Washington

Statewide Communication Interoperability Plan (SCIP)

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EXECUTIVE SUMMARY

The Washington 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 Washington prioritize resources, strengthen governance, identify future investments, and address interoperability gaps. Interoperability is the ability of public safety agencies and first responders to exchange information via voice or data systems on demand, in real time, as authorized.

The purpose of the Washington 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 Washington's Vision and Mission for improving emergency communications operability, interoperability, and continuity of communications statewide.

Vision: A practical and comprehensive approach to emergency communications and information sharing that allows necessary responders to communicate and share data on demand, in real-time, as needed, and as authorized.

Mission: The SCIP defines and promotes a statewide strategy enabling interoperable public safety communications in the interest of the safety and protection of life and property throughout the State of Washington.

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

- Governance –
  - Current and defined Statewide Interoperability Executive Committee (SIEC) roles and responsibilities
  - Champions for interoperable data and voice communications
  - Coordinated communications planning among bordering States and Canada
  - Completed Washington's FirstNet Consultations and State Plan
- Standard Operating Procedures (SOPs) –
  - Statewide Interoperable Communications Field Operations Guide (FOG)
  - Talkgroup and frequency sharing agreements in place
- Technology –
  - Interoperability across dissimilar mission critical voice systems

- Public safety data and voice communication system resources leveraged to eliminate duplication
- A tool for cataloging and managing communications assets and resources is identified and evaluated
- Compliance with State and Local Implementation Grant Program (SLIGP) requirements

- Training and Exercises –
  - Established Communications Unit (COMU) certification program, including bridge courses to provide specific event knowledge to all-hazards COMUs
  - Active participation in 2016 Cascadia Rising exercise
- Usage –
  - *No usage goals identified at this time*
- Outreach and Information Sharing –
  - Outreach and information sharing plan for mission critical data and voice communications
  - SIEC is the central repository and clearinghouse for communications-related materials
- Life Cycle Funding –
  - Shared public safety communications resources that increase efficiencies and decrease redundant costs

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1. INTRODUCTION

The Washington Statewide Communication Interoperability Plan (SCIP) is a stakeholder-driven, multi-jurisdictional, and multi-disciplinary statewide strategic plan to enhance interoperable and emergency communications. Interoperability is the ability of public safety agencies and first responders to exchange information via voice or data systems on demand, in real time, as authorized. The SCIP is a critical mid-range (three to five years) strategic planning tool to help Washington 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 of the SCIP in Washington.
- 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 the State'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 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 in Washington 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.

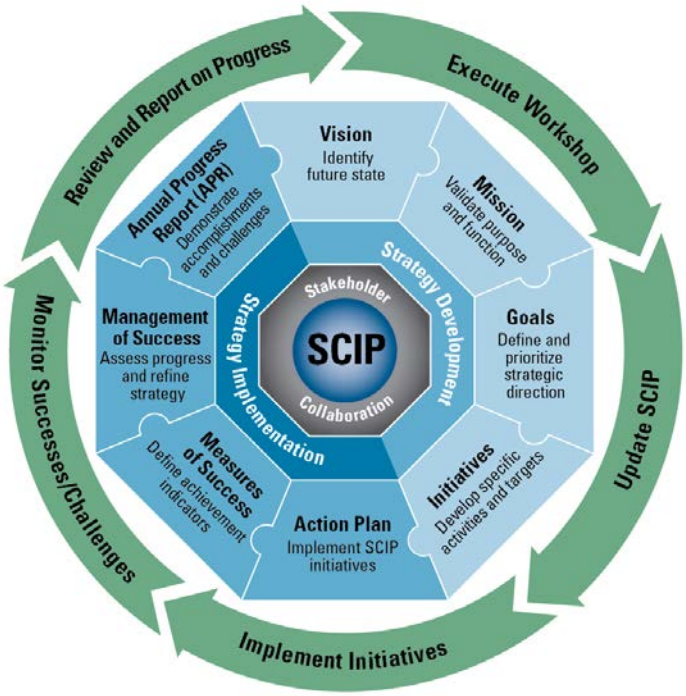

Figure 1: SCIP Strategic Plan and Implementation Components

The Washington SCIP is based on an understanding of the current and mid-range interoperable and emergency communications environment. Washington has taken significant steps towards enhancing interoperable and emergency communications, including increased efforts to share assets among State and local jurisdictions, as well as upgrading Land Mobile Radio (LMR) systems used by the Washington State Patrol and various local agencies. Some notable successful projects include Spokane County's $47M upgrade allowing all first responders in the county to communicate directly, and Pierce County's migration to a new 700 MHz public safety radio network, which has been lauded as an excellent demonstration of sound public investments.

However, more remains to be done to achieve Washington's vision. It is also important to note that this work is part of a continuous cycle as Washington 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, Washington 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.

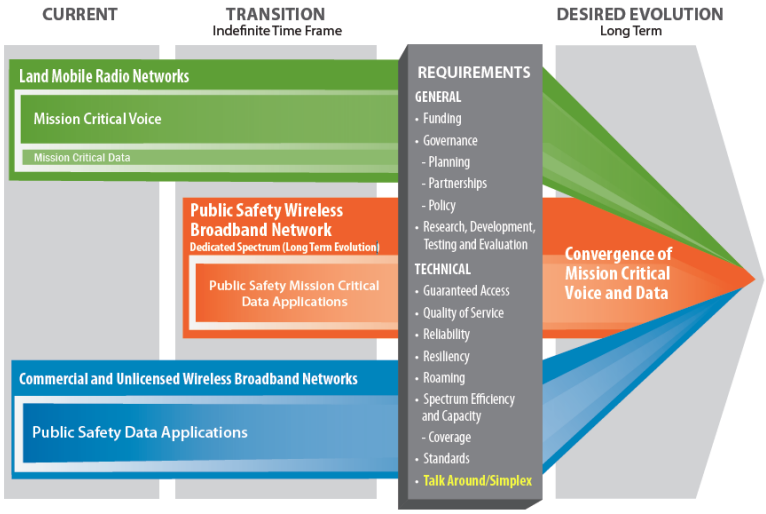

Figure 2: Public Safety Communications Evolution

Integrating capabilities such as broadband provides an unparalleled opportunity for the future of interoperable communications in Washington. 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 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, Washington 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 requirements and identify existing resources and

assets that could potentially be used. 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 for the foreseeable future, 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 (link available in Reference Materials). In September 2013, the Washington State Interoperability Executive Committee (SIEC), under the auspices of the Office of the Chief Information Officer (OCIO), was designated the State's Point of Contact (SPOC) for FirstNet's outreach and data collection efforts in Washington State. The Washington State program, OneNet, conducts stakeholder outreach and education and provides FirstNet input on needs and requirements for the network design that will best suit Washington's emergency communications community. OneNet's work has positioned the State as a trusted source of information and planning in the FirstNet consultation process. (More information on the Washington OneNet program can be accessed at https://ocio.wa.gov/initiatives/washington-onenet-firstnet.) Ultimately, the SIEC will provide the Governor with information and recommendations so he may choose to opt-in or opt-out of the FirstNet's proposed radio access network design for Washington.

Additionally, identifying sustainable funding in the current fiscal climate is a priority for Washington. 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. Key priorities for sustainable funding in Washington are:

- Improving interoperability through technical upgrades and ongoing maintenance
- Protecting critical infrastructure
- Support ongoing collaboration and coordination among jurisdictions and levels of government in a statewide system-of-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 (link available in Reference Materials).

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.

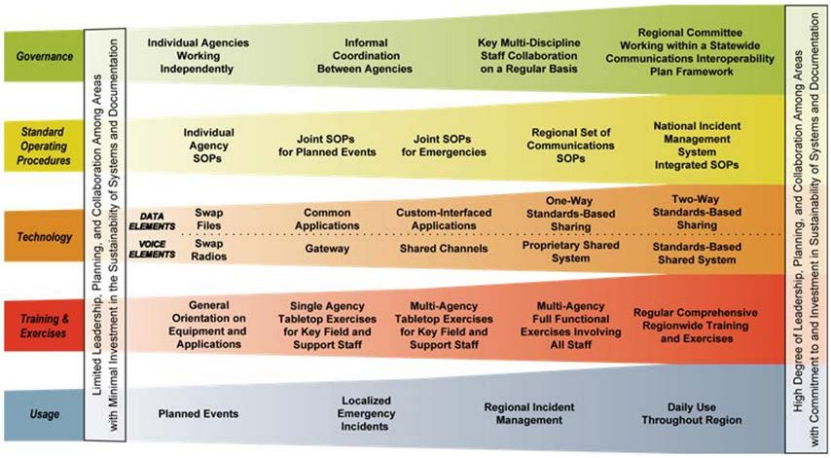

Figure 3: The Interoperability Continuum

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 Washington's 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.[1] The following sections will further describe how the SCIP will be used in Washington and Washington's plans to enhance interoperable and emergency communications.

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

2. PURPOSE

The purpose of the Washington 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 development and execution of the SCIP assists Washington 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)[2] National Preparedness Goal for Operational Communications.[3]

In addition to this SCIP, Washington 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 Annual Snapshot is available in Section 6.4.

This SCIP is owned by the SIEC and managed by the SIEC Advisory Workgroup (SAW). The SIEC has the authority to and is responsible for making decisions regarding this plan, as informed by the SAW's recommendations. The SIEC is also responsible for ensuring that this plan is implemented and maintained statewide. In August 2014 and February 2015, key stakeholders from across the State met over two days in Spokane and Seattle, respectfully, to develop revisions to the SCIP that establishes a document that addresses the evolving communication environment and upcoming challenges.

3. STATE'S INTEROPERABLE AND EMERGENCY COMMUNICATIONS OVERVIEW

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The Washington Statewide Interoperability Executive Committee (SIEC) relies heavily on input from local stakeholders and is identifying strategies to more closely collaborate with local agencies on interoperability efforts. The SIEC was formed by legislative mandate in 2003 and re-established in 2011 in Engrossed Substitute Senate Bill 5931 to manage how the State public safety agencies use wireless communications to carry out daily operations and coordinate responses during major incidents. The SIEC serves as a part of the State's multi-jurisdictional Domestic Security Infrastructure, which facilitates decision making and information sharing across the State's public safety disciplines at all levels of government.

