

State of 911

Webinar Series

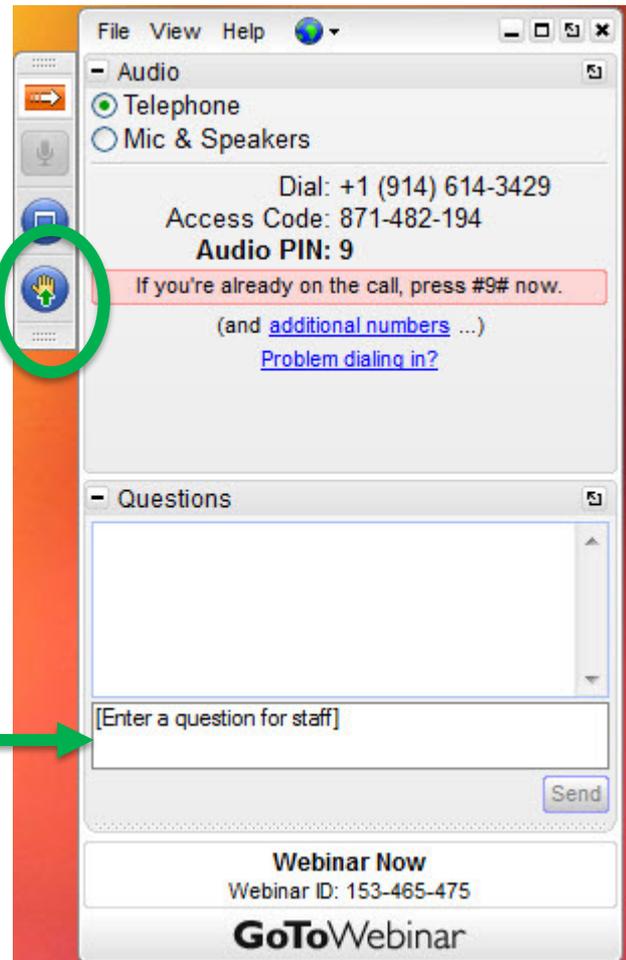
NATIONAL 911 PROGRAM
September 8, 2020

State of 911 Webinar Series

- Designed to provide useful information about Federal and State participation in the planning, design, and implementation of Next Generation 911 (NG911) coupled with real experiences from leaders overseeing these transitions throughout the country
- Webinars are typically held every other month and include presentations from a Federal-level 911 stakeholder and State-level 911 stakeholder, each followed by a 10-minute Q&A period
- For closed captioning, please copy and paste the URL link in the chat window to an additional web browser
- For more information on future webinars, to access archived recordings and to learn more about the National 911 Program, please visit 911.gov
- Feedback or questions can be sent to: National911Team@mcp911.com

Questions

Click on “Raise Hand” and your phone line will be unmuted.



GoToWebinar’s “Questions” feature located on the right-hand side of your screen.



The National 911 Program

NEXT GENERATION 911 INTERSTATE PLAYBOOK



**Implementing State-to-State 911 Connectivity:
Lessons Learned, Challenges, and Opportun**

*NG911 Technology Maturation, What NG911 Is and Is Not,
State-to-State Interconnection Considerations, GIS Policy and St
Interim SMS Text to 911 Implementation Considerations*

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Interstate Playbook

The National 911 Program

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Chapter 4



**Implementing State-to-State 911 Connectivity:
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Statute Review for NG911 Readiness*

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NG911 Interstate Playbook - Purpose & Scope

Playbook Chapters 3 & 4 ARE intended to:



Inform



Motivate



Provide guidance



Encourage
collaboration

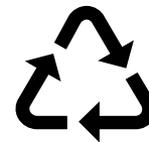
Playbook Chapters 3 & 4 are NOT intended to:



