

2008

State of Washington

Military Department

NEXT GENERATION 911 FUNDING MECHANISMS

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INTRODUCTION:

The 2008 Legislature directed the Military Department to recommend an appropriate funding mechanism for the implementation of Next Generation 911 (NG911). In response to the proviso the Military Department issued a Request for Proposals (RFP) and engaged the consulting firm Kimball to assist in compiling data for recommending funding mechanisms for transitioning to NG911 and addressing the costs of ongoing operations and maintenance of NG911 once it is fully implemented. The Military Department consulted with the Utilities and Transportation Commission, the Department of Revenue, local governments, and representatives from companies providing telecommunications services in order to complete this report

The Military Department has compiled this digest report drawing upon data presented by Kimball. The contractor's work product is available upon request.

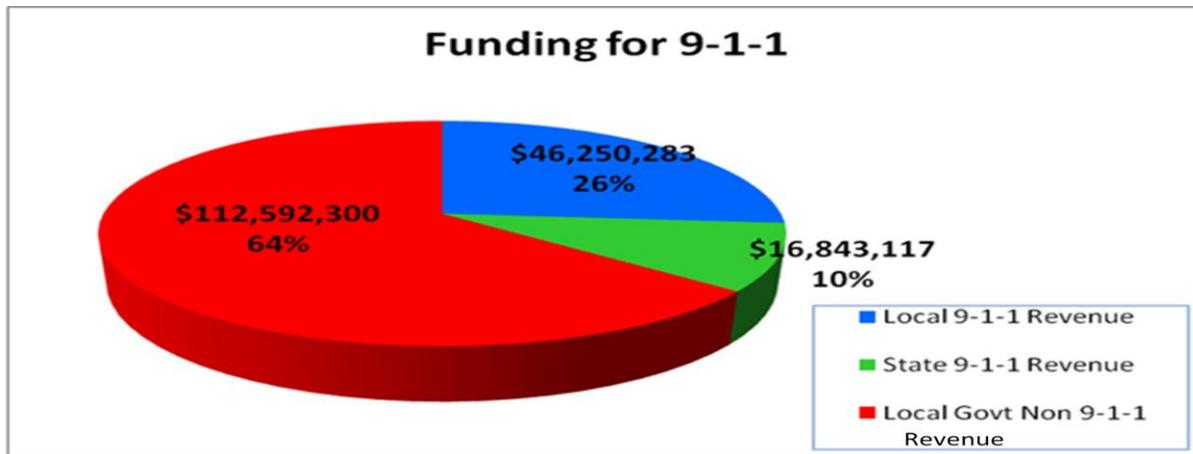
BACKGROUND:

Current Enhanced 911 (E911) systems rely on decade's old technology. New communication technologies used by citizens today enable people to send text messages, take photographs and streaming videos with hand held "devices"; these technologies use internet protocol to transmit the data. Texting has become the preferred mode of communication for the hearing and speech-impaired communities. Texting allows them to communicate with everyone without the need of any special equipment or third party intervention. The other large population using texting is today's youth. Both of these groups expect to be able to reach 911 using the text feature on their cell phones, but the reality is they cannot. Another widely used technology that cannot directly link to today's E911 systems is OnStar. Accidents can be reported via telematic systems such as OnStar which have the capability to provide information about the accident including possible injuries to the vehicle's occupants.

NG911 uses internet protocol to enable 911 call takers to process text messages, photographs, video and telematic data packets in addition to the landline and cellular calls processed today. The 911 technology in the state of Washington and nationwide has reached the point where it must be modernized if it is to keep pace with the public's communications technologies and expectations. Public safety is directly impacted because the current 911 system is not able to provide E911 to citizens using these new technologies.

The State of Washington's current 911 system is funded by an excise tax assessed equally on both landline and wireless communications services. Carriers collect the tax monthly from their subscribers. The state rate is a maximum of 20 cents per month for each switched landline and radio access (wireless) line. The carriers remit the state tax to the state Department of Revenue (DOR), which places it in the state E911 account. The county rate is a maximum of 50 cents for each switched landline and radio access line. The carriers remit the county tax to the county treasurer. The state requires counties to collect the maximum authorized 911 tax before they qualify for any state 911 funding. All counties are currently collecting at the maximum rate. In addition to E911 tax revenue, county general funds and/or user fees charged to local police and

fire departments fund nearly 64% of the annual cost of maintaining E911 systems (see graph below). The E911 tax rate, which is set in Revised Code of Washington (RCW) 82.14B for both the state and counties, has not changed since it went into effect in 1992.



In the course of the 16 years since E911 went into effect in Washington State, technological progress has begun to undermine the system in two critical ways: impact on revenues and impact on the system's ability to provide E911 service to callers using new technologies. A third impact on the ability to maintain the 911 system is inflation.

