true interoperability can best be achieved with a standards-based, shared system that is implemented at the statewide or regional level.

#### Q. What prepared you for your current job?

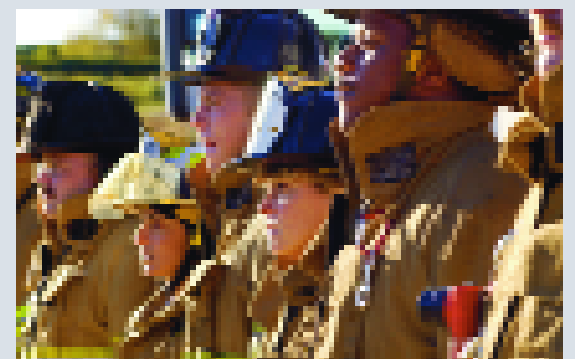
A. Understanding that if you're going to do this job well, you have to really care about people. A career in public safety is not going to make you rich. Your priorities must be about protecting the public and about providing first responders with what they need to safely and effectively serve the people.

#### Q. What is the biggest lesson you have learned from your job?

A. To be successful in achieving your goals in the public safety arena, you must be patient and persistent. You must revisit your goals and reevaluate your needs on a regular basis, and you must be creative and innovative in identifying solutions to meet those needs and achieve those goals.

#### Q. If you weren't doing this type of work, what would you do?

A. My father was a pilot and worked as a flight test engineer at Edwards Air Force Base, so I had an interest in flying from a very young age. My first career choice was to be a military pilot, but less than perfect eyesight prevented that from becoming a reality. Today, I really can't imagine doing anything different – I am happy to be able to serve as a member of the public safety community.



## In Your Own Words • continued from page 2

not, paramedics are confronted with more questions than answers. Information is often not available in time to plan for optimal patient care. However, in many cases, current and developing advances in communications technology could reverse this trend. The scenarios below demonstrate the current state versus this “future vision,” describing real-world examples of how communications technology can improve EMS response, patient assessment and treatment, and potentially save lives.

### Start of Shift

As a paramedic, when I begin my shift, many times **I wonder:**

- Will we have the second ambulance staffed?
- What is the condition of ambulances, their equipment and supplies?
- Do the neighboring towns served have medical first responders today?
- Does the volunteer ambulance service two towns over have a paramedic or do we have to provide advanced life support back-up?
- Is the helicopter available?
- Are hospitals taking patients or are they “diverting?”
- Does the local hospital have an orthopedic surgeon today, or will possible fractures be taken elsewhere?

These and a myriad of other questions could take significant time to answer. And, many aren’t answered until we are at the scene and need the resource.

Imagine having a screen (picture an air traffic controller’s screen) depicting the geographic area of interest to the user. This “EMS Event Monitoring System,” or “EMS2,” shows the resources and events (e.g., emergency calls) in the area and their status at the click of the device cursor. EMS and medical staff could access the EMS2 through PDAs, PCs at the ambulance base, emergency room, and helicopter EMS crew desks. Additionally, the EMS2 could serve as ambulance mobile data units. The system would be a platform to allow immediate “pulling” in of information by either receiving and holding it until the user wants it, or by polling other data bases via secure Web interfaces. This is important to EMS professionals who cannot afford to have information “pushed” at them at critical moments during incident response.

Also imagine that there are versions of the EMS2 tailored to the needs of law enforcement, fire service, and public works/transportation agencies. Each version has robust connections to databases required by their professionals and limited overlap with the others’ systems as required by agreed upon needs in an overall system of systems. Each unit, whether in a PDA or PC or field-hardened tablet computer, has integrated voice communications and is able to “poll” all of the databases necessary to provide real-time information.

With this system in place, by clicking on appropriate icons on the screen, **I immediately know:**

- There are no first responders scheduled in the neighboring town. (We may need to call for lifting or assistance depending on circumstances.)
- We will be the paramedic back-up for the EMT-only crew at the volunteer service nearby.
- My vehicle is in good operating order and missing no supplies. (Electronic interfaces with operating systems...even tire inflation... on the vehicle and medical equipment perform and transmit self-checks into EMS2; Radio Frequency ID tags on supplies and medications track their removal from the ambulance and sensors transmit status to EMS2.)
- The helicopter has one of two units available. (Clicking on the icon provides additional infor-

mation about crew and whether the unavailable unit is on a mission or out of service for an extended period.)

