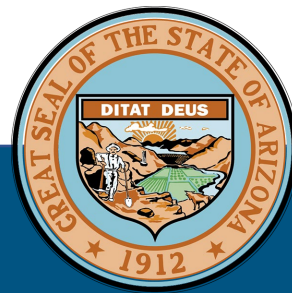




# ARIZONA STATEWIDE COMMUNICATION INTEROPERABILITY PLAN



September 2024

Developed by the Arizona SWIC with support from the Cybersecurity and Infrastructure Security Agency

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## LETTER FROM THE STATEWIDE INTEROPERABILITY COORDINATOR

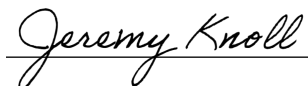
Greetings,

As the Statewide Interoperability Coordinator (SWIC) for Arizona, I am pleased to present to you the 2024 Arizona Statewide Communication Interoperability Plan (SCIP). The SCIP represents the state's continued commitment to improving emergency communications interoperability and supporting our public safety practitioners throughout Arizona. In addition, this update meets the requirement of the current U.S. Department of Homeland Security grant guidelines so agencies compliant with this document may use reference to it in grant requests.

The Arizona SWIC and Deputy SWIC representing the Arizona Department of Public Safety collaborated with local, county, state, tribal nations, and federal agencies to create this SCIP. Our process involved identifying desired states and gaps, creating actionable and measurable goals, objectives, and timelines, with champions assigned to ensure completion. These efforts integrate insights gathered from webinars covering governance, technology, cybersecurity, tribal nations, and funding. SCIP goals included in this document aim to inspire action items strategically designed for emerging technologies and to enhance Arizona's ability to navigate the dynamic emergency communications landscape. These goals and objectives align with the National Emergency Communications Plan (NECP) and SAFECOM/National Council of SWICs (NCSWIC) State Interoperability Markers, fostering improvements in Arizona's interoperability maturity by tracking progress against these benchmarks.

As we continue to enhance interoperability, we must remain dedicated to improving our ability to communicate and collaborate among disciplines and across jurisdictional boundaries. With help from public safety practitioners statewide, we seek to achieve these goals set forth in this 2024 SCIP and dedicate our efforts to become a nationwide model for statewide interoperability. This 2024 SCIP is one of several statewide coordinated planning efforts which provide an opportunity for all levels of government to come together and align information regarding their communications needs, based on models assessing risk and threats and considering evolving future emergency communications requirements. This plan provides a platform for local, county, state, tribal, and federal governments to identify shared statewide issues and assess future common communication needs.

Sincerely,



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Jeremy Knoll  
Arizona Statewide Interoperability Coordinator  
Arizona Department of Public Safety

## INTRODUCTION



The SCIP is a one-to-three-year strategic planning document that contains the following components:

- **Introduction** – Provides the context necessary to understand what the SCIP is and how it was developed. It also provides an overview of the current emergency communications landscape.
- **Vision and Mission** – Articulates Arizona’s vision and mission for improving emergency and public safety communications interoperability over the next one-to-three-years.
- **Governance** – Describes the current governance mechanisms for communications interoperability within Arizona as well as successes, challenges, and priorities for improving it. The SCIP is a guiding document and does not create any authority or direction over any state or local systems or agencies.
- **Technology and Cybersecurity** – Outlines public safety technology and operations needed to maintain and enhance interoperability across the emergency communications ecosystem.
- **Funding** – Describes the funding sources and allocations that support interoperable communications capabilities within Arizona along with methods and strategies for funding sustainment and enhancement to meet long-term goals.
- **Implementation Plan** – Describes Arizona’s plan to implement, maintain, and update the SCIP to enable continued evolution of and progress toward the state’s interoperability goals.

The Emergency Communications Ecosystem consists of 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 primary functions are depicted in the 2019 National Emergency Communications Plan.<sup>1</sup>

The Interoperability Continuum, developed by the Department of Homeland Security’s SAFECOM program and shown in Figure 1, serves as a framework to address challenges and continue improving operable/interoperable and public safety communications.<sup>2</sup> It is designed to assist public safety agencies and policy makers with planning and implementing interoperability solutions for communications across technologies.

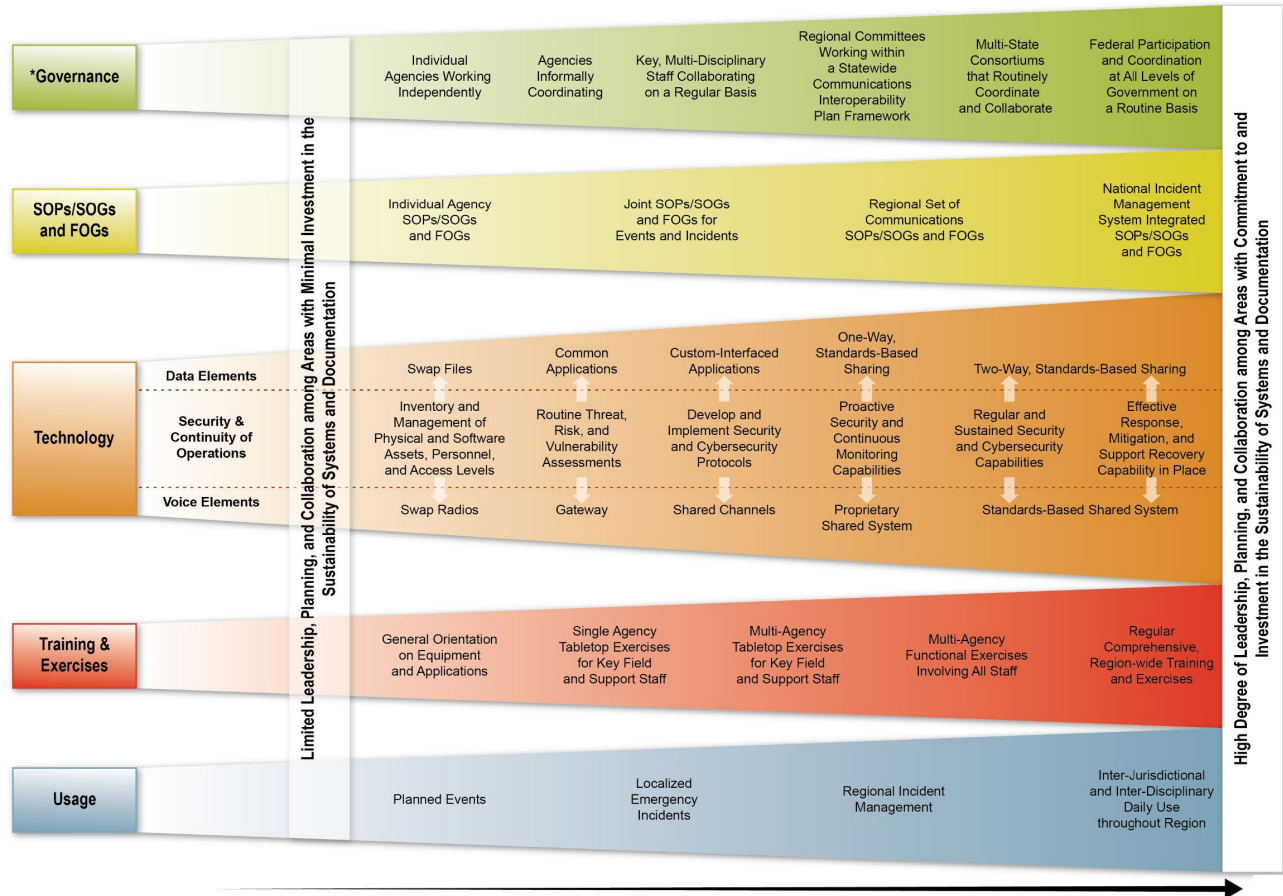


Figure 1: Interoperability Continuum

## Interoperability and Emergency Communications Overview

Interoperability is the ability of emergency response providers and relevant government officials to communicate across jurisdictions, disciplines, and levels of government as needed and as authorized. Reliable, timely communications among public safety responders and between public safety agencies and citizens is critical to effectively carry out public safety missions, and in many cases, saving lives.

<sup>1</sup> [2019 National Emergency Communications Plan](#)

<sup>2</sup> [Interoperability Continuum Brochure](#)



Traditional voice capabilities, such as land mobile radio (LMR) and landline 911 services have long been and continue to be critical tools for communications. However, the advancement of internet protocol-based technologies in public safety has increased the type and amount of information responders receive, the tools they communicate with, and complexity of new and interdependent systems. Emerging technologies increase the need for coordination across public safety disciplines, communications functions, and levels of government to ensure emergency communications capabilities are interoperable, reliable, and secure.

