

Nebraska Public Service Commission



Nebraska Public Service Commission 9-1-1 Service System Plan

Progress Report for the Nebraska Appropriations Committee and
the Transportation and Telecommunications Committee—
February 1, 2017



MissionCriticalPartners

502 N. Carroll Avenue, Suite 120 | Southlake, TX 76092 | 888.8.MCP.911 or 888.862.7911 | www.MCP911.com



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1. INTRODUCTION

Section 27 of Nebraska Legislative Bill 938 (LB938) states that the Nebraska Public Service Commission (NPSC or Commission), working with the State 9-1-1 Director, shall develop a plan for a 9-1-1 service system¹ (the Plan, also referred to as the Master Plan). Mission Critical Partners, Inc. (MCP) has been retained by the NPSC to support development of the Plan. LB938 establishes several requirements for the Plan, at a minimum:

- The Plan shall define the NPSC's role as the statewide coordinator of the 9-1-1 service system
- The Plan shall recommend the optimal number of Next Generation 9-1-1 (NG9-1-1) capable Public Safety Answering Points (PSAPs) within the state
- Costs associated with the implementation and estimated ongoing operations of the State of Nebraska's (State) 9-1-1 service system shall be documented
- Recommendations shall be provided to the Legislature for cost recovery of the implementation, operation and maintenance of the 9-1-1 service system
- At least two public hearings shall be held, the first at least 90 days prior to the Plan's adoption by the NPSC, and the second at least 30 days prior to adoption
- Once adopted by the NPSC, the Plan shall be presented to the Appropriations and Transportation and Telecommunications committees of the Legislature no later than December 1, 2017
- The Plan shall recommend any additional legislation required to implement the 9-1-1 service system

To comply with LB938, the proposed Plan must be developed according to specific timeline milestones. The first is this progress report, which is due to the Appropriations and Transportation and Telecommunications committees no later than February 1, 2017.

2. NEBRASKA PUBLIC SERVICE COMMISSION

The NPSC has taken proactive steps to quickly create and staff a team to support the directives of LB938, which states that the Commission shall serve as the statewide coordinating authority for the implementation of the 9-1-1 service system. This team specifically will support activities intended to transition from the existing Enhanced 9-1-1 (E9-1-1) system(s) in the state to NG9-1-1.

The team staffed by the Commission and focused on Nebraska NG9-1-1 includes:

- Dave Sankey—State 9-1-1 Director
- Troy Cordle—9-1-1 Field Coordinator
- Deb Collins—Public Information Coordinator

¹ http://www.nebraskalegislature.gov/bills/view_bill.php?DocumentID=28380



- Kea Morovitz—9-1-1 Geographic Information System (GIS) Specialist
- Matt Effken—Attorney

3. PROJECT APPROACH AND PROGRESS

3.1. STAKEHOLDER ENGAGEMENT

Sections 24-25 of LB938 established baseline requirements for engaging stakeholders. Section 24 states: “Stakeholder means a public safety answering point, a public safety agency, and any person, organization, agency of government, originating service provider, or other organization that has a vital interest in the 911 service system.”

Section 25, paragraph 4, requires the NPSC to consult with, and seek advice from, Nebraska stakeholders including, at a minimum:

- Public Safety Answering Points (PSAPs)
- Public safety agencies
- Originating service providers, including at least one representative from:
 - A wireline local exchange service provider
 - A wireless provider
 - An interconnected Voice over Internet Protocol (VoIP) service provider
- Municipal and county officials
- The State’s Chief Information Officer

The NPSC NG9-1-1 staff has developed a strategy focused on stakeholder engagement. The objective of the Commission is to facilitate plan development in an atmosphere of transparency serving as the coordination point for all State stakeholders.

To support the Commission and their stated objectives MCP has developed an approach that encourages a collaborative environment combining NPSC leadership and coordination, with subject-matter expertise of the MCP team and Nebraska stakeholders. This process began in September 2016 with a series of meetings that allowed stakeholders to meet with NPSC and MCP staff in an initial one-on-one setting, to promote open dialog on specific stakeholder perspectives related to 9-1-1 service in Nebraska. Table 1 below identifies the Nebraska stakeholders engaged in this process.

