



Arizona

Statewide Communication Interoperability Plan (SCIP)

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EXECUTIVE SUMMARY

The Arizona Statewide Communication Interoperability Plan (SCIP) is a stakeholder-driven, multi-jurisdictional, and multi-disciplinary statewide strategic plan to enhance interoperable and emergency communications. The SCIP is a critical mid-range (three to five years) strategic planning tool to help prioritize resources, strengthen governance, identify future investments, and address interoperability gaps within Arizona.

The purpose of the SCIP is to:

- Provide the strategic direction and alignment for those responsible for interoperable and emergency communications at the State, regional, local, and tribal levels.
- Explain to leadership and elected officials the vision for interoperable and emergency communications and demonstrate the need for funding.

The following are the vision and mission for improving emergency communications operability, interoperability, and continuity of communications within Arizona.

Vision: Public safety and service agencies/organizations within Arizona, at all levels of government and within non-governmental organizations have a culture of collaboration to achieve interoperable communications, are adequately trained, and encouraged to utilize such systems effectively in multi-disciplinary, multijurisdictional operations and response.

Mission: Implement and strengthen governance structures within Arizona and identify sustainable funding to enhance and maintain all elements of public safety interoperable communications.

The following strategic goals represent the priorities for delivering the interoperable and emergency communications vision within Arizona.

- Governance –
 - Formalize and fund the Statewide Interoperability Coordinator (SWIC) position and office
 - Reestablish the Statewide Interoperability Executive Committee (SIEC) with appropriate representation that regularly meets
- Standard Operating Procedures (SOPs) –
 - Share operational best practices and implement regionally and nationally recognized standards for technology across the state
- Technology –
 - Continue to encourage use of common/shared channels within Arizona
 - Prepare for broadband technology while recognizing that **broadband will not replace existing Land Mobile Radio (LMR) voice systems in the foreseeable future.**

- Training and Exercises –
 - Determine process for Communications Unit (COMU) credentialing and continued education
- Usage –
 - Encourage use of interoperable communications for operations
- Outreach and Information Sharing –
 - Develop a marketing program tailored to different audiences
 - Research opportunities to leverage existing cybersecurity and 9-1-1 capabilities within Arizona
- Life Cycle Funding –
 - Identify additional funding opportunities/different funding streams for interoperability efforts

The SCIP will be managed by the Statewide Interoperability Coordinator (SWIC). The SWIC will collaborate with stakeholders (i.e., SCIP Working Group) to make decisions regarding this plan and will be responsible for ensuring this plan is implemented and sustained.

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1. INTRODUCTION

The Statewide Communication Interoperability Plan (SCIP) is a stakeholder-driven, multi-jurisdictional, and multi-disciplinary statewide strategic plan to enhance interoperable and emergency communications within Arizona. It is a mid-range (three to five year) strategic planning tool to help prioritize resources, strengthen governance, identify future investments, and address interoperability gaps within Arizona. This document contains the following planning components:

- Introduction – Provides the context necessary to understand what the SCIP is and how it was developed.
- Purpose – Explains the purpose/function(s) of the SCIP within Arizona.
- State’s Interoperable and Emergency Communications Overview – Provides an overview of the current and future emergency communications environment and defines ownership of the SCIP.
- Vision and Mission – Articulates the three- to five-year vision and mission for improving emergency communications operability, interoperability, and continuity of communications at all levels of government.
- Strategic Goals and Initiatives – Outlines the strategic goals and initiatives aligned with the three- to five-year vision and mission of the SCIP and pertains to the following critical components: Governance, Standard Operating Procedures (SOPs), Technology, Training and Exercises, Usage, Outreach and Information Sharing, and Life Cycle Funding.
- Implementation – Describes the process to evaluate the success of the SCIP and to conduct SCIP reviews to ensure it is up-to-date and aligned with the changing internal and external environment.
- Reference Materials – Includes resources that provide additional background information on the SCIP or interoperable and emergency communications within Arizona or directly support the SCIP.

Figure 1 provides additional information about how these components of the SCIP interrelate to develop a comprehensive plan for improving interoperable and emergency communications.

