



# NG 9-1-1 Update

NPSTC Sept 29, 2016

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# Core Purposes of NG9-1-1

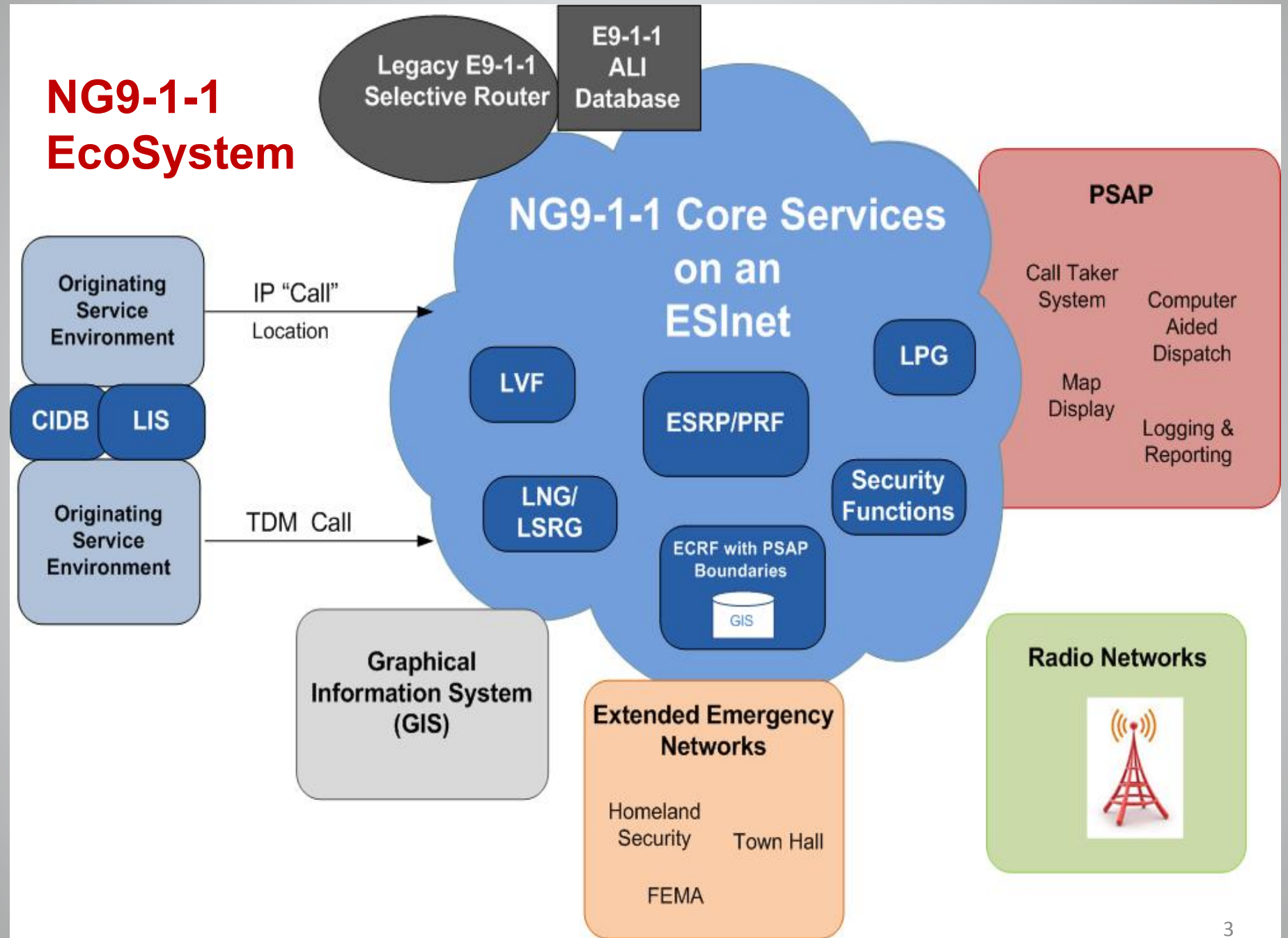
***Fully replace E9-1-1 while retaining the capabilities and functions in place today***