[2] 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.

[3] 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.

Figure 4: Washington State Homeland Security Regions

In addition to the SIEC, Washington also has the Washington State Homeland Security regional planning and coordination structure, which increased communication and collaboration to include the sharing of best practices as well as resource coordination. . This nine-region configuration was implemented to distribute Federal grant funds, develop emergency responder equipment priority lists, plan and execute training and exercise programs. Joint coordination and planning of operations and knowledge of physical resources maintained by counties, cities, and tribal jurisdictions are facilitated at the regional level. Interoperable and emergency communications agencies in Washington primarily operate on three frequency bands – very high frequency (VHF), ultra-high frequency (UHF), and 800 megahertz (MHz). The governing body varies for each system. Overall, Washington utilizes a system-of-systems approach incorporating four statewide systems and multiple regional and local public communications systems.

Despite Washington's communications challenges, shared infrastructure does exist between various State agencies and local jurisdictions, such as microwave connectivity and mutual aid channels, providing with various degrees of interoperability. Varying levels of technology among systems can limit access to important incident management information systems and the compilation of common operational pictures. Additional coordination is needed to determine effective technical solutions to address coverage dead zones in some geographic areas. County and local communications systems are not consistent and many systems cannot integrate or interoperate with statewide infrastructure. Furthermore, statewide mutual aid channels are not consistently available, usable, or reliable in times of need. In most situations, these frequencies are not being monitored by a dispatch center, poor coverage exists that limits usage, or the user does not know how to use—or is reluctant to use—the available mutual aid channels. Major LMR and wireless data systems are listed in Appendix A of the SCIP.

In December 2014, the SR 530 Landslide Commission issued a Final Report to Governor Jay Inslee outlining recommendations to better respond to incidents such as the 2014 mudslide in Oso, Washington. The report discusses numerous instances of communication challenges among first responders and with the public, and developed several communications-related recommendations, including:

- In emergency events, effective communication may be challenging. It is critical that redundant and properly managed communication systems be developed and in place at an event.
- Washington State should actively participate in the design of the FirstNet network, under the leadership of the SIEC, with the goal being one of the first States to deploy the new nationwide network.
- Update the SCIP to include formal certification of Communications Unit Leader (COML) and Communications Unit Technician (COMT) response positions and maintain a State listing for use by incident commanders to support major disaster and emergencies

Through this SCIP and related activities, Washington intends to implement the lessons learned in the Final Report developed by the SR 530 Landslide Commission.

4. VISION AND MISSION

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

Vision:

A practical and comprehensive approach to emergency communications and information sharing that allows necessary responders to communicate and share data on demand, in real-time, as needed, and as authorized.

Mission:

The SCIP defines and promotes a statewide strategy enabling interoperable public safety communications in the interest of the safety and protection of life and property throughout the State of Washington.

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 of the Washington governance structure for interoperable and emergency communications. The SAW

provides review, input, consultation, and technical assurances for SIEC recommendations and decisions to coordinate and support interoperable and emergency communications throughout the State. SIEC members are appointed by the State's Chief Information Officer, and SAW members are encouraged to participate from Washington's emergency communications entities. At the regional level, each State Homeland Security region has an interdisciplinary council that determines priorities for the region. The council assesses vulnerabilities and determines how to address enhancements to the region's capabilities. One county within each region acts as the regional lead. The regional lead implements the vision of the regional council and is ultimately responsible for the projects, fiscal accountability, and contract management for the region. Each regional lead has a regional coordinator who is specifically tasked to work with the regional partners at the city, tribal, county, and special purpose district levels to keep them engaged in the regional process.

Presently, Washington does not have a full time Statewide Interoperability Coordinator (SWIC), a key role necessary to support these efforts, the SIEC and the Homeland Security structure provides a high degree of coordination and training opportunities. However, the State of Washington lacks regional interoperability committees for VHF and UHF frequency bands or effective processes for local jurisdictions to work with the SIEC for improvement and advancement of interoperability through use of technology. Additionally, the governing bodies vary for county and regional systems. These challenges could be mitigated by establishing regional interoperability committees to coordinate with the SIEC.

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

Table 1: Governance Goals and Initiatives

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
1.		1.1 Request funds for staffing support and positions from State Legislature	SIEC Chair, SWIC	January 2017

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
	Current and defined Statewide Interoperability Executive Committee (SIEC) roles and responsibilities	1.2 Add Tribal and Association of Public-Safety Communications Officials (APCO)/National Emergency Number Association (NENA) representation as formalized members of the SIEC	SIEC Chair	January 2016
		1.3 Define expectations for voting members	State Office of the Chief Information Officer (OCIO) SIEC Members	June 2015
		1.4 Research opportunities for regional and/or discipline representation (i.e. regional working groups) and possibly other States' governance models that meet Washington's needs and parameters	SWIC, SAW, Homeland Security Regions	June 2016
2.	Champions for interoperable data and voice communications	2.1 Identify key legislators and other potential champions for interoperability	SIEC Members	August 2015, Annually thereafter
		2.2 Develop talking points and reference materials to share with potential champions (including information from after action reports)	Data: Washington OneNet Voice: SAW, under SIEC direction	August 2015, Annually thereafter
		2.3 Reevaluate outreach materials and maintain currency	Data: Washington OneNet Voice: SAW, under SIEC direction	August 2015, Annually thereafter

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
3.	Coordinated communications planning among bordering States and Canada	3.1 Identify and partner with current collaboration efforts (e.g., Canada-United States Communications Interoperability Workshop Group [CANUS CWG], Beyond Border Action Plan, annual meetings between Washington and British Columbia, Canadian Interoperability Task Group, Pacific Northwest Emergency Management Agreement [PNEMA])	SWIC, Region X RECCWG, FCC Regional Planning Committee	December 2015
		3.2 Coordinate with neighboring States (i.e., Portland-Vancouver UASI)	FCC Regional Planning Committee, CRESA (Clark Regional Emergency Services Agency)	December 2015
4.	Completed Washington's FirstNet Consultations and State Plan	4.1 Establish usage and control policies	OneNet Stakeholder Group (both Stakeholder and Technical Committees)	December 2016
		4.2 Develop lists of: - Possible Washington OneNet users - Operational areas - Usage profiles - Number of devices - Computer Aided Dispatch (CAD) data (if available)	OneNet Stakeholder Group	September 2016

Governance Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
		4.3 Determine additional capabilities and requirements	OneNet Stakeholder Group	December 2017

5.2 Standard Operating Procedures (SOPs)

The SOPs section of the SCIP identifies the framework and processes for developing and managing SOPs statewide. Washington adopted the Incident Command System (ICS) in the early 1990s through the Revised Code of Washington 38.52.070, which requires the use of ICS by all incident management and response organizations within the State for multi-agency/multi-jurisdictional incidents.

Communication system operators have SOPs in place for their systems and all network users must comply with those SOPs. The process by which the State, regions, and localities develop, manage, maintain, upgrade, and communicate SOPs requires them to follow guidance from the National Interagency Fire Center (NIFC), FBI's National Crime Information Center (NCIC), National Law Enforcement Telecommunications System (NLETS), National Response Framework (NRF), Association of Public Safety Communications Officials (APCO), National Fire Protection Association, National Incident Management System (NIMS), and other nationally recognized bodies as they become available. All statewide SOPs developed are required to be ICS/NIMS compliant.

Developing statewide standards and models has not been the highest priority for Washington, though the State adopted the federally mandated NIMS and established processes for compliance training at both state and local levels. Additionally, Washington is still in need of the development of a set of protocols for succession planning involving outgoing emergency communications staff with related responsibilities.

Table 2 outlines Washington'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
5.	Statewide Interoperable Communications Field Operations	5.1 Request OEC Technical Assistance to develop a statewide communications FOG for Washington	SWIC	December 2015

Standard Operating Procedures Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
	Guide (FOG)	5.2 Collect data from public safety agencies in the State for inclusion in the FOG	SAW; SWIC	December 2016
		5.3 Collect data to develop an interoperable resource map	SAW, FCC Region 43 RPC	December 2015
6.	Talkgroup and frequency sharing agreements in place	6.1 Identify existing TICPs and points of contact	SAW	December 2015
		6.2 Develop inventory of existing interoperable communications resources	SAW	December 2016
		6.3 Develop the plan to standardize interoperability talkgroups and channels	TRIS (Tri-County Radio Interoperability System), Systems managers	December 2016
		6.4 Review and publish baseline minimum interoperability channels	SIEC	December 2015
		6.5 Research tri-band interoperability repeaters for rural counties	SAW	April 2017

5.3 Technology

The Technology section of the SCIP outlines Washington'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. Washington's interoperability approach leverages the State's existing radio systems, operating in different bands, and provides a phased migration to common air interface protocols based on Project 25 (P25) standards. Washington is taking a multiple subsystem architecture approach designed to improve interoperability in the short- and mid-terms while jurisdictions transition to standards-based, open system, system of systems architecture. The multiple subsystems approach is of equal value to local jurisdictions as well, particularly when they seek cost effective partnerships that improve local coverage and interoperability.

SOPs facilitate adequate use of the old technology, however the cross patching of channels, sharing of radio caches, and a vast array of disparate radio communication capabilities makes the use of the various systems inefficient and costly. Existing LMR systems' varying life cycle stages and dissimilar mobile data systems hinder access to the important incident management information systems and the compilation of common operational pictures. As different regions upgrade their communications systems, continuing interoperability may be challenging\due to the varying degrees of maturity among existing systems and communications capabilities.

