



NITC Meeting Agenda

Friday, March 27, 2015 at 9:00 AM

Governor's Residence

Lower Level Conference Room

1421 H Street

Lincoln, NE

Meeting Documents

- 9:00 AM
1. Roll Call, Notice of Meeting & Open Meetings Act Information
 2. Approval of Minutes - October 28, 2014*
 3. Public Comment
 4. Introductions
- 9:20 AM
- Reports from the Councils and Technical Panel
5. State Government Council
 - a. Statewide Technology Plan – Timeline for Update
 - b. Open Data Work Group
 6. Community Council - Report
 - a. Nebraska Broadband Initiative
 1. New website: broadband.nebraska.gov
 2. Community Planning Workbook
 - b. Membership*
 7. eHealth Council - Report
 - a. Funding Opportunity – Advanced Interoperable Health Information Technology Services*
 8. Education Council
 - a. Network Nebraska Education
 1. Innovations in American Government Bright Idea
 2. Financial Report
 3. Public Service Commission Workshop
 - b. eRate Update
 9. GIS Council - Report
 - a. Standards and Guidelines
 1. NITC 3-205: Street Centerline Standards (New)*
 2. NITC 3-206: Address Standards (New)*
 - b. NebraskaMAP

10. Technical Panel

a. Enterprise Projects - Status Report

10:15 AM 11. Informational Updates

- a. RFP – Nebraska.gov
- b. FirstNet State Consultation, March 18-19, 2015
- c. National Cyber Security Summit

10:40 AM 12. State IT Spend Analysis

11:00 AM 13. Adjournment

* Action item

The Nebraska Information Technology Commission will attempt to adhere to the sequence of the published agenda, but reserves the right to adjust the order of items if necessary and may elect to take action on any of the items listed.

Meeting notice was posted to the [NITC website](#) and the [Nebraska Public Meeting Calendar](#) on March 16, 2015. The agenda was posted to the NITC website on March 23, 2015.

[Nebraska Open Meetings Act](#)

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Tuesday, October 28, 2014 at 1:30 P.M.

Main Site:

University of Nebraska

Varner Hall – Board Room

3835 Holdrege Street, Lincoln, Nebraska

Video Conference Sites [NEB. REV. STAT. § 84-1411(2)]:

Vocational Rehabilitation Services

505 Broadway #A131, Scottsbluff, Nebraska

Educational Service Unit 16

314 West 1st, Ogallala, Nebraska

MINUTES

MEMBERS PRESENT:

Lieutenant Governor John Nelson, Chair
Brad Moline, Allo Communications (Ogallala Site)
Senator Dan Watermeier, Nebraska Legislature
Dr. Terry Haack, Bennington Public Schools
Dorest Harvey, USSTRACTCOM/AFLCMS-HBCC
Randy Meininger, City of Scottsbluff (Scottsbluff site)
Dan Shundoff, Intellicom
Gary Warren, Hamilton Telecommunications
Walter Weir, University of Nebraska

MEMBERS ABSENT: Donna Hammack, Saint Elizabeth Foundation

ROLL CALL, NOTICE OF MEETING & **OPEN MEETINGS ACT INFORMATION**

The meeting was called to order at 11:30 a.m. Roll call was taken. A quorum of seven voting members was present. The meeting notice was posted to the [NITC website](#) and the [Nebraska Public Meeting Calendar](#) on September 16, 2014. The agenda was posted to the NITC website on October 23, 2014 and revised on October 26, 2014.

APPROVAL OF AUGUST 14, 2014 MINUTES

Commissioner Weir moved to approve the August 14, 2014* minutes as presented. Commissioner Warren seconded. Roll call vote: Nelson-Yes, Harvey-Yes, Meininger-Yes, Moline-Yes, Shundoff-Yes, Warren-Yes and Weir-Yes. Results: Yes-7, No-0, Abstained-0. Motion carried.

PUBLIC COMMENT

There was no public comment.

Commissioner Haack arrived.

NITC PROGRESS REPORT TO THE GOVERNOR AND LEGISLATURE*

The NITC Progress Report to the Governor and Legislature highlights the progress made in the nine NITC priority areas of Network Nebraska, Community IT Planning and Development, eHealth, Public Safety Communications System, Digital Education, State Government Efficiency, Nebraska Spatial Data Infrastructure, E-Government, and Security and Business Resumption. An excerpt from the report is listed below:

- **Network Nebraska.** During the 2012-2014 time period, Network Nebraska grew its membership by 14 school districts, 2 Educational Service Units, 1 parochial school, and 1 private college. The demand for Internet has increased by 241% as the unit cost has decreased by 50%.

- **Community IT Planning and Development.** The NITC and NITC Community Council, in partnership with the University of Nebraska, the Nebraska Public Service Commission, the Nebraska Department of Economic Development, and AIM, have developed a state broadband plan which describes the current broadband landscape and presents 10 recommendations to further broadband development in Nebraska.
- **eHealth.** On March 14, 2014 the Nebraska Information Technology Commission/Office of the State CIO successfully completed a four-year \$6.8 million cooperative agreement from the U.S. Department of Health and Human Services' Office of the National Coordinator for Health IT. During the grant period, health information exchange through NeHII grew from 464 users in March 2010 to over 3,500 users in March 2014.
- **Public Safety Communications System.** The Nebraska Statewide Radio System serves local, state and federal agencies and public utilities across the state. The system was funded through a partnership between the State and Nebraska Public Power District to jointly own, manage and operate the system.
- **Digital Education.** The primary objective of the Digital Education Initiative is to promote the effective and efficient integration of technology into the instructional, learning, and administrative processes and to utilize technology to deliver enhanced digital educational opportunities to students at all levels throughout Nebraska on an equitable and affordable basis.
- **State Government Efficiency.** In 2009, the State Government Council identified enterprise content management (ECM) as an area to explore as a potential shared service. For years, as agencies purchased their own content/document management systems, the state was in the position of owning and operating multiple systems, each with standalone equipment and staff support. Six agencies volunteered to be involved with the requirements, Request for Proposal (RFP), and award process for the new shared ECM system. Over six months, the group identified 126 requirements, prepared an RFP and evaluated the results. In September 2010, an ECM system contract was awarded. As of July 2014, fourteen agencies are using the ECM system with over 7,700 internal users, over 18,000 external users, and over 26.5 million documents in the system.
- **Nebraska Spatial Data Infrastructure.** This initiative promotes coordination, guides policy, provides guidance on data accuracy requirements, coordinates dissemination of data through NebraskaMAP, and strengthens data sharing through partnerships to ensure access to quality geospatial datasets for governmental business needs and the public.
- **E-Government.** Nebraska has been recognized as a leader in e-government. The 2014 Digital States Survey, conducted by the Center for Digital Government, awarded the State of Nebraska a letter grade in the "B" category.
- **Security and Business Resumption.** The State of Nebraska continues to make progress in securing information resources, reducing associated vulnerabilities and updating policy. Over the course of the last two years, the NITC Security Work Group has worked with the State Government Council, the Technical Panel and agencies in order to formulate new policies for emerging technologies and update existing policies.

Commissioner Harvey moved to approve the [NITC Progress Report to the Governor and Legislature](#). Commissioner Warren seconded. Roll call vote: Weir-Yes, Warren-Yes, Shundoff-Yes, Moline-Yes, Meininger-Yes, Harvey-Yes, Haack-Yes, and Nelson-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

2015-2017 BIENNIAL BUDGET - IT PROJECT PROPOSALS - RECOMMENDATIONS TO THE GOVERNOR AND LEGISLATURE*

By statute, the NITC is required to review all information technology projects submitted as part of the biennial budget. Mr. Becker described the review process. As part of that review process, the NITC has established the following categories to prioritize projects:

Category	Description
Mandate	Required by law, regulation, or other authority
Tier 1	Highly Recommended. Mission critical project for the agency and/or the state.
Tier 2	Recommended. High strategic importance to the agency and/or the state.
Tier 3	Other. Significant strategic importance to the agency and/or the state; but, in general, has an overall lower priority than the Tier 1 and Tier 2 projects.
Tier 4	Insufficient information to proceed with a recommendation for funding.

State Government Council Tier Recommendations

Proj. #	Agency	Project Title	FY16	FY17	Total*	Score	Tier Rec.
09-01	Secretary of State	Business Services Filing System	\$40,000	\$84,000	\$2,630,000	79	Tier 1
09-02	Secretary of State	Collection Agency Online Renewal Application	\$65,955		\$ 65,955	94	Tier 2
18-01	Dept. of Agriculture	Paperless Inspection Project	\$30,000	\$30,000	\$260,000	78	Tier 2
24-01	Dept. of Motor Vehicles	Nebraska Systems Update and Modification (NSUM)	\$583,775	\$583,775	\$2,606,228	75	Tier 1**
40-01	Motor Vehicle Industry Licensing	Replacement Software Program				37	***
41-01	Real Estate Commission	Licensee Database	\$635,774	\$85,774	\$796,075	78	Tier 2
81-01	Commission for Blind & Visually Impaired	Client Data Tracking System Procurement			\$371,500	79	Tier 2

Notes:

*Total may include prior year or future planned costs in addition to biennial budget request amounts.

**Project 24-01 is mandated and funded by LB905 through the development of an RFP (Request for Proposal).

***No review necessary for project #40-01; no associated funding request.

The following agency representatives were present to provide background information and answer questions from the Commission regarding their IT project proposal:

- Commission for the Blind and Visually Impaired
 - Pearl Van Zandt, Administrator; Wes Majerus, IT Manager
- Department of Agriculture
 - Tom Jensen, Administrator
- Real Estate Commission
 - Greg Lemon, Administrator

Commissioner Haack moved to approve the [2015-2017 Biennial Budget IT Project Proposals Recommendations to the Governor and the Legislature](#) as recommended by the State Government Council. Commissioner Moline seconded. Roll call vote: Nelson-Yes, Haack-Yes, Harvey-Yes, Meininger-Yes, Moline-Yes, Shundoff-Yes, Warren-Yes and Weir-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

REPORTS FROM THE COUNCILS AND TECHNICAL PANEL

STATE GOVERNMENT COUNCIL

Rick Becker, Government IT Manager

Standards and Guidelines - NITC 7-104: Web Domain Name Standard (Amendment)*

Purpose: The purpose of this standard is to provide for consistent domain names for state government websites.

The State Government Council and Technical Panel recommend approval of the revised standard.

Commissioner Warren moved to approve **NITC 7-104: Web Domain Name Standard (Amendment)**. Commissioner Harvey seconded. Roll call vote: Harvey-Yes, Meininger-Yes, Moline-Yes, Shundoff-Yes, Warren-Yes, Weir-Yes, Nelson-Yes, and Haack-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

COMMUNITY COUNCIL - REPORT

Anne Byers, Community IT Manager

The Commissioners were shown a broadband video produced by the University of Nebraska which highlights the findings of the broadband study. The video is available at <http://www.youtube.com/watch?v=siae3ADCiHQ&feature=youtu.be>.

Broadband in Nebraska: Current Landscape and Recommendations*

The NITC Community Council, in partnership with the Nebraska Public Service Commission, University of Nebraska-Lincoln, Nebraska Department of Economic Development, and AIM, developed the plan as part of the broadband mapping and planning project funded by a grant from the National Telecommunications and Information Administration to the Nebraska Public Service Commission. The plan incorporates suggestions made by Commissioners at the August 19 NITC meeting, including adding measurable targets and information on the economic impact of broadband. The plan was made available for public comment on September 19, 2014. Additionally, information on the draft plan was presented at the Connecting Nebraska Broadband Conference on October 2, 2014. The plan was further revised to incorporate the handful of comments received. Ms. Byers highlighted the goals, economic impact, and recommendations.

Goals:

The following goals and targets help focus attention on key aspects of the plan and provide a way to assess the state's progress in addressing broadband development:

- **Increase household adoption of broadband**
 - Over 90% of households statewide will subscribe to broadband by 2020.
 - **Current:** 82%
 - 85% of households in rural Nebraska will subscribe to broadband by 2020.
 - **Current:** 74%
- **Increase broadband availability**
 - Broadband service of 25 Mbps down will be available to 90% of households by 2020.
 - **Current:** 74.9% of households
 - Broadband service of 1 gbps down will be available to 25% of households by 2020.
 - **Current:** 11.5% of households
- **Support broadband-related development by increasing the number and diversity of IT workers**
 - At least 1,400 degrees in computer and information science, management information systems, computer engineering, and bioinformatics will be awarded annually by Nebraska colleges and universities by 2020.
 - **Current:** 1,113 degrees awarded in 2012
 - Women receive at least 25% of the degrees in computer and information science, management information systems, computer engineering, and bioinformatics will be awarded by Nebraska colleges and universities by 2020.
 - **Current:** 20% of IT degrees awarded to women

Economic Impact: Broadband is impacting Nebraska's economy in a number of ways, including:

- **Expanding Markets by Selling Online.** Over 60% of Nebraska businesses reported selling goods or services online.

- **Increasing Efficiencies and Reducing Costs.** Nebraska businesses reported cost savings averaging 4% due to using the Internet.
- **Creating Jobs.** A 2013 survey of Nebraska businesses found that broadband access to the Internet is having a positive impact on jobs, with 364 respondents reporting a net increase of 654 jobs due to using the Internet.
- **Increasing Revenue.** Broadband access to the Internet is also having a positive impact on business revenue with typical respondents reporting 25 to 45 percent of revenue from the Internet.

National and international research links broadband availability with economic growth. However, broadband adoption appears to have a stronger economic impact than broadband availability, contributing to growth in household income, lower unemployment and other measures of economic success in non-metropolitan counties.

Commissioner Haack commented that the plan includes information on states counting computer programming classes toward required credits in math or science and asked for clarification if the plan was recommending that Nebraska also allow computer programming classes to count toward math or science requirements. Ms. Byers stated that the information was included in the plan to encourage further discussion by stakeholders. Mr. Weir suggested approaching the Education Council. Once the NITC approves the plan, the Council can begin developing action items.

Recommendations

The following recommendations emerged from discussions with stakeholders:

- Encourage investment in Nebraska's telecommunications infrastructure.
- Enhance the capacity of local communities to address broadband development.
- Encourage the development of a skilled IT workforce.
- Support innovation and entrepreneurship.
- Support the use of broadband technologies in businesses and agriculture.
- Support the development of libraries as community anchor institutions.
- Support the use of broadband in education and health care.
- Support the use of broadband by government and public safety entities.
- Support efforts to attract new residents and retain youth.
- Increase digital literacy and broadband access to the Internet.

Commissioner Shundoff moved to approve the [Broadband in Nebraska: Current Landscape and Recommendations](#). Commissioner Harvey seconded. Roll call vote: Moline-Yes, Meininger-Yes, Harvey-Yes, Haack-Yes, Nelson-Yes, Weir-Yes, Warren-Yes, and Shundoff-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

Membership*. Commissioners were asked to approve the nomination of Jay Anderson to replace Paul Ludwig.

Commissioner Haack moved to approve the nomination of Jay Anderson as a new Council member. Commissioner Weir seconded. Roll call vote: Shundoff-Yes, Warren-Abstained, Weir-Yes, Nelson-Yes, Haack-Yes, Harvey-Yes, Meininger-Yes, and Moline-Yes. Results: Yes-7, No-0, Abstained-1. Motion carried.

EHEALTH COUNCIL - REPORT

NeHII Update. In mid-October, the Centers for Medicare and Medicaid Services (CMS) approved the request for 90/10 matching Medicaid funding to support the expansion of NeHII and development of new functionality. The request was originally submitted to the Centers for Medicare and Medicaid Services by Nebraska's Medicaid program in July 2013. The funding will be used to bring on additional hospitals, practices, and federally qualified health centers. New functionality funded by the request includes:

- Enabling additional hospitals and providers to exchange data with the immunization registry;
- Enabling a facility or ambulatory practice to send a Transition of Care document to the health information exchange;
- Setting up the public health gateway which will enable syndromic surveillance and lab reporting through NeHII;
- Enabling diagnosis and allergy information to be displayed for NeHII participants.

NeHII has recently begun implementing Direct secure messaging. Forty-five Direct users are currently signed up.

eHealth Council Update. For the past five years, the eHealth Council has focused on preparing for and implementing the \$6.8 million State Health Information Agreement received from the U.S. Department of Health and Human Services Office of the National Coordinator for Health IT. Now that the grant has been completed, the Council needs to refocus and reexamine its membership. The eHealth Council will discuss those issues at their next meeting on November 13.

EDUCATION COUNCIL

Tom Rolfes, Education I.T. Manager

The Council met on October 15. Dr. Gabrielle Banick was invited to meet the Council members and share her vision and goals for the P16 initiative. Two new co-chairs were elected. Gary Needham, ESU 9 in Hastings was elected from the K-12 sector. Mary Niemiec, University of Nebraska, was elected from the higher education sector. The new Co-chairs would like to review and reframe, if necessary, the four task groups and their membership to address the 18 action items most closely associated with the Education Council. The next Education Council meeting will be held on Wednesday, December 17. There may be IT project proposals from the Department of Education for the Council's review.

Network Nebraska Update. The summer conversion was successful. Network Nebraska will soon be rebidding Omaha egress commodity Internet. The Office of the CIO continues to have discussions with the Department of Education and the online assessment vendor DRC to make sure that assessment data bandwidth gets to DRC in Minnesota with the fewest number of hops and reduced congestion. With over 200 circuits and the statewide backbone to be rebid in the fall of 2015 this will be one of the largest telecommunications procurements in the history of state government procurement. By July 2015, Network Nebraska hopes to reach the goal of 100% public K-12 participation.

