



Emergency Communications Forum

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A Note from OEC Leadership

By: Ron Hewitt, Director, Office of Emergency Communications



Homeland Security

On October 28, 2014, DHS Secretary Jeh Johnson signed the updated [National Emergency Communications Plan](#) (NECP), the culmination of more than two years of work and collaboration among the Office of Emergency Communications and hundreds of public safety stakeholders in every state and territory.

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The original NECP, released in 2008, presented a vision for emergency communications nationwide. Since the release of the first plan, localities have worked to improve governance structures, create communications leadership positions, develop tactical plans and protocols, and train additional COMLs and COMTs.

The updated NECP seeks to build on the momentum of the first plan while addressing an emergency communications landscape that has been fundamentally changed by emerging technologies and a growing user base.

To illustrate the growing complexity of the communications landscape, the NECP introduces the Emergency Communications Ecosystem. Described in the plan as the “many inter-related components and functions, including communications for incident response operations, notifications and alerts and warnings, requests for assistance and reporting, and public information exchange,” the ecosystem helps public safety agencies understand and plan for communications efforts across multiple platforms.

As OEC reworked the plan, it conducted extensive outreach to more than 350 stakeholders in the public safety community across all levels of government. This input was crucial to making the NECP update a document that represents and works for those in the field.

The plan identifies three top priorities for emergency communications over the next three to five years:

- Identifying and prioritizing areas for improvement in current Land Mobile Radio (LMR) communications systems used by responders;
- Ensuring emergency responders and government officials plan and prepare for the adoption, integration, and use of broadband technologies, including the planning and deployment of the NPSBN; and
- Enhancing coordination among stakeholders, processes, and planning activities across the emergency response community.

OEC will coordinate with public safety agencies and emergency responders from across the Nation to accomplish the plan’s goals, objectives, and recommendations and to measure progress nationwide. OEC looks forward to working together with public safety as we all learn to thrive within the new ecosystem and continue to strengthen emergency communications in every community.

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Border Communities Improve Interoperable Communications with BIDP Grants

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Introduction

The Office of Emergency Communication's Border Interoperability Demonstration Project (BIDP) was a \$25.5 million one-time competitive grant program aimed at strengthening interoperable emergency communications along U.S. borders. In announcing the program in April 2011, then DHS Secretary Janet Napolitano stressed that "the grants provide our state, local, and tribal partners with resources to explore innovative, effective, and adaptable solutions for improving emergency communications."

On May 2, 2011, following a competitive, merit-based application process, DHS selected seven communities to receive funding. Initially, BIDP had a three-year period of performance; however, all seven recipients received a one year extension to bring the period of performance expiration date to May 31, 2015.

BIDP projects generally focus on expanding the coverage and capacity of existing communications infrastructure, often showcasing innovative cross border governance, planning, and training activities. The grantees are encouraged to consider how their projects will be sustained in the long term, and to that end many have acquired and installed new equipment and are testing new capabilities.

Grantee	Sub-Grantee	Award Amount	Project Title
Arizona	City of Yuma	\$3,994,443	Yuma Full Voice and Data Integration Demonstration Project
California	San Diego Fire Rescue	\$3,852,580	Regional Command and Control Communications Tactical Border Communications Project
Maine	County of Washington	\$3,963,163	Enhanced Communications Infrastructure and Partnerships for Border Security Project
Michigan	Wayne County	\$4,000,000	Southeast Michigan Border Interoperability Solution Project
Montana	Flathead County	\$3,895,425	Northern Tier Consortium Border Interoperability Demonstration Project
Ohio	Lake County	\$3,998,200	Multi-Agency, Multi-Jurisdictional U.S. Regional & International Interoperable Communications Infrastructure and Maritime Domain Awareness Project
Texas	City of McAllen	\$1,940,000	Rio Grande Valley Border Interoperability Regional Project

GRANTEE UPDATES

Arizona: Yuma expanded its Yuma Regional Communications System (YRCS) to allow federal agencies and state entities onto one network. Yuma also installed a Computer Aided Dispatch/Records Management System allowing all local public safety agencies to share data and leverage common procedures and training.

California: San Diego developed a system to bring all helicopter videos from multiple network points into a central point with synchronized feeds to improve the picture and then be multi-casted into their Regional Command and Control Communications (3Cs) network. This capability was developed for San Diego and has just passed the proof of concept stage.



Maine: Washington County and neighboring counties worked to build U.S. – Canadian relationships and allow cache radios to be used by public safety officials in numerous exercises and events. Washington County identified differences in Canada’s system and worked to create the Maine Border Interoperability Guide (BIG) to manage mutual aid capabilities and interoperability along the border.

Michigan: Wayne County successfully trained emergency communications personnel in 10 communities in Michigan and Ontario on Mutualink Gateway Devices. Mutualink is an interoperable communications and multimedia sharing platform consisting of public safety quality hardware, easy-to-use software, and a highly secure global IP network. As a result, these communities are able to effectively share resources across the border and support field operations through the on-demand establishment of radio talkgroups during an incident.