***Add capabilities to support changes for current and new types of Originating Service Providers***

***Add flexibility for PSAPs and 9-1-1 Authorities to manage calls, share costs and applications***

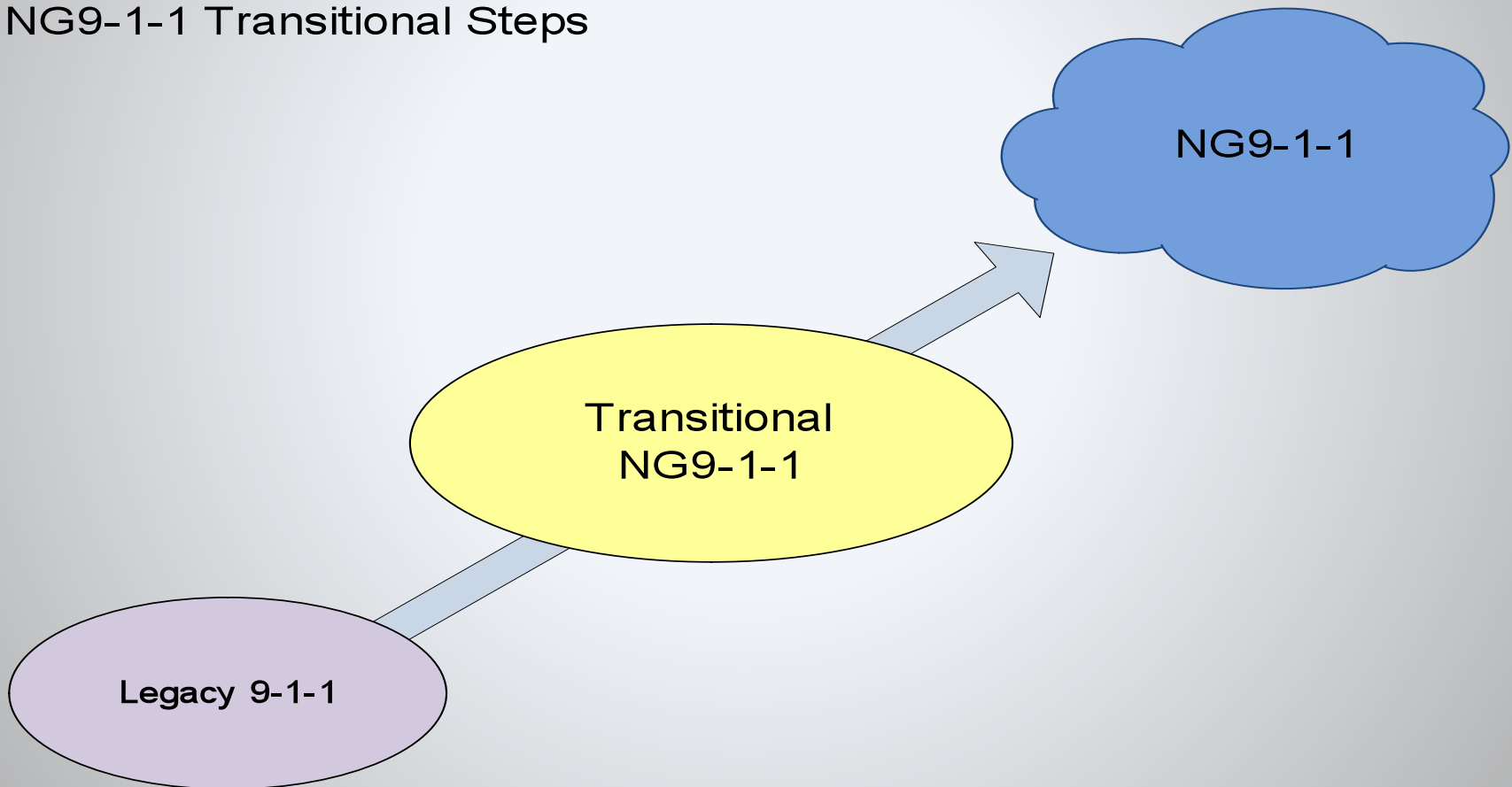
***Add capabilities to integrate and interoperate with emergency entities beyond the PSAP***

