# Improving Emergency Communications Through Governance

## Introduction

A caller contacts a 9-1-1 dispatcher with an emergency, and the dispatcher relays that information to police, fire, and emergency medical services personnel to lead a coordinated response. This series of events occurs thousands of times a day, and the ability of public safety personnel to effectively respond to these calls depends upon the emergency communications tools they have at their disposal.[1] Land mobile radios, 9-1-1 and next-generation 9-1-1, and Long-Term Evolution broadband wireless communications comprise this emergency communications ecosystem and, together, allow for greater coordination among first responders and a quicker response that can save lives.

However, the most critical element ensuring interoperability of these tools and a highly functioning emergency communications ecosystem is a strong governance body that spans disciplines and levels of government. Strong governance, through established bodies, facilitates greater capability and interoperability among these technologies by coordinating planning and response, which are often fragmented across agencies and levels of government.

Governors, who have authority over state agencies and the ability to convene key stakeholders, are central to helping states solve challenges related to interoperability and governance. Toward that end, the National Governors Association Center for Best Practices and the U.S. Department of Homeland Security Office of Emergency Communications launched the Policy Academy on Enhancing Emergency Communications Interoperability.

The following recommendations are derived from lessons learned during the policy academy, which can help guide states' efforts to strengthen and sustain

## What Is the Emergency Communications Ecosystem?

- **Land Mobile Radio:** This radio system is designed to support time-sensitive, lifesaving tasks through group-calling capabilities, high-quality audio and guaranteed communication access to public safety and emergency responders.[2] This is the standard "radio on the shoulder" system and the most common mission-critical communication medium used by responders.
- **9-1-1 and next-generation 9-1-1:** This Internet Protocol-based 9-1-1 system allows voice, photos, videos, text messages and other data to flow seamlessly from the caller to the 9-1-1 dispatcher and on to public safety personnel and first responders.[3]
- **Long-Term Evolution broadband:** This wireless communications technology is constantly developing to address the demand for high-speed, data-intensive communications.
- **Nationwide Public Safety Broadband Network:** This network is the future nationwide public safety broadband network. It will allow first responders to share data over a secure network that prioritizes first responders' use during emergencies.

emergency communications:

- Governors can establish, or reinvigorate, an active governance body to ensure consensus, coordination and support;
- Public safety personnel can revitalize and take advantage of the statewide communication interoperability plan (SCIP) with a messaging strategy that informs executive decisionmakers;
- Governors and staff can engage the legislature to promote understanding and long-term support of the SCIP; and
- Governors can empower the statewide inter-operability coordinator (SWIC), and ensure close coordination among the SWIC, the broadband point of contact and the state 9-1-1 administrator to support the state's SCIP.

## Policy Academy Background

In 2016, the National Governors Association Center for Best Practices (NGA Center) launched a policy academy to help five states improve their emergency communications governance bodies.[4] In addition, the project sought to identify best practices that those states could share with the rest of the nation. Through a competitive selection process, **Alaska**, **Hawaii**, **Illinois**, **Utah** and **West Virginia** were selected to receive assistance with creating a strategic roadmap that identifies goals and objectives for establishing, or strengthening, emergency communications govern-ance bodies.

Teams from each state, whose members were designated by the state's governor, convened in May 2016 to develop draft recommendations. During follow-up state meetings, stakeholders were invited to consider those recommendations and suggest ways to improve them. In November, policy academy states reconvened to finalize their recommendations and develop a strategic implementation plan. Through those meetings, participants identified lessons learned that will help other states seeking to improve their emergency communications systems.

## Lessons Learned

One of the central challenges confronting governance bodies is ensuring that there are sufficient funds to sustain the operation of the emergency communications ecosystem over the long-term. While various funding and sustainability methods have been documented, an effective governance body is needed to engage and inform key stakeholders on their ecosystem to identify funding priorities.[5]

Although each of the five participating states faced unique funding and interoperability challenges, all shared one common challenge in particular: the need for stronger governance. The following recommendations emerged from the lessons learned at the policy academy and outline actions governors and their offices can take to enhance their state's emergency communications through governance.

### *Establish, or Reinvigorate, an Active Governance Body to Ensure Consensus, Coordination and Support*

With the convergence of multiple communications capabilities, no one entity can ensure emergency communications interoperability. Rather, interoper-ability requires a partnership among response entities across all levels of government to ensure that the right information gets to the right people at the right time. A unified governance body ensures that priorities are aligned and that funding is dedicated to areas that have the best return on investment (ROI). Statewide interoperability executive committees (SIECs) or statewide interoperability governance boards (SIGBs), whose original function was to make policy decisions for land mobile radio (LMR) systems, are increasingly filling this governance role.