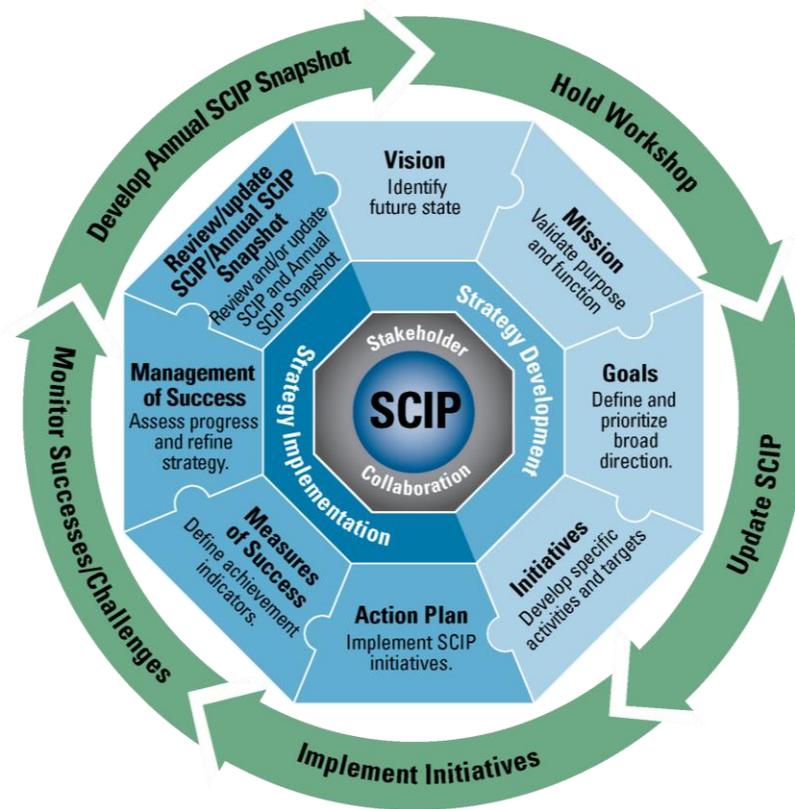


Figure 1: SCIP Strategic Plan and Implementation Components

The SCIP is based on an understanding of the current and mid-range interoperable and emergency communications environment within Arizona including significant steps towards enhancing interoperable and emergency communications such as:

- Demonstrating interoperability in daily use and during pre-planned events (e.g., Super Bowl, exercises with Federal partners)
- Building relationship with stakeholders within Arizona including with tribal nations, public health professionals and with hospitals, and
- Continue the Communications Unit (COMU) program to incorporate COMU positions into planning and response.

However, more remains to be done to achieve the vision. It is also important to note that this work is part of a continuous cycle as Arizona will always need to adapt to evolving technologies, operational tactics, and changes to key individuals (e.g., Governor, project champions). In the next three to five years, Arizona will encounter challenges relating to operability, interoperability, geography, aging equipment/systems, emerging technologies, changing project champions, and sustainable funding.

Wireless voice and data technology is evolving rapidly and efforts are underway to determine how to leverage these new technologies to meet the needs of public safety. For example, the enactment of the Middle Class Tax Relief and Job Creation Act of 2012 (the Act), specifically Title VI, related to Public Safety Communications, authorizes the

deployment of the Nationwide Public Safety Broadband Network (NPSBN). The NPSBN is intended to be a wireless, interoperable nationwide communications network that will allow members of the public safety community to securely and reliably gain and share information with their counterparts in other locations and agencies. New policies and initiatives such as the NPSBN present additional changes and considerations for future planning efforts and require an informed strategic vision to properly account for these changes. Figure 2 illustrates a public safety communications evolution by describing the long-term transition toward a desired converged future.

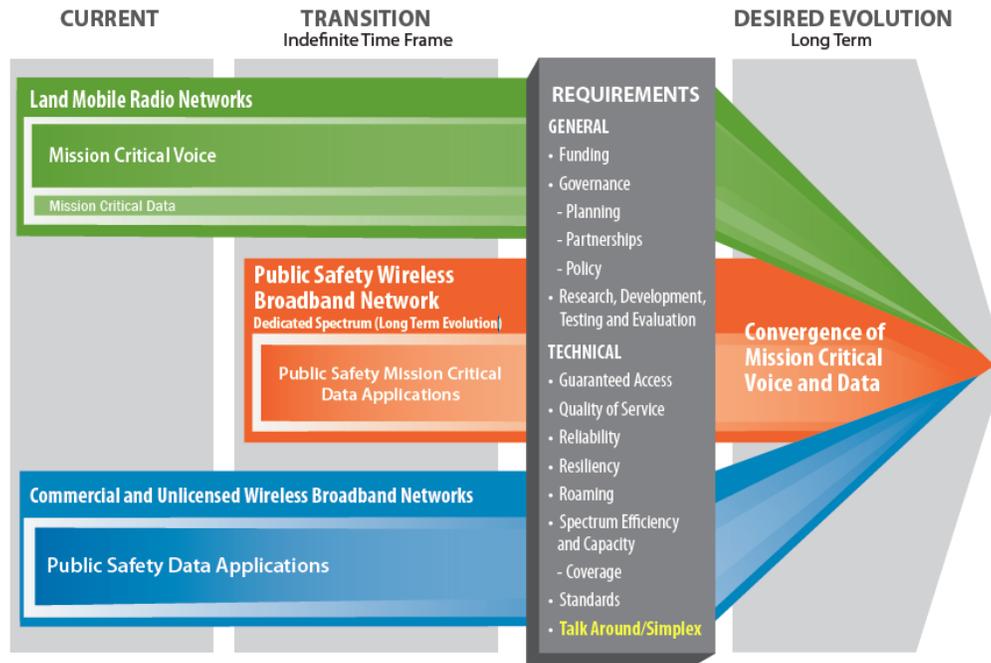


Figure 2: Public Safety Communications Evolution

Integrating capabilities such as broadband provide an unparalleled opportunity for the future of interoperable communications within Arizona. It may result in a secure path for information-sharing initiatives, Public Safety Answering Points (PSAP), and Next Generation 911 (NG911) integration. **Broadband will not replace existing Land Mobile Radio (LMR) voice systems in the foreseeable future due to implementation factors associated with planning, deployment, technology, and cost.** A cautious approach to this investment is needed. Therefore, robust requirements and innovative business practices must be developed for broadband initiatives prior to any implementation.