Table 1: Nebraska Stakeholder Engagement

Name	Organization/Department	Stakeholder Group Represented
Dave Sankey	Nebraska Public Services Commission (NPSC)	NPSC
Lynn Rex	League of Municipalities	NE municipalities



Name	Organization/Department	Stakeholder Group Represented
Larry Dix	Nebraska Association of County Officials	NE counties
Bob Wilhelm	Nebraska Office of the Chief Information Officer	Office of the Chief Information Officer
Neil Miller	Buffalo County Sheriff	NE Sheriffs' Association, PSAPs
Shelly Holzerland	Nebraska Emergency Services Communications Association	PSAPs
Tom Casady	Public Safety Director, Lincoln, NE	Chiefs of police, PSAPs
Jerry Stilmock	Nebraska Volunteer Firefighters Association	Volunteer firefighters
Stanley Shearer	Omaha Fire Department Information Technology Division	Sworn firefighters
Bill Mizner	Norfolk Police Department	Nebraska Police Chiefs Association, PSAPs
Caleb Johnson	Keith County Commissioner	County officials
Mary Ann Borgeson	Douglas County Commissioner	County officials
Lash Chaffin	League of Municipalities	NE municipalities
Joselyn Luedtke	Verizon Wireless	Wireless service providers
Jim Ediger	Hamilton Telecommunications	Wireline service providers
Brad Moline	ALLO Communications	VoIP service providers

Development of the Plan will involve the continual engagement of Nebraska stakeholders through a recurring series of meetings. The meeting series is designed to provide stakeholders with an overview of each section of the Plan, and to provide a two-week period for stakeholder comments and questions.

This approach promotes stakeholder active participation and understanding of each individual section of the Plan and provides a method for stakeholder feedback throughout development of the Plan. The planned meeting series also accounts for a review by identified stakeholders following both planned public hearings.

The meeting series was initiated with an onsite kickoff in Lincoln, Nebraska, on December 1, 2016, at the Nebraska Association of County Officials offices. Figure 1 below provides the meeting schedule being executed to support development of the Plan.

