



# **Enhanced 911**

# **Advisory Committee**

**Annual Legislative Update – 2018**

## COVER LETTER

DATE: February 4, 2019

TO: The Senate Energy, Environment & Telecommunications Committee  
The House Public Safety Committee

Cc: Washington State Senators and Representatives

FROM: The Enhanced 911 Advisory Committee (AC)  
Joann Boggs, AC Chair, Deputy Director, Pend Oreille County Emergency Management  
Richard Kirton, AC vice Chair, Director, Kitsap 911  
Adam Wasserman, State Enhanced 911 Coordinator, Washington Military Department

SUBJECT: 2018 REPORT TO THE LEGISLATURE, E911 ADVISORY COMMITTEE

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RCW 38.52.532 requires, “On an annual basis, the enhanced 911 advisory committee must provide an update on the status of enhanced 911 service in the state to the appropriate committees in the legislature. The update must include progress by counties towards creating greater efficiencies in enhanced 911 operations including, but not limited to, regionalization of facilities, centralization of equipment, and statewide purchasing.” This is the annual E911 Advisory Committee Legislative Report to the House Public Safety and Senate Energy, Environment & Telecommunications Committees.

We are pleased to present this annual report and highlight the significant progress toward meeting key emergency services goals. As outlined below, the state has made measurable headway in the deployment of Next Generation 911 (NG911) services. So much so, Washington State is being looked to as a model by other states and the National Association of State 911 Administrators (NASNA).

The 911 network and systems are in transformation across the nation and all states are addressing costs and consumer expectations. The goal is to build a secure system with leadership that is deeply focused on the safety of our state citizens while remaining fiscally responsible.

Thank you for your interest in and support of this vital work.

Attachment

cc: The Honorable Governor Jay Inslee

To accommodate persons with disabilities, this document is available in alternate formats by calling the Washington Military Department at 253-512-8000  
TTY/TDD users should contact the Washington Relay Service at 711 or 1-800-833-6388.

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## INTRODUCTION

This 2018 summary report to the Legislature is submitted by the Enhanced E911 Advisory Committee pursuant to RCW 38.52.532. The Washington State E911 Advisory Committee was created to advise and assist the State Enhanced 911 Coordinator<sup>1</sup> in coordinating and facilitating the implementation and operation of Enhanced 9-1-1 throughout the state.

## STATUS OF ENHANCED 911 SERVICE

911 is a critical infrastructure through which the public can access public safety resources during emergencies. The 911 public safety telecommunicators and dispatchers that answer and react to those calls are the first link in the chain of that public safety response. The United States Congress, the Washington State Legislature and other federal agencies including the Federal Communications Commission recognize the importance of 911 systems. The transition to Internet Protocol (IP) based technology for delivery of 911 is imperative and inevitable. Next Generation 911 (NG911) will address network interoperability, system resilience, security and reliability, as well as improved connections between 911 call centers. The system supports not only 911 voice but data as well. These capabilities enhance accessibility of emergency services to the public and provide Public Safety Answering Points (PSAPs) with information submitted by a variety of communication technologies which emergency responders can assess and use to respond to emergencies. The State E911 Coordination Office (SECO) with advice and assistance from the E911 Advisory Committee began the transition to Next Generation 911 (NG911) in 2009 to address the gap in services and technology that existed in the analog system.

NG911 systems require an Emergency Services Internet Protocol Network (ESInet) as the core infrastructure to assure appropriate routing of 911 calls within the state. The ESInet provides for 911 call routing, transport, interoperability, security+ and related services. The SECO completed the transition to a statewide ESInet (effectively an IP-based system utilizing traditional selective router technologies) in 2012. That ESInet requires extensive technology enhancements to allow for Next Generation 911 type data communications. On July 19, 2016, the SECO completed the procurement process and signed a contract for a new ESInet vendor and has begun to implement ESInet II which will bring NG911 connectivity to all county PSAPs. On May 1<sup>st</sup> of this year, RiverCom 911 (serving Chelan and Douglas Counties) became the first of 66 PSAPs to transition from the existing CenturyLink ESInet to the new Comtech ESInet II. As of December 31, 2018, 51 out of the 66 PSAPs had successfully transitioned to ESInet II. Additionally, ESInet II leverages high-speed data and fiber-optic networks to leverage their speed, bandwidth, redundancy and resiliency.