# NG9-1-1 EcoSystem

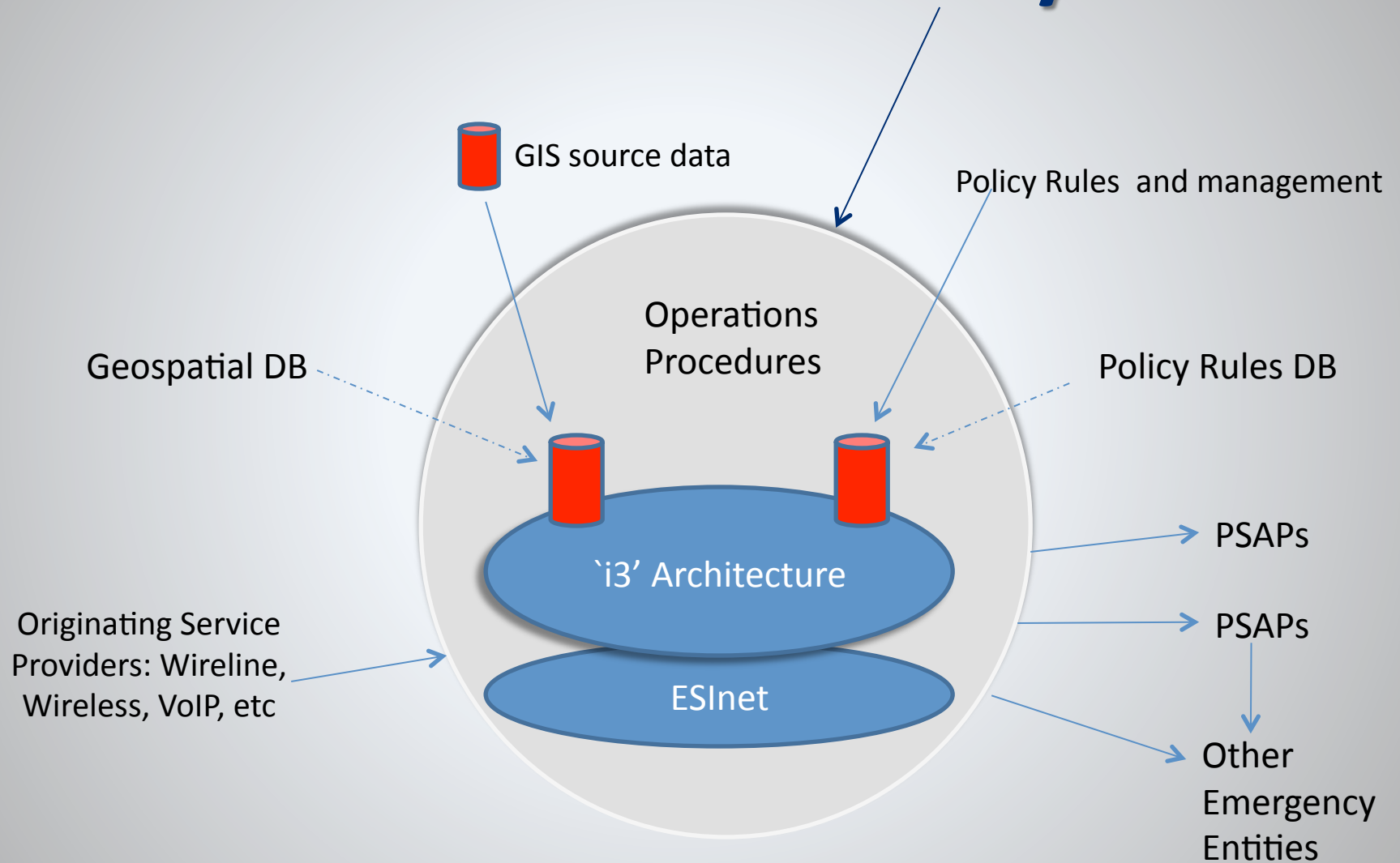


# NG9-1-1 Transition Steps

NG9-1-1 Transitional Steps



# NENA NG9-1-1 Core System



NG9-1-1, ESInet, and 'i3' are *not* equivalent terms !