Digital Education Update. Most of the 18 Digital Education action items are embodied within the Educational Service Unit Coordinating Council's (ESUCC) BlendEd Initiative, which is a multi-component initiative to enhance the environment of teaching and learning. ESUCC used the LB 1103 hearings to tell the BlendEd Initiative "story" and to make the Education Committee aware that learning, content, and identity management have great potential to transform the 21st century classroom and through enterprise agreements, increase the adoption rate and save costs for school districts along the way.

LB 1103 Update. A series of hearings were held across the state for LB 1103. An estimated 200 people attended in Omaha on October 6. Over 100 people attended in Norfolk on October 15, and there were over 50 people in attendance in Broken Bow on October 16. Themes presented included the possible benefits of charter schools, early childhood education, and the BlendEd initiative. All three hearings were described as highly interactive. K-12 and higher education are anticipating the LB 497 hearing on Wednesday, November 19 to discuss the future educational uses of the lottery fund.

E-rate Modernization. Mr. Rolfes attended an E-rate training on September 29 and meetings with USAC and FCC on September 30-October 1. Several changes, including increased funding for internal connections equipment and the doubling of the document retention period, will be happening very soon. The State of Nebraska plans to bid this fall for what is called Category 2 internal connections equipment for all schools and libraries, with E-rate filing to occur at the local level. Mr. Rolfes reported that the Office of the CIO will be assisting with organizing a round of E-rate Training Workshops in Nebraska to be held December 1-8.

GIS COUNCIL - REPORT

Nathan Watermeier, GIS Coordinator

Approval of Standards

NITC 3-201: Geospatial Metadata Standard (Amendment)*

Purpose: The purposes of this standard is to preserve the public's investment in geospatial data, to save public resources by avoiding unnecessary duplication of expensive geospatial data acquisition, to minimize errors through inappropriate application of geospatial data, and to facilitate harmonious trans-agency public policy decision-making and implementation through the use of shared geospatial data.

Metadata standards have been developed specific to the needs of Nebraska stakeholders while maintaining compliance with the metadata standards from the Federal Geographic Data Committee (FGDC). These standards were originally adopted on September 23, 2005 and have recently been updated to include changes in ISO data standards endorsed by the FGDC. No comments were received through the recent 30-day public review process initiated by the Technical Panel. The Technical Panel and GIS Council are recommending approval of the NITC 3-201 Geospatial Metadata standard.

Commissioner Harvey moved to approve NITC 3-201: Geospatial Metadata Standard (Amendment). Commissioner Warren seconded. Roll call vote: Haack-Yes, Nelson-Yes, Weir-Yes, Warren-Yes, Shundoff-Yes, Moline-Yes, Meininger-Yes, and Harvey-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

NITC 3-203: Elevation Acquisition using LiDAR Standards (New)*

Purpose: The primary purpose of these standards is to realize the maximum long-term benefit of elevation data acquisitions, and in doing so, help protect the public's investment in Nebraska's geospatial infrastructure. These standards will help ensure that elevation data acquisitions are current, consistent, accurate, high-resolution, accessible, and cost-effective.

These standards are new and are intended for entities participating in collaborative efforts to acquire airborne LiDAR elevations that may contribute to a comprehensive statewide elevation dataset in Nebraska. The standards are derived from the U.S. Geological Survey (USGS) National Geospatial Program's (NGP) LiDAR Base Specification Version 1.0. In addition, the standard emphasizes particular requirements and needs for Nebraska that are not available in USGS standards and where additional clarity is needed. No comments were received through the recent 30-day public review process initiated by the Technical Panel. The Technical Panel and GIS Council are recommending approval of the NITC 3-203 Elevation Acquisition Using LiDAR standards.

Commissioner Weir moved to approve NITC 3-203: Elevation Acquisition using LiDAR Standards. Commissioner Haack seconded. Roll call vote: Meininger-Yes, Moline-Yes, Shundoff-Yes, Warren-Yes, Weir-Yes, Nelson-Yes, Haack-Yes, and Harvey-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

NITC 3-204: Imagery Standards (New)*

Purpose: The purpose of this standard is to provide the necessary requirements for the creation, development, delivery, and maintenance of aerial imagery data and services to support the Nebraska Spatial Data Infrastructure (NESDI). These standards will help ensure that imagery acquisition is consistent, accurate, publicly accessible, and cost-effective.

These standards are new and are designed for future statewide aerial imagery acquisition efforts that meet verified minimum horizontal accuracy requirements for a spatial resolution of 12 inch, preferably flown during the "leaf-off" period for trees. The requirements from federal standards (i.e., National Emergency Number Association) are also driving the need for greater spatial accuracy of imagery in order to meet needs to develop and create street centerline and address points. No comments were received through the recent 30-day public review process initiated by the Technical Panel.

Commissioner Shundoff moved to approve [NITC 3-204: Imagery Standards](#). Commissioner Harvey seconded. Roll call vote: Weir-Yes, Warren-Yes, Shundoff-Yes, Moline-Yes, Meininger-Yes, Harvey-Yes, Haack-Yes, and Nelson-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

Street Centerline and Address Standards. Standards have been developed for Street Centerline (NITC 3-205) and Address (NITC 3-206). These standards were sent out for public review during the summer and received no comments. The GIS Council made additional changes to these standards and sent out again for another 30-day review. A couple of comments were received during that review period at the deadline date but it did not provide ample time to review before the Technical Panel meeting. These standards have been tabled until the Technical Panel meets again.

Membership. The Omaha Metro seat expired in September 2014. The Omaha Metro seat is nominated by representatives of the Omaha Metro area then nominated to the NITC. A selection committee has been formed and nominations have been provided to the committee. The selection committee is putting the nomination forward for Eric Herbert, Sarpy County to fill the seat of Omaha Metro.

Commissioner Warren moved to approve the nomination of Eric Herbert of Sarpy County to fill the Omaha Metro GIS Council seat. Commissioner Shundoff seconded. Roll call vote: Nelson-Yes, Haack-Yes, and Harvey-Yes, Meininger-Yes, Moline-Yes, Shundoff-Yes, Warren-Yes, and Weir-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

Strategic Initiatives Update

Elevation: The Elevation Business Plan is in a draft version and is currently out for initial review. The working group also submitted a pre-proposal for LiDAR acquisition through the new United States Geological Survey (USGS) 3D Elevation Program. The proposal covers almost a 4,500 square mile area in western Nebraska that abuts Colorado and Wyoming. A dialogue has started with various partners in western Nebraska to support future LiDAR acquisition projects.

Land Records: Progress continues on the few counties willing to share data with the state for the statewide parcel database. This database has many uses and applications to support state business needs. There were several concerns raised by the GIS Council at their last meeting on the lack of response and misinterpretation of information about our public records request for this data back in June. The working group will be meeting in November to continue to identify next steps to follow-up on the public records request and educating the counties on the effort.

Street Centerline Address Database: The State has acquired a statewide site license for all consumer and business address and demographic data to fulfill current state government business needs. This will not only support general needs across all agencies but also assist the future development of addressing points to be used in combination with the street centerline database. A subset of this data for several counties was provided early on to us to support team efforts on the ground following the Pilger tornado.

NebraskaMAP - The OCIO has hired a new temporary person to assist the inventory and assessment of the NESDI data layers. This person is also working to enhance components of NebraskaMAP. The working group is currently working on the business plan draft. An initial review of the draft will be made available in November to the GIS Council.

TECHNICAL PANEL

Walter Weir, Chair, Technical Panel

Enterprise Projects - [Annual Report](#) and [Status Report](#)

On October 1, the Report on the Status of Enterprise Projects was submitted to the Governor and the Appropriations Committee of the Legislature.

The question was raised as to why the NeSIS "Writing" test issues were not listed in the report. The Technical Panel has requested that the project provide a more detailed report regarding the issues.

Senator Watermeier left the meeting. Andy Weekly, OCIO Project Manager, provided an overview of the Enterprise Projects Status Report.

Project Closure: Office of the CIO - Nebraska Statewide Radio System*

Commissioner Harvey moved to designate the Nebraska Statewide Radio System project as a closed project. Commissioner Haack seconded. Roll call vote: Nelson-Yes, Haack-Yes, Harvey-Yes, Meininger-Yes, Moline-Yes, Shundoff-Yes, Warren-Yes and Weir-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

Project Designation: DHHS - Medicaid Eligibility & Enrollment System*

This project is anticipated to be funded at about \$57 million dollars. It will have a significant impact.

Commissioner Weir moved to designate the [Medicaid Eligibility & Enrollment System](#) project as an Enterprise Project. Commissioner Harvey seconded. Roll call vote: Weir-Yes, Warren-Yes, Shundoff-Yes, Moline-Yes, Meininger-Yes, Harvey-Yes, Haack-Yes, and Nelson-Yes. Results: Yes-8, No-0, Abstained-0. Motion carried.

INFORMATIONAL UPDATES

Brenda Decker, Chief Information Officer

OCIO Roles and Responsibilities. Ms. Decker provided a presentation on the organization of the Office of the Chief Information Officer, its responsibilities and its relationship to the NITC.

Digital Summit Report. The Digital Summit was held on October 21. There were over 200 participants in attendance. The Governor kicked off the event. The summit received positive reviews from attendees.

Digital States Survey Results. Nebraska got a grade of a "B" in the Government Technology magazine Digital States survey.

IRS Audit. This year the IRS audited the Department of Health and Human Services and the Department of Labor. The OCIO was included as part of the review of technology and processes for these agencies. The audit identified 19 items for the OCIO to address. Most of these items were relatively minor.

OCIO Fire Drill. There are approximately 200 OCIO staff housed in the 501 Building. In September, the OCIO had a practice fire drill. The building was evacuated in less than 4 minutes.

OTHER BUSINESS

There was no other business.

ADJOURNMENT

Commissioner Shundoff moved to adjourn. Commission Harvey seconded. All were in favor. Motion carried.

The meeting was adjourned at 4:15 p.m.

Meeting minutes were taken by Lori Lopez Urdiales and reviewed by the staff of the Office of the CIO/NITC.

March 13, 2015

To: NITC Commissioners
From: Anne Byers
Subject: Community Council Report

Membership. The Community Council has recommended Shonna Dorsey’s nomination as a member of the Community Council. I will be asking for approval of her nomination. Her bio can be found below:

[Shonna Dorsey](#) is a co-founder and the Managing Director for Interface: the Web School. Shonna was born and raised in Omaha, Nebraska and is an alumnus of the University of Nebraska-Omaha (UNO) where she earned both Bachelor's and Master's of Science degrees in Management Information Systems (MIS). Her career includes training facilitation, project management and application development. She has earned the Project Management Professional (PMP) and Project Management Institute-Agile Certified Practitioner (PMI-ACP) certifications through PMI.

Outside of Interface Web School, Shonna is the co-founder of the monthly meetup group [Coffee and Code](#) which she hosts in partnership with [Autumn Pruitt](#) of [Aromas Coffee](#). Shonna is also a Leadership Omaha program participant (class 37) and a 2014 recipient of the 40 Under 40 Award through the Midlands Business Journal. As a professional who is passionate about education, Shonna is excited to extend support to the region's tech talent development and retention efforts through Interface: the Web School.

Broadband Plan Update. The NTIA just updated the federal broadband map (broadbandmap.gov) with data from June 30, 2014. Updated information on our target measures can be found below:

Measure	Baseline—Data from Dec. 31, 2013	Update—Data from June 30, 2014	2020 Target
% of population with broadband service of at least 25 Mbps down available	74.9%	79.3%	90%
% of population with broadband service of 1 gbps down available	11.5%	14.5%	25%

Nebraska ranked 10th in the availability of gigabit service and 38th in the availability of 25 Mbps service.

Nebraska Broadband Initiative. The NITC Community Council has partnered with the Nebraska Public Service Commission, University of Nebraska-Lincoln, Nebraska Department of Economic Development, and AIM on a five-year broadband mapping and planning initiative. The grant ended in January 2015. An evaluation conducted by the Heartland Center for Leadership Development made the following recommendations:

- Continue the annual conference;
- Sustain collaboration among stakeholders, including providers;
- Maintain the mapping element;
- Find ways to continue youth engagement; and
- Maintain a public education strategy.

The Nebraska Broadband Initiative is discussing ways to continue the progress made through the grants:

- A new website (broadband.nebraska.gov) is scheduled to go live by March 20.
- Discussions are underway with the Nebraska Rural Futures Institute to include additional pre-sessions on broadband.
- Community Council members have been working with the Nebraska Library Commission to encourage libraries to offer youth coding opportunities.
- A workbook is being developed to help communities address broadband development.

March 17, 2015

To: NITC Commissioners
From: Anne Byers
Subject: eHealth Council Report

E-Prescribing Controlled Substances Update. Nebraska is now a leader in e-prescribing controlled substances (EPCS). Nebraska ranks third in the nation for “prescriber readiness,” meaning that the prescriber is enabled and has sent EPCS within the last 30 days. As of February, Nebraska has 8.6% of the approximately 10,000 prescribers who have performed EPCS within the last 30 days. The national average is 3.2%. Nebraska ranks 8th in the nation for “pharmacy readiness,” defined as the pharmacy is enabled but may or may not have received an EPCS script. Of the 431 Nebraska pharmacies in the Surescripts system, 76% are EPCS enabled. The national average is 72%.

NeHII Update. NeHII now has approximately 4,400 users and data on over 2.9 million individuals. This spring NeHII has started working with Optum to migrate to a new platform which will enable additional functionality.

NeHII has been working with the NDHHS Division of Medicaid and Long-term Care to obtain 90/10 matching funding for the support of meaningful use of health information. The Centers for Medicare and Medicaid Services has approved the contract with NeHII this week. Once the contract is signed, NeHII can start working with hospitals on their implementations.

Office of the National Coordinator Funding Opportunity. In February, the Office of the National Coordinator for Health IT announced a new funding opportunity for states or state-designated entities to advance health information exchange. The NITC/Office of the CIO has been working with NeHII, the University of Nebraska Medical Center, and the DHHS Division of Public Health to develop a proposal. The primary goal of this grant proposal is to increase the adoption of health information exchange through NeHII by:

- 1) Bringing new facilities on-board the exchange with a specific focus on critical access hospitals/rural hospitals and long-term care facilities;
- 2) Providing assistance to new facilities with workflow analysis and use case based training on the use of NeHII;
- 3) Providing additional value-added functionality for existing participants, including a provider directory for Direct secure e-mail, population analytics, and continuity of care document exchange; and
- 4) Implementing information exchange between neighboring states.

The application deadline is April 6, 2015.

Next Steps for eHealth Council. From 2010 to 2014, the eHealth Council was focused on administering the State HIE Cooperative Agreement. Now that the grant has concluded, the eHealth Council met in November to discuss next steps. The council will meet again on March 30 to discuss the proposal for

ONC funding. Sheri Dawson, Acting Director of the Division of Behavioral Health has been invited to share information on the new behavioral health information system and how to address the exchange of behavioral health information.

The primary goal of this grant proposal is to increase the adoption and use of interoperable health IT tools and services to support the exchange of health information within the state of Nebraska and with neighboring states. We aim to accomplish this goal by three primary activities: 1) increasing adoption by bringing new facilities on board the exchange with a specific focus on critical access hospitals/rural hospitals and long-term care facilities; 2) providing additional value-added functionality for existing participants; and 3) implementing information exchange with neighboring states via the HIE to HIE Gateway. For intra-state exchange, we will target facilities by specific regions to provide the most value. We have selected the Northwest Region centered in Scottsbluff, Nebraska; the East-central Region centered in Fremont, Nebraska; and the East region centered in Omaha.

- 1) Increasing adoption.
 - a. New data sharing participants for the HIE (**Project B**) - The Nebraska Health Information Initiative (NeHII) currently has 26 critical access hospitals (CAHs) participating or preparing to participate in the HIE in Nebraska and Western Iowa. We propose adding 7 more CAHs in Nebraska, two specialty hospitals, two long-term care hospitals and five long-term care (skilled nursing) facilities.
 - b. New data sharing participants via C-CDA exchange (**Project D**) - Facilities can provide data to the exchange by providing C-CDA documents. NeHII will accept, parse, and integrate the information into the exchange. We propose adding 20 different providers who do not currently participate in the HIE over the two year period covered by the grant. We will target additional CAH facilities, non-participating acute hospitals, and physician provider networks affiliated with these hospitals.
 - c. New Direct secure messaging participants (**Project C**) – Facilities that do not have EHR software can still receive C-CDA documents via Direct secure messaging. We will target long-term care/skilled nursing facilities in the targeted regions to provide this service. We propose adding 50 additional facilities during the two year grant period.
- 2) Provide existing participants with additional services to increase the use of NeHII.
 - a. Work flow analysis for new and existing participants to incorporate HIE and C-CDA data into daily processes (**Project B**).
 - b. Population health data analytics for participants electing to add the Optum One services to their NeHII functionality suite. Target Nemaha County Hospital and the Nebraska Medical Center as pilot participants (**Project A**).
 - c. Syndromic surveillance functionality for data submission directly to the Nebraska DHHS reporting system (**Project B**).
 - d. Provider directory for Direct participants to foster data sharing (**Project C**).
 - e. Pain contract information displayed in the NeHII VHR (**Project F**).
- 3) Implement HIE-to-HIE Gateway
 - a. Enable interstate information exchange with Kansas, Iowa, South Dakota, Missouri, and Colorado (**Project E**).