- The neighboring city ambulance is busy with a cardiac arrest and motor vehicle crash. It also has a diabetic call which it has handled and designated to go to Mercy Hospital. (Icons on the screen change colors consistent with the ambulance handling the calls and the hospitals designated to receive the patient(s) when the crew makes that decision.)
- The local hospital has no surgeon today, so all but minor trauma patients go elsewhere.

### En Route to Call

Our unit is called to a motor vehicle crash (MVC).

**I wonder:**

- How bad is it – number and status of patients?
- Will extrication be needed?
- Will I need extra help and/or ambulances – will they be immediately available?
- Will the helicopter, trauma center, and other hospitals be available?
- What’s the most direct route given construction, weather, and the like?
- Does that vehicle ahead or at the stoplight see me and know to yield?

In the future, the EMS2 shows a pulsing “MVC” icon as soon as it receives data on the crash from dispatch which has received the transmission (directly or via an automatic crash notification center) from an automatic crash notification (ACN) unit on the vehicle involved. Clicking on the icon shows information about the number of passengers, passengers’ locations in the vehicle, passengers’ seat-belt use, airbag deployment, rollover status, change in velocity at time of crash, and a numerical predictor of severity of injury to occupants.

With the EMS2 technology in place, **I know:**

- I have two patients in a high velocity, single vehicle crash. One of two airbags has deployed and one of two sets of seat belts was engaged at the time of crash. There is a high risk of severe injury to one patient and moderate risk of severe injury to the other.
- The helicopter and extrication services have self-dispatched based on ACN data received on their EMS2 and Fire Service Event Monitoring Systems and have declared estimated times of arrival on the screen.
- The most direct route to the crash (around construction we didn’t know about) as posted by the Transportation Department system.
- What hospitals and additional ambulances and personnel are available by clicking on appropriate icons.
- That I have good road clearance ahead by control of stoplights, and that some cars ahead have received my “road clearance with feedback” signal and know I am coming while some do not.

### At the Scene

Arriving at the car crash scene begins a harried process of mentally and manually recording information, sorting and treating the patient(s), directing other resources at the scene, figuring out where patients will go and notifying those facilities, and requesting medical direction. **I wonder:**

- Have I kept all of the information straight on the patients seen?
- Have I recorded information appropriately?
- Have I communicated adequately to those on

the scene and at the hospitals?

- Did I miss something when interrupted by medical control at the local hospital for an update?

And the **staff at potential receiving hospital(s) wonder:**

- What’s going on, and what can I expect?

With new communications technologies, I am able to begin assessing patients and relaying their signs, symptoms, and other findings into EMS2 through more reliable, laser-based voice recognition systems. Vital signs monitors and other machines feed data into the appropriate databases through EMS2 for each patient simultaneously and I can check these frequently to make sure that information jibes with my hands-on assessment. A video feed from cameras at the scene also begins to enter video into databases through EMS2.

As a result, patient information is well-sorted and I will not have to re-enter it for my patient care records after the call, but merely edit the information already in EMS2. Also, by clicking on the appropriate icons on the emergency room EMS2 screen, **the medical direction physician at the local hospital now knows:**

- I am sending one patient via helicopter to the trauma center.
- I am sending one patient to her hospital.
- the condition of the inbound patient by my dictated impressions and notes, electronic monitors, and video feed.

### The Future is Now: A Call to Action

Technologies like those described above are not as “futuristic” as one might imagine. The technology itself is either currently available or under development. The larger challenge is that, unlike our partners in the fire and law enforcement communities, there are too few EMS faces at the national, state or local levels looking at what communications technology has to offer in terms of improving EMS response, thinking about how EMS might adapt communications systems to benefit the patient, and working to help secure funds to develop and implement these applications.

If EMS providers and leaders across the country make a concerted effort to learn more about the appropriate local, state and national forums that exist for interoperability and communications development, and commit the necessary personnel and financial resources to be represented accordingly, there is great potential that we may realize this “future vision” sooner than we ever could have imagined.

