Washington State Responders' Expectations for FirstNet State Plan

Rev. 4 September 28, 2016

Contents

1. Introduction

The First Responder Network Authority (FirstNet) is coming to Washington and the entire United States.   Before the network is built and developed here, the First Responder Network Authority must submit a plan ("State Plan") to FirstNet's Washington stakeholders for preview. FirstNet may revise the plan based on stakeholder feedback, and will then submit a final plan to the Governor of the State of Washington for a decision as to whether FirstNet can proceed to build.

Washington OneNet is the program funded by the State and Local Implementation Grant Program (SLIGP) to represent Washington stakeholder interests to the federal FirstNet program, provide outreach and education regarding the FirstNet network design, and to advise the State Interoperability Executive Committee (SIEC) and Governor on matters relative to FirstNet and, ultimately, the opt-in/opt-out considerations.

The program is housed within the Office of the Chief Information Officer, a division of Washington Technology Solutions (WaTech).

1.1. Timeline

This table reflects FirstNet's public timeline. The OneNet program is currently funded based on this timeline.

May 31, 2016	Vendors submitted proposals to FirstNet
November, 2016	FirstNet chooses a vendor partner FirstNet signs contract with vendor partner
Starting November, 2016	FirstNet and Partner develop State Plans
Late Spring (April-May?), 2017	FirstNet delivers State Plan proposal to stakeholders in each State, then revises those Plans based on feedback
Late Summer (August-September?), 2017	FirstNet delivers final State Plan to Governor for decision
90 days after State Plan delivery	Governors' Opt-In/Opt-Out Decision

1.2. Purpose

This "Expectations" document is a summary of items that Washington's Stakeholders expect FirstNet's State Plan for Washington to address. Many elements of the Plan for each State will be common across the nation. Those common expectations are not included in this document. This Expectations document details those items important to Washington.   This document was vetted by members of Washington OneNet's Stakeholder, Technical, and Operational Committees. In August 2016, the document was reviewed by the program's governing body, the Statewide Interoperability Executive Committee (SIEC).   The vetted and refined document will be delivered to FirstNet in late September 2016, so FirstNet can use it when negotiating a contract with their successful vendor partner.

1.3. Stakeholders

Although FirstNet is a "First Responders" network, any agency that responds to a public safety incident or disaster is a Stakeholder.   Later in this document we specify Washington's expectations for who should be eligible to use the FirstNet network in Washington.

1.4.   Summary of Expectations

This is a summary of the expectations listed elsewhere in this document. Washington expects FirstNet will:

- Public Safety Entities: Provide coverage for all organizations and agencies that play a public safety role in Washington State. This may include entities that have not been previously identified as first responders or public safety but without whom a fully interoperable network would not be possible for responders to perform their duties.
- Federal Partners: Because of its international boundaries, both land and marine, the number of military bases, 29 federally recognized tribes, and millions of acres of National forests, it is imperative that responders are provided interoperability with their federal partners. Therefore, Washington expects FirstNet to emphasize adoption by federal agencies.
- Coverage: At a minimum, Washington's responders expect coverage to state and federal highways, in-building coverage in urban areas, incident command and emergency volunteer centers, tribal headquarters and other populated areas of all tribal nations. Responders also expect an interim deployable network until a long-term permanent network solution is provided.
- Existing Infrastructure: Washington requests that FirstNet develop a strategy for use of existing infrastructure and partner with local providers to deploy coverage quickly to un- or under-served areas of the state.
- User Fees: Public safety expects better coverage, more consistent service, applications and devices that augment their work and help them perform their duty for less than or at least comparable with the fees they pay their current commercial providers.
- State SLIGP Offices: Stakeholders have indicated that they would like the SLIGP program office to continue to be funded after February 2016.