Montana: The Northern Tier Interoperability Consortium, represented by the larger statewide group Interoperability Montana, worked with federal, state, local, and tribal responders and public safety entities in Canada to extend existing interoperability efforts and agreements to allow for the use of one of Montana’s mutual aid radio channels, VLAW31 ((155.475 MHz), known locally as BLUE Channel) by approved public safety entities working on or near Montana’s northern border with Canada. The group worked with OEC subject matter experts to create the standard operating procedures and memorandums of understanding required to govern the operation of Blue for cross-border use. On December 10, 2012, the FCC approved the move, ruling that expanding the use of BLUE Channel serves the public interest and supports the goals of the BIDP legislation.

Ohio: Lake County improved radio coverage along the northern border and enhanced maritime security on Lake Erie along the Canadian border. Lake County installed a Vessel Tracking System (VTS) co-located on Ohio’s Multi-Agency Radio Communication System (MARCS) radio towers, stretching across Ohio’s northern border and fed across a VPN Internet connection to a central command station located at the Customs and Border Patrol HQ in Sandusky, OH.

Texas: McAllen expanded their capabilities to include a text message and alert function for multiple Ports of Entry. Using a standard vendor text messaging capability and a latching relay, a light and alarm continues until personnel break the relay circuit which ensures messages are received. This capability provides secure and time sensitive information.



OEC Prepares Public Safety Agencies for the Transition to NG 911

Of the many technologies expected to affect the provision of emergency services over the next few years, Next Generation 911 (NG 911) will be particularly transformative. NG 911 is an Internet Protocol (IP)-based system designed to facilitate the transmission of text, images, video, and other data between members of the public, Public Safety Answering Points, and first responders. When fully operational, the system will provide a common infrastructure for managing communications across disparate systems (e.g., radio, telephone, mobile data, computer-aided dispatch, etc.) and entities, thereby improving situational awareness, interoperability, and compatibility.

OEC's Role in the Transition to NG 911

To help public safety agencies prepare for the transition to NG 911, the Office of Emergency Communications (OEC) offers assistance ranging from general awareness of NG 911 technologies, implementation, and operational impacts to support for developing and reviewing strategic plans. The current Technical Assistance and Statewide Communications Interoperability Plan Catalog (available at www.publicsafetytools.info) includes two service offerings to help 911 operators, communications personnel, and state officials plan for NG 911. One is technical in nature, intended to help management and senior staff with technology transition, integration, and deployment; technology assessments for call handling and processing; and regulatory legislative issues, funding and planning. The second offers strategic guidance to address planning considerations, equipment availability, procurement processes, and model development for governance and operations.

Since August 2012, OEC has completed 11 NG 911 workshops in states including Alaska, Arizona, Delaware, Kansas, Michigan, Minnesota, Nevada, North Dakota, Ohio, and the District of Columbia. Another 14 workshops are in progress or forthcoming in 2015. Roughly 30 states have developed plans defining the technology, operations, and governance associated with the transition to NG 911, and 25 states have begun deploying the system. That number is growing, and many states are deploying statewide NG 911 networks.

The Nevada Workshop

OEC's recent workshop in Nevada offers a glimpse into OEC's role in the transition to NG 911. The workshop, which was conducted in Las Vegas and Carson City in January 2014, featured cooperation between OEC and Nevada's Statewide Interoperability Coordinator to address operational, technical, legislative, and regulatory concerns. Nevada's road to full NG 911 operational capacity is a challenging one. Its PSAPs are independent, there is no state-level 911 governing authority, and planners have encountered some local resistance to altering funding priorities. Nonetheless, the state has successfully deployed NG 911 in Washoe County, merging three independent PSAPs into two that are now sharing the same Intrado cloud platform. At the time of the workshop, Washoe County's system had been fully operational for more than a year. With the assistance of OEC, Nevada has set the following goals for moving forward with the deployment of NG 911: develop an organized, statewide approach to adopting NG 911 capabilities; appoint a state 911 coordinator; overcome local resistance to funding challenges by engaging local jurisdictions, educating PSAPs, and garnering support for legislative changes; and secure an IP network for call delivery.

OEC Fosters Collaboration with Non-Governmental Organizations

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Private and non-governmental organizations (NGOs) devote resources and provide assistance during and after emergency situations. One such organization, the United Methodist Committee on Relief (UMCOR), an NGO of the United Methodist Church, offers relief services when a community's public safety resources have been overwhelmed. All of the donations UMCOR receives are invested in five relief areas: Hunger, Health, Refugees, Emergencies, and Relief Supplies. The organization operates domestically and internationally; on the domestic front, it works with federal, state, and local public safety agencies to prepare for and support disaster recovery efforts.

