Oregon

Statewide Communication Interoperability Plan (SCIP)

June 2016

EXECUTIVE SUMMARY

Oregon's 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 Oregon prioritize resources, strengthen governance, identify future investments, and address interoperability gaps.

The purpose of the Oregon SCIP is:

- Provide the strategic direction and alignment for those responsible for interoperable and emergency communications at the State, regional, local, and tribal levels.
- Document to leadership and elected officials the vision for interoperable and emergency communications and demonstrate the need for funding.
- Articulate the statewide interoperability approach and how State and local interoperability efforts align.

The following are Oregon's Vision and Mission for improving emergency communications operability, interoperability, and continuity of communications statewide.

Vision: Seamless interoperable public safety communications.

Mission: Strengthen partnerships, while leveraging resources and capital improvements, to maximize voice and data interoperability.

The following strategic goals represent the priorities for delivering Oregon's vision for interoperable and emergency communications.

- Governance –
    - Maintain the Statewide Interoperability Executive Council (SIEC) as Oregon's public safety communications governing body
    - Coordinate with the First Responder Network Authority (FirstNet) to support the development of Oregon's portion of the Nationwide Public Safety Broadband Network (NPSBN)
    - Define the governance issues affecting public safety communications and define and implement a plan to approach public safety partners across the state with potential solutions
    - Create a consistent message around public safety communications governance across the state
    - Stay familiar with current and emerging communications technologies
    - Develop recommendations for legislative action
    - Establish a partnership between OEM and SIEC

  - Develop recommendations for grant guidance
- Standard Operating Procedures (SOPs) –
  - Create and implement processes to oversee and maintain regional communications plans and related SOPs (e.g., Tactical Interoperable Communications Plans [TICP])
  - Broaden existing partnerships and establish new partnerships with additional stakeholders
  - Define and adopt data standards
- Technology –
  - Stay familiar with current and emerging communications technologies
  - As new systems are developed locally, ensure continued operability and improve interoperability
  - Develop patching standards for trunked systems, consoles, RF systems
  - Develop guidance for system redundancy
- Training and Exercises –
  - Conduct training and education activities to demonstrate the benefits of a robust interoperable communications network
  - Ensure an availability of specialists/trained personnel throughout the state
  - Obtain communications after action reports and lessons learned for EMPG-supported exercises (e.g., Cascadia playbook exercises) and share the data through the SIEC
  - Assist OEM in the refinement of collection of capability assessments and share that data through the SIEC
- Usage –
  - Create public / private partnerships to leverage existing capabilities and associated economies of scale
  - Identify and assist current and potential users of public safety interoperable systems
  - Identify available capabilities for optimal usage
  - Identify current broadband applications in use by first responders for commercially-available technology
  - Conduct inventory of available communication assets to be leveraged
- Outreach and Information Sharing –
  - Continuously identify, catalog and understand changing State and local communications needs and capabilities

- Educate State and local entities on the needs and capabilities of Oregon's public safety communications systems to achieve stakeholder buy in and the ability to make informed decisions
- Develop an outreach plan and message for elected officials on the need for funding of public safety communications
- Conduct annual RADIO Conference for radio and data system operators

- Life Cycle Funding –
  - Document a road map on how State and local public safety communication systems are funded and sustained
  - develop a consistent message around public safety communications across the state
  - Promote awareness of cost of life cycle planning and develop/share resources/products for the lessons learned

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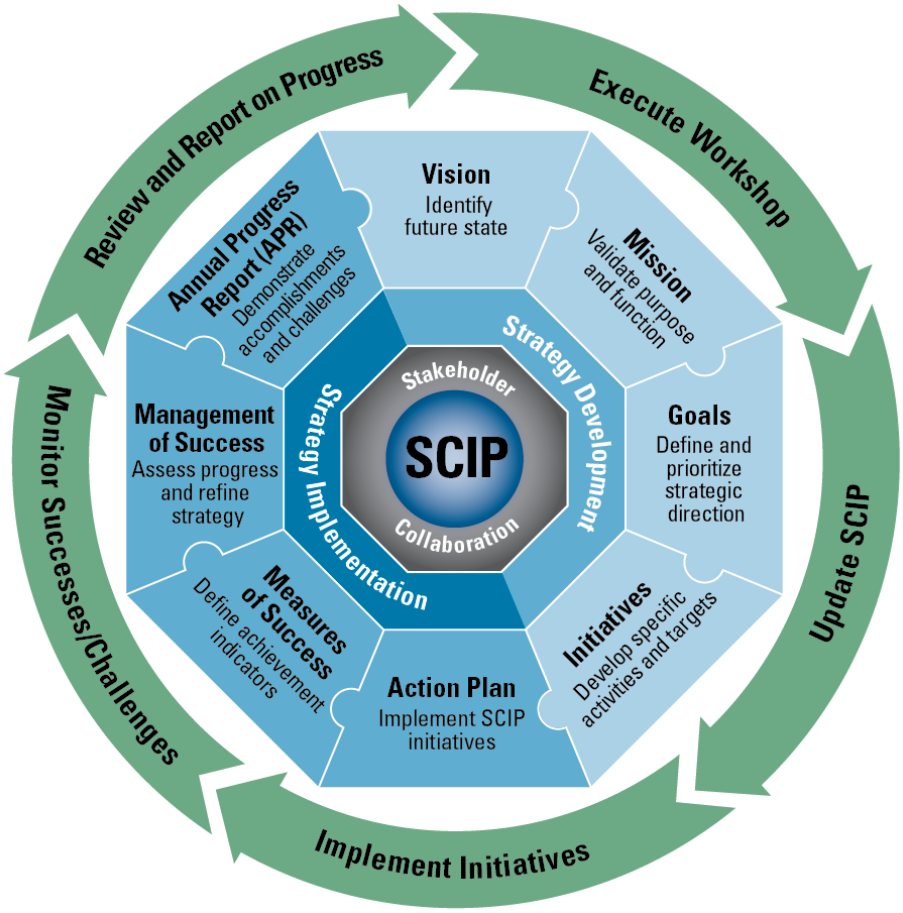
1. INTRODUCTION