2. The State of Washington

2.1.   About Washington:

Washington State is a politically, culturally and geographically diverse rich state. The state, bordered by the Pacific Ocean on the west, Canada to the north, and Oregon and Idaho on the south and east, respectfully, is divided almost in half by the Cascade Mountain range. Washington is the 18th largest state (71,362 sq. miles) and the 13th (7,170,351 residents) most populous.   It is the 3rd most populous east of the Mississippi (after California and Texas). The Puget Sound region (west of the Cascade Mountain range) is home to 60
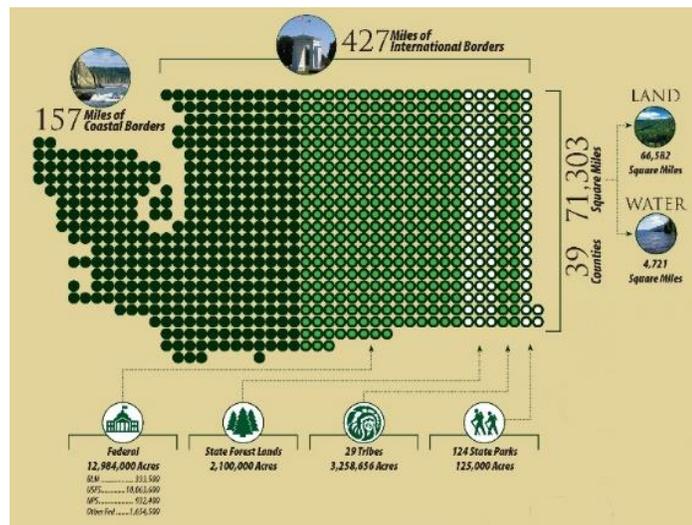
percent of the state's population. Because major areas of the state are rural and agricultural, the population density of the state averages about 103 persons per square mile.

2.2.   Washington's Geography:

The highest point in Washington is Mount Rainier, which looms over the region at 14,411 feet. Mount Rainier is part of the Cascade Mountain range. The Cascade Range contains several dormant volcanos: Rainier, Adams, Baker, and Glacier Peak. The only currently active volcano is Mt. St. Helens. Mt. St. Helen's last erupted in 1981. The eruption was the deadliest and most economically destructive volcanic event in US history.

Washington is also home to the Olympic Mountain Range on the Olympic peninsula on the west side of the state. The Olympic Mountains are not volcanic. The Olympics were formed by the colliding North American and the Farallon tectonic plates.

Washington also lies on or adjacent to several major earthquake fault lines including: the Cascadia Subduction Zone and the Seattle Fault. Both faults are overdue for significant quakes and both are expected to be more deadly than their famous cousin, the San Andreas Fault. A Cascadia Subduction Zone quake exceeding 9.0 is anticipated. A quake of that magnitude is expected to kill 13,000+ and economically devastate the region for decades.

2.3.   Political

Washington State is currently governed by Jay Inslee, a 1st term democratic who is facing re-election is 2016.

Other elected officials at the statewide level include: Lieutenant Governor, Secretary of State, Attorney General, State Treasurer, State Auditor, Superintendent of Public Instruction, Commissioner of Public Lands, and Insurance Commissioner.

In the Legislative branch Washington's Senate has 147 seats, 23 Democratic and 26 Republican (Majority) party members. The House of Representatives with 98 seats is controlled by the Democratic Party (50 members; 48 Republican)

In the U.S. Congress Washington is currently represented by Senators Patty Murray and Maria Cantwell and Representatives Suzan DelBene, Richard Ray Larsen, Jaime Herrera, Dan Newhouse, Cathy McMorris Rodgers, Derek Kilmer, Jim McDermott, Dave Reichert, Adam Smith and Dennis Heck.

2.4.   Culture

Washington State is home to 29 federally recognized tribes. 3.2+ million acres in Washington are reserved for tribal nations. The Confederated Tribes of the Colville and the Yakama Nation in Eastern Washington are the two largest tribes by land mass. Together the Colville and Yakama encompass over 2.7+ million acres in Washington State.

2.5.   Public Safety in Washington State:

The first responder community in Washington is represented by:

- 14,000 +/- law enforcement officers
- 26,000 +/- fire fighters/emergency medical services
  - Volunteer
  - Dept. of Natural Resources
  - Career

Because of its cultural and geographic uniqueness, Washington State has expanded the definition of public safety to include professions and organizations that support the activities of first responders (fire, law enforcement, emergency medical services).