Kevin McGinnis has been an EMS provider for more than 30 years. McGinnis is a former ambulance service chief, hospital ER director, state EMS and 9-1-1 director, and currently serves as the Maine EMS Trauma System Manager. He also serves as the Program Advisor specializing in communications technology, data systems, and rural EMS for the National Association of State EMS Directors. McGinnis has also worked on communications technology issues as a liaison for the Joint National EMS Leadership Conference, the National Association of EMS Physicians, the National Association of Emergency Medical Technicians, and the National Association of EMS Educators. He is a member of the SAFECOM Executive Committee.

McGinnis received an undergraduate degree in health care delivery systems from Brown University and a graduate degree in hospital administration from Cornell University. He is the author of “The Rural and Frontier EMS Agenda for the Future,” a national consensus document published by the National Rural Health Association in October 2004.

## Interoperability Insights • continued from page 1

Institute for Safety Security Rescue Technologies, discussed robotics use during Hurricane Charley and the California mudslides. Peggy Trimble, Director of EMS (Ret.) for the State of Pennsylvania, discussed EMS cooperation with Federal and state agencies during mutual aide scenarios;

- Status reports on communications interoperability improvement efforts, including an overview of SAFECOM initiatives by Executive Committee Chair Marilyn Praisner; a report on CommTech activities by Chief Eddie Reyes of the Alexandria, Virginia Police Department; and a presentation on Project 25 standards by Dereck Orr of the National Institute of Standards and Technology's Office of Law Enforcement Standards; and
- A presentation on forensics in critical incident response revolving around lessons learned from

the 9/11 attacks on the World Trade Center by Dr. Robert Shaler of Pennsylvania State University.

The "sold-out" exhibit hall featured over 100 exhibitors from the public safety and technology fields, such as—

- Advanced Systems Technology
- Blackwater USA
- Canberra Industries
- Center for Domestic Preparedness
- Cingular Wireless
- International Association of Chiefs of Police
- International Association of Emergency Managers
- Lucent Technologies
- Motorola
- National Emergency Management Association
- National Law Enforcement and Corrections Technology Center
- Panasonic

- Point Blank/PACA Body Armor
- Public Safety and Security Institute for Technology
- Raytheon JPS Communications
- SAIC
- SAFECOM
- Sun Microsystems, Inc.
- Texas A&M University
- University of California San Diego



## PUSHING PROGRESS

### The Interoperability Continuum

"Pushing Progress: The Interoperability Continuum" is featured in every issue of Interoperability Today. It showcases the achievements of organizations working to advance interoperability, and demonstrates how these groups are progressing along the lanes of the Interoperability Continuum, SAFECOM's framework for promoting and evaluating interoperability improvements. This issue addresses training and exercises in the Miami Urban Area.

Miami-Dade County's public safety communications network is well-known among interoperability advocates and often recognized for its efficiency and effectiveness. Serving first responders in the field as well as duty officers in dispatch centers, the state-of-the-art network allows its 25,000-plus users to communicate directly regardless of radio system type, and provides for mutual aid service across the state. In addition, dispatch centers are equipped with conferencing capabilities to facilitate coordination throughout the region.

But as Jose R. Perez, Infrastructure Supervisor for the Miami-Dade County Enterprise Technology Service Department, points out, technology alone is not the answer.

"Having the technology available means nothing if the officer doesn't know how to use it," noted Perez. "The best network in the world is no good to users if they do not have the proper training. In fact, our region's emphasis on training and exercises contribute as much if not more to the success of the interoperability network than the technology."

The Miami Urban Area, a federally-designated Urban Area Security Initiative (UASI) region, includes Miami-Dade, Broward, and Monroe counties and their respective municipalities. Since the region began receiving UASI grant

funding in 2003, more than 2,000 first responders have been trained in emergency communications, incident response, and recovery. Drills and exercises to test the capabilities of both personnel and their equipment occur on a regular basis.

"We've been doing multi-jurisdictional exercises for years under statewide programs," said Steve Davis, Principal Consultant and Business Director for All Hands Consulting and Project Manager for UASI Miami. "The UASI program has allowed us to amplify and extend these efforts and provided us with an opportunity to implement regular comprehensive training and exercises – from tabletops to full scale regional exercises."