There is no defined timeline for the deployment of the NPSBN; however, Arizona will keep up-to-date with the planning and build-out of the NPSBN in the near and long term in coordination with the First Responder Network Authority (FirstNet). FirstNet is the independent authority within the National Telecommunications and Information Administration (NTIA) and is responsible for developing the NPSBN, which will be a single, nationwide, interoperable public safety broadband network. The network build-out will require continuing education and commitment at all levels of government and across public safety disciplines to document network requirements and identify existing resources and assets that could potentially be used in the build-out of the network. It will also be necessary to develop and maintain strategic partnerships with a variety of

stakeholder agencies and organizations at the national, state, regional, local, and tribal levels and design effective policy and governance structures that address new and emerging interoperable and emergency communications technologies. **During this process, investments in LMR will continue to be necessary and in the near term, wireless data systems or commercial broadband will complement LMR.** More information on the role of these two technologies in interoperable and emergency communications is available in the Department of Homeland Security (DHS) Office of Emergency Communications (OEC) Public Safety Communications Evolution brochure.¹

Additionally, achieving sustainable funding in the current fiscal climate is a priority for Arizona. As state and federal grant funding diminishes, states need to identify alternative funding sources to continue improving interoperable and emergency communications for voice and data systems. **A key priority within Arizona includes establishing a sustainable funding source for the SWIC position and SWIC office.** This will help to align the proper resources necessary to continue to be an inter- and intra-state leader for interoperable and emergency communications as well as to ensure full life cycle support of interoperable and emergency communications systems.

More information on a typical emergency communications system life cycle, cost planning, and budgeting is available in OEC's System Life Cycle Planning Guide.²

The Interoperability Continuum, developed by SAFECOM and shown in Figure 3, serves as a framework to address all of these challenges and continue improving operable/interoperable and emergency communications. It is designed to assist emergency response agencies and policy makers with planning and implementing interoperability solutions for voice and data communications.

¹ OEC's Public Safety Communications Evolution brochure is available here:

http://publicsafetytools.info/oec_guidance/docs/Public_Safety_Communications_Evolution_Brochure.pdf

² OEC's System Life Cycle Planning Guide is available here:

<https://www.dhs.gov/sites/default/files/publications/Emergency+Communications+System+Life+Cycle+Planning+Guide-+August+2011.pdf>



Figure 3: The Interoperability Continuum

The Continuum identifies five critical success elements that must be addressed to achieve a successful interoperable communications solution:

- **Governance** – Collaborative decision-making process that supports interoperability efforts to improve communication, coordination, and cooperation across disciplines and jurisdictions. Governance is the critical foundation of all of Arizona’s efforts to address communications interoperability.
- **SOPs** – Policies, repetitive practices, and procedures that guide all emergency responders’ interactions and the use of interoperable communications solutions.
- **Technology** – Systems and equipment that enable emergency responders to share voice and data information efficiently, reliably, and securely.
- **Training and Exercises** – Scenario-based practices used to enhance communications interoperability and familiarize the public safety community with equipment and procedures.
- **Usage** – Familiarity with interoperable communications technologies, systems, and operating procedures used by first responders, dispatchers, and other support staff to enhance interoperability.

More information on the Interoperability Continuum is available in OEC’s Interoperability Continuum brochure.³ The following sections will further describe how the SCIP will be used within Arizona to enhance interoperable and emergency communications.

³ OEC’s Interoperability Continuum is available here: <http://www.safecomprogram.gov/oecguidancedocuments/continuum/Default.aspx>

2. PURPOSE

The purpose of the SCIP is to:

- Provide the strategic direction and alignment for those responsible for interoperable and emergency communications at the State, regional, local, and tribal levels.
- Educate leadership and elected officials the vision for interoperable and emergency communications and demonstrate the need for funding.

The development and execution of the SCIP assists with addressing the results of the National Emergency Communications Plan (NECP) Goals and the Federal government with fulfilling the Presidential Policy Directive 8 (PPD-8)⁴ National Preparedness Goal for Operational Communications.⁵

In addition to this SCIP, Arizona will develop an annual SCIP Snapshot that will be shared with OEC and other stakeholders to highlight recent accomplishments and demonstrate progress toward achieving the goals and initiatives identified in the SCIP. More information on the SCIP Snapshot is available in Section 6.4.

This SCIP is owned and managed by the SWIC. The SWIC is also responsible for ensuring that this plan is implemented and maintained. In May 2016, multidisciplinary stakeholders at the state, local, regional, and tribal levels (i.e., SCIP Working Group) met to set the vision and mission for the SCIP and to articulate strategic goals and specific initiatives to achieve the vision for interoperable communications within Arizona.

