

Advisory Committee In-Person Meeting

I. Call to Order

1 Keith Flewelling confirmed quorum and called the meeting to order at 9:02am

II. Roll Call

2 Roll call was taken through Microsoft Forms.

III. Approval of Previous Meeting Minutes

3 Advisory Committee Meeting minutes for November 18, 2021.

4 Motion to approve minutes as submitted

5 Motion was made by Tim Lenk

Seconded by Brenda Cantu

All in Favor

6

Motion Passed

IV. Old Business

7 Adam Wasserman provided a State Office update (see below).

V. E911 State Office Updates

8 Adam Wasserman provided the E911 State Office update.

[Attachment A]

VI. SUBCOMMITTEE REPORTS

a. Subcommittee Membership Changes

9 Advisory Committee was presented with a list of changes to Subcommittee Membership.

[Attachment B]

10 Motion to approve to membership changes, as submitted

11 Motion made by Richard Kirton

Seconded by Sheryl Mullen

All in Favor

12

Motion Passed

b. 911 Authorities Subcommittee

13 Per Jason Fritz, nothing to report.

c. 911 Operations Subcommittee / GIS

- 14 Katy Meyers provided an update [Attachment A]
15 Updated Next Generation 911 Plan, presented for AC approval and adoption [Attachment C]
16 If adopted, the AC will be responsible for determining how and who is responsible for tracking of the adopted goals
17 and strategies.
18 Motion to accept the Next Generation 911 Plan, as revised.
19 Motion made by Richard Kirton Seconded by Deb Flewelling All in Favor
20 Motion Passed

d. Policy Subcommittee

- 21 Richard Kirton provided an update [Attachment A]
22 Richard Kirton discussed proposed deliverables and Equipment Contract Policy & Scoring Matrix [Attachment D]
23 Motion to accept all three (3) of the recommendations from the Policy Subcommittee.
24 Motion made by Deb Flewelling Seconded by Brenda Cantu All in Favor
25 Motion Passed

e. Training Subcommittee

26 Per Jon Adams (in the absence of Tracey Ollerman), nothing to report.

f. Public Education Subcommittee

27 Esther Duncan, nothing to report.

g. ESI Net Authority Ad hoc subcommittee

28 In abeyance

VII. New Business

- 29 1. Advisory Committee was presented with a list of Advisory Committee Member additions. [Attachment E]
30 Motion to accept nominations and recommend TAG appoint these individuals to the Advisory Committee
31 Motion made by Jason Fritz Seconded by Sheryl Mullen All in Favor
32 Motion Passed
33 2. Advisory Committee Chair Vote is still open from November 2021 meeting. Current nominations on the floor
34 are Richard Kirton and Brenda Cantu. No further nominations, for AC Chair, were raised.
35 Motion to close nominations for new AC Chair
36 Motion made by Sheryl Mullen Seconded by Ray Maycumber All in Favor
37 Motion Passed
38 1. Advisory Committee Chair Vote was opened via Jotform link.
39 Once all members were given an opportunity to vote, a tally was made [Attachment F]
40 With 11, out of 17 votes, Richard Kirton is the new Chair of the Advisory Committee
41 2. During member voting, the schedule for 2022 AC meetings and briefing was discussed [Attachment G]

VIII. For the Good of the Order

- 42 1. Keith Flewelling provided the APCO/NENA Governmental Affairs report. [Attachment A]
- 43 2. Adam Wasserman provided a Legislative informational update. [Attachment A]
- 44 3. Hails & Farewells [[Watch Farewell to Keith Flewelling](#)]

IX. Next Quarterly In-Person Meeting

- 45 The next monthly briefing is scheduled for February 17th at 9am.
- 46 The next monthly meeting is scheduled for March 17th at 9am.
- 47 ****Planning an In-Person AC Meeting in May, along with a mini-forum**** *Meeting adjourned at 9:53*

Report Notes

Key talking points from AC meeting reports:

- V. SECO Update:**
- ❖ SECO Deputy Position
In the process of first-round interviews to fill vacancy.
 - ❖ EMD's Deputy Director Position
In the process of first round interviews to fill vacancy.
Adam continues to fill this position, in the interim.
 - ❖ Public Safety Telecommunicator & Supervisor Listening Sessions.
Dr. Hendrika expressed her gratitude to those who attended the listening sessions. Stated that these sessions proved valuable for research project. More to come.
 - ❖ 988 (National suicide number)
CRIS committee and subcommittee meetings have begun.
Key players (Representative Orwall, Senator Dhingra, DOH leadership) are aware that 911 is the focal point, and 'needs a voice at the table.'
 - ❖ Text-to-911
Up and running at 41 PSAPs, covering 30 counties. Really pushing for statewide by end of summer.
 - ❖ AC Annual Report to Legislature
Final draft was sent to all AC members and county coordinators on January 17th. With the exception of the noted typos, Adam asked for any suggestions before it is delivered to Legislature.
Big thank-you to Rebecca Beaton, Sheryl Mullen, Katy Myers, Teri Ohta, Jami Hoppen & SECO staff.