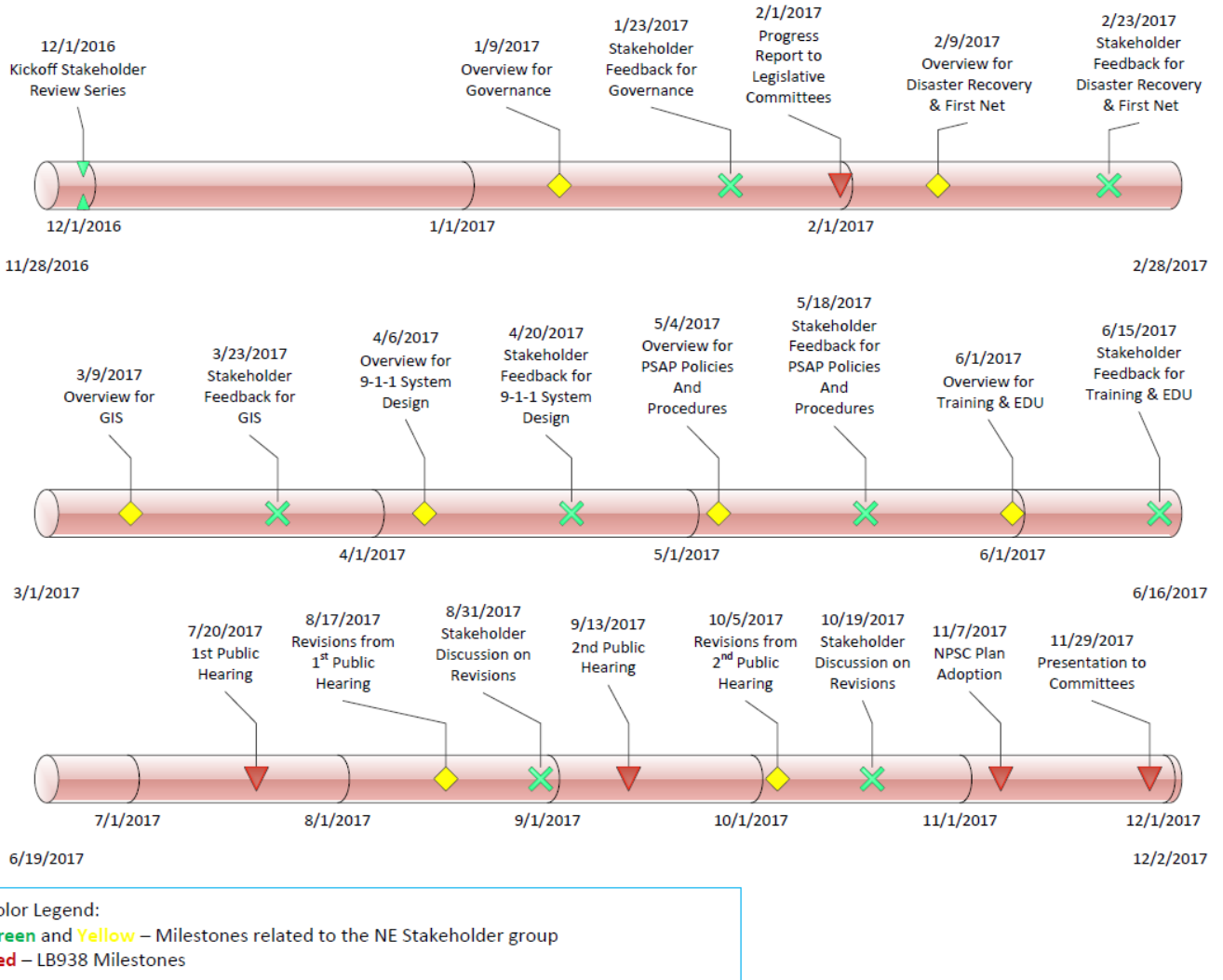


Figure 1: Stakeholder Engagement Series

In addition to the recurring review series by Nebraska stakeholders, the Commission is establishing several other stakeholder engagement initiatives including:

- Presentations – The Commission has developed and presented overview material for LB938, the intended role of the NPSC as Statewide coordinator, and NG 9-1-1 at multiple State conferences for professional organizations as public outreach and education.
- Social Media – The Commission has established social media feeds for Nebraska stakeholders through Twitter and Facebook.
- Accessible Information – The Commission has established an online repository for participants following the development of the Plan to review material and content as it is developed and reviewed by the stakeholder group.



- GIS Blog – The Commission will be facilitating a GIS forum/message board for local GIS entities to reference for frequently asked questions and exchange information specifically related to preparing for NG9-1-1.

3.2. FUNDING

There are costs associated with migrating legacy systems to new technology, and Nebraska's migration from E9-1-1 to NG9-1-1 will be no exception. Accordingly, LB938 identifies the key funding requirements that must be developed within the Plan. MCP will provide recommendations regarding these funding requirements that are based on industry best practices and standards.

Section 27(2)(a) of the LB938 states that the costs associated with the implementation and estimated ongoing operation and maintenance of the 9-1-1 service system shall be detailed. The Plan will evaluate current revenue sources related to 9-1-1 service in Nebraska and provide a recommended approach for a cost-effective plan.

Through the course of stakeholder interviews, MCP has noted that the proposed Plan shall not depend on additional funding or recommend the use of Nebraska State General Funds to complete implementation of the Plan. However, the Plan shall consider existing revenue streams and document how those can be leveraged in the implementation of such a plan.

MCP anticipates some amount of Federal support becoming available in 2017 and the plan will include a review of potential funding from that source and a strategy for accessing such funds in addition to existing revenue streams.

3.3. GIS DEVELOPMENT

Geographic Information Systems (GIS) data is the foundation for NG9-1-1 and the completed plan will outline the overall strategy and recommendations related to GIS. The Commission is coordinating efforts with the PSAPs to improve the accuracy of the GIS data available today in preparation for NG9-1-1.

To facilitate the stakeholder understanding of GIS requirements the Commission has hosted a Statewide webinar to outline the key components counties should focus on as they perform routine GIS data and maintenance. Ensuring local stakeholders understand and focus on these components of their data during recurring maintenance will ensure readiness when the time comes for the transition to NG9-1-1, the goal will be compliance across the State with the National Emergency Number Association (NENA) requirement of 98% accuracy for:

- Street Centerline Data



- PSAP Boundary Data
- Emergency Services Boundary Data

4. STATUS OF PLAN DEVELOPMENT

4.1. INITIATION

MCP began stakeholder engagement in September 2016 and has proposed a continual outreach process to engage stakeholders throughout the Plan development.