An example of this evolution is the transition of public safety answering points (PSAPs) to Next Generation 911 (NG911) technology that will enhance sharing of critical information in real-time using multimedia—such as pictures, video, and text — among citizens, PSAP operators, dispatch, and first responders. While potential benefits of NG911 are tremendous, implementation challenges remain. Necessary tasks to fully realize these benefits include interfacing disparate systems, developing training and standard operating procedures (SOPs) and ensuring information security.

## VISION AND MISSION

This section describes Arizona’s vision and mission for improving emergency and public safety communications interoperability:

### **Vision:**

*To achieve interoperable communications within all areas of the emergency communications ecosystem.*

### **Mission:**

*Implement and strengthen governance within Arizona to enhance and sustain all elements of the emergency communications ecosystem.*

## GOVERNANCE

Arizona public safety agencies recognize they would benefit from the creation of a legislative authorized State Interoperability Governing Board (SIGB). The Statewide Interoperability Coordinator (SWIC) coordinates most public safety emergency communications statewide and the Position Task Book Committee. As of January 2024, Arizona has submitted a DHS Technical Request for assistance (WO22-240) to establish an Arizona Statewide Radio System Owners Working Group. This initiative involves collaborative efforts between Yuma and Cochise Counties, in alignment with the Arizona Department of Public Safety's (ADPS) Arizona Wireless Integrated Network System (AZWINS). The project focuses on implementing a new Project 25, Phase 2, land mobile radio (LMR) to replace legacy LMR system. Each county network in this system of systems would have its own internal governance structure to make decisions and allow users to “come and go” from each system, to include how agencies charge others to use their system. Then any decisions having system loading effects on another system, would have to be discussed by a

system owner working group, and vetted through Yuma Regional Communications System (YRCS) for final approval.

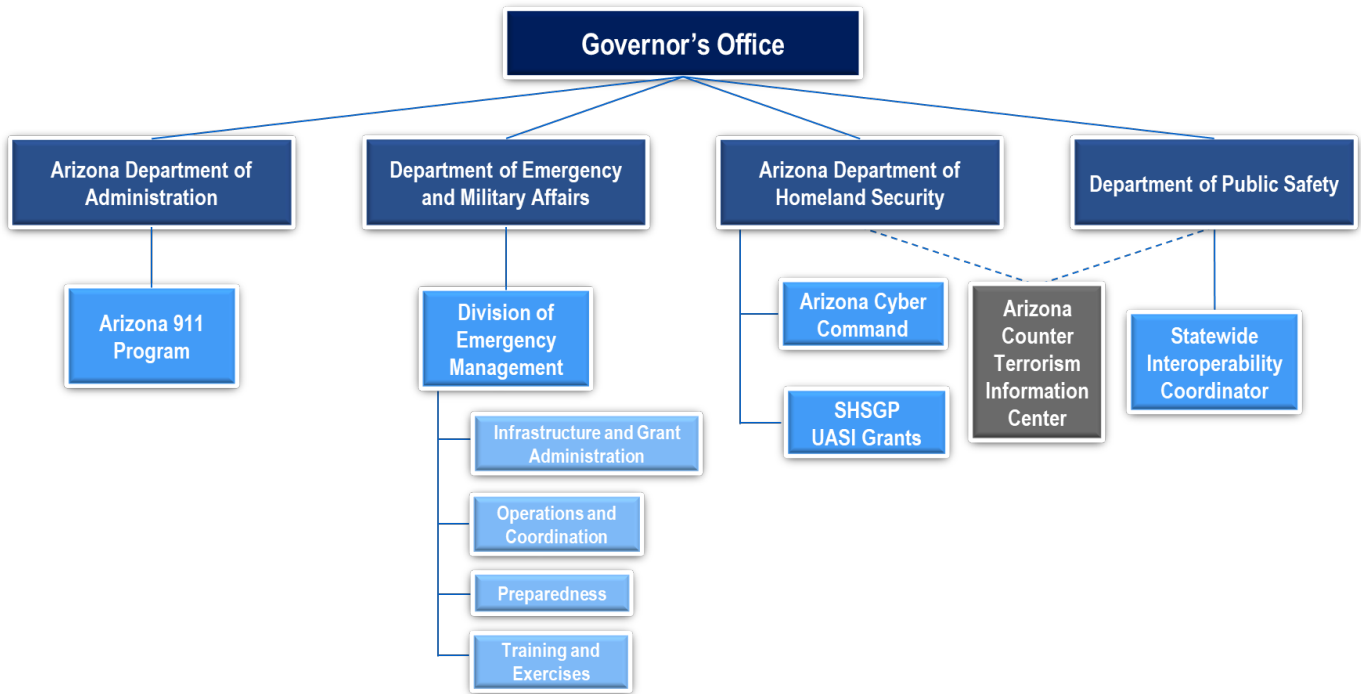
Legislative establishment of a SIGB is a desired outcome. Effective statewide governance, like a statewide SIGB, is a linchpin for achieving interoperable communications across Arizona's public safety ecosystem. Governance, identified as a critical success objective during this 2024 SCIP process, requires clear definition of leadership, objectives, and roles across diverse stakeholders. Inclusive representation, defined by roles and responsibilities, ensures accountability and collaboration. Developing governance charters for working groups, prior to establishment of legislation, provides the framework for effective communication, transparency, and stakeholder engagement. Training and capacity-building initiatives enhance governance implementation, while continuous evaluation and flexibility accommodate evolving needs and changing public safety technologies. Leveraging nationwide best practices and fostering collaboration in maximizing shared resources, achieving common goals, resulting in robust governance structures promoting effective and efficient stakeholder engagement (see Appendix C for more details).

The Division of Emergency Management (DEMA) coordinates Arizona's emergency preparedness, response, and recovery initiatives and was recently contracted to deploy a statewide technology available to each county for Integrated Public Alert & Warning System (IPAWS). The Arizona Department of Homeland Security (AZDOHS) oversees federal homeland security grants, including the Arizona Cyber Command, a statewide information security, and privacy office. The Arizona 911 Program manages governance, finance, reporting, systems management, Public Safety Answering Point (PSAP) support, and Geographic Information System (GIS) capability development for Arizona's 911 program.

Jeremy Knoll serves as the SWIC for the State of Arizona. The Statewide Interoperability Coordinator (SWIC) and Deputy SWIC operate under the Arizona Department of Public Safety (AZDPS) and lead the Position Task Book Committee Program. Arizona's emergency communications governance map is depicted in Figure 2.



Figure 2: Arizona’s Emergency Communications Governance Map



Governance goals and objectives include the following:

Governance	
Goals	Objectives
<b>1. Establish Arizona’s public safety communications governing body to develop standards, identify policies, and adopt rules providing leadership in creating legislation to guide Arizona’s public safety communications ecosystems.</b>	1.1 Establish a working group by May 2025 to create legislation for a fully funded statewide interoperability governing body (SIGB) to represent all AZ public safety communications needs leveraging statewide associations and volunteers with identified funding. Legislative language completed by January 2026.
	1.2 Establish a working group representing all Arizona stakeholders influencing federal agencies and creating criteria and standards for international communications across Southern Border between public safety agencies when authorized and in a form and format to improve incident communications, group members identified by Dec. 2024.
	1.3 Establish a working group with a purpose of determining requirements and recommended participants to achieve Arizona having a legislatively authorized and funded interoperable NG911 platform accessible by all PSAPs sustainable for all parties within available funding, group members identified by March 2025.
<b>2. Develop, review annually, and update as necessary comprehensive standardized</b>	2.1 Establish a state and local working group supplementing the federal southwest border working group, to sustain Arizona’s interest in international public safety communications focused

Goals	Objectives
<p><b>public safety communications plans and procedures across Arizona’s public safety communications ecosystem managing risk, capabilities, and technologies.</b></p>	<p>on tactical interoperable frequencies, internationally shared Tactical Interoperable Communications Plan (TICPs), creating an international Field Operations Guide (FOG) to supplement activities in Goal 1.2., group members identified, and first meeting held by January 2025. Subsequent to completion, the FOG may be translated to additional languages as needed.</p>
	<p>2.2 Establish a working group to assess Arizona’s communications interoperability plans, identifying all LMR systems, use of consistent channel naming conventions, identification of all frequencies in use, and determine if changes to TICP and FOG are necessary, group established and first meeting by April of 2025.</p>
<p><b>3. Identify training and exercise gaps, develop training, and exercises, plans and training metrics, using after action reports, enhancing user knowledge, closing gaps across Arizona’s communications technologies.</b></p>	<p>3.1 Establish a working group to create criteria for increased cybersecurity educational opportunities, making training available on-line, and in person, to all who wish to participate, group members identified, and first meeting held by December 2024.</p>
	<p>3.2 Establish a working group to include Arizona Department of Emergency Management Agency/Emergency Management (AZDEMA/EM) training branch, identify gaps in skills, knowledge, and abilities, and develop training materials to close those gaps, develop training curriculum, and deliver training by July 2025.</p>
	<p>3.3 Re-institute the task book review committee to facilitate completion of the National Qualification System (NQS) communications task book sign-off process by September 2024.</p>
<p><b>4. Improve awareness and coordination of operable communications and interoperable tactical plans for unplanned incidents and planned events across Arizona’s communications ecosystem.</b></p>	<p>4.1 Establish a working group to coordinate with appropriate state and county agencies to develop public safety grade broadband service level agreements (SLA) for use by Arizona public safety agencies, members identified and first meeting by November 2024.</p>
	<p>4.2 Establish an outreach strategy to provide current information to public safety community and associations making them aware of changes in Arizona’s communications ecosystem. First outreach document delivered by July 2025.</p>

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## TECHNOLOGY AND CYBERSECURITY

### Land Mobile Radio

There are several LMR systems across Arizona. Since 2004, DEMA/EM has partnered with the Arizona Public Service (APS) to build the Arizona Emergency Operations Center (EOC) Network.<sup>3</sup> The network uses APS's 800 Megahertz (MHz) statewide system. There are control station radios in the 15 county EOC's, the State EOC, the Alternate State EOC, and communications vehicles. DEMA/EM also maintains a cache of radios on the Arizona EOC Network.

