

**Testimony To The
INTERIM TAXATION COMMITTEE**

**Prepared February 3, 2010 by the
North Dakota Association of Counties
Terry Traynor, Assistant Director**

CONCERNING NEXT GENERATION 9-1-1

Chairman Cook and committee members; thank you for the invitation to speak to the Committee regarding the study of Next Generation 9-1-1. As discussed at your previous meeting, NDCC Chapter 57-40.6 places the responsibility for implementing the Emergency Services Communications System (or 9-1-1) with local government; however it establishes the Emergency Services Communications Coordinating Committee (ESC³) to coordinate planning and make recommendations to the Legislature (NDCC 57-40.6-12). The section of statute and the current members of the ESC³ are attached to this testimony (Item 1).

I am here today as a member of the ESC³, and wish to provide your Committee with information regarding its activities since the close of the Legislative Session – focusing most specifically on our efforts regarding Next Generation 9-1-1. The group has met five times in the last six months, and will probably be meeting at similar frequency throughout the Interim. As the group's responsibilities all directly or indirectly relate to NG911, I will briefly address them as they are outlined in the statute.

- a. Recommend to the legislative management changes to the operating standards for emergency services communications, including training or certification standards for dispatchers;**

Long-term, this may very likely be the most important duty of this body. While North Dakota looked quite good in the recent national news investigation of "9-1-1 standards", the evaluation and updating of operating and training standards is still critical – particularly as we begin to incorporate the new and additional data streams into our public safety answering points that NG911 enables. The ESC³ has collected and begun to analyze standards from surrounding states and from other states that have recently made changes. These examples, along with our current statutory standards (NDCC 57-40.6-10) have been distributed to the North Dakota 9-1-1 Association (an organization of local government and industry representatives) to solicit comments. The ESC³ anticipates devoting meeting time to open debate of possible standards, and then a period of review and comment of draft proposals before presenting them to the appropriate interim Legislative Committees.

b. Develop guidelines regarding the allowable uses of the fee revenue collected under this chapter;

Official guidelines were developed through a series of public meetings and public comment periods throughout 2007. The final guidelines were made effective by the ESC³ on January 1, 2008. Since that time, almost every meeting has included questions regarding their interpretation with respect to very specific communication costs. The guidelines were amended in June of 2009, adding a process for the ESC³ to follow if there is credible information suggesting that a 9-1-1 jurisdiction is expending funds in a manner the does not comply with the guidelines. The jurisdictional reports (discussed below) have indicated that all jurisdictions have been in compliance since the guideline's effective date. This responsibility will be ongoing as the new requirements of NG911 are incorporated into PSAP operations – to ensure that the limited fee revenue is used appropriately and effectively.

c. Request, receive, and compile reports from each governing body on the use of the proceeds of the fee imposed under this chapter, analyze the reports with respect to the guidelines, file its report with the legislative council by November first of each even-numbered year regarding the use of the fee revenue, and recommend to the legislative assembly the appropriate maximum fee allowed by section 57-40.6-02;

In compliance with the statutory requirement, every 9-1-1 jurisdiction submits reports on the use of their fee proceeds and this information has been compiled by the ESC³ into formal reports to the Legislature in 2002, 2004, 2006, and 2008. (On file with the receiving Interim Committee's materials). There are two documents that are used to report the jurisdictional information. Every 9-1-1 jurisdiction completes the "financial" document (Attached - Item 2) and each of the jurisdictions operating a PSAP also completes a much more detailed "operational" document that defines equipment, staffing levels, call volumes, etc. With the close of county and city books on December 31, 2009, completion of these reports has again been requested, and the results will be compiled by the ESC³ for presentation to the appropriate interim Legislative Committees.

d. Periodically evaluate chapter 57-40.6 and recommend changes to the legislative management;

Recommendations to update 57-40.6 were made and subsequently implemented in 2003, 2005, and 2007. These changes primarily addressed new and changing telecommunication technologies, ensuring that they were adequately addressed in the

code. It seems likely that changes may be recommended during this interim to section 57-40.6-10 regarding operational and training standards, as discussed above.