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

Table 3: Technology Goals and Initiatives

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
7.	Interoperability across dissimilar mission critical voice systems	7.1 Use the SCIP as an education and marketing tool at all levels of government in the State to achieve the shared vision	SIEC	December 2014, Annually
		7.2 Encourage the programming of national interoperability channels / frequencies into all public safety radios across the State	SIEC, SWIC	December 2014
		7.3 Develop an inventory of LMR systems in use throughout the State (to include manufacturer, frequency band, system capacity, trunked, etc.)	SAW, SIEC	December 2015
		7.4 Compare efficiencies of purchasing shared interoperability solutions vs. sharing cached subscriber units when needed	SAW, SIEC	September 2015
		7.5 Promote the acquisition of interoperable LMR technology when upgrading or replacing radio systems	SIEC	December 2018

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
		7.6 Promote development of agreements and preprogramming of agencies' radios on potential partners' systems giving access to repeaters and trunked systems	System managers, Homeland Security Regional Interoperability Committees	December 2018
8.	Public safety data and voice communication system resources leveraged to eliminate duplication	8.1 Promote, educate, and encourage the sharing of public safety communications infrastructure	SIEC, Homeland Security Regional Interoperability Committees	June 2015, Ongoing
		8.2 Update the Communications Survey and Mapping (CASM) or similar tool to reflect current inventories and capabilities	Homeland Security Regional Interoperability Committees, Systems managers	December 2016
9.	A tool for cataloging and managing communications assets and resources is identified and evaluated	9.1 Evaluate Communications Asset Survey and Mapping (CASM) for cataloging and managing communications assets and resources	SAW	December 2015
		9.2 Leverage the emergency management system to update CASM (or other tool) information	SWIC	December 2014
		9.3 Update and manage list of active CASM (or other tool) users with appropriate capabilities	SWIC	June 2015
		9.4 Establish a method for shared document management and editing (include a semiannual reminder to update CASM/other tool)	Washington OneNet	December 2015

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
		9.5 Promote the value of CASM/other tool for Washington's public safety needs (newsletter, SIEC website)	SIEC, Washington OneNet	December 2015
		9.6 Advertise new and recurring CASM NextGen/other tool training (FCC Region 43, Western Washington Cooperative Interference Committee, Northwest APCO)	SWIC, Emergency Management Training Officer	December 2015
		9.7 Update system information	All system owners	Annually
10.	Compliance with State and Local Implementation Grant Program (SLIGP) requirements	10.1 Develop and conduct outreach to educate and inform the public safety community, elected officials, etc. on the benefits of the Nationwide Public Safety Broadband Network (NPSBN)	Washington OneNet Team, Washington State University (WSU)	September 2016
		10.2 Determine wireless broadband user's needs (i.e. coverage areas, building penetration capability, numbers of user devices) and convey to FirstNet during initial consultations	Washington OneNet Team	January 2015
		10.3 Collect and catalogue communications infrastructure that may be leveraged for the NPSBN, as required by SLIGP Phase II	Washington OneNet Team	September 2016

Technology Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
		10.4 Share infrastructure resource list(s) with FirstNet, as required by SLIGP Phase II	Washington OneNet Team	September 2016
		10.5 Research and evaluate mobile/field applications that can be used locally and nationwide for interoperability	Washington OneNet Team	September 2016

5.4 Training and Exercises

The Training and Exercises section of the SCIP explains Washington'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. Washington has a formal and robust statewide training and exercise program managed by the Washington Military Department's Emergency Management Division (EMD). The exercise and training process is designed to ensure that training is cross-disciplinary through a variety of channels, including the SIEC. Each year, the State EMD hosts a statewide exercise and training workshop for personnel involved in creating training and exercise programs for Federal, State, local, and tribal governments. Washington also conducts an annual statewide All Hazards training and exercise event. Regional Response 2007 tested the response capabilities of 110 Federal, State, local, interstate, and private sector agencies at various venues across the State.

Washington recognizes the importance of COML and COMT training and certification for stakeholders and has conducted many COML and COMT trainings as part of its robust training and exercise efforts. While no all-hazards Communications Unit (COMU) certification process currently exists, Washington supports a wild land fire-specific COML program, focused on the request, deployment, and use of the NIFC's UHF/VHF radio equipment caches.

Washington conducts regular comprehensive regional training and exercises that are inclusive of interstate and international participation. These exercises prepare the State to respond to a wide variety of emergencies varying in scale from local response to that requiring assistance from or providing assistance to outside jurisdictions, other states, the federal government, and Canada. However, the entire state will benefit from added emphasis on locally driven training opportunities and development of a statewide certification program based upon the national standards for COMU/COML/COMT all-hazards training courses.

Table 4 outlines Washington'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
11.	Established Communications Unit (COMU) certification program, including bridge courses to provide specific event knowledge to all-hazards COMUs	11.1 Appoint a COMU certification working group	SIEC	August 2015
		11.2 Revisit opportunities to develop certification paths for COMU	COMU Certification Working Group	December 2016
		11.3 Develop and manage list of currently trained all-hazards COMU personnel	SWIC	August 2016
12.	Active participation in 2016 Cascadia Rising exercise	12.1 Participate in the 2016 Cascadia Rising exercise for Washington State	Western Washington Radio Relay League Section Manager	July 2016

5.5 Usage

The Usage section of the SCIP outlines efforts to ensure responders adopt and familiarize themselves with interoperable and emergency communications technologies, systems, and operating procedures in the State. Regular usage ensures the maintenance and establishment of interoperability in case of an incident. Washington's Homeland Security Regions developed policies and procedures to access and deploy interoperable resources on an as needed basis. Some users are more familiar than others with the use of interoperable systems. Local leadership emphasis on frequent use, SOPs, and training is needed to increase familiarization with interoperable systems and resources.

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

Table 5: Usage Goals and Initiatives

Usage Goals and Initiatives				
Goal #	Goals	Initiatives	Owner	Completion Date
	No usage goals have been identified at this time.			

5.6 Outreach and Information Sharing

The Outreach and Information Sharing section of the SCIP outlines Washington'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. Washington OneNet has taken significant steps to increase awareness and share information regarding emerging public safety broadband communications technology in Washington, and working to identify broadband needs across levels of government. The SIEC and SAW will continue to develop local cross-jurisdictional and cross-disciplinary participation to ensure available resources can reach users.

Washington recognizes the need to improve stakeholder relationships across diverse stakeholder groups and regions. The need to develop these relationships is particularly strong in smaller local communities with fewer accessible resources. Fostering working relationships with elected officials is also necessary to continue to improve emergency and interoperable communications statewide.

Table 6 outlines Washington'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
13.	Outreach and information sharing plan for mission critical data and voice communications	13.1 Develop a COMU listserv to share information	Washington OneNet Team	October 2014
		13.2 Promote the SIEC's role and value	SIEC Chair, SIEC	November 2014, Ongoing
14.	SIEC is the central repository and clearinghouse for communications-related materials	14.1 Collect existing outreach materials	SIEC, SWIC	March 2015
		14.2 Post materials to SIEC website	Washington OneNet Team	March 2015, Ongoing
		14.3 Advertise website and materials to stakeholders	SIEC	June 2015

Commented [OEC3]: A goal regarding law enforcement information sharing (using systems such as FBI N-DEx and NCIS LInX) was placed on the parking lot by workshop participants for further discussion

5.7 Life Cycle Funding

The Life Cycle Funding section of the SCIP outlines Washington's plan to fund existing and future interoperable and emergency communications priorities. Washington is working on various efforts to fund emergency communications. At the county level, some jurisdictions are increasing local sales taxes to contribute to emergency communication funds. At the State level, bonds are being considered by the State legislature. The State Department of Transportation is also considering funding options to upgrade its radio

system, and currently potential sources are unknown. The State Department of Natural Resources is also looking to update its system but the funding source is presently unknown.

Commented [OEC4]: Revised based on offline stakeholder feedback during workshop

Washington State must work to identify efficient and creative ways to fund and sustain emergency communications capabilities in light of budget deficits. The State must continue to encourage these initiatives to fund emergency communications efforts.

Table 7 outlines Washington'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
15.	Shared public safety communications resources that increase efficiencies and decrease redundant costs	15.1 Identify and catalogue public safety LMR and data systems in use in the State	Major system owners, SWIC, SIEC	December 2015
		15.2 Promote the sharing of public safety communications resources and/or consolidation of services to eliminate or minimize duplication	SIEC	December 2018

6. IMPLEMENTATION

Commented [OEC5]: Section for Washington's discussion and completion, including next steps (Action Plan), completing Measures of Success, determining how the Measures will be used (Management of Success), and how the SCIP will be managed and maintained (Strategic Plan Review).

6.1 Action Plan

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

6.2 Measures of Success

The Measures of Success section of the SCIP defines the measures that Washington will use to monitor progress and indicate accomplishments toward achieving the vision for interoperable and emergency communications. Measures of success are used to meaningfully assess the outcomes and impacts of program functions and processes in meeting strategic goals. Table 8 outlines these measures for Washington. More information on how these measures are managed is included in Section 6.3.

Table 8: SCIP Measures of Success

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
1.	Current and defined Statewide Interoperability Executive Committee (SIEC) roles and responsibilities	SIEC is established by State law, has a set of bylaws, members do not understand their responsibilities, and limited communication outside of the group	Staff support funded by legislature	April 2017	State CIO
2.	Champions for data and voice emergency communications	A few champions participate but are not organized	An established and active list of champions in each of the nine Homeland Security Regions and eventually in each county	February 2016 / every county February 2017	State CIO
3.	Coordinated communications planning among bordering States and Canada				
4.	Completed Washington's FirstNet Consultations and State Plan	Committees in development	Established and operating Stakeholder and Technical Committees	December 2016	SPOC
5.	Statewide Interoperable Communications Field Operations Guide (FOG)	No Statewide FOG in place	Published and used	December 2020	State EMD
6.	Talkgroup and frequency sharing agreements in place				
7.	Interoperability across dissimilar mission critical voice systems	Collecting systems information across the State	Published systems inventory	May 2015	State CIO

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
8.	Public safety data and voice communication system resources leveraged to eliminate duplication				
9.	A tool for cataloging and managing communications assets and resources is identified and evaluated				
10.	Comply with State and Local Implementation Grant Program (SLIGP) requirements	Inventory unknown	Data collected, validated, and submitted to FirstNet	December 2015	State CIO
11.	Established Communications Unit (COMU) certification program, including bridge courses to provide specific event knowledge to all-hazards COMUs	Training is available though not coordinated. No certification program in place.	A visible and established training and certification program for COMU	June 2016	SIEC Chair
12.	Active participation in 2016 Cascadia Rising exercise				
13.	Outreach and information sharing plan for mission critical data and voice communications	Rudimentary and ineffective listserv, website, and social media in place	An active communication program involving listserv, website, and social media	December 2015	State CIO
14.	SIEC is the central repository and clearinghouse for communications-related materials	No repository and clearinghouse in place	Site established with user access and materials posted	December 2016	State CIO

Measures of Success					
Goal #	Strategic Goal(s) Supported	Initial State	Target Measurement	Measure Completion Date	Owner or Source
15.	Shared public safety communications resources that increase efficiencies and decrease costs				

6.3 Management of Success

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

6.4 Strategic Plan Review

The Strategic Plan Review section outlines the process Washington 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.

