

SNOHOMISH COUNTY 911 BOARD OF DIRECTORS
BOARD MEETING AGENDA
June 20, 2024 at 8:30 a.m.
Web Conference – Join Zoom Meeting

<https://us02web.zoom.us/j/86274396181>

Meeting ID: 860 00

46 6014, Passcode: 195881
or dial +1 253 215 8782

Physical location: 1121 SE Everett Mall Way, Everett Police Department, South Precinct.
Please note that most Board members and staff attend the meeting remotely. However, pursuant to RCW 42.30, a physical location is also provided.

- 1. Call to Order**
 - A. Roll Call**
 - B. Announcements**
 - C. Public Comment Policy:** Public Comments limited to 3 minutes on discussion items related to agency business.
- 2. Approval of Agenda**
- 3. Consent Agenda**
 - A.** Minutes from the May 16, 2024 Regular Board Meeting3
 - B.** May 2024 Blanket Voucher & Payroll Approval Form
 - i. Checks 1045-1050, 18831-18950, for a total of \$5,381,943.41
 - ii. Payroll Direct Deposit, in the amount of \$1,380,744.58
 - C.** Acceptance of Medic One Grant for PulsePoint.....7
- 4. Old Business**
 - A.** Legislative Approvals of ILA Changes (Update)
 - B.** Regional Resiliency Test & Case Study.....8
- 5. New Business**
 - A.** Tyler/NWS CAD, Mobile, Records & Corrections Contract
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- 6. Reports**
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 - B.** New Facility Project Update
 - C.** Radio Replacement Project (RRP)
 - D.** Police TAC41

E. Fire TAC	44
7. Committee Reports	
A. Finance Committee	48
B. Personnel Committee (no meeting)	
C. Future Facility Committee (no meeting)	
D. EMS Joint Task Force	
E. County EESCS Committee (formerly County E911 Office)	
F. County ECSF Program Advisory Board	
8. Executive Session, if any	
9. Good of the Order	
10. Adjourn - The next meeting is scheduled for July 18, 2024	

SNOHOMISH COUNTY 911 BOARD of DIRECTORS MEETING

May 16, 2024

Board Members & Management in Attendance	☒ Jon Nehring - President	Marysville	☒ Jonathan Ventura	Arlington Police
	☒ Dave DeMarco	Everett Fire	☐ Dale Kaemingk	Brier
	☒ Ryan Lundquist	SRFR	☒ Kurt Mills	SNO911
	☒ Michael Fearnough	South County Fire	☒ Terry Peterson	SNO911
	☒ Don Waller	Marysville Fire	☒ Andie Burton	SNO911
	☐ Joel Johnson	Fire District 24	☐ Marlin Herolaga	SNO911
	☒ Susanna Johnson	SCSO Sheriff	☐ Rosie Akopyan	SNO911
	☒ Ken Klein	Snohomish County	☒ Wade Anderson	SNO911
	☒ John DeRousse	Everett Police	☒ Howard Tucker	SNO911
	☒ Judy Tuohy	Everett	☐ Steve Lawlor	SNO911
	☒ Rod Sniffen	Edmonds Police	☐ Jordan Stephens	Legal Counsel
	☒ Jeff Beazizo	Lake Stevens Police	☒ Christine Svihus	Legal Counsel
	☒ Julieta Altamirano-Crosby	Lynnwood		
Alternate Board Members in Attendance	☒ Bob Eastman	South County Fire	☐ Don Schwab	Everett
	☒ Roy Waugh	SRFR	☒ Jim Lawless	Marysville Police
	☐ Paul Gagnon	Everett Fire	☐ Jenna Nand	Edmonds
	☒ Ned Vander Pol	Marysville Fire	☐ Brett Gailey	Lake Stevens
	☒ Glen Albright	Mukilteo Fire	☐ Cole Langdon	Lynnwood Police
	☐ Jason Biermann	Snohomish County	☐ Jeffrey Jolley	Monroe Police
	☐ Doug Jeske	Undersheriff	☐ Pete Caw	Mntlk Terrace PD
	☒ Jeraud Irving	Everett Police		
Guests and Staff in Attendance	Ann Trivett - Keating, Bucklin & McCormack		Chief Seth Johnson - Fire District 5 (Sultan)	
	Scott Dorsey - Snohomish County EMS		Tiff Brown - SNO911	
	Riley McGinnis - Member of Public		Sharon Brendle - SNO911	

AGENDA ITEMS	REPORTS & COMMENTS	ACTION OR FOLLOW-UP
1. Call to Order, Roll Call and Public Comments	A. Call to Order: President Jon Nehring called the meeting to order at 8:30 a.m. Roll call was taken and a quorum was confirmed. B. Announcements: None C. Public Comments: None	
2. Approval of Agenda	No changes to the Agenda were proposed. Chief Jeff Beazizo moved to approve the agenda as presented. The motion was seconded by Sheriff Susanna Johnson and approved unanimously.	Agenda Approved
3. Consent Agenda	Chief Beazizo moved to approve the Consent Agenda, including: A. Minutes from the April 18, 2024 Regular Board Meeting. B. April 2024 Blanket Voucher & Payroll Approval Form: i. Checks 1042-1044, and 18717-18830, for a total of \$3,547,371.26. ii. Payroll Direct Deposit, in the amount of \$1,379,711.82. C. APF - PAM 6.10 (PFML) Policy Revision. The motion was seconded by County Executive Director Ken Klein and approved unanimously.	Consent Agenda Approved

4. Executive Session	Attorney Christine Svihus moved the SNO911 Board into Executive Session at 8:36 a.m. pursuant to RCW 42.30.110(1)(i) to discuss with legal counsel potential litigation that the board may be a party to. Ann Trivett, with Keating, Bucklin and McCormack was in attendance. The Executive Session concluded at 8:45 a.m. and the board returned to the regular board meeting with no related announcements or action taken.	
5. Old Business	A. Legislative Approvals of ILA Changes. Director Mills provided an update on this matter and added that they won't consider action until the June meeting. He reported that the required notification was sent out along with the red-lined ILA proposed changes. He said they haven't received any inquiries yet. This item will be on the agenda for June. B. Nurse Navigation Program Update. Deputy Director Peterson provided an update on the Nurse Navigation Program. He recalled that last summer EMTs were experiencing extremely long wait times for hospital emergency rooms to be able to receive patients. They started looking for alternative ways to take care of low acuity calls to 911, which led to a national search for programs available. GMR's Nurse Navigation was the program selected and the county went live in January. Some data was presented showing results of the program and the deputy director reported that they have been focused on what happened with those patients that were transferred. Since the beginning of the year, they have transferred about 1,700 calls to the Nurse Navigation program. He further explained the variety of treatments that over 400 patients received who successfully avoided going to the ER. He stated that the program is working as designed and they have been successful getting patients moved over to other options. Following some challenges they experienced early on, they are now seeing a hand-back rate of less than 6%. Public education continues to be a focus and they plan to do more of that. Favorable feedback received from patients was also shared. Additional discussions will be forthcoming by the committee overseeing this program regarding the availability of any future grant dollars and how budgeting may take place.	
6. New Business	A. EMS Joint Taskforce Presentation. Chief Dave DeMarco gave a PowerPoint Presentation covering the work being done by the EMS Joint Taskforce. He explained that the group has been doing a deep analysis of Snohomish County's EMS organization in an attempt to make some recommendations going forward. Some background on why EMS matters: the current organization has faced many challenges in the last several years and has not been running as smoothly as it should. EMS fits into a system designed by the State of Washington and is regulated by the Department of Health (DOH), and is supposed to function as an oversight and regulatory authority representing the state through the Medical Program Director (MPD), hired by the State. The MPD manages over 1100 providers in Snohomish County. Chief DeMarco stressed in his presentation that the goal of the taskforce was to make recommendations that will bring EMS into	

	compliance with the regulatory authority set by the DOH. He added that they aren't interested in inventing new tasks for EMS, but they have spent a lot of time evaluating State law while determining a way to bring the County into compliance. Besides a mission statement, the group has also created a communications plan, a problem statement which identified challenges and risks, and a list of programs to focus on as a priority for the future, including building a strong comprehensive Quality Assurance and Quality Improvement Program in the County. They have also discussed restructuring and other governance options, including whether EMS will be a stand-alone agency, be hosted by another agency or merged with SNO911. The group will be recommending an option, as well as a budget for each of the three options. He also reported that the group plans on bringing the presentation to each of the fire chiefs in the County in an effort to bring them on board with the need to be better coordinated. There were no questions. President Nehring thanked Chief DeMarco for his presentation. B. APF - ECSF Biennial Budget Request. Deputy Director Peterson presented the proposal and explained that each year the SNO911 Board and the Radio Advisory Program Board takes action on how to apply the ECSF tax revenue received from the 1/10th of 1% sales tax, which was authorized by voters in 2018. The revenue can only be applied to those expenses that meet the definition of emergency communications and facilities under State law. This is a two year budget request because the county recently moved into a two year cycle. The next steps would be with the Program Advisory Board, then ultimately to the County Council for their consideration and approval. <i>Chief Beazizo moved to recommend approval of the 2025-2026 ECSF & RRP Budget and long-term plan to the County ECSF Committee, as presented. The motion was seconded by Chief Ryan Lundquist and approved unanimously.</i> C. APF - New 911 CPE Fund 86 Proposal. Deputy Director Peterson explained that previously when there were multiple dispatch centers in the county the E911 office would set aside funds for replacement phone systems for the 911 system. Now that SNO911 is the lone 911 agency, staff feels it makes more sense for the funds to go straight to its agency rather than always seeking reimbursement. He added that to ensure funds remain dedicated to the 911 phone system, it's been recommended that an E911 CPE Fund 86 be established. Those same dollars that were being budgeted and reserved at the County will be deposited and held in reserve in that new fund. The Finance Committee approved these proposed actions. <i>Chief Beazizo moved to create a new fund titled E911 CPE Fund 86 to hold funding in reserves to replace the 911 phone system. The motion was seconded by Councilmember Julia Altamirano-Crosby and approved unanimously.</i> <i>Chief Beazizo moved to approve moving \$300,000 in additional E911 revenue in 2024 to E911 CPE Fund 86, when</i>	Motion approved Motions approved
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	<i>received. The motion was seconded by Sheriff Johnson and approved unanimously.</i>	
7. Reports	A. Agency Report. Director of Operations, Andie Burton, gave an update on the regional resiliency project they have been working on with ValleyCom using SNO911's Cad-Lite platform. She reported that they held a short drill yesterday to ensure the technology was working and the test was successful. They are planning for a larger scale drill on June 5th, with each center repeating the former drill but for a longer period to ensure staff is able to process the other center's calls and enter them into Cad-Lite. Three or Four more drills are also planned in future months, and Director Burton will update the Board on the progress. Executive Director Mills praised the Operations and Technology Teams for their coordinated effort. B. Radio Replacement Project (RRP). Radio Systems Team Manager Howard Tucker reported that his team continues to work in the background building up the infrastructure. Site optimizations are currently underway, and they are still on track for an early 2025 cutover, with full function testing scheduled for August, and coverage testing in September and October. C. Police TAC. Assistant Chief Jim Lawless reported that Police TAC met earlier in the week, with several operational topics discussed. D. Fire TAC. Operations Director Andie Burton reported that Fire TAC met yesterday. All the fire agencies, along with SNO911, are in planning mode for the Light Rail implementation in Lynnwood. They discussed some type codes and response plans. They also received the Nurse Navigation and Task Force presentations.	
7. Committee Reports	A. Finance Committee. Chief DeMarco reported that all items discussed at the committee have been covered in today's meeting. B. Personnel Committee. Chief Ventura reported that the committee met on May 8th. They discussed the staffing report and the update to the Family Medical Leave policy. C. Future Facility Committee. Director Mills followed up on the report given earlier about finding some water underneath the building. It was ultimately determined from a previous Geo Report that water had always been present on that side of the building, and it was normal. They learned that at no time did water ever penetrate the building, but used the opportunity to include some mitigation steps, and added some additional drainage using contingency dollars available. D. EMS Joint Task Force. Nothing additional. E. County EESCS Committee (formerly County E911 Office). No meeting. F. County ECSF Program Advisory Board. There is a meeting scheduled for June 5th at 10:30 a.m.	
8. Good of the Order	None.	
9. Adjourned	The meeting was adjourned at 9:55 a.m. The next regular meeting is scheduled for June 20, at 8:30 a.m. via Zoom.	



ACTION PROPOSAL FORM

Date: 6/20/24

Action Title: Acceptance of Grant

Time Sensitivity: Normal

Background / Purpose:

On February 18, 2021, the SNO911 Board authorized the acquisition of PulsePoint, a Community CPR & AED registry solution that alerts CPR trained citizens to someone nearby having a sudden cardiac arrest.

A grant application was made to the Medic One Foundation Board to cover the licensing fee for 2024, and the application was approved with a grant in the amount of \$25,500.00. Future grant opportunities may exist but are not guaranteed. We have been informed that the grant will not be available for 2025. Future opportunities may exist but are not guaranteed.

We are asking for approval to receive the grant funds and reimburse the Operating Fund in the amount of \$25,500.

Requested Motion:

Authorize acceptance of the \$25,500 gift from Medic One for PulsePoint to be placed in Operating Fund 70.

Funding Source: Medic One Grant



PIONEERING 911 RESILIENCY SOLUTION Ensures Uninterrupted Emergency Response

Two of Washington State's largest Emergency Communications Centers (ECCs) formed a partnership to assure service continuity during scheduled or unscheduled downtime.

The Regional Resiliency Initiative is a major innovation combining Next Generation 911 (NG 911) with Washington State's Emergency Services IP Network (ESInet) and CAD-L, a custom-built cloud-based CAD solution designed for ECC resiliency preparedness. On June 5th both ECCs conducted a live 911 drill that was successful and validated a vision that is more than four years in the making.

Most ECCs operate a back-up location and this initiative is focused on continuity of operations while staff relocate to their back-up locations.

SNO911 has formed a partnership with Valley Com 9-1-1 in Kent, WA. Valley Com 9-1-1 is also a consolidated multi-discipline ECC with call volumes similar to SNO911.

By making CAD-L available to Valley Com 9-1-1 and creating streamlined call-taking procedures in the event of a disruption of operations in either center, a complete resiliency framework has been built to assure responses to emergencies in both jurisdictions.