Attachment A

VI.	Subcommittee Reports:	<u>c. 911 Operations/GIS Subcommittee [Katy Myers]</u> <ul style="list-style-type: none">❖ Provided the AC with an 'updated NextGen 911 Plan' for the State of Washington. Updated plan replaced the plan adopted in June of 2018. Updated plan covers 2022 thru 2025. Updated plan is organized into Four (4) results-focused goals. Responsibility for tracking will be with the AC. Big Thank you to all involved in the process of updating the plan: Luiz Melchert, Kenn Moisey, Jason Fritz, Keith Flewelling and others along the way❖ Nearly complete with a draft of the updated GIS deliverables. Hoping to adopt those through the Policy Subcommittee. Helps to support the Next Generation 911 Plan and the work of our GIS administrators throughout the state. More to follow.
VIII.	Gov. Affairs [APCO/NENA] Keith Flewelling:	<u>SB 5555 - 2021-22</u> The Bill has a prime sponsor and several co-sponsors. Schedule for a Senate Hearing at 10:30am, Friday, January 21 st , in front of the State Government and Elections Committee. 105 signatures in support, at last count. Will be offering some "friendly amendments," one would remove the requirement for the two (2) directors, who sit on the Governing Board, to be APCO/NENA members. The 2 nd amendment would be regarding the training certification, and the addition of language specifying that said certification requirements would only be for Primary PSAPs.



Attachment A

Adam Wasserman: [HB 1703](#) & Companion Bill

Passed the Subcommittee 12 to 1. On it's way to the House Appropriations Committee.

Monday, the 24th, at 3:30 Adam will be testifying, in support of the Bill; please sign in support of this bill.

Keith Flewelling: [Police Reform Bills](#)

Both bills are moving along.

Those on the Public & Government Affairs Committee, for APCO/NENA, will receive weekly updates. With the next update schedule for Monday, January 24th.



Membership Changes

Attachment B

TRAINING SUBCOMMITTEE

- Carly Swanson – Pierce County
 - ✓ Replacing Kristina Denison
- Brianna Harvill - Cowlitz County
 - ✓ Replacing D.J. Hammer
- Shelly Reeves – Cowlitz Alternate
- Mark Brusio, Primary – Yakima Co.
 - ✓ Replacing Stacey Garcia
- ✓ Megan Delbrouck, Primary – Island Co.
 - ✓ Replacing Tammy Dennis
- ✓ Jo Bower, Alternate – Island Co.

PUBLIC EDUCATION SC

- Brandy D’Intinosanto - **Committee Chair.**
 - ✓ Replacing Esther Duncan
- Eric Frank - Clark County - **Vice Chair**
 - ✓ Replacing Marlo Erwick
- Renee VanBuskirk – Douglas County
 - ✓ Replacing Jenny Flick
- Jenny Flick– Chelan County
 - ✓ Replacing Molly Elliot
- Misty Oden – Douglas County Alternate
- Remove: Gisselle Reed – Kittitas County
- Kris McNamar – Pierce County





Attachment C

911 Advisory Committee
State 911 Coordination Office
Building 20 / MS: TA-20
Camp Murray, WA 98430-5011
Business: 253.512.7012

911 ADVISORY COMMITTEE STAFF REPORT 2022

DATE: JANUARY 20, 2022

SUBJECT: REQUEST TO ADOPT THE UPDATED STATE NG911 PLAN

FROM: 911 OPERATIONS SUBCOMMITTEE, CHAIR, KATY MYERS

Objective: Adoption of the updated state NG911 Plan and expectations moving forward.

Background: The current NG911 Plan was adopted in June 2018. The Plan included a biannual update. As the NG911 Subcommittee began preparation for the 2020 update cycle, SECO received approval for a FY2020 Cybersecurity and Infrastructure Security Agency (CISA) Technical Assistance grant. This grant supported an external consulting group, the LaFayette Group, to review and recommend updates to the NG911 Plan. Initial meetings occurred in February 2020. The LaFayette Group was provided a copy of the then-current NG911 Plan, the 911 Strategic Plan and a summary of the 911 system in WA State.

The NG911 subcommittee was later joined with the 911 Operations Subcommittee. A workgroup within the newly formed subcommittee was stood up to take over the NG911 plan update work. The workgroup reviewed the initial report from the Lafayette Group in April 2021. The group began meeting regularly in May of 2021 and has since met weekly.

The workgroup has included recommendations from the LaFayette Group's report and incorporated input from the 911 Coordinators, 911 Operations Subcommittee, and SECO to bring forth this final updated NG911 Plan. The 911 Operations Subcommittee and Advisory Committee received briefings on this Plan in September and October. In November, the Plan in its draft form was circulated to the stakeholders and reviewed point by point at the 911 Advisory Committee. Comments received have been reviewed and included in the current final version of the Plan.

Current Situation:

The Plan covers 2022 – 2025 and is organized into four results-focused goals. Each goal has a series of strategies to support achieving the goals. If adopted, the Advisory Committee will need to determine how and who is responsible for tracking the progress of the adopted goals and strategies.

Thank you to the workgroup members who met weekly and those who provided contributions to the Plan: Luiz Melchert, Kenn Moisey, Jason Fritz, and Keith Flewelling.

Action Requested:

Adoption of the 2022 NG911 Plan

Identify steps moving forward



Washington State

Next Generation 911 Plan



Military Department

Emergency Management Division

State 911 Coordination Office



Washington State NG911 Plan, 2022 - 2025

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EXECUTIVE SUMMARY

The Washington State NG911 Plan is a roadmap for the continued progress toward updating 911. The plan continues to build and expand NG911 capabilities and will help guide future planning, spending, and grant awards. The State's first NG911 plan was adopted in July 2012 and updated in 2015 and 2018. This version of the plan focuses on outcomes with specific goals for the State 911 Office and the Public Safety Answering Points (PSAPs) to work toward from 2022 through 2025.