The DEMA/EM Radio Network (DRN) is a Very High Frequency (VHF) radio system composed of repeaters on nine mountain top sites throughout Arizona. The radios are linked by microwave providing substantial coverage within the state. The DRN system is currently used for the Emergency Alert System (EAS) and America's Missing: Broadcast Emergency Response (AMBER) alerts. The ground and aviation assets of the Arizona Army National Guard use the system for communications. The Communications Section under DEMA/EM manages the system and uses the frequencies for missions and training.

The Arizona Interagency Radio System (AIRS) was designed to use the statewide and nationwide mutual aid channels throughout the state to help improve communications between all agencies. The intent was to improve coverage in all counties, by upgrading and providing inter-connect of VHF, Ultra-High Frequency (UHF), and 800 MHz repeaters via the AIRS suites at ten regions throughout Arizona and in all counties. AIRS is being phased out and replaced with a state-of-the-art statewide Project 25 (P25) Phase 2 system called AZWINS. Several counties and cities are utilizing AZWINS or sharing resources of their own P25 systems to enhance interoperability and expand coverage footprints.

The Regional Wireless Cooperative (RWC) oversees the administration, operation, management, maintenance, and growth of a Motorola ASTRO 25 700 MHz digital trunked radio system and a VHF Simplex system dedicated to Fire Hazard-Zone operations.<sup>4</sup> These systems provide coverage to 3.5 million residents across 5,000 square miles of south-central Arizona. It is comprised of 20,000 member radios with more than 20,000 in use by interoperability participants local, tribal, state, and federal agencies are authorized to use this system to communicate with RWC agencies).

The City of Mesa, the City of Apache Junction, the Towns of Gilbert and Queen Creek, the Superstition Fire and Medical District and the Fort McDowell Yavapai Nation have established the Topaz Regional Wireless Cooperative (TRWC). The function of the TRWC, through the implementation of the TRWC Governance Process, is to jointly operate a regional radio system that is modern in its management, has equity in membership, and provides for support and future growth.

The Yuma Regional Communications System (YRCS) is a regional robust, state-of-the-art land mobile radio (LMR) system providing critical operable and interoperable two-way communications for public safety and public service agencies. The YRCS is a Project 25 (P25 digital standard) trunked radio system using 700 and 800 MHz frequencies and provides wide area communications

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<sup>3</sup> [DEMA - Communications](#)

<sup>4</sup> [Regional Wireless Cooperative](#)

across several counties in Arizona as well as offering interoperability with some neighboring jurisdictions in California. YRCS currently partners - support with over 70 local, state and federal agencies. The system is used for day-to-day response level communications as well as interoperability across jurisdictions and public safety disciplines.

Pima County Wireless Integrated Network (PCWIN) incorporates standards-based Project 25, phase II digital technology. This highly robust system expands the County's radio transmission capacity, extends radio coverage to some of the most remote parts of Pima County, and enhances the reliability of voice radio transmissions for its users. In large incidents, multiple responding agencies are now able to talk to each other without swapping radios between supervisors.

Southeastern Arizona Communications (SEACOM) is a joint initiative by Cochise County and Sierra Vista to create an independent 911 Communications Center serving all of Cochise County. Cochise County Sheriff's Department dispatch staff and Sierra Vista Police Department's dispatch staff work out of the same facility. Currently, SEACOM dispatches for all Cochise County Sheriff's office, Huachuca City Police Department, Sierra Vista Police Department, Sierra Vista Fire and Rescue, Fry Fire District, and 18 other rural fire departments. The Cochise County 700 MHz radio system is a P25 Phase II system with a combination of simulcast and site specific 700 MHz frequencies.

Pinal County utilizes an 11 site P25 Phase II 800 MHz radio system. The radio system offers interoperability to member agencies as well as external agencies. Encryption is available on the system to internal and external partner agencies.

## 911

Arizona has 51 primary Public Safety Answering Points (PSAPs) and 6 secondary PSAPs.<sup>5</sup> Arizona has begun the transition to Next Generation 911 (NG911) services to the PSAP communities across Arizona.<sup>6</sup> NG911 will come in two parts, Next Generation Core Services (NGCS) and new Call Handling Equipment (CHE). Using NGCS, the state will be able to offer a seamless, coordinated, and efficient NG911 system to its local PSAPs. The program has also established a statewide contracting vehicle to allow PSAPs to procure National Emergency Number Association (NENA) i3-compliant CHE.

Arizona is deploying a Comtech Emergency Services Internet Protocol Network (ESInet)/NGCS using the state's Geographic Information System (GIS) data, along with options of managed hosted CHE from Solacom (Comtech) and Motorola (AT&T), offering Arizona's PSAPs CHE options. The deployment is a revolutionary hybrid deployment strategy using local resources, private local and hosted data centers, and public cloud instances to provide all the required functional elements that comprise an NG911 network. Systems are backed up at out of state locations.

## Broadband

The National Public Safety Broadband Network (NPSBN), FirstNet, continues to expand coverage and capabilities in Arizona.<sup>7</sup> Across Arizona, FirstNet has launched new cell sites. These sites were identified by state and public safety stakeholders as priority locations. These sites were constructed using Band 14 spectrum, as well as AT&T commercial spectrum. Band 14 has also been added to

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<sup>5</sup> [911 Statistics and Data](#)

<sup>6</sup> [Arizona NG911](#)

<sup>7</sup> [FirstNet Expansion](#)

more than 700 existing sites across Arizona as part of the initial FirstNet build, including markets of Phoenix and Yuma. FirstNet covers greater than 80% of the population in Arizona often using tower sharing arrangements. Public safety reports other carriers are still offering superior service in certain areas. FirstNet's broadband services are used in Northwest Arizona to provide connectivity between PSAPs and providing land mobile radio (LMR) to long term evolution (LTE) push-to-talk (PTT) to enhance voice communications coverage.

The 2022 Arizona Broadband Statewide Middle Mile Strategic Plan discusses the importance of future investment in broadband for public safety agencies across Arizona.<sup>8</sup>

The Arizona Department of Administration (ADOA) has instituted several initiatives aimed at enhancing broadband connectivity, with a particular emphasis on rural areas and local communities. Public safety agencies stand as primary beneficiaries of this expanded network. Arizona Corporation Commission (ACC) is made up of 5 elected members. This regulatory body is responsible for utility tariffs.

Arizona Department of Transportation (ADOT) offers public safety limited access to fiber running along statewide roadway networks.

## Alerts and Warnings

The Arizona Emergency Information Network (AzEIN) under DEMA/EM is the State of Arizona's official source of emergency updates, preparedness and hazard information, and related resources.<sup>9</sup> The Arizona Department of Public Safety (AZDPS) issues AMBER, Blue, and Silver Alerts.<sup>10</sup>

Pima County Office of Emergency Management (OEM) presently employs Everbridge to initiate alerts and warnings, serving as the Collaborative Operating Group (COG) for Pima County IPAWS. A diverse range of alert and warning technologies are utilized across Arizona's 15 counties, further complicating matters, local city governments may opt for yet different technologies.

The Arizona Department of Administration (ADOA) and the 911 department have adopted a commercial service Rapid Alerting and Voice Exchange (RAVE) as a Public Safety Answering Point (PSAP) technology and county emergency management platform, establishing a state-funded Alerts and Warnings (A&W) solution. Contemporary risks and threats necessitating the use of alerts and warnings most frequently include wildland fires, flooding, police situations, and hazardous material transport. County Emergency Management handles alerts related to wildland fires and flooding. Currently, 14 out of 15 counties and several tribes are authorized to use IPAWS.