Responder stakeholders in Washington State have unique working relationships with non-traditional and occasional public safety entities. Because of the types of natural disasters in Washington State, responders often rely on entities to assist them in performing their duties. Non-traditional entities identified by public safety stakeholders in Washington State include:

- Public transit
- Transportation
- Public Works
- Parks and Recreation
- Non-governmental and private, and non-profit and for-profit organizations such as:
  - Health care institutions
  - Ambulance companies
  - Independent firefighting corporations

- Hospitals
- Non-government disaster relief and aid organizations such as the American Red Cross and Salvation Army
- Educational institutions
  - Training and credentialing programs
  - Universities
- School districts
- Members of the media on a "read-only basis"
- US National Weather Service to interoperate with PSAPs during major weather events.
- Railroads
- Mining companies
- Manufacturing companies with their own fire services
- Dam operators
- Heavy equipment operators
- Tow truck drivers
- Tribal Fish & Wildlife
- Marine operators
- Tugboat operators

2.6. Barriers to the Adoption of FirstNet

Washington OneNet conducted a data survey in partnership with Washington State University (WSU). The survey of public safety agencies in Washington identified several barriers to the adoption and use of cellular service. Those barriers include:

- Funding: Agencies do not have the funding to purchase required data plans or devices for their staff;
- The speed and efficiency of current network data services do not meet agency requirement; and,
- Current wireless data network coverage do not meet organizations' operational requirements.

Other than funding, coverage in rural and tribal areas and network capacity in urban areas is a major barrier to the adoption of FirstNet.
Rural and tribal responders and governments are skeptical about FirstNet's objective to build out in underserved areas. They have been told repeatedly by commercial carriers that there is no business case for build out. Stakeholders in those areas believe that FirstNet will face the same challenge and never serve them.

Lack of confidence in network availability and current lack of service in general prevents interest in the program by rural and tribal users. They are by far the most skeptical of Washington responder stakeholders. Responders who don't use services now cannot envision how access to data and applications can augment and improve their everyday work like.

Politically, the Governor and other elected officials are sensitive to the perception that eastern Washington and tribal nations do not receive the same consideration as the more populous west side of the state. By restricting early build out to areas that are user-rich, effectively eliminates huge areas of the state, primarily in Eastern Washington. The Governor and elected officials may find it difficult to publically support a plan that does not provide significant coverage in rural and tribal areas on initial build out.

3. Expectations of FirstNet's State Plan

3.1. FirstNet's Users

3.1.1. First Responders

Washington expects FirstNet to recognize the following responder agencies as first responders:
- Fire departments and fire districts
- Volunteer firefighters (although included and implied above, specifically called out here as well)
- Private fire departments (e.g. Boeing, refinery companies, other industries)
- Department of Natural Resources firefighters and their supporting entities
- City police departments
- County Sheriffs and their departments
- The Washington State Patrol
- Department of Fish and Wildlife law enforcement
- Department of Corrections
- Private ambulance and emergency response units
- Tribal police, firefighting and emergency medical responders
- Emergency Management agencies (local or state)

3.1.2. Federal Partners

Washington expects FirstNet to make every effort to bring the following federal agencies onto its network, as their mutual aid with Washington responders is critical to public safety:
- National Forest Service firefighters
- National Park Service
- The FBI, Secret Service and other federal law enforcement
- Customs and Border Protection
- DOD police and firefighters protecting the many military bases in the state
- FEMA
- Other local/regional federal partners not previously identified

3.1.3. Other Public Safety Responders

Many other agencies do work critical to public safety. Washington expects FirstNet will allow the following types of agencies access to the network:
- Public and private electrical, gas, and alternative power utilities
- Public Utility Districts (PUDs)
- Public and private water and sewer districts
- Local/regional Transportation Departments
  - Washington State Department of Transportation (WSDOT)
  - Search and rescue responders (typically managed by the county sheriffs)
  - Transit agencies
  - Towing services
  - Hospitals
  - Schools and Colleges functions which interact with public safety

3.2. Volunteer Responders

A significant number of traditional first responders in Washington State are volunteers. In the fire services alone, 65% of the fire fighters are volunteers.

Volunteer responders, including firefighters and EMTs, are not responding to incidents most of the time. However, we see no manageable means to migrate a particular user or device in and out of "public safety user" status. A public safety entity is always a public safety entity-volunteer, full time, on the clock or off—and during major, "all-hands" event, anyone and everyone that is a public safety entity may be called to act. The state therefore proposes that the user is considered a "public safety user" at all times, whether responding to an incident or not.

Many volunteer fire and EMS responders in rural and tribal Washington State are dispatched by pager. If they use cellphones, they are using their own devices and pay for their own data access plans. This is a common theme among responders in Washington State.