Project A: Optum One Analytics

The Optum One Analytics project will provide clinical data analysis tools for health information exchange participants. The software package provides reporting capabilities for population health, quality metrics, and risk measurement. The clean, validated data available through the platform can be used to make more accurate predictions of population health needs by focusing on the patients who have the most potential for

clinical improvement and cost savings. The tool can be used to help healthcare providers be pro-active rather than reactive with patient care.

NeHII will provide access to the software via the health information exchange. Participating facilities will be able to send data to the analytics platform for inclusion in the population health metrics. These facilities will be able to develop unique reports for data from their facilities to use for reporting measures and quality evaluations. They will also be able to compare their information to similar de-identified aggregate data from around the country. NeHII will need to set up data feeds from the participating facilities to receive data for use in the analytics software and will set up feeds to transmit developed reports back to the provider. NeHII will work with the participant to design scripts to determine the appropriate data for inclusion in the desired reports. We will bring on a pilot facility (Nebraska Medicine) and four additional facilities with the funding from this grant.

Project B: Critical Access Hospital, Specialty Hospital, and Long Term Care Facility Implementation with Syndromic Surveillance

Provider participation in health information exchange is critical to care coordination and other improvements to the quality of health care provided and to controlling rapidly increasing costs. Participating facilities are able to increase efficiency and decision-making by providing more complete patient information at the point of care. Every additional facility that participates in the HIE provides more data for a wider patient group and thus increases the value of the exchange for all other participants. Participation enables a more streamlined physician referral processes and care transition and can enhance relationships between patients and families by improving communications and the sharing of data.

NeHII will use the grant funding from the adoption milestone to a) increase participation in the exchange across the care continuum in areas of the state of Nebraska where hospital participation is already high and b) increase participation in regions of the state where the hospital adoption rate is low. In the high adoption areas, we will strive to fill in the gaps in missing information to provide a more complete patient data package. We are proposing adding two long-term care hospital facilities in the Omaha area and five skilled nursing facilities to increase participation across all care settings. We will also use the funding to bring on critical access hospitals and supporting skilled nursing facilities clustered around participating acute care centers in regions of Nebraska where participation is not as great.

In addition to providing monies to cover the initial set up and implementation fees, we have also proposed significant labor resource hour funding to provide care setting-specific work flow analysis and in-depth training by qualified, experienced health care professionals with significant information technology incorporation experience. We want the adoption of health information exchange to strengthen the provider-patient and the hospital-community relationships rather than frustrate and inconvenience the providers and hospitals.

We recognize that current HIE participants may not have recognized the utility of data from the exchange and have not fully implemented the use of the exchange into their regular clinical work flows. We have also proposed additional funding to support the review of existing work flows and analysis to provide additional ways to gain value from the exchange data. This resource time will also provide training hours to help solidify the use of the exchange in the daily routine for providing care.

We will also use grant funding to provide facilities with the technology required to submit data electronically to the Nebraska Department of Health and Human Services syndromic surveillance program (Syndromic Surveillance Event Detection of Nebraska (SSEDON)).

Project C: Direct Provider Directory and Implementation of Additional Facilities

Full data sharing participation in the health information exchange is not practical for all care facilities. Those smaller, specialized providers may not have the information technology infrastructure to send and receive data directly with the exchange platform. However, these facilities are able to participate in entry-level, value-added health information exchange via Direct secure messaging services offered through the Nebraska Health Information Initiative. Direct enables a healthcare provider with the ability to electronically and securely push specific health information, such as discharge summaries, clinical summaries from primary care providers (PCP) and specialists, lab results to ordering providers, or referrals over the internet to another healthcare provider(s) who is a known and trusted recipient. Direct supports simple scenarios of pushing data from where it is to where it is needed, in a way that will support more sophisticated interoperability in the future. NeHII will use the grant funding from the adoption milestone to add 50 additional Direct messaging participants. We will focus on bringing on skilled nursing facilities clustered around participating acute care centers and critical access hospitals in the target regions of Nebraska.

Direct allows for the transmission of health information in a uni-directional flow using a secure, standard, scalable encrypted format and ensures that the information goes to the correct provider, organization or patient. It augments previous inadequate, outdated and more expensive forms of sharing information such as fax or delivery of paper charts. Direct participants may send health data to any other individual or organization that is also a Direct participant outside of a formal HIE (Health Information Exchange) or other private network. Direct Addresses are available from HISPs (Health Information Service Providers), and are verifiable and "unspoofable". Direct is an initiative created by the ONC and is well-supported and Internet-friendly. This solution can facilitate a fast, cost-effective alternative for exchange of patient health information and can enhance transitions of care with direct communication to receiving providers. Direct also provides the ability to track successful delivery of messages. Direct will support the ability of participants to meet key Stage 2 Meaningful Use requirements by providing an approved transport mechanism for 1) electronically sending Transitions of Care summary care records and 2) providing patients with the ability to view, download and transmit their visit information.

Direct can be used in two different ways: 1) electronically sending messages to one another by attaching and exchanging health information documentation through secure email over an Internet connection or 2) integrating Direct messaging with the provider's EHR system to streamline the workflow process of sending/receiving summaries of care from within the EHR.

Project D: HIE to HIE Gateway

Although the Nebraska Health Information Exchange's primary goal is to serve the data exchange needs within the state, no state operates in a healthcare silo. Many patients cross state lines for specialized care or during vacation and travel. Nebraska shares borders with Iowa, South Dakota, Colorado, Wyoming, Missouri, and Kansas. Many Iowa hospitals participate directly in the Nebraska Health Information Exchange due to their geographic proximity to Omaha, Nebraska's largest city and a major health care hub. However, many patients in Iowa obtain care from hospitals around the state. The HIE to HIE gateway project will provide the

means for NeHII participants to query and retrieve patient data from other HIE entities without requiring the individual hospitals to direct connect to the Nebraska exchange. Through the Cross-Community Access (XCA) profile, participants can access relevant medical data held by other HIEs. We propose using funding from the exchange milestone to cover the initial implementation costs of connecting to the state HIE in Iowa (IHIN), the state HIE in Colorado (CORHIO), the state HIE in Kansas (KHIN), the state HIE in Missouri (Missouri Health Connection), and the state HIE in South Dakota (South Dakota Health Link).

Project E: C-CDA Exchange (XDS Repository)

When providing value-added services, NeHII recognizes that a “one-size fits all” approach does not always work. While many participants elect to use HL7 data feeds as the primary method for providing data to the exchange, providers can also submit care documentation in another standard format for incorporation into the patient’s health record within the exchange. Whether seeing a patient for the first time or checking up on a patient recently discharged from the hospital, a provider will make better treatment decision when he or she has a summary of the care administered to the patient by other providers.

NeHII offers Cross-Enterprise Document Sharing (XDS) capabilities that facilitate clinical document sharing among various systems in the HIE. Participants can provide documents to the HIE’s XDS Repositories and register documents with the HIE’s XDS Registry. Users can query the HIE’s XDS Registry for documents for a patient and retrieve documents from the appropriate repositories. When a user queries for data, the HIE will return the list of documents matching the query parameter, along with their metadata, as sent by the document source. The search matching is based on the metadata provided by the data source. Furthermore, the displayed metadata help end users to determine which documents are of interest. This functionality is different from the exchange of data through Direct as the information is stored and can be queried at any point in the future. We propose using funding from the exchange milestone to cover the initial implementation costs of connecting 20 new facilities with C-CDA exchange capabilities. We will target facilities (acute care hospitals, CAHs, and physician clinics) who elect to participate in this type of data sharing in the previously-identified regions of Nebraska.

Project F: Pain Contracts

Managing chronic pain with opioids is complicated and challenging. Doctors need to know if patients can follow the treatment plan, if they get desired responses from the meds, and if there are signs of developing addiction. Physicians use “pain contracts” to monitor patients adherence or to help check that patients are compliant with the medications ordered. Such agreements are most commonly used when narcotic pain relievers are prescribed due to the potential for addiction if not taken as prescribed by a doctor. The contract will spell out the rules patients must follow to take these drugs safely. The contracts aim to discourage people from taking too much medication, mixing medications, or sharing or selling them. The agreements may require patients to submit to blood or urine drug tests, fill their prescriptions at a single pharmacy or refuse to accept pain medication from any other doctor. If patients don’t follow the rules, the agreements often state that doctors may drop them from their practice.

The use of a pain management agreement allows for the documentation of understanding between a doctor and patient. Such documentation, when used as a means of facilitating care, can improve communication amongst all of the patient’s care providers. We propose using funding from the interoperability milestone to

cover the initial implementation costs of receiving and displaying pain contract information from one pilot site facility in the virtual health record.

Network Nebraska-Education Recognized as 2015 Harvard Ash Center Bright Idea in Government

[Lincoln, NE] – March 17, 2015 – The Ash Center for Democratic Governance and Innovation at the John F. Kennedy School of Government, Harvard University, recently recognized **Network Nebraska-Education** as part of the 2015 *Bright Ideas* program. This year’s cohort includes 124 programs from all levels of government—school districts; county, city, state, and federal agencies; as well as public-private partnerships—that are at the forefront in innovative government action. Network Nebraska-Education began in 2006 as a Legislative initiative to interconnect the Nebraska schools and colleges on a single statewide network. Cooperatively managed by the State of Nebraska and University of Nebraska, membership has grown dramatically since its inception, the cost of telecommunications has decreased, and the project is now fully self-funded.

“The Bright Ideas program demonstrates that often seemingly intractable problems can be creatively and capably tackled by small groups of dedicated, civic-minded individuals,” said Stephen Goldsmith, director of the Innovations in Government Program at the Ash Center. “As exemplified by this year’s Bright Ideas, making government work better doesn’t always require massive reforms and huge budgets. Indeed, we are seeing that, in many ways, an emphasis on efficiency and adaptability can have further-reaching effects than large-scale reforms.”

This is the fourth cohort recognized through the Bright Ideas program, an initiative of the broader Innovations in American Government Awards program. For consideration as a Bright Idea, programs must currently be in operation or in the process of launching and have sufficient operational resources and must be administered by one or more governmental entities; nonprofit, private sector, and union initiatives are eligible if operating in partnership with a governmental organization. Bright Ideas are showcased on the Ash Center’s [Government Innovators Network](#), an online platform for practitioners and policymakers to share innovative public policy solutions.

For more information about the Innovations in Government Program, contact:

Daniel Harsha
Associate Director for Communications, Ash Center
617-495-4347

For more information about Network Nebraska-Education, contact:

Brenda Decker
Acting State Chief Information Officer, State of Nebraska
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About the Ash Center for Democratic Governance and Innovation

The Ash Center for Democratic Governance and Innovation advances excellence in governance and strengthens democratic institutions worldwide. Through its research, education, international programs, and government innovations awards, the Center fosters creative and effective government problem solving and serves as a catalyst for addressing many of the most pressing needs of the world's citizens. For more information, visit www.ash.harvard.edu.

About Network Nebraska-Education

Network Nebraska-Education is a collaborative statewide networking effort under the auspices of the Nebraska Information Technology Commission (NITC) to share telecommunications resources, network services, and applications among 274 K-12 and higher education participants. Network Nebraska refers to the statewide multipurpose telecommunications backbone and all of its associated service offerings and support. Network Nebraska is made possible through a consortium of public entities working together to provide a scalable, reliable and affordable infrastructure capable of carrying a spectrum of services and applications.

NETWORK NEBRASKA PROJECT FINANCIAL OVERVIEW, 2006-2014									
	FY 2006 - 2007	FY 2007 - 2008	FY 2008 - 2009	FY 2009 - 2010	FY 2010 - 2011	FY 2011 - 2012	FY 2012 - 2013	FY 2013 - 2014	TOTAL
REVENUE									
Interregional Transport Fee	\$ -	\$ -	\$ 82,241	\$ 101,844	\$ 443,284	\$ 280,863	\$ 187,148	\$ 171,313	\$ 1,266,693
Participation Fee	\$ -	\$ 188,001	\$ 431,604	\$ 531,416	\$ 484,494	\$ 558,459	\$ 616,582	\$ 674,126	\$ 3,484,682
Statewide Internet Access	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,539	\$ 359,352	\$ 505,892
Renovo	\$ 99,093	\$ 316,933	\$ 699,004	\$ 112,700	\$ 104,811	\$ 104,811	\$ -	\$ -	\$ 1,437,352
Total:	\$ 99,093	\$ 504,934	\$ 1,212,849	\$ 745,960	\$ 1,032,589	\$ 944,133	\$ 950,269	\$ 1,204,791	\$ 6,694,618
EXPENSES									
Salaries\Benefits	\$ -	\$ 38,610	\$ 81,807	\$ 84,785	\$ (107)	\$ -	\$ -	\$ -	\$ 205,095
Communication Expenses	\$ -	\$ 127,019	\$ 163,020	\$ 181,186	\$ 414,055	\$ 268,812	\$ 522,285	\$ 569,706	\$ 2,246,083
Contractual Services	\$ 37,732	\$ 137,849	\$ 221,152	\$ 364,341	\$ 86,829	\$ 207,931	\$ 609,304	\$ 174,850	\$ 1,839,988
Software	\$ 130,523	\$ 195,595	\$ 699,004	\$ 112,700	\$ 157,112	\$ 104,811	\$ 2,943	\$ 183,912	\$ 1,586,600
Indirect Costs	\$ -	\$ 11,769	\$ 38,826	\$ 34,267	\$ 21,012	\$ 18,272	\$ 30,657	\$ 30,102	\$ 184,905
Equipment	\$ -	\$ -	\$ -	\$ -	\$ 24,872	\$ 65,422	\$ 23,600	\$ 95,350	\$ 209,244
Other Operating Expenses	\$ 17,165	\$ 56,633	\$ 14,412	\$ 1,313	\$ 588	\$ 41,602	\$ 37,184	\$ 37,850	\$ 206,747
Total:	\$ 185,420	\$ 567,475	\$ 1,218,221	\$ 778,592	\$ 704,360	\$ 706,850	\$ 1,225,973	\$ 1,091,770	\$ 6,478,661
Variance	\$ (86,327)	\$ (62,541)	\$ (5,372)	\$ (32,632)	\$ 328,229	\$ 237,283	\$ (275,704)	\$ 113,021	\$ 215,958
Total Earned Variance through June 30, 2014									\$ 215,958
By Service									
RENOVO									
Revenue	\$ 99,093	\$ 316,933	\$ 699,004	\$ 112,700	\$ 104,811	\$ 104,811	\$ -	\$ -	\$ 1,437,352
Expenses	\$ 185,420	\$ 230,606	\$ 699,004	\$ 112,700	\$ 104,811	\$ 104,811	\$ -	\$ -	\$ 1,437,352
Variance	\$ (86,327)	\$ 86,327	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Participation Fee									
Revenue	\$ -	\$ 188,001	\$ 431,604	\$ 531,416	\$ 484,494	\$ 558,459	\$ 616,582	\$ 674,126	\$ 3,484,682
Expenses	\$ -	\$ 336,869	\$ 356,197	\$ 484,706	\$ 316,386	\$ 333,227	\$ 892,286	\$ 561,105	\$ 3,280,776
Variance	\$ -	\$ (148,868)	\$ 75,407	\$ 46,710	\$ 168,108	\$ 225,232	\$ (275,704)	\$ 113,021	\$ 203,906
Statewide Internet Access									
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,539	\$ 359,352	\$ 505,892
Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 146,539	\$ 359,352	\$ 505,891
Variance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0	\$ 0	\$ 1
Transport Fee									
Revenue	\$ -	\$ -	\$ 82,241	\$ 101,844	\$ 443,284	\$ 280,863	\$ 187,148	\$ 171,313	\$ 1,266,693
Expenses	\$ -	\$ -	\$ 163,020	\$ 181,186	\$ 283,163	\$ 268,812	\$ 187,148	\$ 171,313	\$ 1,254,642
Variance	\$ -	\$ -	\$ (80,779)	\$ (79,342)	\$ 160,121	\$ 12,051	\$ (0)	\$ (0)	\$ 12,051
TOTAL:									
Revenue	\$ 99,093	\$ 504,934	\$ 1,212,849	\$ 745,960	\$ 1,032,589	\$ 944,133	\$ 950,269	\$ 1,204,791	\$ 6,188,727
Expenses	\$ 185,420	\$ 567,475	\$ 1,218,221	\$ 778,592	\$ 704,360	\$ 706,850	\$ 1,225,973	\$ 1,091,770	\$ 5,972,770
Variance	\$ (86,327)	\$ (62,541)	\$ (5,372)	\$ (32,632)	\$ 328,229	\$ 237,283	\$ (275,704)	\$ 113,021	\$ 215,957



- Nebraska Public Service Commission Workshop, Tuesday, 3/17/2015
- A briefing on Network Nebraska-Education & E-rate Modernization
- Presented by Tom Rolfes, Education I.T. Manager, Office of the Chief Information Officer, State of Nebraska

Talking Points

- Brief History
- Current Status
- Future Development
- E-rate Modernization
- Other Community Anchor Institutions