The Service System Act establishes the Commission as the Statewide implementation and coordinating authority. MCP agrees the NPSC should serve as the Statewide coordination point for the for development and implementation of the System Service Plan.

4.2. PLAN DEVELOPMENT

Any plan for implementing NG9-1-1 requires focus in key areas; accordingly, the Nebraska Master Plan will be divided into the following sections:

- Governance
- NG9-1-1 System Design
- GIS
- Cost/Cost Recovery
- PSAP Policies and Procedures
- Training and Education
- Disaster Recovery
- First Responder Network Authority (FirstNet) Considerations

The development of the Plan in these areas will support the requirements of LB938 and provide recommendations for execution by the Commission.

Working with the Commission and Nebraska stakeholders MCP has begun development of the plan and has draft content for all sections prepared for stakeholder review and comment through the recurring meeting series outlined earlier in this document. The first topic, governance, was introduced to stakeholders on January 9, 2017. Stakeholder feedback was received in the second session for governance on January 23, 2017.

Appendix A of this document provides Committee members with an initial draft of the Plans outline to understand how the content will be presented. This outline and content developed to date is in draft format and will likely change throughout the process of Plan development but shown here as an initial view to the document format.



4.3. PUBLIC HEARINGS

In addition to the stakeholder engagement process and meeting series executed and delivered during Plan development, MCP has included the two required public hearings in the Plan development timeline.

Following each public hearing, MCP has planned for a review period by the identified stakeholder groups to discuss any items brought forward through public comment, and to discuss potential changes to the Master Plan at that point.

4.4. NEBRASKA PUBLIC SERVICES COMMISSION REVIEW AND ADOPTION

The Plan in its final format will provide the Commission with actionable steps to facilitate the coordination of NG9-1-1 for Nebraska and shall not imply or provide the Commission with any additional authority not already defined through existing law, including, but not limited to, regulatory authority over originating service providers.

Following the public hearings, the Plan will be presented to the Commission for consideration and adoption. Presently, MCP is forecasting delivering the Plan to the Commission on October 25, 2017, for review and consideration.

4.5. PLAN PRESENTATION

The final phase of the Plan development is a presentation to the Appropriations and Transportation and Telecommunications committees. MCP is projecting that the Plan will be ready for electronic submission and subsequent presentation to these committees by November 28, 2017.



Appendix A – Nebraska 9-1-1 System and Service Plan

1. BACKGROUND

2. MASTER PLAN DEVELOPMENT

2.1. MASTER PLAN PROGRESS EVALUATION

2.1.1. *Tracking Progress and Ensuring Successful Outcomes*

3. 9-1-1 SYSTEM DESIGN

3.1. INTRODUCTION

3.2. KEY FINDINGS

3.3. NETWORK FACILITIES AND SERVICES

3.3.1. *Data Centers*

3.3.2. *Common Network and Application Design Criteria*

3.4. OPTIONS FOR CONSIDERATION

3.4.1. *Option 1—Statewide Fiber-Optic Ring Network*

3.4.2. *Benefits and Drawbacks*

3.4.3. *Option 2—Interconnected Regional Fiber-Optic Networks*

3.4.4. *Benefits and Drawbacks*

3.4.5. *Option 3—Hybrid Network*

3.4.6. *Benefits and Drawbacks*

3.4.7. *Option 4—Complete Managed Service, CPE and Network*

3.4.8. *Benefits and Drawbacks*

3.4.9.