Communications experts in the Miami Urban Area say that the lessons they have learned can be used by almost any jurisdiction to advance along the Interoperability Continuum. Nancy Dzoba, Public Safety Communications Manager for the Fort Lauderdale Police Department and Chairperson for the Regional Domestic Security Task Force, identified three key steps that any region, regardless of funding, can take to improve their training and exercises:

#### 1. Secure feedback from field officers

"Input from the field is critical to ensure that the training you provide is aligned with the needs of the users," Dzoba said. For example, Dzoba's team conducts walkthroughs with field units prior to executing tabletop exercises to be sure the scenarios are realistic and that the exercises address real-world challenges. "The beauty of the walkthrough is that it gives us time to implement the feedback and upgrades we receive from the field units prior to the actual exercise. Similarly, we solicit feedback after the tabletop that can be used to improve future full scale exercises," she added.

training that is not just about how to use the technology, but also about how and when it should be used – what protocols are in place," he said. "As a result of that feedback, we've included standard procedures as part of our comprehensive training module, and have adapted our exercises accordingly."

#### 2. Take advantage of non-critical events

For the past 11 years, Ft. Lauderdale Beach has played host to the Air & Sea Show. This two-day event features top military and civilian air, sea, and entertainment performances along four miles of beach and is estimated to attract hundreds of thousands of observers each year.

Dzoba encourages public safety officials to use such pre-planned, non-critical events as opportunities for training. "At the Air & Sea Show, we have agencies on site that are not normally working together on a day-to-day basis, including military police," she said. "This provides us with a great opportunity to test our communications capabilities and procedures so that if and when we come together in a disaster or emergency situation, we are prepared."

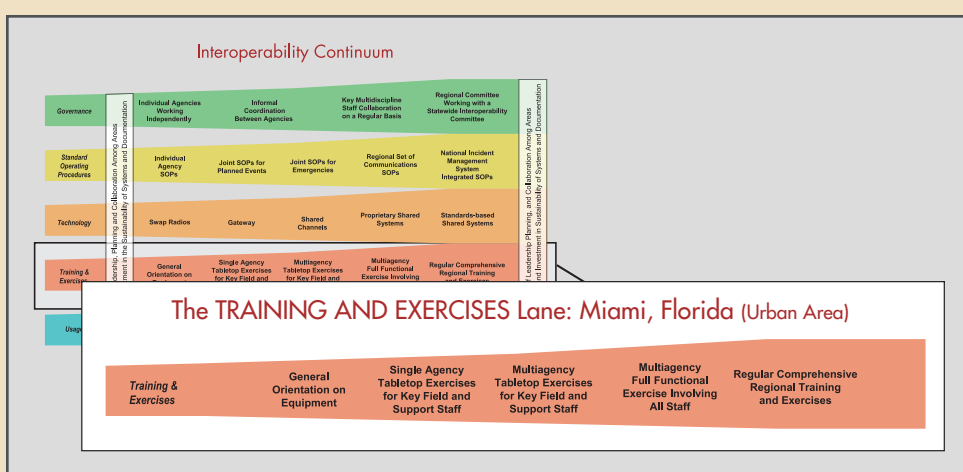
Testing should also be a regular part of day-to-day operations, according to Dzoba. "We have our officers using new communications technologies for everything from roll call to simple pursuits so that when a real emergency occurs, using the equipment will be second nature to them," she added. "We want this equipment to be used - not sitting in a warehouse somewhere until a disaster occurs." Perez agrees, "Using the equipment on a daily, non-emergency basis is the best training you can do."

#### 3. Revisit needs on a regular basis

Finally, Dzoba maintains that training and exercises should be a "fluid" activity – one that evolves with technology. "Technology is always advancing, so your training needs will change," she explained. She recommends that agencies revisit their training plans annually at a minimum to be sure they are up to date, and in harmony with any new equipment that has recently been installed.

Based on her experience in Florida, Dzoba is confident that by following these three relatively simple guidelines, any jurisdiction or region can improve the quality of its training program and progress to the Interoperability Continuum's optimal level for training and exercises.

For more information on the Interoperability Continuum, visit [www.safecomprogram.gov](http://www.safecomprogram.gov).