Oregon's 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 Oregon public safety entities to prioritize resources, strengthen governance, identify future investments, and address interoperability gaps. 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 in Oregon.
- State's Interoperable and Emergency Communications Overview – Provides an overview of the State's current and future emergency communications environment and defines ownership of the SCIP.
- Vision and Mission – Articulates public safety's 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 Procedure (SOP), 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 Documents – Includes documents that provide additional background information on the SCIP or interoperable and emergency communications in Oregon 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



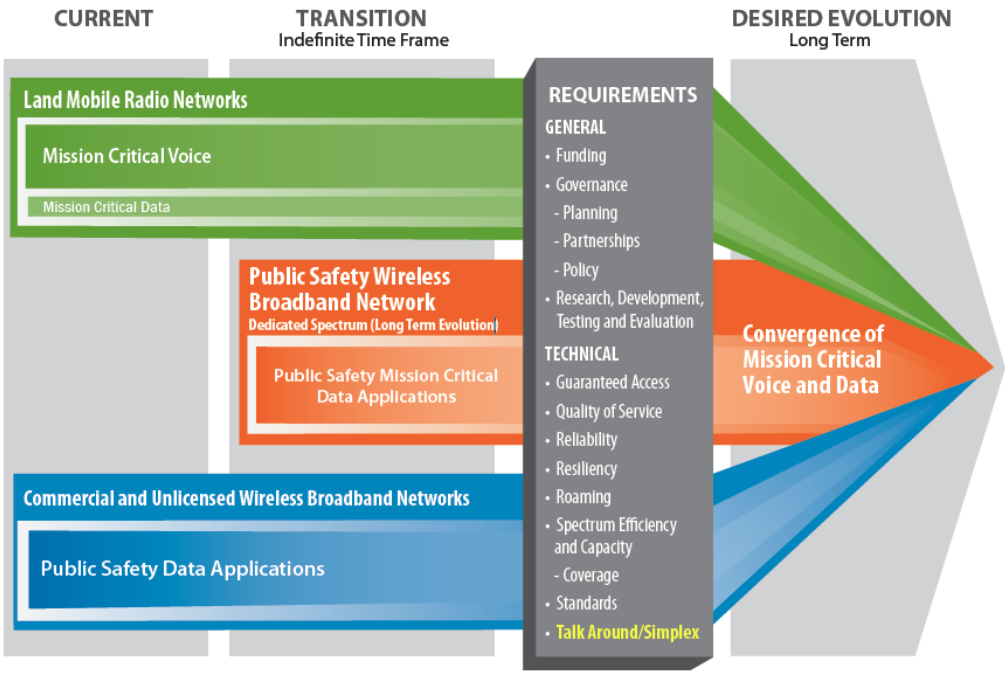
The Oregon SCIP is based on an understanding of the current and mid-range interoperable and emergency communications environment. Oregon's public safety providers have taken significant steps towards enhancing interoperable and emergency communications, including:

- Conducted a conference of statewide public safety communications system operators the statewide public safety with more than 80 attendees
- Developed an approach to gather a complete list of public safety radio systems serving the state to develop a long range plan to coordinate intergovernmental resources

However, more work remains to achieve Oregon's vision including maintaining interoperability as localities update their land mobile radio (LMR) systems, strengthening outreach and information sharing efforts, and incorporating tribal stakeholders in statewide planning efforts. It is also important to note that this work is part of a continuous cycle as Oregon's public safety entities 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, Oregon public safety entities 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 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 in Oregon. 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, Oregon will keep up-to-date with the planning and build-out of the NPSBN in the near and long term, in cooperation with 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. It will also be necessary to develop and maintain strategic partnerships with a variety of stakeholders 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] Oregon prepared a document to build awareness, support, and a common understanding of the NPSBN as it relates to the state. Oregon will continue to encourage and develop local involvement and collaboration in planning efforts to push out information on the NPSBN as it becomes available.