On June 5, 2024, a successful real-time test of the partnership proved the planning, technology, and partnership between the two 911 centers deliver highly reliable service to both communities. We are unaware of any other similar initiative of this magnitude anywhere in the United States.

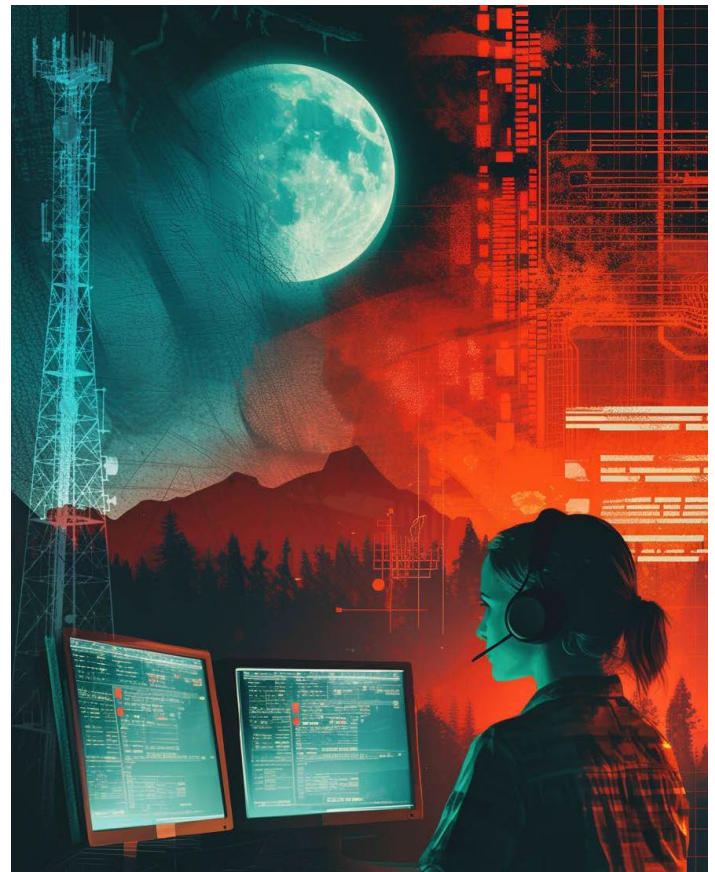
RESPONDING, NO MATTER WHAT

SNO911 & Valley Com 9-1-1 have been adopters of Next Generation 911 advanced technology to expand access and accelerate responses to everyday emergencies.

As of mid-2020, all 86 of Washington State's 911 emergency call centers completed their upgrade to NG911 and are managing call routing on the backbone of the statewide ESInet.

The importance of readiness is taken very seriously by ECCs everywhere. Preparedness for major regional catastrophes like earthquakes or wildland fires is important, but smaller everyday incidents pose the greatest likelihood of disruption to operations.

Needing to evacuate the ECC is more likely to come from unexpected emergencies. SNO911 experienced their own close call when roofers caught a section of the roof on fire and smoke was pulled into the building. ECCs need a plan on how activity is managed while telecommunicators relocate to their back-up center.



Deepening the strategic use of ESInet, Everett Washington's SNO911 formed an alliance with Valley Com 9-1-1, a similar-sized ECC located in Kent, WA, about 40 miles from SNO911's base in Everett. Establishing pre-configured alternate Policy Routing Functions (PRF) within ESInet allows supervisors in either of the centers to quickly initiate re-routing of 911 to another ECC.

Both teams now know that even in the event of the unexpected, callers in their communities will reach the 911 lifeline so they can get the help they need.

“CALLS ARE RE-ROUTED...AND THEN WHAT?”

To put it simply: ESInet re-routing of 911 traffic so callers can reach a trained dispatcher is only part of the equation. Once the location and crucial details are gathered, police and fire must be alerted, and responses managed and that was ultimately the challenge.

911 centers everywhere plan for unplanned CAD outages, typically with a systems of cards for each emergency and written notes for tracking units responding, and runners who deliver the cards/paper to the appropriate dispatcher.

Some centers add magnet boards to track the status of responder units, and some have innovated with the use of LEGO® blocks to represent movements of response vehicles. Although these manual processes are necessary and exist in most ECCs, they are inefficient and prone for delayed responses. These manual methods have been common for years, but with advances in technologies and solutions like CAD-L, better ways exist.

A PERFECT PARTNERSHIP



Located in Everett, Washington, [SNO911](#) is one of the state's busiest 911 centers. Their dispatch staff of 123

answered nearly 750,000 requests for service in 2023. SNO911 is a consolidated ECC dispatching 43 different Law Enforcement and Fire/EMS responders in Washington's third largest county of over 850,000.

SNO911 is known for innovations which continuously enhance services to the public and support of emergency responders.

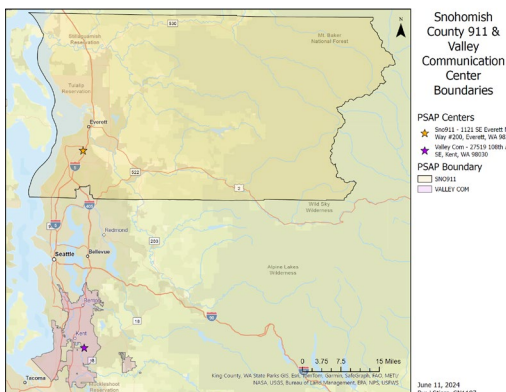
A culture of vision for the future and proactive change management are at the core of SNO911 values.



[Valley Com 9-1-1](#) is a consolidated PSAP coordinating emergency responses from Law Enforcement and Fire/EMS agencies in southern King County, immediately south of Seattle.

Located in Kent, Washington, Valley Com 9-1-1 provides emergency communications services to 23 emergency response agencies.

Valley Com 9-1-1's staff of 103 answered 660,117 requests for service in 2023.



From the beginning, it was important that the two partners have similar characteristics: similar capacity to handle heavy call volume, experience in consolidated multi-discipline call-taking (Police, Fire & EMS) and dispatching, and the immediate availability of a backup center in the case of emergency.

In 2017 Snohomish County Washington consolidated two PSAP operations into what became SNO911 a consolidated, multidiscipline PSAP managing police, fire and EMS emergency responses. In a forward-looking decision by the Board of Directors, the second 911 center in Mountlake Terrace was preserved as a backup center, kept ready to take over operation immediately.

Policies were put into place to rapidly evacuate the Everett center and transport staff to the backup location, however there was never a good solution to manage activity while dispatch staff relocate to the back-up.

During the intense challenges of the COVID pandemic, SNO911 was able to maintain physical distancing by scheduling a percentage of the staff complement to work in each center, protecting the health of staff. At the time, splitting operations was useful, however it carried its own challenges and was not a permanent option.

"We are a large ECC, but not an LA or NYC who have the resources to staff and operate two geographically diverse ECCs."

Andie Burton, SNO911 Director of Operations.

Like SNO911, Valley Com 9-1-1 is a busy center, accustomed to handling peak demand volumes. Like SNO911, Valley Com 9-1-1 is a multi-jurisdictional 911 center providing emergency communications for police, fire & EMS. Valley Com also has a dedicated backup facility in the King County Sheriff's Office dispatch center, equipped and ready to be operational rapidly.

Both backup centers keep a high-availability 'mirrored' instance of their critical systems using virtualization and geographically diverse networking. The only thing that is needed is the staff. The similarities between the alliance partners make for a perfect match with capacity to support each other during unanticipated operating interruptions. For each center, downtime is likely to be very brief – roughly 30 minutes to relocate dispatch teams and restore nominal operations. The question was: *"How do we manage activity during the time teams are relocating?"*

Notably, proximity of the partners has proved unimportant. The cities of Everett and Kent are more than 40 miles apart, separated by the densely populated city of Seattle and several suburban communities. SNO911 and Valley Com 911 do not share a border. Effectively, the partners in the Regional Resiliency Initiative could be on opposite sides of the state.

AN AUDACIOUS IDEA

Derek Wilson, Operations Manager summed up the inspiration for CAD-L and developing this level of redundancy: *“It was clear to us that we had a duty to work on this, to make sure that if we need to evacuate (bug-out), there will be a process to continue service, both answering calls and dispatching responders.”*

It's easy to imagine the massive emergencies that would interrupt 911 services, but operating disruptions are more likely to be caused by commonplace accidents like a roof fire, or an HVAC failure. While operating in 'backup mode' for long periods is feasible, the partnership is intended to cover brief periods when staff relocates during an evacuation.

Wilson went on to say: *“Given the rerouting control of ESInet and capacity to manage call routing, combined with contemporary cloud software engineering, we can address both workloads. We saw an obligation to make sure we are ready, no matter what.”*

Initiating ESInet call re-routing is rapid and in the control of an on-duty supervisor. Washington State's NG911 contractor Comtech enabled each ECC with a secure ability to access the Comtech Policy Routing Function (PRF) table and re-route their 911 traffic to their backup partner ECC. Once an ECC is ready to take their own 911 calls back, they can simply log back into that same secure system and take back their own 911 calls.

This is one example of software-driven next generation technology for critical infrastructures like 911 making a difference. Comtech is pleased to support the forward thinking of both Sno911 and Valley Comm 911.”

Whitney Maxfield, Sr. Technical Program Manager, Comtech

BETTER THAN CARDS

The CAD-L concept began to take shape in 2018 as SNO911's leaders evaluated how to ensure up-time and leverage the re-routing capabilities of the ESI-net. Then came the challenging question of: “then-what?” Unable to find a commercial solution, the agency set forth creating their own tool by commissioning one of Seattle's top software development firms.

The more complex task was developing a streamlined but effective mission-critical CAD resource. 911 centers use an array of CAD systems, and every jurisdiction localizes their system to match their own has unique protocols and event codes. To ensure ease of use for the covering ECC, six generic type codes were developed. Once narrative info is reviewed at the home agency, a final coding is assigned and resources dispatched.

Duplicating two exact data frameworks and system user experiences, is unreasonable at several levels, not the least being an expectation that a dispatcher could develop proficiency with two very different systems.

“The magnitude of this operational functionality between ECCs in different counties must be appreciated. Through innovative collaboration and improved technology, this endeavor allowed us to add another level of continuity to better serve the public, our communities, and partner agencies without interruption or delay.”

- Angee Bunk, RPL, CPE, Deputy Director, Valley Com 9-1-1

FORMULA FOR SUCCESS

Success in this Regional Resiliency solution involves three major components:

1. A partnership between two ECC's with similar operating scope and resources, ready to immediately provide backup for each other and form a collaboration to establish and practice procedures for diverse emergency situations.
2. Pre-configuration of the Policy Routing Functions to activate call re-routing via ESInet
3. Adoption, training and practice of CAD-L to manage call and dispatch operations

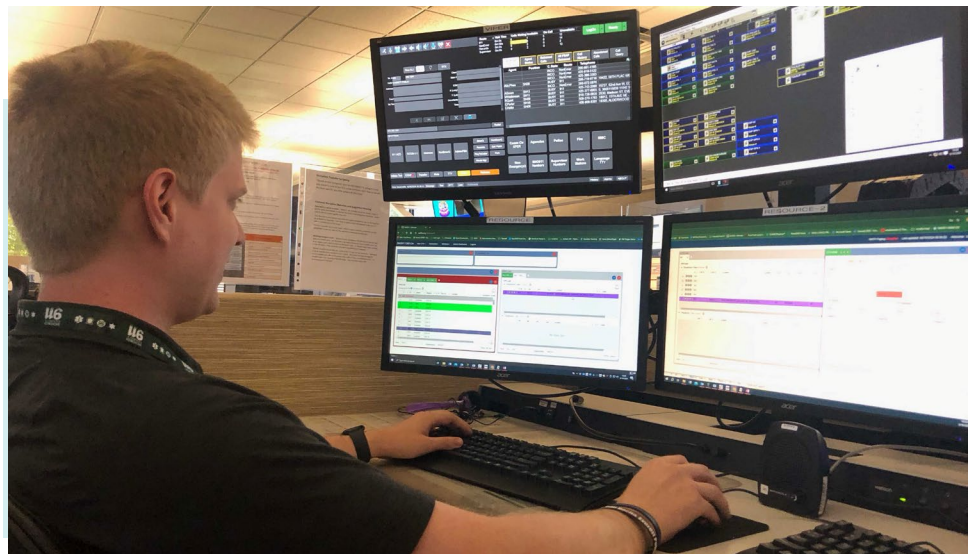


CAD-L CAPABILITIES

The application provides an impressive suite of core CAD functionality, localized for each ECC, and includes:

- The ability to geo-validate locations and common places against the home agency GIS
- Identify jurisdictional boundaries and beats
- Designate incident types and priorities
- Provide assignment recommendations,
- Assign and track units
- Add narrative and filter views by jurisdiction.

It includes a command-line, integration with RapidSOS, and the ability to send alerts to responders. The application can operate on a single monitor or span across multiple. These capabilities and ability to localize make it easily adaptable for each ECC.



An Elastic web-application securely hosted in the cloud; the solution dynamically scales based on workload which ensures the system can meet peak demands at any moment. This also keeps costs minimal when the application isn't being used and ensures the system can adapt and increase resources automatically during use.

The application is hosted in the highly secure Amazon Web Services GovCloud (AWS GovCloud), an environment designed for sensitive workloads.

Snohomish County residents have faith that 911 will be available whenever needed, without fail. To meet that expectation, we continuously evaluate risks our own ECC may encounter, and plan in advance to prepare and maintain services.

Kurt Mills, Executive Director, SNO911



TESTED AND PROVEN

The Regional Resiliency Initiative is designed for brief temporary activation however there is no reason the capabilities couldn't be sustained for longer periods of time. Several iterations of CAD-L were tested, improved and iterated by the SNO911 team before introducing it to Valley Com 9-1-1.

Over the course of several months, there were continued improvements, staff-wide training and drills of both call routing and CAD-L. This was a major investment in the collaborative effort by both ECC's.

At 8:00AM on Wednesday, June 5th, 2024, the partnership and technologies were tested in a live operating mode. This was no simulation.

"We had several simulation and table-top drills, but at some point, we knew we needed a live exercise," said Andie Burton.