The plan represents 911 stakeholders throughout the state. During weekly meetings, a workgroup with representatives from the PSAPs, the State 911 Office, County Coordinators, and the Vendor community drafted the plan over six months. The workgroup received input and guidance from the 911 Operations Subcommittee, County Coordinators, and the Advisory Committee.

The plan identifies critical, achievable goals and the supporting strategies to reach those goals. If completed, Washington will have modernized 911 service, prepared public safety telecommunicators (PSTs), PSAPs, the State 911 Office, and upgraded software and network components. The four primary goals of the plan are to:

1. Ensure all 911 calls are answered and managed effectively
2. Minimize 911 transfers
3. Prepare PSTs, PSAPs, and the State for Next Generation Technologies
4. Improve efficiencies in the 911 system

The document identifies specific strategies to achieve each goal within the stated timeframe. The plan does not prescribe how to enact the strategies. The Advisory Committee, PSAPs, and the State 911 Office will need to identify the appropriate groups to investigate solutions, make recommendations, create fiscal notes, and possibly implement or guide the implementation of the strategies. Solutions are determined by the 911 community and will reflect the diverse needs of the PSAPs.

The goals and strategies of this plan support the Mission and Vision for 911 service in Washington State:

Mission: 911 professionals and systems in Washington State provide resilient, efficient, and standards-based emergency communications through innovation and proven strategies.

(so we achieve a)

Vision: Modern and reliable first response to emergency situations.



1 ALL 9-1-1 CALLS ARE ANSWERED & MANAGED EFFECTIVELY

One goal of evolving from legacy 911 to Next Generation (NG) 911 is to use technology to ensure no caller or request for service goes unanswered. Calls entering the 911 Network can be routed to the primary or other available Public Safety Answering Points (PSAPs) under multiple circumstances.

This section identifies strategies for setting up the 911 system to ensure calls successfully entering the ESInet are delivered to a suitable and available PSAP with all available caller information and location and triaged by a trained 911 call taker. Once the call is answered, PSAPs will need to identify how to handle incident data depending on the various failure scenarios that led a call to be routed to an alternative PSAP. Regardless of the failure, another goal of NG 911 is to have a trained dispatcher notify, track and support the responsible agency when a call requires field response.

To fulfill these goals, PSAPs will need to work collaboratively with other PSAPs, identifying optimal partnering PSAPs as their backup centers. It is not assumed that these partnerships will be reciprocal, though they could be. One PSAP could be a backup for another PSAP but have a different PSAP be their backup PSAP.

1.1 COOP PLANS FOR ALL PSAPs WITH IDENTIFIED BACKUP CENTERS

PSAPs can use Continuity of Operations (COOP) Plans that include the PSAP's process to plan, enact, and test their ability to continue to perform mission-critical functions at all times. These functions include obtaining information and data from the community during planned or unplanned outage events and transmitting information to field responders.

As part of their COOP Plans, PSAPs should have at least one backup PSAP to which 911 calls can be routed, answered, and managed when the primary PSAP and its personnel are unavailable. Plans should include any memorandum of understandings or agency agreements with financial details, including cost tracking, billing, and expectations.

Sharing and training on COOP plans with the State 911 Office and other partners will improve agency response and coordination efforts.

Resources for creating or updating PSAP COOP Plans:

- Federal Communication Commission (FCC) Guidelines <https://www.fcc.gov/research-reports/guides/emergency-planning-public-safety-answering-points>
- NENA-INF-017 Standard <https://www.nena.org/page/PSAPDisasterContingencyPlans>

1.2 ALL PSAP POLICY ROUTING RULES PASS QUALITY ASSURANCE REVIEW

The Policy Routing Function (PRF) is a relatively new capability provided by the ESInet that allows 911 calls to be dynamically routed to PSAPs based on criteria/rules other than just the caller's location and the need to shut down a PSAP remotely. The following criteria are being developed and will need to be managed:



- Override Anchor – this routes calls to another PSAP based on the type of 911 call, where type can be audio, text (SMS or RTT), and video.
- Time of Day – can temporarily route calls based on Time of Day, Day(s) of Week.
- Alternate Routing Plans - used to specify the policy for each listed PSAP depending on the failure conditions. Failure conditions include Emergency, Connectivity error, and Maintenance. Policies are:
 - Ranked – calls will go to the lowest-ranked alternate, or
 - Balanced – calls will be evenly split among the alternates
- Session Initiation Protocol (SIP) error Rulesets - different default rules for different SIP errors
- Shutdown (Abandon) – allows the PSAP to be shut down remotely, and the list of alternate PSAPs specified

Initially, the NENA-INF-011.2.2020 (NENA NG9-1-1 Policy Routing Rules Operations Guide) can be used as a reference for PSAPs to create their Policy Routing Rules (PRRs). Since the document leaves many questions unanswered, a working group should be identified or created to review and recommend for adoption which rules are desired within the State of Washington.

With the additional Policy Routing Rule options, it will also be imperative to ensure rules are not inadvertently put in place, resulting in calls being unrouteable or not answered. The working group identified to review the rules can also set up a quality assurance process.

1.3 BACK UP PSAPS' RADIO SYSTEMS ARE INTERCONNECTED

As part of the COOP planning, the primary and backup PSAPs determine how to communicate via radio systems.

Telephone system failures can require incoming calls to be routed to the backup PSAP but allow the primary PSAP to dispatch calls for service. In this case, one method to deliver call incident information from the backup PSAP to the primary PSAP can include a radio connection.