Be a formula
approach



Recreate the wheel



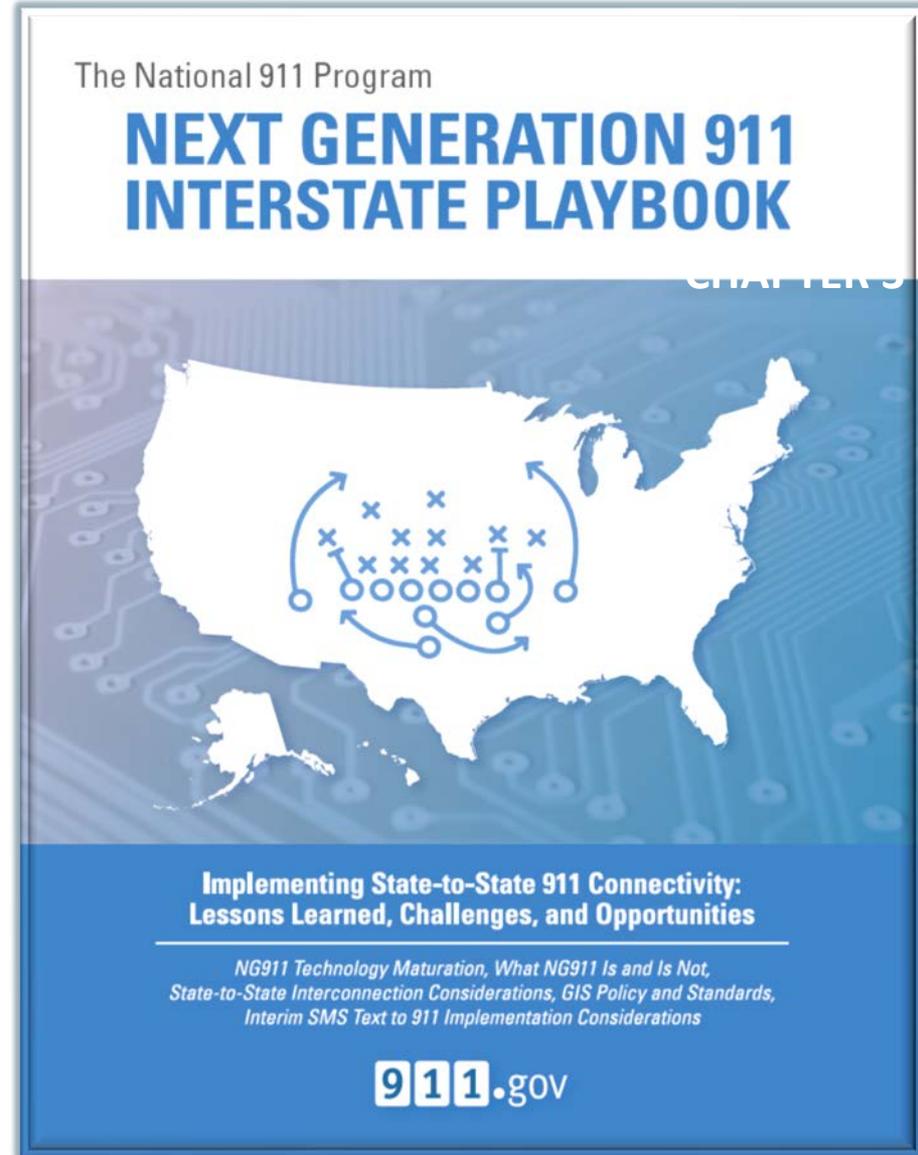
Be required or
mandatory

SPEAKERS

- **Steve McMurrer**
911 System Administrator, Fairfax County, Virginia
- **Karima Holmes**
Director, Office of Unified Communications, Washington, D. C.
- **David Mulholland**
Administrator, Arlington County Emergency Communications Center,
Arlington, Virginia
- **Tony Rose**
Deputy Director, Charles County, Dept. of Emergency Services,
Charles County, Maryland; Chair, MWCOCG 911 Director's
Committee

What's included in Chapter 3....

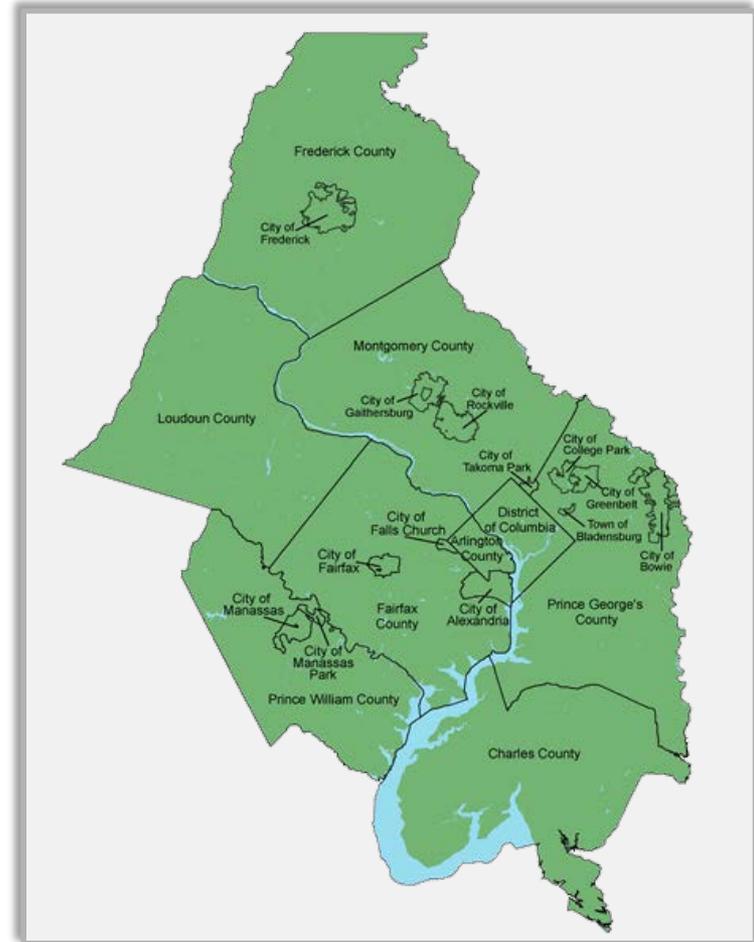
- Starting with “WHY”
- Challenges of collaborative approaches
- Coordinated statewide purchasing with local requirements
- Benefits of coordinated and integrated systems
- How to get your state or region involved
- How the Interstate Playbook can guide