- e. Serve as the governmental body to coordinate plans for implementing emergency 911 services and internet protocol enabled emergency applications for 911.**

At your previous meeting, I provided this Committee with an overview regarding the importance of implementing "internet protocol enabled emergency applications" (as stated in the law) or as commonly termed "Next Generation 9-1-1" (NG911) and why the federal government is pushing this issue so strongly.

To briefly restate the issue and put things in perspective; since the beginnings of 9-1-1 nationwide in 1968 and in North Dakota in 1985, phone companies (under contract with local government) have routed 9-1-1 calls over dedicated analog "copper-pairs" – the same type of lines that have carried voice calls in North Dakota since 1877. Through very significant investment by local government and superb cooperation and innovation by phone companies, we have been able to leverage this analog system to handle cellular and Voice-over-Internet Protocol (VoIP) 9-1-1 calls. But that is the limit – for the host of new, large-volume digital devices needing a way to contact Public Safety Answering Points through the 9-1-1 system, this analog system will not work. It is not possible, nor cost-effective, to continue with this network into the future, and we must begin the transition to a network built on a broadband Internet Protocol infrastructure.

During your last meeting I mentioned the NG911 Master Plan for North Dakota that was prepared by L.Robert Kimball & Associates under contract to the joint powers entity created by the 54 counties and cities that levy a 9-1-1 fee. The Executive Summary of the Master Plan is attached to this testimony (Item 3) and the full report has been emailed to Committee Counsel.

From the Kimball report and my more detailed description of the future NG911 network at the last meeting, it will be obvious to you that the transition being described is technologically complex and must be implemented carefully. It is also critical that implementation be done on a coordinated, statewide basis with significant interaction with our neighboring states as well. For these reasons, considerable time has been devoted to this topic by the ESC³, and this is why its meetings have been so frequent.

While the Kimball Master Plan was commissioned to provide the framework to begin this effort, it also enabled the ESC³ (through ITD) to apply for a federal ENHANCE 911 Act Grant. North Dakota's grant allocation was \$500,000, however based on our NG911 Master Plan the ESC³ submitted two proposals last summer – one for the base amount and another suggesting the investment of up to \$1.8 million. North Dakota,

because of our successful joint effort on the Wireless 911 implementation (6th State in the Nation), our proactive investment in a NG911 Master Plan, and our ability to demonstrate that all ESCS fee revenue is dedicated to emergency communications, we were awarded \$912,000 for implementation – essentially shifting over \$400,000 from other states that had not been as proactive and well-organized.

Unfortunately, the Master Plan analysis estimates, on the high end, the transition costs at more than \$13 million. This amount is a bit overwhelming when considering that counties, over the last 8 years, spent about \$2.4 million annually in payments to phone companies for the existing 911 infrastructure.

North Dakota has until September of 2012 to expend the grant funds, and the ESC³ is committed to a thorough analysis of our options before expenditures are made. As noted above, we must be interactive with surrounding states to meet the federal goals, and they in turn must be inactive with their neighbors. This effectively requires nationwide standards – most of which are still in development. The final attachment (Item 4) illustrates the progress being made on the national standards. A few states (notably Minnesota) have started their transition and have let contracts for implementation – requiring vendors to ensure compliance with the future standards.

The next steps for the ESC³ will be to receive presentations from state technology experts within North Dakota as well as Minnesota and possibly Montana. We then anticipate requesting information (possibly in the form of RFIs) from telecommunication vendors. Only after consideration of this information will we move to the design of a North Dakota-specific implementation plan. As the federal funds must be used for “implementation” and cannot be used for “planning”, we anticipate that much of this front-end work will need to be done by the ESC³ – the members of which have full-time jobs elsewhere.

As a group however, the ESC³ is committed to a smooth transition to a robust yet cost-effective infrastructure that can serve the emergency needs of North Dakota’s citizens at least as long as the current network has been in place.