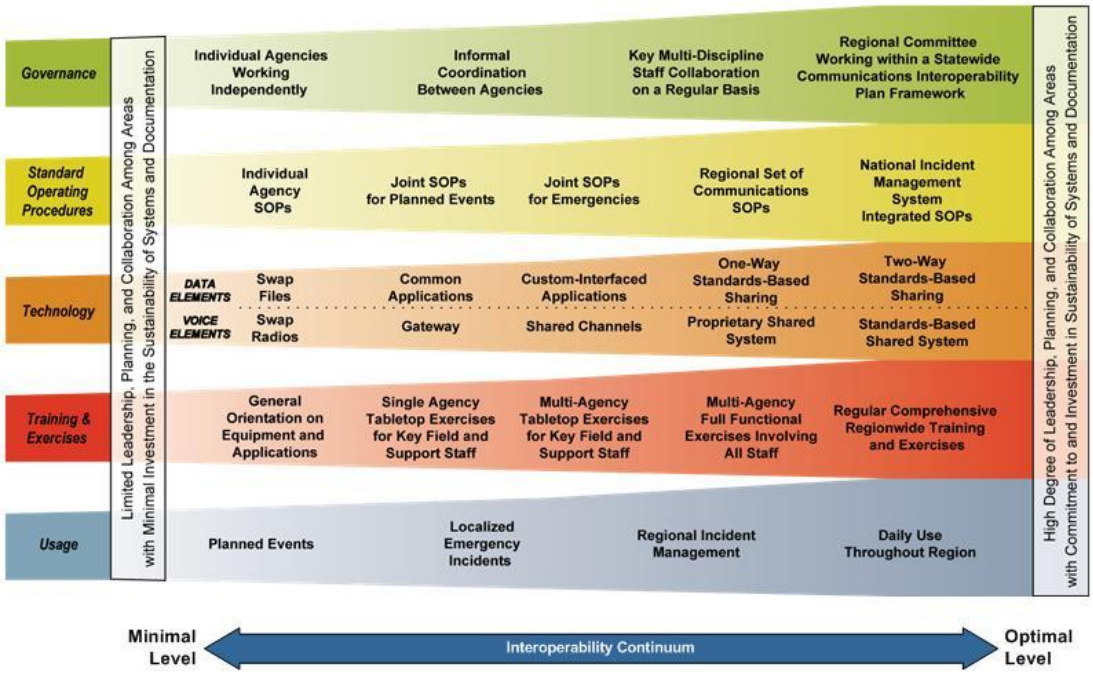
Additionally, achieving sustainable funding in the current fiscal climate is a priority for Oregon public safety entities. As Federal grant funding diminishes, State and local governments need to identify alternative funding sources to continue improving interoperable and emergency communications for voice and data systems. Key priorities for sustainable public safety communication systems funding are:

- Maintaining interoperability through the various ongoing local system upgrades
- Integrating lessons learned from previous projects into outreach and information sharing efforts regarding current LMR systems and the NPSBN, including being realistic about project timelines and technology availability
- Obtaining tribal involvement in interoperability planning efforts

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]

[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: http://publicsafetytools.info/oec_guidance/docs/OEC_System_Life_Cycle_Planning_Guide_Final.pdf

Figure 3: The Interoperability Continuum



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.

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 Oregon public safety entities efforts to address communications interoperability.
- SOPs – Policies, repetitive practices, and procedures that guide emergency responder 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 to enhance interoperability.

More information on the Interoperability Continuum is available in OEC's Interoperability Continuum brochure.[3] The following sections further describe how the SCIP will be used in Oregon, and Oregon's public safety entities plans to enhance interoperable and emergency communications.

2. PURPOSE

The purpose of the Oregon SCIP is:

- Provide the strategic direction for those responsible for interoperable and emergency communications at the State, regional, local, and tribal levels
- Document to leadership and elected officials the vision for interoperable and emergency communications and demonstrate the need for funding
- Articulate the statewide interoperability approach and how state and local interoperability efforts align

The development and execution of the SCIP also assists Oregon with addressing the results of the 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, Oregon will develop an Annual SCIP Snapshot, completed by the SWIC, which 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, executed and managed by the Oregon State Interoperability Executive Council (SIEC). The SIEC has the authority to and is responsible for making decisions regarding this plan. **The SIEC is also responsible for ensuring this plan is implemented and maintained statewide.** Before 2007, Oregon created a succinct SCIP to guide statewide planning efforts. The document was later lengthened to meet Federal SCIP criteria, and has been updated using the OEC SCIP Implementation Report. In April 2013 and February 2015 Oregon conducted a SCIP Revision Workshop to engage stakeholders and update the SCIP.