The Military Department was on course to stay within appropriations levels in SFY 2017-19 biennial budget. Unanticipated technical and contractual objections by the incumbent provider have been resolved and the project is on track to be completed during Q4 2019. However, due to these unanticipated delays, financial impacts were felt by all counties. The Legislature's approval of the biennial budget supplemental funding request in 2018 significantly helped to relieve that financial pressure, protecting the use of the State E911 Fund and providing support for the small and medium counties.

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<sup>1</sup> SECO is the state **911 Authority**: The Washington Military Department (WMD) is the governmental entity responsible for 911 service operations in Washington State for funding, planning, management, and/or operations of certain service components.

The Legislature took special effort to ensure no appropriations for purposes other than 911 were included in this biennial budget. This policy aligns with Congressional and Federal Communications Commission directives that 911 fees and charges should be used only for purposes related to the 911 system. States with a recent history of “diverting” 911 funds are not eligible to apply for federal grants.

Implementation of the statewide Next Generation 911 system requires a funding model that assures 911 excise tax revenues collected from Washington state residents be fully appropriated for this purpose and only for this purpose. The excise taxes are intended for system development, maintenance, current operating requirements, modernization of the 911 network and PSAP customer premise equipment (CPE). These funds are allocated to ensure the state 911 emergency public safety communication system is capable of processing data and voice technology statewide. RCW 38.52.540 was a mandate by the Legislature that assured all monies from 911 excise taxes be used only to support the 911 system.

## Revenues & Expenditures

### History

State and county E911 excise tax revenues are remitted to the Washington State Department of Revenue (DOR), which distributes funds in accordance with RCW Chapter 82.14B. The E911 excise taxes are applied to each switched access line, wireless subscribers and voice over internet protocol (VoIP) service line which were set at the maximum rates by the Legislature in 2011. On January 1, 2014, prepaid wireless retailers were also required to remit E911 excise taxes on each retail transaction at the point of sale. The SECO, under the Washington State Military Department, is the designated 911 network administrator.