Arizona's school safety interoperability technology utilizes Mutualink, RAVE, and Carbyne. The Arizona National Warning System (NAWAS) is currently utilized by 16 entities across Arizona.

## Cybersecurity

The State of Arizona was awarded funding to provide cyber resources to local and tribal government entities in Arizona.<sup>11</sup> Available resources currently include:

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<sup>8</sup> [Arizona Broadband Statewide Middle-Mile Strategic Plan, 2022](#)

<sup>9</sup> [Arizona Emergency Information Network](#)

<sup>10</sup> [Arizona Department of Public Safety Alert System](#)

<sup>11</sup> [AZDOHS](#)

- Anti-Phishing/Security Awareness Training (SAT),
- Advanced Endpoint Protection (AEP),
- Converged Endpoint Management (XEM),
- Multi-Factor Authentication (MFA), and
- Web Application Firewall (WAF).

To provide these resources, Arizona is reaching out to local and tribal government entities that do not currently utilize one or more of the resources listed above. Priority will be given to smaller and less-resourced organizations in the order of requests received.

In 2021, Arizona inaugurated the Cyber Command under Arizona Homeland Security, incorporating a Security Operations Center (SOC). Most Arizona communities have now attained some level of cybersecurity skills, usually within their IT departments, marking a significant development in cybersecurity readiness. Instances occurred where some Arizona communities became targets of cyber intrusions.

Educational opportunities in cybersecurity are offered through the Department of Homeland Security (AZDOHS) and are coordinated with the Arizona Statewide Interoperability Coordinator (SWIC) office.

Technology and cybersecurity goals and objectives include the following:

Technology and Cybersecurity	
Goals	Objectives
<b>5. Improve lifecycle management and standardization of Arizona’s communications technology and infrastructure.</b>	5.1 Establish a working group to find a process to incorporate interested tribal nation locations to be part of Arizona's master GIS for NG911 integrating existing tribal technologies members identified and first meeting by September 2024.
	5.2 Create a plan to grow Arizona's statewide P25 interoperable AZWIN LMR system, assuring AZWIN can interoperate with every other public safety system within Arizona, with adjoining states, and any county or tribal system touching Arizona borders, including PTT LMR to LTE, and using national interoperability naming conventions, sustainable for all parties within available funding by December 2024.
	5.3 Survey all PSAPs to assess use of a P25 Phase 2 control station by December 2024.
	5.4 Request annually from wireless vendors, where LTE 5G coverage footprint can be used to augment LMR coverage by December 2024.
	5.5 Establish a working group to establish NG911 connectivity with California and Utah, members identified and first meeting by September 2024.
	5.6 Monitor the activities of artificial intelligence in the Arizona communications system, on-going.
<b>6. Strengthen Arizona’s cybersecurity posture across their emergency communications ecosystem.</b>	6.1 Establish a working group to determine criteria and assess all Arizona’s emergency communications ecosystem to determine effective cybersecurity protection members identified and first meeting by December 2024.



## FUNDING

The Arizona Department of Homeland Security (AZDOHS) oversees and administers federal homeland security grants, and oversees the Arizona Cyber Command, statewide information security, and privacy office.

The Arizona 911 Program is tasked with managing all aspects of governance, finance, reporting, systems management, Public Safety Answering Point (PSAP) support, and Geographic Information System (GIS) capability development related to the state's 911 program.

For 911 and NG911, approximately \$20 million is currently collected across all wireless surcharge streams for buildout, with an additional \$10 million received from the American Rescue Plan Act (ARPA) funding in 2023.

The Department of Public Safety (DPS) received state funds of \$48 million for northern microwave replacement, \$44 million for southwest microwave replacement, Arizona Wireless Integrated Network System (AZWINS) expansion, master site upgrade, end-of-life subscriber equipment replacement, and LMR/LTE upgrade in 2024.

Over the past three years, the Arizona Commerce Authority (ACA) has received around \$3 million for broadband expansion across urban and rural areas. In 2023, they secured \$1 billion for the continued expansion and resiliency of the 911 network, aiming to enhance access for public safety services.

Arizona has the flexibility to employ master contract procurement, allowing each entity to acquire equipment at standardized price points. The state's budget process is annual, and current budget forecasts indicate a shortfall over the next several years.

Funding goals and objectives include the following:

<b>Funding</b>	
<b>Goals</b>	<b>Objectives</b>
<b>7. Enhance Arizona’s communications posture through sustainable funding using standards-based interoperable communication technologies across all levels of government.</b>	7.1 Request update from AZDEMA/EM and NG911 regarding sustainable funding levels for interoperable alerts and warnings system by December 2024 and annually thereafter.
	7.2 Create an annual master contract procurement for each element of emergency communications ecosystem, make procurements available to all Arizona government entities for purchase of standardized public safety interoperable equipment at more competitive pricing by July 2025.
	7.3 SWIC’s office to assess adequate staffing levels for duties assigned. Determine staff needs and present funding to align with their increasing scope of work.

## IMPLEMENTATION PLAN

Each goal and its associated objectives have a timeline with a target completion date, and one or more owners that will be responsible for overseeing and coordinating its completion. Accomplishing goals and objectives will require the support and cooperation from numerous individuals, groups, or agencies, and will be added as formal agenda items for review during regular governance working group meetings. The Cybersecurity and Infrastructure Security Agency's (CISA) Interoperable Communications Technical Assistance Program (ICTAP) has a catalog<sup>12</sup> of technical assistance (TA) available to assist with the implementation of the SCIP. TA requests are to be coordinated through the SWIC.

Arizona's implementation plan is shown in the table below.

Goals	Objectives	Owners	Completion Dates
<b>1. Establish Arizona's public safety communications governing body to develop standards, identify policies, and adopt rules providing leadership in creating legislation to guide Arizona's public safety communications ecosystems.</b>	1.1 Establish a working group by May 2025 to create legislation for a fully funded statewide governing body to represent all AZ public safety communications needs using statewide associations and volunteers with identified funding. Legislative language completed by January 2026.	<ul style="list-style-type: none"> <li>• SWIC's Office</li> </ul>	<ul style="list-style-type: none"> <li>• May 2025</li> <li>• January 2026</li> </ul>
	1.2 Establish a working group representing all Arizona stakeholders influencing federal agencies and creating criteria and standards for international communications across Southern Border between public safety agencies when authorized and in a form and format to improve incident communications, group members identified by Dec 2024.	<ul style="list-style-type: none"> <li>• SWIC's Office</li> </ul>	<ul style="list-style-type: none"> <li>• Dec 2024</li> </ul>
	1.3 Establish a working group with a purpose of determining requirements and recommended participants to achieve Arizona having a legislatively authorized and funded interoperable NG911 platform accessible by all PSAPs sustainable for all parties within available funding, group members identified by March 2025.	<ul style="list-style-type: none"> <li>• AZ911</li> </ul>	<ul style="list-style-type: none"> <li>• March 2025</li> </ul>

<sup>12</sup> [Emergency Communications Technical Assistance Planning Guide](#)