[3] OEC's Interoperability Continuum is available here: http://www.safecomprogram.gov/oecguidancedocuments/continuum/Default.aspx

[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.

3. STATE'S INTEROPERABLE AND EMERGENCY COMMUNICATIONS OVERVIEW

The State of Oregon understands that communications interoperability between public safety agencies is vital to safe and effective operations; however, requirements for interoperability do not need to be met for all personnel at all times. Varying situations necessitate a flexible approach to connect specific field or command-level personnel with others. As a result, Oregon relies on a "system of systems" approach to interoperability that covers most of the geography in the State.

Oregon's public safety community currently relies on LMR systems built to public safety requirements, operated by individual agencies or jurisdictions, to provide first responders mission-critical communications capabilities. These radio systems provide a reliable tool for field personnel to communicate with each other and with their respective command and control centers. Trunked radio systems are primarily used in the most populated areas of Oregon. In the remote parts of the State, localities operate independent communications systems due to agency needs and existing geographic challenges. All of these public safety LMR systems use designated channels / frequencies to provide for interoperable communications.

As many local radio systems have been and/or will be upgraded in the near-term, Oregon is looking at interoperability planning regionally to ensure the new or updated systems can work together in the future. A list of major systems in Oregon can be found in Appendix A of this document.

Several high profile public safety communications projects are underway.. As communications projects move forward with upgrades and new system implementations, the SIEC and the local governing committees are planning to ensure the same level of interoperability is available today, and also make additional improvements as needed.

With the passage of the Federal legislation establishing FirstNet, Oregon has set up the SIEC to be the leaders on broadband governance and outreach efforts in the State. A bill was introduced to the Oregon legislature in 2013 to codify the existing SIEC structure into law, as well as to transition the SWIC and SIEC to a newly created office under the Department of Administrative Services (DAS) called the Oregon Public Safety Broadband Office (OPSBO). The State is also using its unique position as early adopters of broadband use to begin coordination efforts (e.g., meeting with FirstNet members) and data collection from stakeholders (e.g., broadband survey) to understand the appropriate strategy for implementing broadband in communities across the State to include rural and tribal partners. In 2015, Oregon legislation further clarified the SIEC's role created under Oregon Revised Statues (ORS) as amended by House Bill 3099-2015. The SIEC was moved from DAS to the State's Chief Information Officer.

4. VISION AND MISSION

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

Oregon's Interoperable and Emergency Communications Vision:

Seamless interoperable public safety communications.

Oregon's Interoperable and Emergency Communications Mission:

Strengthen partnerships, while leveraging current resources and capital improvements, to maximize voice and data interoperability.

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 SCIP Governance section outlines the direction of the Oregon public safety entities governance structure for interoperable and emergency communications. The SIEC has governed interoperable communications issues in the State informally since 2002. In 2015, existing legislation (ORS 403.450) was amended by House Bill 3099-2015 to shape the SIEC's roles and responsibilities to better support LMR and broadband system planning, and designates that the SIEC is the governing body for FirstNet activities.

The SIEC develops policy and guidelines, identifies technology and standards, and coordinates intergovernmental resources to facilitate statewide public safety communications interoperability. The SIEC is comprised of five committees with the following responsibilities:

- **Broadband Committee:** Assist the Council in identifying the common interoperable framework to provide recommendations on, and help Oregon leverage, subsequent broadband assets and relationships.
- **Executive Committee:** Comprised of the SIEC Chair and Vice-Chair along with the Chairs of all of the subcommittees, the Executive Committee performs all functions and do all acts, between meetings, which the SIEC might do during regular meetings except for amending the SIEC Charter or Strategic Plan.
- **Partnership Committee:** Maximize resource sharing and interoperability of communications.
- **Strategic Planning Committee:** Develop the framework of the SCIP, and to monitor and report the implementation of the Council's goals and objectives as well as assisting committees in developing charters, goals and objectives in support of the SCIP.

- **Technical Committee:** Serve as the technical research and advisory resource for the SIEC and assure that all government agencies have the opportunity to participate in SIEC technical discussions and in formulating recommendations for the SIEC.

Local participation from rural jurisdictions and consistent participation from tribal stakeholders remains a challenge for interoperability planning. Continued outreach and information sharing by Oregon's SIEC, SWIC, and other coordination bodies such as the Oregon Broadband Advisory Council (responsible for the oversight of statewide broadband for education, workforce development, and telehealth) will be employed to address and mitigate this challenge. Oregon frequently coordinates and shares information with its neighboring States (California, Idaho, Nevada, Washington) to support mutual aid and communications coordination efforts. The State is also reinvigorating various SIEC Committees (e.g., Partnerships, Strategic Planning, Technical) to assist with SCIP initiatives and planning activities related to the NTIA State and Local Implementation Grant Program (SLIGP).