911 calls were re-routed from each center to the other and CAD-L was used in real-time call-taking and dispatch.

As with all testing of new procedures, there were technical and operational learning opportunities for all. However, the system, staff at both ECC's, and partnership itself exceeded expectations even during a busy mid-week commute.

Executive Director Mills summed up his congratulations to both teams:

"The collaboration between VCC and SNO911, two of the largest Emergency Communications Centers in the state, which do not even share a border, is a testament to the conscientious effort and teamwork displayed by all involved. This accomplishment is a significant achievement and helps increase the 911 resiliency for our combined populations of more than 1.5 million."

Action Proposal Form

Date: June 5, 2024

Title: Change Order 16 - Final RRP Coverage Acceptance Test Plan

Background / Purpose:

Ensuring adequate radio system coverage from the new digital network is the one of the most critical elements of the Radio Replacement Project (RRP). The project has included a Coverage Acceptance Test Plan (CATP) since its inception to validate this objective. Throughout vendor contracting, system design, and project enhancements, the CATP has been refined to ensure that first responders are provided the radio system coverage they need to coordinate emergency response. Change Order 16 captures these refinements with the system vendor and includes them in a contractual format.

Updates to the initial CATP include:

- Testing to be performed with implemented mobile and portable radio configurations (antennas and radio models)
- Shift responsibility of providing vehicles and drivers from SNO911 to Motorola
- Defined “information only” coverage areas to be tested that our outside the primary response areas. These areas have been approved Fire/Police TACs
- Increased efficiency of entire CATP process:
 - Test all areas with a portable radio, fill in areas in the Mobile Service Area with a mobile radio as needed to meet contracted coverage
 - Increased the number of active test teams to condense the testing schedule
 - Utilize “US Primary” frequencies for coverage testing to minimize capacity impacts to legacy radio system.
- Minor change in overall mobile service reliability from 91.69% to 91.6% due to final tower antennae locations (height) based on field conditions. Predicted coverage maps show minor reduction in outlying areas with no population, roads, infrastructure within the service areas. The contracted portable coverage remains unchanged at 95% predicted coverage in the portable service area.
- Finalized the number and location of grid squares to be tested within the Portable Service Area, Mobile Service Area and the additional “information only” areas. This process identified all public road accessible grid squares that would provide valuable information to users of the radio system

The net cost difference is \$11,919.02 which will be funded from current contract credit.

Suggested Action/Recommendation:

Authorize the execution of RRP Change Order 16, in a form substantially as presented, pending any final legal review.

Fund: RRP

Change Order Number: 16

Date: April 24, 2024

Project Name and Number: Emergency Radio System (WA-181106A)

Customer Name: SNO911

Customer Project Mgr: Terry Peterson

The purpose of this Change Order is to: *(highlight the key reasons for this Change Order)*

This Change Order 16 is intended to account for changes to the Coverage Acceptance Test Plan (CATP), as further described herein, including:

1. Revising the coverage test procedures as described in the CATP ;
2. Providing test vehicles and drivers for the duration of the test as described in the CATP; and
3. Modifying the Mobile Service Area Reliability from 91.69% to 91.6%

Costs for additions because of the changes will be subtracted from the contract credit as noted below.

Contract #: **SERS/MSI Agreement**Contract Date: **12 06 18**

In accordance with the terms and conditions of the contract identified above between Snohomish County ("SNO911") and Motorola Solutions, Inc. ("Motorola"), the following changes are approved:

Contract Price Adjustments

Original Contract Value:	\$ 47,309,713.76
Previous Change Order amounts for Change Order numbers [00] through [15].	\$ 7,326,680.31
This Change Order:	\$ 0.00
New Contract Value:	\$ 54,636,394.07

Completion Date Adjustments

Original Completion Date:	8/30/21
Current Completion Date prior to this Change Order:	12/31/28
New Completion Date:	N/A

Changes in Equipment: *(additions, deletions or modifications)* Include attachments if needed

NONE

Scope of Work Changes: *(additions, deletions or modifications)* Include attachments if needed

The parties agree to delete the Coverage Acceptance Test Plan included in Exhibit C-2 (P 25 Radio System) as Section B.3 and replace it with the Coverage Acceptance Test Plan dated March 22, 2024 attached hereto as Attachment A and incorporated herein. Changes made to the CATP include:

- Motorola to provide vehicles and drivers to conduct the coverage test plan for the duration of the testing.
- The revised coverage test plan will be conducted using a portable radio BER test in place of conducting independent mobile and portable BER coverage tests, with portable BER results applied independently to the portable and mobile service area guarantees. Any retests (of initially failed tiles) in the portable service area will be done with a portable radio, and any retests (of initially failed tiles) needed in the Mobile service area will be done using a mobile radio. An informational only portable BER coverage test for the additional SNO911 identified areas will also be performed, with any retest in these areas conducted with a Mobile radio BER test.
- The Mobile Service Area Reliability set out in Section B.3.6 is changed to 91.6% The Mobile Service Area Reliability is 91.6% as a result of the actual antenna heights that were lowered at some sites due to conflicts on the towers.

Independent test maps for the Portable, Mobile, and Informational only areas will be provided after testing is completed for all areas.

Changes in SUA and Support Services: *(additions, deletions or modifications)* Include attachments if needed. Must be completed by Project CSM.

NONE

Schedule Changes: *(describe change or N/A)*

NONE

Pricing Changes: *(describe change or N/A)*

The cost for the revised test plan and providing vehicles and drivers is \$11,647.48 The parties have agreed that this amount will be deducted from the contract credit. The current contract credit is:

Item	Change Item	Equipment	MSI & Install Costs	Total	Approved
1	Nokia NSP Purchase	\$31,714.00	\$0.00	\$31,714.00	5/31/23
2	New Dispatch Design Services (no implementation services)	\$0.00	\$12,596.94	\$12,596.94	10/4/23
3	PSERN Network Changes		\$2,500.00	\$2,500.00	1/17/24
4	New Dispatch Design & Implementation Services (On-Going)		\$11,919.02	\$11,919.02	
5	Coverage Testing Drivers and Vehicles	\$0.00	\$11,647.48	\$11,647.48	

Subtotal	\$70,377.44
Credit from CDR - Change Order 14 (Without TAX)	\$472,524.41
Balance	\$402,146.97

Customer Responsibilities: <i>(describe change or N/A)</i>
NONE

Payment Schedule for this Change Order: <i>(describe new payment terms applicable to <u>this</u> change order)</i>
NONE

Purchase Order Requirements for this Change Order (select only one).

☐ A Purchase Order is required - included with this change order and is attached.

☒ No Purchase Order is required - Customer affirms that this change order document is the only notice to proceed required, that funding has been encumbered for this change order in its entirety, and that no further purchase orders will be issued against this change order,

☐ No Purchase Order required - this is a \$0 Change Order, or a decrease in scope.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

IN WITNESS WHEREOF the parties have executed this Change Order as of the last date signed below.

Motorola Solutions, Inc.**Customer**

By: _____
Printed Name: _____
Title: _____
Date: _____

By: _____
Printed Name: _____
Title: _____
Date: _____

Reviewed by: Charles Hasenbeck
Motorola Solutions Project Manager

Date: June 6, 2024

COVERAGE ACCEPTANCE TEST PLAN

SNOHOMISH COUNTY REQUEST FOR PROPOSAL #53-17D

MARCH 22, 2024

REVISED TO USE PORTABLE BER TESTING RESULTS
FOR MOBILE SERVICE AND INFORMATIONAL AREAS



B.1.50 Coverage Acceptance Test Plan

This Coverage Acceptance Test Plan (CATP) is designed to verify that the new SNO911 P25 TDMA radio system meets or exceeds the required Service Area Reliability (SAR). The CATP defines the coverage testing method and procedure, the coverage acceptance criterion, the test documentation, and the responsibilities of both Motorola and SNO911. This CATP describes the objective coverage test for a mobile and portable radio with delivered audio quality (DAQ) of 3.4 within the SNO911 Portable and Mobile Service Areas identified within this document.

Coverage Acceptance Testing is based upon a coverage prediction that accurately represents the implemented infrastructure and parameters that are consistent with the latest contract agreements.

Motorola will provide SNO911 with KMZ versions of the P25 maps upon SNO911 request. The KMZ maps are for informational purposes only.

Subsequent sections define the coverage acceptance test configurations and test criteria.

B.1.50.1 CATP Definitions

Several definitions are needed to accurately describe the coverage acceptance test method and criteria. Where cited, these terms or methods are defined in TIA TSB-88.1-F¹ or TSB-88.3-F².

B.1.50.2 Defined Test Area

The defined test area is the geographical area in which communications will be provided that meet or exceed the specified Channel Performance Criterion (CPC) at the specified reliability for the specified equipment configuration(s). Table B-2, Coverage Acceptance Test Summary, along with the corresponding Motorola Solutions maps identify the specific defined test areas for Mobile and Portable.

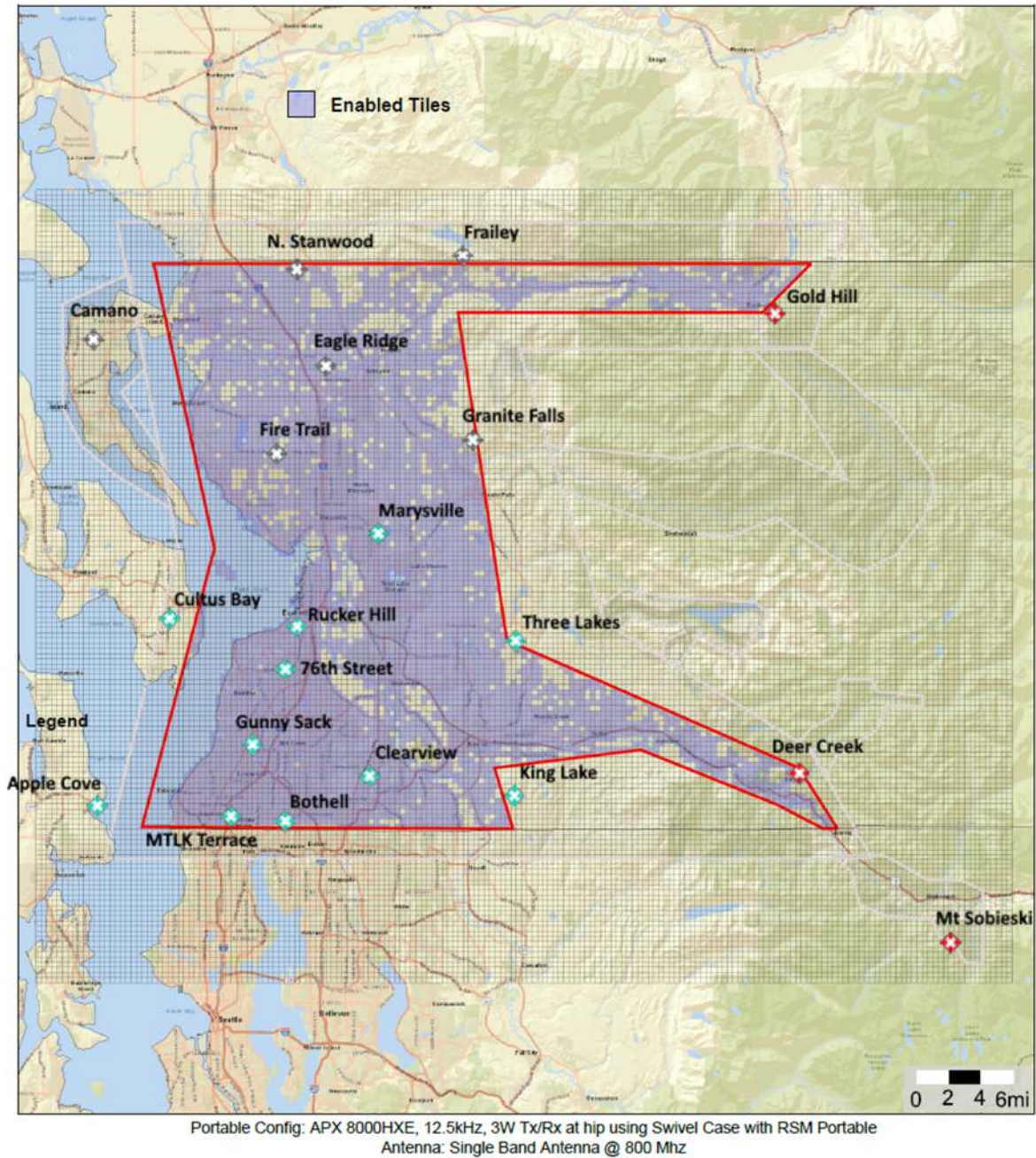
For the defined test areas (identified in Table B-2: Coverage Acceptance Test Summary), the coverage reliability commitment is on-roads only. The roads included in the on-road commitment are defined by the US Census Bureau TIGER 2023 road file that are accessible by 2-wheel drive vehicles.

For coverage testing, each defined test area will be divided into a grid pattern by Motorola Solutions to produce at least the number of uniformly sized test locations (or tiles) required by the Estimate of Proportions formula. [TSB-88.3-F, §5.2.1, equation 2] The minimum number of test tiles required varies, from a hundred to many thousands, depending on the size of the defined test area, desired confidence in results, type of coverage test, and the predicted versus required reliability.

¹ *Wireless Communications Systems --- Performance in Noise- and Interference-Limited Situations --- Part 1: Recommended Methods for Technology-Independent Narrowband Performance Modeling*, Technical Service Bulletin TSB-88.1-F, Telecommunications Industry Association (TIA), Arlington VA, April 2022.