4. Coverage Objectives:

4.1. Coverage

Washington expects FirstNet will deploy its network to cover the following:

All state and federal highways. This is important as wildland firefighting logistics bases and command posts are often set up on a state highway. County sheriffs, WSDOT and WSP operate statewide on such arteries.

- All populated areas and all state and federal highways to have coverage.   State highways are especially important, as many do not currently have coverage. Responders use these highways as bases for wildfire fighting, search-and-rescue and similar operations.
- In-building coverage in populated areas.
- Incident Command Centers[1].
- Emergency volunteer centers to perform real-time background checks[2].
- The headquarters and other populated areas of all tribal nations, including those on coastlines or in rugged terrain.
- Establish remote area broadband nodes to provide wireless network broadband backhaul.
- We expect FirstNet to provide continuous coverage along the regions coastline and international borders with Canada.
- We expect FirstNet to provide continuous coverage along the Columbia River and specifically the Columbia River Gorge event area, an area of high need for interoperability between Oregon, Idaho and Washington responders.
- We anticipate the network will identify and cover those recreational areas that experience seasonal population growth.
- Leverage existing infrastructure to deploy coverage to un- or under-served areas.
- Partner with local providers to deploy coverage in rural and tribal areas as soon as possible, i.e., local and tribal telecommunications networks, Public television datacasting, etc.
- Provide interim (until FirstNet is fully deployed) statewide coverage as needed via vehicle-mounted cell sites or aerial platforms with cell sites.

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[1] Incident command centers to have priority for coverage via a deployable cell site upon network deployment in the region.
[2] See previous comment about Incident Command Center.

- We expect FirstNet will provide a mechanism for local, state, tribal, federal and authorized non-profit entities to fund supplemental network coverage and capacity. Such use might include micro-cells, femto-cells (devices inside a single room or small building), expedited outdoor coverage, network sites mounted on vehicles and so forth.

FirstNet has stated their commitment to a five-phase build out. FirstNet's plan for build out includes a commitment to 20% rural buildout in each phase. FirstNet has not specified the timeframe for buildout or whether the commitment to rural and tribal is per state, per region, or a nationwide definition.

The order and the schedule of build out is critical to meeting the state's responder requirements and the response to imminent threats such as wildfires and earthquakes. Therefore, Washington OneNet requests that FirstNet immediately cover all state highways. State highways are often used to set up operational command centers during the mobilization point for response operation activities. State highways provide easy access for the movement of resources and manpower.

Furthermore, the state requests that FirstNet provide immediate access to state, local, and tribal seats of government. Continuity of operations plans are dependent on immediate, reliable interoperable communications. Many areas of Washington experience annual catastrophic natural disasters like wildfires. Inconsistent coverage and access, combined with less than resilient infrastructure, leave major areas of the state and tribal lands unable to provide basic lifesaving services to citizens and significantly impacts state, local, and tribal government's ability to begin immediate recovery efforts. In 2016, destruction of communication infrastructure prevented responders from notifying citizens of the need to evacuate because of out of control wildfires.

Federal funds have provided for significant build-out of fiber networks statewide through Universal Service Funds, USDA, Rural Utilities Services loans and grants, and other programs. Washington recommends that FirstNet leverage existing infrastructure and partnerships with local commercial telecommunication providers for immediate network deployment to rural and tribal areas.

4.2. Phased Buildout

Washington also requests that for purposes of phased deployment, FirstNet include a metric for rural and tribal buildout that meets or exceeds 20 percent rural build out in each phase. Washington also requests the following phased deployment strategy.

Phase 1

To be competitive with commercial data providers and attract the most subscribers as quickly as possible, Phase 1 deployment may include portions of Washington that already have high speed cellular data coverage. Washington OneNet assumes a threshold of 6mbps download and 1.5mbps upload speeds to maintain consistency with California and the FCC's Connect America funding standards. Twenty percent or greater rural and tribal buildout targets must met in this Phase.

Phase 2

Phase 2 deployment may include upgrading coverage objective areas that are currently served with cellular data speeds that do not meet the threshold for Phase 1 deployment. Twenty percent or greater rural and tribal buildout targets must also be met in this Phase.