Table 1 outlines Oregon's goals and initiatives related to governance.

Table 1: Governance Goals and Initiatives

Governance Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion
1.1 Get clarity on the authority and jurisdiction of the SIEC and SWIC in light of house bills HC4031(2014) and HB3099(2015)	1.1.1 Reach out to the DOJ	SWIC; Executive Committee	May 2016
	1.1.2 Recommend any legislative changes if required	SWIC	2017 Legislative Session
	1.1.3 Establish a permanent SWIC office with adequate staffing and funding	Executive Committee	2017 Legislative Session
1.2 Maintain the SIEC as the public safety communications governing body	1.2.1 Encourage participation from chartered members	Executive Committee	Ongoing
1.3 Review and update SIEC charter	1.3.1 Review current charter and make revisions	Strategic Planning Committee	December Yearly
	1.3.2 Set annual review date for charter updates	Strategic Planning Committee	December Yearly
1.4 Coordinate with FirstNet to support the development Oregon's portion of the NPSBN	1.4.1 Conduct outreach	SWIC	Ongoing
	1.4.2 Determine potential sources of funding / cost allocation scheme	Broadband Committee	Ongoing
	1.4.3 Determine the intersections between NG911 initiatives and NPSBN initiatives	SIEC / Oregon Emergency Management (OEM)	TBD
1.5 Define the governance issues	1.5.1 Identify specific stakeholders to participate who have the influence and	Executive Committee;	August 2016

Governance Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion
affecting public safety communications and define and implement a plan to approach partners across the state with potential solutions	control to make recommendations and carryout governance	Partnership Committee	
	1.5.2 Develop regional cooperative for interoperable communications processes	Executive Committee; Partnership Committee	February 2017
1.6 Create consistent message around public safety communications governance across the state	1.6.1 Conduct outreach to solicit messages at forums such as town hall-type events and associations	Partnership Committee	February 2017
	1.6.2 Identify and consolidate ideas to individual talking points	Strategic Planning Committee; Partnership Committee	May 2017
	1.6.3 Get Governance agreement to the message	Executive Committee	August 2017
	1.6.4 Develop marketing plan to publicize and distribute message	Partnership Committee	November 2017
1.7 Establish a partnership between OEM and SIEC	1.7.1 Provide technical and governance assistance to OEM	Technical Committee; Executive Committee	May 2017
	1.7.2 Adopt SAFECOM recommendations for grant guidance	Executive Committee	TBD based on SAFECOM's timeline for grant guidance

5.2 Standard Operating Procedures (SOPs)

The SCIP SOP section identifies the framework and processes for developing and managing SOPs statewide. Oregon created a Regional Tactical Interoperable Communications Field Operations Guide (TICFOG) that includes information from the Oregon Regional TICPs and data from other Oregon communications documents. The TICFOG is available in print, online through the SIEC website, and also through a mobile data application.

Data gathered through the NECP goal 2 effort showed that SOPs was an area for improvement for the State overall. Specific areas of improvement might include developing SOPs for deployable assets (e.g., strategic technology reserve) and sharing good examples of the more robust SOPs created by some individual 911 centers more widely to improve center-to-center back up efforts. An active process to share SOPs statewide does not exist; rather, it is done on an informal basis. In the future, the SIEC Technical Committee seeks to create a process to maintain existing regional plans and share strong examples of SOPs through the SIEC website.

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

Table 2: Standard Operating Procedures Goals and Initiatives

Standard Operating Procedures Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion
2.1 Create an implement a process to oversee and maintain regional communications plans and related SOPs (e.g., TICP)	2.1.1 Update regional TIC plans	Technical Committee	May 2017 and May 2019
	2.1.2 Communicate TIC plan revisions	SWIC	Ties in to TIC plan completion dates (2.1.1)
2.2 Broaden existing partnerships and establish new partnerships with additional stakeholders	2.2.1 Engage and form relationships with interests along all Oregon borders	Partnership Committee	May 2017
	2.2.2 Develop interstate communications plan across the state border and coordinate with federal interests	Technical Committee	August 2018
	2.2.3 Develop operational agreements for systems (e.g., ISSI Connection)	Technical Committee	August 2017
	2.2.4 Provide examples of resources of approved equipment	Technical Committee	August 2017

5.3 Technology

The SCIP Technology section outlines Oregon'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. Oregon uses a system of systems approach for interoperability with various systems (approximately 385) covering most of the rural areas of the state, and trunked radio systems covering most of the populated areas of the State. Additionally, cellular telephone use has become integral to Oregon emergency response. Based on respondents to the Oregon Broadband Survey, every county uses cellular telephones "the majority of the time" during routine responses. The data from the survey showed that while cellular telephones are not the primary method of communications for first responders, they are used extensively.