3. STATE'S INTEROPERABLE AND EMERGENCY COMMUNICATIONS OVERVIEW

In July 2014, Arizona's Public Safety Communications Advisory Commission was sunset, and management of all public safety and emergency communications interoperability was transferred solely to the SWIC as a collateral duty (i.e., a full time employee where job responsibilities consist of SWIC duties in addition to other duties and positions). Collaboration among regional state, local, and tribal entities requires regular communication, information sharing, and joint efforts among stakeholders. Currently, addressing technical problems and challenges within Arizona occurs ad hoc by interested parties. The SWIC also participates in the Federal Partnership for Interoperable Communications (FPIC), which coordinates interoperability capabilities between federal, state, local, and tribal agencies; the Southwest Border Communications Working Group (SWBCWG); and the R4C Coalition, a regional approach involving tribes and counties in the area where Arizona, Colorado, New Mexico, and Utah meet. Arizona contains twenty-two federally recognized tribes, including:

⁴ PPD-8 was signed in 2011 and is comprised of six elements: a National Preparedness Goal, the National Preparedness System, National Planning Frameworks and Federal Interagency Operational Plan, an annual National Preparedness Report, and ongoing national efforts to build and sustain preparedness. PPD-8 defines a series of national preparedness elements and emphasizes the need for the whole community to work together to achieve the National Preparedness Goal. <http://www.dhs.gov/presidential-policy-directive-8-national-preparedness>.

⁵ National Preparedness Goal – Mitigation and Response Mission Area Capabilities and Preliminary Targets – Operational Communications: Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

1. Ensure the capacity to communicate with the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, State, and local first responders.
2. Re-establish sufficient communications infrastructure within the affected areas to support ongoing life-sustaining activities, provide basic human needs, and transition to recovery.

- Ak-Chin Indian Community
- Cocopah Indian Tribe
- Colorado River Indian Tribes
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribes
- Fort Yuma-Quechan Tribes
- Gila River Indian Community
- Havasupai Tribe
- Hopi Tribe
- Hualapai Tribe
- Kaibab-Paiute Tribe
- Navajo Nation
- Pascua Yaqui Tribe
- Pueblo of Zuni Tribe
- Sal River Pima-Maricopa Indian Community
- San Carlos Apache Tribes
- San Juan Southern Paiute Tribes
- Tohono O'odham Nation
- Tonto Apache Tribe
- White Mountain Apache Tribe
- Yavapai-Apache Nation
- Yavapai-Prescott Indian Tribe

In May 2016, federal, state, local and tribal stakeholders met for a two-day workshop with a team from OEC to develop this revised SCIP. This group of stakeholders, the SCIP Working Group, emphasized the need for an inclusive, statewide governance body for strategic coordination and effective life cycle funding.

4. VISION AND MISSION

The Vision and Mission section describes Arizona's vision and mission for improving emergency communications operability, interoperability, and continuity of communications statewide.

Arizona's Interoperable and Emergency Communications Vision:

Public safety and service agencies/organizations within Arizona, at all levels of government and within non-governmental organizations have a culture of collaboration to achieve interoperable communications, are adequately trained, and encouraged to utilize such systems effectively in multi-disciplinary, multijurisdictional operations and response.

Arizona's Interoperable and Emergency Communications Mission:

Implement and strengthen governance structures within Arizona and identify sustainable funding to enhance and maintain all elements of public safety interoperable communications.

5. STRATEGIC GOALS AND INITIATIVES

The Strategic Goals and Initiatives section describes the statewide goals and initiatives for delivering the vision for interoperable and emergency communications. The goals and initiatives are grouped into seven sections, including Governance, SOPs, Technology, Training and Exercises, Usage, Outreach and Information Sharing, and Life Cycle Funding.

5.1 Governance

The Governance section of the SCIP outlines the future direction for the governance structure for interoperable and emergency communications within Arizona. To build off prior success, a group of multidisciplinary, multijurisdictional stakeholders met in May 2016 as the SCIP Working Group to revise the SCIP and discuss the formulation of a governance body. The governance body would serve as a central coordination body for efforts across the broad spectrum of public safety stakeholders to help address challenges in a unified manner. The SCIP Working Group would leverage best practices (e.g., regular meetings) and lessons learned (e.g., include tribal and federal representation) from the former Arizona's Public Safety Communications Advisory Commission. The SCIP Working Group intends to foster relationships, collaboration, and information sharing to better balance fiscal, technological, and policy-driven public safety needs. To do so, the identified goals include establishing a full-time SWIC position and office and to reestablish the Statewide Interoperability Executive Committee (SIEC) with an appropriate structure and representation that regularly meets to coordinate on matters related to interoperability.