Multi-jurisdictional Collaboration

Starting with WHY

- Mutual need/shared vision
- Independent but rely on each other
- It's our response DNA
- It's our history



Collaboration Creates Energy

- Collective wisdom
- Group voice
- Funding and grants use
- Synergy



Informed Decision-Making

Communicate

Coordinate

Collaborate

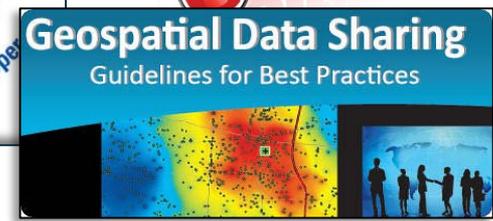
- Inclusion of all stakeholders
- Communication
- Timely and regular updates on project status
- Manage expectations
- Interagency Cooperative Agreements

MWCOG Member Jurisdiction	NCR	PSAP & 911 Directors Committee Member
District of Columbia	X	X
Town of Bladensburg	X	
City of Bowie	X	
City of College Park	X	
Charles County		X
City of Frederick		
Frederick County		X
City of Gaithersburg	X	
City of Greenbelt	X	
City of Hyattsville	X	
City of Laurel	X	
Montgomery County	X	X
Prince George's County	X	X
City of Rockville	X	
City of Takoma Park	X	
City of Alexandria	X	X
Arlington County	X	X
City of Fairfax	X	
Fairfax County	X	X
City of Falls Church	X	
Loudoun County	X	X
City of Manassas	X	X
City of Manassas Park	X	X
Prince William County	X	X
Metropolitan Washington Airport Authority (MWAA)		X

Shared Purpose/Shared Vision

Commit to Standards

- Network and system security
- Network management and integrity of service
- Technical and operational standards for interoperability and mutual aid
- GIS and data sharing



Effective Procurement Practices

Procurement Lead

- Lead agency
- All entities collaborate on general text
- Individual requirements



**FAIRFAX
COUNTY**

DEPARTMENT OF PROCUREMENT & MATERIAL MANAGEMENT
12000 GOVERNMENT CENTER PARKWAY, SUITE 427
FAIRFAX, VIRGINIA 22035-0013

www.fairfaxcounty.gov/dpmm

VIRGINIA

TELEPHONE: (703) 324-3201 FAX: (703) 324-3228 TTY: 1-800-828-1140

ISSUE DATE: August 26, 2016	REQUEST FOR PROPOSAL NUMBER: RFP2000002010	TITLE: Next Generation Core Services Solution (NGCS)
DEPARTMENT: Public Safety Communications (DPSC)	DUE DATE/TIME: November 4, 2016 at 2:00 P.M. EST	CONTRACT SPECIALIST: Jamie Pun; ji.pun@fairfaxcounty.gov or 703-324-3653

Proposals - In accordance with the following and in compliance with all terms and conditions, unless otherwise noted, the undersigned offers and agrees, if the proposal is accepted, to furnish items or services for which prices are quoted, delivered or furnished to designated points within the time specified. It is understood and agreed that with respect to all terms and conditions accepted by Fairfax County the items or services offered and accompanying attachments shall constitute a contract.

Note: Fairfax County does not discriminate against faith-based organizations in accordance with the Code of Virginia, § 2.2-4343.1 or against a bidder or offeror because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment in the performance of its procurement activity.

NAME AND ADDRESS OF FIRM:

Telephone/Fax No.:

E-Mail Address:

Federal Employer Identification No or

Federal Social Security No (Sole Proprietor)

Prompt Payment Discount: ___% for payment within ___ days/net ___ days

State Corporation Commission (SCC) Identification No.

By signing this proposal, Offeror certifies, acknowledges, understands, and agrees to be bound by the conditions set forth in the General Conditions and Instructions to Bidders as described in Appendix A, the Certification Regarding Ethics in Public Contracting set forth in Appendix B, and by any other relevant certifications set forth in Appendix B.

