

Federal Communications Commission

Next Generation 911

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NG911 Deployment Costs and Funding

- I. Cost Considerations
- II. Federal Funds
- III. State Spending on NG911
 - Overview
 - Individual State Examples



NG911 Cost Considerations

- NG911 costs will vary, depending upon the particular path a state chooses for implementation
- NG911 cost elements may include:
 - Broadband connectivity
 - ESI-net deployment
 - New or upgraded CPE to handle multimedia 911 communications (e.g., text, data, video)
 - New system data capabilities (e.g., GIS-based location)
 - Personnel, training



Cost Considerations

- Other variables that may affect NG911 deployment costs
 - Number of PSAPs requiring transition
 - Centralized or shared network architecture
 - Timeline and implementation stages
 - Direct PSAP control versus hosted solution for provision of NG911
 - Maintaining legacy 911 systems during transition

FCC NG911 Cost Study

- FCC 2011 NG911 Cost Study: Estimated the cost of providing sufficient network connectivity to all PSAPs nationwide to support NG911
 - Baseline Model (assumes number of PSAPs remains constant): Estimated nationwide cost of \$2.68 billion over 10 years
 - Cost-Effective Model (assumes consolidation lowers number of PSAPs by 30 percent): Estimated nationwide cost of \$1.44 billion over 10 years
- FCC cost study does not address other NG911 costs besides network connectivity



Federal Funding For NG911

- In 2009, NHTSA and NTIA awarded 911 grants under the ENHANCE 911 Act:
 - Of the \$43.5 million appropriated for the program, grantees spent over \$35 million. 18 of the 30 awardees used their entire allotment
 - 61% of grantees focused on IP network (ESInet) implementation
- Middle Class Tax Relief and Job Creation Act of 2012 provides \$115 million in matching grants to support 911 or NG911 improvements
 - Grant funds will come from future FCC incentive auctions
 - Funding for 911/NG911 is contingent on auctions achieving substantial revenue target



Other Federal Initiatives

- In a 2012 Report to Congress, the FCC recommended that Congress create mechanisms, such as challenge grants and other competitive funding programs, to encourage states to compete to be NG911 “early adopters”
- The NHTSA/NTIA National 911 Program has convened a Blue Ribbon Panel to address 911 funding issues:
 - Panel creation was recommended by the Communications Security, Reliability, and Interoperability Council (federal advisory committee chartered by the FCC)
 - Panel members include representatives from public safety, industry, and academia, and experts in infrastructure finance
 - Panel will make recommendations to the National 911 Program on funding NG911 transition and operations more effectively



State Spending on NG911

- The Commission collects information on state collection and spending of state 911 funds and fees, including NG911 expenditures, in its annual NET 911 Report. For the 2011 calendar year:
 - Responding states (47) spent a total of \$2.2 billion on 911 services
 - States providing information on NG911 expenditures (38) spent \$36 million on NG911
 - 10 states reported spending no funds on NG911 in 2011, despite NG911 spending being allowed under their state funding mechanisms



Vermont's NG911 Experience

- Vermont contracted with Intrado in 2010 to build out its NG911 system.
 - Contract includes transition to IP-based NG911 network and other services (e.g., data migration, testing, and training)
 - Total one-time costs of \$2,105,000 (see next slide)
 - Total quarterly recurring costs of \$469,327 for system maintenance, monitoring, support, upgrades, and data services
 - Under the contract, costs cannot exceed \$10,183,500
 - Contract ends June 30, 2015 (subject to renewal)



Vermont One-Time Costs

Service	Cost
Site Requirements Survey and Report	\$87,750
GIS Data Validation and Report	\$35,700
Traffic Studies	\$54,170
Data Accuracy Studies	\$124,380
Training	\$108,000
First PSAP Turn-Up	\$415,000
Last PSAP Turn-Up	\$415,000
State Acceptance Testing	\$415,000
MSAG Validation and Geo-Coding	\$150,000
Routing Based on X, Y Implementation	\$150,000
GIS-based MSAG Implementation	\$150,000
TOTAL	\$2,105,000



Tennessee's NG911 Experience

- Tennessee is transitioning its 911 architecture to NetTN, a secure, state-wide IP platform
- Approximate cost estimates:
 - \$50-\$60 million to deploy the system (not including local PSAP equipment)
 - \$16-16.5 million annually to operate the system
- Tennessee reports that it has been under budget every year since deployment began
 - FY 2011-2012, TN was over \$30 million under budget
 - This year, TN is about \$5 million under-budget



Tennessee's NG911 Experience

- Tennessee has deployed its Network Operations Center (NOC), is planning an updated location database, and is connecting the wireless carriers and PSAPs to its network
- As of April 2013:
 - 39 call centers have been connected to the infrastructure and are accepting live wireless 911 calls
 - 128 call centers had the equipment necessary to connect to the new NG911 infrastructure
- Tennessee plans to deploy a “text to 911” pilot during the second quarter of 2013 for consenting PSAPs operating on the NG911 network



Other State Examples

➤ Oregon:

- March 2011 L.R. Kimball study found that transitioning to NG911 in the state of Oregon would cost around \$18 million over a 3-year period
- Estimate includes equipment replacement, equipment upgrades, software, maintenance, etc.
- Costs for staffing were not included, as it was assumed full time employees would not be added

➤ Washington:

- In 2008, L.R. Kimball determined that the annual recurring costs for the statewide ESInet in Washington would be approximately \$12.9 million



For Further Information

- FCC 911 Webpage:
<http://www.fcc.gov/guides/wireless-911-services>
- FCC 2012 NET 911 Report:
<http://www.fcc.gov/document/annual-report-state-collection-and-distribution-911e911-fees>
- FCC 2011 NG911 Cost Study:
<http://www.fcc.gov/document/pshsb-next-generation-911-cost-study>
- FCC 2013 NG911 Regulatory Framework Report:
<http://www.fcc.gov/document/legal-and-regulatory-framework-ng911-services-report-congress>



For Further Information

- National 911 Program: <http://www.911.gov/>
Laurie Flaherty, Coordinator, Laurie.Flaherty@dot.gov
- Vermont Enhanced 911 Board: <http://e911.vermont.gov/>
- Tennessee 911 Board: <http://tn.gov/emergency/>
- Oregon Office of Emergency Management:
http://www.oregon.gov/OMD/OEM/pages/or911/911_program.aspx
- Washington Emergency Management Division:
http://www.emd.wa.gov/e911/e911_index.shtml