The primary PSAP may be evacuating their facility and unable to dispatch calls for service. This situation warrants a radio connection from the backup PSAP to the field responders. A thorough review of policy and procedures is required to ensure workflows and expectations are addressed. Items to consider include, but are not limited to:

- Type of radio connectivity
- Radio channel frequencies to use
- Unit identification and tracking
- Type of incidents to dispatch versus hold for the primary PSAP to be online again
- Handoff when the Primary PSAP has reached the backup location or resumes control

1.4 BACK UP PSAPS' COMPUTER AIDED DISPATCHING (CAD) SYSTEMS ARE CONNECTED FOR INCIDENT DATA DELIVERY

The primary and backup PSAPs determine how to share incident data. While verbal relay of information will be capable via the radio connection, having a tool to share incident data gathered by



the backup PSAP will improve response times. The connectivity and availability of information can extend to the field responders. An initial step is the delivery of information via a one-way, read-only data connection. Advanced connectivity would be a two-way system that allows for messaging between the PSAPs, and updates to CAD fields and unit status.

1.5 GIS DATA PROGRAMMED INTO CAD SYSTEMS FOR ALL NECESSARY PSAPS

Backup PSAP call takers must have the tools to quickly and accurately identify incident locations and enter calls for service in their CAD system. The backup PSAP CAD system should have the GIS dataset of the PSAP they are backing. The GIS information allows call takers to visualize locations in a geographically remote area they may not be familiar with. It supports verified address entry in the CAD system. If programmed with the data, it can also help the call taker and dispatcher identify appropriate field responders. The impact of large map data sets in the PSAP's CAD system will need to be considered.

2 MINIMIZE 9-1-1 TRANSFERS

When a call or request for assistance is made to 911, the call should go to the appropriate receiving PSAP. The first step toward this is identifying the caller's location more accurately before routing the call to a PSAP. It is during this initial phase that call transfers can be minimized. To accomplish accurate routing, the ESInet must have an accurate location to route on. Wireless calls made to 911 at our state boundaries may enter the wrong ESInet. This document focuses on calls made from within Washington state that enter the state's ESInet.

2.1 ECRF IMPLEMENTED STATEWIDE (GEOSPATIAL ROUTING)

One of the much-anticipated new NG9-1-1 capabilities is that of routing 911 calls based on the actual (Latitude(Y) & Longitude(X)) location of a calling device, often referred to as Location Based Routing (LBR) or Geospatial routing.

The two primary components of this capability are the Enhanced Call Routing Function (ECRF) and the GIS data against which the caller's location (X/Y) can be compared and subsequently routed to the serving PSAP.

1. ECRF

The anticipated improvements in call routing depend on the Next Generation Core Services (NGCS) receiving accurate, near-immediate location information (i.e., less than 3 seconds with high certainty and minimal radius). Ideally, this data will be provided from the Originating Service Providers (OSPs) themselves in the initial call setup information (SIP: INVITE (PIDF-LO)).

As most of the OSPs in the State are still connected via TDM/SS7 trunks, it is impossible to convey the location information in the initial call setup information. As such, the NGCS itself must attempt to



obtain this information. Unfortunately, the only mechanism to do so is by making an ALI query, hoping that Phase 2 information becomes available within 3 seconds of the call arriving at the NGCS.

Given the foregoing limitation, a trial of LBR was undertaken in Kittitas County in conjunction with KITTCOM. The trial revealed that initial call routing did not improve much, if at all. That is, while some transfers were eliminated with the use of LBR, new transfers were introduced for some calls due to issues with the GIS data, and the lack of accurate location data available at the time of routing.

Despite the lack of improvement, both the SECO and ComTech recommend introducing LBR on a statewide basis. In this manner, as the OSPs implement the necessary functionality to deliver the caller's location with the initial setup information, the NGCS can seamlessly accommodate the change(s). And as stated elsewhere within this document, the entire 911 community should encourage the OSPs to either transition to a SIP interconnection to the ESInet or take the necessary steps to ensure accurate location information is available within 3 seconds of the caller calling 911.

2. GIS Data

Since deploying a statewide E911 solution over two decades ago, the State, Counties, and PSAPs have developed and improved their GIS data sets. PSAP and county-level data have been aggregated into a statewide dataset, primarily composed of the seven NENA-required layers. Having achieved the 98% match rate (with the MSAG) in October 2021, the data was introduced into the ESInet. Enhancements to, and maintenance of, the GIS data will follow the relevant NENA documents and any additional requirements determined by the GIS working Group.

Several other goals and strategies are tied to the GIS data set. See 3.3 Updated GIS policies, 3.4 Adopt GIS Data Stewardship Document, and 4.2 GIS Data Sharing for further information.

2.2 CARRIERS DELIVER PRECISE DEVICE LOCATION

As mentioned in 3.1, most OSPs connect using analog technology that does not allow the delivery of precise device locations upon entry into the ESInet. A strong push to get carriers to connect via IP and deliver device location and additional data directly to the ESInet will be necessary. In the meantime, the State should reach out to other stakeholders to learn how they are dealing with the issue and build momentum to move regulations forward:

- Other State agencies that have deployed ECRF routing
- NASNA (National Association of State 911 Administrators)
- NG911 Institute

2.3 ROUTE USING SECONDARY PROVIDER OF DEVICE LOCATION DATA

Calls delivered to the ESInet by the carriers without device location may still be routed within the ESInet using a more precise device-based location available through an interconnect between the ESInet and a secondary provider of device location data. As OSPs have been slow to adopt new connectivity, several companies have arisen to fill the gap. These companies provide more accurate



and faster location information (lat/long) that can be used to identify the calling device's location and thereby route the call to the proper PSAP.