BUSINESS CLASSIFICATION – Described in Appendix B - CHECK ONE: LARGE (Y) SMALL (B)

MINORITY-OWNED SMALL (X) MINORITY OWNED LARGE (V) WOMEN-OWNED SMALL (C)

WOMEN OWNED LARGE (A) NON PROFIT (9)

CHECK ONE: INDIVIDUAL PARTNERSHIP CORPORATION

State in which Incorporated: _____

Vendor Legally Authorized Signature

Date

Print Name and Title

Sealed proposals subject to terms and conditions of this Request for Proposal will be Agent at 12000 Government Center Parkway, Suite 427, Fairfax, Virginia 22035-0013

AN EQUAL OPPORTUNITY PURCHASING ORGANIZATION

(DPSM32) rev 08/2013



National Capital Region NG911 Timeline



May
2015



Assessment of local network for potential use as ESInet

NG911 RFI Released



June
2015

July
2015



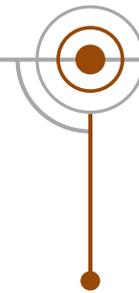
Vendor Due Diligence Meetings

Regional GIS Data Assessments



Fall
2015

Feb
2016

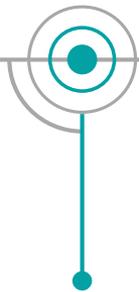


Spatial Interface Data Development (2 years)

National Capital Region NG911 Timeline



Feb
2016



NG911 RFP
Requirements
Development Begins

NG911/ESInet RFP
Released



Aug
2016

Dec
2016



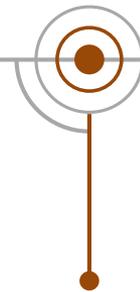
NGCS Vendor
Proposals
Submitted

Vendor Proposal
Oral Presentations



Mar
2017

June
2017



Creation of Regional
NG911 MOU

National Capital Region NG911 Timeline



Aug
2017



Contract Award
to AT&T

Fairfax County Live
i3 Routing



June
2020

Aug
2020



Loudoun County
Live i3 Routing

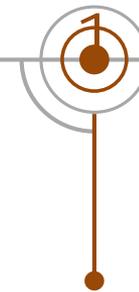
Fauquier County
Cutover Scheduled



Sept
2020

Estimated Completion
for Contracted
Jurisdictions

Q2'2



Lessons Learned

Lessons help us improve our ability to achieve successful migration to NG911!

When the 911 community learns from the experiences of others, it can tell a stronger story when justifying funding and planning needs and identifying technical 911 system requirements



The Metropolitan Washington Council Of Governments Experience



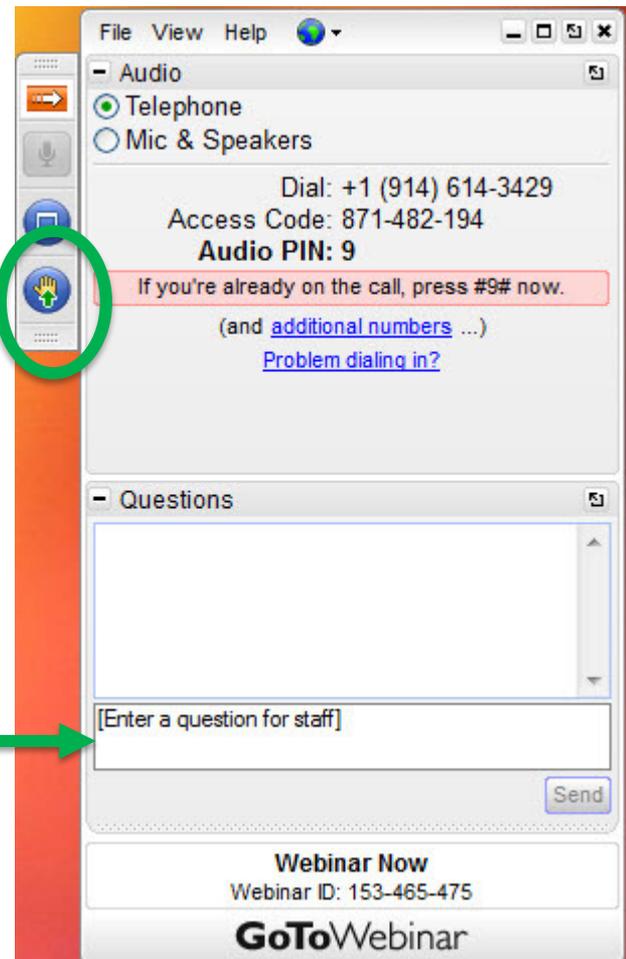
Questions ??