# 9-1-1 Today & Tomorrow

<b>9-1-1 CAPABILITY</b>	<b>E9-1-1</b>	<b>NG9-1-1</b>
Voice Calls	Yes	Yes
Text/Multimedia/Sensors/IoT	No	Yes
Transfer Mis-Routed Calls	Limited Capability	Yes
Virtual PSAPs	Limited Capability	Yes
Additional Data	No	Yes*
Data Sharing across regions	No	Yes
Data Sharing with Responders	Limited Capability	Yes
Policy Based Call Routing	Managed by E9-1-1 SSP	Managed by 9-1-1 Authority
Location Delivered with Calls	No	Yes*
Standard IP Interfaces	No	Yes



\* These services require next generation originating networks as well as Next Generation 9-1-1

# ***NG9-1-1 DATA EVOLUTION***

- ***Some new data will naturally come into play as new service types appear***
- ***Each type of service may also involve additional optional data beyond what is naturally associated with that call type***
- ***Each 9-1-1 Authority will have to decide which optional additional data is to be used in the operations for their PSAPs***
  - ***And what training will be required to support it***

# ***NG9-1-1 NEW CAPABILITIES***

***NG9-1-1 allows for additional data to be acquired from multiple sources. Data can be used to identify initial responders for dispatch, make immediate notification to other agencies, provide information to help increase responder safety, and improve call processing***





# ***NG9-1-1 NEW CAPABILITIES***

***Examples of Additional Data include:***

***Caller Provided Medical Data***

***Floor Plans***

***Telematics***

***Fire Control Panels***

***Building/Fire Code Inspections***

***Hazardous Materials***

***Sensor Locations and Data***

***Historical Data***

***Surveillance Camera Locations***

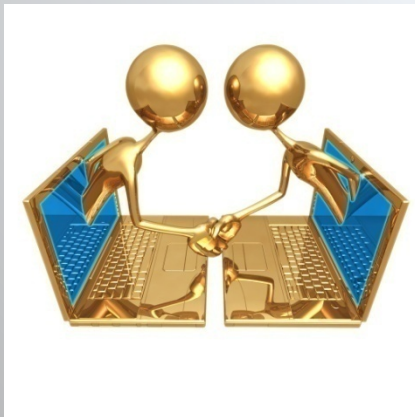
***Campus / Facility Layouts***



# ***NG9-1-1 NEW CAPABILITIES***

***Ability to transfer calls,  
with data, anywhere  
necessary***

***Increased interoperability  
between applications and  
organizations***



***Ability to share workload  
dynamically***

## ***NG9-1-1 NEW CAPABILITIES***

***Ability for call takers/dispatchers to work together from different physical locations (Virtual PSAP and Responder Broadband Networks)***



***More options for contingency planning / disaster recovery***

***Ability to collaborate with regional PSAPs and Standardize Training***

# *NG9-1-1 NEW CAPABILITIES*

## **Data Sharing & Situational**

**Sharing**



**Av**

**dat**

**management of  
large scale incidents**

**Increasing opportunities for mutual aid and  
PSAP collaboration/cooperation**

# *NG9-1-1 NEW CAPABILITIES*

## *What has to happen to realize these capabilities?*

- NG9-1-1 features able to support them must be installed
- Multimedia (beyond voice) will be a progression, as the Originating Service Providers develop the capability to bring text and video through their networks to NG9-1-1
- But – when it happens, it will happen fast ! Pent up demand
- NENA and Public Safety Authorities need plans and identified Transition steps to support changes when and as they occur
- Public Safety Authorities must be ready - don't be the roadblock

# **NG9-1-1 NEW CAPABILITIES**

## ***What has happened recently?***

- **2015 FCC TFOPA Report: NG9-1-1 and PSAP Optimization options and pros and cons**
- **2015 thru 2016: National 9-1-1 Office develops NG9-1-1 Maturity steps for NG9-1-1 Transition**
- **2016 TFOPA Task Force: Expand 2015 Report and provide planning methods at all levels of 9-1-1 Authorities, utilizes Maturity steps in an NG9-1-1 Readiness Checklist covering major facets of planning and implementation**
- **2016 CSRIC WG1: Identified and evaluated options to provide caller location based routing of 9-1-1 calls**
- **2014 thru 2016: Development of the National Emergency Address Database (wireless indoor location augmentation)**