The SECO and Comtech should commence discussions with secondary providers of device location data. The goal is for the State of Washington ESInet to access this information to 1) more accurately identify the PSAP which is best suited to respond to the call and 2) deliver the improved location information to the PSAP. Discussion and research should address technical feasibility, PSAP call handling equipment limitations, financial, regulatory/legal aspects of such a capability/configuration.

3 PSTS, PSAPS, AND THE STATE ARE PREPARED FOR NG TECHNOLOGIES

3.1 GOVERNANCE

In December of 2013, the Blue Ribbon Panel on 911 Funding issued a report¹ to the National 911 Program, which addressed the importance of state-level governance. It reads, in part,

"The establishment of a state-level entity with the statewide authority to address necessary State-level functions and responsibilities, with a clearly defined 9-1-1 program coordination role, is critical to maximizing the capabilities of 9-1-1 systems. State-level 9-1-1 authority that is comprehensive and accommodates all forms of originating telecommunication services will be required for NG9-1-1 implementation. Legislation defining the role of the State 9-1-1 entity should facilitate the coordination of 9-1-1 service networks statewide and include the authority to support those state-level systems operational functions necessary to ensure a statewide 9-1-1 system of systems."

How does Washington State 911 governance match up with this recommendation?

The Washington State Enhanced 911 (E911) Program resulted from a 1991 voter referendum directing enhanced 911 emergency communications systems to be available statewide by Dec. 31, 1998. The referendum included funding provisions for county and state excise taxes to support the implementation of E911 plans and systems.

Washington State has a hybrid funding system that divides the 911 excise taxes between the counties and the State E911 Coordination Office (SECO.). The current excise tax collected by the carriers for each device capable of accessing 911 is \$0.95 per month and remitted to the Department of Revenue (DOR). \$0.25 goes to the State E911 Account, and \$0.70 goes to the county of collection minus a 1% Department of Revenue (DOR) collection fee.

State laws require Counties to "implement countywide or multicounty-wide enhanced 911 emergency communications systems so that enhanced 911 is available throughout the state." The SECO is tasked "to assure that 911 dialing is operational statewide; to assist counties as necessary to assure that they

¹ https://www.911.gov/pdf/Blue_Ribbon_Panel_911_Funding_Report_2013.pdf



can achieve a basic service level for 911 operations; and to assist counties as practicable to acquire items of a capital nature appropriate to modernize 911 systems and increase 911 effectiveness."

The state law and funding configuration lean heavily toward County control which detracts from a centralized "statewide authority." The hybrid model of governance that evolved within the State only functions well when all parties agree, and there is adequate funding.

The alignment of statewide consensus and funding is not easily achieved. Text to 911 is a prime example. Instead of a statewide implementation with equitable service to all communities and a highly effective public education campaign, the program was implemented by individual counties, resulting in islands of text to 911 capabilities. The first implementation was in 2015, and text-to-911 is still not available in some counties today, over five years later.

To achieve timely statewide financial and operational goals, Washington State and the Counties may consider restructuring the current governance model.

3.2 RCW AND WAC UPDATES

The State, Counties, and PSAPs have worked diligently to develop recommended changes to the Revised Code of Washington (RCWs) that will support the modernization of 911. Those changes will be taken to a legislative session to seek passage. Fundamental changes include updated requirements and definitions in the statute, clarity of SECO's authority to operate and manage the network and more fiscal control.

These changes will support the expanded use of the ESInet to enhance public safety. The state implementation of the national 988 suicide prevention hotline exemplifies the necessity for the RCW updates. The 988 and 911 systems are intrinsically connected and will benefit from 988 connectivity to the ESInet to deliver 988 callers to 988 call takers.

Additionally, the Washington State 911 Advisory Committee created an ad-hoc ESInet Authority Subcommittee to investigate additional hardware and applications capable of utilizing the ESInet's features and functions statewide. The committee identified several opportunities; however, efforts were suspended as the committee learned the current RCWs do not allow using the ESInet outside the Next Generation 911 Emergency Communications System framework. Additional work needs to be done in order to give the SECO full governance and ownership of the ESInet to capitalize on its full potential and original intent.

3.3 UPDATED GIS POLICIES

Updated policies with specific and manageable requirements for GIS dataset validation and reliability. Policies also need to support improved GIS functionality and increased information availability.

3.4 ADOPT GIS DATA STEWARDSHIP DOCUMENT

A GIS Data Stewardship document that provides guidance and best practices to ensure GIS data is accessible, usable, safe, and trusted, is adopted by the 911 community.



3.5 NEW INCOMING 911 CALL AND DATA TYPES

1. Text to 911 Statewide

As of November 2021, not all of the PSAPs in the State are receiving texts to 911. To ensure equal access to 911, all PSAPs must receive text calls either directly or route their texts to another PSAP for triage. PSAPs that are not planning internal implement text-to-911 can identify another PSAP to receive its text calls. Once triaged, the text PSAP will need to deliver the incident information to the primary PSAP for dispatch.

2. Real-Time Text Statewide

Considering the 48 million Americans who are deaf or hard of hearing², upgrading to NG911 to improve the availability of RTT-to-RTT 911 is essential. Statewide adoption of RTT will ensure equitable treatment to all our communities. PSAPs need to become educated in this current transitional environment and prepare for full RTT-to-RTT 911 as understanding and standards are adopted.

