Tennessee Public Safety Communications Interoperability Conference Recap

On April 9, 2002, the Public Safety Wireless Network (PSWN) Program, the Tennessee Emergency Management Agency (TEMA), and the Tennessee Department of Safety jointly sponsored the Tennessee Public Safety Communications Interoperability Conference in Nashville, Tennessee. More than 150 elected and appointed officials, public safety officials, and wireless communications vendors came together in Tennessee's capital to discuss public safety communications interoperability—the ability of Tennessee's public safety responders to communicate via two-way radio, seamlessly, and in real time.

In the conference's keynote address, Mr. Matt Walton, President and Chief Executive Officer of E Team, described his firm's involvement in achieving successful public safety communications during the World Trade Center disaster and 2002 Salt Lake City Winter Olympics. Mr. Wilson also listed several interoperability requirements for homeland security. In his discussion he noted that—

- With time, technology would always improve and prices would decline, but a sufficient interoperable public safety communications system should be in place to save the lives of people now.
- The implemented system should be affordable across the entire spectrum of potential users and easy to use.
- Effective collaboration created the ultimate "force multiplier" and would guarantee homeland security.

> *An 80-percent solution today is worth more than a 100-percent solution in the future.*
>
> Mr. Matt Walton
> President and Chief Executive Officer of E Team

During the remainder of the conference, attendees learned about the future of interoperable communications in the State of Tennessee, perspectives of elected and appointed officials, and the lessons learned and best practices of other states and regions who are actively working to enhance interoperability.

The Future of Interoperable Communications in the State of Tennessee

Currently, the State of Tennessee is in the early stages of improving interoperability. Local, state, and federal agencies have been slow to embrace common systems and technologies. Any successful interoperability efforts were due to the hard work of a few individuals. But the climate is changing, with the state developing a strategic plan for public safety communications, and the inclusion of groups not normally associated with the definition of public safety.

> *The timing is right to look at better processes and new ways of doing things.*
>
> Mr. Bill Pogue
> Chief of Technology Services
> Tennessee Department of Safety

Mr. David Wolfe, Chief of Radio Communications, TEMA, and Mr. Bill Pogue, Chief of Technology Services, Tennessee Department of Safety, presented Tennessee's statewide interoperability communications strategy. Mr. Wolfe and Mr. Pogue noted that the State of Tennessee's strategic plan concerning interoperable communications systems was in effect well before the September 11 events. However, the attacks spotlighted the importance of public safety communications, raised public awareness of the problem of stovepipe communications systems, and provided a new meaning and a broader sense of immediacy for the strategic plan. Tennessee

public safety officials also recognized the urgent need for accurate roadside information, mobile computing, and emergency response coordination.

To address these issues, various state agencies and the Tennessee Valley Authority (TVA) joined together to form the Mobile Communications Alliance Team (MOCAT). This alliance was formed to leverage existing infrastructure assets and resources, lower the total cost of ownership, and assist all public safety agencies and critical infrastructure operators (i.e., utility companies) in Tennessee in enhancing the level of state-wide communications interoperability. A summary of MOCAT's goals is provided in Table 1.

In their presentation, Mr. Wolfe and Mr. Pogue also outlined MOCAT's future public safety vision for mobile communications. The alliance envisioned a shared, statewide mobile voice and data communications system with local, state, and federal governments and critical infrastructure operators. This proposed communications system would provide interoperability and seamless coverage for all responders to coordinate effectively during emergencies.

Table 1
MOCAT Goals

- Protect lives, property, and the safety of first responders
- Provide a statewide infrastructure that meets the needs of Public Safety and the Homeland Security Initiatives
- Drive the market toward interoperability and away from stovepipe solutions
- Coordinate and partner to solve statewide and regional interoperability demands
- Develop business case and cost distribution/ sharing models to provide the lowest cost of ownership possible
- Use modern technology to enhance interoperability
- Share spectrum to support public safety and backbone fiber to lower cost of trunked systems
- Provide a scalable solution and multiple technologies instead of "one solution fits all"

Tennessee Elected/Appointed Officials' Perspective on Communications Interoperability

The conference provided an opportunity for public safety officials to engage elected and appointed officials on the issue of interoperability. This exchange of ideas and viewpoints reinforced the priority of interoperable communications in the State of Tennessee.

Mr. Lou Kompare, Executive Director of the Center for Effective Government for the State of Tennessee, gave the conference's welcome address. In his current role, he is responsible for recommending innovative technologies that have the potential to create a more effective, efficient, and focused state government for all Tennesseans. In his address, Mr. Kompare noted several points that stress the value of achieving interoperable communications—

- If an emergency system was not used on a regular basis ***before*** an emergency, it would never be of use ***in*** an emergency.

- Crisis management created the need for many hundreds of people to be involved as a large coordinating body.