Concurrently, Oregon is laying the groundwork for broadband planning by identifying its current capabilities and coordinating with local stakeholders. Examples of existing capabilities include several local communities across the State that have extensive fiber infrastructure resources in place, as well as private entities (e.g., Google and Facebook) that have primary data centers based in Prineville, Oregon.

Public safety is already adopting broadband technology. Several local jurisdictions, such as Astoria, have deployed and are using iPads for mobile data applications in patrol cars. Law enforcement officers can use the iPad for remote dispatch capabilities as well as for routine warrant and information requests. Agencies in the Bend, Oregon region have been using a commercial 700-megahertz (MHz) Long Term Evolution (LTE) system for mobile data operations with great success; even though this commercial system has limited range.

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

Table 3: Technology Goals and Initiatives

Technology Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion
3.1 As new systems are integrated, ensure continued operability and improve interoperability	3.1.1 Complete RFP process to develop guidelines for improved interoperability between systems	SWIC	May 2017
3.2 Define and adopt data standards	3.2.1 Determine minimum standards-RF-subsystem connectivity/support-Invigorate vendor standards	Broadband Committee	Near Term (1-2 Years)
3.3 Adopt patching standards for trunked systems, consoles, RF systems	3.3.1 Define what methods are available	Technical Committee	December 2016
	3.3.2 Adopt minimum standards	Technical Committee	May 2017
3.4 Develop guidance for system redundancy	3.4.1	Technical Committee	August 2017

5.4 Training and Exercises

The SCIP Training and Exercises section explains Oregon's approach to ensure emergency responders are familiar with interoperable and emergency communications equipment and procedures and are better prepared for responding to real-world events. There is a high awareness and understanding of available trainings in the State (e.g., Communications Unit Leader [COML], Communications Unit Technician [COMT]) because of a robust email distribution and notification system.

OEM conducts regular exercises and coordinates State grant awards to promote both regional and local training opportunities and exercises. The SIEC partners with OEM to participate in statewide exercises. Additionally, the SIEC in partnership with OEM seeks to identify routine events to promote the use of COML's more frequently in preparation for major disaster responses.

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

Table 4: Training and Exercises Goals and Initiatives

Training and Exercises Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion

Training and Exercises Goals and Initiatives			
4.1 Establish an MOU with OEM on communications training partnership	4.1. Develop and negotiate the MOU	Partnership Committee / OEM	March 2017
4.2 In partnership with OEM participate in training and education activities to demonstrate the benefits of a robust interoperable communications network	4.2.1 Identify one routine event (e.g., county fair, chair-lift evacuation training) per communications region so that COML's / COMT's can regularly exercise this function	Technical Committee	March 2017
	4.2.2 Review After Action Reports (AAR) from large multi-jurisdiction incidents to understand lessons learned from a communications standpoint and provide suggested solutions	SWIC / Technical Committee	On Going
	4.2.3 Leverage Regional Emergency Communications Coordination Working Group (RECCWG) relationship and share best practices	SWIC	On Going
4.3 Ensure an availability of specialists/trained personnel throughout the state	4.3.1 Host/facilitate COMT/COML training throughout the State	OEM/SWIC	On Going
	4.3.2 Promote training/shadow opportunities for COMT/COML during exercises/events	OEM/SWIC	On Going
	4.3.3 Maintain the list of active trained COMT/COML personnel	OEM/SWIC	On Going
	4.3.4 Define liability for deployment of COMT/COML statewide with *and* without an emergency declaration	OEM/SWIC	On Going
4.4 Obtain communications after action reports and lessons learned for EMPG-supported exercises (e.g., Cascadia playbook exercises) and share the data through the SIEC	4.4.1 OEM provides quarterly summarized analysis of top 3 trends from exercises or actual events	OEM/SWIC	March 2017
	4.4.2 SIEC provides subject matter expertise to OEM on annual or as-needed basis to inform Homeland Security investment justification language and SCIP updates	SIEC/SWIC	March 2017
4.5 Assist OEM in the refinement of collection of capability assessments and share that data through the SIEC	4.5.1 OEM provides annual summarized analysis of communications capability assessment	OEM	August 2017
	4.5.2 SIEC provides SME expertise to OSM on annual/as-needed basis to inform Homeland Security investment justification language and SCIP updates	SIEC	August 2017

5.5 Usage

The SCIP Usage section outlines the steps, plans, and policies to ensure responders adopt, utilize, and become familiar with the interoperable and emergency communications technologies, systems, and operating procedures that promote effective interoperable communications. Available interoperability solutions vary by region and include console patching of frequencies at dispatch centers, swapping of radios, and the use of mutual aid channels. Full implementation of TICPs, the TICFOG, and the Oregon SCIP will aid with increasing the use of the available solutions. The SIEC encourages ongoing, regional, and tribal functional communications exercises to ensure proper knowledge and deployment of interoperable communications.