Existing governance and coordination efforts in the state include involvement in the Federal Partnership for Interoperable Communications (FPIC) and the R4C Coalition. FPIC coordinates interoperability capabilities between federal, state, local, and tribal agencies. Arizona works with FPIC and the Southwest Border Communications Working group to identify and leverage infrastructure-sharing opportunities. The R4C Coalition is a regional approach involving tribes and counties in the area where Arizona, Colorado, New Mexico and Utah meet.

Table 1 outlines goals and initiatives related to governance.

Table 1: Governance Goals and Initiatives

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
1.	Formalize and fund SWIC position and office	1.1 Research neighboring states to identify best practices for placement of SWIC position (e.g., Executive Director-level, Chief Information Office)	OEC Coordinator	July 2016

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
		1.2 Provide recommendation of SWIC position based on best practices	SCIP Working Group	August 2016
		1.3 Identify sustainable funding source (e.g., grant set aside, inter-agency support)	DPS with Professional Organization Support	September 2016
		1.4 Express support and endorsement (e.g., letter, phone call) for host agency for decision-making level SWIC position	Professional Organizations (e.g., Arizona Chiefs of Police, Sheriffs Association, Fire Chiefs Association, APCO, NENA)	November 2016
2.	Reestablish the SIEC with appropriate representation that regularly meets	2.1 Identify advocates and supporters	SCIP Working Group	August 2016
		2.2 Establish structure and champions	SCIP Working Group/SWIC	October 2016
		2.3 Identify decision makers/elected officials to support SIEC	SCIP Working Group	November 2016
		2.4 Create business case to define governance structure	SCIP Working Group	December 2016
		2.5 Market business case to garner buy-in and support	SCIP Working Group	March 2017

5.2 Standard Operating Procedures (SOPs)

The SOPs section of the SCIP identifies the framework and processes for developing and managing SOPs statewide. Although some regional systems in the state regularly communicate across agencies and jurisdictions, formal SOPs need to be developed, maintained, and updated on a regular basis. Arizona is able to leverage some of the operational best practices already in place (e.g., Priority Programming Guide, Arizona Interagency Radio System [AIRS] and other regional system SOPs) to use as a starting point in order to standardize and ensure formal agreements are in place.

Table 2 outlines Arizona's goals and initiatives for SOPs.

Table 2: Standard Operating Procedures Goals and Initiatives

Standard Operating Procedures Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
3.	Share operational best practices and implement regionally and nationally recognized standards for technology across the state	3.1 Use plain language on daily and multi-agency events. Include call signs and continued training for end users and dispatchers	Individual Departments' Communications Unit	December 2016, Quarterly reviewed thereafter by individual agencies
		3.2 Program shared interoperability channels in all radios if it is adopted as a regional standard (i.e., Priority Programming Guide)	Statewide Information Exchange	December 2016, Quarterly reviewed thereafter by independent agencies to ensure compliance
		3.3 Expand the SOPs within Arizona to develop a cohesive guide to interoperability beyond individual counties	COMU (Maricopa)/SIEC	January 2017
		3.4 Review and revise Arizona Minimum Equipment standards for interoperable communications technology; incorporate into grant guidance	SIEC	January 2018

5.3 Technology

The Technology section of the SCIP outlines Arizona's plan to maintain and upgrade existing technology; the roadmap to identify, develop, and implement new and emerging technology solutions; and the approach to survey and disseminate information on current and future technology solutions to ensure user needs are met. **LMR will continue to be an essential tool in public safety operations and response**, though Arizona is preparing for broadband opportunities such as the NPSBN by identifying user needs. Additionally, the planning for and deployment of Next Generation 911 (NG911) networks that use Internet Protocol (IP)-based technology will transform how responders within Arizona communicate and share information given the large volume of calls received annually. The state will continue its efforts to stay up-to-date with technological developments and determine what is best for Arizona's users.

Table 3 outlines Arizona's goals and initiatives for technology.

Table 3: Technology Goals and Initiatives

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
4.	Continue to encourage use of common/shared channels within Arizona	4.1 Track testing and evolution of ISSI technologies	Arizona Regional System Administrators Forum	October 2016
		4.2 Revise and update the state channel programming guide	SIEC	December 2016
		4.3 Engage with NPSTC and other national bodies to ensure consistency	SIEC	December 2016
		4.4 Determine operational needs and feasibility of deploying fixed gateway technologies	Arizona Regional System Administrators Forum	April 2017
5.	Prepare for broadband technology while recognizing that broadband will not replace existing LMR voice systems in the foreseeable future.	5.1 Continue outreach and education of technology and phase release	Broadband Working Group	December 2016
		5.2 Identify long and short term governance needs	SIEC/Broadband Working Group	December 2016
		5.3 Identify coverage area needs	Broadband Working Group	June 2016
		5.4 Identify application needs (software and hardware interoperability)	Broadband Working Group	July 2017
		5.5 Ensure regional and state shared systems are standards based or have standard interfaces to allow flexibility for end user products	Broadband Working Group	TBD
		5.6 Build system approach to interoperability with outlying/rural areas; enhance regional plans to leverage cooperation	SIEC/SWIC/Broadband Working Group	TBD

5.4 Training and Exercises

The Training and Exercises section of the SCIP explains Arizona's approach to ensure that emergency responders are familiar with interoperable and emergency

communications equipment and procedures and are better prepared for responding to real-world events. To ensure emergency responders are familiar with interoperable and emergency communications equipment and procedures, regular and frequent exercises are conducted within Arizona. Specifically, exercises with Federal partners occur regularly each year, and an exercise with the Hualapai Tribe was conducted to test communications capabilities in and near the Grand Canyon.