Alaska and Hawaii are in the process of establishing statewide governance bodies. In Alaska, the team drafted, vetted and sent to the governor's office a draft administrative order for his consideration that would establish a body. The body's responsibilities would include implementing an approval process for

expenditures, developing joint funding and legislative requests, developing statewide interoperable communication policies and recommending a First Responder Network Authority (FirstNet) opt-in/opt-out recommendation for the governor. (Note: please see the Glossary for more information on FirstNet and the opt-in/opt-out decision that governors must make.) Hawaii's team drafted a bill that the legislature is considering that would statutorily enact a governance body. Membership of the body would include state agencies that rely on emergency communications and the state's four mayors to ensure consistency of operations across the islands.

Similarly, Illinois created a strategic roadmap to consolidate existing emergency communications governance bodies into a single body with authority over its emergency communications ecosystem. Finally, West Virginia, through its SIEC, created an inventory of state assets identifying their initial costs, their usage and the costs to upgrade them. This has allowed West Virginia's SIEC to articulate funding needs to the governor and legislature based on an asset's ROI.

### *Revitalize the Statewide Communication Interoperability Plan with a Messaging Strategy that Informs Executive Decisionmakers*

States participating in the policy academy noted the challenge of strategically conveying the need to simultaneously sustain and invest in LMR, 9-1-1 and next-generation 9-1-1 (NG911) and broadband systems to decision makers. For several years, Statewide Communication Interoperability Plans (SCIPs) gave policymakers a strategic direction for their state's emergency communications ecosystem. Yet, these plans tend to be complex, detail-oriented documents that senior policymakers and lawmakers rarely have the time to review, contributing to the lack of knowledge about capabilities. As an example, some policymakers mistakenly believe that the planned buildout of the Nationwide Public Safety Broadband

Network will eventually replace traditional radios and are hesitant to invest in outdated public safety radio systems. Furthermore, policymakers may view this issue as an information technology problem rather than a core challenge for public safety.

Therefore, SIECs and SIGBs should consider revisiting their SCIPs to ensure they clearly communicate to policy makers the strategic importance of sustaining and simultaneously investing in LMR, NG911 and broadband systems. Policymakers should be able to read a SCIP and understand their state ecosystem's current capabilities and how it assists the public safety community. Additionally, they should understand how future technology may complement or supplant those capabilities, which is essential for informed decision making on future funding.[6] Governance bodies should also consider creating a messaging strategy that illustrates the significance of the SCIP for the state emergency communications ecosystem's success.

Utah's team articulated this need. In particular, they sought to overcome challenges such as introducing emerging technologies without disrupting current services, educating executives on the need to sustain LMRs indefinitely and identifying a sustainable funding model. As a result, the team identified messaging objectives like creating informational white papers on their communication systems, actively informing executive policymakers on current communications systems' capabilities and recommending specific sustainability models to the legislature. For example, the state developed a video about the construction of a remote radio tower that shows a helicopter airlifting concrete to the site, illustrating why public safety communications systems are costly to build and sustain.

Other policy academy states saw a need for messaging strategies, as well. For instance, West Virginia's team created a transition document for the new gubernatorial administration outlining the state's radio network's capability, why it must be sustained and recommendations for maintaining and enhancing the

network. In addition, the team created talking points for SIEC staff to ensure that their message was consistent. The Illinois team took an approach similar to Utah's and created a short video to educate viewers on their emergency communications ecosystem. Furthermore, Illinois is developing high-level strategic goals to complement those outlined in their SCIP but aimed at reaching an audience of executive policymakers.

### *Engage the Legislature to Promote Understanding and Long-Term Support of the SCIP*

In addition to messaging the SCIP to executive officials, it is important to engage the legislature. Legislators are inundated with competing funding priorities, with committed advocates pushing their priorities. It is therefore essential to inform legislators about the need to maintain and support existing communications systems while also moving forward with technologies that will enhance the capabilities, effectiveness and efficiency of those communications.

Alaska amended its SCIP to add a goal for informing both the legislature and the administration about the importance of sustainable life-cycle funding. State officials should also consider the following points when engaging legislators:

- Communicate to legislators that interoperable emergency communications are a public safety issue that directly affects emergency personnel's ability to perform their jobs;
- Create a vision with legislators as to what emergency communications could and should be, and share information as it becomes available; and
- Collaborate with legislators to address any challenges that arise.

To begin this partnership, states should reach out to legislators who have a public safety or telecommunications background. Similarly, states should focus on those whose districts may have experienced a recent disaster, as they are likely to be receptive to the importance of emergency communications interoperability.

### *Empower the SWIC, and Ensure Close Coordination Among the SWIC, the Broadband Point of Contact and the State 9-1-1 Administrator*

Today, most states have a statewide interoperability coordinator (SWIC)—a point of contact for statewide interoperability. SWICs have played an integral role in establishing and maintaining statewide governance systems and bringing together stakeholders from the spectrum of public safety communications. The SWIC serves as a neutral, unbiased coordinator for interoperability issues within the state, including supporting the establishment and maintenance of a statewide governing body. States with diverse communications systems and geography should include the SWIC on all communications-related governance bodies (if they are not unified) to help identify synergies and bridge gaps. Therefore, a strong partnership among the SWIC, the broadband point of contact and the state 9-1-1 administrator is necessary to identify funding priorities.