Table 5 outlines Oregon's goals and initiatives for usage.

Table 5: Usage Goals and Initiatives

Usage Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion
5.1 Create partnerships to leverage existing capabilities and associated economies of scale	5.1.1 Conduct an inventory of available assets to be leveraged	Technical Committee	March 2017
	5.1.2 Gather data to determine what systems and capabilities are used	Technical Committee	March 2017
5.2 Identify and assist current and potential users of public safety interoperable systems	5.2.1 Analyze use cases, such as AARs, to define Oregon-specific needs (e.g., coverage, capability)	OEM / SWIC	March 2017
5.3 Identify current broadband applications in use by first responders for commercially-available technology	5.3.1 Evaluate data that has already been collected – identify data gap	Broadband Committee	August 2017
	5.3.2 Develop survey tool	Broadband Committee	November 2017
	5.3.3 Survey public safety entities to understand what is being used	Broadband Committee	November 2017
5.4 Conduct inventory of available assets to be leveraged	5.4.1 Access Oregon Broadband Map data that is currently available	Broadband Committee	March 2017
	5.4.2 Explore adding LMR infrastructure	Technical Committee	August 2017
	5.4.3 Leverage State Radio Project data	Technical Committee	August 2017

5.6 Outreach and Information Sharing

The SCIP Outreach and Information Sharing section outlines Oregon'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. Oregon has conducted a series of education and data collection sessions to plan for broadband; however, encouraging participation from the rural areas of the State

remains a challenge. Oregon has identified steps to encourage information sharing and identify specific strategies for communicating with key communities, including rural and tribal organizations.

Table 6 outlines Oregon'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			
Goals	Initiatives	Owner	Planned Completion
6.1 Continuously identify, catalog and understand changing State and local communications needs and capabilities	6.1.1 Present and gather information at the RADIO Conference	Technical Committee / Partnership Committee	Fall Yearly
	6.1.2 Coordinate with, attend, and participate in regional meetings	Executive Committee	Ongoing
6.2 Educate State and local entities on the needs and capabilities of Oregon's public safety communications systems to achieve stakeholder buy in and the ability to make informed decisions	6.2.1 Develop messaging around public safety communication needs and capabilities	SIEC	Ongoing
	6.2.2 Leverage associations (e.g., Association of Oregon Counties / League of Oregon Cities / SDAO / APCO) to promote the consistent message developed by the SIEC	SIEC	Ongoing
	6.2.3 Actively inform stakeholders on the public safety communications successes and identified gaps (e.g., outcomes of exercises, events) and post to SIEC website	SIEC / local stakeholders	On Going
6.3 Develop an outreach plan and message for elected officials on the need for funding of public safety communications	6.3.1 Define the message(s) to be delivered	Executive Committee	August 2016
	6.3.2 Define the audience(s) to communicate with	Executive Committee	August 2016
	6.3.3 Prioritize and schedule outreach activities	Executive Committee	August 2016
	6.3.4 Identify team to communicate	Executive Committee	August 2016

5.7 Life Cycle Funding

The SCIP Life Cycle Funding section outlines Oregon public safety enties plan to fund existing and future interoperable and emergency communications priorities. With limited Federal grant funding and State resources, sustainable funding is a major priority for Oregon public safety entities. Specifically, the SIEC has identified a need to formulate local funding plans for public safety communications systems (including operational, maintenance, and refresh cost) based on lessons learned from previous roll-outs of statewide interoperability funding, and the importance of articulating that need to decision makers

Table 7 outlines Oregon public safety entities goals and initiatives for life cycle funding.

Table 7: Life Cycle Funding Goals and Initiatives

Life Cycle Funding Goals and Initiatives			
Goals	Initiatives	Owner	Planned Completion
7.1 Document a road map on how State and local public safety communication systems will be funded and sustained	7.1.1 Develop a funding plan that articulates how to: ▪ Operate ▪ Maintain ▪ Refresh ▪ Upgrade	Strategic Planning Committee / Technical Committee	March 2017
7.2 develop a consistent message around public safety communications across the state	7.2.1 Define the disconnect in public safety communications – "Create the Elevator Speech" including identifying barriers to statewide interoperability (i.e., politics, funding, etc.)	Strategic Planning Committee	August 2016
7.3 Promote awareness of cost of life cycle planning	7.3.1 Provide models for life cycle costs	Executive Committee	May 2017
	7.3.2 Identify challenges to successful programs	Executive Committee	May 2017

6. IMPLEMENTATION

6.1 Action Plan

The SCIP Action Plan section describes the process Oregon will use to determine a plan to execute the initiatives in the SCIP.

6.2 Measures of Success

The SCIP Measures of Success section defines the measures Oregon will use to monitor progress and indicate accomplishments toward achieving the vision for interoperable and emergency communications. Table 8 outlines these measures for Oregon. More information on how these measures are managed is included in Section 6.3.