Arizona offers local and statewide training through several resources such as the OEC's Technical Assistance Program, and the Department of Emergency and Military Affairs (DEMA) Training and Exercise department to support COMU efforts. Most training opportunities are conducted through local agencies, and some agencies in underserved communities are unable to hold or attend necessary training. Arizona is committed to developing training materials accessible to all users to ensure interoperable solutions are regularly implemented and that partners can properly utilize COMU resources.

Table 4 outlines Arizona's goals and initiatives for training and exercises.

Table 4: Training and Exercises Goals and Initiatives

Training and Exercises Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
6.	Determine process for Communications Unit (COMU) credentialing and continued education	6.1 Update current COMU credentialing procedure	State Forestry	July 2016
		6.2 Identify agency participants who need operability and interoperability training	Individual agencies/video production	June 2019
		6.3 Create clearinghouse for training materials in one location (consider publicsafetytools.info). Training materials to be provided in multiple medias (e.g., web, video, paper)	SIEC Training Working Group	June 2019
		6.4 Promote and share radio training with educational institutions	SIEC Training Working Group	June 2019

5.5 Usage

The Usage section outlines efforts to ensure responders adopt and familiarize themselves with interoperable and emergency communications technologies, systems, and operating procedures within the state. Regular usage ensures the maintenance and establishment of interoperability in case of an incident. Usage within Arizona varies by agency and incident, though users are encouraged to regularly test their equipment and systems.

Regular usage testing is important to maintain equipment and resources, as well as keeping users fully trained on available equipment in preparation for a real-world incident.

Table 5 outlines Arizona’s goals and initiatives for usage.

Table 5: Usage Goals and Initiatives

Usage Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
7.	Encourage use of interoperable communications for operations	7.1 Ensure communications personnel are included in the planning and operational phases of major events	Individual agencies	January 2018
		7.2 Encourage interoperable resources to be used for routine events to institutionalize use daily	Individual agencies	January 2018
		7.3 Train ICS command personnel on the value of interoperable communications in the system	OEC Technical Assistance/ DEMA	January 2019

5.6 Outreach and Information Sharing

The Outreach and Information Sharing section of the SCIP outlines Arizona’s approach for building a coalition of individuals and emergency response organizations statewide to support the SCIP vision and for promoting common emergency communications initiatives. Arizona recognizes that sharing information statewide, particularly to underserved communities, is essential to improving operable and interoperable communications, and will continue to strengthen its outreach programs. A full-time SWIC and established engaged SIEC are essential to building greater awareness of emerging technologies and interoperability issues, leading to improved coordination across the state.

Information sharing and coordination across jurisdictions and disciplines generally occurs through informal relationships. With a reestablished SIEC, members can refresh outreach materials, identify the most efficient opportunities for information sharing, and form task forces to address challenges or research emerging technological opportunities.

Table 6 outlines Arizona’s goals and initiatives for outreach and information sharing.

Table 6: Outreach and Information Sharing Goals and Initiatives

Outreach and Information Sharing Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
8.	Develop a marketing program tailored to different audiences	8.1 Remind stakeholders of the Priority Program Guide	AZDOHS/SIEC	November 2016, ongoing
		8.2 Promote existing Arizona Interagency Radio System training materials (e.g., video, CD, publication)	SIEC	December 2016
		8.3 Identify and assemble an outreach working group with public safety expertise (consider local agencies working with regional groups, and the regional groups coordinate at the state level)	SWIC	December 2016
		8.4 Leverage existing emergency management guide to educate elected officials	SWIC/DEMA	January 2017
		8.5 Leverage an interoperability clearinghouse for knowledge sharing purposes	SWIC	June 2017
9.	Research opportunities to leverage existing cybersecurity and 9-1-1 capabilities within Arizona	9.1 Leverage the cyber task force in the statewide fusion center	TBD	
		9.2 Coordinate with tribal nations, National Guard, federal entities, public/private partnerships to understand existing capabilities	TBD	
		9.3 Share information through the SIEC	TBD	

5.7 Life Cycle Funding

The Life Cycle Funding section of the SCIP outlines Arizona's plan to fund existing and future interoperable and emergency communications priorities.

As State and local governments face budget shortfalls, and federal grant funding decreases it is important to identify a sustainable funding plan to maintain communication interoperability and continue efforts to improve interoperability. Arizona will identify different funding streams for interoperability efforts outside of the state and federal funding streams.

Table 7 outlines Arizona's goals and initiatives for life cycle funding.

