# Washington Responders’ Expectations for FirstNet

Outline of DRAFT Version 5 – August 7, 2016

## Introduction and Purpose

The First Responder Network Authority (FirstNet) will be deployed in 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”) for the network to FirstNet’s Washington stakeholders for preview. FirstNet may revise the plan based on stakeholder feedback, and then will submit a final plan to the Governor of the State of Washington for a decision as to whether FirstNet can proceed to build.  This document is an outline of what responders in Washington expect FirstNet to deliver. It will be fleshed out in more detail, and it has to be vetted with responders and other stakeholders in Washington before September, 2016.

## Timeline

This table shows the timeline for FirstNet decisions as of July, 2016:

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| --- | --- |
| May 31, 2016 | Vendors submitted proposals to FirstNet. We know AT&T, Rivada and pdvWireless (at least) submitted RFP responses. |
| November-December, 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 preview State Plan 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’ Decisions |

Outline

1. Goal. Washington expects that, eventually, every responder to public safety incidents and disasters will use FirstNet and share interoperability and applications. Achieving this goal requires a partnership between local, tribal, state, federal governments, FirstNet and FirstNet’s vendor partner.
2. About Washington. This section describes how Washington is unique in geography, coastline, international boundaries, politics and culture, including Washington’s tribal nations.
3. Public safety in Washington. This section describes how the public is kept safe from daily incidents and natural disasters, including who responds to such events. It will include:
   1. First responders: local and state firefighters (including volunteer), law enforcement, paramedics and 911 centers, including tribal and the federal government.
   2. Other public and private responders including transportation, public works, schools, parks, utilities (water, electric and others), and many other professions.
   3. Hospitals and other emergency care facilities.
4. Washington’s Risks: Earthquakes, Tsunami, Mud Slides, Floods, Plane Crash, Wildfires, Terrorism, Volcanic Eruption and Ash Plume, Nuclear Accident or Attack, School Shooting, Mall Shooting, Major Traffic Incident, BIO-attack, Cyber-attack, Oil Train Derailment and Explosion, Avalanche, Massive Telecom Failure, Massive Power Failure, Oil Spills, Industrial Fires, Ship Sinking, Major Pollution Event, Extreme Winter Storm, High-wind Event, Public Health Event, Port & Harbor Fires, Anarchy Demonstrations and Border Incidents.
5. Washington’s Top Ten Use-cases: Wildfires, Earthquake, Massive Power Failure, Civil Disobedience, School Shooting, High Wind Event, Massive Casualty Event, Daily emergency medical calls and Localized Disaster
6. Users. We expect all responders (see #3 above) to be authorized to use FirstNet. First responders have priority, but many other agencies also have public safety functions.
7. Federal. We expect federal departments will use FirstNet because we work so closely with them, e.g. national forest service firefighters, customs and border protection officers, national park rangers, TSA, military installation security etc.
8. Coverage. We expect, at a minimum, the following coverage in Washington:
   1. All populated areas and all state and federal highways to have coverage. State highways are especially important as many do not have coverage now but are used as bases for wildfire fighting, search-and-rescue and similar operations.
   2. In-building coverage in populated areas.
   3. Incident Command Centers[[1]](#footnote-1).
   4. Emergency volunteer centers to preform real-time background checks[[2]](#footnote-2).
   5. The headquarters and other populated areas of all tribal nations, including those on coastlines or in rugged terrain.
   6. Establish remote area broadband nodes to provide wireless network broadband backhaul.
   7. We expect FirstNet will provide continuous coverage along Washington’s coastline and Washington’s international border with Canada.
   8. We expect FirstNet will provide continuous coverage along the Columbia River gorge, which is also an area of high need for interoperability between Oregon, Idaho and Washington responders.
   9. We expect the whole state will be covered in some fashion when it is needed, for example by vehicle-mounted cell sites or aerial platforms with cell sites.
   10. 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.
9. Cost and user fees.
   1. User fees for FirstNet service should be equal to or less than current commercial providers.
   2. FirstNet users should not pay Federal and State taxes.
   3. Ideally there will be a subsidy program (user fee subsidy, device subsidy) for volunteer organizations (firefighters, search-and-rescue) and tribal responders as well as other users in rural or economically challenged parts of the state.
   4. Excessive broadband usage should pay higher fees e.g. streaming video[[3]](#footnote-3).
10. State program
    1. The State of Washington, in conjunction with local organizations, needs a program office to support FirstNet, encourage adoption, work on network expansion, monitor and help manage the vendors’ deployment, standardize applications and similarly support deployment.
    2. This program may include a state or regional network operations center for monitoring, management and exerting local control (see below).
    3. This program office should be financially supported by FirstNet and the vendor partners
11. We expect FirstNet and its vendor partner to provide user training programs.
12. Phased deployment.
    1. We expect FirstNet will choose a vendor partner who can *immediately* offer service to responders in Washington. In other words, the vendor partner should have an existing LTE network to offer as a service.
    2. In subsequent phases the vendor partner would harden sites, expand coverage, install electronics to broadcast on FirstNet’s spectrum (band 14) etc.