> *In a crisis situation, authority flows down to where the action occurs. However, status information and accountability information equally must flow both upward and sideways.*
>
> Mr. Lou Kompare
> Executive Director for Effective Government
> for the State of Tennessee

Other prominent elected and appointed officials and public safety representatives presented their viewpoints on communications interoperability in the State of Tennessee. These discussions centered in four topic areas: coordination and partnerships, funding, spectrum, and standards and technology. Table 2 provides a summary of these highlights.

In terms of coordination and partnerships, the key to implementing a statewide interoperable system was fostering collaboration among public safety agencies to share resources and costs. In addition to public safety agencies, partnerships with commercial carriers should be evaluated. Furthermore, attendees stressed that communications would not improve if proper training was not provided.

Table 2
Highlights of Elected/Appointed Officials Discussion

Coordination and Partnerships	• Fostering collaboration is key • Partnerships with commercial carriers should be evaluated • Training must be provided
Funding	• Funding is a challenge • State and local agencies may be required to match federal funds • State officials are including communications in their homeland security initiatives • State-wide system must be affordable
Spectrum	• Public safety spectrum in the 700 megahertz (MHz) band may enhance interoperability
Standards and Technology	• Future capabilities and modern technology must be considered • Software-driven "smart" technology must be considered • Vendors must meet public safety needs

Conference attendees recognized that funding limitations were a difficult challenge. However, Tennessee officials remained confident that federal dollars to upgrade public safety communications equipment would be part of President Bush's Homeland Security Initiatives. The challenge for state and local governments would be to come up with matching funds and effective plans for using the funds. To address this challenge, state officials included communications in their homeland security planning. Representative Chris Newton, Tennessee State Legislator, was currently sponsoring House Bill 32 with fellow legislators requiring TEMA to provide a computerized emergency warning system in the event of a terrorist threat. The legislation also would toughen state laws for dealing with potential threats. Additionally, the House and Senate recently approved a bill to appropriate $1.8 million for homeland security.

Despite the potential allocation of these monies, the solution for a statewide system should be affordable across the entire spectrum of potential users (e.g., local, state, federal, and critical infrastructure entities). This approach will address the issue that numerous cities and smaller counties do not have the funds to migrate to a new system that provides interoperability.

Tennessee officials viewed the Federal Communications Commission's (FCC) recent allocation of public safety spectrum in the 700 MHz band as an opportunity to achieve interoperable communications. One attendee stated that Tennessee's voice communications should be kept on the existing 800 MHz band and data communications should operate in the 700 MHz band.

Tennessee officials stated that any new system should support future capabilities, in addition to present technology. Since, modern technology was widely believed to enhance interoperability, software driven "smart" technology should be an option. Therefore, Tennessee public safety officials must challenge equipment vendors to meet their needs.

Successful Statewide/Regional Models

The conference included presentations from other states and regions that have successfully begun implementing interoperability enhancements. The State of Tennessee can benefit from these lessons learned as it begins to develop its own statewide strategy. The conference presentations emphasized the importance of coordination and partnerships to the success of their activities.

North Carolina: Criminal Justice Information Network

Lieutenant Woody Sandy, Executive Officer of the State Highway Patrol's Information Management Unit, presented North Carolina's Criminal Justice Information Network (CJIN)—Mobile Data Network.

North Carolina began its efforts to develop shared systems in the 1990's. They first implemented a statewide mobile data network that is now available for all law enforcement agencies in the state to use. The state is also developing a statewide voice radio network for all law enforcement agencies in the state.

North Carolina's efforts to share resources were the key to CJIN. Sharing infrastructure and resources reduced the costs incurred by each participating agency (i.e., local, state, federal law enforcement, courts, and correctional agencies) while increasing the amount of shared information. As a result, the CJIN system, initially estimated to cost $200 million, ultimately cost $15 million.

Indiana: Project Hoosier SAFE-T

Project Hoosier SAFE-T, which stands for Safety Acting For Everyone-Together, is Indiana's statewide public safety communications system. The Honorable Charles E. Henderson, Mayor of Greenwood, Indiana; Lester C. Miller, special council to the superintendent of the Indiana State Police; and Michael Thayer, President of Thayer Consulting, discussed various aspects of the project.

The State of Indiana is currently beginning the implementation of a statewide voice network for public safety. The state has successfully secured funding to continue the program, and the system is moving forward with active participation by both state and local public safety agencies.

The representatives from Indiana highlighted the following points as essential to successful program implementation—

- Identifying an executive-level champion
- Communicating frequently with stakeholders
- Identifying firm budget numbers before decision makers will commit
- Understanding that system implementation was a political, not a funding or technology, issue
- Striking a balance between policy making and technology
- Finding the right partners (i.e., vendors and participants).

Northern Virginia: Trunked Mutual-Aid Group

Mr. Jim Wadsworth, Manager of the Fairfax County, Virginia, Radio Services Center, and Mr. Jack Anderson, consultant with RCC Consulting, discussed Northern Virginia's Trunked Mutual Aid Communications Plan.