Table 7: Life Cycle Funding Goals and Initiatives

Life Cycle Funding Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
10.	Identify additional funding opportunities or different funding streams for interoperability efforts	10.1 Explore opportunities within Arizona to expand interoperable technologies such as appropriation, taxation, combined agency funding, public/private partnerships	SWIC/SIEC/AZDOHS	January 2018
		10.2 Explore Federal opportunities to expand interoperable technologies in the state	SWIC/SIECAZ/DOHS	January 2018
		10.3 Identify realistic funding plan/business plan for the full life cycle of interoperable communications equipment; potentially that identifies a sustainable funding model	SWIC/SIEC/AZDOHS	July 2018
		10.4 Engage large national organizations or employee associations to solicit support for funding opportunities	SWIC/SIEC	January 2019
		10.5 Engage with leaders on expanding the 9-1-1 excise tax to include public safety/technology/system sharing to achieve economies of scale	SWIC/SIEC	January 2019
		10.6 Review identified funding streams based on an analysis of available funds and gaps in funding for interoperable and emergency communications priorities	SWIC/SIEC/AZDOHS	January 2019

6. IMPLEMENTATION

6.1 Table of SCIP Initiatives

In an effort to support grant funding recommendations and decisions, each of the SCIP initiatives aligns to a lane of the interoperability continuum (i.e., Governance, SOPs, Technology, Training and Exercises, Usage). It should be noted that some of the SCIP initiatives generally align to the SCIP focus areas of Outreach and Education and Life Cycle funding, but are not called out separately in this table. Table 8 below identifies the SCIP initiative and the interoperability continuum lane to which it most closely aligns.

Table 8: Initiative Alignment to Interoperability Continuum

Strategic Initiative	Governance	SOPs	Technology	Training and Exercise	Usage
Research neighboring states to identify best practices for placement of SWIC position (e.g., Executive Director-level, Chief Information Office)	X				
Provide recommendation of SWIC position based on best practices	X				
Identify sustainable funding source (e.g., grant set aside, inter-agency support)	X				
Express support and endorsement (e.g., letter, phone call) for host agency for decision-making level SWIC position	X				
Identify advocates and supporters	X				
Establish structure and champions	X				
Identify decision makers/elected officials to support SIEC	X				
Create business case to define governance structure	X				
Market business case to garner buy-in and support	X				
Use plain language on daily and multi-agency events. Include call signs and continued training for end users and dispatchers		X			
Program shared interoperability channels in all radios if it is adopted as a regional standard (i.e., Priority Programming Guide)		X			
Expand the SOPs within Arizona to develop a cohesive guide to interoperability beyond individual counties		X			

Strategic Initiative	Governance	SOPs	Technology	Training and Exercise	Usage
Review and revise Arizona Minimum Equipment standards for interoperable communications technology; incorporate into grant guidance			X		
Track testing and evolution of ISSI technologies			X		
Revise and update the state channel programming guide		X			
Engage with NPSTC and other national bodies to ensure consistency	X				
Determine operational needs and feasibility of deploying gateway technologies			X		
Continue outreach and education of technology and phase release	X				
Identify long and short term governance needs	X				
Identify coverage area needs			X		
Identify application needs (software and hardware interoperability)			X		
Ensure regional and state shared systems are standards based or have standard interfaces to allow flexibility for end user products			X		
Build system approach to interoperability with outlying/rural areas; enhance regional plans to leverage cooperation			X		
Update current COMU credentialing procedure				X	
Identify agency participants who need operability and interoperability training				X	
Create clearinghouse for training materials in one location (consider publicsafetytools.info). Training materials to be provided in multiple medias (e.g., web, video, paper)				X	
Promote and share radio training with educational institutions				X	
Ensure communications personnel are included in the planning and operational phases of major events				X	
Encourage interoperable resources to be used for routine events to institutionalize use daily					X
Train ICS command personnel on the value of interoperable communications in the system				X	

Strategic Initiative	Governance	SOPs	Technology	Training and Exercise	Usage
Remind stakeholders of the Priority Program Guide		X			
Promote existing Arizona Interagency Radio System training materials (e.g., video, CD, publication)				X	
Identify and assemble an outreach working group with public safety expertise (consider local agencies working with regional groups, and the regional groups coordinate at the state level)	X				
Leverage existing emergency management guide to educate elected officials	X				
Leverage an interoperability clearinghouse for knowledge sharing purposes		X			
Leverage the cyber task force in the statewide fusion center	X				
Coordinate with tribal nations, National Guard, federal entities, public/private partnerships to understand existing capabilities	X				
Share information through the SIEC	X				

6.2 Measures of Success

The Measures of Success section of the SCIP defines the measures to monitor progress and indicate accomplishments toward achieving the vision for interoperable and emergency communications within Arizona. Measures of success are used to meaningfully assess the outcomes and impacts of program functions and processes in meeting strategic goals. Table 9 outlines these measures for Arizona.