    3. We expect Washington’s 29 tribal nations will be included in early build out phases.
13. Deployables.
    1. We expect FirstNet will have a program of deployable equipment much more robust than the current commercial vendors to support operations in rugged and geographically challenged areas when required: search and rescue, wild fire fighting, law enforcement operations.
    2. Deployables could include vehicle-mounted cell sites, aerial-mounted sites (helicopters, drones), satellite connectivity, and so forth.
14. National incident management system.
    1. We expect to use FirstNet to support NIMS in both daily incidents and natural disasters. The NIMS is widely used, for example in wildland fire fighting.
    2. We expect FirstNet to support the incident complexity taxonomy of NIMS.
    3. We expect the role of the COML[[4]](#footnote-4) will need to expand to include network trouble reporting to FirstNet and the ability to confirm wireless coverage in and around the incident.
15. Local control of quality of service, priority and pre-emption.
    1. We expect some measure of local control will be available which meets our needs for network management during major events such as wildfires, May Day demonstrations, disasters such as the Oso landslide, and so forth.
    2. While we know FirstNet’s vendor partner expects to gain revenue to support the network from use of excess spectrum capacity by secondary users (consumers, businesses) such use should never be sold or used so as to interfere with public safety agencies or responders.
16. Cybersecurity. We expect FirstNet, in its network, devices and applications, to be *more* secure than existing commercial wireless and wireline networks.
17. Users.
    1. We expect the State of Washington and authorized agencies within the state will be able to provision, identify, activate, de-activate, change roles of and otherwise manage eligible users of FirstNet within the state.
    2. We expect hospitals and other emergency care facilities to communicate and interact with responders at incident scenes or in transit to care centers using FirstNet.
    3. We expect school districts and staff will be allowable users of FirstNet to support keeping our children safe.
    4. We expect schools (including tribal) and tribal nations will be eligible secondary users to support all their educational and other needs. This is especially important as many tribes are in rugged areas of the state with poor or non-existent broadband coverage today.
    5. We expect all public safety answering points (PSAPs) and 911 centers will be covered and able to use FirstNet. We expect FirstNet and its vendor partner to work closely with the appropriate agencies to support ESI Networks (including joint use if appropriate) and Next Generation 911 deployment.
18. Applications
    1. We expect FirstNet will have an applications store offering both apps available nationwide as well as those unique to the entire State, Region and unique to individual agencies.
    2. We expect FirstNet will have an applications testing service to help make sure applications meet minimum thresholds of security and efficiency (so they minimally interfere with network operations and capacity).
    3. Examples of Apps: Google Search, Google Maps, Map.Me, iPad Video, iNavX, CNN, King5 News, AccuWeather and NOAA Weather Radar.
19. Devices.
    1. We expect FirstNet will support a variety of standard commercial devices such as smart phones, tablet computers and mobile computers.
    2. We expect FirstNet will support public-safety specific applications such as body-worn video, in-car video, ticketing devices and so forth.
    3. We expect FirstNet will support machine-to-machine communications, such as sensors embedded in the uniforms of responders sending physiological information to incident command centers.
20. We expect to follow this decision process when supporting the Governor’s decision to opt-in or out of the FirstNet State Plan:
    1. We expect the process to develop a recommendation for the Governor will include:
       1. Receiving a Preview State Plan
       2. Engaging Stakeholders around the state via public meetings and webinars to review and consider the preview state plan
       3. Compiling recommendations from stakeholders for the State interoperability Executive Committee (SIEC)
       4. Sending a formal communication from the SIEC to FirstNet with suggestions for improving the Preview State Plan
       5. FirstNet reviews the comments and sends a final State Plan to the Governor
       6. Stakeholders and the SIEC review the final State Plan and make a recommendation to the Governor for Opt-In/Out
    2. We expect the Opt-in/Opt-out due diligence to consider these critical factors:
       1. Monthly user service fee from FirstNet
       2. User service agreement and service contract terms
       3. Lack of confidence of carrier or provider selected by FirstNet
       4. FirstNet’s plan for the use of deployable cells
       5. Quality of customer support and user training
       6. Rural and remote area NPSBN coverage
       7. FirstNet's plan for new product development
    3. Opting Out considerations[[5]](#footnote-5)
       1. The potential of opting-out applies pressure on FirstNet to "delight" users and states
       2. Could require Federal Gov't to sweeten offer to Opt-in
       3. May prevent FirstNet from behaving like a telecom monopolist

1. Should we be expecting any incident command center to be covered, or should incident commanders be locating their command centers where there is coverage? Or should such centers have priority for coverage via a deployable cell site? [↑](#footnote-ref-1)
2. See previous comment about incident command center. [↑](#footnote-ref-2)
3. This needs discussion among stakeholders. [↑](#footnote-ref-3)
4. Communications Unit Leader – see <http://www.npstc.org/commUnitTraining.jsp> [↑](#footnote-ref-4)
5. Not sure these three items should be included in this paper as they are more strategy-related [↑](#footnote-ref-5)