"By proactively soliciting their input, we've learned what is most important to the users in the field," explained Perez, who also co-chairs the Regional Domestic Security Task Force communications team with Dzoba. "For example, we learned that first responders want

## STATE REPORT

### Nevada and Kentucky Regional Communications Interoperability Pilots (RCIPs) Make Important Strides in Improving Interoperability Nationwide

Terry Savage, Chief Information Officer for the State of Nevada and Chair of the Nevada Communications Steering Committee, understands the targeted approach behind the Regional Communications Interoperability Pilot (RCIP) project. “If your interoperability plan doesn’t specifically address the needs of your first responders, it’s not going to get the job done,” he explains.



Savage’s insights underscore the importance and value of the RCIPs’ practitioner-driven approach, which relies heavily upon the input and guidance of local and state public safety practitioners in defining and implementing solutions to interoperability challenges. Securing input from these first responders who use communications equipment on a daily basis allows state officials to glean critical insights regarding interoperability – insights that will contribute to comprehensive, well-informed, actionable plans which can then serve as models for improving public safety communications and interoperability nationwide.

The Office for Interoperability and Compatibility (OIC) has been authorized through legislation to address communications issues facing public safety. Specifically, Section 7304 of the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458) directed the Secretary of the Department of Homeland Security, acting through the OIC, to carry out at least two RCIPs. SAFECOM is conducting the initial pilots in the Commonwealth of Kentucky and the State of Nevada. The pilots will build upon the work that SAFECOM has done with other states and localities that have resulted in replicable tools.

The RCIP sites were selected based on criteria provided by the Intelligence Reform Act and Terrorism

Prevention Act and the OIC, including

- Extent of regional interoperability needs;
- Assessment of commitment among the public safety community and elected and appointed officials;
- Capacity to serve as a national model for improving interoperability;
- Level of risk/vulnerability; and
- Number of local, state, and federal law enforcement agencies.

Both the Nevada and Kentucky RCIPs are in the preliminary stages. A brief update on the status of each pilot appears below.

#### Nevada

To engage with and learn from first responders in Nevada, a series of focus groups were convened with members of the public safety community throughout the state. Focus groups included representatives from various local and regional public safety fields and agencies including law enforcement, fire, and EMS; public health/hospitals; transportation; emergency management; and forestry.

Sessions in Lake Tahoe Basin, Carson City, Henderson, and Las Vegas afforded first responders an opportunity to offer their perspectives on interoperable communications and regional interoperability challenges.

“The focus groups have been invaluable in identifying what matters to the people on the ground,” said Savage. “We now have a better understanding of their day-to-day needs and concerns. In addition to technology and the communications system, they also require standard procedures and protocol, training, and exercises. Rest assured our state plan will address this input.”

Dennis Cobb, Deputy Chief of the Technical Services Division for the Las Vegas Metropolitan Police Department and a participant in the RCIP effort, agrees. “What has been most valuable thus far has been the feedback regarding the operational elements involved in improving interoperability, shifting the focus beyond technology.”

The information gathered during the focus groups was validated and prioritized at a statewide Strategic

Planning Session on September 14. The strategic initiative recommendations will guide the Nevada Communications Steering Committee as it further develops the statewide communications interoperability plan. The revised plan is expected to be adopted by the state before the end of the year.

“We all know that planning for and achieving interoperability is a challenging process and a long-term commitment,” said Brian Jonas, Undersheriff in Humboldt County, Nevada. “That’s why it is so important to meet *now* and move forward *together*, in the same direction working toward common goals.”

#### Kentucky

State and local public safety officials in Kentucky assembled leaders from participating state agencies to gather input and lay the ground work for the RCIP process. Participating agencies included:

- Kentucky Office of Homeland Security
- Commonwealth Office of Technology
- Kentucky State Police
- Kentucky Wireless Interoperability Executive Committee

In addition, one-on-one interviews with officials from several Kentucky cities including Louisville, the Commonwealth’s largest city and a federally designated Urban Area Security Initiative site, provided insights into the status of Kentucky’s interoperability communications systems. The feedback gathered during these meetings will be valuable as the state formulates and implements a communications plan.