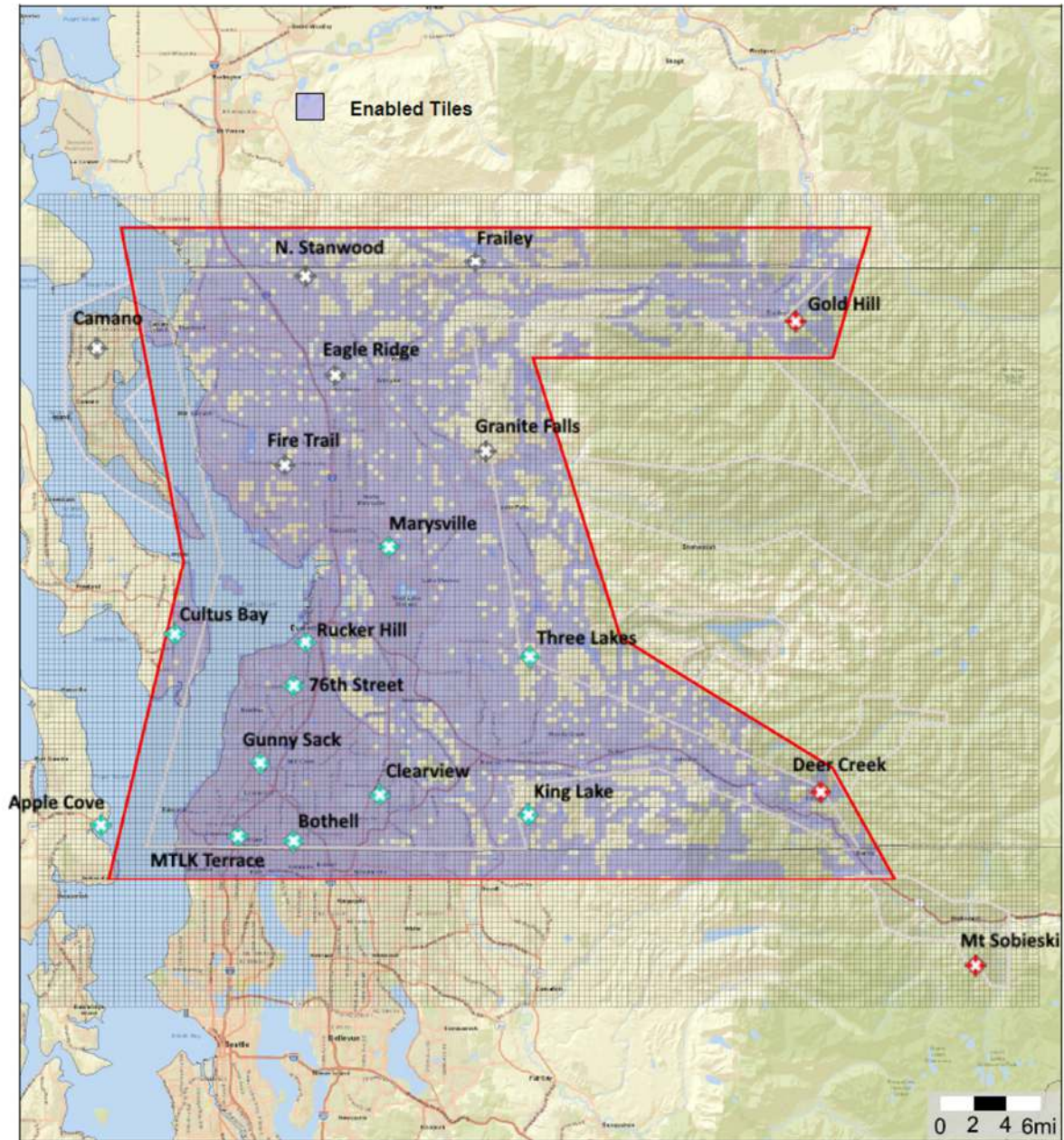
² *Wireless Communications Systems --- Performance in Noise- and Interference-Limited Situations --- Part 3: Recommended Methods for Technology-Independent Narrowband Performance Verification*, Technical Service Bulletin TSB-88.3-F, Telecommunications Industry Association (TIA), Arlington VA, March 2022.

SNO911 ASTRO P25 TDMA System Portable Service Area



Map 1: Portable Service Area Grid Map

SNO911 ASTRO P25 TDMA System Mobile Service Area

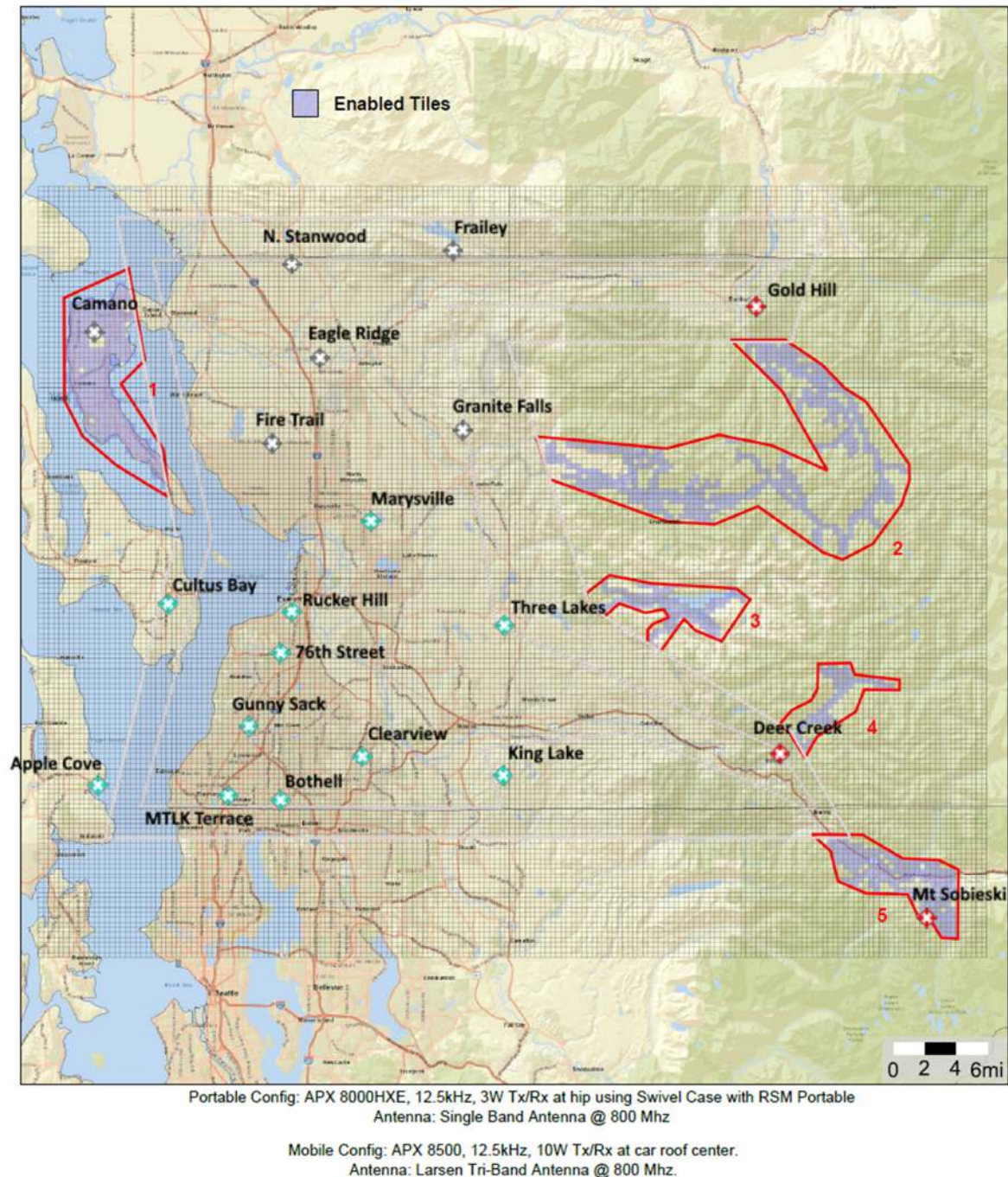


Mobile Config: APX 8500, 12.5kHz, 10W Tx/Rx at car roof center.
Antenna: Larsen Tri-Band Antenna @ 800 Mhz.

Map 2: Mobile Service Area Grid Map



SNO911 ASTRO P25 TDMA System Informational Service Areas



Map 3: Informational Service Areas Grid Map

In addition to the above Mobile and Portable grid definitions, Motorola has included additional resources to test additional tiles beyond the defined Mobile Service Area borders as shown in the map above. The additional areas are 1) Camano Island, 2) Mtn. Loop Highway, 3) Spada Lake, 4) Galena Rd. north of Index, and 5) Steven's Pass Skykomish. The intent of this additional test is to document the true "edges" of the system coverage and these tiles are therefore excluded from consideration when determining coverage acceptance. The additional tiles will be tested for the portable and mobile (retest) configurations and are for informational purposes only.



B.1.50.3 Channel Performance Criterion (CPC)

The CPC is the specified minimum design performance level in a faded channel. [TSB-88.1-F, §5.2]. For this system, the CPC is the Delivered Audio Quality (DAQ) as stated in Table B-2. DAQ Definitions are provided in Table B-1. [TSB-88.1-F, §5.4.2, Table 3].

Table B-1: DAQ Definitions

DAQ	Subjective Performance Description
1	Unusable, speech present but unreadable.
2	Understandable with considerable effort. Frequent repetition due to noise/distortion.
3	Speech understandable with slight effort. Occasional repetition required due to noise/distortion.
3.4	Speech understandable with repetition only rarely required. Some noise/distortion.
4	Speech easily understood. Occasional noise/distortion.
4.5	Speech easily understood. Infrequent noise/distortion.
5	Speech easily understood.

The CPC pass/fail criterion is the faded performance threshold, plus any adjustments for antenna performance, external noise, and in-building or in-vehicle losses. [TSB-88.1-F, §5.4.2, Figure 6]. The faded performance threshold for the specified CPC is determined using the receiver's static reference sensitivity adjusted by the projected CPC parameters for the applicable Modulation Type and DAQ as listed in the current version of TSB-88.1, Annex A, Table A-1. For coverage testing of digital voice radio systems, the faded performance threshold is the applicable Bit Error Rate (BER) from the projected CPC parameters.

B.1.50.4 Reliability

The Service Area reliability is the percentage of locations within the defined SNO911 test area that are predicted to meet or exceed the specified CPC DAQ 3.4.

The Motorola Solutions maps in section B.1.50.2 indicate the Service Areas within which this system is predicted to provide at least the reliability of meeting or exceeding DAQ 3.4 (i.e. the area within the red boundary).

After all accessible tiles in each of the defined test areas have been tested, the Service Area reliability will be determined by dividing the number of tiles tested that meet or exceed the CPC pass/fail criterion by the total number of tiles tested. [TSB-88.3-F, §5.1, equation 1]



B.1.50.5 Directions of Test

The directions of test in Table B-2: Coverage Acceptance Test Summary defines the directions that will be tested for coverage acceptance. The direction of this CATP is Round-Trip for both the Mobile and Portable Service areas. Round-Trip means that both Outbound and Inbound tests within the test tile are required to pass for that test tile to pass.

B.1.50.6 Equipment Configurations

This section defines the equipment configurations and infrastructure design parameters upon which the coverage guarantees, and the coverage acceptance test are based. The equipment configurations are defined in Table B-2: Coverage Acceptance Test Summary, and include user equipment, outdoor/in-building definition, defined test area, number of test tiles, reliability, CPC, CPC pass/fail, and direction(s) of test.

The infrastructure design parameters are defined in Table B-3: Infrastructure Design Parameters, and include site names, site locations, and antenna system parameters. If the implemented system equipment configuration and/or infrastructure design parameters vary from these configurations and/or parameters, revised reliability percentages will be used to define the test configuration and potential areas from which test tiles will be included in the revised coverage acceptance test.

This CATP will be performed prior to the Machias Fire site implementation. After system cutover, which is TBD, a comparison of coverage data in the immediate area will be conducted for informational purposes only (prior to Machias and with Machias). The report includes 2 days of coverage data collection and a summary of results. Please refer to Change Order #14 for details.

Motorola has performed all the necessary analysis to ensure that the equipment configurations detailed in this Agreement meet all applicable FCC or other Authorities having jurisdiction regulations with regards to transmission/power levels with Canada, or other applicable regulations.

Coverage testing will be conducted with equipment installed per the configurations in Table B-2: Coverage Acceptance Test Summary, and with the mobile antennas in unobstructed locations that are not adjacent to other large objects or metallic items, which would distort the antenna patterns.



Table B-2: Coverage Acceptance Test Summary

User Configuration Simulated	Outdoor / In-Building	Defined Test Area & Map Name	Number of Test Tiles	Service Area Reliability	CPC	CPC Pass/Fail	Test Direction
ASTRO 800 MHz TDMA							
APX8500 Mobile in vehicle with Motorola-provided Larsen antenna mounted on the roof at least 4.9 ft. high and 15ft or less of coax. Roof should be clear of obstructions (i.e. racks and light bars)	Outdoor	Mobile Service Area Map above (On-Roads Only)	8196 (0.33 mile tiles)	91.6%*	DAQ 3.4	2.4% BER Outbound & 2.6% BER Inbound	Round Trip
APX-8000HXE Portable with a Motorola-provided half-wave flex whip single band antenna in swivel case with remote speaker microphone for transmit and in swivel case with remote speaker microphone for receive	Outdoor	Portable Service Area Map above (On-Roads Only)	5694 (0.33 mile tiles)	95%	DAQ 3.4	2.4% BER Outbound & 2.6% BER Inbound	Round Trip

*The proposed system is predicted to provide 91.6% Service Area Reliability (Round-Trip) for the defined Mobile Service area when modeled with the alternate Larsen mobile antenna and site antenna changes associated with the U.S. Primary frequency changes.