Goals	Objectives	Owners	Completion Dates
<p><b>2. Develop, review annually, and update as necessary comprehensive standardized public safety communications plans and procedures across Arizona’s public safety communications ecosystem managing risk, capabilities, and technologies.</b></p>	<p>2.1 Establish a state and local working group to supplement the federal southwest border working group, to sustain Arizona’s interest in international public safety communications focused on tactical interoperable frequencies, internationally shared TICPs, creating a multilingual international Field Operations Guide (FOG) to supplement activities in Goal 1.2., group members identified, and first meeting held by January 2025.</p>	<ul style="list-style-type: none"> <li>• SWIC’s Office</li> </ul>	<ul style="list-style-type: none"> <li>• January 2025</li> </ul>
	<p>2.2 Establish a working group to assess Arizona’s communications interoperability plans, identifying all LMR systems, use of consistent channel naming conventions, identification of all frequencies in use, and determine if changes to TICP and FOG are necessary, group established and first meeting by April 2025.</p>	<ul style="list-style-type: none"> <li>• SWIC’s Office</li> <li>• CISA</li> </ul>	<ul style="list-style-type: none"> <li>• April 2025</li> </ul>
<p><b>3. Identify training and exercise gaps, develop training, and exercises, plans and training metrics, using after action reports, enhancing user knowledge, closing gaps across Arizona’s communications technologies.</b></p>	<p>3.1 Establish a working group to create criteria for increased cybersecurity educational opportunities, making training available on-line and in person, to all who wish to participate, group members identified, and first meeting held by December 2024.</p>	<ul style="list-style-type: none"> <li>• SWIC’s Office</li> <li>• AZDOHS Cyber Command</li> <li>• CISA</li> </ul>	<ul style="list-style-type: none"> <li>• December 2024</li> </ul>
	<p>3.2 Establish a working group to include AZDEMA/EM training branch, identify gaps in skills, knowledge, and abilities, and develop training materials to close those gaps, develop training curriculum, and deliver training by July 2025.</p>	<ul style="list-style-type: none"> <li>• SWIC’s Office</li> <li>• AZDEMA/EM</li> <li>• CISA</li> </ul>	<ul style="list-style-type: none"> <li>• July 2025</li> </ul>
	<p>3.3 Establish a task book review committee to facilitate completion of the National Qualification System (NQS) communications task book sign-off process by • July 2025.</p>	<ul style="list-style-type: none"> <li>• SWIC’S Office</li> </ul>	<ul style="list-style-type: none"> <li>• July 2025</li> </ul>
<p><b>4. Improve awareness and coordination of operable communications and interoperable tactical plans for unplanned incidents and planned events across Arizona’s communications ecosystem.</b></p>	<p>4.1 Establish a working group to coordinate with appropriate state and county agencies to develop public safety grade broadband service level agreements (SLA) for use by Arizona public safety agencies, members identified and first meeting by November 2024.</p>	<ul style="list-style-type: none"> <li>• ADOA</li> <li>• SWIC’s Office</li> <li>• Corporation Commission</li> </ul>	<ul style="list-style-type: none"> <li>• November 2024</li> </ul>
	<p>4.2 Establish an outreach strategy to provide current information to public safety community and associations making them aware of changes in Arizona’s communications ecosystem. First outreach document delivered by July 2025.</p>	<ul style="list-style-type: none"> <li>• CISA</li> </ul>	<ul style="list-style-type: none"> <li>• July 2025</li> </ul>

Goals	Objectives	Owners	Completion Dates
<b>5. Improve lifecycle management and standardization of Arizona's communications technology and infrastructure.</b>	5.1 Establish a working group to find a process to incorporate interested tribal nation locations to be part of Arizona's master GIS for NG911 integrating existing tribal technologies members identified and first meeting by September 2024.	<ul style="list-style-type: none"> <li>AZ911 Office</li> <li>Tribal Representatives</li> </ul>	<ul style="list-style-type: none"> <li>September 2024</li> </ul>
	5.2 Create a plan to grow Arizona's statewide P25 interoperable AZWIN LMR system, assuring AZWIN can interoperate with every other public safety system within Arizona, with adjoining states, and any county or tribal system touching Arizona borders, including PTT LMR to LTE, and using national interoperability naming conventions, sustainable for all parties within available funding by December 2024.	<ul style="list-style-type: none"> <li>AZ911 Office</li> <li>DPS</li> <li>Neighboring State SWICs</li> </ul>	<ul style="list-style-type: none"> <li>December 2024</li> </ul>
	5.3 Survey all PSAPs to assess use of a P25 Phase 2 control station by December 2024.	<ul style="list-style-type: none"> <li>AZ911 Office</li> <li>SWIC's Office</li> </ul>	<ul style="list-style-type: none"> <li>December 2024</li> </ul>
	5.4 Request annually from wireless vendors, where LTE 5G coverage footprint can be used to augment LMR coverage by December 2024.	<ul style="list-style-type: none"> <li>SWIC's Office</li> <li>AZDOA</li> </ul>	<ul style="list-style-type: none"> <li>December 2024</li> </ul>
	5.5 Establish a working group to establish NG911 connectivity with California and Utah, members identified and first meeting by September 2024.	<ul style="list-style-type: none"> <li>AZ911 Office</li> </ul>	<ul style="list-style-type: none"> <li>September 2024</li> </ul>
	5.6 Monitor the activities of artificial intelligence in the Arizona communications system, on-going.	<ul style="list-style-type: none"> <li>SWIC's Office</li> <li>Cyber Command</li> </ul>	<ul style="list-style-type: none"> <li>On-going</li> </ul>
<b>6. Strengthen Arizona's cybersecurity posture across their emergency communications ecosystem.</b>	6.1 Establish a working group to determine criteria and assess all Arizona's emergency communications ecosystem to determine effective cybersecurity protection members identified and first meeting by December 2024.	<ul style="list-style-type: none"> <li>SWIC's Office</li> <li>NG911 Office</li> <li>Cyber Command</li> <li>CISA</li> </ul>	<ul style="list-style-type: none"> <li>December 2024</li> </ul>
<b>7. Enhance Arizona's communications posture through sustainable funding using standards-based interoperable communication technologies across all levels of government.</b>	7.1 Request update from AZDEMA/EM and NG911 regarding sustainable funding levels for interoperable alerts and warnings system by December 2024 and annually thereafter.	<ul style="list-style-type: none"> <li>SWIC's Office</li> </ul>	<ul style="list-style-type: none"> <li>December 2024</li> </ul>
	7.2 Create an annual master contract procurement for each element of emergency communications ecosystem, make procurements available to all Arizona government entities for purchase of standardized public safety interoperable equipment at more competitive pricing by July 2025.	<ul style="list-style-type: none"> <li>AZDOA</li> <li>SMEs</li> </ul>	<ul style="list-style-type: none"> <li>July 2025</li> </ul>

Goals	Objectives	Owners	Completion Dates
	7.3 SWIC's office to assess adequate staffing levels for duties assigned. Determine staff needs and present funding to align with their increasing scope of work.	<ul style="list-style-type: none"><li>• SWIC's Office</li></ul>	<ul style="list-style-type: none"><li>• January 2026</li></ul>



## APPENDIX A: STATE MARKERS

In 2019, CISA supported States and Territories in establishing an initial picture of interoperability nationwide by measuring progress against 25 markers. These markers describe a State or Territory's level of interoperability maturity. Below is Arizona's assessment of their progress against the markers as of September 5, 2024.

Marker	Best Practices / Performance Markers	Initial	Defined	Optimized
1	<b>State-level governing body established (e.g., SIEC, SIGB).</b> Governance framework is in place to sustain all emergency communications	Governing body does not exist, or exists and role has not been formalized by legislative or executive actions	Governing body role established through an executive order	Governing body role established through a state law
2	<b>SIGB/SIEC participation.</b> Statewide governance body is comprised of members who represent all components of the emergency communications ecosystem.	Initial (1-2) Governance body participation includes: <input type="checkbox"/> Communications Champion/SWIC <input type="checkbox"/> LMR <input type="checkbox"/> Broadband/LTE <input type="checkbox"/> 911 <input type="checkbox"/> Alerts, Warnings and Notifications	Defined (3-4) Governance body participation includes: <input checked="" type="checkbox"/> Communications Champion/SWIC <input checked="" type="checkbox"/> LMR <input checked="" type="checkbox"/> Broadband/LTE <input checked="" type="checkbox"/> 911 <input checked="" type="checkbox"/> Alerts, Warnings and Notifications	Optimized (5) Governance body participation includes: <input type="checkbox"/> Communications Champion/SWIC <input type="checkbox"/> LMR <input type="checkbox"/> Broadband/LTE <input type="checkbox"/> 911 <input type="checkbox"/> Alerts, Warnings and Notifications
3	<b>SWIC established.</b> Full-time SWIC is in place to promote broad and sustained participation in emergency communications.	SWIC does not exist	Full-time SWIC with collateral duties	Full-time SWIC established through executive order or state law
4	<b>SWIC Duty Percentage.</b> SWIC spends 100% of time on SWIC-focused job duties	SWIC spends >1, <50% of time on SWIC-focused job duties	SWIC spends >50, <90% of time on SWIC-focused job duties	SWIC spends >90% of time on SWIC-focused job duties
5	<b>SCIP refresh.</b> SCIP is a living document that continues to be executed in a timely manner. Updated SCIPs are reviewed and approved by SIGB/SIEC.	No SCIP OR SCIP older than 3 years	SCIP updated within last 2 years	SCIP updated in last 2 years and progress made on >50% of goals
6	<b>SCIP strategic goal percentage.</b> SCIP goals are primarily strategic to improve long term emergency communications ecosystem (LMR, LTE, 911, A&W) and future technology transitions (5G, IoT, UAS, etc.). (Strategic and non-strategic goals are completely different; strategy – path from here to the destination; it is unlike tactics which you can "touch"; cannot "touch" strategy)	<50% are strategic goals in SCIP	>50%<90% are strategic goals in SCIP	>90% are strategic goals in SCIP
7	<b>Integrated emergency communication grant coordination.</b> Designed to ensure state / territory is tracking and optimizing grant proposals, and there is strategic visibility how grant money is being spent.	No explicit approach or only informal emergency communications grant coordination between localities, agencies, SAA and/or the SWIC within a state / territory	SWIC and/or SIGB provides guidance to agencies and localities for emergency communications grant funding but does not review proposals or make recommendations	SWIC and/or SIGB provides guidance to agencies and localities for emergency communications grant funding and reviews grant proposals for alignment with the SCIP. SWIC and/or SIGB provides recommendations to the SAA