3.5. OTHER CONSIDERATIONS

3.5.1. *Network Infrastructure and Services Monitoring*

3.6. RECOMMENDATIONS

3.7. ACTIONABLE STEPS

4. GEOGRAPHIC INFORMATION SYSTEM (GIS)

4.1. KEY FINDINGS

4.2. OPTIONS FOR CONSIDERATION

4.2.1. *GIS Data Analysis*

4.2.2. *GIS Implementation*

4.2.3. *Nebraska Standard Operating Procedures (SOPs)*

4.3. RECOMMENDATIONS

4.3.1. *GIS Data Analysis*

4.3.2. *GIS Implementation*

4.3.3. *Nebraska Standard Operating Procedures (SOPs)*

4.4. ACTIONABLE STEPS

4.4.1. *GIS Data Analysis*



- 4.4.2. *GIS Implementation*
- 4.4.3. *Nebraska Standard Operating Procedures (SOPs)*

5. GOVERNANCE

5.1. KEY FINDINGS

5.2. OPTIONS FOR CONSIDERATION

5.2.1. *State-Level Interworking*

- 5.2.1.1. *Establishment of a Advisory Committee*
- 5.2.1.2. *Establishment of a Governance Plan*
- 5.2.1.3. *Creation of a Change Management Plan*
- 5.2.1.4. *Creation of a Transitional Communications Plan*
- 5.2.1.5. *Cost Allocation Plan and Cost Recovery*

5.2.2. *Regional*

5.2.3. *PSAP*

5.3. RECOMMENDATIONS

5.3.1. *State-Level Interworking*

5.3.2. *Regional*

5.3.3. *PSAP*

5.4. ACTIONABLE STEPS

5.4.1. *State-Level Interworking*

5.4.2. *Regional*

5.4.3. *PSAP*

6. TRAINING AND EDUCATION

6.1. KEY FINDINGS

6.2. CONSIDERATIONS

6.2.1. *Standard Training Requirements and Mandatory Statewide Telecommunicator Certification Program*

6.2.2. *Training Sources and Content*

6.2.3. *Training Requirement for Executives and Support Staff*

6.3. RECOMMENDATIONS

6.3.1. *Standard Training Requirements and Mandatory Statewide Telecommunicator Certification Program*

6.3.2. *Training Sources and Content*

6.3.3. *Training Requirement for Executives and Support Staff*

6.4. ACTIONABLE STEPS

6.4.1. *State Level*

6.4.2. *Advisory Committee Level*

6.4.3. *Training and Certification Committee*

6.4.4. *PSAP*



7. PSAP POLICIES AND PROCEDURES

- 7.1. KEY FINDINGS
- 7.2. CONSIDERATIONS
- 7.3. RECOMMENDATIONS
- 7.4. ACTIONABLE STEPS
 - 7.4.1. *State Level*
 - 7.4.2. *Advisory Board Level*
 - 7.4.3. *Operational Policy and Procedure Working Group*
 - 7.4.4. *PSAP*

8. DISASTER RECOVERY

- 8.1. OVERVIEW
- 8.2. KEY FINDINGS
- 8.3. THREATS AND HAZARDS
- 8.4. NEBRASKA STATUTORY REGULATIONS
- 8.5. PRESIDENTIAL EXECUTIVE ORDER
- 8.6. STATE GUIDELINES
- 8.7. PROFESSIONAL STANDARDS
- 8.8. CONTINUITY OF OPERATIONS AND DISASTER RECOVERY PLANNING
- 8.9. OPTIONS FOR CONSIDERATION
- 8.10. RECOMMENDATIONS
- 8.11. ACTIONABLE STEPS

9. FIRSTNET PROCESS AND PROCEDURES

- 9.1. KEY FINDINGS
- 9.2. OPTIONS FOR CONSIDERATION
 - 9.2.1. *Governance*
 - 9.2.2. *FirstNet Deployment*
 - 9.2.3. *Training and Education*
 - 9.2.4. *State Communications Interoperability Plan (SCIP)*
- 9.3. RECOMMENDATIONS
 - 9.3.1. *Governance*
 - 9.3.2. *FirstNet Deployment*
 - 9.3.3. *Training and Education*
 - 9.3.4. *State Communications Interoperability Plan*
- 9.4. ACTIONABLE STEPS

10. FUNDING CONSIDERATIONS

- 10.1. COSTS TO BE PAID BY SURCHARGE FUNDS
- 10.2. COSTS FOR LOCAL GOVERNING BODIES
- 10.3. FEDERAL FUNDS



10.4. RECOMMENDATION FOR THE SURCHARGE

10.5. COST RECOVERY RECOMMENDATIONS

10.6. WHY THE PLAN IS COST EFFECTIVE

11. ADDITIONAL LEGISLATIVE RECOMMENDATIONS

12. CONCLUSIONS