“We have to do this . . . defeat is not an option.”

-Tony Rose, Deputy Director, Charles County Department of Emergency Services, 911, and Chair MWCOG 911 Directors Committee

Q & A Period

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SPEAKERS

- **Blake DeRouchey**
NG911 Program Manager
State of Iowa
- **Jason Horning**
NG911 Program Manager
North Dakota Association of Counties
- **Dana Wahlberg**
Director, Emergency Communications Networks, Division of Public Safety
State of Minnesota
- **Maria King**
911 Coordinator
State of South Dakota

CHAPTER 4

What you will learn:



NG911 migration - what to expect



Cross jurisdictional GIS Coordination



Interstate Cooperative Agreements



Legislative readiness



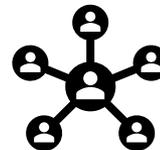
Unregulated costs issues



State to State call transfers



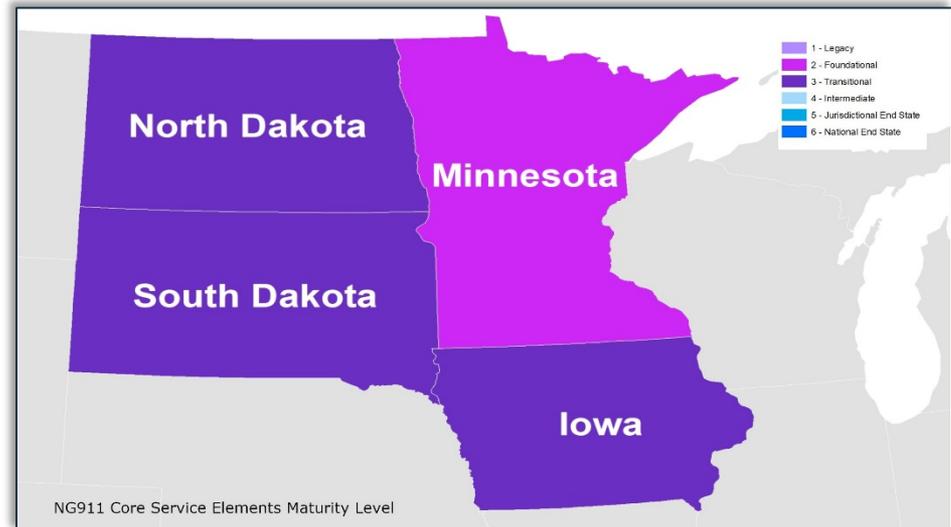
Selective router migration process and timeline



What a Forest Guide means to NG911 implementation

NG911 Maturity Level Status and Progression

- Tracking Migration Progress
 - Governance
 - NG911 Core Services Maturity
 - Network Migration
 - Security
 - GIS
 - Routing / Location
 - Operational
 - Call Handling

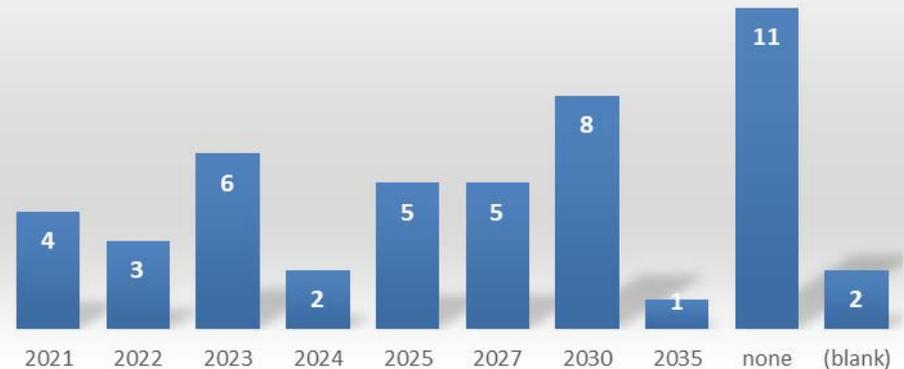


Legacy Network Migration

Transitioning from Legacy Selective Router

- **Playbook states**
 - Iowa
 - Minnesota
 - North Dakota
 - South Dakota
- **All states**

Selective Router Transition
Estimated Schedule Nationwide



The Iowa Migration Experience

Challenge #1: Transition Costs

- Ability to substantiate, validate and determine reasonableness of costs.
- Deregulated wireline service makes it difficult, if not impossible, to validate against reasonable parameters.
- Sometimes limited support from PUCs

Challenge #2: Authority to establish most desirable design

- The state's right to design the most appropriate network for their needs is compromised, adding unnecessary cost and implementation delays. (POI, how to handle ALL, etc)