The mutual-aid communications planning process was stressed as a long-term commitment, requiring ongoing system and change management, user training, inclusion of new jurisdictions, and problem resolution. Through this commitment, a regional communications plan was developed.

The plan was used during the response to the September 11 attack at the Pentagon. All local responders involved in the initial fire suppression, emergency medical services, rescue effort, traffic, and crowd control had direct communications capability with each other using the Arlington County operational talk groups used for normal mutual-aid operations. Due to the success of the Northern Virginia Trunked Mutual Aid Group, communications during the initial response was not a problematic issue.

To make interoperability work, we need to focus on the public and the people that we're serving. So we need to leave our badges, ranks, and egos at the door to get the job accomplished.

Chief Tony Reavley
Chief of the Hazardous Materials Team with Hamilton County Emergency Communications Center

Strategies to Improve Tennessee's Interoperable Communications

The Tennessee Public Safety Communications Interoperability Conference highlighted the initiatives under way and additional actions and approaches to improve interoperability among public safety providers within the state. Taken together, these current initiatives and approaches form an actionable strategy for elected and appointed officials, public safety executives, critical infrastructure operators, and representative associations. This strategy will move Tennessee toward building a highway of networked systems, reducing the risk to life and property in a natural disaster or technological accident due to lack of communications interoperability.

- **Coordination and Partnership Strategies**

- ❑ Educate all elected officials on the issue of interoperability
- ❑ Evaluate partnerships with commercial carriers
- ❑ Participate in the MOCAT meetings
- ❑ Challenge the local public safety community to get involved
- ❑ Keep "pushing forward" in the development of Tennessee's interoperable statewide system

- **Funding Strategies**

- ❑ Identify various methods to build and operate public safety communications systems
- ❑ Develop business case and cost distribution/sharing models to provide the lowest ownership cost possible

- **Spectrum Strategies**

- ❑ Fully implement the new 700 MHz spectrum that is available to the state
- ❑ Keep voice communications on the existing 800 MHz band and operate data communications in the 700 MHz band

- **Standards Strategies**

- ❑ Challenge various vendors to meet the needs of public safety
- ❑ Ensure that any new system supports future capabilities and new technologies

If the problem becomes the governor's problem, then the problem has the chance to be solved.

Mr. Bill Pogue
Chief of Technology Services
Tennessee Department of Safety

Tennessee Moving Forward…

The Tennessee Public Safety Communications Interoperability Conference highlighted public safety wireless communications interoperability as a priority concern for the State of Tennessee. The more than 150 elected and appointed officials, public safety executives, critical infrastructure operators, and wireless communications vendors who were brought together to begin addressing this critical issue took the first steps in solving the interoperability problem. They not only shared their ideas and experiences with each other, but also discussed the types of actions and strategies necessary to improve interoperability within the State of Tennessee. In doing so, attendees have prepared themselves as leaders on the issue.

It is imperative that the attendees not let the strategies discussed in this conference go unused. The attendees play a key role in spreading the messages of this conference. Participants are urged to step up and lead actions that promote interoperability in the State of Tennessee. Key to this "leadership challenge" is the ability of the audience to think imaginatively about implementation of new systems and act aggressively in respective roles. A new standard for Tennessee's public safety communications systems must be set—interoperability is not optional.

Attendees can take these issues to their respective associations, peers, and state legislators. Through these and other means, they can work for action. Fortunately, the conference attendees have many resources available to help them in their endeavors, including the resources of the PSWN Program (www.pswn.gov). Only by working together will public safety wireless communications interoperability remain a high priority and an integral part of Tennessee's homeland security efforts.

About The PSWN Program

The PSWN Program is a jointly sponsored initiative of the United States Department of Justice and the United States Department of the Treasury. The PSWN Program is responsible for planning and fostering interoperability among public safety wireless networks so that local, state, federal, and tribal personnel can better communicate with each other while serving the Nation's public safety needs. Through a variety of activities, the program strives to achieve the vision it shares with the public safety community—seamless, coordinated, and integrated public safety communications for the safe, effective, and efficient protection of life and property. A critical feature of the PSWN Program's strategy for supporting widespread interoperability is an emphasis on a leadership role for the individual states to serve as the linchpins for achieving nationwide wireless interoperability.

The PSWN Program has actively supported both states and local entities in improving public safety wireless interoperability. A few examples include:

- Hosting regional symposiums in over 15 different states that bring together local, state, federal, and tribal public safety agencies to share information on wide-ranging issues such as regional planning, funding, and systems planning
- Developing pilot projects in locations nationwide to demonstrate and test interoperability solutions in actual operational settings
- Convening the PSWN Executive Committee, which comprises prominent local and state public safety officials, to provide strategic guidance and promote the need for improved communications interoperability
- Developing a national strategy for public safety interoperability that provides proven, high-level implementation guidelines, best practices, innovative designs, and operating procedures to help the public safety community improve and implement interoperable communications networks.