Revenues are directly impacted because new technologies may not currently be required by statute to pay the 911 tax. One predominant new service is Voice over Internet Protocol (VoIP); the two main providers of VoIP service in Washington are Vonage and Comcast. Comcast, as a telephone company operating in Washington State, does collect and pay the required taxes; Vonage, which operates as an internet VoIP service, does not. As consumers abandon their landline phone services in favor of VoIP, there is a corresponding loss of revenue. The fact that the current body of law does not require VoIP providers to contribute to the support of the state's 911 system results in a loss of revenue currently estimated at approximately \$778,000 per year.

Prepaid wireless telephone service is subject to the 911 tax; however, some providers dispute this obligation and do not collect and remit the tax. National estimates put prepaid wireless at 12% of total wireless consumers. According to the Federal Communications Commission's (FCC's) report on wireline competition for 2007, there are approximately 5,291,000 wireless subscribers in the state of Washington of which approximately 635,000 are prepaid customers. This results in a potential revenue loss of up to \$5.3M per year.

Lastly, the impact of inflation over the past 16 years has decreased the value of state and local 911 revenues by 34 percent, according to the Washington State Economic and Revenue Forecast Council's estimates for the period from 1995 through 2006. Although all counties have been collecting at the maximum rate; the rate has not been changed since it went into effect in 1992.

RECOMMENDATIONS RE: OPTIONAL COURSES OF ACTION:

Kimball compiled all financial information into a series of spreadsheets to facilitate analysis. They then built a tax calculator to determine the tax rate needed to fund the recurring and non-recurring NG911 transition costs and NG911 on-going operations and maintenance costs. The calculator enabled them to identify the maximum tax rate needed to fund the implementation of NG 911. The recommendation for a 911 tax maximum authorization is a simple average of the seven years from Fiscal Year 2010 through Fiscal Year 2016 rounded up to the nearest five cent increment and includes the fixed costs as well as recurring costs.

The following three funding mechanisms/options are proffered to implement the transition to NG911:

Course of Action (COA) #1 is for the Legislature to fund the non-recurring costs of \$23.8 million dollars from a source other than the Enhanced 911 account. Additionally, this COA recommends changing the definitions in RCW 82.14B to assure all technologies that can call 911 are taxed equally (including prepaid wireless and VoIP), generating up to \$6.1M in additional annual revenue. This COA leaves the current tax rate unchanged.

COA #2 is to fund NG911 using tax revenue generated from a modest increase in the current state and local tax rate. Additionally, this COA recommends changing the definitions in RCW 82.14B to assure all technologies that can call 911 are taxed equally (including prepaid wireless and VoIP). To fully fund the non-recurring costs, transition costs, and future operations costs, the state tax would need to be raised from 20¢ per device per month to 25¢ per device per month and the local tax from 50¢ per device per month to 65¢ per device per month. This increase is based on the Military Department's estimates using data provided by Kimball that projected cost estimates for fiscal years 2010 through 2016.

COA #3 is to fund all costs historically associated with 911 (including costs borne by local governments from the inception of the 911 program) through the E911 tax. Local governments currently contribute nearly 64% of the costs to maintain 911 systems from other funding sources such as their general fund and user fees. To fully fund the current E911 costs and the costs to transition to NG911 solely through the E911 tax, the current state tax would need to be raised from 20¢ per device per month to 25¢ per device per month and the local tax from 50¢ per device per month to \$1.75 per device per month. This is based on Kimball's projected cost estimates for fiscal years 2010 through 2016 for the state and counties. Kimball determined the tax rate needed to cover those costs and then took an average tax rate to determine an appropriate maximum. They rounded all results to the next highest five-cent increment. Based on the projected costs, they estimate these tax maximums will generate enough revenue to fully fund current E911 costs borne by local governments through the transition, NG911 transition costs (both recurring and non-recurring) and ongoing NG911 system operations upon full implementation.

The COA summary below assumes application of the E911 tax to all devices.

Course of Action	Non-Recurring Costs	Tax rate		Notes
	Non-911 Funding	State	County	All devices taxed (including prepaid and VoIP)
1	\$23.8 Million	\$0.20	\$0.50	Equitable taxation at current tax rates. Local non-911 funding continued at current amount.
2	0	\$0.25	\$0.65	Equitable taxation at new rates. Local non-911 funding continued at current amount.
3	0	\$0.25	\$1.75	Equitable taxation at new rates. NG911 supported and excise tax supports all 911 costs formally paid from other local funds.

In addition to raising the current 911 tax rate, Kimball recommended the following changes to existing statutes. The purpose of the recommendations is to apply the E911 excise tax in a technologically neutral manner on all current and future devices and services that users rely upon to provide them with access to 911.