7. REFERENCE MATERIALS

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

Table 9: SCIP Reference Materials

Title	Description	Source/Location
Washington SIEC Website	Further information and materials related to the Washington SIEC	https://ocio.wa.gov/about-ocio/siec-state-interoperability-executive-committee
OneNet Website	Further information and materials related to Washington OneNet	https://ocio.wa.gov/initiatives/washington-onenet-firstnet
Washington OneNet Plan	Further information regarding Washington's strategic plan to integrate broadband data for interoperable and emergency communications	
OEC Public Safety Communications Evolution Brochure	Information regarding the evolution of emergency communications and how traditional LMR communications used today may converge with wireless broadband in the future	http://publicsafetytools.info/oec_guidance/docs/Public_Safety_Communications_Evolution_Brochure.pdf
OEC System Life Cycle Planning Guide	A planning document to support long-term cost planning and budgeting and a high-level review of the considerations relevant to each step of the system life cycle	http://publicsafetytools.info/oec_guidance/docs/OEC_System_Life_Cycle_Planning_Guide_Final.pdf

SYSTEMS LIST - STATEWIDE COMMUNICATIONS INTEROPERABILITY PLAN (SCIP)

January 1, 2015

ABSTRACT

This document is a compilation of public safety wireless networks used by cities, counties and state government in Washington. This compilation includes both Mission-Critical Voice (MCV) and Mission-Critical Data (MCD) networks. This compilation supports planned changes to the SCIP

State Interoperability Executive Committee (SIEC)

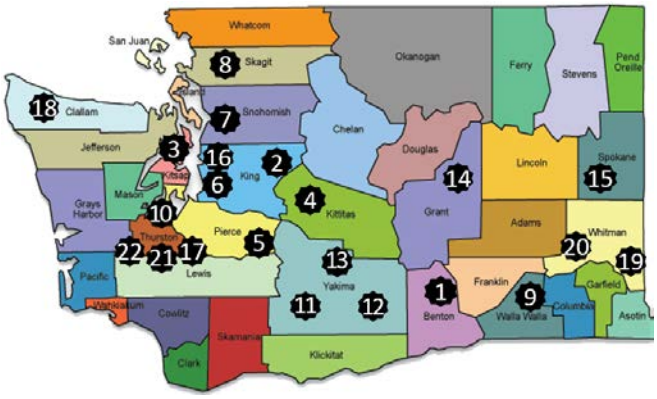
This document is produced under the authority of the Washington SIEC managed by the Office of the Chief Information Officer (OCIO) and Washington State Patrol (WSP).

Disclaimer: This collection systems is as of April 9, 2015 and we recognize that there are networks missing from this catalog. To add your system, please contact onenet@onenet.wa.gov

Introduction

This compilation of mission critical wireless networks is based upon data collected during the State Communications Interoperability Plan (SCIP) Workshop in Spokane on August 13-14, 2014 and the SCIP update on February 12, 2015.

Map



Number	System Name	MCV Page	MCD Page
1	Benton County Emergency Services	2	3
2	King County, Radio Communications Services	4	5
3	Kitsap County CENCOM	6	7
4	KITTCOM Kittitas County	8	9
5	Pierce County / Pierce Transit	10	11
6	City of Seattle	12	13
7	Snohomish County Emergency Radio System (SERS)	14	15
8	Skagit 911	16	17
9	Walla Walla Emergency Services Communications (WESCOM)	18	19
10	WA Department of Fish and Wildlife (WILDCOMM)	20	21
11	SunComm City of Yakima Fire Department	22	23
12	SunComm City of Yakima Police Department	24	25
13	SunComm Yakima County Upper Valley Fire Districts	26	27
14	Grant County Sheriff's Office	28	29
15	Spokane Regional Emergency Communications System (SRECS)	30	31
16	Port of Seattle	32	33
17	WSDOT	34	35
18	Clallam County Sheriff OPSCAN Operation	36	37
19	City of Pullman, Police and Fire	28	39
20	Whitman County Emergency Management	40	41
21	Washington State Dept. of Natural Resources	42	43
22	Washington State Patrol	44	45
	Resources	46	53

Agency name:	Benton County Emergency Services
Radio system name:	Benton County Emergency Services
Point of contact:	Doug deGraaf
Website:	http://www.bces.wa.gov
Frequency band or technology:	P25 800MHz Simulcast, used by all Law Enforcement Agencies in Benton County – Owned by BCES VHF Narrowband Simulcast, used by all Fire/EMS Agencies in Benton County, connected to Motorola Astro P25 System via CCGW's – Owned by City of Richland/Fire
Approx. number of mobile/vehicle radios:	309 (800MHz Only)
Approx. number of handheld radios:	668 (800MHz Only)
Approx. number of radio sites:	6 with RF, 8 total (includes BCES and another microwave hop)
Size of agency (number of people):	60
Issues with MCV:	• End User Training • Diagnostic Equipment and Training to help identify and troubleshoot interference issues • Interoperability with adjacent agencies including (but not limited to) Yakima County (Grandview, Sunnyside, etc.), Grant County, Umatilla County, Franklin County, and Walla Walla County. • Replacement of Radio Assets. Motorola is phasing out the XTL and XTS series of radios, the user agencies will need to replace their equipment in the future to stay current and healthy

Mission-Critical Data (MCD)

Agency:	Benton County Emergency Services
Current mobile data provider:	Not answered
Approximate cost per month per use:	Not answered
Approx. number of users or user devices:	Not answered
Applications in use today:	Not answered
Applications planned or needed:	Not answered
Issues with MCD:	Not answered

Agency name:	King County, Radio Communications Services
Radio system name:	King County 800 MHz Emergency Radio System
Point of contact:	Anthony Minor (206-263-8104) Anthony.minor@kingcounty.gov
Website:	http://www.kingcounty.gov/operations/it/it-services/radio.aspx
Regions served:	Valleycom - http://www.valleycom.org/ EPSCA – http://www.epsca.com/homepage.html City of Seattle - http://www.seattle.gov/information-technology/initiatives
Frequency band or technology:	• 800 MHz, Motorola ASTRO 25 Smartzone 4.1
Approx. number of mobile/vehicle radios:	10K (includes subscribers for each owner of the Regional System)
Approx. number of handheld radios:	8K (includes subscribers for each owner of the Regional System)
Approx. number of radio sites:	29 (includes all sites for each owner of the Regional System)
Size of agency (number of people):	There are four owner Agencies of the KC Regional 800 MHz System. The system core is jointly owned and maintained; radio sites providing coverage in each owner's service area are individually owned and maintained. Staff counts are: King County – 13 City of Seattle - 10 Valley Communications Center – 2 (maintenance contracted to KC) East Site Public Safety Communications Agency (EPSCA) – 2 (maintenance contracted to Motorola)
Issues with MCV:	• Interoperability. There are lots of disparate systems and although interoperability is possible and often facilitated there are many challenges and limitations that make interoperability clumsy and much less graceful that it could be if these disparate systems performed as one system • Many systems utilize vendor proprietary technology making interoperability limited or not possible • Expense, the cost of MCV equipment, in particular subscriber equipment can be stifling and often is a prime impediment to upgrading or replacing the networks they operate on • Lack of competition and resultant high prices for MCV infrastructure and subscriber equipment

Mission-Critical Data (MCD)

Agency:	King County, Radio Communications Services
Current mobile data provider:	System does not include Mobile Data application. End Users receive these services from Commercial Providers
Approximate cost per month per use:	Not known
Approx. number of users or user devices:	Not known
Applications in use today:	Not known
Applications planned or needed:	Not known
Issues with MCD:	Not known

Agency name:	Kitsap County CENCOM
Radio system name:	Kitsap County Public Safety Radio System
Point of contact:	Dean Heistand
Website:	http://www.kitsap911.org/
Frequency band or technology:	VHF Conventional Analog Simulcast
Approx. number of mobile/vehicle radios:	1,500
Approx. number of handheld radios:	1,000
Approx. number of radio sites:	14
Size of agency (number of people):	• 6 Fire Agencies • 5 LE Agencies • (Unknown number of staff)
Issues with MCV:	• Additional towers • In-building coverage improvements (BDA systems for large facilities such as schools, medical facilities, strip malls, office buildings) • More radio channels

Mission-Critical Data (MCD)

Agency:	Kitsap County CENCOM
Current mobile data provider:	Verizon
Approximate cost per month per use:	$166K
Approx. number of users or user devices:	300
Applications in use today:	• CAD • AVL • LE RMS • Fire RMS • EMS RMS • Sector
Applications planned or needed:	Not answered
Issues with MCD:	• Coverage, more carrier towers needed • Higher throughput

Agency name:	KITTCOM (Kittitas County 911 and Dispatch)
Radio system name:	KITTCOM
Point of contact:	Bob Johnson, KITTCOM, Communications Engineer
Website:	http://www.kittcom.org/
Frequency band or technology:	VHF Analog Conventional Narrowband Wide Area Coverage, Voted Simulcast 5 Channels (plus repeaters and simplex)
Approx. number of mobile/vehicle radios:	200
Approx. number of handheld radios:	600
Approx. number of radio sites:	• 5 Primary Radio Sites providing mobile coverage Bandera to George • 2 Secondary Radio Sites
Size of agency (number of people):	Not answered
Issues with MCV:	• Need to develop and fund a replacement strategy for fixed radio infrastructure and network • Coverage expansion into the last 5% areas where calls for service are increasing

Mission-Critical Data (MCD)