Phase 3

Phase 3 deployment may include areas outside of current cellular data coverage that Washington OneNet has deemed as High Priority for terrestrial coverage. Twenty percent or greater rural and tribal buildout targets must also be met in this Phase.

Phase 4

Phase 4 deployment may include areas outside of current cellular data coverage that Washington OneNet has deemed as Medium Priority for terrestrial coverage. Twenty percent or greater rural and tribal buildout targets must also be met in this Phase.

Phase 5

Phase 5 deployment may include areas outside of current cellular data coverage that Washington OneNet has deemed as Low Priority for terrestrial coverage. Twenty percent or greater rural and tribal buildout targets must also be met in this Phase.

5. Statewide Governance & Opt-in/Opt-out Decision Process
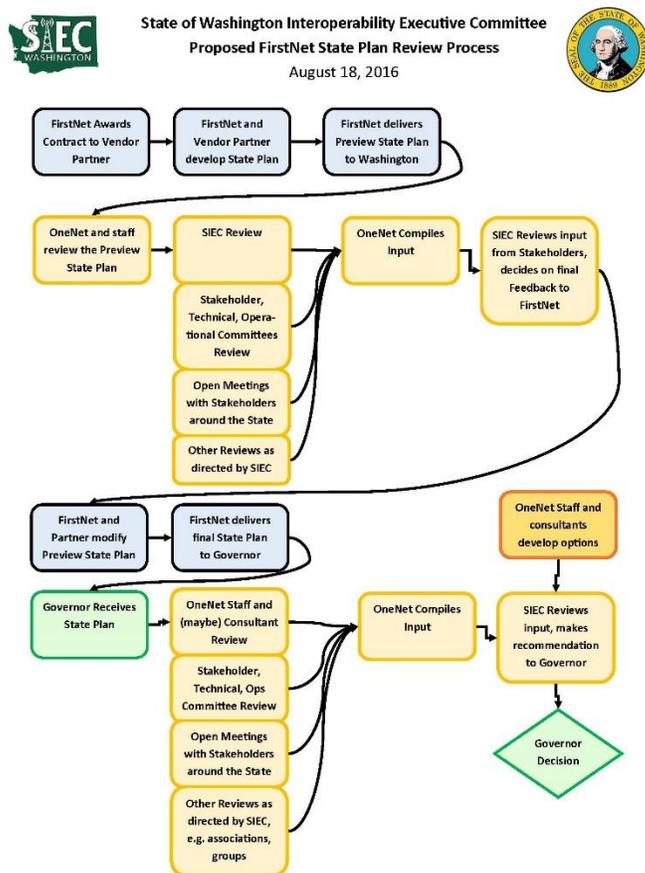
5.1. Managing access through the Governance Structure

Washington expects its State Interoperability Executive Committee (SIEC) will be a primary partner to FirstNet and its vendor in the State Plan decision process and in supporting and managing the development of FirstNet statewide. A diagram of the draft State Plan decision process follows:

5.2. Role of the State

Washington expects FirstNet and its vendor partner to financially support a state office to assist it in deployment of the network and adoption of FirstNet by local and state agencies, aid in user adoption, and user management, assist with network expansion strategy, provide statewide oversight for deployment, equipment training, and statewide standardization of applications and devices.   The state office will operate under the authority of the SIEC.

6. Deployables as a Network Solutions

Public safety stakeholders in Washington have realistic expectations for a permanent terrestrial based network. With its complex geography, special access areas, tribal lands, US Forests, and low population density, investment in a fiber network many not be the best solution for all areas of the state. In many cases, such as wildfire prone areas, land-based infrastructure is subject to costly protection efforts or is potentially destroyed annually. A more immediate and cost-effective approach is to provide a deployable network solution that uses existing commercial backhaul whenever possible.

Current use of deployables during disasters and emergencies is impacted by the request process and the regional demand. In some cases during the 2016 wildfire season, responders waited 5+ days for COLTs and COWs to arrive. A successful FirstNet deployable solution must provide equipment and resources almost immediately for it to be effective and attract and retain users.

Washington requests that FirstNet pre-stage equipment in rural and tribal areas. By pre-staging equipment, responders in rural and tribal areas have access to a network as needed without lengthy delays.
The equipment will be owned and operated by FirstNet and its partner. FirstNet/vendor will be solely responsible for the maintenance of the equipment, technological upgrades, and any software updates.   Training on equipment operation will be provided to local personnel by FirstNet and coordinated by the state program office. FirstNet/vendor partner shall offer train-the-trainer services where applicable.