Table 9: SCIP Measures of Success

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
1	Formalize and fund SWIC position and office	No formal office established to guide interoperability efforts; no dedicated funding source	Full Time SWIC and Support staff established with sustainability funding in place	July 2017	SCIP Working Group SIEC Professional Organizations

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
2	Reestablish the SIEC with appropriate representation that regularly meets	Formal governance structure dwindled; identified need for a governance structure with proper representation and executive-level support to coordinate beyond regional radio system-related efforts	SIEC reestablished with representation and executive level support to sustain its duties as a governance structure for interoperability	July 2017	SCIP Working Group/SWIC
3	Share operational best practices and implement regionally and nationally recognized standards for technology across the state	Multiple radio data bases and radio updates have become overwhelming; sharing information could help agencies and entities leverage best practices		December 2016	Individual Department Communication Units/SWIC Office
4	Continue to encourage use of common/shared channels within Arizona	Lack of awareness of programmed channels, sparse usage	Publish an updated State Channel programming guide	April 2017	SIEC/SWIC Office
5	Prepare for broadband technology while recognizing that broadband will not replace existing LMR voice systems in the foreseeable future.	A coordinating office has recently gained traction to conduct outreach efforts and collect data; however, additional work remains	Identified and published short and long term governance needs, coverage area needs, and software and hardware needs for interoperability in broadband	July 2017	Broadband Working Group/SIEC

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
6	Determine process for Communications Unit (COMU) credentialing and continued education	An existing process and template is available within Arizona to be applied across agencies	Finalized and working COMU credentialing process.	July 2016	State Forestry/ SWIC/ DEMA
7	Encourage use of interoperable communications for operations	COMU's and interop frequencies are underutilized	ICS command personnel trained in the value of COML and interoperable communications	January 2019	DEMA/OEC Technical Assistance
8	Develop a marketing program tailored to different audiences	Currently, no coordinated messaging to various stakeholders (e.g., elected officials, tribes)	Updated and distribution of existing outreach materials, formation of outreach working group	January 2017	SIEC SWIC DEMA AZDOHS
9	Research opportunities to leverage existing cybersecurity and 9-1-1 capabilities within Arizona	Coordinated group exists, many stakeholders possess an awareness of emerging technologies	TBD	TBD	TBD

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
10	Identify additional funding opportunities or different funding streams for interoperability efforts	Shrinking federal grant opportunities and limited local and state funding prompt the need for a repeatable process to identify and deploy funding for interoperability efforts	Funding opportunities identified and documented for distribution and promotion for continued interoperability efforts.	January 2018	AZDOHS SWIC SIEC

6.3 Strategic Plan Review

The Strategic Plan Review section outlines the process Arizona will use to conduct reviews of the SCIP to ensure it is up to date and aligned with the changing internal and external interoperable and emergency communications environment as well as to track and report progress against the defined initiatives and measures of success. The Arizona SCIP will be completed reviewed and updated biannually by the SIEC.

7. REFERENCE MATERIALS

The Reference Materials section outlines resources that contribute additional background information on the SCIP and interoperable and emergency communications within Arizona. Table 10 includes the links to these reference materials.

Table 10: SCIP Reference Materials

Title	Description	Source/Location
Arizona Mutual Aid Compact	Enables participating political subdivisions and tribal nations to share resources, personnel etc. during emergencies and then be reimbursed for the resources the supporting party provided	https://dema.az.gov/emergency-management/operationscoordination/response-branch/logistics-and-mutual-aid
Public Safety Library	A Multitude of documents made up by PSIC, SIEC, and other Interoperability teams are posted to Public Safety Library by the SWIC	https://pslib.casmnextgen.com/pslib/
Arizona Public Safety Broadband Program	Arizona's planning for implementing a Public Safety Broadband Network as well as links to FirstNet which is the National plan for a Public Safety Network	https://digitalarizona.az.gov/public-safety-broadband

APPENDIX A: LIST OF ACRONYMS

In this section, list the acronyms used throughout the document.

AIRS	Arizona Interagency Radio System
AZDOHS	Arizona Department of Homeland Security
COML	Communications Unit Leader
COMT	Communications Unit Technician
COMU	Communications Unit
DEMA	Department of Emergency and Military Affairs
DHS	U.S. Department of Homeland Security
EMA	Emergency Management Agency
FCC	Federal Communications Commission
FirstNet	First Responder Network Authority
FPIC	Federal Partnership for Interoperable Communications
IP	Internet Protocol
MHz	Megahertz
LMR	Land Mobile Radio
MOU	Memorandum of Understanding
NECP	National Emergency Communications Plan
NG911	Next Generation 911
NPSBN	Nationwide Public Safety Broadband Network
NTIA	National Telecommunications and Information Administration
OEC	Office of Emergency Communications
PPD	Presidential Policy Directive
PSAP	Public Safety Answering Point
R4C	Four Corners Homeland Security Coalition
SCIP	Statewide Communication Interoperability Plan
SIEC	Statewide Interoperability Executive Committee
SOP	Standard Operating Procedure
SWBCWG	Southwest Border Communications Working Group
SWIC	Statewide Interoperability Coordinator
UHF	Ultra High Frequency
VHF	Very High Frequency