



Update on Statewide NG9-1-1 Planning

9-1-1 Services Board Meeting

September 30, 2016



Key Topics

- Planning Assumptions
- 9-1-1 Funding Analysis
- Supporting Activities
 - Calendar year 2016
 - Next four years (2017 - 2020)
- Legislation



Planning Assumptions

- Fluid process focused on the long-term
- Service model approach
- Using 2020 population totals and national service provider benchmarks
- 9-1-1 cost projections will provide a reliable estimate for planning purposes
- NG9-1-1 implementation will occur based on SR pairs
- NG9-1-1 GIS data plan



9-1-1 Funding Analysis

- 9-1-1 Baseline Services and Capabilities
- PSAP Budgets for Services and Capabilities
- 9-1-1 Revenue Model
- NG9-1-1 Deployment Cost Model
- Gap Analysis for NG9-1-1 Transition
- Funding Sources and Sustainment Model
- Legislative and Implementation Strategy



9-1-1 Revenue Model

- Current revenue streams:
 - Compensation Board
 - Communications Sales and Use Tax
 - Wireless Fund (60%)
 - Wireless Billing Agreement
 - Local government
 - PSAP Grant Program
 - Other grant programs



Current 9-1-1 Revenue

Milestone	Jul	Aug	Sep	Oct	Nov	Dec
Document Current Revenue						
NG911 Deployment Cost Model						
ID Funding Gaps for NG911 Transition						
ID Funding Sources and Sustain Model						
ID Legislative Strategy						

Milestone 1 – Current Revenue

Region	Sum of Comp Board (FY2017)*	Sum of Comm SUT**	Sum of WEP (Available)	Sum of Wireless (FY2015)	Sum of Sub-Total
1	2,119,830	4,394,265	130,000	4,876,718	11,520,813
2	1,641,628	1,667,573	70,000	1,362,071	4,741,272
3	1,400,467	1,748,594	90,000	2,210,075	5,449,136
4	1,992,352	925,128	80,000	888,780	3,886,260
5	1,591,041	6,904,537	110,000	7,572,871	16,178,449
6	1,626,527	2,246,542	105,000	2,182,099	6,160,167
7	198,739	9,639,185	30,000	7,753,879	17,621,803
Grand Total	10,570,584	27,525,823	615,000	26,846,493	65,557,900

Baseline Costs – Sub-total = Local Contribution (add'l analysis on Grants IP)



NG9-1-1 Deployment Cost Model

- Considerations:
 - The desired end-state
 - Non-recurring costs (one-time fees)
 - Recurring costs
 - Preparation of GIS data into a NG9-1-1 format
 - CPE upgrades
 - Text-to-9-1-1
 - Program management support



NG9-1-1 Deployment Cost Model

- Considerations:
 - Selective router legacy costs
 - GIS/IT support needed at PSAP-level
 - Personnel costs related to NG9-1-1 staffing analysis
 - CAD expenses
 - Regional anomalies/POI

Transition Strategy

SR Group	Selective Router Grouping for NG9-1-1 Cost Estimate
A	Blacksburg Norton
B	Chester Richmond Stuart Danville Lynchburg Salem Staunton
C	Staunton
D	Fairfax - Alexandria
E	Fredericksburg Winchester
F	High Street-Johnson Chester-Richmond
G	Johnson City - Wytheville
H	Other Non-Verizon

Verizon Selective Routers
Single Tandem (Brighter Colors)

- Alexandria/Fairfax
- Blacksburg/Norton
- Chester/Richmond Stuart
- Danville/Lynchburg
- Fredericksburg/Winchester
- High Street/Jefferson
- Salem/Staunton

Multiple Tandems (Lighter Colors)

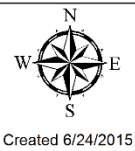
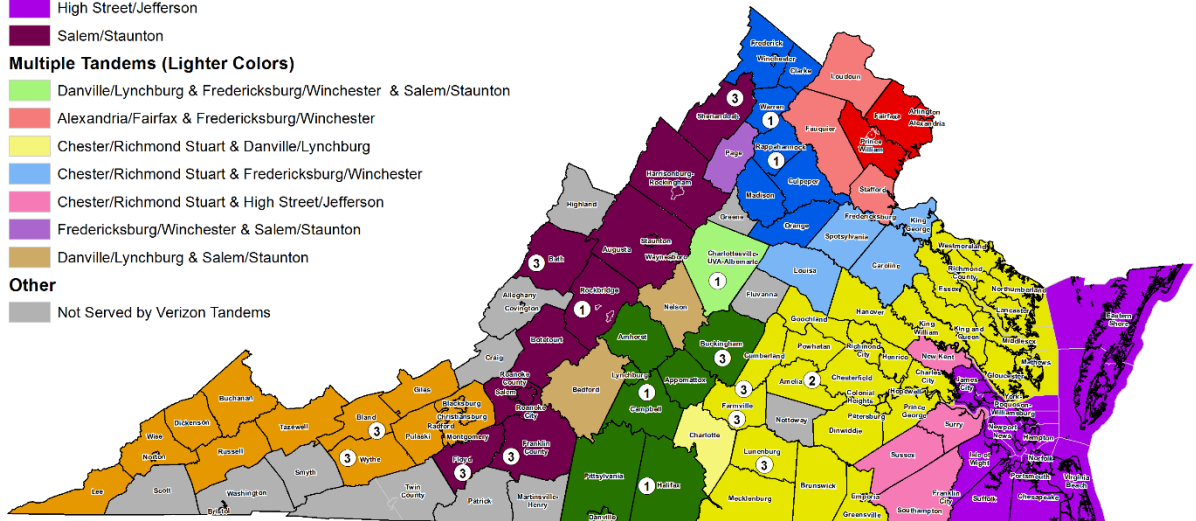
- Danville/Lynchburg & Fredericksburg/Winchester & Salem/Staunton
- Alexandria/Fairfax & Fredericksburg/Winchester
- Chester/Richmond Stuart & Danville/Lynchburg
- Chester/Richmond Stuart & Fredericksburg/Winchester
- Chester/Richmond Stuart & High Street/Jefferson
- Fredericksburg/Winchester & Salem/Staunton
- Danville/Lynchburg & Salem/Staunton