Marker	Best Practices / Performance Markers	Initial	Defined	Optimized
8	<p><b>Communications Unit process.</b> Communications Unit process present in state/territory to facilitate emergency communications capabilities. Check the boxes of which Communications positions are currently covered within your process:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> COML</li> <li><input checked="" type="checkbox"/> COMT</li> <li><input checked="" type="checkbox"/> ITSL</li> <li><input checked="" type="checkbox"/> RADO</li> <li><input checked="" type="checkbox"/> INCM</li> <li><input checked="" type="checkbox"/> INTD</li> <li><input checked="" type="checkbox"/> AUXCOM</li> <li><input type="checkbox"/> TERT</li> </ul>	No Communications Unit process at present	Communications Unit process planned or designed (but not implemented)	Communications Unit process implemented and active
9	<p><b>Interagency communication.</b> Established and applied interagency communications policies, procedures, and guidelines.</p>	Some interoperable communications SOPs/SOGs exist within the area and steps have been taken to institute these interoperability procedures among some agencies	Interoperable communications SOPs/SOGs are formalized and in use by agencies within the area. Despite minor issues, SOPs/SOGs are successfully used during responses and/or exercises	Interoperable communications SOPs/SOGs within the area are formalized and regularly reviewed. Additionally, NIMS procedures are well established among agencies and disciplines. All needed procedures are effectively utilized during responses and/or exercises.
10	<p><b>TICP (or equivalent) developed.</b> Tactical Interoperable Communications Plans (TICPs) established and periodically updated to include all public safety communications systems available</p>	Regional or statewide TICP in place	Statewide or Regional TICP(s) updated within past 2-5 years	Statewide or Regional TICP(s) updated within past 2 years
11	<p><b>Field Operations Guides (FOGs) developed.</b> FOGs established for a state or territory and periodically updated to include all public safety communications systems available</p>	Regional or statewide FOG in place	Statewide or Regional FOG(s) updated within past 2-5 years	Statewide or Regional FOG(s) updated within past 2 years
12	<p><b>Alerts &amp; Warnings.</b> State or Territory has Implemented an effective A&amp;W program to include Policy, Procedures and Protocol measured through the following characteristics:</p> <ul style="list-style-type: none"> <li>(1) Effective documentation process to inform and control message origination and distribution</li> <li>(2) Coordination of alerting plans and procedures with neighboring jurisdictions</li> <li>(3) Operators and alert originators receive periodic training</li> <li>(4) Message origination, distribution, and correction procedures in place</li> </ul>	<49% of originating authorities have all of the four A&W characteristics	>50%<74% of originating authorities have all of the four A&W characteristics	>75%<100% of originating authorities have all of the four A&W characteristics
13	<p><b>Radio programming.</b> Radios programmed for National/Federal, SLTT interoperability channels and</p>	<49% of radios are programmed for interoperability and consistency	>50%<74% of radios are programmed for interoperability and consistency	>75%<100% of radios are programmed for interoperability and consistency

Marker	Best Practices / Performance Markers	Initial	Defined	Optimized
	channel nomenclature consistency across a state / territory.			
14	<b>Cybersecurity Assessment Awareness.</b> Cybersecurity assessment awareness. (Public safety communications networks are defined as covering: LMR, LTE, 911, and A&W)	Public safety communications network owners are aware of cybersecurity assessment availability and value (check yes or no for each option) <input type="checkbox"/> LMR <input type="checkbox"/> LTE <input type="checkbox"/> 911/CAD <input type="checkbox"/> A&W	Initial plus, conducted assessment, conducted risk assessment. (Check yes or no for each option) <input checked="" type="checkbox"/> LMR <input checked="" type="checkbox"/> LTE <input checked="" type="checkbox"/> 911/CAD <input checked="" type="checkbox"/> A&W	Defined plus, Availability of Cyber Incident Response Plan (check yes or no for each option) <input type="checkbox"/> LMR <input type="checkbox"/> LTE <input type="checkbox"/> 911/CAD <input type="checkbox"/> A&W
15	<b>NG911 implementation.</b> NG911 implementation underway to serve state / territory population.	Working to establish NG911 governance through state/territorial plan. <ul style="list-style-type: none"><li>Developing GIS to be able to support NG911 call routing.</li><li>Planning or implementing ESInet and Next Generation Core Services (NGCS).</li><li>Planning to or have updated PSAP equipment to handle basic NG911 service offerings.</li></ul>	More than 75% of PSAPs and Population Served have: <ul style="list-style-type: none"><li>NG911 governance established through state/territorial plan.</li><li>GIS developed and able to support NG911 call routing.</li><li>Planning or implementing ESInet and Next Generation Core Services (NGCS).</li><li>PSAP equipment updated to handle basic NG911 service offerings.</li></ul>	More than 90% of PSAPs and Population Served have: <ul style="list-style-type: none"><li>NG911 governance established through state/territorial plan.</li><li>GIS developed and supporting NG911 call routing.</li><li>Operational Emergency Services IP Network (ESInet)/Next Generation Core Services (NGCS).</li><li>PSAP equipment updated and handling basic NG911 service offerings.</li></ul>
16	<b>Data operability / interoperability.</b> Ability of agencies within a region to exchange data on demand, and needed, and as authorized. Examples of systems would be: CAD to CAD, Chat, GIS, Critical Incident Management Tool, Web EOC	Agencies are able to share data only by email. Systems are not touching or talking.	Systems are able to touch but with limited capabilities. One-way information sharing.	Full system to system integration. Able to fully consume and manipulate data.
17	<b>Future Technology/Organizational Learning.</b> SIEC/SIGB is tracking, evaluating, implementing future technology (checklist)  <b>Note: Not being used in 2024</b>	<input type="checkbox"/> 5G <input type="checkbox"/> Acoustic Signaling <input type="checkbox"/> Autonomous Vehicles <input type="checkbox"/> Body Cameras <input type="checkbox"/> ESInets <input type="checkbox"/> GIS <input type="checkbox"/> Geolocation	<input type="checkbox"/> HetNets/Mesh Networks <input type="checkbox"/> LMR to LTE Integration <input type="checkbox"/> MCPTT Apps <input type="checkbox"/> Machine Learning/AI <input type="checkbox"/> Public Alerting Software <input type="checkbox"/> Sensors <input type="checkbox"/> Situational Awareness Apps	<input type="checkbox"/> Smart Cities <input type="checkbox"/> The Next Narrowbanding <input type="checkbox"/> UAS (Drones) <input type="checkbox"/> UAV (Smart Vehicle) <input type="checkbox"/> Wearables <input type="checkbox"/> IoT (Cameras)
18	<b>Communications Exercise objectives.</b> Specific emergency communications objectives are incorporated into applicable exercises Federal/state/territory-wide	Regular engagement with State Training and Exercise coordinators	Promote addition of emergency communications objectives in state/county/regional level exercises (target Emergency Management community). Including providing tools, templates, etc.	Initial and Defined plus mechanism in place to incorporate and measure communications objectives into state/county/regional level exercises
19	<b>Trained Communications Unit responders.</b> Communications Unit personnel are listed in a	<49% of public safety agencies within a state/territory have access to Communications Unit personnel	>50%<74% of public safety agencies within a state/territory have access to Communications Unit personnel	>75%<100% of public safety agencies within a state/territory have access to Communications Unit