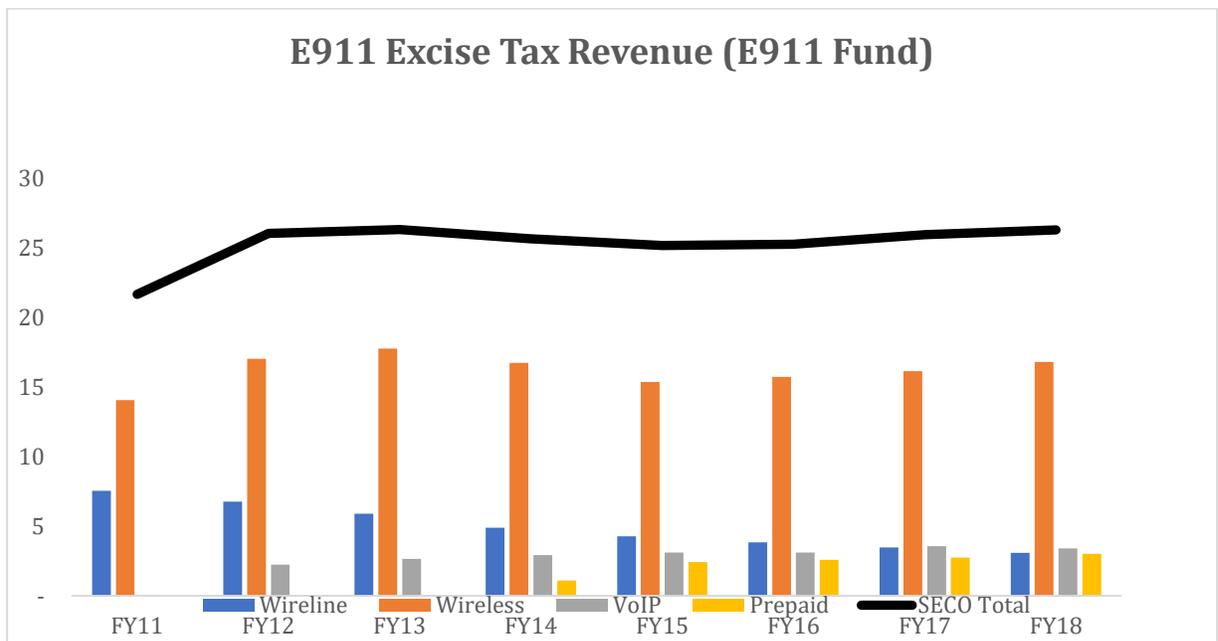


Figure 1

Figure 1 shows state excise tax collections have been shifting from primarily landline remissions to primarily wireless over the past eight to ten years. There were one-time revenue corrections in years 2013 and 2017 which account for a spike in revenue. Over the past six years, adjusting for the one-time events, the excise tax has remained around \$50M per biennium.

## **Current Status of the State E911 Fund**

Biennium 2015-2017 ended with a balance of \$1.08M in the State E911 Account. For biennium 2017-2019 the Department of Revenue forecasted \$52.4M in state enhanced 911 telephone tax receipts, which results in a projected total of \$53.4M tax revenue into the account during the current biennium. For the current biennium, the Legislature appropriated \$50.2M to the State E911 Account. In addition, in the current appropriation a \$2M proviso was unexpectedly appropriated out of the fund for grants to small and medium-sized rural counties for replacement of equipment, which further restricted available funds. If all projections come to pass, the projected balance will not be enough to cover expenses, therefore the SECO submitted and received a supplemental budget request of \$4.2M.

## **PROGRESS TOWARD GREATER EFFICIENCIES**

### ***Regionalization of Facilities***

Regionalization of facilities involves seeking efficiencies through consolidating services for multiple authorities and PSAPs into a single administrative facility/organizational structure, with the goal of reducing overhead costs and improving service delivery. This topic continues to be a focus amongst counties and for the E911 Advisory Committee in general.

### **Benton & Franklin Counties**

In SFY2015, Benton and Franklin counties completed a SECO funded regionalization study seeking greater efficiencies for both counties. As a result, the counties set a goal to consolidate the Franklin and Benton County PSAPs during calendar year 2018 and operate both at the Benton County location under the direction of the Southeast Communications Center (SECOMM) as a Regionalized PSAP. This goal was realized on Monday, August 6, 2018, after a 10-year planning process.

### **Jefferson & Clallam Counties**

In SFY2015, Clallam and Jefferson counties completed a SECO funded regionalization study seeking greater efficiencies for both counties. In January 2016, both counties entered into a regionalization agreement with the intent to continue efforts in combining the two currently independent PSAPs into a single regionalized PSAP. At the same time, both Counties appointed Karl Hatton, the director of JEFFCOM911, to be the director of both PENCOM (Clallam) and JEFFCOM 911, and to begin the process of combining both operations. To date, there continues to be progress made on implementing the recommendations from this study, but progress is slower than originally anticipated.

### **Snohomish County -- SNOCOM & SNO PAC (SNO911)**

There have been two PSAPs operating in Snohomish County for decades. Effective January 1, 2018, the SNOCOM and SNO PAC Boards of Directors approved the consolidation of the two organizations into one, known as Snohomish County 911 or SNO911.

The consolidation is less costly to operate, provides increased operational efficiencies and eliminates nearly 50,000 911 call transfers annually. The two physical buildings continue to be maintained, one as the primary PSAP and the second as a warm standby site. Technical systems have been configured to allow dispatchers to seamlessly work as a single operation from both sites simultaneously. The warm standby site has also been offered as a regional backup facility for neighboring PSAPs.

Additionally, the Snohomish County Emergency Radio Systems agency merged with Snohomish County 911 effective January 1, 2019 and is integrated into the operation as the SNO911 Wireless Technology Department. Bringing together all emergency communications under a single organization in Snohomish County will eliminate communication and technology silos and allow for a more efficient governance model.

