



FirstNet Capabilities Tested During Urban Shield Exercises

By Steve Goodman

Urban Shield is a full-scale regional preparedness exercise assessing Northern California's San Francisco Bay Area's Urban Areas Security Initiative (UASI). UASI is designed to coordinate the regions response capabilities related to multi-discipline planning, policies, procedures, organization, equipment and training. Every year, Urban Shield tests regional integrated systems for prevention, protection, response and recovery in high-threat, high-density urban areas.

Urban Shield 2014, which was held September 4th-8th in Oakland California, provided a unique opportunity to test FirstNet capabilities using advanced collaboration across LTE Band 14. FirstNet is the USA's planned First Responder network, whose goal is to enable multimedia communication and collaboration capability between all first responder agencies.

At the Urban Shield Event, Mutualink, Sonim and Oceus created an exercise to test the deployment of FirstNet's Enhanced System on Wheels (ESOW). During the exercise the idea was for officials from the Northern California Regional Intelligence Center (NCRIC), Bay Area Rapid Transit (BART), and other agencies to test their ability to communicate and collaborate with onsite SWAT teams, during a simulated emergency incident involving a terrorist attack on a public transit vehicle.

The ESOW performed well, successfully enabling all parties on the scene to share real-time video, images and voice communications using mobile phones and tablets. As hoped, the communications command center on wheels lived up to expectations, providing local, multimedia multiparty collaboration capability between user equipment and legacy devices, such as video cameras and land mobile radios (LMRs).

In a press release prior to the event, Mike Sena, director of the Northern California Regional Intelligence

Center (NCRIC), said, "When we first explored options for interoperability between agencies, we found Mutualink was the only platform that allowed agencies to share audio, video and digital files over a secure network. We currently use the technology at various agencies within the San Francisco Bay area, and our goal is to continue the growth of the network within the region. A key feature of the system is that we can include first responders as well as other public and private entities for community-wide coordination."

Participating Tech

Mutualink provided the interoperable communications platform for the ESOW. Mutualink serves as the gateway for bridging disparate systems so that all parties responding to an emergency can communicate and collaborate in real time, which has been one of the on-going challenges of the launch and deployment of FirstNet.

Sonim Technologies provided the handheld devices for the ESOW exercise. They were picked for their ruggedized features such as 20+ hours of LTE based talk time, extreme durability in heat, dust, wet environments, visibility in direct sunlight and support for a wide range of android applications and accessories with full support of LTE Band 14.

The Band 14 broadband network for Urban Shield participants was provided by Xiphos, Oceus Networks' 4G LTE lightweight deployable communications system, which they refer to as a complete mobile "network in a box."

The successful exercise demonstrated interoperability and integration between first responders utilizing Mutualink applications, Sonim devices, and COTS WiFi-enabled devices.

Live Video

Besides the ability to communicate and coordinate, one of the other real benefits to law enforcement participants

▶ in the exercise was the intelligence that was able to be obtained through live streaming video.

The ESOW tech allowed responders to view video of actions inside the bus where “terrorists” were holding passengers hostage.

“Having the video changes our tactics,” said Emmett Larkin, a SWAT team Lieutenant. “Instead of having to send somebody into a structure and put them in harm’s way, it allows us to develop a game plan and be able to covertly enter the structure and come as close as we can to the individual that may be armed or looking to harm somebody. This helps us neutralize that before they are able to hurt themselves or somebody else.”

Larkin also said of the event overall, “[Urban Shield] allows us to test our equipment and our tools that we use on a daily basis for these operations. It verifies whether we’re doing things right or where we need to improve and where we need to get better—and, in some locations, where we just need to change the way we do business altogether.”

FirstNet Firsts

The successful ESOW exercise at Urban Shield was one of the first real-world tests of FirstNet related solutions. It was a major feather in the cap for the initiative, as well

as for the technology providers. “This exercise at Urban Shield is another proof-point of FirstNet’s mission for delivering nationwide broadband capability for public safety, and further evidence that the future is now when it comes to next-generation technologies for first responders and emergency personnel,” said Dr. Mike Wengrovitz, Mutualink’s Vice President of Innovation.

Bob Escalle, Senior Director of Public Safety and Defense for Sonim, added “First responders and mission-critical personnel need the ability to access relevant information quickly to help assess a situation and become more efficient in making time-critical decisions. This exercise showcased technology that addresses these needs today.”

Wrapping it up, perhaps Lt. Larkin said it best, “[FirstNet Technology] is putting us all on the same page now, and we’re able—with these new systems of communication—to work interoperably to assist one another and figure out different agency needs, department needs and community needs. Communications have come a long way, and they are very valuable and helpful to us.”

For more information about FirstNet visit:

www.firstnet.gov