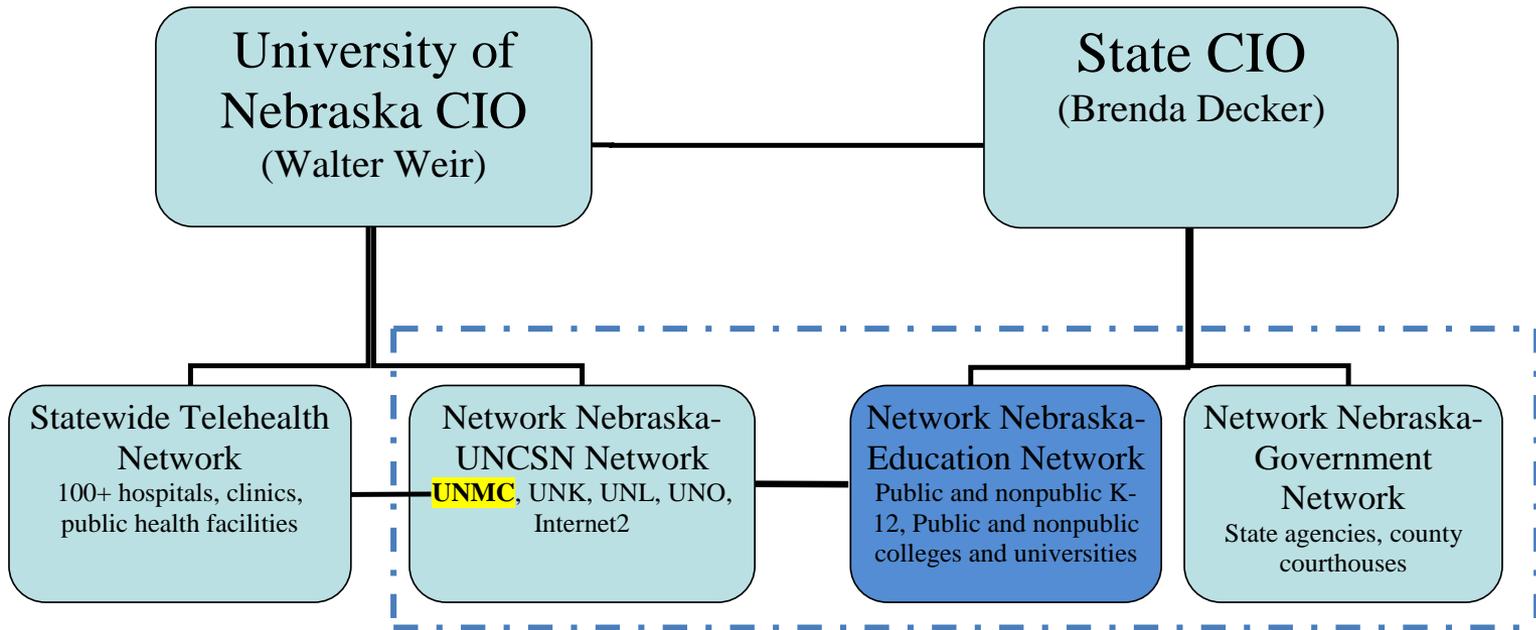


- **What is Network Nebraska?**

- A statewide consortium of 288 education entities working together to improve their telecommunications services and lower costs;
- A statewide, self-funded network consisting of a 1,293-mile 2Gbps-10Gbps backbone carrying between 20Gbps and 30Gbps of Internet;
- Serving over 300,000 K-12 students and over 100,000 higher education students;
- Managed by the State of Nebraska Office of the CIO, and assisted by the University of Nebraska, with guidance from the Network Nebraska Advisory Group, Collaborative Aggregation Partnership, and the NITC.



- (N.R.S. 86-5,100) The Chief Information Officer, in partnership with the University of Nebraska, shall develop and maintain a statewide, multipurpose, high capacity, scalable telecommunications network to be called **Network Nebraska**. The network shall consist of contractual arrangements with providers to meet the demand of state agencies, local governments, and educational entities as defined in section 79-1201.01. *(LB 1208—2006 Session)* (“Network Nebraska” is shown inside the dotted lines)





- **How did we get here?**

- Impetus: (2005) K-12 distance learning coordinators convinced the Nebraska Legislature that it needed to take action or K-12 schools “were going to go dark”.
- Interim Study: (2005) Legislature convened a study committee for 6 months to examine the issue.
- LB 1208: (2006) Legislative bill enacted policy, funding, coordination, and network management changes.
- Growth: (2007-2012) By July 1, 2012, 100% of public higher ed and 89% of public K-12 were on the network.
- Maintenance: (2013-present) Participants explore and recommend applications and services.



K-12 networking, before and after LB 1208 (2006)

1992-2005

- 12 distance education consortia (“pods”)
- Analog & Motion JPEG DS-3s
- No backbone interconnects
- 1.5 – 3.0 Mbps Internet per school
- Fiber to 90% of districts

2006-present

- 1 distance education clearinghouse
- IP-based statewide network with 300+ Ethernet WAN circuits
- 1293-mile MPLS backbone
- Completely scalable Internet; total statewide purchase 25Gbps
- Fiber to 99.2% of districts



- **How did NN develop a cost recovery system?**
 - 1. Separated all E-rate eligible services from non-E-rate services and established 3 different fund accounts.
 - Participation Fee, Interregional Transport Fee, Internet Access
 - 2. Considered fees based on student population, amount of bandwidth, number of entities, and hybrid approach.
 - Settled on “1 entity, 1 fee” approach, regardless of size of entity or amount of bandwidth
 - 3. Established a monthly billing/re-billing system through the State Office of the CIO.
 - University of Nebraska and vendors bill the OCIO and the OCIO recovers costs from each Participant
 - 4. The Network Nebraska Advisory Group continually reviews, monitors, and recommends changes to the cost recovery system



- **How did NN address control vs cooperation with the school, ESU and college networking staff?**
 - 1. Described a vision that included cooperative management and some decentralization of network monitoring, and we “stayed on message”.
 - 2. Kept Network Nebraska’s management team extremely small and didn’t go where NN staff weren’t asked.
 - 3. Attended lots of out-state and ESU meetings.
 - 4. In 2009, chartered the Network Nebraska Advisory Group to advise the State CIO on network decisions.
 - 5. Shared all of NN’s network management tools with every technician who asked for access.



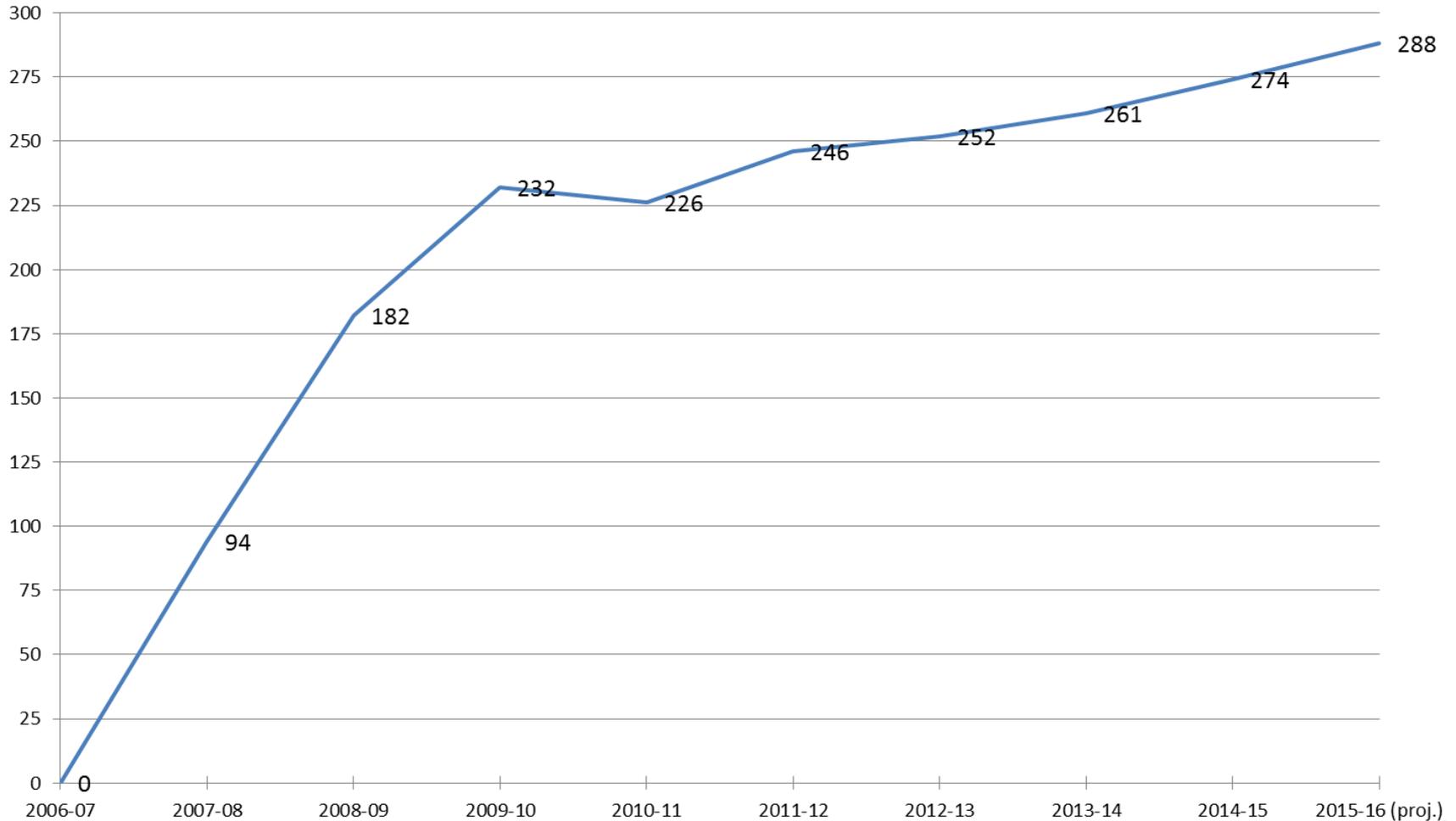
- **How has NN gotten so many entities to join?**
 - 1. The lottery incentives helped ease the financial burden to belong (e.g. 3 D.L. classes, \$3,000 > NN costs, \$2,700)
 - 2. Reinforced that the network belonged to the participants, not the State or the University
 - 3. Achieved a dramatic reduction in Internet costs
 - 4. “Total transparency” of complete financial information, budgets, contracts, agreements, etc...
 - 5. Aggregated demand and shared backbone services demonstrated that a large group of unlike entities can be successful when they all agree to work together



- **Connectivity Expectations for each NN Participant**
 - Pay for WAN circuit to reach a Network Nebraska aggregation point:
 - Scottsbluff-Panhandle Research Center
 - Grand Island-College Park
 - Lincoln-Nebraska Hall
 - Omaha-Peter Kiewit Institute
 - Omaha-Nebraska Co-Location Center
 - Or Sub-aggregation point:
 - LaVista-ESU 3
 - Beatrice-ESU 5
 - Milford-ESU 6



Network Nebraska-Education Membership by Year





- **Network Nebraska-Education
7/1/2015 Partners (288)**

- 246 public school districts (99.6%)
- 17 Educational Service Units (100%)
- 1 public university (100%)
- 3 state colleges (100%)
- 6 community colleges (100%)
- 2 tribal colleges (100%)
- 7 nonpublic colleges (50%)
- 6 nonpublic schools (3%)
- 1 public library (<1%)

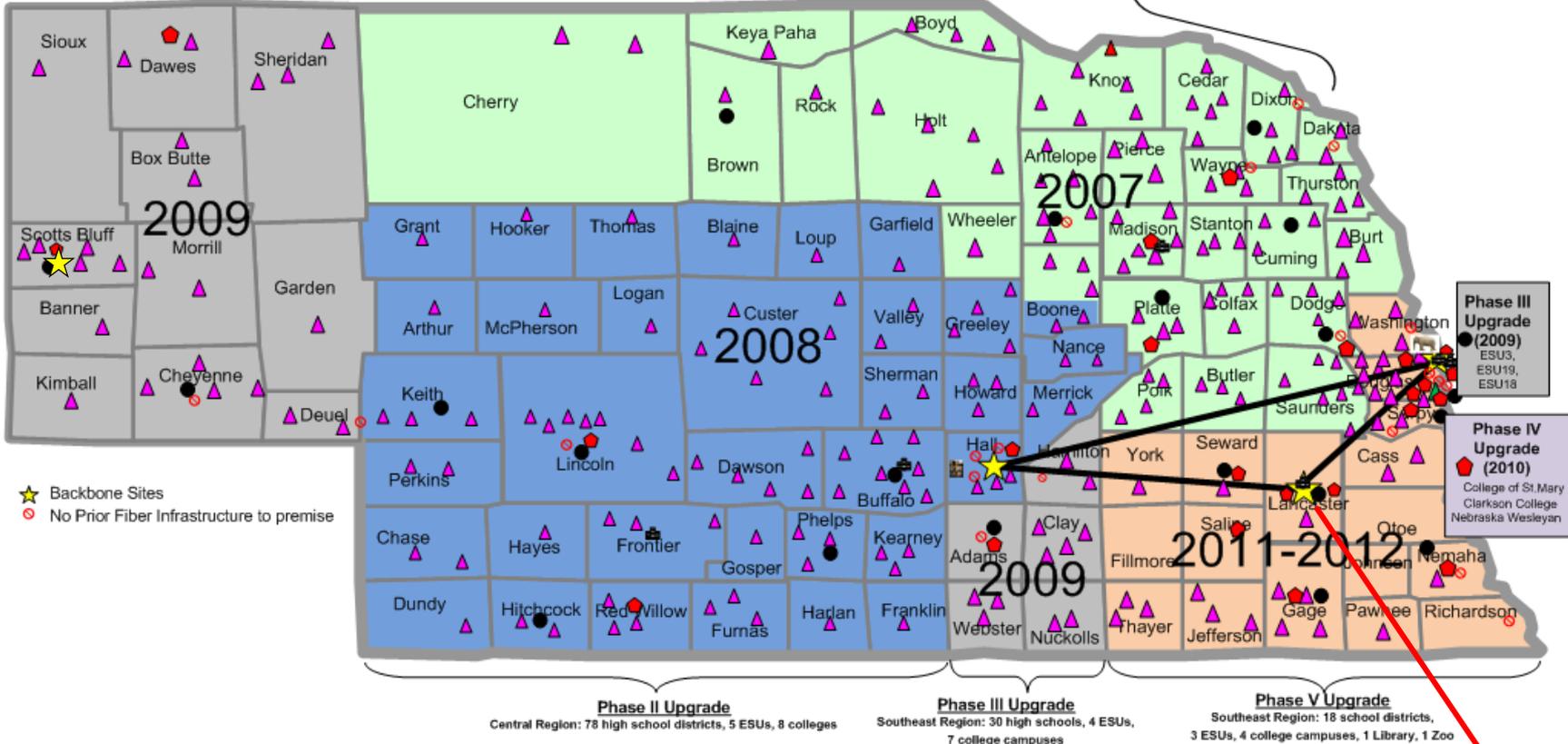
- **Network Nebraska-Education
POTENTIAL Partners (482)**

- 1 public school district
- 7 nonpublic colleges
- 207 nonpublic schools
- 267 public libraries

Network Nebraska-Education Map by Year

Phase III Upgrade
Panhandle Region: 23 high school districts, 2 ESU offices, 1 college campus

Phase I Upgrade
Green Shading of Northeast Region: 87 high school districts, 5 ESUs, & 2 college campuses



★ Backbone Sites
○ No Prior Fiber Infrastructure to premise

Phase III Upgrade (2009)
● ESU3, ESU19, ESU18

Phase IV Upgrade (2010)
● College of St Mary
● Clarkson College
● Nebraska Wesleyan

Phase I – Green Shading on Counties
North Central/NorthEast Regions 2007

- ▲ 87 School Districts
- 5 ESU Offices (1, 2, 7, 8, & 17)
- ◆ 2 College campuses
- NU (UNO, UNL, UNMC, UNK)

Phase II – Blue Shading on Counties
South Central Regions 2008

- ▲ 78 School districts
- 4 ESU Offices (10, 11, 15, & 16)
- ◆ 7 College campuses
- 1 NU (NCTA)