Marker	Best Practices / Performance Markers	Initial	Defined	Optimized
	tracking database (e.g., NQS One Responder, CASM, etc.) and available for assignment/response.	who are listed in a tracking database and available for assignment/response	who are listed in a tracking database and available for assignment/response	personnel who are listed in a tracking database and available for assignment/response
20	<b>Communications Usage Best Practices/Lessons Learned.</b> Capability exists within jurisdiction to share best practices/lessons learned (positive and/or negative) across all lanes of the Interoperability Continuum related to all components of the emergency communications ecosystem	Best practices/lessons learned intake mechanism established. Create Communications AAR template to collect best practices	Initial plus review mechanism established	Defined plus distribution mechanism established
21	<b>Wireless Priority Service (WPS) subscription.</b> WPS penetration across state/territory compared to maximum potential	<9% subscription rate of potentially eligible participants who signed up WPS across a state/territory	>10%<49% subscription rate of potentially eligible participants who signed up for WPS a state/territory	>50%<100% subscription rate of potentially eligible participants who signed up for WPS across a state/territory
22	<b>Outreach.</b> Outreach mechanisms in place to share information across state	SWIC electronic communication (e.g., SWIC email, newsletter, social media, etc.) distributed to relevant stakeholders on regular basis	Initial plus web presence containing information about emergency communications interoperability, SCIP, trainings, etc.	Defined plus in-person/webinar conference/meeting attendance strategy and resources to execute
23	<b>Sustainment assessment.</b> Identify interoperable component system sustainment needs;(e.g., communications infrastructure, equipment, programs, management) that need sustainment funding. (Component systems are emergency communications elements that are necessary to enable communications, whether owned or leased - state systems only)	< 49% of component systems assessed to identify sustainment needs	>50%<74% of component systems assessed to identify sustainment needs	>75%<100% of component systems assessed to identify sustainment needs
24	<b>Risk identification.</b> Identify risks for emergency communications components. (Component systems are emergency communications elements that are necessary to enable communications, whether owned or leased. Risk Identification and planning is in line with having a communications COOP Plan)	< 49% of component systems have risks assessed through a standard template for all technology components	>50%<74% of component systems have risks assessed through a standard template for all technology components	>75%<100% of component systems have risks assessed through a standard template for all technology components
25	<b>Cross Border/Interstate (State to State) Emergency Communications.</b> Established capabilities to enable emergency communications across all components of the ecosystem.	Initial: Little to no established: <input type="checkbox"/> Governance <input type="checkbox"/> SOPs/MOUs <input type="checkbox"/> Technology <input type="checkbox"/> Training/Exercises <input type="checkbox"/> Usage	Defined: Documented/established across some lanes of the Continuum: <input checked="" type="checkbox"/> Governance <input checked="" type="checkbox"/> SOPs/MOUs <input checked="" type="checkbox"/> Technology <input checked="" type="checkbox"/> Training/Exercises <input checked="" type="checkbox"/> Usage	Optimized: Documented/established across all lanes of the Continuum: <input type="checkbox"/> Governance <input type="checkbox"/> SOPs/MOUs <input type="checkbox"/> Technology <input type="checkbox"/> Training/Exercises <input type="checkbox"/> Usage

## APPENDIX B: ACRONYMS

Acronym	Definition
A&W	Alerts and Warnings
AAR	After-Action Report
ACA	Arizona Commerce Authority
ACC	Arizona Corporation Commission
ADHS	Arizona Department of Health Services
ADOA	Arizona Department of Administration
AEIN	Arizona Emergency Information Network
AEP	Advanced Endpoint Protection
AIRS	Arizona Interagency Radio System
AMBER	America's Missing: Broadcast Emergency Response
APS	Arizona Public Service
ARPA	American Rescue Plan Act
AUXCOMM/AUXC	Auxiliary Emergency Communications
AZDEMA/EM	Arizona Department of Emergency Management Agency/Emergency Management
AZDOHS	Arizona Department of Homeland Security
AZDPS	Arizona Department of Public Safety
AzEIN	Arizona Emergency Information Network
AZWINS	Arizona Wireless Integrated Network System
CASM	Communication Assets Survey and Mapping
CHE	Call Handling Equipment
CISA	Cybersecurity and Infrastructure Security Agency
COG	Collaborative Operating Group
COML	Communications Unit Leader
COMT	Communications Unit Technician
COMU	Communications Unit Program
COOP	Continuity of Operations Plan
DEMA/EM	Department of Emergency Management and Military Affairs/Emergency Management
DHS	Department of Homeland Security
DRN	DEMA Radio Network
EAS	Emergency Alert System
EOC	Emergency Operations Center
ESInet	Emergency Services Internal Protocol Network
FOG	Field Operations Guide
GIS	Geospatial Information System
ICTAP	Interoperable Communications Technical Assistance Program

Acronym	Definition
INCM	Incident Communications Center Manager
INTD	Incident Tactical Dispatcher
IP	Internet Protocol
IPAWS	Integrated Public Alert & Warning System
ITSL	Information Technology Service Unit Leader
LMR	Land Mobile Radio
LTE	Long-Term Evolution
MFA	Multi-Factor Authentication
MHz	Megahertz
MOU	Memorandum of Understanding
NAWAS	National Warning System
NCSWIC	National Council of SWICs
NECP	National Emergency Communications Plan
NENA	National Emergency Number Association
NG911	Next Generation 911
NGCS	Next Generation Core Services
OEM	Office of Emergency Management
PCWIN	Pima County Wireless Integrated Network
PSAP	Public Safety Answering Point
RADO	Radio Operator
RAVE	Rapid Alerting and Voice Exchange
RWC	Regional Wireless Cooperative
SAT	Anti-Phishing/Security Awareness Training
SCIP	Statewide Communication Interoperability Plan
SEACOM	Southeastern Arizona Communications
SIEC	State Interoperability Executive Council
SLA	Service Level Agreements
SOC	Security Operations Center
SOP	Standard Operating Procedure
SWIC	Statewide Interoperability Coordinator
TA	Technical Assistance
TERT	Telecommunications Emergency Response Team
TICP	Tactical Interoperable Communications Plan
TRWC	Topaz Regional Wireless Cooperative
UHF	Ultra-High Frequency
VHF	Very High Frequency
WAF	Web Application Firewall
WPS	Wireless Priority Service



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Acronym	Definition
XEM	Converged Endpoint Management
YRCS	Yuma Regional Communications System

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## APPENDIX C: SIGB

Effective statewide governance structures, such as a statewide interoperability governing board (SIGB) are essential in completing interoperable communications across a statewide public safety communication ecosystem. Attendees during Arizona's 2024 SCIP process deemed governance one of their critical success objectives necessary to navigate complex decision-making processes and achieve their statewide interoperability objectives. To establish such structures, it is crucial to first define who across Arizona is best suited to help establish leadership in context of political influence, technical knowledge, and determination, aligned with clear objectives serving often diverse public safety operational needs.

Governance efforts of this influential group must be purposeful, and energies directed towards desired outcomes of creating and getting passed legislation to establish in Arizona law a SIGB. Roles and responsibilities of each volunteer individually and collectively, and participating groups/organizations must be clearly defined, to achieve an outcome where any person can read and understand who is doing what, and why. All stakeholders involved in a governance initiative must work to promote accountability and collaboration finding where agreement can be reached to achieve a SIGB. Inclusivity is paramount, SIGB governance structures when achieved require diverse representation of each public safety discipline and tribal nation to encompass a range of abilities, needs, perspectives and promote inclusivity in decision-making and understand the need for collaboration at all levels of government.

Developing governance charters is the first step once members are identified to create legislation for this SIGB. This second step is critical in setting up effective governance structures, roles, and responsibilities. These charters outline the structure, processes, and decision-making mechanisms, providing a framework for governance activities. Effective communication strategies are essential for fostering transparency, facilitating information sharing, and promoting engagement among stakeholders to build trust in establishing a SIGB. One outcome is for each public safety organization is to invest in user training, developing consistency of terms and expectations, down to radio naming conventions of frequency or channel plans, and statewide capacity-building initiatives to enhance skills, knowledge, and abilities of governance participants, ensuring effective implementation of governance processes and outcome of participative governance.

Continuous evaluation and improvement are necessary steps at regular intervals to assess the effectiveness of governance structures and identify areas for enhancement of governance and influence of efforts increasing the probability of passing a legislative bill establishing governance. This entails members establishing mechanisms and processes for ongoing evaluation and feedback to provide ongoing improvements as time passes. Flexibility and adaptability are also key considerations, as governance structures must be able to accommodate changing needs, like changes in technology occurring today communications mediums of Next Generation 911, land mobile radio (LMR) AZWINS a Project 25 (P25) compliant system, Alerts and Warnings, emerging issues of cybersecurity, artificial intelligence (AI), and evolving technologies aligned with each aspect of public safety communications.

By leveraging existing nationwide best practices in other states legislative successes and assessing those guidelines for utility in Arizona's culture, members can learn from others' experiences and tailor governance structures to their specific contexts and requirements. Collaboration and coordination among stakeholders are crucial to maximizing limited volunteer resources, avoiding

duplication of efforts, and achieving common goals of getting legislation passed and establishing a SIGB.

Effective SIGB governance structures are characterized by clear objectives, defined roles and responsibilities, inclusivity, well-developed charters, effective communication, training and capacity building, continuous evaluation and improvement, flexibility, and collaboration. Adhering to these principles enables SIGBs to establish robust governance structures promoting efficiency, accountability, and stakeholder engagement in decision-making processes.

Further resources available to achieve a SIGB are available at <https://www.cisa.gov/safecom/governance>.

Examples are shown below.