Many responder entities own deployable equipment currently. FirstNet will initiate a grant or buyback program for non-compatible equipment and put in place lease agreements for equipment that is compliant with FirstNet technology.

7. Adoption of NIMS Incident Complexity

Washington expects FirstNet, in its work to manage quality of service, priority and pre-emption, will adopt and honor the incident complexity taxonomy of the National Incident Management System (NIMS).   This taxonomy is widely used, especially in wildland firefighting. The NIMS Incident Types levels of complexity chart follows:

Incident Types

Incidents may be typed in order to make decisions about resource requirements. Incident types are based on the following five levels of complexity. (Source: U.S. Fire Administration)

Type 5	• The incident can be handled with one or two single resources with up to six personnel. Command and General Staff positions (other than the Incident Commander) are not activated. • No written Incident Action Plan (IAP) is required. • The incident is contained within the first operational period and often within an hour to a few hours after resources arrive on scene. • Examples include a vehicle fire, an injured person, or a police traffic stop.
Type 4	• Command staff and general staff functions are activated only if needed. • Several resources are required to mitigate the incident, including a Task Force or Strike Team. • The incident is usually limited to one operational period in the control phase. • The agency administrator may have briefings, and ensure the complexity analysis and delegation of authority are updated. • No written Incident Action Plan (IAP) is required but a documented operational briefing will be completed for all incoming resources. • The role of the agency administrator includes operational plans including objectives and priorities.
Type 3	• When capabilities exceed initial attack, the appropriate ICS positions should be added to match the complexity of the incident. • Some or all of the Command and General Staff positions may be activated, as well as • Division/Group Supervisor and/or Unit Leader level positions. • A Type 3 Incident Management Team (IMT) or incident command organization manages initial action incidents with a significant number of resources, an extended attack incident until containment/control is achieved, or an expanding incident until transition to a Type 1 or 2 IMT. • The incident may extend into multiple operational periods. • A written IAP may be required for each operational period.
Type 2	• This type of incident extends beyond the capabilities for local control and is expected to go into multiple operational periods. A Type 2 incident may require the response of resources out of area, including regional and/or national resources, to effectively manage the operations, command, and general staffing. • Most or all of the Command and General Staff positions are filled. A written IAP is required for each operational period. • Many of the functional units are needed and staffed. • Operations personnel normally do not exceed 200 per operational period and total incident personnel do not exceed 500 (guidelines only). • The agency administrator is responsible for the incident complexity analysis, agency administrator briefings, and the written delegation of authority.
Type 1	• This type of incident is the most complex, requiring national resources to safely and effectively manage and operate. • All Command and General Staff positions are activated. • Operations personnel often exceed 500 per operational period and total personnel will usually exceed 1,000. • Branches need to be established. • The agency administrator will have briefings, and ensure that the complexity analysis and delegation of authority are updated. • Use of resource advisors at the incident base is recommended. • There is a high impact on the local jurisdiction, requiring additional staff for office administrative and support functions.

8. Applications

Washington expects FirstNet to offer some applications for use nationwide for all responders, while at the same time allowing individual states and agencies to develop and offer apps and applications suiting their unique needs.

8.1. Application Standards and Testing

Washington expects FirstNet will offer or specify an application testing service that local and state agencies can use so that applications meet minimum thresholds of security and efficiency (i.e. do not overload or interfere with other apps or network operations).

8.2. Application Store

Washington expects FirstNet will develop a "store" or similar function that can be tailored to the individual needs of Washington's public safety agencies.   In this fashion, the agency could specify a certain limited set of public safety applications that its responders could download and use. The state shall provide support for the development and deployment of wireless technologies to support responders to public safety incidents and disasters, thereby improving emergency response and the safety and security of the people of Washington

8.3. Nationwide Applications

Washington expects FirstNet to develop or commission certain applications that are available nationwide for use by responders to meet the goal of nationwide interoperability.   Such applications should include:
- Situational awareness and mapping
- GPS
- Group messaging, etc.