- Amend Chapter 82.14B RCW to apply to Washington households using any type of VoIP service.
- Enforce the collection of the 911 excise tax from prepaid wireless users.
- Add four new definitions in Chapter 82.14B RCW in an effort to modernize and broaden the language to which the excise tax applies.

NG911 IMPLEMENTATION STRATEGY:

Supporting the new technologies and devices requires a reconfiguration of how the current 911 network in Washington State operates. New equipment, databases, and servers are required to bring 911 service to the user devices and their associated new technologies. The NG911 budget plan makes several assumptions regarding the deployment of the NG911 network. During the first year, the infrastructure for the network is installed and configured. Deployments begin in the second year and are completed statewide by the fourth year. Based on a three-year deployment schedule, the Six-Year Plan assumes a third of the Public Safety Answering Points (PSAPs) will be deployed each year. The escalating costs in the Plan reflect fees based on the entire 12 months. The NG911 system will require the following elements:

Border gateway functions

Emergency services routing protocol (ESRP) functions

NG911 equipment at PSAPs

Each of these NG911 elements has non-recurring and recurring costs. In the first year of the project, the network has to be built. (Costs associated with the current E911 system are not represented in the first four years of the following chart. In years 5-7, the current E911 system is

terminated and recurring costs reflect the difference between former E911 costs and new NG911 recurring costs. There is a cost reduction in the state costs but an increase in local costs.)

Year	Non-Recurring Costs	Recurring Costs
1	\$6,500,000	\$1,098,000
2	\$9,406,667	\$6,411,600
3	\$3,956,667	\$9,495,600
4	\$3,956,667	\$12,962,400
5		\$5,775,000
6		\$5,775,000
7		\$5,775,000
Total	\$23,820,001	\$47,292,600
Average Annual Recurring Cost		\$6,756,085

TAX RATE CALCULATIONS:

The table on the next page shows the calculations for each course of action discussed on page 5. The data was extracted from the report prepared by Kimball.

DATA FOR EACH COURSE OF ACTION

Number of Devices	2010	2011	2012	2013	2014	2015	2016	Avg Annual Revenue Increase
Current Devices	7,751,625	7,591,272	7,676,918	7,777,633	7,761,117	7,719,000	7,682,080	
Current Devices + VoIP & Prepaid Wireless Subscribers	8,501,782	8,511,426	8,334,940	8,425,769	8,407,877	8,344,865	8,512,576	
<i>Additional devices to be added with RCW changes</i>	<i>750,157</i>	<i>920,154</i>	<i>658,022</i>	<i>648,136</i>	<i>646,760</i>	<i>625,865</i>	<i>830,495</i>	
<i>Additional tax collected at current rate of \$0.70/device/month</i>	<i>6,301,321</i>	<i>7,729,295</i>	<i>5,527,381</i>	<i>5,444,343</i>	<i>5,432,782</i>	<i>5,257,265</i>	<i>6,976,160</i>	

COA #1 - Fund NG 911 Recurring Costs with RCW Changes - Non-Recurring Costs funded from other sources								Avg Annual Cost Increase
	2010	2011	2012	2013	2014	2015	2016	
NG 911 Recurring Costs - Both State and Local	1,098,000	6,411,600	9,495,600	12,962,400	5,775,000	5,775,000	5,775,000	\$6,756,086

COA #2 County Costs - Transition to NG 911								Avg Tax Increase
	2010	2011	2012	2013	2014	2015	2016	
County NG 911 Non-recurring Costs		3,956,667	3,956,667	3,956,667				
County NG 911 Recurring Costs		3,084,000	6,168,000	9,634,000	9,634,000	9,634,000	9,634,000	
Estimated Life Cycle-Replacement				2,500,000	5,000,000	7,500,000	7,500,000	
Total County NG 911 Transition Costs		7,040,667	10,124,667	16,090,667	14,634,000	17,134,000	17,134,000	
<i>Tax increase required to cover County NG 911 Costs</i>		0.07	0.10	0.16	0.15	0.17	0.17	\$0.14

COA #2 State Costs - Transition to NG 911								Avg Tax Increase
	2010	2011	2012	2013	2014	2015	2016	
State NG 911 Non-recurring and Recurring Costs	7,598,000	8,777,600	3,327,600	3,327,600	*			
<i>Tax increase required to cover State NG 911 Costs</i>	0.07	0.09	0.03	0.03	0	0	0	

COA #3 County Costs - Fully Fund E911 w-Tax (plus State costs in COA #2)								Avg Total Tax
	2010	2011	2012	2013	2014	2015	2016	
Total County Costs including NG 911 Transition	158,133,154	168,526,244	175,033,738	181,996,611	181,610,133	185,256,010	188,979,180	
<i>Tax required to fully cover County Costs</i>	1.55	1.65	1.75	1.8	1.8	1.85	1.85	

* Enhanced 911 network terminated in Year 5 of NG 911 transition, state costs return to 2009 levels.