Agency:	KITTCOM (Kittitas County 911 and Dispatch)
Current mobile data provider:	AT&T and Verizon
Approximate cost per month per use:	$49/mo/unit (user device)
Approx. number of users or user devices:	95
Applications in use today:	• Computer aided dispatch for law • ACCESS-CJIS • Sector (integrated ticketing) • Mobile connectivity to file servers • Time keeping • E-Mail • Internet access • Remote/mobile maintenance/diagnostics for: 911 telephone systems, internal network, software, remote site generator status, equipment alarms, transport network monitoring and control, PSAP HVAC status and control, microwave transport status
Applications planned or needed:	TBD
Issues with MCD:	• Carrier network site/throughput glutting in areas outside of county seat • Legacy 2G coverage by certain carriers • Unavailability/diversity during carrier site maintenance and layer 1 interruptions • Lack of visibility and notification for carrier outages and maintenance

Agency name:	Pierce County / Pierce Transit
Radio system name:	Single County-Wide Communications System (SCWCS)
Point of contact:	Tim Lenk (253)798-7011/ Carlos Davis (253)255-8323
Website:	http://www.southsound911.org/
Frequency band or technology:	700 MHz TDMA / P-25 Phase 2, UHF Data, VHF 410 Corridor
Approx. number of mobile/vehicle radios:	2000
Approx. number of handheld radios:	2000
Approx. number of radio sites:	• 700 Sites • UHF 6 site • VHF 3 sites
Size of agency (number of people):	Not answered
Issues with MCV:	• We are connecting an ISSI 8000 to the Tacoma / Puyallup 800 MHz system, and an ISSI .1 to the WSP system

Mission-Critical Data (MCD)

Agency:	Pierce County / Pierce Transit
Current mobile data provider:	Verizon, AT&T
Approximate cost per month per use:	50
Approx. number of users or user devices:	350
Applications in use today:	• CAD, reports • NCIC database
Applications planned or needed:	Not answered
Issues with MCD:	• No video • coverage gaps • speed hinders download of large files, such as maps and photos

Agency name:	City of Seattle
Radio system name:	King County Regional Trunked Radio System (also identified by other names that are variations of this)
Point of contact:	Overall Network Manager: Anthony Minor (King County) City of Seattle subsystem: Spencer Bahner
Website:	http://www.seattle.gov/information-technology/initiatives
Frequency band or technology:	800 MHz trunked with 800 MHz and VHF/UHF conventional interop resources
Approx. number of mobile/vehicle radios:	City of Seattle: ~2500
Approx. number of handheld radios:	City of Seattle: ~3000
Approx. number of radio sites:	City of Seattle subsystem: 5 sites
Size of agency (number of people):	Not sure
Issues with MCV:	• Aging infrastructure/ reliability concerns for radio system • Coverage for radio • Availability of cellular voice services during network overload conditions

Mission-Critical Data (MCD)

Agency:	City of Seattle
Current mobile data provider:	Various. Presently not standardized to the degree the voice radio system is. Verizon and Sprint are primary service providers presently.
Approximate cost per month per use:	Variable depending on carrier
Approx. number of users or user devices:	This is also a bit challenging to answer. Is the question strictly for police/fire/EMS users of does this include users who become critical users in a disaster (say building inspectors after an earthquake or transportation users after a bridge collapse…)
Applications in use today:	• CAD • RMS • Specialty purchased apps, as well as locally developed apps • Normal business applications • Varies considerably depending on how 'wide a net is cast' for what departments are included in the 'mission critical' definition
Applications planned or needed:	List is growing but no detail presently available
Issues with MCD:	• Priority access during periods of network overload

Agency name:	Snohomish County Emergency Radio System
Radio system name:	SERS
Point of contact:	Mark S. McDermott
Website:	http://www.sers800.org/
Frequency band or technology:	VHF, UHF, and 800MHz Motorola Trunked Smartzone Mixed Mode
Approx. number of mobile/vehicle radios:	4000
Approx. number of handheld radios:	4000
Approx. number of radio sites:	21
Size of agency (number of people):	9
Issues with MCV:	Not answered

Mission-Critical Data (MCD)

Agency:	Snohomish County Emergency Radio System
Current mobile data provider:	• Private Data Network, • Verizon, • AT&T
Approximate cost per month per use:	Unknown
Approx. number of users or user devices:	3000
Applications in use today:	• CAD • RMS • Messaging • Smart911
Applications planned or needed:	Not answered
Issues with MCD:	• Not answered

Agency name:	Skagit 911
Radio system name:	• FIRE/EMS Radio System • SCSO Radio System • Law Enforcement Tactical Radio System • Mount Vernon PD Radio System • Anacortes PD/Swinomish PD Radio System • Burlington PD Radio System • BIA Radio System (Includes Upper Skagit and Saul Suiattle)
Point of contact:	Mike Voss 360-428-3206
Website:	http://www.skagit911.us/
Frequency band or technology:	Fire/EMS is VHF, Conventional, Analog, Simulcast with a combination of simplex and repeated. All law enforcement systems are UHF, conventional, analog, repeated
Approx. number of mobile/vehicle radios:	300
Approx. number of handheld radios:	1700
Approx. number of radio sites:	15
Size of agency (number of people):	40
Issues with MCV:	• Need to complete build out for portable radio coverage due to narrowbanding • Need to replace legacy non-public safety grade portables and mobiles • Need to add more console positions to the dispatch center • Need to provide continued training on use of subscriber equipment to partner agencies

Mission-Critical Data (MCD)

Agency:	Skagit 911
Current mobile data provider:	Agencies use the big 4 (AT&T, Sprint PCS, T-Mobile and, Verizon Wireless) depending on each carrier's coverage in their jurisdiction.
Approximate cost per month per use:	$60
Approx. number of users or user devices:	Approximately 200
Applications in use today:	• CAD (Calls, Criminal History) • Outlook Web Access • GIS • WEB • Sector (Mobile Citations) • WISER • ERG • Paging Interface
Applications planned or needed:	Not Known
Issues with MCD:	• No one carrier provides coverage throughout the county. • Data speed • In building coverage in newer medium density and high density buildings. (Fire Code covers LMR but not MCD).

Agency name:	Walla Walla Emergency Services Communications
Radio system name:	WESCOM
Point of contact:	Steven R. Ruley, Manager – Public Safety Communications
Website:	http://www.ci.walla-walla.wa.us/depts/police/dispatch
Frequency band or technology:	VHF; with UHF radio links
Approx. number of mobile/vehicle radios:	Estimated 60
Approx. number of handheld radios:	Estimated 75
Approx. number of radio sites:	5
Size of agency (number of people):	17
Issues with MCV:	• Replacement of equipment • Interoperability with surrounding counties/agencies • Lack of dependable countywide radio coverage

Mission-Critical Data (MCD)

Agency:	Walla Walla Emergency Services Communications
Current mobile data provider:	New World Systems
Approximate cost per month per use:	Unknown
Approx. number of users or user devices:	Approximately 80
Applications in use today:	• CAD • RMS
Applications planned or needed:	CAD System needs replacement or upgrade to Microsoft Platform (from DOS based platform)
Issues with MCD:	• Insufficient funding to provide MCD to all agencies in county • Poor coverage areas • Slow response time • Better equipment

Agency name:	WA Department of Fish and Wildlife (WDFW)
Radio system name:	WILDCOMM System
Point of contact:	Lt. Phil Johnson (253) 820-0328 (cell) Office (360) 902-2978
Website:	http://wdfw.wa.gov/enforcement/personnel.html
Frequency band or technology:	• VHF Hi-Band Conventional/P25 and trunked • 700 MHz Trunked • 800 MHz Trunked
Approx. number of mobile/vehicle radios:	• 180 dual band (P25 VHF/7-800 Trunked) mobiles for vehicles, vessels, and 1 aircraft • For WDFW police; approx. 100 mobiles for non-enforcement staff • 2 portable emergency VHF High Band repeater kits licensed for statewide operation
Approx. number of handheld radios:	• 150 dual band P25 portables (1/3 VHF-UHF conventional and trunked; 2/3 VHF-7-800 MHz Trunked) for WDFW police • Approx. 300 conventional P25 and non P25 portables (VHF) for non-enforcement staff
Approx. number of radio sites:	45 (Note: these are primarily low elevation control base station and "desk top" base stations for the WILDCOMM System)
Size of agency (number of people):	Approx. 1600
Issues with MCV:	• Most critical for WDFW is the creation of a stable, robust, extremely reliable, and affordable dedicated state network for Radio over Internet Protocol (RoIP) purposes • Also useful would be state mandated and funded training exercises involving multiple agencies using existing assets such as the OSCCR System or other interop systems or channels

Mission-Critical Data (MCD)

Agency:	WA Department of Fish and Wildlife (WDFW)
Current mobile data provider:	WDFW police use the three major cell carriers data systems using "aircards"
Approximate cost per month per use:	We use the State DES contract which has unlimited data
Approx. number of users or user devices:	150
Applications in use today:	• Criminal Justice data (encrypted) • "chat messaging" • AVL and mapping; email • CAD functions through our WILDCOMM System (silent dispatching)
Applications planned or needed:	Streaming Video (nice to have)
Issues with MCD:	• No coverage in remote areas where WDFW police officers often work

Agency name:	SunComm (City of Yakima and Yakima County Fire Districts)
Radio system name:	City of Yakima Fire Department
Point of contact:	David Brush – dbrush@ci.yakima.wa.us
Website:	http://www.yakimacountyems.com/agencydirectory.html
Frequency band or technology:	• VHF high band • 2 repeater channels, one of which is voted • 5 simplex tactical channels shared with Yakima County Fire Districts • UHF transmitter, used for Zetron dispatch audio
Approx. number of mobile/vehicle radios:	Approximately 50
Approx. number of handheld radios:	Approximately 150
Approx. number of radio sites:	• 1 site for repeaters • 1 additional voter receiver site • 1 Dispatch site
Size of agency (number of people):	100 officers, FF's, and dispatchers
Issues with MCV:	• Convert both repeaters to full simulcast at 2 existing sites • Add at least 2 additional sites for better in-building coverage on both channels

Mission-Critical Data (MCD)