“Kentucky has 120 counties, 400 law enforcement agencies, and more than 300 fire departments,” said Joel Schrader, Deputy Director, Kentucky Office of Homeland Security. “It doesn’t make sense for the state to dictate interoperability issues. We want this to be a grassroots effort because developing partnerships with the local agencies is key to success. We welcome the opportunity to bring everyone to the table.”

In the coming months, Kentucky will issue a “project roadmap” that will outline future RCIP efforts and activities.

Look for additional RCIP updates in upcoming editions of *Interoperability Today* as well as on the SAFECOM Program Web site at [www.safecomprogram.gov](http://www.safecomprogram.gov).

## INDUSTRY REPORT

### Updated Interoperability Requirements Help Industry Align with First Responders’ Technology Needs

SAFECOM and the National Institute of Justice’s (NIJ) CommTech Program (formerly AGILE) achieved a milestone in April 2004 with the release of the first-ever Statement of Requirements (SoR) for public safety communications and interoperability. This groundbreaking achievement gave the Nation’s 60,000 public safety agencies a document defining future communications requirements for crucial voice and data communications in day-to-day, task force and mutual aid operations.

State and local public safety partners applauded the SoR as a critical first step toward the establishment of base-level communications and interoperability standards for public safety agencies working at

local, state, federal, and tribal levels. Now, the next step, an updated version of the comprehensive SoR document – SoR v1.1 – is in the final stages of development and is targeted for release later this year. This upgraded version of the SoR v1.0 will include refinements based on input from the public safety community.

“Advancing interoperability is, by necessity, an iterative process,” said Dr. David Boyd, Director of the Office for Interoperability and Compatibility. “The SoR will continue to evolve as the communications environment, technology, and public safety requirements change. We see this latest version as an important step in meeting the current needs of the public safety community.”

The updated SoR will continue to provide the public safety community with a common vision of requirements, and describe how first responders can use in-the-field information resources more efficiently when responding to emergency events. It is intended to encourage and facilitate communications industry efforts to align research and development with public safety needs. In addition, disperse



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public safety agencies can speak with ‘one voice’ to the industry players on whose products and services they depend.



“Before the SoR, an inquiry about requirements could generate multiple and often conflicting responses,” said Wayne Leland, Chair of the Telecommunications Industry Association’s Private Radio Section. “With the SoR, the public safety community conveys a shared vision that helps industry better align research and development efforts with critical communications – and communications interoperability – needs.”

The new generation SoR will include an in-depth explanation of the “system of systems” concept that is central to SAFECOM’s efforts to advance public safety wireless interoperability. This standards-based approach gives public safety agencies the flexibility to select equipment that best meets their unique technical requirements and

budget constraints, and allows distinct wireless communication systems, owned and operated by different public safety agencies, to communicate without having to purchase equipment from the same manufacturer.

“The system of systems approach is intended to lead to more options and flexibility in communications equipment and services,” Boyd said. “It is also a major part of the public safety community’s long term vision for achieving interoperable communications, so it is a natural fit for inclusion in the SoR.”

SoR v1.1 also includes a more user-friendly presentation of functional requirements by addressing these requirements in three distinct chapters organized around the specific functional needs – application and service requirements,

device requirements, and network requirements.

The SoR was developed in coordination with the National Public Safety Telecommunications Council, the National Institute of Standards and Technology, and NIJ’s CommTech Program.

To help review and revise the SoR, SAFECOM established a working group comprised of members of the public safety community from all disciplines with specialized expertise, knowledge, and understanding of communications technology. This working group will continue to provide on-going feedback and recommendations for future improvements to the document.

For more information about the upcoming release of SoR v1.1, visit [www.safecomprogram.gov](http://www.safecomprogram.gov).

The Department of Homeland Security’s (DHS) Office for Interoperability and Compatibility (OIC) is managed by the Science and Technology Directorate’s Office of Systems Engineering and Development. The OIC was established to strengthen and integrate efforts to improve local, tribal, state, and federal public safety preparedness and response and to facilitate the interoperability and compatibility of the vast range of public safety programs and related efforts across DHS. SAFECOM, a communications program of the OIC, with its federal partners, provides research, development, testing and evaluation, guidance, tools, and templates on communications-related issues to local, state, and federal public safety agencies.



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