9. Devices

Washington expects FirstNet to develop or commission certain devices to interface with its RAN. The state expects that FirstNet will provide a variety of purchase and lease options to accommodate individual agency requirements as well as, the financial requirements of volunteer responders. FirstNet will also provide encryption of devices that meet or exceed the protections recommended by industry and state security experts.
The state shall provide support for the development and deployment of wireless device technologies to support responders to public safety incidents and disasters, thereby improving emergency response and the safety and security of the people of Washington.

10. Support of Washington's Public Safety Wireless Technology program

Support Washington State's establishment of a public safety wireless technology program office in the Washington Technology Solutions department. The program's mission shall be to support the development and deployment of wireless technologies for responders at public safety incidents and disasters, thereby improving emergency response and the safety and security of the people of Washington. The proliferation of applications makes a national effort to ensure the security and reliability of those applications nearly impossible. However, by moving the effort to the state so that the state can develop and assess apps that state specific and that state agencies put forth for evaluation, is manageable.

The scope of a program would include:

10.1 Apps Catalog.

Build and maintain a catalog of mobile apps and devices in use by Washington's responders.

10.2 Use cases and user stories.
Collect user stories about how the apps and devices are used, strengths, shortcoming, and identifies additional functionality.

10.3 Usability evaluation.
Evaluate mobile apps and devices for functionality and usability.   Initial evaluations through interviews with responder agencies, although it could involve use of external usability labs or testing companies. Deeply involve local responders in this work, including testbeds. Involve Washington's state university or Pacific Northwest National Laboratory (PNNL), and other usability labs.

10.4 Master contracts.
Working with state government contracting entities such as Department of Enterprise Services to establish or improve master contracts for the apps, applications and wireless services that any agency statewide could use.

10.5 Network and application performance.
Evaluate apps and devices for performance, including use of network bandwidth, speed of response, network connection requirements, or how it functions in low-bandwidth environments (rural and remote areas).

10.6 Cybersecurity evaluation.
Evaluate commonly used mobile apps for their security.   Includes protection of sensitive (CJIS, HIPPA, FERPA) data and two-factor authentication. This would probably be accomplished by engaging industry consultants.   Such an evaluation could also help inform privacy concerns and considerations.

10.7 Extend to other Government Public Safety Responder Agencies.
Extend some of these functions from first responders to appropriate public safety responders (utilities, transportation, public works, etc.)

10.8 Cooperative development of future apps, applications, devices.
Work with federal and non-profit agencies to coordinate evaluation and potential development of network-connected devices. The federal agencies might include DHS/S&T, PSCR, "First Responder of the Future" program, FEMA, NIST, and NG911 office.   Non-profit or private agencies would include Pacific Northwest National Labs (PNNL).   The Program would serve as a link between field responders and the agencies for such evaluations.

10.9 Cooperative development with Washington's technology community.
Work with major companies (Microsoft, Amazon, others), the Washington Independent Telephone Association (WITA), and the startup community on joint development of standards and evaluations. Potentially leverage federal Economic Development Administration funds in this effort.

10.10 Internet of Things ("Internet of Public Safety Things" or IoPST).

Work with user agencies to review and evaluate existing and new devices such as sensors, detectors, video cameras (fixed, body-worn, dashcam), wearable technologies, vehicle-based technologies, GPS/AVL and other IOT technologies for potential deployment.   Work to help insure interoperability (example: as firefighters come to a wildfire scene, each of their devices has access to all video feeds and other sensors in the wildfire's geography).

10.11 24x7 support of apps and networks.

Establish a service desk for public safety responders to call 24x7 for help. (Potentially served by WaTech.)

10.12 Hosting of applications.

Establish hosting environments for commonly used applications such as computer-aided dispatch and field reporting so individual agencies have a secure place to access them, and to improve interoperability. (Potential hosting by WaTech.)

10.13 Citizen apps, NG911

Many privately developed mobile apps purport to interact with 911 centers, but do not.   This causes confusion to the public. The program may evaluate such apps on behalf of the public at the request of PSAPs and 911 centers. This part of the Program may also work to allow the public to securely submit video, images, and other data to 911 centers as part of their call for assistance. Coordinate with the E911 program office in the Military Department.

10.14 Autonomous vehicles and devices.

Unpiloted aerial vehicles (UAV, aka "drones"), connected vehicles, and eventually, autonomous cars, robots, and similar devices will increasingly be used by public safety.   This program will not address the development of such devices, but may consider data interoperability and potential use.