# ***NG9-1-1 NEW CAPABILITIES***

## ***What has happened recently at NENA?***

- **Completion of NG9-1-1 Core Services Architecture v2 (i3)**
- **Development of NG9-1-1 RFP Guidelines**
- **Development of Emergency Incident Data Document (EIDD)**
- **Development of Monitoring and Managing NG9-1-1 Service and Systems documents**
- **Updating of PSAP 9-1-1 Operations Standards**
- **Development of NG9-1-1 System Operations Standards**
- **Several other Standards**

# Q & A





# Resources

- National Emergency Number Association (NENA) - *Next Generation 9-1-1 Project*: Detailed information on all aspects of NG9-1-1 can be found at <http://www.nena.org/ng911-project>.
- National Emergency Number Association (NENA) - *Funding 9-1-1 Into the Next Generation: An Overview of NG9-1-1 Funding Model Options for Consideration*, March 2007. <http://www.nena.org/sites/default/files/NGFundingReport.pdf>
- National Emergency Number Association (NENA) - *Next Generation Transition Planning Committee (NGTPC)*. Detailed information relating to NG9-1-1 system transition issues being developed by the NGTPC can be found at <http://www.nena.org/technical-committee/next-generation-transition-planning>
- National Emergency Number Association (NENA) – *Next Generation 9-1-1 Policy Implementation Handbook* - available on the NENA website
- National Association of State 9-1-1 Administrators (NASNA) - *Model State 9-1-1 Plan*, July 2008. [http://www.nena.org/sites/default/files/NASNA\\_Model%20State%209-1-1%20Plan.pdf](http://www.nena.org/sites/default/files/NASNA_Model%20State%209-1-1%20Plan.pdf)
- Texas Commission on State Emergency Communications (CSEC) - *Next Generation 9-1-1 Master Plan*, February 2009. [http://www.911.state.tx.us/files/pdfs/ng911\\_master\\_plan\\_feb\\_2009.pdf](http://www.911.state.tx.us/files/pdfs/ng911_master_plan_feb_2009.pdf)

# Resources

- U.S. Department of Transportation, Research and Innovative Technology Administration (RITA) - *Next Generation 9-1-1 Initiative*:  
[http://www.its.dot.gov/ng911/ng911\\_pubs.htm](http://www.its.dot.gov/ng911/ng911_pubs.htm)
  - *Next Generation 9-1-1 System Initiative Procurement Tool Kit*.  
[http://www.its.dot.gov/ng911/pdf/USDOT\\_NG911\\_Procurement\\_ToolKit\\_2009.pdf](http://www.its.dot.gov/ng911/pdf/USDOT_NG911_Procurement_ToolKit_2009.pdf)
  - *Next Generation 9-1-1 System Initiative - Final Analysis of Cost, Value, and Risk*.  
[http://www.its.dot.gov/ng911/pdf/USDOT\\_NG911\\_4-A2\\_FINAL\\_FinalCostValueRiskAnalysis\\_v1-0.pdf](http://www.its.dot.gov/ng911/pdf/USDOT_NG911_4-A2_FINAL_FinalCostValueRiskAnalysis_v1-0.pdf)
  - *Next Generation 9-1-1 System Initiative - Final System Design*.  
[http://www.its.dot.gov/ng911/pdf/USDOT\\_NG911\\_FINAL\\_System\\_Design.pdf](http://www.its.dot.gov/ng911/pdf/USDOT_NG911_FINAL_System_Design.pdf)
  - *Next Generation 9-1-1 System Initiative - Transition Plan*.  
[http://www.its.dot.gov/ng911/pdf/NG911\\_Transition\\_PlanFinal.pdf](http://www.its.dot.gov/ng911/pdf/NG911_Transition_PlanFinal.pdf)
  - *Next Generation 9-1-1 System Initiative - Proof of Concept Testing Report*.  
[http://www.its.dot.gov/ng911/pdf/NG911\\_POCTesTReport091708.pdf](http://www.its.dot.gov/ng911/pdf/NG911_POCTesTReport091708.pdf)