Challenge #3: Unanticipated changes impact resources and timelines

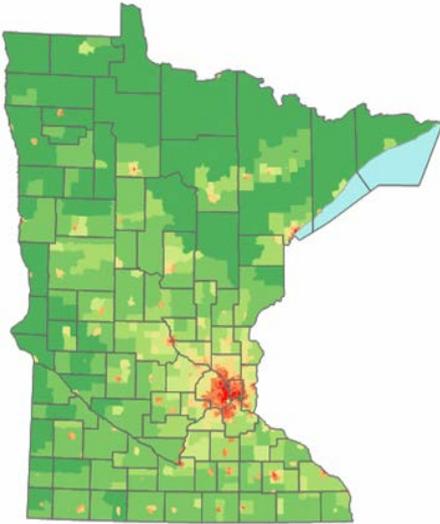
- Withdrawal of service offering meant additional costs, challenged resources, and increased transition timeframes.
- Additional data validation work might not be mandatory but necessary.
- Resource challenges at all levels impact timelines.

Challenge #4: Other challenges

- Pandemic challenges interfered with progress of the transition as resources were diverted to address issues of COVID-19 response at the state, national, and provider level.
- Weather related events
- Ability of providers to respond to changing requirements



The Minnesota Migration Experience



Challenge #1: Procurement process vs. 911 requirements

- Understand network requirements.
- Technical expertise is needed.
- Highly complex and tailored services, not off the shelf.

Challenge #2: Legislative Readiness

- Assessment of current statutes.
- Consult guidelines and best practices.

Challenge #3: Aggregation and coordination management

- Aggregation services add a level of complexity to the management of the service.
- Multiple legacy networks.
- Multiple LATA connections.

Challenge #4: Other Factors

- Diversion of resources.
- Staff turnover.

Legislative Readiness

LEGISLATIVE REVIEW
Conducted: <date>
By:

1. Legislative Guidance Pertaining to Governance and the Establishment of Authorities

GUIDANCE	QUESTIONS TO ASK DURING REVIEW	REVIEW & REFERENCE
General		
1	<ul style="list-style-type: none"> Read/review current legislation and rules Understand NG 911 Migration Plan for the State Read and understand federal laws Understand legislative process and statutes Understand composition of legislative body, priorities, committees that will hear the legislation, the chairs of those committees Understand budget timeline and funding process 	
2	<ul style="list-style-type: none"> Definitions 	List all definitions included in statute that contain legacy language to evaluate changes needed for NG911
Governance & State Level Authority		
29	<ul style="list-style-type: none"> Legislation speaks to 911 as an "Essential Government Service" 	Does language already exist in statute? If not consider if it is appropriate to do so in your state?
30	<ul style="list-style-type: none"> The establishment of a state-level authority (referred to throughout) 	Does the state 911 program have the authority in statute

1



GUIDELINES FOR STATE NG911

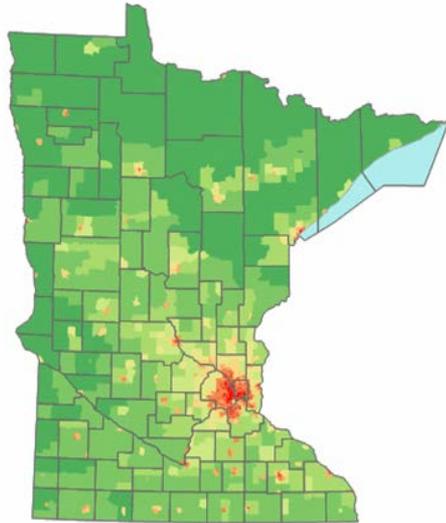
Legislative Language

Examples and options for legislative language that facilitates the deployment of NG911

VERSION 2.0 | 2018

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The Minnesota Migration Experience



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Lab to Lab Testing of Disparate Services

