Next Generation 911

Inter-Governmental Advisory Committee
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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
  - ESInet 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 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
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
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

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

For Further Information

  Laurie Flaherty, Coordinator, [Laurie.Flaherty@dot.gov](mailto:Laurie.Flaherty@dot.gov)


- Oregon Office of Emergency Management:  
  [http://www.oregon.gov/OMD/OEM/pages/or911/911_program.aspx](http://www.oregon.gov/OMD/OEM/pages/or911/911_program.aspx)

- Washington Emergency Management Division:  
  [http://www.emd.wa.gov/e911/e911_index.shtml](http://www.emd.wa.gov/e911/e911_index.shtml)