Phase III – Gray Shading on Counties
Western/SouthEast Regions in 2009

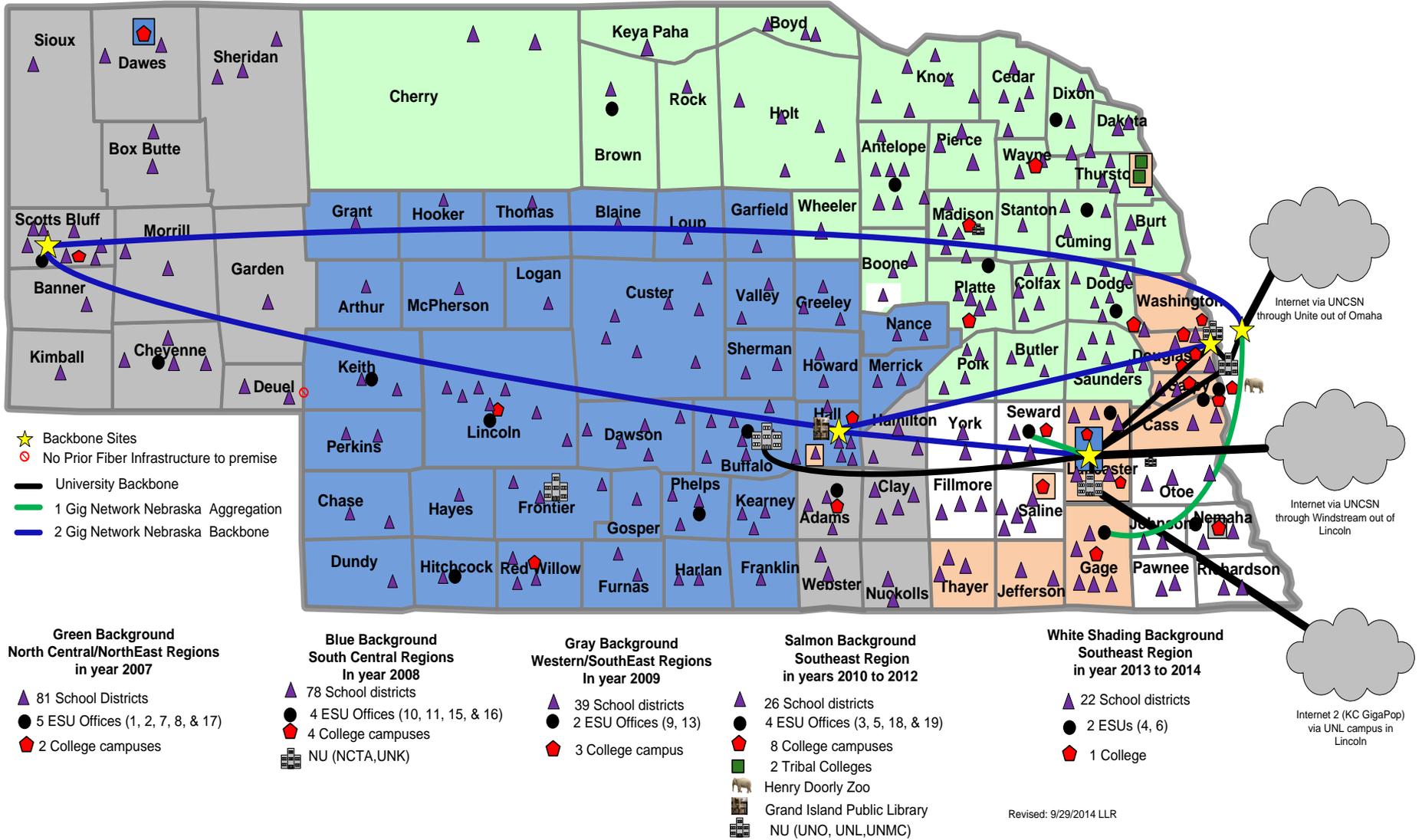
- ▲ 42 School districts
- 6 ESU Offices (3, 9, 13, 14, 18, & 19)
- ◆ 8 College campuses

Salmon Shading on Southeast Region (2011-2012)

- ▲ 18 School districts
- 3 ESU Offices (4, 5, & 6)
- ◆ 4 College campuses
- Henry Doory Zoo
- Grand Island Public Library

Internet2
(K.C. GigaPop)

Network Nebraska – Education 2014





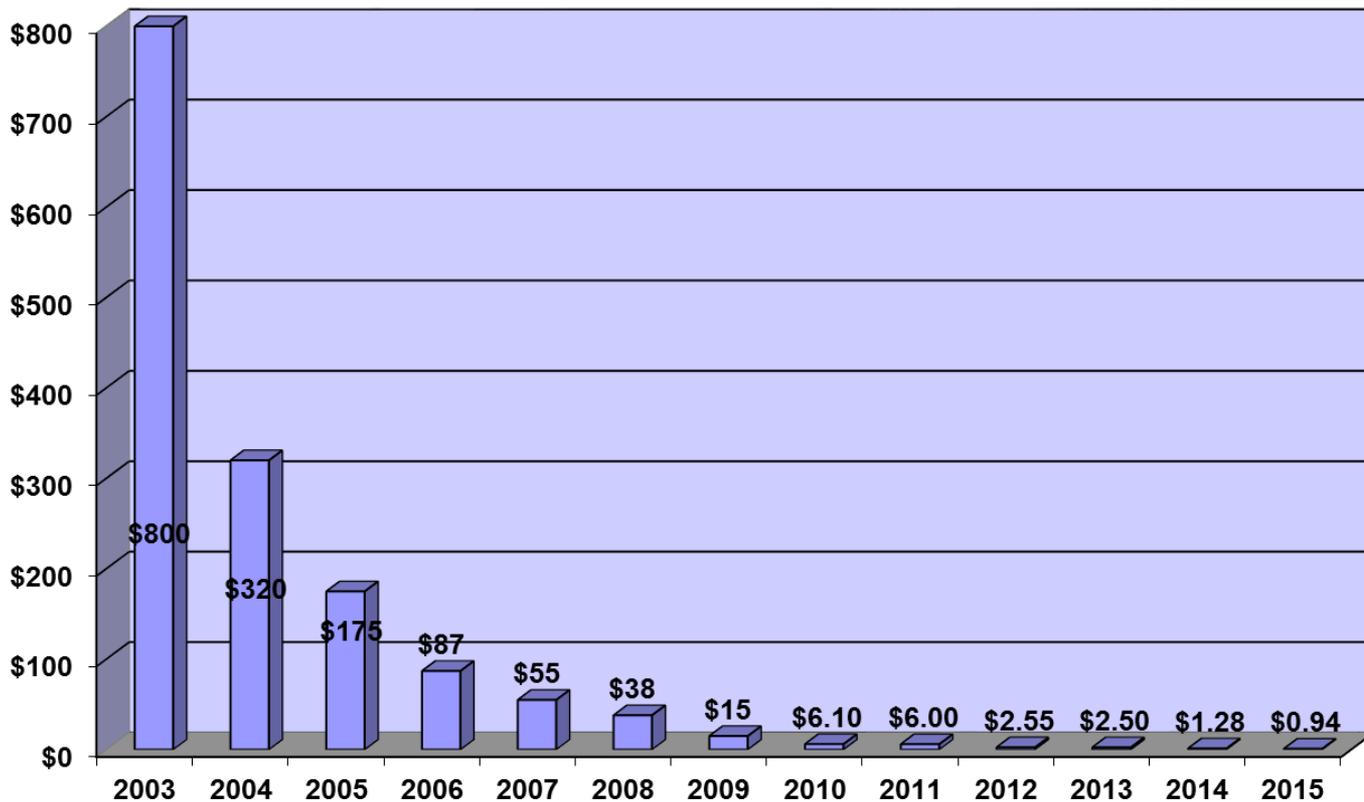
- **Major Roles for Network Nebraska-Education**
 - Network management & infrastructure
 - Bidding for WAN circuits, backbone, Internet, and equipment
 - E-rate filing (backbone & Internet)
 - Accounting, legal, purchasing, budgeting
 - Vendor relations, contracting and billing issues
 - Data center co-location for Participant equipment
 - Sponsor training events (e.g. E-rate, technical, security, disaster recovery)



- **Network Nebraska-Education**
 - **\$1.3M Budget (2014-15)**
 - \$700K for infrastructure maintenance and support
 - \$190K for backbone
 - \$325K for Internet access
 - **Statewide Backbone (2014-15)**
 - 1293 miles
 - 2 Gbps
 - 5 major & 3 minor aggregation points
 - carrying up to 30 Gbps of Internet
 - **Completely self-funded by the 288 participants**

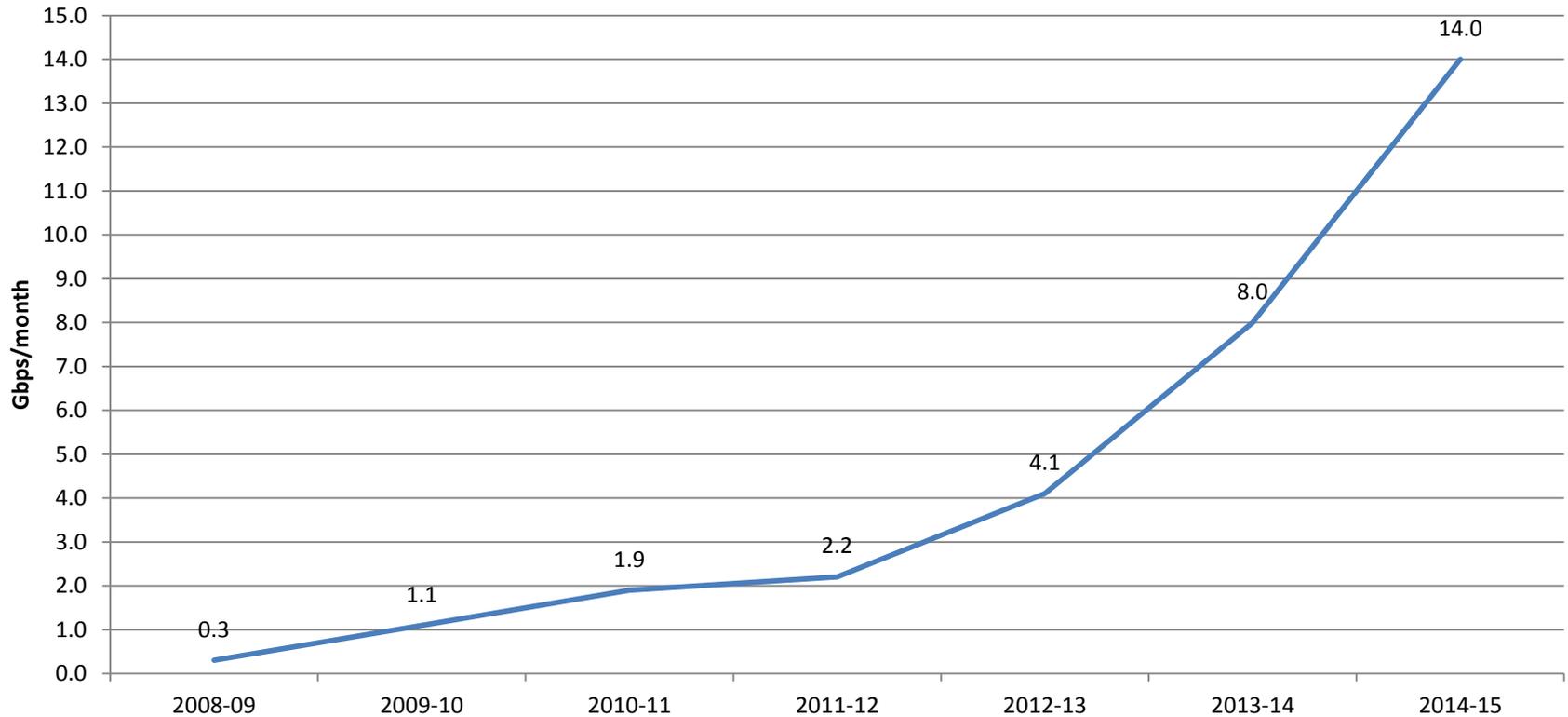


**Network Nebraska Internet Access Cost
(Average \$\$ per Mbps/month)**





Amount of Internet Bandwidth Purchased by Network Nebraska- Education **K-12** Participants (in Gbps/month)





- **A look to the future...**

- Participation by public K-12 and public higher education entities expected to reach nearly 100% by 7/1/2015
- Traffic shaping, Intrusion Prevention, and Commercial Peering Services were recently implemented
- More educational applications (e.g. online testing, digital textbooks, cloud services) requiring much more bandwidth
- Online testing to achieve 100.0% up time
- Some backbone segments will need to increase from 2Gbps to much higher capacity (5Gbps-10Gbps)
- Internet access continues to increase about 80% per year
- Dynamic provisioning of Internet will provide about \$100K per year of cost avoidance, applicable to other technology costs



E-rate Modernization



Federal
Communications
Commission

- **Major changes (Part 1)**

- FCC wants every school to have an external connection of at least 100Mbps per 1,000 students by 2015 and 1000Mbps per 1,000 students by 2018; and 10Gbps between school district buildings
- FCC will more aggressively enforce the Lowest Corresponding Price (LCP) rule
- Priority 2 funding becomes Category 2 (C2) funding and allows for an internal connections project budget of \$150/student over five years, less the school district's E-rate discount (Nebraska = \$~56 million)
- C2 funding will focus on WiFi and be able to pay for routers, switches, wireless access points, internal cabling, racks, wireless controller systems, firewall services, uninterruptable power supplies, and the software to control the wireless access points
- C1 funding for voice service, voicemail, VOIP, e-mail, and web hosting will abruptly or gradually be phased out



E-rate Modernization



Federal
Communications
Commission

- **Major changes (Part 2)**

- FCC will make circuit speeds and bandwidth costs totally transparent from the USAC website starting in FY 2015
- FCC plans to designate nationwide Preferred Master Contracts so that schools and libraries will not have to bid C2 equipment, but may bid C2 installation, wiring, and basic maintenance locally or by consortia
- Consortium applications will be streamlined and expedited
- The definition of “rural” will be updated from the 2010 U.S. Census
- Starting in FY 2016, entities who pay the full cost of their services will be able to get direct reimbursement through USAC, instead of through their service provider
- FCC plans to raise the profile of the E-rate program to tribal schools and libraries
- The document retention period for applicants, providers, consortium leads and bidders has been extended from 5 to 10 years



E-rate: Who bids? Who files? Who gets billed? Who pays the undiscounted portion?

Type of Service	Who bids and contracts?	Who files E-rate?	Who is the billed entity?	Who pays the balance?
Local campus circuits	K-12 schools & Libraries	K-12 schools & Libraries	K-12 schools & Libraries	K-12 schools & Libraries
WAN Circuits to the backbone	State of Nebraska/K-12 schools & Libraries	K-12 schools & Libraries	K-12 schools & Libraries	K-12 schools & Libraries
Statewide backbone	State of Nebraska	State of Nebraska	State of Nebraska	K-12 schools & Libraries
Statewide Internet	State of Nebraska	State of Nebraska	State of Nebraska	K-12 schools & Libraries



- **Nebraska Community Anchor Institution Participation as defined by Internet2 U.S. UCAN**
 - **K-12 public & private schools, ESUs** = reaching 100% public entity participation through [Network Nebraska-Education](#)
 - **2-year technical colleges** = 100% through [Network Nebraska-Education](#)
 - **4-year public and private colleges** = 72% through [Network Nebraska-Education](#)
 - **Public libraries** = < 1% through [Network Nebraska-Education](#)
 - **Local & County Government** = Access through OCIO Network
 - **Hospitals, Clinics** = Access through Nebraska State Telehealth Network
 - **Public Safety Entities** = Access through OCIO Network
 - **Museums/Science Centers/Zoos** = No direct access provided; but entities can partner with [Network Nebraska-Education](#) members



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<http://www.networknebraska.net> (Network Nebraska)

March 20, 2015

To: NITC Commissioners

From: Nathan Watermeier, State GIS Coordinator
Bill Wehling, Chair, GIS Council
Tim Cielocha, Vice-Chair, GIS Council

Subject: GIS Council Report

Approval of Standards

Action: Approve NITC 3-205 Street Centerline Standards

Technical Panel Recommendation: Approve
GIS Council Recommendation: Approve

There are multiple uses for street centerline data. These requirements will enable the data to be integrated not only with Next Generation 9-1-1 (NG9-1-1) but with existing state road network databases, routing services, emergency management, and public safety.

This standard provides requirements necessary for the creation, development, delivery, and maintenance of street centerline data to support a statewide Nebraska Street Centerline Database (NSCD). The database provides spatial location of a seamless road network including information tied to that location with appropriate attribute data. The standard provides a consistent structure for data producers and users to ensure compatibility of datasets within the same framework layer and when used between other Nebraska Spatial Data Infrastructure (NESDI) framework layers such as address points, parcels and administrative/political boundaries.

These standards can be used at local, state and federal level to ensure interdisciplinary compatibility and interoperability with other databases. These standards integrate with existing standards such as the US Federal Highways, National Emergency Number Association (NENA), U.S. Postal Service (USPS) Addressing Standard, and other NITC related standards. These standards have completed two public comment periods. No comments were received through the recent 30-day public review process initiated by the Technical Panel.

Action: Approve NITC 3-206 Address Standards

Technical Panel Recommendation: Approve
GIS Council Recommendation: Approve

There are multiple uses for address point data. These requirements will enable the data to be integrated not only with Next Generation 9-1-1 (NG9-1-1) but with existing state address databases, routing services, emergency management, public safety, tax assessment, and the state's enterprise geocoding application databases.

This standard provides requirements necessary for the creation, development, delivery, and maintenance of address point data to support a statewide Nebraska Address Database (NAD). The address database provides the spatial location and information tied to that location with appropriate attribute data. The standard provides a consistent structure for data producers and users to ensure compatibility of datasets

within the same framework layer and when used between other Nebraska Spatial Data Infrastructure (NESDI) framework layers such as street centerlines and parcels.

These standards can be used at local, state and federal level to ensure interdisciplinary compatibility and interoperability with other databases. These standards integrate with existing standards such as the National Emergency Number Association (NENA), Federal Geographic Data Committee (FGDC), U.S. Postal Service (USPS) Addressing Standard, and other NITC related standards. These standards have completed two public comment periods. No comments were received through the recent 30-day public review process initiated by the Technical Panel.

Membership

One of the Nebraska Association of County Officials (NACO) seat was vacated in November 2014. NACO has nominated, Todd Wiltgen, Lancaster County Commissioner, for this replacement and is awaiting Governor's approval. By statute, this seat is nominated by NACO and appointed by the Governor. The NITC does not provide further nomination for NACO.

Strategic Initiative Update

Elevation – The Elevation Business Plan has been presented to the GIS Council. Follow-up discussions and potential approval for this business plan is expected at the March 26 meeting. Once approved it will move to the NITC for review and discussion. The working group was awarded a LiDAR acquisition contract through the new United States Geological Survey (USGS) 3D Elevation Program in late 2014. The proposal covers almost a 4,500 square mile area in western Nebraska that abuts Colorado and Wyoming. The estimate for the project is \$1 million with USGS providing up to 50% match. The project will be awarded as soon as the remainder of the 50% match from other partners has been defined. These partners include local Natural Resource Districts (NRD), State agencies, and the Natural Resources Conservation Service (NRCS).