- Other**
- Not Served by Verizon Tandems

Verizon Selective Routers - Notes

Notes

- ① Note 1 - Verizon Tandem hands-off to Independent Telco
- ② Note 2 - Verizon trunks directly to PSAP in Independent Telco
- ③ Note 3 - Non-Verizon served PSAP. Tandem serves access lines in Verizon ILEC footprint only



Verizon Tandem Coverage - Virginia

Source: Verizon E9-1-1 Activation Process Guide
http://www22.verizon.com/wholesale/attachments/E911_Act_Guide_July-2014.docx



Cost Model Summary

Cost Element (totals from above PSAP model and VITA ISP model)	Sequence Order	Notional Estimated Spend Plan for Transition to NG9-1-1 (NG9-1-1 Technology Costs Only)					Grand Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
PSAP Transition Plan - Notional for Budget purposes							
SR Group D Totals	1	\$4,593,325	\$0	\$0	\$0	\$0	
SR Group A Totals	2	\$0	\$6,321,956	\$0	\$0	\$0	
SR Group B Totals	3	\$0	\$0	\$14,264,033	\$0	\$0	
SR Group C Totals	4	\$0	\$9,207,592	\$0	\$0	\$0	
SR Group E Totals	5	\$0	\$0	\$5,972,289	\$0	\$0	
SR Group F Totals	6	\$0	\$0	\$0	\$7,724,152	\$0	
SR Group G Totals	7	\$0	\$0	\$0	\$0	\$8,954,592	
SR Group H Totals	8	\$0	\$0	\$0	\$0	\$3,340,602	
VITA ISP Costs (Consulting Resources)		\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	\$1,750,000	
Total NG9-1-1 Budget		\$6,343,325	\$17,279,548	\$21,986,322	\$9,474,152	\$14,045,193	\$69,128,540
Current Legacy Costs - Offset by Transition		Legacy SR Costs Turndown Estimate					
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Legacy SR Costs to Verizon/Clink & Others							
Total		\$8,366,683	\$8,366,683	\$8,366,683	\$8,366,683	\$8,366,683	\$8,366,683
Minus SR Groups Costs Transitioned Thus Far (20% Overlap in transition year)		(\$521,466)	(\$3,052,980)	(\$4,835,571)	(\$4,571,728)	(\$5,712,405)	(\$8,366,683)
Net Legacy SR Costs by Year Payable During Transition		\$7,845,217	\$5,313,703	\$3,531,112	\$3,794,955	\$2,654,278	\$0



Supporting Activities – 2016

- Regional Advisory Council
- Best Practices
- Data Analytics
- ESInet Requirements
- ESInet RFP
- Commonwealth-wide ALI/MSAG analyses
- 9-1-1 Funding Analysis
- CHE RFP



Supporting Activities - 2017

- Award statewide ESInet RFP
- Leverage PSAP Grant Program to address identified funding gap
- Begin PSAP transition based on SR pairings (Region 7)
- Evaluate the need for additional PSC staff (ESInet oversight)
- Identify additional legislative changes



Supporting Activities - 2018

- Continuing PSAP transition based on SR pairings
- Standards
- Regional governance



Supporting Activities – 2019 & 2020

- Complete PSAP transition based on SR pairings



Legislation - 2016

- Renamed Board to “9-1-1 Services Board”
- Established the Board’s ESInet and core NG9-1-1 services standard setting authority
- Defined the terms “ESInet” and “NG9-1-1”



Legislation - 2017

- Delay the recalculation of the PSAP wireless funding distribution percentages until July 1, 2018
- Socialize funding needs related to NG9-1-1 transition costs and 9-1-1 sustainment model to address identified funding gap



Legislation - 2018

- Introduce legislative agenda to address identified funding gap for NG9-1-1 transition costs and 9-1-1 sustainment
- To close the gap, may want to consider from the following:
 - Elimination of transfers
 - Elimination of wireless cost recovery
 - Change current uses of Wireless fund
 - Increase wireless 9-1-1 fee or include a NG9-1-1 fee in Communications Tax



Legislation – 2019 & 2020

- Address outstanding issue or new developments



NG9-1-1 Transition Partners

- SCC
- Carriers
- VA chapters of APCO/NENA
- VML and VaCO
- FCC
- VGIN Advisory Board
- Interoperability Coordinator (SPOC)