Thank you for this opportunity to present this information, and I look forward to further presentations as the ESC³ continues its work.

57-40.6-12. Emergency services communications coordinating committee -- Membership -- Duties.

1. The governing body of a city or county, which adopted a fee on assessed communications services under this chapter, shall make an annual report of the income, expenditures, and status of its emergency services communication system. The annual report must be submitted to the emergency services communications coordinating committee. The committee is composed of four members, one appointed by the North Dakota 911 association, one appointed by the North Dakota association of counties, one appointed by the chief information officer of the state, and one appointed by the adjutant general to represent the division of state radio.

2. The committee shall:

a. Recommend to the legislative management changes to the operating standards for emergency services communications, including training or certification standards for dispatchers;

b. Develop guidelines regarding the allowable uses of the fee revenue collected under this chapter;

c. Request, receive, and compile reports from each governing body on the use of the proceeds of the fee imposed under this chapter, analyze the reports with respect to the guidelines, file its report with the legislative council by November first of each even-numbered year regarding the use of the fee revenue, and recommend to the legislative assembly the appropriate maximum fee allowed by [section 57-40.6-02](#);

d. Periodically evaluate chapter 57-40.6 and recommend changes to the legislative management; and

e. Serve as the governmental body to coordinate plans for implementing emergency 911 services and internet protocol enabled emergency applications for 911.

3. The committee may initiate and administer statewide agreements among the governing bodies of the local governmental units with jurisdiction over an emergency 911 telephone system to coordinate the procurement of equipment and services, fund the research, administration, and activities of the committee, and contract for the necessary staff support for committee activities.

Emergency Services Communications Coordinating Committee Members

Jerry Bergquist, Chairman – Stutsman County 911 Coordinator
Appointed by the North Dakota 911 Association

Mike Lynk, Vice Chairman – Director of State Radio
Appointed by the Adjutant General to represent the State Radio Division

Terry Traynor, Secretary – NDACo Assistant Director
Appointed by the North Dakota Association of Counties

Mike Ressler – Deputy CIO & ITD Director
Appointed by the Chief Information Officer of the State



2009 911 Cost/Revenue Survey

Exit this survey >>

This page is intended to capture ALL expenditures related to the implementation, maintenance, and operation of the emergency services communications system in CY2009 - NOT JUST 911 FUNDS, but ALL funds separated into 911 Funds and all other funds.

	ESCS Funds	Other Funds	Total Funds
10. EQUIPMENT:(purchase, lease, rental, upgrade, lease-purchase, service and maintenance)		11. .	12. .
9-1-1 Equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>
Radio Equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>
13. Staffing: (Salary, Benefits & Payroll Taxes)		14. .	15. .
9-1-1 Coordinators	<input type="text"/>	<input type="text"/>	<input type="text"/>
Call Takers/Dispatchers	<input type="text"/>	<input type="text"/>	<input type="text"/>
PSAP Managers/Support	<input type="text"/>	<input type="text"/>	<input type="text"/>
16. 911 Network Costs:		17. .	18. .
NDACo Wireless Contract	<input type="text"/>	<input type="text"/>	<input type="text"/>
Qwest Tandem/Database	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Local Phone Line Charges	<input type="text"/>	<input type="text"/>	<input type="text"/>
Local Phone database updates	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Network charges	<input type="text"/>	<input type="text"/>	<input type="text"/>
19. Other Operations:		20. .	21. .
Supplies (PSAP/Admin)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other Contracts (i.e.GIS)	<input type="text"/>	<input type="text"/>	<input type="text"/>
GIS (not contracted)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Signage	<input type="text"/>	<input type="text"/>	<input type="text"/>
Training & Travel	<input type="text"/>	<input type="text"/>	<input type="text"/>
Public Education	<input type="text"/>	<input type="text"/>	<input type="text"/>
Facility (rent, util, maint.)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other (List below)	<input type="text"/>	<input type="text"/>	<input type="text"/>

22. Please explain any "other" expenses and add any comments you feel may be necessary.

<< Prev

Done >>

Report

for

Next Generation 9-1-1 Planning

submitted to

**North Dakota Association of Counties and
North Dakota 9-1-1 Association**

December 2008 ©



1. EXECUTIVE SUMMARY

L. Robert Kimball & Associates, Inc. (Kimball) is pleased to provide the North Dakota Association of Counties (NDACo) and the North Dakota 9-1-1 Association (ND9-1-1) with its report on Next Generation 9-1-1 (NG9-1-1) planning.