Agency:	SunComm (City of Yakima and Yakima County Fire Districts)
Current mobile data provider:	Coban MDT, we are mostly self-maintained. Network is via cell-towers
Approximate cost per month per use:	About $60/unit for cell system charges. City internal costs are unknown (part of the IT departments costs), but at least 2 full time employees
Approx. number of users or user devices:	• About 50 MDT's in first response vehicles • About 10 additional in staff portable devices
Applications in use today:	• CAD dispatch • GPA tracking • Mapping display • Prefire plan • Secure messaging • Incident reporting
Applications planned or needed:	• Fastest response routing • Video transferring
Issues with MCD:	• Response routing application is slow and unreliable

Agency name:	SunComm (City of Yakima and Yakima County Fire Districts)
Radio system name:	City of Yakima Police Dept.
Point of contact:	David Brush – dbrush@ci.yakima.wa.us
Website:	http://www.yakimacountyems.com/agencydirectory.html
Frequency band or technology:	• VHF high band • 2 fixed repeater channels, one of which is voted (4 sites) • 1 mobile repeater • 5 simplex tactical channels shared with WSP, Yakima Sheriff, and other area cities
Approx. number of mobile/vehicle radios:	130
Approx. number of handheld radios:	180
Approx. number of radio sites:	• 1 transmitter site • 3 additional voting receiver sites for main dispatch channel • 1 dispatch center
Size of agency (number of people):	150
Issues with MCV:	• Convert both repeaters to full simulcast at all 4 sites • Add at least one additional site

Mission-Critical Data (MCD)

Agency:	SunComm (City of Yakima and Yakima County Fire Districts)
Current mobile data provider:	Coban MDT, we are mostly self-maintained. Network is via cell-towers
Approximate cost per month per use:	About $60/unit for cell system charges. City internal costs are unknown (part of the IT departments costs), but at least 2 full time employees
Approx. number of users or user devices:	• About 90 MDT's in first response vehicles • About 10 additional in staff portable devices
Applications in use today:	• CAD dispatch • GPS tracking • Mapping display • Secure messaging • Incident reporting • Video& audio recording (dash-cams, officer mics)
Applications planned or needed:	• Fastest response routing • Video transferring • Wi-Fi file transferring (currently done by portable hard drives)
Issues with MCD:	• Response routing application is slow and unreliable

Agency name:	SunComm (City of Yakima and Yakima County Fire Districts)
Radio system name:	Yakima County Upper Valley Fire Districts
Point of contact:	David Brush dbrush@ci.yakima.wa.us
Website:	http://www.yakimacountyems.com/agencydirectory.html
Frequency band or technology:	• VHF High Band Simulcast – connected by 900 MHz microwave links • Standalone VHF repeaters covering areas not reachable by the simulcast • 5 simplex tactical channels shared with City of Yakima
Approx. number of mobile/vehicle radios:	Unknown. Estimated 150 (Mobile and portable radios and control stations are maintained by the individual fire districts. SunComm only maintains the repeater system)
Approx. number of handheld radios:	Unknown. Estimated 250 (Same comment as above) • Approx. 250 two-tone pagers
Approx. number of radio sites:	• 3 transmitter sites for simulcast channel • 1 Dispatch center • 5 control stations at fire houses • 4 remote mountaintop repeaters
Size of agency (number of people):	Approx. 25 paid and approx. 200 volunteer FF's (11 fire districts and cities within the north half of Yakima County)
Issues with MCV:	• Some equipment was purchased for a fourth site to cover part of Hwy 410 (Nile Valley), but no site has been ID'd • Once a site is developed, will need microwave or other method to link the site to the system

Mission-Critical Data (MCD)

Agency:	SunComm (City of Yakima and Yakima County Fire Districts)
Current mobile data provider:	Coban MDT, maintained by City of Yakima staff. Network is via cell-towers
Approximate cost per month per use:	About $60/unit for cell system charges. City internal costs are unknown (part of the IT departments costs), but at least 1 full time employee
Approx. number of users or user devices:	35 MDT's in first response and staff vehicles
Applications in use today:	• CAD dispatch • GPS tracking • Mapping display • Prefire plans • Secure messaging • Incident reporting
Applications planned or needed:	• Fastest response routing • Video transferring
Issues with MCD:	• Response routing application is slow and unreliable

Agency name:	Grant County Sheriff's Office
Radio system name:	• MACC VHF • MACC alpha numeric paging • MACC 800 MHz
Point of contact:	Dean Hane
Website:	http://www.grantcountywa.gov/SHERIFF/
Frequency band or technology:	• VHF simulcast conventional • 800 MHz P25 trunked phase 1
Approx. number of mobile/vehicle radios:	400 mobiles
Approx. number of handheld radios:	800 portables
Approx. number of radio sites:	11 transmit receive sites, 13 including microwave connectivity
Size of agency (number of people):	All fire, law, EMS county wide, also serves Washington State Parks and DOC in county
Issues with MCV:	• VHF Areas of time delay interference • Additional site under development • Desire to encrypt primary dispatch channels while continuing to maintain interoperability with WSP, Fish and Wildlife, etc.

Mission-Critical Data (MCD)

Agency:	Grant County Sheriff's Office
Current mobile data provider:	Verizon
Approximate cost per month per use:	$43 for data
Approx. number of users or user devices:	Grant County Sheriff's Office & IT= 60 mifi + 60 phones.
Applications in use today:	• Email • Spillman CAD/RMS • Teamspeak 3 for one to many voice capability, texting, and file transfer capabilities • Web access to Lexipol • Spillman Insight • Washington Secure Access • NCIS LiNX • DOT Hazmat guide • RCW and county code
Applications planned or needed:	• Field fingerprint collection and analysis to federal data base • AVL and automatic personnel locator • Video surveillance supporting both mobile cameras and delivering video streams to field users • Next generation Incident Command System. (developed by MIT open source) • Automatic license plate collection and data base storage
Issues with MCD:	• Increased coverage • Low cost devices with improved external antenna connections • Low cost amplifiers that support MIMO antenna configurations • Waiting for relaying capability allowing mobile unit with permanent antennas to relay handheld devices • Low cost persistent session solution with expectation of end to end security to home network determine how applications at First Net will be accessed • Implementation of federated authentication allowing one authentication to provide access to the multiple different locations a user may be authorized to access

Agency name:	Spokane Regional Emergency Communications Systems (SRECS)
Radio system name:	Spokane Regional Emergency Communications Systems (SRECS)
Point of contact:	Bob Lincoln (509) 835-4521 blincoln@spokanecity.org
Website:	http://srecswa.org/
Frequency band or technology:	• 800 MHz P25 Trunked • 150-174 MHz (VHF) • 421-512 MHz (UHF) • 25 Common Air Interface Exclusive • Simulcast and Multicast
Approx. number of mobile/vehicle radios:	1500
Approx. number of handheld radios:	2500
Approx. number of radio sites:	19
Size of agency (number of people):	10 Employees serving 21 public safety agencies
Issues with MCV:	• Not answered

Mission-Critical Data (MCD)

Agency:	Spokane Regional Emergency Communications Systems (SRECS)
Current mobile data provider:	Not Answered
Approximate cost per month per use:	Not answered
Approx. number of users or user devices:	Not answered
Applications in use today:	• Not answered
Applications planned or needed:	Not answered
Issues with MCD:	• Not answered

Agency name:	Port of Seattle
Radio system name:	Port of Seattle Public Safety
Point of contact:	Debra Davis, davis.d@portseattle.org (206) 787-5193, Desk (206) 947-7734, Cell
Website:	http://www.portseattle.org/
Frequency band or technology:	• 800 MHz trunked • Hybrid Motorola Astro P25, v7.13 core, v7.14 MCC7500 dispatch consoles and Motorola SmartZone 4.1 mixed-mode proprietary RF sites.
Approx. number of mobile/vehicle radios:	700
Approx. number of handheld radios:	1,100
Approx. number of radio sites:	5 radio sites 1 PSAP dispatch center, 1 backup PSAP dispatch center, 1 SeaTac airport communications center, 1 Seattle Ramp Tower center, 1 aviation operations center and 1 seaport maintenance center 25 dispatch consoles positions total.
Size of agency (number of people):	1,750
Issues with MCV:	• RF sites still running on proprietary technology

Mission-Critical Data (MCD)

Agency:	Port of Seattle
Current mobile data provider:	Port provided WiFi, Port provided 4.9, and Verizon/AT&T service providers
Approximate cost per month per use:	Approximately $60/month
Approx. number of users or user devices:	Not answered
Applications in use today:	• CAD • RMS • e-mail • internet • GIS
Applications planned or needed:	• Video transferring
Issues with MCD:	• Coverage gaps • No priority access • Data speed • In-building coverage

Agency name:	WSDOT
Radio system name:	Intelligent Transportation & Wireless Systems
Point of contact:	Tim McDowell
Website:	http://wsdot.wa.gov/Operations/ITS/wireless.htm
Frequency band or technology:	• VHF, 700 and 800 MHz Trunked and Conventional • Voice (Conventional VHF & EFJ MultiNet II Trunked 800 MHz) • Data (IPMN, 700MHz)
Approx. number of mobile/vehicle radios:	Over 3000
Approx. number of handheld radios:	Over 800
Approx. number of radio sites:	138 sites
Size of agency (number of people):	Over 6000
Issues with MCV:	• VHF - Incidence Response (IR) Interoperability with WSP, county sheriffs, local law enforcement, and road crews • 800 MHz – Additional site development in the rural parts of the state that require commercial power, extensive noncommercial power systems, microwave systems are challenging in these parts of the state and/or leases • 800MHz system end of life and needs to be replaced

Mission-Critical Data (MCD)

Agency:	WSDOT
Current mobile data provider:	WSDOT, Commercial Wireless
Approximate cost per month per use:	$7000 in heavy equipment air card charges. Employee data costs TBD
Approx. number of users or user devices:	400 air card in Heavy equipment & Road side. 5000 cell phones
Applications in use today:	• Coordination and tracking of snow removal, road clearing, and de-icing/sand deployment • Coordination and tracking of heavy equipment and other maintenance resources • Coordination of highway emergency response activities
Applications planned or needed:	• Access to bridge and roadway data • Connected vehicle data
Issues with MCD:	• No one commercial provider covers entire state • Critical areas of the state for winter operations and emergency response have no commercial services • WSDOT owned system still under development, 1/3 of the state's population covered • Logistics and Resources management during emergency response due to differences in commercial resources