Table B-3: Infrastructure Design Parameters

Site Information				Transmit Antenna System					Receive Antenna System		
Site Name	Group	Latitude	Longitude	ERP (dBm)	Antenna Height (feet)	TX Antenna (Manual Elec. Downtilt)	Antenna Azimuth (deg)	Antenna Mech Downtilt (deg)	Antenna Height (feet)	RX Antenna (Manual Elec. Downtilt)	Antenna Azimuth (deg)
Camano	North Simulcast	48°13'34.7" N	122°30'5.8" W	50.76	116	BPA7496-120-12 2DT	90	4	123	BPA7496-180-14	105
Eagle Ridge	North Simulcast	48°12'9" N	122°11'1" W	51.22	112	CC807-08	0	0	170	CC807-08-T2	0
Fire Trail	North Simulcast	48°7'26" N	122°15'3" W	48.01	263	CC807-08-T4	0	0	296	CC807-08-T2	0
Frailej	North Simulcast	48°18'8" N	121°59'47" W	50.96	135	BPA7496-120-12 2DT	150	4	160	CC807-11-T1	0
Granite Falls	North Simulcast	48°8'10.1" N	121°58'57.2" W	50.92	277	BPA7496-120-12 2DT	160	4	300	CC807-08-T5	0
N Stanwood	North Simulcast	48°17'19.9" N	122°13'24.1" W	48.61	135	DS7C08PPYUD	140	2	180	CC807-08-T2	0
76th Street	South Simulcast	47°55'45.3" N	122°14'20.4" W	53.52	157	CC807-11-T1	0	0	178	CC807-08-T2	0
Apple Cove	South Simulcast	47°48'29" N	122°23'35" W	54.42	84	BPA7496-60-13 2DT	30	0	120	BPA7496-180-14	30
Bothell	South Simulcast	47°47'34.4" N	122°14'20.5" W	53.72	130	CC807-11	0	0	158	CC807-08-T2	0
Clearview	South Simulcast	47°49'53.3" N	122°7'26.4" W	50.82	155	CC807-08	0	0	178	CC807-08-T2	0
Cultus Bay	South Simulcast	47°58'28.6" N	122°23'51.3" W	56.72	90	BPA7496-120-15 3DT	90	0	115	BPA7496-120-15 6DT	90
Gunny Sack	South Simulcast	47°51'41.3" N	122°17'1.4" W	53.72	125	CC807-11-T1	0	0	165	CC807-08-T2	0
King Lake	South Simulcast	47°48'56.3" N	121°55'32.4" W	50.52	165	DS7C08PPVUD	80	0	188	CC807-08-T2	0
Marysville	South Simulcast	48°3'8.3" N	122°6'42.4" W	52.52	258	CC807-11	0	0	280	CC807-08-T2	0
MTLK Terrace	South Simulcast	47°47'50.3" N	122°18'43.4" W	50.92	150	CC807-08	0	0	178	CC807-08-T2	0
Rucker Hill	South Simulcast	47°58'3.3" N	122°13'24.4" W	52.12	263	CC807-11-T1	0	0	300	CC807-08-T2	0
Three Lakes	South Simulcast	47°57'17" N	121°55'26" W	53.02	205	CC807-11-T5	0	0	248	CC807-08-T2	0
Deer Creek	ASR	47°50'9" N	121°32'8" W	49.02	160	CC807-06-T5	0	0	178	BPA7496-180-14	235
Gold Hill	ASR	48°14'58.2" N	121°34'8.7" W	50.00	158	CC807-11-T5	0	0	180	CC807-11-T1	0
Mt Sobieski	ASR	47°40'55.6" N	121°19'43.6" W	49.22	150	CC807-06	0	0	175	BPA7496-120-15	310

B.1.50.7 Outdoor Only Coverage

Motorola Solutions' portable coverage prediction is for outdoor locations and on roads only. Motorola's CATP will test both Portable and Mobile Roundtrip BER (Signal) using the SNO911 provided service areas.

B.1.50.8 CPC Pass / Fail Criterion for a Test Tile

For each equipment configuration, the CPC pass/fail criterion for a test tile is stated in Table B-2: Coverage Acceptance Test Summary. Each equipment configuration will have only one CPC pass/fail criterion for a test tile.

Coverage for the portable outdoor equipment configurations will be verified for acceptance by attenuation of the test radio for BER tests. The attenuation will be the difference between the test radio's antenna system loss and the additional loss that reflects the actual performance of the antenna provided to SNO911.

This provides a method of verifying that the radio system provides the required BER for the specified CPC for each of the defined equipment configurations.

B.1.50.9 Required Number of Test Tiles in the Defined Test Area

The method used to test coverage is a statistical sampling of the defined on road test area to verify that the CPC is met or exceeded at the required reliability for each of the defined equipment configurations. It is impossible to verify every point within a defined test area, because there are infinite points; therefore, coverage reliability will be verified by sampling a statistically significant number of randomly selected locations, quasi-uniformly distributed throughout the defined test area. There is one test sample per test tile, where a sample consists of multiple sub-samples.

Coverage acceptance testing will be performed within the tiles identified in the maps in section B.1.50.2 above. To verify that the reliability requirement is met, the defined test area indicated on Motorola Solutions' maps will be divided into uniformly sized test tiles, with at least the number of test tiles indicated in Table B-2: Coverage Acceptance Test Summary. The number of test tiles indicated in Table B-2: Coverage Acceptance Test Summary is at least the minimum required by the Estimate of Proportions formula as stated in the Defined Test Area of this document. A breakdown of the enabled tile counts on roads is shown below in Table B-4: Service Area Enabled Tile Count on Roads – TIGER 2023.

TEST AREA TILE COUNTS					
Service Area Split #	Tile Count On Roads Entire Grid Split	Portable Svc Area Tile Count in Grid Split	Mobile Svc Area Tile Count TIGER2023 On Roads	Tile Count On Roads in Informational Areas	Additional Areas within each Grid Split
Split 1	820	436	820	0	N/A
Split 2	2012	1869	2012	0	N/A
Split 3	1931	1580	1800	131	South Camano Island
Split 4	1724	1071	1521	203	North Camano Island
Split 5	672	39	464	208	Steven's Pass Skykomish
Split 6	1009	452	823	186	Spada Lake & Galena Rd. North of Index
Split 7	623	0	161	462	South Mtn. Loop Highway
Split 8	677	247	595	82	North Mtn. Loop Highway
	9468	5694	8196	1272	

Table B-4: Service Area Enabled Tile Count on Roads – TIGER 2023

Per TSB-88.3-F, the stated minimum outdoor tile size is 100 by 100 wavelengths; however, the minimum *practical* test tile size is typically about 400 by 400 meters (about 0.25 by 0.25 miles). The minimum practical tile size for any system is determined by the distance traveled at the speed of the test vehicle while sampling, GPS error margin, and availability of road access within very small test tiles. A related consideration is the time, resources, and cost involved in testing very large numbers of very small tiles. For a given defined test area, all test tiles must be of equal size. The maximum test tile size is 2 by 2 km (1.24 by 1.24 miles) [TSB-88.3-F, §5.5.1]. In some wide-area systems, this constraint on maximum tile size may dictate a greater number of test tiles than the minimum number.

No coverage acceptance guarantee testing will be performed in locations outside the defined Mobile and Portable test areas as indicated on the Motorola Solutions provided maps 1 and 2 in Section B.1.50.2. Motorola Solutions and SNO911 have agreed to perform "information only" tests in locations outside the defined test areas as indicated on Map 3: Informational Service Areas in Section B.1.50.2, however, these "information only" test results will not be used for coverage acceptance.

B.1.50.10 Accessibility to Test Tiles

The test tiles shown in section B.1.50.2 illustrate the tiles that Motorola currently plans on testing and has currently identified as accessible to SNO911. Prior to testing, Motorola Solutions and SNO911 will review the tiles within the defined test areas to mutually agree that at least the minimum required number of tiles should be accessible by Motorola.

Inaccessible tiles will be eliminated from the acceptance test calculation only after SNO911 has been informed of the inaccessibility and has had an opportunity to remedy physical access of the test vehicle or waive its opportunity to remedy access. [TSB-88.3-F, §5.5.4]



If elimination of inaccessible test tiles results in less than a statistically significant number of test tiles, Motorola Solutions reserves the right to adjust the coverage acceptance test service area reliability value based on the reduced number of accessible test tiles within the test area and the Estimate of Proportions formula. [TSB-88.3-F, §5.2.1, equation 2]. Please note that the inability to measure large areas of the system limits the accuracy of the coverage measurement and therefore biases the measured system performance and is beyond Motorola's control.

B.1.50.11 Random Selection of a Test Location in Each Tile

This CATP provides an objective method of randomly selecting and tracking test locations using Motorola Solutions' Voyager coverage testing tool. The method [follows TIA TSB-88.3-F §5.0, "Performance Confirmation", and] has direct correlation with Motorola Solutions' coverage prediction methodology.

Using Voyager, the actual test location within each test tile will be randomly selected by the test vehicle crossing into the tile at an arbitrary point, with an arbitrary speed and direction. If the selected test location is in a shielded area such as a tunnel or underground parking garage, the data from that test location must be eliminated and a replacement test location must be used.

B.1.50.12 CPC Measurements in Each Tile

For Round Trip BER in each test tile, a series of sequential measurements (subsamples) will be made while the test vehicle is moving at a typical speed for the surrounding environment. This test tile measurement, containing a number of subsamples, constitutes the test sample for this location. The test sample will establish the mean BER within the test tile. The BER subsamples will typically be measured for at least 1 second. A mean of multiple BER subsamples is used rather than a single measurement to ensure that the measurement is not biased by taking a single sample that might be at a peak or null point on the radio wave.

B.1.50.13 Responsibilities & Preparation

This section identifies the responsibilities of SNO911 and Motorola Solutions regarding requirements for equipment, personnel, and time during the coverage test.

SNO911 will provide the following for the duration of the coverage test:

- Exclusive use of at least a single test channel per site during the test.
- Alternative transportation (4WD or Snow CAT) and driver(s) as necessary for mountainous areas, i.e., the Mountain Loop Highway or testable areas on accessible roads only that have been negatively impacted by weather, prohibiting access with a typical 2-wheel drive vehicle.

Motorola will provide the following for the duration of the coverage test:

- A minimum of [four] test vehicles that is representative of the vehicles to be installed with radios.
- A driver for each test vehicle.
- One or more Motorola representatives, to navigate, operate the portable or mobile radio, evaluate and operate [VoyagerSM] for each test team.
- One or more Motorola representatives to operate the fixed equipment, and to evaluate and operate [VoyagerSM] at the fixed location for each test team.
- At least two laptop computers equipped with [VoyagerSM] software for each fixed end/mobile team.



- Any hardware, software and configuration services necessary to perform the described coverage test.
- Mobile antenna for mobile coverage testing. The antenna will be mounted per the equipment configuration.

Coverage acceptance testing will be performed in all accessible areas but only the portions of each area predicted by Motorola to provide the required reliability, as indicated on the coverage maps, will be used for the CATP acceptance test results. All other measurements will be for information only. Motorola and SNO911 will plan the route for the test vehicles through the coverage test area, to ensure that at least the required minimum number of tiles are tested. If possible, any tiles not accessible to the test vehicles will be identified while planning the route.

Before starting the test, SNO911 and Motorola will agree upon the time frame for Motorola's submission of a report containing the coverage test results.

Motorola Solutions will provide a receiver signal strength calibration file for the test radio(s) used with the Voyager coverage testing tool. Motorola acknowledges that SNO911 reserves the right to observe the CATP testing, calibrations, and configuration setup.



B.1.50.14 CATP Procedure

A coverage acceptance test will be performed using Motorola Solutions' Voyager tool to randomly select test locations, and to manage BER data collection.

Voyager consists of the following:

- A voice test radio connected to an antenna installed in an appropriate location on the test vehicle. The test radio will monitor transmissions from the fixed network radio site(s).
- A Global Positioning System (GPS) receiver, which will provide the computer with the location and speed of the test vehicle.
- A laptop computer with Voyager software and a mapping database, which includes highways and local streets.
- A computer with the Voyager Fixed End Client (FEC) application, connected to the system network to retrieve inbound statistics and to initiate the outbound test pattern.

The procedure for the objective BER coverage test will be as follows:

- The Voyager tool will be installed in a test vehicle, which will be driven over a route planned to cover the tiles within the defined test area.
- During the coverage test, the laptop computer screen will display the vehicle's location on a map of the defined test area overlaid with the grid of test tiles. Voyager will automatically initiate measurements when the GPS receiver indicates that a test tile has been entered. The computer will provide a visual indication that a measurement has been completed in a tile. Voyager will manage the coverage test data collection, and will store the outbound measurements for each tested tile for later analysis. The inbound measurement is collected on the Voyager unit at the Fixed Network Equipment (FNE) location.
- For TDMA Coverage Testing, one channel is required. The TDMA inbound and outbound test will use a 1031 Hz test pattern. A single TDMA channel can be used for both the inbound and outbound testing. The TDMA base stations must be put into test mode to gather inbound signal strength and BER information and to transmit the outbound test pattern. The outbound test will send the 1031 Hz pattern on both TDMA logical channel 0 and 1 at the same time. The inbound test from the mobile can use either TDMA logical channel 0 or TDMA logical channel 1. The Voyager Fixed End (FEC) application will connect to the system test port to establish an IP session to each base station to gather inbound signal statistics and initiate the outbound signal. The outbound test pattern, once initiated, will send a continuous O.153 test pattern over the air to allow the radio in the Voyager test vehicle to gather signal statistics whenever a test is initiated.
- All defined service areas – Map 1: Portable, Map 2: Mobile, and Map 3: Informational Only will be tested initially using the portable radio configuration defined in Table B-2.
- Each test team will be assigned a specific area (grid file) and site/channel to be tested. At the end of each day, the test data will be collected and compiled for evaluation.
- Once the initial portable radio BER test data has been collected, it will be evaluated respectively for both the Portable and Mobile service areas.
 - Portable radio BER testing results will be used to calculate the Portable Service Area acceptance using the Portable Service area criteria described in Table B-2.



- Portable radio testing BER results data will be used (in place of Mobile radio testing) to evaluate the Mobile Service acceptance based on the Mobile acceptance criteria in Table B-2.
- Portable radio BER testing results data will be used in the Informational Service areas to document portable radio coverage for informational purposes only. No coverage guarantee or coverage acceptance is based on the testing results in these areas.
- If after evaluation of the initial Portable radio BER test data it is determined that the Portable Service Area has not met the required reliability of 95%:
 - Failed tiles within the Portable Service area will be re-tested using a portable radio subjective voice test per the subjective DAQ voice re-test procedure defined in Section B.1.50.15.
 - Subjective voice test results will be combined with the BER results to re-evaluate the Portable Service Area to determine coverage acceptance.
- If after evaluation of the initial Portable radio BER test data it is determined that the Mobile Service area has not met the required reliability of 91.6%:
 - Failed tiles within the Mobile Service areas will be re-tested using the Voyager BER test equipment with the Mobile radio configuration per Table B-2.
 - Mobile radio BER testing results data will be combined with the initial Portable radio BER results to re-evaluate the Mobile Service area to determine coverage acceptance.
 - If after BER re-testing of the Mobile Service area using the Mobile radio configuration does not yield enough passing tiles to meet the coverage reliability guarantee of 91.6%, remaining failed tiles within the Mobile Service area will be re-tested using a mobile radio subjective voice test per the subjective DAQ voice re-test procedure defined in Section B.1.50.15.
 - Subjective Mobile voice test results will be combined with the initial Portable BER and Mobile BER re-test results to determine Mobile Service area coverage acceptance.
- Resultant failed tiles within the Informational Service areas after evaluation of the initial Portable radio BER test data will be re-tested using the Voyager BER test equipment with the Mobile radio configuration per Table B-2.
 - The Mobile BER re-test results will be combined with the initial Portable BER results to document radio coverage for informational purposes only. No coverage guarantee or coverage acceptance is based on the testing results in the informational only areas.