3. Multi-Media Delivery to 911

As technologies evolve and public expectations expand, the 911 community needs to begin processing video and images sent to 911 and enable video calls to 911. It is crucial to recognize the lengthy rollout of statewide text-to-911, the workload impacts, and the increased stress these additional call types will introduce into the PSAP. A statewide rollout plan with predetermined milestones can improve deployment activities and decrease overall completion time.

How each PSAP implements new incoming 911 calls and data types is not the focus of this plan. Instead, the plan seeks to ensure each PSAP develops an approach for receiving new call and data types. PSAPs that lack the capacity and resources to triage these data types and video calls can identify alternative answering centers. The incident information can be delivered to them for dispatch by leveraging the CAD connections and GIS data availability identified earlier in the plan.

3.6 TELECOMMUNICATOR IMPACTS

1. Professional Classification and Position Certification

In most cases, the quality of emergency response begins with the competence of public safety telecommunicators (PSTs). Employers of PSTs face challenges in attracting suitable candidates and retaining staff, in part, due to the high demand and high-stress environment of this critical public safety profession. Public Safety Telecommunicators are essential members of the public safety professional

²https://www.fcc.gov/sites/default/files/documents/events/fact_sheet_about_real-time_text_for_public_safety_answering_points.pdf



community and need their positions to be appropriately classified. They must have a formal training system, certification and recertification standards, and an acknowledgment of their roles as first responders. While efforts outside the State and Advisory Committee are occurring to achieve these requirements, it will be imperative in the success of those initiatives to have broad support during the legislative session.

Once professional classification and position certification are achieved, there will be work to establish the provisions of the enacting legislation.

2. Health and Wellness

While not previously recognized, the effects of being an emergency call taker are becoming more and more apparent. Call takers deal with constant bursts of adrenaline as they receive panicked calls for up to 12 hours a day. The rapid pace of the job, and the responsibility of having someone's life in their hands, are two of the top reasons call takers leave this profession.

Until recently, post-traumatic stress, vicarious trauma, and burnout were not talked about as being a side effect of telecommunicator work. It is now very evident that these conditions exist in the field of emergency call taking and must be addressed. PSAP personnel must recognize and respond to pre-cursors of stress effects.

To prevent burnout and unhealthy side-effects, managers must develop wellness programs that engage the telecommunicator in positively dealing with these issues. NENA is currently revising its standard on Acute/Traumatic and Chronic Stress Management to address new research that has been conducted, which points to critical health challenges within the 911 telecommunicator profession. These include: obesity, chronic problems with sleep, alcohol and substance abuse, and workplace conditions, including potential impacts of 9-1-1 personnel's exposure to Incident Related Imagery anticipated with the adoption of NG9-1-1 and FirstNet technologies. Once published, the NENA-STA-002.2-202Y Standard to Protect the Wellbeing of 9-1-1 Professionals can be of assistance in building programs to support the public safety telecommunicators.

3. Recruitment and Retention

Washington state is experiencing a critical telecommunicator shortage that can impact the safety of our communities. It is a national public safety crisis.

Public Safety Telecommunicators (PST's) are the calming voice and reassuring influence for callers during an emergency. However, they are rarely afforded acknowledgment and recognition. Removed from the scene and located in remote call centers, PST's can be left feeling helpless; this exposure to indirect trauma can result in a high degree of acute and cumulative stress. They are first responders, a critical element within the pre-hospital EMS system, the rational voice in a moment of crisis. They have significant impacts on field responders and civilian safety.

Given the high standards and expectations of the job, initial recruitment criteria and processes are taxing and comprehensive. Continuing training and support is required and provided in most PSAPs. Despite such sustained investments, PSTs continue to burn out and leave this career field prematurely.



In addition to the public safety risk created by turnover in emergency call centers, recruiting and training a new hire to replace the exiting dispatchers is costly and time-consuming. Agencies must develop strategic and creative processes to attract job candidates and retain current employees. Some of those efforts may include:

- Increasing pay scales
- Signing or hiring bonuses/stipends
- Longevity pay-outs for employees that remain a set number of years
- Education assistance
- Paid certification programs
- Rotating or flexible schedules

Agencies should also look at internal operations to identify improvements to retain newly hired and tenured employees. Key areas agencies should address include:

- Hiring practices
- Training and one on one coaching
- Professional development and career advancement

While it is difficult to find time for these long-term projects in public safety communications organizations, any time spent doing so will pay off exponentially over time.

4 IMPROVE EFFICIENCIES

4.1 ALARM DATA DELIVERED TO PSAPS STATEWIDE

Options exist to deliver integrated alarm incidents into PSAP CAD systems. A digital interface can virtually eliminate the time to answer, receive, and enter alarm calls for dispatch. PSAPs across the country that have implemented these systems have seen faster dispatch times and improved location accuracy. As other technologies will place additional work onto the call takers, leveraging this technology to reduce the workload is critical to helping employees manage some of the workload fatigue.

A statewide solution can help control costs, improve vendor support, ensure equitable workload reduction, and equal treatment of incoming alarms across the State. PSAPs use different CAD systems, and each would require CAD updates. Dispatch training and policy and procedure updates will need to be handled at the PSAP level.

4.2 GIS DATA SHARING

Data Sharing is an essential part of an efficient government, so GIS data must be shared widely. As such, agencies can adopt sharing agreements to allow for 911 GIS data to be shared with the WA Office of the Chief Information Officer (OCIO) and the National Address Database.