Agency name:	Clallam County Sheriff OPSCAN Operation
Radio system name:	Olympic Public Safety Communications Alliance Network (OPSCAN) operation as Public Safety Radio Network (PSRN)
Point of contact:	Alice Hoffman, Chief Civil Deputy
Website:	N/A
Frequency band or technology:	Voice-over-IP network supporting nearly all responder and emergency management agencies in Clallam County, including Law Enforcement, several fire districts, Clallam Transit, and Incident Command vehicles
Approx. number of mobile/vehicle radios:	300 UHF and VHF in 9 mobile fleets Most fleets consist of mixed variety of radios
Approx. number of handheld radios:	• 106 – Law Enforcement Dual-band radios, • 60 FD radios
Approx. number of radio sites:	26
Size of agency (number of people):	• 2-person radio maintenance staff in Sheriff's Office, in teamwork with Pencom Systems Coordinators • 1 contract design consultant • 1 contracted radio shop
Issues with MCV:	• End User Training • Diagnostic Equipment and Training to give early detection of problems, and identify and troubleshoot issues • Interoperability between County agencies, and with adjacent agencies including (but not limited to) Jefferson and Kitsap Counties and Federal agencies • Participation by agencies with personnel who can and will offer cooperation that will assure interoperability for all types of short- and long-term emergencies. • Getting agencies to use common terms in radios for each channel, and matching those to Pencom console labels • Coverage "holes" due to lesser performance of narrowband radios • Inadequate funding for optimum upkeep and expansion

Mission-Critical Data (MCD)

Agency:	Clallam County Mobile Data Network Operations
Current mobile data provider:	New World Systems – administered under Pencom Communications primarily by Verizon Wireless
Approximate cost per month per use:	Not answered
Approx. number of users or user devices:	Not answered
Applications in use today:	• CAD • Law Enforcement Records • Mobile AVL • In-car mapping • Field Reporting
Applications planned or needed:	Not answered
Issues with MCD:	• Incomplete coverage areas

Agency name:	City of Pullman, Police and Fire
Radio system name:	City Of Pullman Radio system Owned and operated by Whitman County Emergency Communications
Point of contact:	Steve Krigbaum Stevek@co.whitman.wa.us
Website:	N/A
Frequency band or technology:	VHF
Approx. number of mobile/vehicle radios:	Approximately 9
Approx. number of handheld radios:	Police 35
Approx. number of radio sites:	4
Size of agency (number of people):	Police 28
Issues with MCV:	• Not answered

Mission-Critical Data (MCD)

Agency:	City of Pullman, Police and Fire
Current mobile data provider:	Sprint and Verizon
Approximate cost per month per use:	$45 per seat including tax WSCA contract, unlimited data 3g/4g
Approx. number of users or user devices:	10 (8 vehicles, 2 admin)
Applications in use today:	• CAD • LE Records • SECTOR • HAZMAT • RapidResponde • FaceBook • Fire Inspections
Applications planned or needed:	• Additional Netmotion Mobility licenses, Windows; we are at 100% use • Additional Netmotion Mobility Licenses, Android; (none exist)
Issues with MCD:	• Not answered

Agency name:	Whitman County Emergency Management
Radio system name:	Whitman County Emergency Communications Whitman County Sheriff and all Fire, Local Law, and EMS agencies
Point of contact:	Steve Krigbaum Stevek@co.whitman.wa.us
Website:	N/A
Frequency band or technology:	• VHF Conventional • Some Simulcast
Approx. number of mobile/vehicle radios:	350
Approx. number of handheld radios:	500
Approx. number of radio sites:	20
Size of agency (number of people):	600
Issues with MCV:	• Missing sites probably two needed • Missing microwave backhaul 3 Hops plus closing the ring

Mission-Critical Data (MCD)

Agency:	Whitman County Emergency Management
Current mobile data provider:	Verizon
Approximate cost per month per use:	$1200 for WCSO
Approx. number of users or user devices:	18
Applications in use today:	• CAD • Wi-Fi for web research • Mobile Ticketing and Data Access
Applications planned or needed:	• Same as above Watch for new ideas
Issues with MCD:	• Very poor coverage even with cell boosters • Low data rates

Agency name:	Washington State Department of Natural Resources
Radio system name:	Not Answered
Point of contact:	Anton Damm, Communication Systems Director 360-902-1186 anton.damm@dnr.wa.gov
Website:	http://www.dnr.wa.gov/
Frequency band or technology:	• VHF 150-160 MHz, optimized for portable radio use • Leased line and microwave backhaul • IP Dispatch system, 7 dispatch centers
Approx. number of mobile/vehicle radios:	1250
Approx. number of handheld radios:	1450
Approx. number of radio sites:	56
Size of agency (number of people):	1500 (including seasonal fire control staff)
Issues with MCV:	• Uncoordinated disparate systems are being deployed statewide, complicating voice interoperability

Mission-Critical Data (MCD)

Agency:	Washington State Department of Natural Resources
Current mobile data provider:	AT&T
Approximate cost per month per use:	$40
Approx. number of users or user devices:	50
Applications in use today:	• Fire Behavior Forecasting tools (Internet access, FLAMMAP, BEHAVE, Farsight, FireFamily Plus, Wind Ninja – always evolving) • Aviation Tools (Foreflight, Internet access) • WADNR Roads and TOPO • COML Garmin Topo (Internet access)
Applications planned or needed:	• WILDCAD Mobile • E-ISuite • Moving map
Issues with MCD:	• At this point, our mobile data needs are being met by vendor supplied Internet access. Increasing bandwidth and coverage while reducing cost would of course be welcomed

Agency name:	Washington State Patrol
Radio system name:	WSP Land Mobile Radio System
Point of contact:	Mr. Robert Schwent Electronic Services Division Commander
Website:	WWW.WSP.WA.GOV
Frequency band or technology:	• VHF P25 Conventional • VHF narrowband analog • VHF P25 trunking • 700MHz P25 TDMA trunking
Approx. number of mobile/vehicle radios:	1300
Approx. number of handheld radios:	1400
Approx. number of radio sites:	130
Size of agency (number of people):	2100
Issues with MCV:	• Narrowbanding • Coverage • Technology refresh • Interoperability between systems of varying technology levels

Mission-Critical Data (MCD)

Agency:	Washington State Patrol
Current mobile data provider:	Verizon
Approximate cost per month per use:	Average $70,000 monthly
Approx. number of users or user devices:	850
Applications in use today:	• SECTOR (eCitations/Collision Reports) • Premier Mobile Data (Motorola CAD) • Time and Activity • E-mail • In-vehicle video camera
Applications planned or needed:	• Records Management
Issues with MCD:	• Video data management/redaction related to public disclosure requests

Additional Resources

RadioReference.com Trunked Radio Systems:
http://wiki.radioreference.com/index.php/Trunked_Radio_Systems_%28WA%29

MRSC Regional Emergency Communications Facilities
http://www.mrsc.org/subjects/pubsafe/emergency/em-emercom.aspx#regional
Continued on next page

Benton County, Southeast Communications Center (SECOMM)	Emergency management (Benton County Emergency Management) & communications services (SE Communications Center), 800 MZ Administered by Richland	Created under RCW 39.34	Benton County, Kennewick, Richland, Benton City, West Richland, Prosser	Executive Board, Director, employees, contracts with Richland for services
Chelan-Douglas County RiverCom 911, 2002	Public Safety Answering Point	Created under RCW 39.34 Interlocal Agreement	Serves 30 public safety agencies in Chelan and Douglas Counties User Agencies User Agreement	Five voting board members, 8 *exofficio* board members
Clark County, Clark Regional Emergency Service Agency (CRESA), 1976 as CRCA, named changed 2001	911 Dispatch, Regional Communications, Emergency Management, Emergency Medical	RCW 39.34 Interlocal Agreement , 2001	User Agencies Clark County, Battle Ground, Camas, La Center, Ridgefield, Washougal and Yacolt, Vancouver Clark County FDs 1,3,6,9,10,11,12,13 and 14, North Country EMS, Cowlitz & Skamania FDs #7	Governed by an Administrative Board comprised of nine board members serving indefinite terms. Administrative Board
Clallam County, Peninsula Communications (PenCom), administered by City of Port Angeles, 1992	Consolidated Emergency Communications and Records Management center	RCW 39.34	Port Angeles Police and Fire Departments, Clallam County Sheriff's Department, Sequim Police Department, Lower Elwha Tribal Police, La Push Tribal Police, Olympic National Park Rangers, and four rural fire protection districts	Oversight by City of Port Angeles

County, Communications Center (911), 1975	Consolidated 911 call answering and emergency dispatch service for police, fire, and emergency medical services	Created Under RCW 39.34 Interlocal Agreement	Castle Rock, Castle Rock Fire and EMS, Cowlitz County FPD No. 1,2,3,4,5,6, Clark County FP No.2, Cowlitz County, Kalama, Kelso, Longview, Woodland, AMR (American Medical Response - contracted with Cowlitz)	911 Council composed on one elected official from each jurisdiction
Grant County, Multi-Agency Communications Center, 1995	Consolidated Dispatch	Created under RCW 39.34 Interlocal Agreement	Soap Lake, Mattawa, Warden, Ephrata, Moses Lake, Electric City, Royal City, Grand Coulee, Coulee City and Quincy; Grant County FPD Nos. 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14 and 15	Board of Directors, Elected Administrator
Grays Harbor Communications Center, 1989	Consolidated Dispatch	Created under RCW 39.34	Serves 39 agencies	7 member administrative board of county & cities; operating board; and sub committees; Executive Director
Island County Emergency Services Communications Center(I-COM)	911, Consolidated Dispatch	Created under RCW 39.34	Provide emergency to all of the law enforcement, fire and emergency medical agencies that serve Island County (both Whidbey and Camano Island).	Board of Directors, Executive Director, employees