B.1.50.15 Subjective DAQ Voice Re-test Procedure of Failed BER Tiles

To perform a statistically valid subjective DAQ test, a large group of people is required to ensure high confidence in the results. However, obtaining a large group of people for a subjective listening test is usually impractical; therefore, several (3 to 7) people in a car or van must be used for the test. Since a group this small cannot provide statistically significant results, it is very important that the personnel participating in the subjective test be familiar with the sound of radio conversations. Before subjectively testing, all personnel who will evaluate audio quality must be “calibrated” by listening to examples of static and faded audio of various CPC levels from the type of system being tested.

A fixed control point location will be established. The fixed control point will be a location that has at least enough MCC7500 console positions to support the number of test teams performing the subjective voice retests. Prior to testing, SNO911 and Motorola will agree upon a procedure to include the use of Harvard Phrases, to allow each audio transmission to be evaluated for approximately five seconds.

The test participants will be divided into teams, each consisting of personnel from both SNO911 and Motorola. Each team will have members that operate a portable or mobile unit in the field, and members that are stationed at the fixed control point location. As the field test teams drive through the previously failed BER tiles, test tile locations will be tracked by using Voyager GPS location information.

At each re-test tile location, each field test team member will listen to a talk-out audio transmission, and will record his or her subjective evaluation of the DAQ for the re-tested tile. Team members stationed at the control point will evaluate talk-in audio quality of transmissions from the test field units in that tile. Each team (control and mobile) will maintain a consensus test log to record date, time, and subjective evaluation for each re-tested tile location. Subjective evaluation will be based on the Delivered Audio Quality descriptions in Table B-1.

For each re-test, the pass /fail consensus of all team members’ subjective evaluations for that tile will determine if the tile has passed or failed. Both the consensus talk-in and talk-out scores must pass in each tile for a test tile to pass the round trip requirement per Table B-2.

By definition, occasional retries are allowed if the initial audio transmission fails. For locations where the initial subjective voice re-test attempt fails, a second transmission will be attempted, evaluated, and if passed, recorded as a second-attempt pass. Otherwise the tile is recorded as a fail. Second-attempt subjective voice test passes allowed in the final coverage acceptance evaluation is limited to 5% of the total test locations in a coverage area. Second-attempt passes over 5% of the total test locations will be deemed excessive and will be considered a fail for the final coverage acceptance evaluation. For example, if a coverage area has 1000 test locations, no more than 50 of those second-attempt passes are allowed to count as a pass in the final evaluation for coverage acceptance. An odd number of team members are required to avoid ties for the pass / fail consensus.

When the subjective voice re-tests of the failed tiles have been completed, the results of the re-tested tiles, including second attempts per the 5% limit will be combined with the results of the BER test(s) for the individual areas tested. A re-evaluation will be made using the combined BER and Voice tests to determine if the coverage in the tested area has met the required 95% reliability goal for the Portable Service area, and 91.6% for the Mobile Service area. No subjective voice re-tests will be made in the Information Service Areas.



B.1.50.16 CATP Documentation & Coverage Acceptance

During the coverage acceptance test, Voyager generates computer files that include the raw test data. A copy of this file for each defined service area will be provided to SNO911 at the conclusion of the coverage test. If applicable, the results of the subjective re-test data will be provided also.

Motorola Solutions will process this data, both objective and subjective (as necessary), to produce a map detailing the coverage test results, and to determine whether the coverage test was passed for each defined service area equipment configuration.

The coverage acceptance criterion for a user equipment configuration will be that the voice radio system implemented by Motorola Solutions for SNO911 meets or exceeds the reliability stated in Table B-2: Coverage Acceptance Test Summary for that user equipment configuration. The system coverage acceptance criterion will be the successful passing of each of the user equipment configurations defined in Table B-2: Coverage Acceptance Test Summary, with the modification of using initial Portable BER test results applied to the Mobile Service area reliability calculation.

Motorola Solutions reserves the right to review any test tiles that fail. If a coverage test, or a portion thereof, is suspected by Motorola Solutions to have failed due to external interference, those tiles suspected of being affected by an interferer may be re-tested. If the test tiles re-tested are confirmed to have failed due to on channel interference such as a random carrier or multipath, those test tiles will be excluded from all acceptance calculations and Motorola Solutions will work with SNO911 to identify potential solutions to the interference issues.

Motorola Solutions reserves the right to retest any failed tiles and perform a subjective audio test to a fixed location per the revised testing method for both Mobile and Portable Service areas detailed in this document, as well per the Subjective DAQ Voice Re-Test procedure outlined in Section B.1.50.15.

Motorola Solutions has included in its scope the services to conduct this Coverage Acceptance Test once. However, if any portion of the test is determined to be affected by proven equipment malfunctions, failures, or incomplete or faulty installation or configuration of provided or interconnected equipment Motorola Solutions will repeat the portion of the test affected by the equipment malfunction or failure free of charge. Motorola may perform this test more than once at its discretion. All re-testing will conform to the applicable portions of the TIA/TSB-88 testing standard with regards to the Estimate of Proportions formula and the number of statistically significant tiles.

SNO911 will have the option to accept the coverage at any time prior to completion of the coverage test or documentation process

Motorola will submit to SNO911 a report detailing the coverage test results. This report will include a document, which is to be signed by both SNO911 and Motorola, indicating the test was performed in accordance with this CATP and the results of the test indicate the acceptance or non-acceptance of the coverage portion of the system.



Should the system fail to pass the coverage acceptance test, Motorola will be responsible for any and all necessary remediation to alter or augment the system infrastructure (excluding Subscriber equipment unless the Subscribers are determined to be the under-performing device) in order to achieve the documented performance criterion. This includes all necessary equipment and services as well as permitting and other legal & construction requirements.

If it is determined that remediation or alterations to the system infrastructure are required in order to achieve the documented performance criterion, such as new equipment or alternate site locations, Motorola will work with SNO911 to develop a mutually agreeable solution that considers long-term effects and cost consequences. Any modifications to the Technical and Implementation Documents will be included in a Change Order.

SNO911 acknowledges that the long-term costs for additional sites (i.e. rent) is its responsibility if additional sites are required



2025 Budget Revenue Assumptions

- Member Agency Assessments - Open
- Police and Fire Contract Member Assessments – Open
- E911 Excise Tax Revenue was \$7,004,311 in the 2024 budget, we are budgeting \$7,328,218.40 (includes approx. \$179K that was previously reimbursed by County E911 office; now included in SNO911 operating budget)
- Emergency Communications Sales Tax Revenue was \$5,424,081 in the 2024 Budget, we are budgeting \$7,185,390 for 2025.
 - Includes funding approx. \$1.3M in additional radio support contracts and \$5.85 to offset operating.
- Misc. Income – Open

2025 Expense Assumptions

- Appointive Staff COLA: Open
- Dispatcher Increases 6% total (3% on January 1 and 3% on July 1, calculates to an effective annual COLA of 5.454%.
- Supervisor COLA of 6% effective January 1
- Increase approved Dispatcher Headcount four positions at \$151,854 total annual compensation, \$607,415 total impact; i.e. increase in dispatcher Payroll.
- Overtime: Recommending increase of \$250,000-\$500,000
- Kaiser has filed an expected increase in premiums for 2025 of 7.9%, while Regence has filed an expected increase with the State of Washington of 23.8%. We will separate Kaiser and Regence members and provide the increase. Included 11.3% until we receive 2025 information from AWC
- North Campus Rent reduced \$100,000 under the assumption we will be totally out of the main campus building by the end of August 2025.
- We can reduce storage rent by about \$42,000 under the same date expectation.
- We should budget \$500,000 for insurance in 2025 after budgeting \$330,000 in 2024, which came in at approximately \$481,000.
- Professional Support – Open
- Administrative Support – Open
- Maintenance Contracts – Open



Board Packet Memorandum

Date: June 20, 2024
To: Snohomish County 911 Board Members
From: Leadership Team

General

Mission-critical systems [1] have been operating at normal since the last Agency Report.

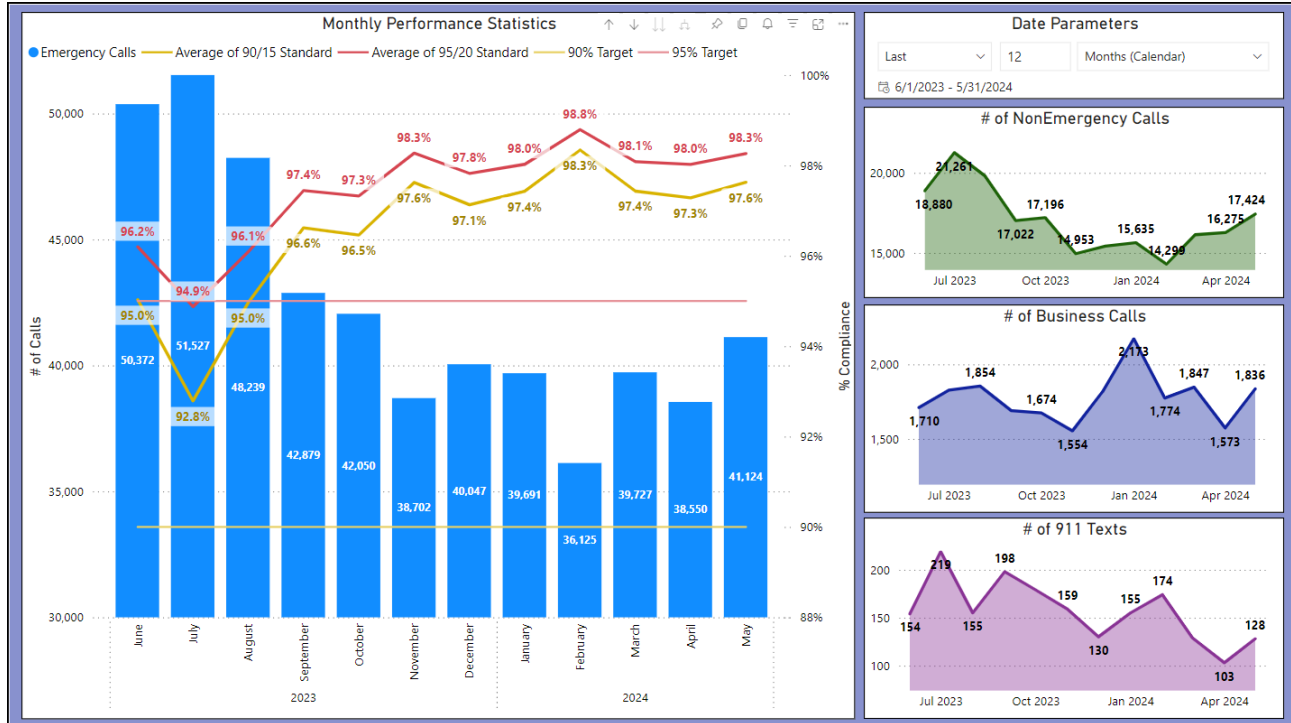
New World Update

End User testing on version 2024.1 began the week of May 10th. SNO911 IT staff started the Server Migration Project, this will upgrade the Microsoft server version to 2022. Stress Testing of the NWS Delta environment has been completed and there were no performance related issues found during those tests. During the End User Testing some issues were found and those have been sent to Tyler. SNO911 IT staff continues to work directly with Tyler to address the priority issues that were identified. Several of the issues that were found, were the ones SNO911 IT staff identified in the 2023.2 testing. There is still no resolution to the priority issue (P0) that was discovered during a SNO911 IT Staff meeting with Fire Agencies that cause the cancellation of the April 2nd Go-live. Tyler is working on incorporating the 2023.2 fixes into version 2024.1 and continues to work on the priority issue that cause the go-live cancellation. End to End testing has been scheduled for June 27th. The plan to upgrade is still scheduled for September 17th.

Future Facility Planning

SNO911 Tech Management Team continues having internal discussions about moving systems (IT and radio related) over to the new facility. During the Tech managers meeting this week, items for the new facility transition were discussed and the cut-over schedule planning will be firmed up based off the current construction schedule. All the IT system equipment that is required for the new facility has been ordered. The only item that has not been received yet is the core switches. Tech staff is currently working on projects to get all the equipment and systems configured so that they are ready for the transition into the new datacenter and IDF closets. The Radio team continues working on the build-out of the radio infrastructure for the new facility and is planning to move the radio system core to the new datacenter in early 2025. The Tech management team continues to track the construction schedule to ensure the target dates line up with the current project work to get the new facility online.

Monthly Statistical Reports



Text-to-911 Report

911 Texts	Type	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	YTD TOTAL	YTD GROUP TOTAL
Appropriate Use	True Emergency	9	3	6	6	6								30	30
Incorrect Use	Follow-Up	8	6	7	4	10								35	178
	Area Checks	0	12	6	8	2								28	
	Info	1	1	0	0	0								2	
	Noise	7	8	2	3	2								22	
	Traffic	2	0	5	3	2								12	
	Other Complaints	20	16	20	14	9								79	
Misuse	Accidental	5	5	3	12	23								48	270
	Behavioral Health	60	71	42	18	22								213	
	Prank	0	1	1	5	2								9	
Other	Test	3	3	1	0	3								10	211
	Abandoned	11	10	8	5	16								50	
	Non-English	1	0	0	2	0								3	
	Outgoing	0	0	0	0	1								1	
	Subsequent	16	23	14	11	11								75	
	Transfer	3	8	3	3	1								18	
	Voice Call	9	7	11	9	18								54	
Month Total		155	174	129	103	128	0	0	0	0	0	0	0	689	689

Abandoned: Non-Responsive

Accidental: Device or person accidentally texted 9-1-1

Area Check: Check of area for person, vehicle, etc.