Land Records – Several OCIO members met with County Assessors in North Platte in late January. A draft development, implementation and maintenance plan is being developed as the next steps and processes involved for the state to acquire data.

NebraskaMAP - An updated inventory of the various geospatial data holdings have been completed. Some of the datasets required having their metadata updated prior to being made available for consumption. These datasets currently reside on the OCIO Cloud Services network and are shared through secure file services among many state agencies. The recent statewide 2014 NAIP imagery has been cached and made available to many agencies. A new open source platform is being evaluated to support the cataloging and sharing of data to the public through a new NebraskaMAP interface. A timeline is currently being discussed for the development and release of an infrastructure and public facing web site. The expectation is for a release later in 2015.

NITC 3-205

Street Centerline Standards

Review Version 5.0
(Date 12.12.2014)

Category: Data and Information Architecture
Applicability: See Each Section of Standards
History: Adopted on [Month Day, Year]



NEBRASKA INFORMATION TECHNOLOGY COMMISSION GIS COUNCIL

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1.0 Standard

1.1 Description

This standard provides requirements necessary for the creation, development, delivery, and maintenance of street centerline data to support a statewide Nebraska Street Centerline Database (NSCD). The database provides spatial location of a seamless road network including information tied to that location with appropriate attribute data. The standard provides a consistent structure for data producers and users to ensure compatibility of datasets within the same framework layer and when used between other Nebraska Spatial Data Infrastructure (NESDI) framework layers such as address points, parcels and administrative/political boundaries.

There are multiple uses for street centerline data. These requirements will enable the data to be integrated not only with Next Generation 9-1-1 (NG9-1-1) but with existing state road network databases, routing services, emergency management, and public safety. Furthermore, this standard will serve as a guideline for future maintenance activity data requirements.

This standard does not restrict or limit additional information collected and stored in a particular database. The specific requirements for street naming and road conditions are primarily the responsibility of the local jurisdiction. These standards are meant to be a minimum set of standards and are subject to be updated based on technology enhancements, necessary workflow changes, and other data requirements.

The standard is not intended to be a substitute for an implementation design. These standards can be used at local, state and federal level to ensure interdisciplinary compatibility and interoperability with other databases. These standards integrate with existing standards such as the US Federal Highways, National Emergency Number Association (NENA), U.S. Postal Service (USPS) Addressing Standard, and other NITC related standards.

1.2 Spatial Representation

1.2.1 Geometric Placement

The methodology for proper geometric placement of street centerlines will vary based on the application. Street centerlines can be placed either manually or by calculated placement. The calculated placement of the street centerline is completed by automated software techniques, typically in CAD or GIS. Calculations or manual placement methods can be made from the physical footprint referenced from imagery, LiDAR or from mapping grade GPS.

Providing an adequate seamless street centerline database to support public safety and emergency response is the primary focus and will need to support NG9-1-1 standards identified by NENA.

1.2.2 Data Development

All data will consist of visual and verifiable street centerline with address ranges and other information corresponding to some level of ground control. The geometric placement of street centerlines can be derived from digitizing and using field GPS data collection.

1.2.2.1 Digitizing

The data source used to digitize or place street centerlines must meet the following minimum requirements.

Capture Scale for digitizing: 1:2400

Projection: Nebraska State Plane Coordinate System

Datum: North American Datum of 1983 (NAD83)

Source: Using aerial imagery that meets verified horizontal accuracy requirements for spatial resolution (12 inch minimum), preferably leaf-off. In cases where tree cover or other obstructions are identified in imagery, it will be necessary to conduct field verification of that location with a mapping grade GPS unit. The NAIP imagery therefore does not meet these accuracy standards.

LiDAR can also be used as a guide to support spatial accuracy placement of certain aspects of roads.

Imagery, LiDAR, or other source document that was used to digitize street centerlines that is newly acquired or not made available for public access will need to be provided to entity conducting quality control of the data.

For information regarding standards for imagery and LiDAR requirements for Nebraska, refer to the Elevation Acquisition using LiDAR Standards (NITC 3-203) and Imagery Standards (NITC 3-204).

1.2.2.2 Global Positioning Systems (GPS)

The development of street centerlines can be utilized using field observation and data collection techniques using mapping grade stationary and vehicle equipped GPS. Data collected using a mapping grade GPS will need to meet spatial accuracy requirements in section 1.2.3. Additional post processing of GPS data may be necessary to meet these spatial requirements.

1.2.3 Spatial Accuracy

The minimum positional accuracy standards need to meet the following standard as set forth in the FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998).

1.2.3.1 Minimum Horizontal Accuracy Standard

Data that has been collected through digitization or visual representation methods must have an accuracy level of 3.28 to 9.84 feet (1-3 meters) or better.

When using mapping grade GPS, data will need to be collected at 3.28 feet (1 meter) or better. Additional requirements and suggestions for acquiring data by field GPS is located in the NENA GIS Data Collection and Maintenance Standards.

1.2.3.2 Minimum Vertical Accuracy Standard

There are no vertical accuracy requirements at this time.

1.2.4 Feature Type and Tables

1.2.4.1 Lines (Polylines)

A line represents the estimated center of a street or road and is not the legal right of way. Attribute data consists of four address range fields representing low to high on odd and even side of road segments necessary for geocoding. Address range values can be represented as theoretical (potential) or actual address ranges for the line segment and stored in the feature attribute table of the data set.

It is recommended whenever possible to develop actual address ranges. Theoretical address ranges typically start with zero and end with 99 for each street centerline segment. This includes every address between zero and 99 that is contained within each segment. Actual address ranges are defined as the actual ranges that exist along a street. The ranges can start with either a zero or one and end with a number that best represents that range for each street centerline segment. This method is desirable, as it produces greater range accuracies compared to theoretical address ranges. This results in better representation of geocoded addresses in relation to a street centerline. However, this approach is more costly to derive as it requires additional verification at the field to determine the exact range. If potential ranges are used, it is recommended to keep the range to a level appropriate for the segment. For example, consider going from a segment starting at 100 to 150 compared to 100 to 198.

1.2.4.2 Centerline Points

These are points used to create and reference particular information on street centerlines useful for assisting topology, addressing, and routing. These include point features considered as nodes to represent intersections, changes in street names, crossings, bridges, and jurisdictional boundary changes. Corresponding attribute information tied to each point is further defined in Section 1.3.6 Data Schema and Descriptions.

1.2.4.3 Tables

Corresponding tables for representing alternative street names can be further represented in tabular format. See Section 1.3.6 Data Schema and Descriptions for description on information for tables.

1.2.5 Projection and Datum

For data to be made available for NG9-1-1 operations, the data will need to be in a geographic coordinate system and not projected. This is necessary for the Emergency Call Routing Function (ECRF) or the Location Validation Function (LVF) uses for display.

EPSG:	4326 WGS84 / Latlong
Projection:	Geographic Coordinates, Plate Carrée, Equidistant Cylindrical, Equirectangular
Latitude of the origin:	0°
Longitude of the origin:	0°
Scaling factor:	1
False easting:	0°

False northing:	0°
Ellipsoid:	WGS84
Horizontal Datum:	WGS84
Vertical Datum:	WGS84 Geoid
Units:	decimal degrees
Global extent:	-180, -90, 180, 90

The NSCD will also be projected and delivered in Nebraska (State) Plane Coordinate System projection and datum for North American Datum of 1983 (NAD83). The plane coordinate values for a point on the earth's surface should be expressed in feet. The data will also be made available as Web Mercator with WGS 1984 horizontal datum for use among other needed web services.

1.3 Address Attributes

1.3.1 General Address Components

There are several components that make up a street address. Many are required to accurately define a specific address and location. When an address is matched against other address database files or for the purpose of generating an address it must be broken down into the individual components separated by a single space between the components. These standards follow the FGDC United State Thoroughfare, Landmark and Postal Address Data standard for address components. The minimum components required to accurately define an address are:

Primary Address Number:	123
Prefix Directional Street:	W
Street Name:	Main
Street Type:	ST
Street Direction:	NW
Unit Address Identifiers:	STE
Unit Number:	5
City:	Lincoln
State:	NE
Zip Code:	68509

Not all of the elements are required to be filled out for an address to be valid. However, the placeholders need to be present in the attribute table to accurately represent the accepted USPS standards. The USPS uses a parsing logic to enter address information into their appropriate fields. When parsing an address into the individual components, start from the right element of the address and work toward the left. Place each element in the appropriate field until all address components are isolated. This process facilitates matching files and produces the correct format for standardized output as well as isolating the mismatches to the closest possible fit before failing.

Associated attributes pertain to formatting and storing of address data within attribute tables that are external to and associated with feature attribute tables of geospatial datasets. For example, a city's master address database could be associated with and address matched against a city-wide geospatial dataset of points.

Addressing authorities at the local level that maintain address data within their each jurisdiction shall develop a master address database that can be referenced to the NSCD when new street names are being created or assigned so that duplications are avoided. All street names and address numbers shall be kept consistent with geospatial datasets.

1.3.2 Unique Identification Code

A unique identifier is required for the statewide street centerline database. This unique identifier allows the data to be tied or joined to other spatial data sets having the same identifier. The field name for this unique code in NSCD is "NEStreetID."

1.3.3 Directional Prefixes and Suffixes

The street address directional prefixes and suffixes shall always be abbreviated and capitalized, and shall not include periods. For example, North should be abbreviated as N. A complete set of directional prefix and suffix abbreviations are listed in Appendix 8.1.

1.3.4 Street Name

The NENA and FGDC United State Thoroughfare, Landmark and Postal Address Data standards will be followed for numbering streets. Street names will use capital and lower case letters. Street names should not be abbreviated unless it is common practice. For example, Doctor (DR) or Junior (JR) could be abbreviated.

Numeric streets shall be written using numbers rather than spelled out. For example, using "1ST" rather than "FIRST". The numeric street names should use "TH", "RD", "ST" or "ND" characters as part of the street name.

Vanity street names and numbers shall not be used as the primary street name or address range component.

For classifying new street names, a standard method of assigning numeric and character street names shall be developed and adopted for a jurisdiction. The primary objective is to establish a grid within each jurisdiction regardless of the detailed pattern of the individual grid. Streets that run primarily east and west would use a numeric street name grid, while those that run primarily north and south would be based on names from a master street name grid, or vice versa. The spacing of numeric street names should be based on a standard increment. A numeric street name should not be used outside of its proper location and sequence as established by the grid. The spacing of character streets should be based on a similar pattern. A character street name that is part of the grid should not be used outside of its proper location and sequence as established by the grid.

For public safety jurisdictions who maintain a Master Street Address Guides (MSAG), Automatic Location Information (ALI), and other local addressing standards are encouraged to update their databases to these standards. The NG9-1-1 requirements, as defined by NENA, define data layers and attributes to be the same throughout each of these databases since they will need to be standardized anyway in a statewide model.

1.3.5 Street Type

Street type is signified by Street (ST), Boulevard (BLVD), Court (CT), and Road (RD) to give you an example. A complete set of street type domains are listed in Appendix 8.1. Each street address will have only one street type based on a logical pattern of street types. The street type names used follow USPS Postal Addressing Standards Publication 28 and other standards through the NENA Civic Location Data Exchange Format (CLDXF). An exception to this rule would be where two streets in the same area have the same name (e.g., Destination Dr and Destination Ct).

1.3.6 Odd/Even Numbering (Address Parity)

Parity shall remain consistent within the system adopted by the local jurisdiction. Address ranges are sets of numbers, usually comprised of four (4) distinct values, representing a range of addresses along the sides of the street centerlines by addresses at either end of a street centerline segment. Two numbers of the range represent the lowest addresses, and the other two represent the highest. The numbers are further distinguished as being on either the left or the right side of the segment. In topological terms, the lower numbers are associated with the FROM node of the segment, while the high numbers are associated with the TO node. Likewise, left and right are determined by the direction of the segment, as defined by the FROM and TO nodes. Topology is critical when a set of addressed centerlines are developed. Implementation of the address parity (e.g., odd versus even) is usually determined by the addressing software.

1.3.7 Sequential Direction

Address ranges shall increase as you travel in the direction adopted by the jurisdiction. The direction of each line segment shall follow the sequence direction of the address ranges. Typically this is accomplished by controlling from-node and to-node topology. One-way streets are NOT an exception to this rule. Curvilinear streets may violate this standard for short stretches provided that they are in compliance with respect to the general direction of the full street segment. Where compliance with this standard is difficult or impossible, it may warrant considering a change in the street name at the point where it changes direction.

1.3.8 Consistency with Distance-Based Address Grid

Depending on the preference of the jurisdiction there must be a defined standard interval based grid system. Whether it is hundred blocks as in a city, a potential 1000 addresses per mile, (a possible address every 5.28 feet), or another variation the jurisdictions accepted standards should be adhered to as close as possible. In rural areas addresses can be assigned based on the distance south or west from the nearest section line. This standard is particularly useful in areas that are largely undeveloped (and thus don't have many cross streets) or in areas that have existing streets that are not in the standard street name grid. This standard should generally be considered to be less important, however, than staying consistent with the address designations of cross streets.

1.3.9 Use of Characters

Street addresses shall not contain characters such as hyphens, dashes, +, #, & or other non-alpha-characters or symbols. An alpha-character added to the address as a sub-number is preferable to a fraction (e.g., 123 A is preferable to 123 1/2).

1.3.10 Data Schema and Descriptions

The following are feature layers necessary for a comprehensive street centerline database. The data schema and descriptions table is provided for each of the features. Each table provides the minimum requirements for each feature type.

Feature	Type	Description
Street Centerlines	Line Layer	Contains street centerline segments
Alternate Street Names	Table/Value	Contains alternate street names
Centerline Points	Point Layer	Point locations used to create road centerlines and assisting with topology, addressing, and routing.

Street Centerlines

The minimum required fields for these standards are represented by the following identifiers:
“R” – required, **“RC”** –Recommended, and **“O”** – Optional.

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
NEStreetID	Number	20	Unique ID of corresponding street centerline segment	N/A	R
FullStreet	String	150	Unique ID of corresponding street centerline segment	N/A	R
PreModifier	String	15	Prefix directional component of segment name	PreModifier	R
PreDirectional	String	2	A street direction that precedes the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PreType	String	20	A street type that precedes the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
StreetName	String	30	Legal authoritative street name component of segment name	N/A	R
PostType	String	4	A street type that follows the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
PostDirectional	String	2	A street direction that follows the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PostModifier	String	12	A descriptor that follows the street name and is not a suffix or a direction (i.e., Access, Central, Crossover, Scenic, Terminal, Underpass)	PostModifier	R
LFrom	Number	6	Left low address range	N/A	R
LTo	Number	6	Left high address range	N/A	R
RFrom	Number	6	Right low address range	N/A	R
RTo	Number	6	Right high address range	N/A	R
ParityLeft	String	1	Parity of address range on the left side of the road. E, O, B, Z for even, Odd, Both or Zero.	N/A	R
ParityRight	String	1	Parity of address range on the right side of the road. E, O, B, Z for	N/A	R

			even, Odd, Both or Zero.		
LCityPostal	String	7	5-digit postal code on the left side of the road segment.	N/A	R
RCityPostal	String	7	5-digit postal code on the right side of the road segment.	N/A	R
FIPS_LCity	String	5	City FIPS code of left side of segment	N/A	R
FIPS_RCity	String	5	City FIPS code of right side of segment	N/A	R
FIPS_LCOUNTY	String	3	County FIPS code of left side of segment	CountyFIPS	R
FIPS_RCOUNTY	String	3	County FIPS code of right side of segment	CountyFIPS	R
FIPS_LSTATE	String	2	State FIPS code for left side of segment	StateFIPS	R
FIPS_RSTATE	String	2	State FIPS code for right side of segment	StateFIPS	R
ESNLeft**	String	5	Emergency Service Number on left side of road segment	N/A	R
ESNRight**	String	5	Emergency Service Number on right side of road segment	N/A	R
ESNCenter**	String	5	Responsible ESN responder at centerline	N/A	O
MSAGLeft**	String	30	MSAG on left side of road segment	N/A	R
MSAGRight**	String	30	MSAG on right side of road segment	N/A	R
ZCoordS	String	Number	Elevation at the start of the segment node	N/A	R
ZCoordE	String	Number	Elevation at the end of the segment node	N/A	R
OneWay	String	2	Signifies if the segment is one way in direction	OneWay	O
Travel	String	20	Direction of travel for divided roadways	N/A	O
RoadClass	String	15	This is the classification for the road segment as adopted from the MAF/TIGER Feature Classification Codes (MTFCC) Attachment D	RClass	O
SurfType	String	10	This is the surface type of the segment	SType	O
StreetOwner	String	25	Current local entity responsible for creation of physical street segment	N/A	R
StreetMaint	String	25	Current local entity responsible for maintenance of street segment data	N/A	R

Create_DT	Date	26	Date/time stamp when data was first created	N/A	R
Update_DT	Date	26	Date/time stamp when data segment geometry/attribution last modified	N/A	R
UpdateBy	String	50	Person who made the last update to the record	N/A	R
SourceOfData	String	30	Entity that provided the data	N/A	R
Street_Status_CD	String	1	Status code indicating operational condition of street (1=open, 2=retired, 3=temporarily closed, 4=under construction)	StreetStatus	R
ActiveDT	Date	26	Date when the segment is activated or becomes available for use.	N/A	R
UActiveDate	Date	26	Date when the segment becomes unactive or not available for use.	N/A	RC
Interstate_Num	Number	2	Interstate Highway number of road segment, if appropriate	N/A	RC
US_Hwy_Num	Number	2	US Highway number of road segment, if appropriate	N/A	RC
State_Hwy_Num	Number	2	State Highway number of road segment, if appropriate	N/A	RC
Local_Rd_Num	Number	2	Local road number of road segment, if appropriate	N/A	RC
Alias1*	String	50	Alias name of road segment	N/A	RC
LZIP	String	10	Area descriptor to aid in geocoding, left side of centerline	N/A	R
RZIP	String	10	Area descriptor to aid in geocoding, right side of centerline	N/A	R
LOCAL_FUNC_CLASS	String	2	Functional Class assigned by road owner with possible suggestions guidelines for possible local classification schema	N/A	RC
STATE_FUNC_CLASS	String	2	Functional Class with classification schema define by standards TWG	N/A	RC
LRS_ID	String	20	ID associated to the road segment found in the NDOR Linear Referencing System	N/A	R
Length	Number	12	Calculated length in US Survey Feet	N/A	R

SpeedLimit	Number	3	The speed limit of the road segment in miles per hour (mph)	N/A	R
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* Can have multiple Alias numbers relationship table to infinite number.