The intent of this project is for Kimball to assist NDACo and ND9-1-1 in preparing a document describing an NG9-1-1 strategy, define the budgetary costs and determine the implementation schedule for the strategy.

This high-level document is a master plan for 9-1-1 for North Dakota. This report covers the three primary tasks associated with the project plan.

- Task 1 - Assessment/evaluation
- Task 2 - Network design
- Task 3 - Master plan

1.1 INTRODUCTION

NG9-1-1 is a concept that has real life deployments today. NG9-1-1 is best described as a robust system of systems that allows the public to use any device to request help or send information to the appropriate public safety agency.

NG9-1-1 is commonly viewed as an interconnected, IP-based hierarchy of local, regional, state, and national networks that would enable a more robust interconnectivity and functionality for emergency communications applications than currently exists. The current 9-1-1 systems in North Dakota and throughout the nation are over 30 years old and are generally recognized as being limited both technically and functionally.

Various national agencies and organizations have developed their visions of this new system. Building on the work of the National Emergency Number Association (NENA), the Network Reliability and Interoperability Council (NRIC) (an advisory group to the Federal Communications Commission (FCC)), and the U.S. Department of Transportation (US DOT) NG9-1-1 Initiative, the NG9-1-1 concept envisions a systematic transition to a new system. The new system accommodates a flexible services infrastructure where existing and new emergency communications applications of all types can be implemented without requiring major overhauls to existing network service providing elements. For North Dakota and its public safety answering points (PSAPs), implementation of and transition to NG9-1-1 may have far-reaching impacts such as:

- Call handling processes and procedures.
- Personnel issues.
 - Staffing with new skills (dispatchers and technology support staff).
 - Training on new systems.



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- New and expanded data sources.
- Calls including audio, video, and telematics that can enable new sources of information for decisions about handling calls and dispatching and coordination of resources.
- Methods of transferring and coordinating information among PSAPs, emergency operations centers, and other public safety entities beyond that currently provided for the public switched telephone network.
- Greater interconnectivity among local PSAPs, regional, state, and national agencies for coordination of emergency responses.

There is a great deal of work still going on, and continue for some time. The central theme throughout all of the major visions of the next generation is an Internet Protocol (IP) based system that can share voice, video, and data. This system is envisioned to be a dedicated, secure, public safety system.

While this is a conceptual technology, it is in use today in many areas of the country in various forms. There are many vendors that have various types of systems that can provide most of the functions of an NG9-1-1 system.

1.2 METHODOLOGY

To perform this feasibility study, Kimball gathered data in a variety of ways, including face-to-face meetings, telephone interviews, e-mail exchanges, and research on the internet. Kimball developed survey forms and spreadsheets to facilitate gathering the raw data from the various sources. Basic information gathered for each PSAP provided insight as to the current 9-1-1 system in North Dakota.

Additional follow up telephone calls, and e-mail correspondences with NDACo gained additional information on the 9-1-1 infrastructure in the state. Information on the voice network as well as database services was obtained.

Kimball used recognized best practices in the telecommunications field, as well as documents and statements from national organizations such as NENA, APCO and USDOT to develop recommendations for the state regarding this NG9-1-1 system.