Behavioral Health: Calls that result in BHC by LE/EMS

Follow-up: Where is officer?, Subject is no longer here

Info: What is the phone number for animal control?

Noise: Music, People, Fireworks, Alarm w/o Emergency, etc.

Non-English: Texter uses language other than English

True: Texter is Deaf, Texter is fearful that a voice call will put them in danger, Call results in transport to jail/hospital

Other: Any other request or complaint, Media from Intrado

Outgoing: Text calls initiated by SNO911

Prank: Calls that do not attempt to give any valid/useful information

Subsequent: Additional inbound text after call released by call taker

Test: PSAP testing, Training TXT29-1-1, Vendor test

Traffic: Speeders, DUIs, Parking, etc.

Transfer: Text calls that result in a Transfer to another PSAP or Entity

Voice Call: Dispatchers called the texter/texter placed voice call

How satisfied are you with the level of courtesy and respect shown to you by the 911 dispatcher you called for police service?

Satisfaction Response	# of Surveys	% of Surveys
4 - Very Satisfied	735	63.91%
3 - Satisfied	359	31.22%
2 - Neither Satisfied nor Dissatisfied	30	2.61%
1 - Somewhat Dissatisfied	12	1.04%
0 - Very Dissatisfied	14	1.22%
Total	1,150	100.00%

911 dispatchers are trained to be efficient and deliberate when speaking with you, while remaining professional. Do you feel the exchange of information between you and the 911 dispatcher was efficient and professional?

Professionalism Rating	# of Surveys	% of Surveys
Yes	1,621	94.91%
Somewhat	58	3.40%
No	29	1.70%
Total	1,708	100.00%

Survey responses for calls that occurred during the previous month. Surveys are sent to a select number of type codes (typically lower priority) chosen by each police agency.

Fire Calls

IncidentDepartment	01-Jan	02-Feb	03-Mar	04-Apr	05-May	Total
Everett Fire Department	2,303	1,960	1,889	1,969	2,139	10,260
Marysville Fire District	1,220	1,049	1,105	1,101	1,161	5,636
Mukilteo Fire	235	162	206	157	168	928
North County Regional Fire Authority	755	634	725	669	722	3,505
Sky Valley Fire	63	58	67	57	99	344
Snohomish County Airport Fire Department	34	23	29	18	29	133
Snohomish County Fire District #15	129	95	104	137	123	588
Snohomish County Fire District #16	23	10	24	11	29	97
Snohomish County Fire District #17	153	161	154	139	154	761
Snohomish County Fire District #19	35	33	47	30	30	175
Snohomish County Fire District #21	74	75	65	56	74	344
Snohomish County Fire District #22	39	42	51	35	32	199
Snohomish County Fire District #24	48	44	51	33	41	217
Snohomish County Fire District #25	3	7	3	5	7	25
Snohomish County Fire District #27	1	3	1	1	1	7
Snohomish County Fire District #4	289	218	306	304	285	1,402
Snohomish County Fire District #5	119	86	97	91	81	474
Snohomish Regional Fire and Rescue	1,112	933	911	911	970	4,837
South Snohomish County Fire and Rescue	3,461	2,685	2,838	2,900	3,086	14,970
Total	10,096	8,278	8,673	8,624	9,231	44,902

Police Calls

IncidentDepartment	01-Jan	02-Feb	03-Mar	04-Apr	05-May	Total
Arlington Police Department	2,034	1,944	2,252	2,312	2,457	10,999
Brier Police Department	630	631	981	860	883	3,985
Darrington Police Department	84	113	108	122	114	541
Edmonds Police Department	1,830	1,925	1,898	1,889	2,036	9,578
Everett Police Department	10,817	10,250	10,945	10,580	11,026	53,618
Gold Bar Police Department	217	202	239	260	233	1,151
Granite Falls Police Department	399	382	302	351	286	1,720
Index Police Department	46	52	52	47	51	248
Lake Stevens Police Department	1,743	1,634	1,749	1,929	1,879	8,934
Lynnwood Police Department	3,293	3,224	3,426	3,439	3,509	16,891
Marysville Police Department	5,392	4,983	5,472	5,306	6,143	27,296
Mill Creek Police Department	1,598	1,468	1,630	1,583	1,573	7,852
Monroe Police Department	1,665	1,566	1,447	1,712	1,930	8,320
Mountlake Terrace Police Department	1,590	1,481	1,553	1,556	1,699	7,879
Mukilteo Police Department	1,954	1,938	2,018	2,038	1,925	9,873
Snohomish County Sheriff's Office	11,995	11,373	12,575	12,802	13,930	62,675
Snohomish Police Department	783	704	887	800	1,086	4,260
Stanwood Police Department	688	579	680	807	701	3,455
Stillaguamish Tribal Police	2,064	1,931	1,697	1,897	1,673	9,262
Sultan Police Department	505	585	525	492	518	2,625
Woodway Police Department	54	47	70	61	60	292
Total	49,381	47,012	50,506	50,843	53,712	251,454

Full-Time Dispatchers

Legacy Employees = Hired before 12/1/2017..... New Hire Employees = Hired on/after 12/1/2017

Job Title:	Current #	Status:
Trainee Dispatcher	16	2nd discipline not yet complete
Trainee Dispatcher 2	13	2 of 3 disciplines complete
Police Dispatcher	1	Legacy: Only trained in CT and Police
Fire Dispatcher	3	Legacy: Only trained in CT and Fire
Cross-Trained Trainee	1	Trainee in progress for 3rd discipline
Cross-Trained Dispatcher	60	Fully cross-trained in CT, Police, and Fire

Represented (Dispatchers & Sups)

F/T Approved	123
F/T Filled	110
F/T Vacancies	13

Dispatcher Center - Staffing & Strength

Staffing Level (includes trainees)	87.9%
Staffing Strength (excl. trainees, relief, LOA's)	70.1%

Appointive Staff

Approved	48
Filled	46
Vacancies	2
RRP Term Limited Approved	2
RRP Term Limited Filled	2
RRP Term Limited Vacancies	0

Relief & Part-Time Dispatchers

Currently Filled	6
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Long-Term Leaves of Absence

F/T Dispatchers (including trainees)	-3
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Agency-Wide Headcount

Total # of Employees (no exclusions)	164
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Dispatchers - Full Time

Approved	107
Filled	94
Vacancies	13

Dispatch Supervisors

Approved	16
Filled	16
Vacancies	0

Senior Leadership (Directors)

Approved	6
Filled	6
Vacancies	0

Operations

Approved	6
Filled	6
Vacancies	0

Finance/HR/Records/Admin

Approved	13
Filled	12
Vacancies	1

Tech/Radio

Approved	23
Filled	22
Vacancies	1
RRP Term Limited Approved	2
RRP Term Limited Filled	2
RRP Term Limited Vacancies	0

Recruitment Status

PST Dispatchers Exam	1	The next PST test is scheduled to take place on June 19, 2024
CritiCall Test Invites Sent - May	74	Number of tests invites sent out for academies scheduled for Sept and Nov 2024
CritiCall Tests Complete - May	31	Of these completed tests, 9 received a passing score
Interview	15	Interviewing for upcoming academy scheduled in Sept and Nov 2024
Polygraph Exam	1	Scheduled for polygraph exam (or awaiting results) for Sept Academy
Background Check	3	Currently in process of background check with PST for Sept Academy
Psyche and/or Drug/Hearing	5	Scheduled for psych or drug/hearing test (or awaiting results) for Sept Academies
Onboarding/Orientation	6	Final job offer signed. Awaiting the start of the July Academy
YTD Dispatch Trainees Hired	12	2024 Hires

Employment Separations YTD

Separation Reasons	Represented (Trainees)	Represented (Non-Trainees)	Appointive (Trainees)	Appointive (Non-Trainees)
Involuntary Term	2	0	0	0
New Job - Not 911	0	0	0	0
New Job - With 911	0	0	0	0
Relocation	0	0	0	0
Retirement	0	1	0	1
Medical	2	1	0	0
Personal	2	3	0	1
Resignation in Lieu of Term	4	0	0	0
Death of Employee	0	0	0	0
End-of Contract	0	0	0	0

YTD Employment Separations	17
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Snohomish County 911
Police Technical Advisory Committee
Meeting Summary for May 14th / 10:30-11:30 p.m.
Location: Everett PD, Multipurpose Room

Meeting Attendance:

POLICE TAC REPRESENTATIVES					
Lt. Mike Gilbert - Arlington		Cmdr. Pat Fagan - Lynnwood	X	Bureau Chief – Mike Martin - SCSO	X
Clerk Karen Howell – Brier		Asst. Chief, Jim Lawless – Marysville	X	Chief Nathan Alanis – Snohomish	
Sgt. Shane Hawley – Edmonds	X	Chief, Stan White – Mill Creek	X	Lt. Jason Toner – Stanwood	
Capt. Bob Goetz- Everett	X	Dep. Chief, Ryan Irving – Monroe	X	Megan Newman - Stillaguamish	X
Sgt. Jim Barnes – Lake Stevens		Cmdr. Mike Haynes – Mountlake Terrace			
Lt. Mike Martin – SCSO	X	Asst. Chief, Colt Davis – Mukilteo			
ALTERNATE REPRESENTATIVES					
Lt. Peter Barrett - Arlington		Cmdr. Brian Jorgensen - Lynnwood		Capt. Andy Kahler - SCSO	
Interim Chief Alex Hawley – Brier		Cmdr. Adam Vermeulen – Marysville		Capt. Steve McDonald – SCSO	
Corporal Brittany Harris – Edmonds		Dep. Dir. Eric Chartrand – Mill Creek		Sgt. Karl Gilije - Stanwood	X
Dep. Chief Jeff Hendrickson – Everett		Chief, Jeff Jolley - Monroe		Capt. James Massingale - Stillaguamish	
Dep. Chief, Jeff Young – Lake Stevens		Chief Pet Caw – Mountlake Terrace		Officer Pete Knowlton – Stillaguamish	
Cmdr. Dean Thomas – Lake Stevens		Det. Sgt. Nicole Stone – Mukilteo		VACANT – Snohomish Alternate	
SNO911					
Executive Director Kurt Mills		Ops. Manager Derek Wilson		Sec./Inf. Team Manager Bleu Jaegel	
Deputy Director Terry Peterson		Ops Manager Karen McKay	X	Radio Sys. Mgr. Howard Tucker	
Director of Tech Marlin Herolaga	X	Ops Manager Hattie Schweitzer	X	Admin. Asst. Tiff Brown	X
Director of Ops Andie Burton	X	App. Team Mgr. Brent Meyer			
SUPPORT STAFF & GUESTS					
Master PO Travis Katzer - Everett	X				

Note: *Follow-up action items are noted in italics. Decisions are underlined. Motions are underlined and bold.*

Chair, Jim Lawless called the meeting to order at 10:30 hours.

1. **Roll Call** – taken via sign in sheet as attendees arrived.
2. **Approval of Minutes:** Commander Fagan motioned to approve the Police TAC April 16th meeting minutes.
Seconded by Lt. Martin and approved unanimously.
3. **Announcements:** None
4. **Action Items:** None
5. **Reports:**
 - A. **Mobile Users Group:** None
 - B. **SNO911 Updates:** None
 - C. **PTCC:** Marlin stated that the Windows Server 2022 migration for the new world version 20.4.1 is ongoing, on April 24 SNO911 worked with Tyler resources to get software installed into the new Delta Test and Production environments with no issues thus far. End user testing will start on Monday of next week and end-to-end testing is scheduled to start June 2th.
 - D. **Radio Replacement Project:** The project remains on schedule, Howard and team are working on policy to add an amendment for interoperability for supporting agencies such as public works. Chief Lawless asked

the group to keep an eye on the life of Agency portable radios (not just the batteries) as there has been reports from fire agencies that radios are wearing out quicker than anticipated. During the Finance committee meeting there were conversations regarding the replacement budgeting. Marlin stated that if there are any radio issues agencies can email radiohelp@sno911.org for support and radio requests. . The radio go-live cut over date is anticipated for January 2025 and Marlin added that this step must be complete before SNO911 dispatch staff can be moved into the new facility. A question from SCSO came up asking if in station radio base stations were covered under the RRP. Marlin stated that he will check on the coverage for radios base stations at the police stations and have Howard reach out.

E. Policy Review Committee: None

6. Technical Update: Marlin thanked the remaining Agencies who sent in their data share agreements.

7. New Business: New Business

- i. **Body worn cameras/traffic stops:** Andie shared information about a question from NORCOM, Bellevue PD recently gave their motors body worn cameras and their prosecutor was asking for every traffic stop to be called out on the radio and entered in to CAD for tracking purposes. Depending on size and activity level of Motor program, this could be quite impactful to the dispatch center. Andie confirmed with Everett PD that they have the same requirement, but currently only have one Motor active right now. Andie shared the workaround Bellevue PD found for this: Motor officers can still call out on radio that they are on an emphasis in a specific area doing enforcement and don't need to call out every traffic stop. Rather, they go back in to the program (they are using Evidence.com) and associate the BWC footage with the NOI (ticket/citation) number. This satisfies the prosecutors' request. Andie asked that before any SNO911 agency equips their Motors with BWCs that they consider alternate methods to track the footage, avoiding the direction for Motor units to call out every stop and use CAD as the link for the footage.

B. SNO911 Continuity of Operations Drills

- i. **6/5 Regional Resiliency Drill with ValleyCom.** SNO911 staff continue to work on the Regional Resiliency plan and chose ValleyCom due to it's similar size and medical dispatch capabilities. We have the ability to answer each others calls and enter them into CADLite which is then accessible anywhere with internet access. Work has been done on technology, training and set up and now staff is ready to test setup. A quick test of calls will be transferred both ways at 0530 on 5/15. On June 5th the test will 100% switch the calls over and actually process live 911 calls for the other center. There will also be an alert stating "this is a drill" the mechanism to use that is RAVE emergency alert lists, Andie asked each agency to make sure that list is

updated. An email on this subject will go out before the 5th as well. SNO911 staff may also reach out to Agencies to volunteer for field dispatching during the drills.

ii. **Other upcoming drills.** There is another drill planned in August and a couple more in the Fall, exact dates still TBD with each drill getting more robust.

iii. **RAVE Alert Notification Groups.**

C. **VoAWW Radio Access MOU,** The East county mental health professional that has been working with Snohomish County recently who could benefit from the use of a radio in order to access to better serve east county. This would allow her access to monitor calls and have quicker response time to mental health calls through Police and Fire.