** Not required in full NG9-1-1 implementation, used in legacy systems.

Alternate Street Names

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
NEStreetID	Number	20	Unique ID of corresponding street centerline segment	N/A	R
AltStreetID	Number	100	Unique ID of alternate street segment name	N/A	R
PreModifier	Alpha	15	Alternate street prefix type	PreModifier	R
AltStreetName	Alpha	30	Alternate street name. Example: Main, 2nd, Country Creek, Third	N/A	R
PostType	String	4	A street type that follows the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
PostDirectional	Alpha	2	Alternate street directional suffice. Example: N, S, E, W, NW, NE, SW, and SE	Direction	R
PostModifier	String	12	A descriptor that follows the alternate street name and is not a suffix or a direction (i.e., Access, Central, Crossover, Scenic, Terminal, Underpass)	PostModifier	R
ASN	Alpha	75	Concatenated Alternate Street Name (STR_PRE+STR_NAME+STR_TYPE+STR_DIR)	N/A	O
SourceOfData	String	75	Entity that provided the data	N/A	R
ActiveDT	Date	26	Date when the alternate street name is activated or becomes available for use.	N/A	R
UActiveDate	Date	26	Date when the alternate street name becomes unactive or not available for use.	N/A	RC

Centerline Points

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
Unique_ID	Number	9	Framework unique sequential identifier (generated by Framework data steward)	N/A	O
CPType	String	20	Type of point or node (intersection, bridge, railroad crossing, low water crossing, under pass, over pass, change of lane, change of street name in linear path)	N/A	O
X_COORD	Number	15	Points X coordinate	N/A	O
Y_COORD	Number	15	Points Y coordinate	N/A	O
Z_COORD	Number	6	Points Z elevation coordinate in feet	N/A	O
Agree_PT_IND	String	7	Indicator if point is or is not an agreement point.	AgreePoint	O
Create_DT	Date	26	Date/time stamp when that point geometry/attribution was first created	N/A	O
Update_DT	Date	26	Date/time stamp when geometry/attribution last modified	N/A	O
UpdateBy	String	50	Person who made the last update to the record	N/A	O
Status_CD	String	1	Code indicating operational condition of road segment point	N/A	O
Local_ID	Number	9	Local road centerline segment feature identifier, unique and permanent to the segment at the local level (generated by road authority/data custodian)	N/A	O
SourceOfData	String	75	Entity that provided the data	N/A	O

1.4 Data Format

The data format provided will need to be in a format that can be interpreted by commercial GIS software, preferably as an Esri geodatabase. A geodatabase schema including domains can be provided by contacting the State of Nebraska, Office of the CIO GIS Shared Services. Street centerline data stored on NebraskaMAP will be in an Esri geodatabase format but provided through various formats for other users to consume.

Other supporting tabular data will need to be provided in MS ACCESS, DBF, or MS SQL formats.

1.5 Maintenance

Authorities need to be identified for approval and assuring the data is implemented towards the database. This will ensure that the database is updated and maintained in a timely manner. After spatial and attribute updates and/or modifications are performed to the database it shall be submitted to the appropriate entity(s) responsible for performing quality control.

Maintenance of street centerline data determines the suitability to support the greatest range of applications. Spatial location of a seamless road network, including appropriate attribute data, is

essential for many projects. Therefore, maintenance of this data is necessary to provide the maximum return on investment.

1.5.1 Reporting Errors and Handling Updates

The reporting of errors need to be directed to the appropriate entity in a timely manner. Updated spatial and attribute information in the database will also need to be redistributed. The date field in the database when the last record was modified will also need to be updated to ensure proper records management and communication with others in the workflow.

1.6 Quality Control

The quality of the NSCD is evaluated based on the overall functional correctness and completeness of the attribute and spatial data. The FGDC and NENA have adopted nationally recognized standards for accuracy testing of GIS data. NENA recommends that street centerline address data for use in data exchanges associated with NG-911 call processing be based on the FGDC compliant database. Refer to the FGDC United State Thoroughfare, Landmark and Postal Address Data standard and the NENA Civic Location Data Exchange Format (CLDXF) Standard for these data exchange standards.

1.6.1 Attribute Accuracy

- a) Attribute fields are complete compared to source data having valid data elements, domain or range values.
- b) Correct spelling in comparison of source data.
- c) Standard first letter capitalized of every word and USPS capitalization of the State abbreviation.
- d) Not to contain duplicate road segments, each road segment should be uniquely identifiable by the attributes.
- e) Assure that the address range and information on the left or right of the street centerline are consistently either odd or even addresses.
- f) For NG9-1-1 applications, the address ranges need to qualify and meet certain thresholds for the MSAG and ALI databases. For MSAG and ALI databases, the address for each point will need to be valid at a rate of 98 percent or better. For areas without an MSAG, the addresses will meet USPS Publication 28 standards. For the ALI database, this is determined by geocoding the addresses in the ALI database to the road layer with addresses developed for that area. Overall, the address data is consistent with source information from MSAG and ALI.
- g) The correct formatting of street centerline attributes are used in these standards and are also included in the NENA standards and abbreviations as they are found in USPS Publication 28.
- h) The temporal quality is met by being current through updating appropriate attributes and indicating the time the changes were made in the date updated field. Street centerlines that change due to add-on's from new construction or changes to the existing road structures will need to be updated frequently.
- i) Quality checks for allowable domain values, summary statistics and record counts.

1.6.2 Physical Location

The quality of the physical location will be evaluated based on:

- a) The placement of the street centerline representing it's real location and if it meets horizontal accuracy requirements. The National Standard for Spatial Data Accuracy (NSSDA) outlines a methodology for measuring positional accuracy. If additional testing is required, the NSSDA procedures outline the statistical procedures.

- b) The geometric placement of the street centerline is consistently logical to the context of other features such as parcels and administrative/political boundaries.

1.6.3 Connectivity Validation (99% acceptance required with 1 foot tolerance)

- a) Undershoots - Condition when the end of a linear geometry falls short of intersecting with another linear geometry
- b) Overshoots - Condition when the end of a linear geometry extends beyond the point at which it should intersect and stop at another linear geometry
- c) Node Mismatch - Condition when the end of a linear geometry falls short of intersecting with the end of another linear geometry
- d) Non-coincident Intersecting Geometry - Condition when features intersect one another without creating corresponding vertices at the intersecting points
- e) Nearly Coincident Geometry - Condition when a vertex of one geometry falls within the tolerance of a vertex of another geometry

1.6.4 Linear Referencing System (LRS) Validation (99% acceptance required)

- a) Missing LRS Keys - Condition when records are missing required LRS keys: NLF_ID, Begin measure and/or End Measure
- b) Begin Distance \geq End Distance - Condition when begin distance measure greater than or equal to end distance measure
- c) Overlapping Distances - Condition when records have the same NLF_ID and that contain overlapping distances between the end measure of one record and the begin measure of another record
- d) Linear Measure/Geometry Ratio - Condition when the user-defined linear measure (end distance minus begin distance) compared to the measured map distance for each records exceeds specified tolerance (90-120 percent)
- e) Geometry sequence/direction problems - Condition when the digitized direction of geometry is not consistent with direction of increasing measures.
- f) Gaps between geometries - Condition when gaps exist between geometry of records with the same NLF_ID exceed specified tolerance (10 ft.).

1.7 Integration with other Standards

1.7.1 Address Standards (NITC 3-206)

The street centerline and address elements identified in these standards shall meet the same address related field names found in the Address Standards NITC 3-206. This is to assure the connection of street addresses and routing to address points having the same address information.

1.8 Metadata

A requirement for street centerline and address range data is creating and maintaining its metadata. The metadata for street centerline data will require detailing the characteristics and quality of submitted street centerline data. Information needs to be provided to allow the user sufficient information so they can determine the data's intended purpose as well as how to access the data. The metadata requires a process description summarizing collection parameters such as: contact information, data source, scale, accuracy, projection, use restrictions, and date associated to each street centerline segment. The process description will also need to be included to describe methodology towards the deliverable products.

1.8.1 Federal Metadata

The Federal Metadata Content Standard from FGDC should be used when feasible and

in every effort possible to assure high quality rigorous standards. All geospatial street centerline geodatabases, and their associated attribute databases should be documented with FGDC compliant metadata outlining how the data was derived, attribute field definitions and values, map projections, appropriate map scale, contact information, access and use restrictions, to name a few.

1.8.2 State Metadata

These standards need to apply to Nebraska's metadata standards located within NITC 3-201 Geospatial Metadata Standard. All metadata from street centerline data will need to be registered through the metadata portal at NebraskaMAP (<http://NebraskaMAP.gov>). All developers of Nebraska-related geospatial data are encouraged to use the site to either upload existing metadata and/or use the online tools available on the site to create the metadata for street centerline data.

2.0 Purpose and Objectives

2.1 Purpose

The purpose of this standard is to provide the necessary requirements for the creation, development, delivery, and maintenance of street centerline and address range data to support a statewide NSCD. These standards will help ensure that street centerline and address range data creation and development are current, consistent, accurate, publicly accessible, and cost-effective.

2.2 Objectives

These standards will guide the statewide NSCD having the following objectives:

- 2.2.1 Provide guidance, street centerline schema, and necessary workflows to state and local officials as they work, either in-house or with private contractors, to create, develop and maintain street centerline and address range data. This can increase the likelihood that the data created will be suitable for the range of intended applications and likely future applications. The maintenance of street centerline and address range data is necessary for the data to be current and accurate.
- 2.2.2 Enhance coordination and program management across jurisdictional boundaries by insuring that street centerline and address range data can be horizontally integrated across jurisdictional and/or project boundaries, and other framework data layers for regional or statewide applications.
- 2.2.3 Save public resources by facilitating the sharing of street centerline and address range data among public agencies or sub-divisions of agencies by incorporating data standards and following guidelines. Data that is developed by one entity can be done in a way that is suitable to serve the multiple needs of other entities. This avoids the costly duplication of developing and maintaining similar street centerline and address range data in the state.
- 2.2.4 Make street centerline and address range data current and readily accessible to the wide range of potential users through NebraskaMAP and other necessary resources.
- 2.2.5 Facilitate harmonious, trans-agency and public policy decision-making and implementation by enabling multiple agencies and levels of government to access and appropriately use current street centerline and address range data. This can make it more likely that intersecting public policy decisions, across levels of government, will be

based on the same information.

- 2.2.6 Lay the foundation for facilitating intergovernmental partnerships for the acquisition and development of high-quality street centerline and address range data by defining standards that increase the likelihood that this data will meet the needs of multiple users.
- 2.2.7 Establish and promote the integration and interrelationships of street centerline and address range data with related NESDI framework layers through geometric placement and attributes.

3.0 Definitions

Accuracy

Absolute - A measure of the location of features on a map compared to their true position on the face of the earth.

Relative - A measure of the accuracy of individual features on a map when compared to other features on the same map.

Address

Actual or Real - The simple, everyday element that designates a specific, situs location, such as a house number or an office suite.

Range - Numbers associated with segments of a digital street centerline file that represent the actual high and low addresses at either end of each segment.

Theoretical - A location that can be interpolated along a street centerline file through geocoding software.

Vanity - A special address that is inconsistent with or an exception to the standard addressing schema.

Address matching – See Geocoding

Automatic Location Identification (ALI) - The automatic display at the PSAP of the caller's phone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates.

Attribute - The properties and characteristics of entities.

Data Stewardship – Entity(s) responsible for developing and maintaining the data.

Datum – A set of values used to define a specific geodetic system.

Emergency Call Routing Function (ECRF) - A functional element in an ESInet which is a LoST protocol server where location information (either civic address or geo-coordinates) and a Service URN serve as input to a mapping function that returns a URI used to route an emergency call toward the appropriate PSAP for the caller's location or towards a responder agency.

Entity - A data entity is any object about which an organization chooses to collect data.

Geocoding – A mechanism for building a database relationship between addresses and geospatial features. When an address is matched to the geospatial features, geographic coordinates are assigned to the address.

Line - A linear feature built of straight line segments made up of two or more coordinates.

Location Validation Function (LVF) - A real time database that allows authorized service providers to validate a subscriber's location in real time using a pre-defined interface.

Master Street Address Guide (MSAG) - A listing of streets and house number which describes the exact spelling of streets, street number ranges, and other address elements.

National Emergency Number Association (NENA) – A professional association consisting of emergency number agencies and telephone company personnel responsible for the planning, implementation, establishing national standards, management, and administration of emergency number systems.

Nebraska Spatial Data Infrastructure (NESDI) - A framework of geospatial data layers that have multiple applications, used by a vast majority of stakeholders, meet quality standards and have data stewards to maintain and improve the data on an ongoing basis. These layers are also consistent with the Federal National Spatial Data Infrastructure (NSDI).

Point - A geospatial feature that is stored as a single X-Y coordinate pair. Some data systems store X-Y-Z coordinates, where Z represents elevation of the point above a given surface (or datum).

Projection – A map projection flattens the earth, allowing for locations to be systematically assigned new positions so that a curved surface can be represented on a flat map.

Public Safety Answering Point (PSAP) - An entity operating under common management which receives 9-1-1 calls from a defined geographic area and processes those calls according to a specific operational policy.

Road - Generally, this is the physical real-world feature that can be used for vehicular travel. However, this general definition is subject to the road owner's authority to define its accessibility (thus, while navigable by a vehicle, some linear features may be "trails" and thus excluded from the ORCDS). The federal definition used by ODOT for their purposes is appended below.

State Plane Coordinate System - The State Plane Coordinate System is a set of 124 geographic zones or coordinate systems designed for specific regions of the United States. It uses a simple Cartesian coordinate system to specify locations rather than a more complex spherical coordinate system (the geographic coordinate system of latitude and longitude). By thus ignoring the curvature of the Earth, "plane surveying" methods can be used, speeding up and simplifying calculations. The system is highly accurate within each zone (error less than 1:10,000). Outside a specific state plane zone, accuracy rapidly declines, thus the system is not useful for regional or national mapping.

Topology – Spatial relationships and connectivity among graphic GIS features, such as points, lines and polygons. These relationships allow display and analysis of "intelligent" data in GIS. Many topological structures incorporate begin and end relationships, direction and right / left identification.

Unique Identification Code - Every element is assigned an identification code, making it unique from other elements.

USGS United States Geological Survey - is a scientific agency of the United States government. The scientists of the USGS study the landscape of the United States and its natural resources.

4.0 Applicability

4.1 State Government Agencies

State agencies that have the primary responsibility for developing and maintaining street centerline and address range data for a particular jurisdiction(s) or geographic area (e.g. for counties for which it has assumed the primary role) are required to comply with the standards as described in Section 1. Those state agencies with oversight responsibilities in this area are required to ensure that their oversight guidelines, rules, and regulations are consistent with these standards.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding, directly or indirectly, for street centerline, street naming, and address range development and maintenance for a particular jurisdiction or geographic area are required to comply with the standards as described in Section 1.

4.3 Other

Other entities, such as city and local government agencies (e.g. County Engineer, PSAPs, and municipalities) that receive state funds have the primary responsibility for developing and maintaining street centerline, street naming, and address range data are required to comply with the standards as described in Section 1.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. Neb. Rev. Stat. § 86-516(6)

5.2 State Agencies

The State of Nebraska, Office of the CIO (OCIO) GIS Shared Services will be responsible for assuring that metadata is completed and the data is registered and available for distribution through NebraskaMAP.

5.3 Granting Agencies and Entities

State granting or fund disbursement entities or agencies will be responsible for ensuring that these standards are included in requirements related to fund disbursements as they relate to street centerlines and address range data.

5.4 Other

Local government agencies that have the primary responsibility and authority for street naming and street centerline placement will be responsible for ensuring that those sub-sections defined in Section 1 will be incorporated in the overall NSCD data development efforts and contracts.