### **Pierce County – South Sound 911**

Consolidation and co-location efforts have been successful with the Pierce County PSAPs. Specifically, Puyallup Communications has co-located with the South Sound 911, 35<sup>th</sup> Street Branch, and Fire Comm has relocated to the Puyallup facility. The agency is still on track to fully integrate under one roof with the construction of a new facility due in 2020/21. In preparation for fully integrated operations, the PSAP is undergoing a significant re-training process for communications personnel to ensure that telecommunicators and dispatching staff are cross-trained to perform services regardless of the customer agency being served. Joint Base Lewis-McChord has also entered into an Inter-Governmental Service Agreement with South Sound 911 for CAD services, which will allow for increased interoperability between these two primary PSAPs for mutual aid events as well as improved information sharing for routine operations and situational awareness.

### **Spokane Integration**

Spokane County 911, Spokane Sheriff's Dispatch, Spokane Police Dispatch and Spokane Fire Dispatch (CCC) have been co-located for many years and are now in the process of integrating and reorganizing as a single agency, known as Spokane Regional Emergency Communications (SREC). SREC was formed as a Public Development Authority and will also include the employees who maintain the county-wide radio system. The new agency has hired a director and human resources manager and is working to bring all existing employees under the new governance structure in mid-2019.

### ***Centralization of Equipment***

Centralization of equipment allows one set of devices to provide services to more than one PSAP. Recent technological advances have made it more cost effective to centralize equipment and services. With the expansion of fiber optic and high-speed networks, that include redundant and resilient paths, these technologies are now a viable solution for more of the PSAPs serving the state of Washington. Efforts and pilot programs are underway across the state for the centralization of equipment.

### **CRESA-TComm911 Pilot Project:**

In 2015, Thurston (TComm911) and Clark (CRESA) counties initiated a geographically diverse, dual-hosted remote prototype pilot program. This program allowed counties the choice to be either a "host" or a "remote" PSAP in the system, reducing on-site equipment and overall costs while increasing redundancy. Wahkiakum County joined the pilot program in 2017 and all three counties continue to successfully operate on this centralized equipment dual-hosted remote model. The pilot program concludes in 2019 and final reviews and savings will be available with the 2019 legislative update.

### **Columbia County 911 and Walla Walla Emergency Services Communications:**

Columbia and Walla Walla Counties completed the purchase and installation of a shared Computer Aided Dispatch (CAD) system with Walla Walla housing and maintaining the common "back end" of the system. The shared platform also includes Milton-Freewater in Oregon. The common dispatching platform has allowed each of the participating agencies to improve situational awareness, monitor calls for service and serve as redundant/fail-over centers for each other. Participating agencies report significant cost savings while

simultaneously providing an opportunity for greater collaboration and coordination between neighboring agencies.

### **King County 911 Program Office:**

In January of 2018 King County adopted a regional E911 strategic plan to provide:

- A system to integrate with the State’s E911 system and local jurisdictions;
- A 10-year technology investment strategy;
- A 10-year sustainable funding plan; and
- An ongoing decision-making and governance structure.

The current regional E911 system uses a decentralized architecture with equipment located at each of the 12 primary PSAPs that directly interconnects them to the statewide ESInet. To achieve full NG911 capability and functionality King County plans to migrate to a single platform system architecture. This platform approach builds a multi-node host platform that will receive calls from the state of Washington ESInet and then deliver them to the PSAPs networked on the system. Such a configuration will create greater efficiencies as well as allowing one of the host nodes to be in a geographically remote location to increase system resiliency during catastrophic events. Current project timelines project completion by 2022.