OEC Coordinator Shares Best Practices

Similar to the Office of Emergency Communications (OEC), which provides state-requested and national priority technical assistance programs to help federal, state, territorial, and tribal communities draft Statewide Communication Interoperability Plans (SCIPs), UMCOR offers assistance to help local churches and districts draft, revise, and test Conference Disaster Response Plans. UMCOR provides further emergency response assistance in the form of response team training, disaster case management, and basic recertification programs, among others. Recognizing an excellent opportunity for collaboration, John MacLean, OEC Coordinator, attended the United Methodist Church Disaster Academy Conference in Oklahoma in September to share OEC's knowledge and best practices and foster a working relationship with UMCOR and similar NGOs.

MacLean described OEC's mission and fielded questions from participants who were unaware of OEC's role in the public safety community. As he later noted, "99 percent of the OEC 101 material was completely new to this stakeholder group, and they were excited that the Federal Government includes the NGO community as a stakeholder in communications planning." Participants expressed a desire to be included in future planning. Specifically, UMCOR attendees asked to be included in the communications planning process to learn about resources available to assist with long-term recovery and community rebuilding. UMCOR volunteers are rarely among the first to arrive at the scene of an emergency; they do, however, play an active role in the days and months after the incident occurs, providing assistance long after first responders have left. OEC support, therefore, is vital for sustaining interoperable emergency communications throughout the recovery process.

New York State Grant Program Supports Regional Communications Partnerships

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In light of reduced federal grant funding for emergency communications and interoperability, states are increasingly burdened with the costs of maintaining and improving emergency communications and interoperability capabilities. In some cases, programs and positions supporting collaborative emergency communications efforts are drying up, and states are losing key aspects of interoperability. Fortunately, several states have devised alternative funding mechanisms to ensure public safety first responders have the tools and resources they need to maintain interoperability. New York State's Division of Homeland Security and Emergency Services (DHSES) is an excellent example, demonstrating that there are ways to mitigate present budgetary challenges and setting an example for others to follow.

New York State established DHSES in 2010 to "provide leadership, coordination and support for efforts to prevent, protect against, prepare for, respond to, and recover from terrorism and other man-made and natural disasters, threats, fires and other emergencies."¹ Within DHSES, the Office of Interoperable and Emergency Communications launched the Statewide Interoperable Communications Grant (SICG) program to provide financial support to the growth of regional communications partnerships and establish best practices for multi-jurisdictional interoperability.

Since its inception in 2010, the SICG has awarded \$206 million to 54 of New York's 62 counties, expanding interoperability within and between counties through the growth of partnerships. To date, 13 regional partnerships have been formed, representing a 50 percent increase in participation since 2010 and highlighting a desire for collaboration. Participants have leveraged these partnerships to establish governance protocols and standard operating procedures, and to execute training exercises. Additionally, grant recipients have used the funding to build out larger-scale systems, improve connectivity between radio systems, and establish National Interoperability Channels providing for common channels for use during multi-jurisdictional emergencies.

¹ New York State Division of Homeland Security and Emergency Services. <http://www.dhSES.ny.gov/about/>. Accessed on December 10, 2014.

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OEC Set to Release Best Practices Guide for Mobile Applications Developers



First responders are increasingly using and looking for mobile applications that can take large amounts of information and convey it in a simple, intuitive, efficient, and practical manner. The Office of Emergency Communications (OEC) established the Mobile Applications for Public Safety (MAPS) program to provide policy oversight for the public safety mobile

ecosystem and to work with industry, academia, and government to promote and streamline the development and distribution of mobile applications for first responders.

OEC and MAPS are preparing to release the First Responder Mobile Application Development Best Practices Guide. The guide is intended to assist mobile application developers by: (1) introducing them to the needs and characteristics of first responders; (2) describing the ideal features – function, security, and performance – of mobile applications for first responders; (3) providing recommendations for designing to those ideals; and (4) identifying resources to assist in mobile application development efforts. The release of the guide will advance efforts to open a next-generation public safety mobile applications marketplace to a larger developer audience, with a special emphasis on the needs of first responders.

OEC Team on the Road

As part of our stakeholder engagement activities, OEC will be participating in the following events:

Integrated Justice Information Systems (IJIS) Institute National Symposium

January 20-23, 2015, Arlington, VA

OneDHS Executive Committee Meeting

January 21, 2015, Arlington, VA

National Association of Regulatory Utility Commissioners (NARUC) Winter Committee Meeting

February 15-18, 2015, Washington, DC

International Wireless Communications Expo

March 16-20, 2015, Las Vegas, NV

Disaster Recovery Journal Spring World Conference

March 22-25, 2015, Orlando, FL

The *Emergency Communications Forum* (ECF), published by OEC, is intended to engage and inform the emergency response community, policy makers, and federal, state, local, and tribal officials about issues and events that directly impact everyday nationwide emergency communications.

Interested in contributing articles for future editions of the ECF? Please send any articles or content ideas to: OECOutreach1@dhs.gov.