10.15 Certification of devices and apps.

Upon request of a using agency (not a vendor), conduct the evaluations outlined above and potentially "certify" them for use by Washington's responder agencies.   This function might include establishing a "lab" or "testbed" and certification process.   This function may include adopting standards for usability and/or interoperability.

10.16 Extend to back-end Applications.

Extend some of these functions to back-end applications used by responders, e.g. computer-aided dispatch, field reporting, and case management.

11. Additional considerations for deployment in Washington State

11.1 Sovereign State Status:
The Contractor acknowledges that the State of Washington reserves all immunities, defenses, rights or actions arising out of its sovereign status and under the Eleventh Amendment to the United States Constitution from being sued in a U.S. federal court, other state court or non-U.S. court without the State of Washington's consent, and no waiver of any such immunities, defenses or actions from being sued in a U.S. federal court, other state court or non-U.S. court without the State of Washington's consent shall be implied or otherwise deemed to exist by reason of the State entering into the Agreement, or any other related document, agreement or amendment. Furthermore, in no event shall any provision of the Agreement, or any attachment or amendment of the agreement require the State of Washington to waive any such immunities, defenses, rights or actions arising out of such status, or submit to the jurisdiction of any court or governmental agency outside of Washington. The General Contractor acknowledges that the State of Washington does not submit to jurisdiction or venue outside the State of Washington.

11.2 Indemnification:
Preferred: Contractor shall defend, indemnify, and save Contractor h harmless from and against any claims, actions, loss, liability, damage, cost or expense, including without limitation reasonable attorneys' fees arising from any or all: (i) claims of injury to persons, death or damage to property arising from acts or omissions of Contractor, its officers, employees, or agents, or Subcontractors, their officers, employees, or agents; (ii) a breach of Contractor's confidentiality obligations hereunder; or (iii) any negligence or willful misconduct, whether by act or omission, by Contractor, its officers, employees, or agents, or Subcontractors, their officers, employees, or agents. Contractor's obligation to defend, indemnify, and save Contractor harmless shall not be eliminated or reduced by any alleged concurrent Contractor negligence.

Minimum: Each party shall be responsible for the actions and inactions of itself and its own officers, employees, and agents acting within the scope of their authority.
Required in addition: The Contractor acknowledges that the Contractor's indemnity obligations under the Agreement and related documents shall apply only to the extent permitted by the laws of the State of Washington.

11.3. Washington Public Records Act and Record Retention:
11.3.1. The Contractor hereby acknowledges that the State of Washington is a public agency subject to state laws, including, without limitation, Revised Code of Washington 42.56, the Public Records Act (PRA), which requires generally that all records created, used, owned or retained by a public agency be open to public inspection and copying unless exempted under the PRA, and that, as a result, the State of Washington may be required to disclose to the public records related to the work subject to this Agreement.

11.3.2. The Contractor shall maintain books, records, documents and other evidence that sufficiently and properly reflect all direct and indirect costs expended by either party in the performance of the service(s) described herein. These records shall be subject to inspection, review or audit by the State of Washington, other personnel duly authorized by State of Washington, the Office of the State Auditor, and federal officials so authorized by law. All books, records, documents, and other material relevant to this Agreement will be retained for six (6) years after expiration of agreement.

11.3.3. If any litigation, claim or audit is started before the expiration of the six (6) year period, the records shall be retained for six (6) years after all litigation, claims, or audit findings involving the records have been resolved.

11.3.4. Records and other documents, in any medium, furnished by one party to this Agreement to the other party, will remain the property of the furnishing party, unless otherwise agreed. The receiving party will not disclose or make available any confidential information to any third parties without first giving notice to the furnishing party and giving it a reasonable opportunity to respond. Notwithstanding any provision of the Agreement to the contrary, the State of Washington shall not be required to notify the Contractor following the receipt of a request for documents that have not been marked as confidential. Each party will utilize reasonable security procedures and protections to assure that records and documents provided by the other party are not erroneously disclosed to third parties.

11.3.5. Any acknowledgement or agreement concerning the disclosure or confidentiality of information, or the use thereof, that is required as a condition to gaining access to any website, or database on which documents or reports are made available or delivered under the Agreement shall be subject to (and superseded by) the terms of this provision.