1.3 FINDINGS—CURRENT SYSTEM

There are 23 PSAPs that serve North Dakota including one that is located in South Dakota. These PSAPs use a variety of different 9-1-1 answering equipment called Customer Premise Equipment (CPE). PSAP CPE is specialized telephone answering equipment that permits the request for and display of a caller's phone number and the location of wire line phones and wireless phones as well as performing other specialized public safety related functions. The age of this CPE ranges from being installed in 1997 to the most recent, installed in 2008. Most PSAP CPE configurations are stand-alone with all equipment located at the PSAP. There are two PSAPs that operate as remote workstations off of the CPE switching equipment at another PSAP. Most of the PSAP CPE is reported by the vendors to be upgradable to make it IP compliant, but all require some type of upgrade to support IP communications.

Two Qwest-owned selective routers serve the majority of the PSAPs. The Qwest selective routers deliver most wire line and all wireless calls. There are several PSAPs that are served by direct trunks from the wire line central offices and do not have the benefits of selective routing. All of the selective routers to PSAP trunks are: Centralize Automatic Message Accounting (CAMA) type trunks. These trunks are traditional analog 9-1-1 trunks and provide a reliable connection to deliver 9-1-1 calls, but are limited in their capabilities to handle digital technologies. Qwest has installed router-to-router trunks between the two selective routers, enabling PSAPs to transfer fully enhanced 9-1-1 calls (both voice and associated location data) across the network where necessary.

Qwest/Intrado provides centralized wireless and Voice over Internet Protocol (VoIP) automatic location identification (ALI) database for all of the PSAPs and wire line ALI for many of the PSAPs. Some of the PSAPs have standalone ALI databases for wire line that they maintain on site.

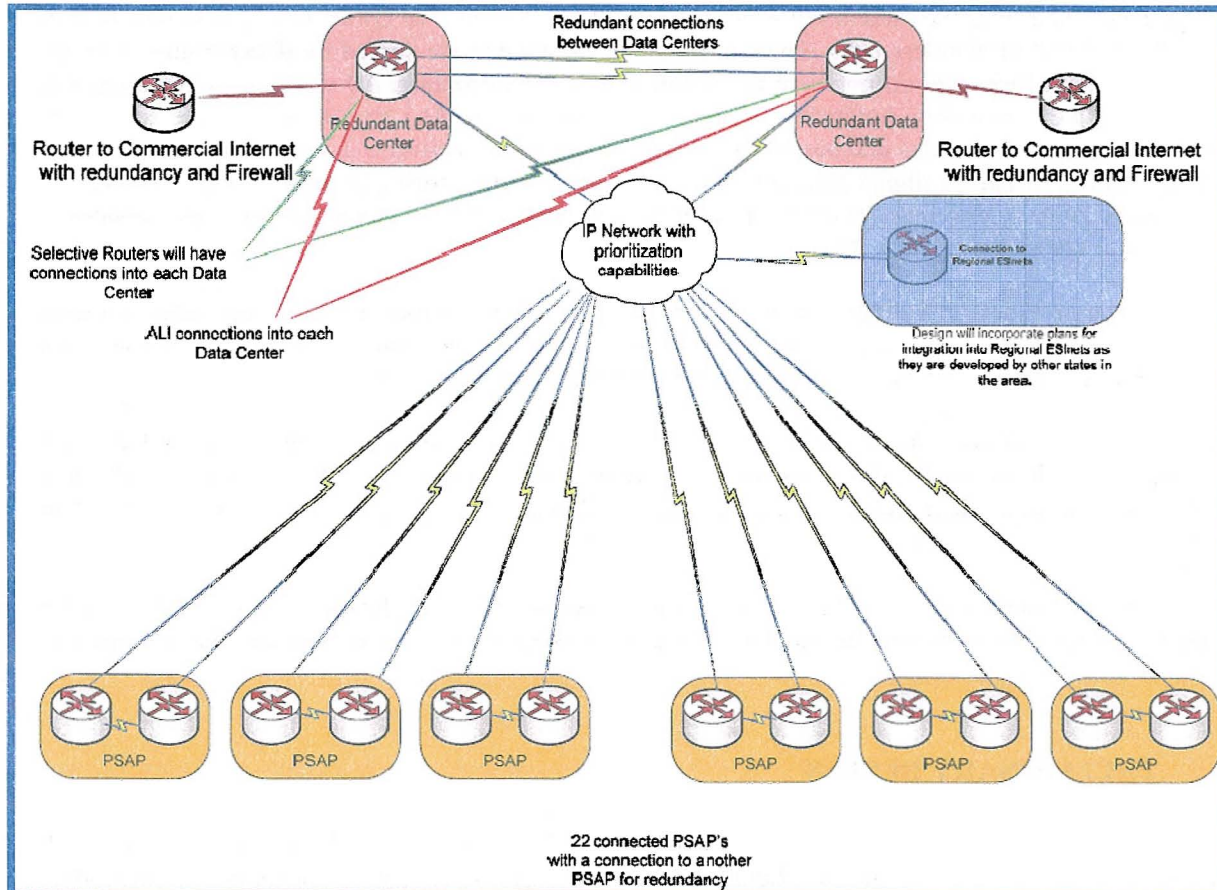
The wireless 9-1-1 project lead by the NDACo has been very successful in delivering wireless Enhanced 9-1-1 (E9-1-1) calls to the PSAPs in the state so that all wireless callers have E9-1-1 service. This is a great accomplishment when looking at the fact that not all states have fully deployed wireless E9-1-1 in accordance with the FCC guidelines first published in 1996.