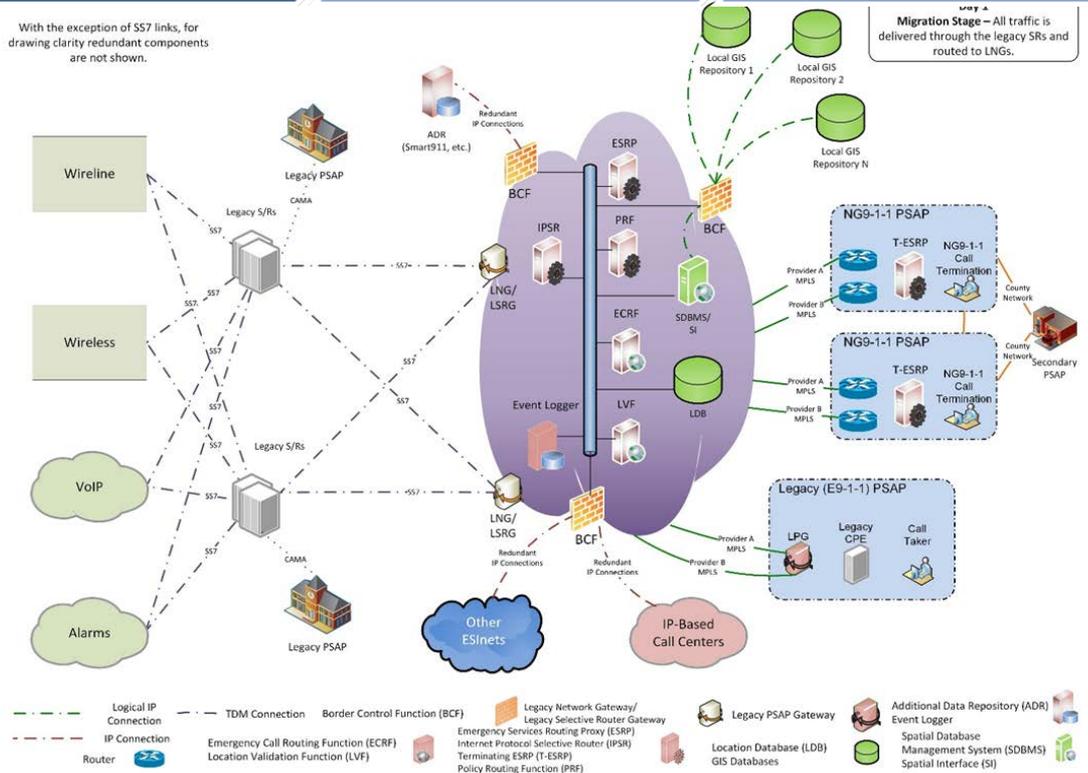
Establish a Non-Disclosure Agreement

Exchange Interface Specifications

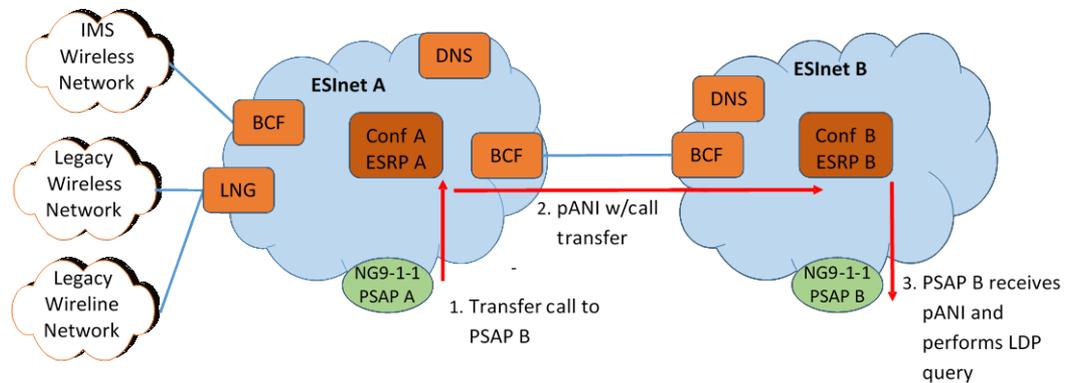
Develop Test Cases

With the exception of SS7 links, for drawing clarity redundant components are not shown.

Migration Stage – All traffic is delivered through the legacy SRs and routed to LNGs.