King County, Eastside Public Safety Communications Agency (EPSCA), 1992	Agency is responsible for developing, owning, operating, and managing a geographical subregion of the King County Regional Emergency Radio Communications System	Ch. 39.34 RCW, Effective March 1, 2013, the Agency was restructured as a nonprofit organization pursuant to Interlocal Cooperation Act Interlocal Agreement	Bellevue, Redmond, Kirkland, Mercer Island, and Issaquah	Executive Board, which is composed of the Chief Executive Officers of the Principals Bylaws
King County, North East King County Regional Public Safety Communications Agency (NORCOM), 2008	911, consolidated dispatch	Ch. 39.34 RCW	19 Agencies - Police Departments: Bellevue, Clyde Hill, Kirkland, Medina, and Mercer Island Fire Departments: Bellevue, Bothell, Duvall Fire District 45, Eastside Fire & Rescue, Fall City Fire District 27, Kirkland, Mercer Island, Northshore Fire Department, Redmond, Shoreline Fire Department, Skykomish Fire Department, Snoqualmie, Snoqualmie Pass Fire & Rescue (Fire District 51), and Woodinville Fire & Rescue	A 15-member Board governs the agency and appoints an Executive Director to administer its services
King County, Valley Communications Center, 1976	Develop, own, operate, and manage a geographical sub-region of the King County Regional Emergency Radio Communications System	Created under Ch. 39.34 RCW Interlocal Agreement	Auburn, Federal Way, Kent, Renton, Tukwila, and Vashon Island Fire & Rescue	Administration and Operations Board Bylaws

King County, Valley Communications Center Development Authority, 2000	Issue debt for financing the construction and equipping of a new dispatch facility for Communications Center	Created under Ch. 39.34 RCW and RCW 35.21.730-.755	Auburn, Federal Way, Kent, Renton, Tukwila, and Vashon Island Fire & Rescue	Board of Directors of cities and FDs, Executive director
Kitsap County, CENCOM (Kitsap County Central Communications), 1976	Consolidated Dispatch	Created under RCW 39.34	Partner Agencies	Board of 13 elected officials representing Kitsap County, the Cities of Bainbridge Island, Bremerton, Port Orchard, Poulsbo, and the Kitsap County Fire Commissioners Association
Kittitas County, KITTCOM (Kittitas County 911, 1990	Emergency Radio Communications System	Created under Ch. 39.34 RCW Intergovernmental Agreement	Kittitas County Sheriff's Office, Central Washington University Police, Ellensburg Police, Kittitas Valley Fire and Rescue, Kittitas County Hospital District 2, Cle Elum Police and Fire, Kittitas Police and Fire, Roslyn Fire, South Cle Elum Fire and Fire Districts 1, 3, 4, 6, 7, and 8	Elected board members, 2 appointed board members, and appointed administrator
Jefferson County, JeffCom 911, 2007	911 Dispatch	Created under Ch. 39.34 RCW	Provides services to: Jefferson County Sheriff's Office, Port Townsend Police Department, East Jefferson Fire & Rescue, Port Ludlow Fire & Rescue, Brinnon Fire, Quilcene Fire, Discovery Bay Fire, and Jefferson County Emergency Management	Administrative board

Lewis County 911 Communications Center	911 Dispatch for Lewis County	County initiated agreements with participating agencies	Provides services to: 10 Law Enforcement Agencies (including the Sheriff's Office), 20 Fire Departments, 1 Private Ambulance Company, and other agencies with radio traffic monitored at the Center	Under Central Services Administration
Mason County, MACECOM 911, 1982	911 Dispatch for Mason County	Created under Ch. 39.34 RCW	Partners	9 member governing board; 5 elected, 4 appointed
Okanogan County, Okanogan Communications Center	911 Dispatch for Okanogan County	County initiated agreements with participating agencies	Serves 32 law, fire, and EMS agencies	Okanogan Sheriff's Office
Pacific County Communications PACCOM	Enhanced 911(E911) Public Safety Answering Point (PSAP) for All 911 calls placed in Pacific County. Consolidated Dispatch Center for All Police, Fire & Emergency Medical Aid calls in Pacific County	Created under Ch. 39.34 RCW	Consolidated Dispatch center for all Police, Fire & Emergency Medical aid calls in Pacific County, 5 Law Enforcement agencies (Including the Sheriff's Office and the Shoalwater Tribal Police); 12 Fire Departments, 1 Private Ambulance Company, Other agencies whose traffic is monitored at the center include Washington State Patrol, Pacific County Dept. of public works, Pacific county jail, and the National Warning System	Administrative and Operations Boards are both formed by representatives from the various participating agencies to the interlocal agreement. An appointed coordinator operates under the Pacific County Sheriff. See also Pacific County Code Ch. 8.32 - Emergency Service Communications District for South Beach area (Grayland, North Cove, and Tokeland vicinity)

Pierce County, South Sound 9-1-1, 2011	911 and dispatch, records and technology services, and a regional, interoperable first responder radio system	Created under Ch. 39.34 RCW Interlocal Agreement	Through its member agencies – Pierce County, City of Tacoma, City of Lakewood, City of Fife, and West Pierce Fire & Rescue – South Sound 911 will provide combined 911 and dispatch services for 16 law enforcement agencies and 22 fire departments	2 governing boards: The Policy Board and the Operations Board. The Policy Board is comprised of 9 elected officials which collectively provide legislative and policy direction for the agency. The 12 member Operations Board is comprised of partner agency police and fire chiefs who provide operational oversight and direction.
Skagit County, Skagit 911 (Formerly SECOM), 1998	County-wide public safety Communications	Created under Ch. 39.34 RCW		
Snohomish County, SNOPAC 911 (Snohomish County Police Staff and Auxiliary Service Center), 1973	A regional public safety communications center that receives law enforcement, fire, and medical 9-1-1 calls	Created under Ch. 39.34 RCW Interlocal Agreement	37 different Snohomish County jurisdictions: See List	Board of directors ByLaws
Snohomish County Emergency Radio System (SERS), 1999	Develop, finance, acquire, install, operate, maintain, and repair an 800 MHz emergency radio communications system	Created Under Ch. 39.34 RCW	Brier, Edmonds, Everett, Lynnwood, Marysville, Mill Creek, Mountlake Terrace, Mukilteo, Woodway, Snohomish County Fire District No. 1, and Snohomish County	11-member Board appointed by the cities and County
Snohomish County, Southwest Snohomish County Communications Agency (SNOCOM), 1971	Provides emergency 911 dispatch services to nine jurisdictions	Created under Ch. 39.34 RCW	Brier, Edmonds, Lynnwood, Mill Creek, Mountlake Terrace, Mukilteo, Woodway, and Snohomish County Fire District No.1	Board of directors
Spokane Regional Emergency Communications Systems (SRECS)	County-wide Emergency Radio System	Created under Ch. 39.34 RCW	The SRECS Project supports all Law Enforcement and Fire Agencies in Spokane	14 member Emergency Services Communication Policy Board

			County Participating Agencies	
Thurston County TCOMM 9-1-1		Created under Ch. 39.34 RCW Interlocal Agreement	26 Public Safety agencies	An eight member Administration Board was created made up of elected officials representing the jurisdictions that are parties to the Intergovernmental Agreement serving on the Board
Walla Walla County, (City of) Walla Walla Dispatch (Walla Walla Emergency Services Communications WESCOM), 1994	911 call answering	City facility providing services through interlocal agreements	College Place Fire Department, Walla Walla Sheriff's Office, Walla Walla Police Department, Walla Walla Fire Department, College Place Police Department, Rural fire districts 1, 3, 4, 6, 7 & 8	Director under City Manager, Walla Walla Emergency Dispatch Center Communications Advisory Committee (one representative from each agency using the service)
Whitman County, WHITCOM (Whitman County Regional Communication Center), 2006	A consolidated E-911 dispatch center	Created under Ch. 39.34 RCW See initial agreements below	City of Pullman, Washington State University, Whitman County, the city of Moscow, Idaho, and Asotin County, Washington	Governed by a six-member Executive Board composed of two voting members from each governing agency: Whitman County, Washington State University and the city of Pullman. Asotin County and the city of Moscow have nonvoting ex-officio members. The Board appoints a Director

APPENDIX B: LIST OF ACRONYMS

AAR	After Action Report
APCO	Association of Public-Safety Communications Officials
AUXCOMM	Auxiliary Communications
CAD	Computer-Aided Dispatch
CANUS CWG	Canada-United States Communications Interoperability Workshop Group
CASM	Communications Assets Survey and Mapping
COML	Communications Unit Leader
COMT	Communications Unit Technician
COMU	Communications Unit
CRESA	Clark Regional Emergency Services Agency
DHS	U.S. Department of Homeland Security
EMA	Emergency Management Agency
EMD	Washington Military Department's Emergency Management Division
FCC	Federal Communications Commission
FirstNet	First Responder Network Authority
FOG	Field Operations Guide
IP	Internet Protocol
LMR	Land Mobile Radio
MHz	Megahertz
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NCIC	FBI's National Crime Information Center
NCSWIC	National Council of Statewide Interoperability Coordinators
NECP	National Emergency Communications Plan
NENA	National Emergency Number Association
NG911	Next Generation 911
NIMS	National Incident Management System
NLETS	National Law Enforcement Telecommunications System
NPSBN	Nationwide Public Safety Broadband Network

NRF	National Response Framework
NTIA	National Telecommunications and Information Administration
OCIO	Office of the Chief Information Officer
OEC	Office of Emergency Communications
PIO	Public Information Officer
PNEMA	Northwest Emergency Management Agreement
PPD	Presidential Policy Directive
PSAP	Public Safety Answering Point
RECCWG	Regional Emergency Communications Coordination Working Group
RIC	Regional Interoperability Council
RoIP	Radio over Internet Protocol
RPC	Regional Planning Committee
SAA	State Administering Agency
SAW	SIEC Advisory Workgroup
SCIP	Statewide Communication Interoperability Plan
SIEC	Statewide Interoperability Executive Committee
SIGB	Statewide Interoperability Governing Body
SLIGP	State and Local Implementation Grant Program
SOP	Standard Operating Procedure
SPOC	State's Point of Contact
SWIC	Statewide Interoperability Coordinator
TICP	Tactical Interoperable Communications Plan
TRIS	Tri-County Radio Interoperability System
UHF	Ultra High Frequency
VHF	Very High Frequency
VoIP	Voice over Internet Protocol