The systems in place today are working well. These systems were developed using the best available technology at the time they were developed. Newer technologies are being developed today that benefit the 9-1-1 system into the future.

1.4 PRELIMINARY DESIGN

The conceptual design for North Dakota is based on the NENA and US DOT Emergency Services IP Network (ESInet) design. The diagram below illustrates the system design. It includes redundant data centers for providing the NG9-1-1 services and data storage, and PSAP connectivity. This design also includes connection to the legacy 9-1-1 system. A full size diagram is included in Appendix A.

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This design uses two geographically diverse datacenters to provide the NG9-1-1 services such as:

- Border control function
- Emergency services routing function
- Location validation function
- Legacy gateway

These datacenters provide the functions traditionally performed by the controllers at each PSAP, as well as more advanced functions of NG9-1-1. This can reduce the equipment needed at the PSAP. This may also reduce the number of 9-1-1 trunks needed by combining them at a central location.

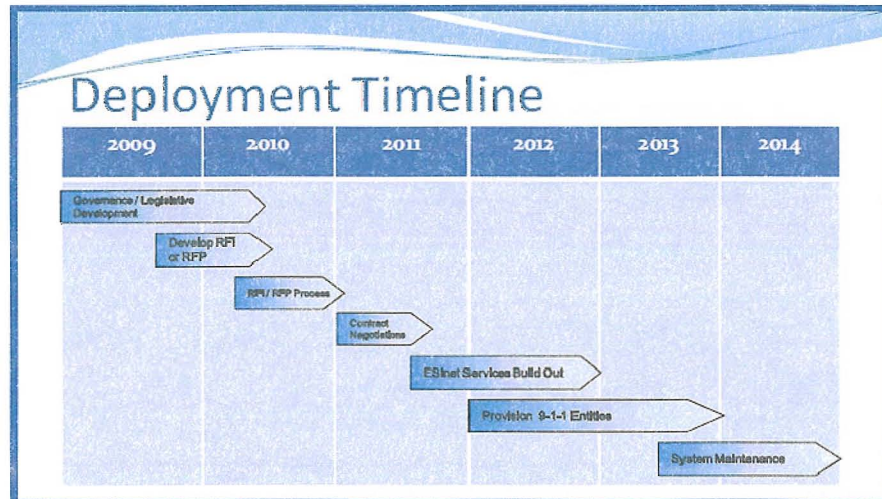
The system design covers the needed connectivity to the PSAPs, data centers, and call origination systems. Each location has two connections for reliability. In the case of the PSAPs they use a connection to the core, and a second connection to a neighboring PSAP. This design describes the major components of an IP Transport such as:

- Bandwidth
- Network management
- Service levels

1.5 PLANNING RECOMMENDATIONS

This plan looked at a six-year deployment effort. Many of these steps have some overlap, but, in general, the first two years would be used to develop the internal structure and defining the functionality needed to properly provide service to the residents and visitors to the state of North Dakota. NENA has indicated that they expect the first fully functional NG9-1-1 system is deployed in the fourth quarter of 2009. NENA and other organizations are working to complete the needed standards to reach that goal. Using this time to develop the systems needed, positions North Dakota will need to make use of these standards when completed.

The next three years would be for deployment of the final solution, and one year of annual maintenance for reference. This time frame is not firm, but gives a good overview of the process that should be followed to deploy these systems.



The costs associated with the deployment of the conceptual design are:

- One-time costs
- Recurring costs
- Professional services

These costs are budgetary and based on the full NG9-1-1 conceptual design. The actual costs may be reduced through developing more detailed functional requirements and competitive procurement processes.



REPORT FOR
NEXT GENERATION 9-1-1 PLANNING
SUBMITTED TO THE
NORTH DAKOTA ASSOCIATION OF COUNTIES AND
NORTH DAKOTA 9-1-1 ASSOCIATION

The funding of the NG9-1-1 may be able to be reduced through the use of the federal 9-1-1 grant funding that is scheduled to be released in 2009. North Dakota is listed to get at least \$500,000 in 50 percent matching funds from the National 9-1-1 Coordination Office. This match can be monetary or in-kind services. The final rules are yet to be published, but the Notice of Proposed Rule Making (NPRM) was published on October 3, 2008.¹

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¹ Federal Register, Proposed Rules, October 3, 2008, Volume 73, Number 193, pp. 57567-57580.