Deputy Chief Irving motioned to accept the MOU as presented. Seconded by Chief Katz and approved unanimously.

8. **Old Business:** None.

9. **Good of the Order:** Captain Goetz reported that starting on the week of June 11th, On Patrol Live will be filming in Everett for an 8 week contract going live on Friday and Saturday nights. Everett PD is working with SNO911 staff to create a specific call type so responders will know what calls the camera crew will be at.

Discussions are still in place with Bothell P.D. and creating a permanent patch.

A question was brought up regarding location updating and tracking/isolation via GPS coordinates, and the ability to rebid the phone call and if that is routinely done from call takers. Would it be a big ask for call takers to make that a common practice during calls.

9. **Adjourned** at 1102 hours

SNOHOMISH COUNTY 911

Fire Technical Advisory / Operations Committee

May 15th, 2024

Committee Members in Attendance	☒ Eric Andrews	Sky Valley Fire	☒ Joel Johnson	Fire District 24
	☒ John Chalfant	South County Fire	☐ Willie Harper	Fire District 25
	☒ Jason Hodkinson	Fire District 4	☐ Mike Worthy	Fire District 27
	☐ Seth Johnson	Fire District 5	☐ Mike Calvert	Everett Fire
	☐ Ryan Shaughnessy	Fire District 15	☐ Jeff Cole	Marysville Fire
	☐ Justin Johnson	Fire District 16	☐ Blake Engnes	Mukilteo Fire
	☐ Jim Haverfield	Fire District 17	☒ Dave Kraski	North County RFA
	☐ Keith Strotz	Fire District 19	☐ Brett Blankenship	Paine Field Airport FD
	☐ Chad Schmidt	Fire District 21	☐ Ryan Lundquist	SRFR
	☐ Travis Hots	Fire District 22		
Alternates in Attendance	☒ Whitney Mansfield	Fire District 4	☐ Ned Vander Pol	Marysville Fire
	☐ Scott Anderson	Fire District 16	☐ Kirk Galatas	Mukilteo Fire
	☐ Bill Dane	First District 17	☐ John Cermak	North County RFA
	☐ Gino Bellizzi	Fire District 19	☐ Tony Mace	Paine Field Airport FD
	☒ Jeremy Stocker	Fire District 22	☒ Ernie Walters	Sky Valley Fire
	☐ Ryan White	Fire District 15	☒ Colby Titland	SRFR
	☐ Dave DeMarco	Everett Fire	☒ Michael McConnell	Regional Fire & Rescue
	☐ Zach Hanson	North County	☒ Doug Ten Hoopen	NCRFA
Guests and Staff in Attendance	Terry Peterson – SNO911	Derek Wilson – SNO911	Scott Dorsey - EMS	
	Marlin Herolaga – SNO911	Chris Gass – SNO911	Hattie Schweitzer – SNO911	
	Brent Meyer – SNO911	Rae Wade – SNO911	Brian Ackles – SNO911	
	Howard Tucker – SNO911	Laura Stiers – SNO911	Tiff Brown – notetaker – SNO911	

Note: *Follow-up action items are noted in italics. Decisions are underlined.*

Chairman Eric Andrews called the meeting to order at 1:31pm.

1. **ANNOUNCEMENTS.** Retirement announcement, May 29th ceremony at Station 25 at 8:00pm
2. **APPROVAL OF MINUTES.** A motion was made by Deputy Chief Titland to approve the April Fire TAC/Ops meeting minutes as written. Seconded by Asst. Chief Hodkinson. Unanimously approved.
3. **COMMITTEE UPDATES.**
 - A. **PTCC / NWS.** Brent reported that work continues on the server migration to version 24.1, currently installed in our three new training environments, end to end testing is scheduled for June 27th. GIS installation and set up in those environments is also being worked on with a completion date of late May. User testing for VPack will open up soon so emails will be going out soon. A few of the SNO911 Tech staff will be in Indianapolis for the Tyler conference next week. Windows updates last week went smooth.
 - B. **Technical Update.** Marlin brought up the Pulse Point AED registry needs and the conversation progressed into talks about the software overall and if there is a really need the program. The grant paying for the service is in its final year so next year cost will fall on SNO911 and its user agencies with final payment being made in August of this year. The annual cost is around \$30,000. Marlin asked for everyone's thoughts on keeping the software and stated that Scott Dorsey will act as the

Pulse Point program manager moving forward. It was explained, the reasoning behind this was most of the software's usage falls under EMS and it's a good fit for the County EMS to manage the software program. There was discussion on how each Agency is using the software currently. It was noted that further public education would be beneficial. It was also noted that the First Due software is already paid for and in-place so how does this differ from PulsePoint. Collectively the group gave Scott Dorsey and staff directive to create a work group and continue to explore the full functions and needs for PulsePoint.

- C. **Radio Replacement Committee.** Howard reported that the focus of work is still happening behind the scenes. Testing planned for August may interfere with radio availability. Complete cutover is still planned for early 2025. SNO911 Tech staff continues to gather processes for fleet expansion requests. Lead times for radios are extremely long (up to 6 months) so advanced notice on replacements needed is crucial. In an effort to plan for the best way to transition, SNO911 Staff met with the Fire Marshalls to discuss radio frequencies for Snohomish County to inform everyone about the updates. Agency agreements have been signed and cutover is planned for late 2025. Talks continue on interoperability offers for secondary responders talk groups and cashe cushion of radios. The Tech team is also going to start vetting other mobile radios other than Motorola when it's time for testing those units, a pilot program will be introduced for trials.

D. **Radio Procedures Committee.**

- i. Light Rail/Train Proposal – Derek. The group drafted an MOU to add three new call types. They are proposing a Light Rail (TRNLR), Passenger Train (TRNPAS), and Cargo (TRNCARG). These are meant to be for larger responses type incidents. Access during derailments/fire and was also discussed and how to power down during those events. There will be new directive for the call takers and Dispatchers to follow which may have elements similar to a utility package.

On July 27th there will be a full-scale drill of a train derailment. At the tabletop meetings there seems to be a lot of confusion on processes. There was discussion on the different types of responses needed for various train derailments i.e. pedestrian or cargo.

Deputy Chief Titland motioned to accept the MOU as presented. Seconded by Chief Chalfant and passed unanimously.

There was discussion on the ten-minute timer response time. Chris Gass noted the language added to the railroad notification section which previously focused solely on BNSF. The new version includes language specific to Light Rail and Sound Transit and will include the phone number for the LCC. There was also discussion on using major call tones for Locution on the train call types.

Chief Hodgkinson motioned to accept the changes to fire radio procedures as presented. Seconded by Deputy Chief Chalfant and passed unanimously.

Howard briefed the group on the discussions between schools and the IO talk groups and the realization that there is a lot of confusion and not enough education regarding the procedures and how to educate the first responders. City of Snohomish, Public Works/EOC radios are programmed with old talk groups which are not up to regional standards. By policy every radio in the county needs to have our IO talk groups. June 17th the call types will go live.

- E. **Fire User Group.** None.

- F. **Fire Standards/Data.** Brittany reported that in the last month the APOC. Dr. Kay and SNO911 staff have been vetting the data and are ready to start distributing it with stakeholders. She gave a brief demonstration on the site's main page and noted that anyone who would like access can contact her for their unique log in credentials. She showcased the ability of the regional dashboard to get very granular information, to agency specific data. She also reported that work on the First Watch cleanup project has begun with help from Jackie at South County Fire . Currently there are too many triggers at the County level and the goal is to clean them up so all the triggers are usable and make sense as well as remove any unused triggers. Brittany needs a point of contact from each Agency for someone who knows what parts of First Watch are being used. There are 2 ways to remove triggers. One way is to deactivate the trigger is to rename it differently in order to force it out of view – using this method the trigger remains accessible, or there is a full deletion.
- G. **Fire Resource/FOC.** None.
- H. **SNO911 DRC/DSC.** Terry reported that this group has been focusing on the Nurse Navigation program and an updated report was included in the packet. The main concern about handback rates was due in part to a configuration issue on the back end which has been resolved and the handback rate is now down to 6%. Now the focus is on public education. GMR telephonically survey all successfully navigated calls and out of the 437 calls, 35% of them completed the survey giving an average score of 4.4% user approval out of a 1-5 range. He reminded the group that the grant funding this program could go away next year so a decision on weather or not to keep the program will need to be made. The Dispatch Steering Committee will be developing a recommendation based upon all the data and feedback collected.
4. **SNO911 UPDATE.** The Joint Task Force, SNO911 and Snohomish County EMS have put together an update presentation which will be given during the Board meeting this Thursday and Terry invited anyone interested to join that meeting.
5. **SNOHOMISH COUNTY EMS.** – Scott Dorsey echoed what Terry mentioned above about the presentation. He also asked for any and all input from partnering Agencies. The group is also working on patient hospital time studies and building a better evidence-based approach for data collecting as well as expanding the conversation for awareness and engagement. He spoke about air assets and shared some information on their stand-by policies which was emailed to the group.
6. **OLD BUSINESS.** None.
7. **NEW BUSINESS.**

A. **IMS Policy Update** – Chief Titland shared a revised IMS policy which was included in the packet.

Chief Stocker motioned to approve the updates to the IMS Policy as presented and bring to the Fire Chiefs next month. Seconded by Chief Hodkinson and passed unanimously.

B. **Radio Access MOU, Volunteers of America** – Derek Wilson updated the group about the volunteer who has been working closely with Police for the last year who is stationed out of Monroe PD. The ask is to issue her a radio which can access to the entire analog and digital system so she can be dispatched quicker and more efficiently. She will primarily use TAC3 with the potential to expand. Monroe has the extra radio for her to use. This was approved earlier in the month by Police TAC and Snohomish County 911 staff. SRFR is her Fire sponsor although most of her work has been needed on the Police side.

Chief Titland motioned to approve the MOU as presented. Seconded by Chief Hodgkinson and passed unanimously.

C. SNO911 Continuity of Operations Drills – Andie Burton

- i. **6/5 Regional Resiliency Drill with ValleyComm.** Andie reported that on June 5th SNO911 and ValleyComm will conduct an evacuation drill simulating a bug-out situation. Each agency will answer and enter calls into CADLite for the other facility.
- ii. **Other Upcoming Drills.** Three to four more planned through 2024 and user agencies will be asked to participate.
- iii. **RAVE Alert Notification Groups.** During these drills we will need our dispatch supervisors to issue RAVE field notifications to other participating agencies. Staff is asking all Agencies to doublecheck their field notification settings. An email will follow with complete instructions on the drill.

8. **GOOD OF THE ORDER.** None.

9. **ADJOURN.** The Fire TAC / Operations Committee adjourned at 3:11pm.

The next Fire Technical Advisory/Operations Committee meeting is scheduled for Wednesday, June 19th at 1:30 p.m. via Zoom, or in-person at the Fire District 4 HQ in Snohomish

**Snohomish County 911
Finance Committee
Meeting Summary for June 13, 2024 / 1:30 – 3:00 pm
Location: Remote Meeting via Zoom**

Meeting Attendance:

Finance Committee					
Dave DeMarco		Jenna Nand		Jim Lawless	
Ken Klein	✓	Ryan Lundquist			
Staff and Guests					
Kurt Mills		Wade Anderson	✓	Sharon Brendle	✓
Terry Peterson	✓	Steve Lawlor		Tiffani Brown	✓

Decisions are underlined; follow up matters are in *italic*.

1. **Call to Order, Introductions, and Announcements.** The meeting was called to order at 1:30 p.m. by Terry Peterson. No announcements.

2. **Reports.**

- A. **Blanket Voucher Report for May 2024.** There were no questions.

The blanket voucher report for May will be forwarded to the Board for consideration at their June meeting.

- B. **Fund Balance Report for May.** Informational only; there were no questions. Terry commented about the new reserve fund 86 that the board authorized last month. This account will contain funds from the County's E911 office.

3. **New Business.**

- A. **2025 Budget Assumption.** Terry reported that the agency has started to develop the budget for 2025. He listed some of the assumptions:

- The agency is anticipating a small increase in 911 excise tax revenue, up to \$7.3 million from the current \$7 million. Some of that amount is from contracts that they won't be seeking reimbursements on.
- Emergency Communications Sales Tax revenue will be increasing from \$5.4 million to \$7.1 for next year, with \$1.3 to support radio contracts.
- Terry explained that they won't be able to determine member agency assessments until they're further along in their budget process.
- He went over the current CBAs and what those increases will be for the next year. Contracts were for three years.
- There will be an increase of four in dispatch staff. Their goal is to get to the Engagement Schedule, which would allow them to have more training time and off-the-floor time.
- They're recommending an increase in Overtime of between \$250,000 and \$500,000.
- Insurance premiums are expected to increase dramatically. They haven't received the final number yet, but are using an 11.3% until they receive the number from AWC.
- Rent at the North Campus location will be reduced by around \$100,000, since they'll be moving into the new building in either the first or second quarter of 2025.
- Agency risk insurance is also expected to increase. They will be budgeting \$500,000 for that.
- They expect to have more actual numbers in August covering these items.

They'll be presenting these assumptions to the Board at their next meeting and will be asking for feedback.

- B. Acceptance of Medic One Grant for PulsePoint.** Terry explained that in 2021 the agency acquired PulsePoint, a program used by the community for CPR & AED registry that alerts CPR citizens to someone nearby having a sudden cardiac event. King County Medic One Foundation covered the first three years of the cost at \$25,500 annually. Staff is asking that the Board accept the grant funds for 2024 and reimburse the operating fund. They are having conversations with the Fire Chiefs to determine if they want to continue the program.

This proposed action will be included in the consent agenda for the June 20th meeting.

- 4. Good of the Order.** None.
- 5. Adjourn.** The meeting was adjourned at 1:52 p.m. The next Finance Meeting is scheduled for June 13, 2024 at 1:30 p.m.