The State can make the 911 dataset available to external address verification providers and OSPs via the Location Validation Function (LVF). Providing this data to commercial users will allow carriers to use updated, accurate data when verifying their users' addresses. One key example where having this data



available is wi-fi calling. When a user turns on this feature on their cell phone, they must provide an address to route 911 calls. Having providers use the state GIS dataset will ensure that locations being used by carriers for users to validate against will match our dataset and be routable.

All PSAPs and supporting functional elements need access to the statewide GIS dataset. This is vital to support a PSAP's ability to back up any other PSAP and ensure a PSAP that receives an incorrectly routed 911 call can correctly identify the caller's location. The statewide data set must be made available for easy download and integration into all PSAPs. The GIS workgroup can address process and data issues with the collaboration of the SECO, Comtech, and the Advisory Committee.

Call handling equipment will need to be updated to accept PIDF-LO and display usable location information once the location is delivered to the ESnet in this format.

4.3 EMERGENCY INCIDENT AND ADDITIONAL DATA SHARING

Building on Goal 2 with CAD incident data sharing, a project with a representative group of PSAPs to share emergency incident data following the Emergency Incident Data Object (EIDO) Conveyance Standard will help set the state 911 community up for the next phase of NG911. The EIDO is like an envelope with which CAD and Call Handling systems share information. The EIDO is promising and can dramatically change the face of 911 in the future but is not yet mainstream. Alternative methods for incident data sharing must be investigated and piloted in the interim.

External methods and sources of receiving data about the caller placing the emergency call, the emergency caller's location, and the call itself (information about the means of communication) are available. Additional data may come with the call when delivered or queried and received after the call is answered. As additional data sources become available, the 911 community will have to determine how adoption and access is achieved and identify impacts or changes in routing or delivery of calls.

The implementation of 988 necessitates additional considerations related to additional data sharing. Calls transferred between 988 and 911 centers could come with call back and location data. The relationship between these two systems will require continued interaction, communication, and partnership development to ensure interoperability.

Software or hardware upgrades, training needs for telecommunications and technical support staff, and public education must be considered with any new integration.

4.4 STATEWIDE ALI FORMAT

T-Mobile/Sprint, AT&T, and Verizon deliver nationwide Z-axis (vertical location) information as part of the ALI record in compliance with the FCC Wireless E911 Location Accuracy Requirements. The Z-axis coordinate is a number in meters that corresponds to the altitude of the calling device above a standard reference ellipsoid (mathematical model approximating the shape of the earth) according to the World Geodetic System 1984 (WGS-84), which is the same system used for GPS longitude and latitude coordinates.

Longitude, latitude, and altitude (X-axis, Y-axis, and Z-axis coordinates) together constitute an individual's mathematically defined location usable by systems and software. A functional element



needs to convert these coordinates to human-intelligible information to be actionable by a telecommunicator. The document "NENA Requirements for Using 3D Location Data for E9-1-1 and NG9-1-1" (NENA-REQ-003.1-2021) provides interim guidelines and requirements in advance of standardization for operationalizing three-dimensional location in NG9-1-1 and E9-1-1.

The status of 3D GIS data standardization and availability means that fully operational 3D map display technology might not be available in the timeframe of this plan. However, there might be innovative solutions to use the z-axis information to improve efficiency (e.g., apps that convert the Z coordinate into a floor number or altitude above ground level at that x, y location).

1. Single ALI Format that includes Z-Axis

PSAPs across the State use different legacy ALI formats. Snohomish County is the only PSAP using an ALI format that contains the Z-axis coordinate. Their CPE displays the information on the screen if the telecommunicator selects the Raw ALI view, and the information is passed to CAD and the logging recorder.

A single ALI format that supports the Z-axis will improve efficiencies through data maintenance and ensure compatibility and consistency across the State. The format adopted must consider the applicable NENA standards, the information provided by the carriers, and information currently used and needed by the PSAPs.

The new statewide format must make the most effective use of the limited number of characters available. Allowable field options must be identified for data like Fire, Law, and EMS agencies. This is necessary so that PSAPs can identify appropriate response agencies for any call delivered to it. For example, CCSO cannot be used for both Clark County Sheriff Office and Cowlitz County Sheriff Office.

In a second step, the State must define and adopt a standardized PIDF-LO format that supports the Z-axis coordinate, uncertainty, and confidence fields, in preparation for replacing ALI-based location information.

2. Update PSAP Equipment to Accept Calls and Map Data

With a standardized ALI format, PSAPs will need to coordinate with their Call Handling, CAD, and logging recorder equipment vendors for configuration or system updates to capture and display the complete location information in the new standardized format.

Call Handling and CAD Equipment with mapping capability will need configuration or system updates to display the complete location information on the map.



Attachment D

State Grant Application to the SECO

2023 Biennium Equipment Contracts

Scoring Category

Each category element to be scored 1-10

Weight

Score

Applicant A

Application Process - Check List	(Incomplete/late applications will not be considered)	
Application and supporting documents properly submitted		
Project timeline included		
Budget included		
Signed match statement included		
Signed supplanting statement included		
Confirm contingency funds available beyond grant award		
Signed statement indicating limited funding opportunities		
<i>Total Category Score</i>		

In progress or completed projects within this biennium may apply to receive reimbursement through this process

Eligibility-Priorities Alignment (55%)	55%	10
1st-CPE failure is inside the window of the equipment's life span	50%	10
2nd - CPE End of Life or failure (product has been discontinued or no longer supported by manufacturer)	20%	10
3rd - CPE approaching End of Life (product will no longer be supported by manufacturer before 6/30/2025)	20%	10
4th - other equipment needs (if remaining funds are available)	10%	10

Funding (15%)	15%	5
Funding available to support match and additional project contingency costs beyond grant award	50%	5
Project benefits multiple counties	50%	5

Maintenance funds from BSO can be used as all or part of the match, limited to the amount county/PSAP has been paying annually for maintenance for that particular hardware/system. Match: Below 15%= 0 points 15%=5 points, 20%=10 points

Up to 10 points if there is a multi-county partnership agreement in place. 5 points if there is the potential and intent for multi-county benefit but no agreement in place. (Remotes would receive the full 10 points, letter of intent between 5 and 10 points).