A governor seeking to advance his or her interoperable goals can often find a strong partner in the SWIC. Hawaii and Illinois are both attempting to legislatively enact a SWIC to perform these functions and more. Specifically, in Illinois, the team would like the SWIC to chair the future unified governance body. Likewise, the Utah team is recommending empowering the SWIC to approve any purchase of communications resources to ensure that funds are appropriated according to the state's priorities.

## Looking Ahead

Collaboration and participation between the governor and relevant emergency response stakeholders are essential for a state to maintain, improve and ensure interoperable public safety communication capabilities. Governance and coordination provide the framework for stakeholders to collaborate and make decisions that reflect shared objectives. However, ongoing review and adjustment of the governance

approach, system and process are necessary as the emergency communications landscape evolves. With support from governors and leadership from SWICs, states will be well positioned to ensure that emergency responders have the best tools at their disposal to serve and protect the state's citizens.

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# Glossary[7]

**Broadband:** Technology that allows users to access the Internet and Internet-related services at significantly higher speeds than they could by using dial-up Internet access services.

**Emergency communications:** The means and methods for exchanging communications and information necessary for successful incident management.

**First Responder Network Authority (FirstNet):** An independent authority within the National Telecommunications and Information Administration responsible for ensuring the building, deployment and operation of the first high-speed, nationwide public safety broadband network. Under the law, each state must decide whether to "opt-in" to FirstNet or to "opt-out," and this decision rests solely with the governor. If a governor decides to opt-in, no additional action is required by the state and FirstNet will take sole responsibility for building, operating, and maintaining the radio access networks (RAN) for the Nationwide Public Safety Broadband Network to operate. If a governor decides to opt-out, he or she must create an alternate plan; submit and receive approval from the Federal Communications Commission and the National Telecommunications and Information Administration; and build, operate, and maintain the RANs.

**First Responder Network Authority (FirstNet) State Point of Contact (POC):** A state's designated POC, responsible for coordinating FirstNet deployment plans for statewide broadband interoperability.

**Interoperability:** The ability for emergency responders to communicate among jurisdictions, disciplines, frequency bands and levels of government as needed and authorized. System operability is required for system interoperability.

**Land mobile radio:** Land-based wireless narrowband communications system commonly used by federal, state, local, tribal and territorial emergency responders; public works companies; and the military to support voice and low-speed data communications.

**Long-Term Evolution:** The next evolution of commercial broadband wireless communications technology, which was developed to address the demand for high-speed, data-intensive communications, such as situational awareness, advanced analytics, database queries and video applications.

**Redundancy:** Additional or alternate systems, subsystems, assets or processes that maintain a degree of overall functionality in case of loss or failure of another system, subsystem, asset or process.

**Statewide Communication Interoperability Plan:** Stakeholder-driven, multijurisdictional and multidisciplinary statewide plan that outlines and defines the current and future vision for communications interoperability within the state or territory.

**Statewide Interoperability Coordinator:** Serves as the state's single point of contact for interoperable communications and implements the Statewide Communication Interoperability Plan.

**Statewide Interoperability Executive Committee and Statewide Interoperability Governance Body:** The primary steering group for the statewide interoperability strategy.

**State 9-1-1 administrator:** Supports the statewide implementation and maintenance of 9-1-1 services, identifying and recommending the minimum standards for emergency communications systems.[8]

# Endnotes

[1] National Emergency Number Association. (2014). 9-1-1 Statistics. Retrieved from https://www.nena.org/?page=911Statistics.

[2] U.S. Department of Homeland Security. (2014). National Emergency Communications Plan. Retrieved from https://www.dhs.gov/sites/default/files/publications/2014%20National%20Emergency%20Communications%20Plan_October%2029%202014.pdf.

[3] Ibid.

[4] For more information about the policy academy and NGA's partnership with the Department of Homeland Security's Office of Emergency Communications, see Chris Essid and Jeff McLeod, NGA Policy Academy Addresses Governance for New Technologies, MissionCritical Communications, November-December 2016, pps. 8-10.

[5] U.S. Department of Homeland Security, National Council of Statewide Interoperability Coordinators. (2015, November). Funding public safety communications systems. Retrieved from https://www.dhs.gov/sites/default/files/publications/Funding%20Mechanisms_TechEdit_11202015_1.pdf.

[6] For more information about updating Statewide Communication Interoperability Plans, please see https://www.dhs.gov/statewide-communication-interoperability-plans.

[7] All terms, unless noted otherwise, derive from the National Emergency Communications Plan. U.S. Department of Homeland Security. (2014). National emergency communications plan. Retrieved from https://www.dhs.gov/sites/default/files/publications/2014%20National%20Emergency%20Communications%20Plan_October%2029%202014.pdf.

[8] U.S. Department of Homeland Security. (2015). Emergency Communications Governance Guide for State, Local, Tribal, and Territorial Officials. Retrieved from https://www.dhs.gov/sites/default/files/publications/2015%20Governance%20Guide_Master_508c%20Final.pdf.