Table 8: SCIP Measures of Success

Measures of Success				
Goal Number	Strategic Goal Supported	Current State	Target End State	Owner or Source

6.3 Management of Success – Need Executive and Steering Committee Input

In this section, describe the iterative, repeatable method the State will follow to add, update and refine measures of success where appropriate. Highlight the following key components of the management of success process:

- *How measures of success will be used*
- *Owner of and participants in the measures of success reviews*
- *Timing and frequency of measures of success reviews*
- *Planned outputs and applications of the measures of success reviews (e.g., tie to budget)*

The Management of Success section describes the iterative, repeatable method Oregon will follow to add, update and refine the measures of success.

6.4 Strategic Plan Review

The Strategic Plan Review section outlines the process Oregon will use to conduct SCIP reviews to ensure it remains aligned with the changing internal and external interoperable and emergency communications environment and track and report progress against the defined initiatives and measures of success.

The SCIP will be managed beginning with the SIEC Strategic Planning Committee. The Strategic Planning Committee will monitor progress of the initiatives and develop or recommend changes as necessary to the document throughout the year. The Strategic Planning Committee will develop a “dashboard” style reporting tool to be reviewed at each SIEC meeting. Annually, the Strategic Planning Committee will present the document to the SIEC for concurrence or input on the revisions made to the initiatives. The Strategic Planning Committee will also work with the SWIC to develop an Annual Progress Report (APR) based on the SCIP Snapshot created by the SWIC. Once approved by the SIEC, the SCIP and the APR will be posted to the SIEC website.

7. REFERENCE DOCUMENTS

The Reference Documents section outlines resources that contribute additional background information on the SCIP and interoperable and emergency communications in Oregon. Table 9 includes the links to these reference documents.

Table 9: SCIP Reference Documents

Title	Description	Document
[Insert document title]	*[Insert document description]*	*[Insert hyperlink or embedded document]*

APPENDIX A: MAJOR SYSTEMS

Table 1: Major Systems, Updates, and New Systems

Current as of April 16, 2016

Major System Information				
System Type	System Name	System Owner	System Description	Changes/Updates or New
Statewide	State Radio Project	Oregon Department of Transportation / Oregon State Police	Project 25 (P25) very high frequency (VHF) 150 MHz and/ 700 Megahertz (MHz) trunked	New system
Regional	Portland /Multnomah County	City of Portland	800 MHz Trunked / P25 700/800 MHz Trunked (Portland)	Currently updating the system (Radio Replacement Project) due to system age and obsolete technology
Regional	Washington (WCCCA) / Clackamas (C800) Counties	WCCCA / C800	800 MHz Trunked P25	Awaiting voter bond approval to replace and expand existing aged system and obsolete technology
Local	Deschutes County	Deschutes County Sheriff	800 MHz Trunked	Currently updating the system and partnering with State Radio Project
Regional	Umatilla/Morrow Radio District	First responder agencies in Umatilla and Morrow Counties	P25 450 MHz Trunked/VHF	Existing
Regional	LRIG & LBRIG; (Linn, Benton & Lane Counties)	Lane Radio Interoperability Group (LRIG) & Linn-Benton Radio Interoperability Group (LBRIG)	P25 450 MHz Trunked & P25 700 MHz Trunked connected via a common core	Existing
Regional	Salem/West Valley			
Regional	Frontier			

APPENDIX B: LIST OF ACRONYMS

AAR	After Action Report
AOC	Association of Oregon Counties
APR	Annual Progress Report
COML	Communications Unit Leader
COMT	Communications Unit Technician
DAS	Department of Administrative Services
DHS	U.S. Department of Homeland Security
FirstNet	First Responder Network Authority
LMR	Land Mobile Radio
LTE	Long Term Evolution
MHz	Megahertz
NECP	National Emergency Communications Plan
NG911	Next Generation 911
NPSBN	Nationwide Public Safety Broadband Network
NTIA	National Telecommunications and Information Administration
ODOT	Oregon Department of Transportation
OEC	Office of Emergency Communications
OEM	Oregon Emergency Management
OPEC	Oregon Public-Safety Emergency Communications
OPSBO	Oregon Public Safety Broadband Office
OSP	Oregon State Police
PPD	Presidential Policy Directive
PSAP	Public Safety Answering Point
RECCWG	Regional Emergency Communications Coordination Working Group
SCIP	Statewide Communication Interoperability Plan
SIEC	Statewide Interoperability Executive Council
SLIGP	State and Local Implementation Grant Program
SOP	Standard Operating Procedure
SWIC	Statewide Interoperability Coordinator
TICFOG	Tactical Interoperable Communications Field Operations Guide

TICP	Tactical Interoperable Communications Plan
VHF	Very High Frequency
UASI	Urban Area Security Initiative