## Best Practices for Governance Structure Membership Analysis

*Ensuring Greater Inclusivity in Emergency Communications Governance Structures*

### ENHANCING GOVERNANCE STRUCTURES

Robust and inclusive governance structures are key to effective interoperable emergency communications. Effective governance includes multi-disciplinary federal, state, tribal, regional, jurisdictional, and local entities working together to promote interoperability efforts that are supported by policies, processes, and agreements developed to support all partnering communities. The [SAFECOM Nationwide Survey](#), a public safety data collection effort conducted from January through March 2018, pointed out broadening governance body membership as a key governance challenge. Emergency communications governance is significantly more successful when decisions are made by both traditional and non-traditional emergency communications stakeholders. However, non-traditional stakeholders are often underrepresented or missing within governance structures. This document provides best practices to consider when assessing governance structure membership to better align with the evolving emergency communications ecosystem.

### CHARACTERISTICS OF EFFECTIVE GOVERNANCE

To better inform agencies on how to establish, assess, and update governance structures that support interoperable emergency communications, SAFECOM, in collaboration with the National Council of Statewide Interoperability Coordinators (NCSWIC), developed the [2018 Emergency Communications Governance Guide for State, Local, Tribal, and Territorial Officials](#). Among the key attributes for effective governance structures, the guide outlines the following activities to gather an active, balanced, and accountable membership:

- Determine membership size and representation to maintain inclusiveness while permitting quorum to be met regularly
- Align needs and priorities across various members who have a role in, or are impacted by, communications-related initiatives
- Document roles, responsibilities, and membership requirements and routinely assess whether stated roles, responsibilities, and membership requirements are met
- Determine how member attrition will be managed
- Manage internal, jurisdictional, and regional differences (e.g., working cooperatively toward common, universally beneficial goals)
- Ensure member participation is sanctioned and supported by the agency or entity they represent
- Formalize governance bodies through state law or, at a minimum, a Governor’s Executive Order for maximum effectiveness

### INCLUSION OF TRADITIONAL AND NON-TRADITIONAL STAKEHOLDERS

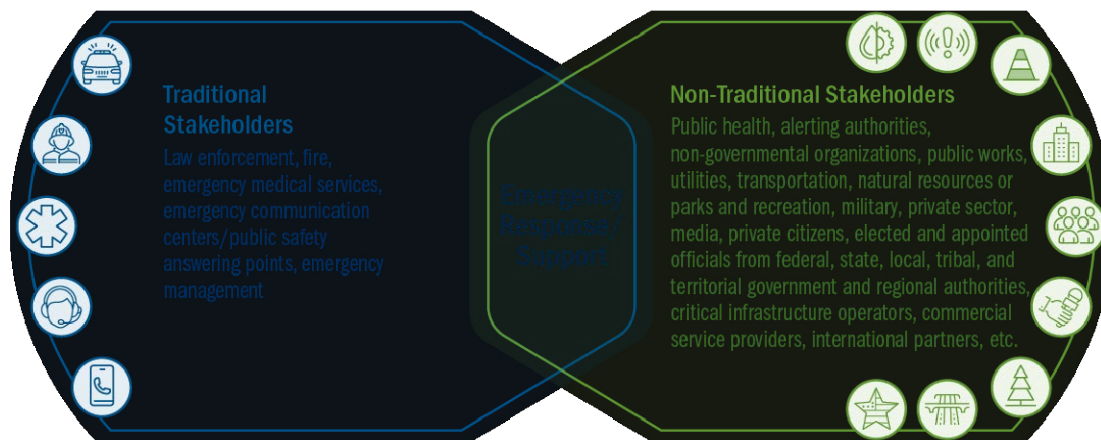


Figure 1: Traditional and Non-Traditional Stakeholders in Governance Structures

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## SAFECOM Best Practices for Governance Charters

*A Guide to Developing Charters and Bylaws for State, Local, Tribal, and Territorial Entities*

### INTRODUCTION

Public safety agencies must consider the various functions and people that exchange information prior to, during, and after incidents in an increasingly complex and interconnected emergency communications ecosystem. Similarly, agencies are integrating new and emerging communications technologies that must be interoperable with existing systems and across partner entities. With this integration of capabilities and partners, a single agency cannot solve communications operability, interoperability, and continuity alone. Effective communications require a partnership among response entities across all levels of government and disciplines to ensure the right information gets to the right people at the right time. The first goal of the [National Emergency Communications Plan](#) (NECP), the Nation’s strategic plan to improve emergency communications, calls for strengthened governance and leadership. A strong governance framework brings together all relevant participants with a stake in emergency communications to plan, collaborate, and make decisions.



Cohesive governance structures representing the whole community will provide greater perspectives into the strengths, weaknesses, opportunities, and threats to emergency communications systems. Formalized governance provides a unified approach to partnerships across multiple disciplines, jurisdictions, and organizational functions. Documentation of processes and decision-making structures allows for greater understanding and evaluation of existing communications capabilities and the development and implementation of a coordinated plan to address gaps, align resources, and prioritize investments. Written agreements, backed by formal governance, establish common goals and objectives and minimize risk for the communities they serve. These mechanisms establish legal authorities and set the vision of what the group wishes to accomplish and why.



### CHECKLIST

#### Key Charter Elements

- Introduction
- Purpose
- Authority
- Outcomes
- Scope (Roles and Responsibilities)
- Operating Principles
- Membership
- Decision Making
- Logistics

#### Key Bylaws Elements

- Authority
- Purpose
- Board Composition
- Meetings/Meeting Proceedings
- Adoption, Review, and Amendments
- Committees of the Board

### ESTABLISHING EFFECTIVE CHARTERS AND BYLAWS

One of the most important elements of effective governance is a set of guidelines and principles, also known as charters or bylaws<sup>1</sup>. Charters and bylaws describe why the group exists, outline its authority, establish accountability for members and the group, and identify ground rules for operation. The rules of conduct are intended to guide the governance group as they work together to address common goals and objectives that cross jurisdictions and disciplines. Clear decision-making and conflict resolution processes for the governance structure ensure the successful development and execution of strategic efforts when multiple agencies, disciplines, and jurisdictions are involved. Transparency in these processes helps build support for their outcomes.

When creating bylaws or a charter, the governance group must agree upon key policies and procedures that determine how the group will operate. Charters and bylaws promote transparency by making the governance body’s procedures and processes accessible to the communities it serves. Many aspects of charters and bylaws overlap, and the choice to employ one or the other is at the discretion of the governance body and its leadership.

The tables on the following page describe the key elements found in effective charters and bylaws.

<sup>1</sup> Bylaws complement a charter by providing important operational details. Bylaws do not operate independently of a primary charter document.

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National Council of Statewide Interoperability Coordinators

## Messaging the Importance of Governance

### Statewide Interoperability Coordinators (SWIC)

- Ensure your audience knows that SWIC stands for Statewide Interoperability Coordinator
- Explain the SWIC's key roles:
  - Plays a pivotal role in the state's emergency communications interoperability initiatives (e.g., coordinates multiple users, systems, policies, procedures, and technologies)
  - Manages day-to-day operations related to interoperability
  - Manages and implements the Statewide Communication Interoperability Plans (SCIP) and National Emergency Communications Plan (NECP)
    - The SCIP provides essential governance, goals, and initiatives essential to improving daily operations and disaster response
    - The NECP is the Nation's strategic plan for emergency communications and sets goals for each state and territory
- Facilitates communications among responders during emergencies and continues to be an important asset when responding to planned and unplanned events
- Manages Communications Unit Leader and Communications Technician training program
- Helps the state sustain and maintain programs amidst diminishing funding opportunities and may manage and allocate a variety of grant dollars and other funding sources for emergency communications initiatives
  - Participates on the State Administrative Agency as mandated by the *SAFECOM Guidance on Emergency Communications Grants*
  - Manages requests for federally provided technical assistance including Office of Emergency Communications
- Serves as the State representative to the National Council of Statewide Interoperability Coordinators (NCSWIC)
  - NCSWIC develops interoperability best practices and facilitates nationwide partnerships among members of the public safety community from different disciplines and at all levels of government.
  - Acts as (or coordinates closely with) the State Point-of-Contact (SPOC) with the First Responder Network Authority, or coordinates with the SPOC, on issues related to the implementation of the Nationwide Public Safety Broadband Network
- Explain the importance of having a centralized point-of-contact
  - A single point of contact within the State promotes efficiency and better program management of essential statewide, regional, and local systems
- Provide examples of key state successes from your office (i.e., recent disaster response, best practices implemented, cross-border collaboration)
- Explain the importance of funding a full-time positions:
  - The SWIC position is best able to serve the state when there is a stable legislative mandate that provides
- In some cases, plays crucial role in coordination with ESF-2

#### Presentation Best Practices:

- Provide examples of key successes, challenges, and shortfalls (i.e., issues with federal partners operating on state systems, lack of staffing and funding)
- Explain current business/funding model
- Describe potential money-saving opportunities
- Use visual aids such as tablet or digital photos
- Ask to be invited to additional legislative/cabinet meetings to provide updates





**SAFECOM Recommended  
Guidelines for Statewide Public  
Safety Communications Governance  
Structure**

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