Creates Efficiencies (15%)	15%	10
Creates Cost of Ownership Efficiencies	50%	10
Creates Management and Technical Efficiencies	50%	10

Project/Program Impact (15%)	15%	10
System improves PSAP durability	90%	10
SECO was notified of the equipment replacement need at least 1 year prior to the date of the grant submission.	10%	10

Project/Program Deployment	Pass/Fail
Is the project/program able to be completed in the timeline provided	
System meets or exceeds current NG911 guidelines	



Overall Score 100% 25

Attachment E

AC Membership Changes:

Association of Washington Cities East:

Primary:

Brandi Peetz, Deputy Mayor, City of Spokane

Alternate:

Jeralee Anderson, City Council Vice President, City of Redmond

King County Primary:

Jami Hoppen



Advisory Committee Chair:

Voting of the new AC Chair

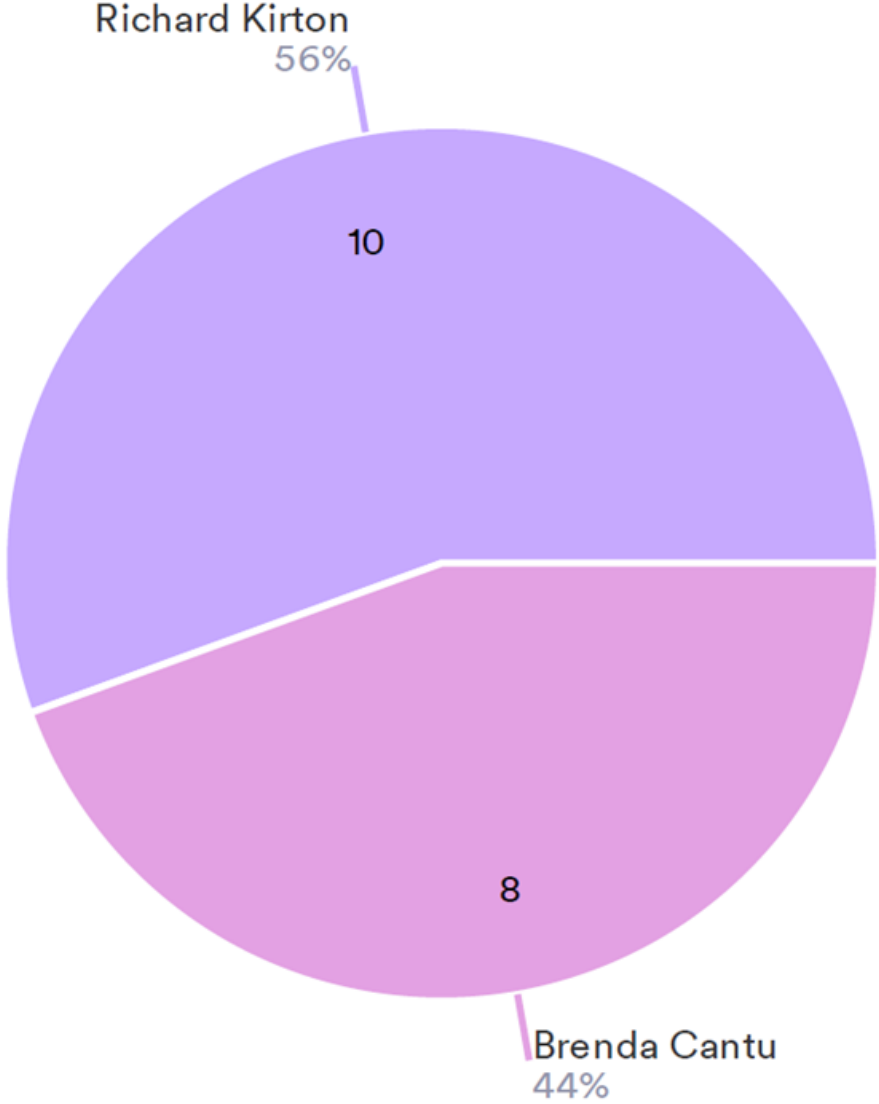
2022 Meeting Calendar

New Business

Attachment F

New AC Chair

18 Responses



● Richard Kirton ● Brenda Cantu



Attachment G

2022 AC Calendar

January 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

20th: Advisory Committee Meeting

February 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

17th: Advisory Committee Briefing

March 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

17th: Advisory Committee Meeting

April 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

21st: Advisory Committee Briefing

May 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

19th: Advisory Committee Meeting

June 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

16th: Advisory Committee Briefing

July 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

21st: Advisory Committee Meeting

August 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

18th: Advisory Committee Briefing

September 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

15th: Advisory Committee Meeting

October 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

20th: Advisory Committee Briefing

November 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

17th: Advisory Committee Meeting

December 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

15th: Advisory Committee Briefing