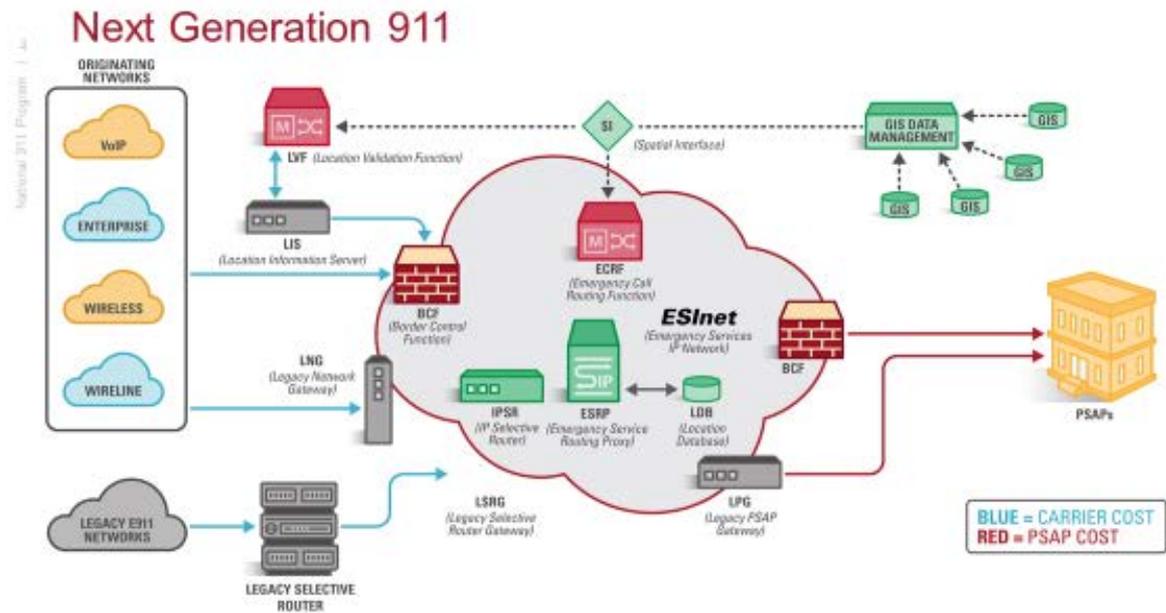


Lab to Lab Testing of Disparate Services



Controlling Migration Costs

- Limited ability to validate costs
- Deregulation
- Tariffs non-existent
- Determining POI



Lessons Learned

Lessons help us improve our ability to achieve successful migration to NG911!



Guides, Samples, Templates and References

Support References and Recommended Reading

NENA Requirements for a National Forest Guide Information Document, NENA-INF-009.1-2014 08/14/2014 <https://www.nena.org/page/Standards> <https://www.nena.org/page/NatForestGuide>

RFC5582 Location-to-URL Mapping Architecture and Framework: <https://tools.ietf.org/html/rfc5582>

NENA 08-003 v1: Detailed Functional and Interface Specification for the NLNA i3 Solution –Stage 3” ; https://www.nena.org/page/i3_Stage3

To better understand the technical characteristics of a FG, the reader is encouraged to read the following 345 documents:

[1] LoST: A Location-to-Service Translation Protocol, T. Hardie et al., Internet Engineering Task Force, RFC5222 348 <https://tools.ietf.org/html/rfc5222>

[2] Location to URL Mapping Architecture and Framework, H. Schulzrinne, Internet Engineering Task Force, RFC5582 <https://tools.ietf.org/html/rfc5582>

[3] NENA 08-003v1. “Detailed Functional and Interface Specification for the NENA i3 Solution 5.13.3, page 187

[4] Synchronizing Service Boundaries and <mapping> Elements Based on the Location to Service Translation (LoST) Protocol, H. Schulzrinne, M. Tschofenig, Internet Engineering Task Force, RFC5739 <https://tools.ietf.org/html/rfc5739>

WBS	Legacy Selective Router Migration Project Plan
1	Circuit order writing and data collection
2	Circuit ordering and setup
3	Interoperability agreements with the carriers (if modification needed)
4	Circuit ordering process
5	Circuit installation and pre-production
6	Develop MOP for transitioning circuit
7	Pre-production call flow testing
8	Cut circuit into production
9	Hotwash

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STATE or AGENCY LETTERHEAD

DATE

Letter of Agency – Authorization to Access Telephone Provider Records

By signing this letter below, I am giving authorization to <Delegated Authority Name> to (a) access any and all customer service records, account information, ESN's, contracts, long distance carrier information, pending order activity and/or any other information relevant to local or long distance

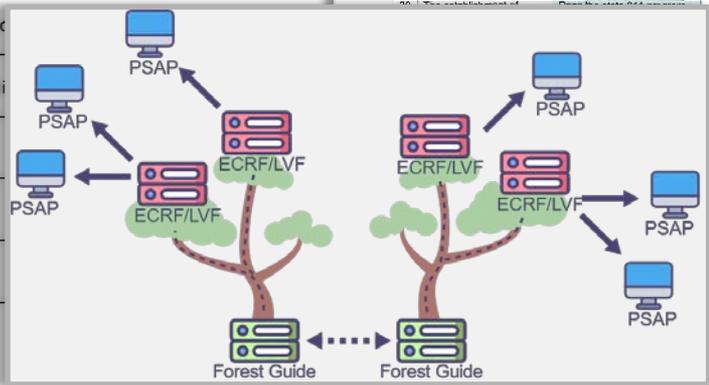
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30. The establishment of	Does state of		



For additional information and resources please visit:

www.911.gov



Future Webinars

- Tuesday, November 10, 2020
- To register, visit:
<https://attendee.gotowebinar.com/register/8495593598854798605>
- Previous State of 911 webinars are available at:
www.911.gov/webinars.html

National 911 Program

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202-366-2705
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- Feedback or questions can be sent to:
National911Team@mcp911.com