### **STATUS OF NG911 SERVICE**

- ESInet Vendor: On July 19, 2016, the Military Department awarded the contract for the statewide ESInet to Comtech Telecommunications Corporation (Comtech) for a period of five years following the transition of the last PSAP to the new system.
- The PSAP transition from the current vendor to Comtech started in May 2018 and is expected to be complete by February 2019.
  - Following successful transition of all PSAPs to the new ESInet, the next step will be the migration of the Automatic Location Information (ALI) and Master Street Address Guide (MSAG) databases to Comtech. This phase is projected to be completed by the end of Q1 2019.
  - Beginning in Q2 2019, originating service providers (carriers) will begin connecting directly to the new ESInet. This transition will allow for direct SIP/IP connectivity from the carriers, without the need to convert digital signaling technology to the older SS7/TDM technology required by the previous vendor. This means that calls delivered to the new ESInet can retain embedded supplemental information – another significant step toward realizing the potential of NG911.
  - After carrier cutovers are underway, Comtech will begin testing and implementing the Location Validation Function and Geospatial Routing features of NG911. These features require seamless, integrated GIS data for all counties and PSAPs within the state. Once fully implemented, calls will be routed to PSAPs based on their actual physical location at the time the call is placed, which eliminates the need to program ‘default’ routing into the network.
- Interim Text-to-911 progress includes final statewide policy recommendations development, security requirements, training curriculum development and public education program development. To date, there are 24 PSAPs in 12 Counties receiving Text-to-911: Clallam, Clark, Grant, Jefferson, King, Kitsap, Pacific, Snohomish, Spokane, Thurston and Wahkiakum counties. Pierce County (South Sound 911) is projected to be activating this service in Q1 2019.

- NG911 capable call processing equipment (CPE) that is connected using a direct Session Initiated Protocol (SIP) connection is installed in: Adams, Benton, Chelan, Clallam, Clark, Columbia, Cowlitz, Ferry, Garfield, Grant, Grays Harbor, Island, Jefferson, Kitsap, Kittitas, Klickitat, Lewis, Lincoln, Mason, Okanogan, Pacific, Pend Oreille, Pierce, San Juan, Skagit, Skamania, Snohomish, Spokane, Stevens, Thurston, Wahkiakum, Walla Walla, Whatcom, Whitman and Yakima Counties, and the WSP PSAPs in Bremerton, Spokane, Tacoma, Vancouver, Wenatchee and Yakima.
- NG911 capable CPE that are not yet using a direct Session Initiated Protocol (SIP) connection are installed in: King (11 PSAPs and WSP-Bellevue), Joint Base Lewis-McChord, WSP-Marysville, Yakima (SUNCOM) Backup, Fairchild Air Force Base FD, and the Colville Tribal Police Department. These locations are expected to become SIP connected by early 2020, pending budget decisions for some.

## ***Challenges***

### **Cybersecurity Protection:**

Because all networks are vulnerable to security attacks and compromises, conversion of the 911 systems to IP technologies increases not only the capabilities but also the vulnerabilities to the entire 911 system. Several counties are, or have begun, addressing 911 security at the PSAPs and the new ESInet includes an extensive set of security sub-systems and protocols imbedded within the core services of the network. All these activities and systems will help mitigate – not eliminate – the threats posed by use of these new technologies. Training and awareness of cybersecurity attack vectors and vulnerabilities is an ongoing issue of concern for the E911 Advisory Committee and the SECO.

### **Funding:**

The ESInet Transition Project is expected to be complete by January 2020, which means the state will be operating and partially funding the dual provisioning of two networks for at least the first six months of the biennium. For the upcoming 2019-2021 Biennium the projected budget is approximately \$53M. A decision package was submitted and approved in the Governor’s biennium budget for the full amount. Although the current projected revenue for the upcoming biennium (\$53.7M) is slightly more than the projected budget, it is still very tight and any delays or extensions of the ESInet Transition Project would negatively impact the budget. As 911 strives to keep pace with technology and the ever-rising costs, funding will remain a critical obstacle for the state and all the PSAPs.

## **CONCLUSION**

The Committee respectfully offers this report to the Legislature. The report addresses issues that relate to policies and funding common to state and local jurisdictions in the provision of 911 services. Ensuring accuracy of information submitted to the Legislature and to the Federal Communications Commission in compliance of reporting requirements are focus points of this report from the E911 Advisory Committee. The common goal is to ensure a reliable emergency communications system that continues to serve the residents and visitors to Washington State every day.