Status of Major NENA NG9-1-1 Standards and Documents

Green indicates published documents

Yellow indicates 4Q 2009 and 1Q 2010

Red indicates 2Q-4Q 2010

Item#	Document or Task Areas	Degree Complete 12/14/2009	Content Completion Date (ready for review)	Expected Publication Date*	Primary Work Group(s)
1	08-502: NENA Generic E9-1-1 Requirements, Issue 1, July 2004	100%	published	published	All
	08-751 v1 i3 Requirements (Long Term Definition)	100%	published	published	LTD
3	08-752: Location Information to Support IP-Based Emergency Services, Issue 1, 2006 (TID)	100%	published	published	LTD
7	Functional and Interface Standards for NG9-1-1 (i3) 08-002 v1	100%	published	published	LTD
11	Synchronizing GIS with MSAG & ALI 71-501 v1	100%	published	published	NGDD
12	NENA Registry System 70-001 v1	100%	published	published	NGDD
13	NG9-1-1 Additional Data 71-001 v1	100%	published	published	NGDD
20	Virtual PSAP Management	100%	published	published	NGI
4	04-001: NENA Recommended Generic Standards for NG9-1-1 PSAP Equipment, Version 1	80%	Final 04/2010 SEE CELL NOTE	SEE CELL NOTE	CPE
41	Policy Whitepapers (there may be others)	100%	3Q 2009		NGPP
5	58-001: NENA IP-Capable PSAP Minimum Operational Requirements Standard, Issue 2, June 9, 2007 - REVISION TO INCLUDE USDOT ITEMS; expands to both System and PSAP	90%	Jan-10	plus 45 days	Ops Rqmts
9	08-003 IP Functions and Interfaces (i3) Stage 3 Design	99%	Dec-09	Mar-10	LTD
15	Building Policy Rules for Call Routing and Handling in NG9-1-1	100%	Dec-09	plus 45 days	NGBR
32	Human Machine Interface (HMI) Specs For PSAP Eqpt	95%	Jan 2010	plus 45 days	NGI
35	NG9-1-1 Security Standard	99%	12/11/09	plus 45 days	NG-SEC
40	NGPP NG9-1-1 PPT - update current PPT (in use)	25%	Jan 2010	plus 45 days	RH & NGPP
42	Policy Implementation Handbook	85%	Jan 2010	plus 45 days	NGPP
55	ICE Reports (date for first ICE session release of report) More to follow in 2010	100%	Dec-09	published	ICE WG
2	08-751: NENA i3 TRD, Issue 1, September, 2006	95%	1Q 2010	Original published	LTD
6	ESIND document (number not yet assigned)	60%	1Q 2010	plus 45 days	ESIND, NGI
8	08-002 IP Functional and Interface Standards for NG9-1-1 (i3) v2 Consolidated Location Data Elements	99%	Jan 2010	plus 45 days	LTD
	Doc #1: NENA Next Generation 9-1-1 (NG9-1-1) Civic Location Data Exchange Format (CLDXF) Standard	85% for both docs	1Q 2010	plus 45 days	NGDD
	Doc #2: FGDC-NENA Profile (Shows which parts of the FGDC Std relate to which parts of the NENA/PIDF-LO. Relates NENA/PIDF civic location terms to the address elements and attributes defined in the Content Part of the FGDC standard. Extends & restricts the FGDC standard to conform to NENA/PIDF location specs.				
10	Location Validation/ECRF	95%	1Q2010	plus 45 days	NGDD
	Doc #1: 02-010, V9, GIS Data Model Version 2	30%	2Q 2010	plus 45 days	NGDD
	Doc #2: ECRF/LVF DB Implementation & Maintenance (title could change - placeholder)				
14	Guidelines for Managing Policy Rules in NG9-1-1	0%	Mar 2010	plus 45 days	NGBR
17	PSAP Guide to GIS Technology	70%	Jan 2010	plus 45 days	NGDD
18	Guidelines for Managing NG9-1-1 Databases	0%	needed by 3/31/2010	plus 45 days	NGDD
19	Error Management and Auditing for NG9-1-1 Databases	5%	needed by 3/31/2010	plus 45 days	NGDD
22	Several support documents needed prior to Beta test	20%	needed by 3/31/2010	plus 45 days	NGI
43	Policy Implementation Strategy for Enabler Groups	10%	1Q 2010	plus 45 days	NGPP
50	Various NGTPC documents expected in 2010 (First cases in 1Q 2010 timeframe)	70%	1Q-2Q 2010	plus 45 days	NGTPC
65	Many documents and delivery methods	10%	1Q - 3Q 2010	plus 45 days	Ops, NGPP, EAB, APCO and others
80	NGTPC document (will be followed by others)	70%	1Q 2010	plus 45 days	NGTPC
21	Update current SOP documents to address changed and added NG9-1-1 functionality	5%	2Q 2010	plus 45 days	NGI
30	Roles and Responsibilities, others to be defined	0%	2Q 2010	SEE CELL NOTE	NGI
31	Documents not yet defined	0%	2Q 2010	plus 45 days	TBD
90	Beta Test Results Reports	5%	2Q 2010	plus 45 days	Joint Tech/Ops [Future]
60	NENA Certification Program for NG9-1-1 Components	5%	late 2010		
81	Documents not yet defined	10%	3Q 2010	plus 45 days	Ops with NGTPC
100	As appropriate for new information		3Q 2010	plus 45 days	All
110	First Application Test Results Reports	0%	4Q 2010	plus 45 days	Joint Tech/Ops

* "Expected Publication Date" means the first approved document for a topic, recognizing that many documents will be updated in 2010 or beyond.

ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
CPE	Customer Premise Equipment	NGDD	Next Generation Data Development
EAB	Education Advisory Board	NGI	Next Generation Integration
ESIND	Emergency Services IP Network Design	NGPP	Next Generation Partner Program
ICE WG	Industry Collaboration Event	NG-SEC	Next Generation-Security
LTD	Long Term Definition (i3)	NGTPC	Next Generation Transition Planning Comm.
NGBR	Next Generation Business Rules	RH	Roger Hixson