6.0 Authority

6.1 NITC GIS Council

According to Neb. Rev. Stat. § 86-572(2), the GIS Council shall: Establish guidelines and policies for statewide Geographic Information Systems operations and management (a) The acquisition, development, maintenance, quality assurance such as standards, access, ownership, cost recovery, and priorities of data bases; (b) The compatibility, acquisition, and communications of hardware and software; (c) The assessment of needs, identification of scope, setting of standards, and determination of an appropriate enforcement mechanism; (d) The fostering of training programs and promoting education and information about the Geographic Information Systems; and (e) The promoting of the Geographic Information Systems development in the State of Nebraska and providing or coordinating additional support to address Geographic Information Systems issues as such issues arise.

7.0 Related Documents

- 7.1 NENA."NENA Next Generation 9-1-1 (NG9-1-1) Civic Location Data Exchange Format (CLDXF) Standard." NENA-STA-004. March 23, 2014. NENA Joint Data Technical/Next Generation Integration Committees, Next Generation Data Development Working Group.
- 7.2 National Emergency Number Association. "NENA Standard for NG9-1-1 GIS Data Model."NENA-STA-XXX (Currently in Public Review),
- 7.3 NENA GIS Data Collection and Maintenance Standards, NENA 02-014, July 17, 2007
- 7.4 NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI, NENA 71-501, Version 1.1, September 8, 2009
- 7.5 Federal Geographic Data Committee (FGDC) United States Thoroughfare, Landmark and Postal Address Data Standard. FGDC Document Number FGDC-STD-016-2011. February 2011.
- 7.6 NITC 3-201 Geospatial Metadata Standard – <http://nitc.ne.gov/standards/3-201.html>
- 7.7 NITC 3-206 Address Standards (Waiting Review and Approval)
- 7.8 United States Postal Service Publication 28. "Postal Addressing Standards."
- 7.9 FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998)
- 7.10 NITC 3-203 Elevation Acquisition using LiDAR Standards
- 7.11 NITC 3-204 Imagery Standards

8.0 Appendices

8.1 Domains

Domains are provided for street centerline, alternate street names, and centerline points. This information provides consistency in reporting of data across multiple data sets.

SuffixAddressNumber

Domain	Description
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z

PreModifier

Domain	Description
Alternate	Alternate
Archway	Archway
Behind	Behind
Business	Business
Bypass	Bypass
Center	Center
De	De
Del	Del
Drive	Drive
Entrance	Entrance
Extended	Extended
Head	Head
Historic	Historic
La	La
Le	Le
Loop	Loop
New	New
Old	Old
Olde	Olde
Our	Our
Out	Out
Private	Private
Public	Public
Spur	Spur
The	The
To	To

Direction

Domain	Description
N	North
S	South
E	East
W	West
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest

SeperatorElement

Domain	Description
And	And
At	At
By The	By The
Con	Con
De Las	De Las
For	For
For The	For The
In The	In The
Of	Of
Of The	Of The
On The	On The
The	The
To	To
Y	Y

PostModifier

Domain	Description
Access	Access
Alternate	Alternate
Approach	Approach
Business	Business
Bypass	Bypass
Center	Center
Central	Central
Centre	Centre
Company	Company
Concourse	Concourse
Connector	Connector
Crossing	Crossing
Crossover	Crossover
Cut Off	Cut Off
Cutoff	Cutoff
Dock	Dock
End	End
Entrance	Entrance
Executive	Executive
Exit	Exit
Extended	Extended
Extension	Extension
Industrial	Industrial
Interior	Interior
Loop	Loop
Overpass	Overpass
Private	Private
Public	Public
Ramp	Ramp
Scenic	Scenic
Service	Service
Spur	Spur
Terminal	Terminal
Transverse	Transverse
Underpass	Underpass

State

Domain	Description
NE	Nebraska
CO	Colorado
WY	Wyoming
SD	South Dakota
IA	Iowa
MO	Missouri
KS	Kansas

StateFIPS

Domain	Description
31	Nebraska
08	Colorado
56	Wyoming
46	South Dakota
19	Iowa
28	Missouri
20	Kansas

StreetSource

Domain	Description
PSC	Public Service Commission street centerlines
CountySC	County street centerlines
MunicipalSC	Municipal street centerlines
StateSC	State street centerlines
Other	Other

StreetStatus

Domain	Description
1	Open
2	Retired
3	Temporarily closed
4	Under Construction

StreetType (for both PreType and PostType) Additional commonly used street suffixes and abbreviations are located within the USPS Publication 28.

Domain	Description
Acrs	Acres
Aly	Alley
Anx	Annex
Arc	Arcade
Ave	Avenue
Bay	Bay
Bch	Beach
Bg	Burg
Bgs	Burgs
Blf	Bluff
Blfs	Bluffs
Blvd	Boulevard
Bnd	Bend
Br	Branch
Brg	Bridge
Brk	Brook
Brks	Brooks
Btm	Bottom
Byp	Bypass
Byu	Bayou
Chas	Chase
Cir	Circle
Cirs	Circles
Clb	Club
Clf	Cliff
Clfs	Cliffs
Clos	Close
Cmn	Common
Cmns	Commons
Cnrs	Corners
Cor	Corner
Cors	Corners
County Hwy	County Road
County Rte	County Touring Route
Cp	Camp
Cpe	Cape

StreetType, continued

Cres	Crescent
Crk	Creek
Crse	Course
Crst	Crest
Cswy	Causeway
Ct	Court
Ctr	Center
Ctrs	Centers
Cts	Courts
Curv	Curve
Cv	Cove
Cvs	Coves
Cyn	Canyon
DI	Dale
Dm	Dam
Dr	Drive
Drs	Drives
Drwy	Driveway
Dv	Divide
End	End
Est	Estate
Ests	Estates
Expy	Expressway
Ext	Extension
Exts	Extensions
Fall	Fall
Farm	Farm
Fld	Field
Flds	Fields
Fls	Falls
Flt	Flat
Flts	Flats
Frd	Ford
Frds	Fords
Frg	Forge
Frgs	Forges
Frk	Fork
Frks	Forks
Frst	Forest
Fry	Ferry

Ft	Fort
Fwy	Freeway
Gate	Gate
Gdn	Garden
Gdns	Gardens
Gln	Glen
Glns	Glens
Grds	Grounds
Grn	Green
Grns	Greens
Grv	Grove
Grvs	Groves
Gtwy	Gateway
Hbr	Harbor
Hbrs	Harbors
HI	Hill
Hls	Hills
Holw	Hollow
Hrbr	Harbor
Hts	Heights
Hvn	Haven
Hwy	Highway
I	Interstate
Inlt	Inlet
Is	Island
Isle	Isle
Iss	Islands
Jct	Junction
Jcts	Junctions
KnI	Knoll
Knls	Knolls
Ky	Key
Kys	Keys
Land	Land
Lck	Lock
Lcks	Locks
Ldg	Lodge
Lf	Loaf
Lgt	Light
Lgts	Lights
Lk	Lake

Lks	Lakes
Ln	Lane
Lndg	Landing
Loop	Loop
Mall	Mall
Mdw	Meadow
Mdws	Meadows
Mews	Mews
MI	Mill
Mls	Mills
Mnr	Manor
Mnrs	Manors
Msn	Mission
Mt	Mount
Mtn	Mountain
Mtns	Mountains
Mtwy	Motorway
Nck	Neck
Opas	Overpass
Orch	Orchard
Otlk	Outlook
Oval	Oval
OvIk	Overlook
Park	Park
Pass	Pass
Path	Path
Pike	Pike
Pkwy	Parkway
PI	Place
Pln	Plain
Plns	Plains
Plz	Plaza
Pne	Pine
Pnes	Pines
Pr	Prairie
Prom	Promenade
Prt	Port
Prts	Ports
Psgc	Passage
Pt	Point
Pts	Points

StreetType, continued	
Radl	Radial
Ramp	Ramp
Rd	Road
Rdg	Ridge
Rdgs	Ridges
Rds	Roads
Rdwy	Roadway
Rise	Rise
Riv	River
Rnch	Ranch
Row	Row
Rpd	Rapid
Rpds	Rapids
Rst	Rest
Rte	Route
Rue	Rue
Run	Run
Shls	Shoals
Sho	Shoal
Shr	Shore
Shrs	Shores
Skwy	Skyway
Smt	Summit
Spg	Spring
Spgs	Springs
Spur	Spur
Sq	Square
Sqs	Squares
St	Street
Sta	Station
State Hwy	State Touring Highway
State Pkwy	State Parkway
State Rte	State Route
Stra	Stravenue
Strm	Stream
Sts	Streets
Ter	Terrace
Tlpk	Trailer Park
Tpke	Turnpike
Trak	Track

Trce	Trace
Trfy	Trafficway
TrkTrl	Truck Trail
Trl	Trail
Trlr	Trailer
Trwy	Thruway
Tunl	Tunnel
Turn	Turn
Twrs	Towers
Un	Union
Uns	Unions
Upass	Underpass
US Hwy	Federal Highway
US Rte	US Route
Vale	Vale
Via	Viaduct
Vis	Vista
VI	Ville
Vlg	Village
Vlgs	Villages
Vls	Villas
Vly	Valley
Vlys	Valleys
Vw	View
Vws	Views
Walk	Walk
Wall	Wall
Way	Way
Ways	Ways
Wds	Woods
Wels	Wells
WI	Well
Wood	Wood
Xing	Crossing
Xrd	Crossroad
Xrds	Crossroads

AgreePoint

Domain	Description
Y	Yes
N	No

CountyFIPS

Domain	Description	Domain	Description	Domain	Description
1	Adams	63	Frontier	125	Nance
3	Antelope	65	Furnas	127	Nemaha
5	Arthur	67	Gage	129	Nuckolls
7	Banner	69	Garden	131	Otoe
9	Blaine	71	Garfield	133	Pawnee
11	Boone	73	Gosper	135	Perkins
13	Box Butte	75	Grant	137	Phelps
15	Boyd	77	Greeley	139	Pierce
17	Brown	79	Hall	141	Platte
19	Buffalo	81	Hamilton	143	Polk
21	Burt	83	Harlan	145	Red Willow
23	Butler	85	Hayes	147	Richardson
25	Cass	87	Hitchcock	149	Rock
27	Cedar	89	Holt	151	Saline
29	Chase	91	Hooker	153	Sarpy
31	Cherry	93	Howard	155	Saunders
33	Cheyenne	95	Jefferson	157	Scotts Bluff
35	Clay	97	Johnson	159	Seward
37	Colfax	99	Kearney	161	Sheridan
39	Cuming	101	Keith	163	Sherman
41	Custer	103	Keya Paha	165	Sioux
43	Dakota	105	Kimball	167	Stanton
45	Dawes	107	Knox	169	Thayer
47	Dawson	109	Lancaster	171	Thomas
49	Deuel	111	Lincoln	173	Thurston
51	Dixon	113	Logan	175	Valley
53	Dodge	115	Loup	177	Washington
55	Douglas	117	McPherson	179	Wayne
57	Dundy	119	Madison	181	Webster
59	Fillmore	121	Merrick	183	Wheeler
61	Franklin	123	Morrill	185	York

OneWay

Domain	Description
FT	One way travel from FROM or Start Node to TO or End Node
TF	One way travel from TO or END node to FROM or Start Node
B	Travel in both directions allowed

RClass

Domain	Description
1	Primary
2	Secondary
3	Local
4	Ramp
5	Service
6	Vehicular Trail
7	Walkway
8	Alley
9	Private
10	Parking Lot
11	Trail
12	Other

SType

Domain	Description
1	Paved
2	Gravel
3	Soil
4	Proposed
5	Minimum

NITC 3-206

Address Standards

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NEBRASKA INFORMATION TECHNOLOGY COMMISSION GIS COUNCIL

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1.0 Standard

1.1 Description

This standard provides requirements necessary for the creation, development, delivery, and maintenance of address point data to support a statewide Nebraska Address Database (NAD). The address database provides the spatial location and information tied to that location with appropriate attribute data. The standard provides a consistent structure for data producers and users to ensure compatibility of datasets within the same framework layer and when used between other Nebraska Spatial Data Infrastructure (NESDI) framework layers such as street centerlines and parcels.

There are multiple uses for address point data. These requirements will enable the data to be integrated not only with Next Generation 9-1-1 (NG9-1-1) but with existing state address databases, routing services, emergency management, public safety, tax assessment, and the state's enterprise geocoding application databases. Furthermore, this standard will serve as a guideline for future maintenance activity data requirements.

This standard does not restrict or limit additional information collected and stored in a particular database. The specific requirements for address naming and point placement are primarily the responsibility of the local jurisdiction. These standards are meant to be a minimum set of standards and are subject to be updated based on technology enhancements, necessary workflow changes, and other data requirements.

The standard is not intended to be a substitute for an implementation design. These standards can be used at local, state and federal level to ensure interdisciplinary compatibility and interoperability with other databases. These standards integrate with existing standards such as the National Emergency Number Association (NENA), Federal Geographic Data Committee (FGDC), U.S. Postal Service (USPS) Addressing Standard, and other NITC related standards.

1.2 Spatial Representation

1.2.1 Geometric Placement

The methodology for proper geometric placement of address points will vary based on the application. Address points can be placed either manually or by calculated placement. The calculated placement is completed by automated software techniques, typically in GIS. Calculations or manual placement methods can be made from the structure's visual footprint seen in imagery, LIDAR or a determined boundary. Site or structures that have an address assigned to it would be considered an address point.

Providing adequate address point locations to support public safety and emergency response is the primary focus and will need to support NG9-1-1 standards identified by NENA. At a minimum, one address point placed per address is suggested by these standards. For NG9-1-1 applications, there will be one address point provided for dispatching as to not create conflict in interpretation among other address point locations tied to the same street address when responding to emergencies. For other applications, additional address points can be created as long as they are notated in the attribute table for purpose of the point type. The following suggestions are recommended in priority of address point placement. If a primary structure is not addressable on the property parcel then a property access point is placed within the property driveway or access location. In cases where the primary structure is not visible from the addressable road, an additional access point will need to be placed in the middle of the entrance or access location within that property parcel. Additional address points are required for public safety at entrance locations for public structures such as schools, hospitals, and government offices.

Specific requirements for the placement of entrance locations are located within NENA standards source located in section 7.0.

There are additional standards and best practices for the placement of address points within structures outlined by NENA. This includes single address with multiple structures or entrances, single structure or entrances with multiple addresses, multiple addresses with one structure or entrance. In addition, there are address point placement recommendations for exterior and interior entrance locations within a structure.

1.2.1.1 Primary Structure

The primary address point should be placed within every principal address structure's location or footprint. Placement can be achieved either manually or calculated. When placed manually, the point should reflect the center or entrance to the addressed structure as long as it is within the structure's footprint (Figure 1). When calculated, it typically refers to placement of a centroid in the middle of the building footprint or polygon. Either of these two placement techniques assign the address with that structure.



Figure 1. Placement of address point within structure's footprint.

If a structure is not visible on aerial imagery or LiDAR, but its physical location is represented by other supplemental resources, the point can be placed according to the supplement resources and needs to be confirmed with field verification.

For multiple units within a structure, there does not need to be additional address points placed for each unit. The single point can relate to a table having multiple listings of addresses for each unit. Consider using this method when addresses are relatively within 10 feet of each other.

1.2.1.2 Property Access

This is the placement of the address point to accessing the property of interest. This typically is a driveway, access road, or other entrance path to a property that is connected to a named road or other path from a different

property. Address points should be located at the primary driveway entrance within a parcel boundary. This point is placed only after the primary structure address point has been identified and placed or if there is no primary addressable structure on the property parcel. If parcel data exists to the property, then the point should fall within the parcel boundary in the middle of the driveway or other access area.



Figure 2. Placement of address point on primary entrance path within a parcel boundary as shown on the left address point for 7909. The illustration also shows the placement of the address point on the primary structure footprint. This is helpful in cases where the primary building is difficult to see from the primary entrance path off an addressed road.

Interim placement of address points can exist if a site or structure is not available at the time of recording. This can include conditions where site or building is under construction or new developments that may have future sub-addresses. The expectation is that these interim locations are noted during time of creation and future modifications can occur to both the geometric placement and attributes.

1.2.1.3 Other Placement Options

After the primary and/or secondary address points have been placed or in special cases where the primary and secondary conditions are not able to be met, then there are other address point placement options. Specific requirements for these placement options are located within NENA standards source located in section 7.0. The following are a few descriptions for other placement options.

a) Parcels

This section addresses the placement of the address point within a parcel boundary when there are no addressed structures or visible access road to the property. The address point can either be placed in the center of the parcel, within a parcel where an internal road or main structures are located, within a parcel at the center of the parcel frontage next to the road that

references the address, and within and front of a parcel using address ranges to guide placement. Parcels that do not have an addressable structure present will have the address point at the centroid within the boundary of the parcel. If there is discrepancy in the placement accuracy of the parcel itself, it is best to have the point located in the middle of the parcel until or at an offset distance from the boundary line from the road that references the address. This will assure that the address point is well within the parcel boundary in case the spatial location of parcel boundary is updated in the future. It also assures that other spatial relationships exist with other GIS layers.

b) Site

A site is defined as a place that has no known or recognized structure or boundary. These can include places such as parks, camp sites, recreational areas, and other large areas. In this case, either an address point is placed based on the centroid of a defined boundary or is associated as a landmark. Point location can also be manually located at the entrance or area of concentration of structures or activities within the site.

c) Geocoding from Road Centerlines

Address point placement is achieved by interpolation of road centerline address ranges. Points are placed based on a calculated method of directional offset representing left or right of the street and providing a desired distance to the property based on address range breaks located in the street centerline layer. This practice should be considered last resort as it provides inconsistency with distances to the actual structure or access location to a property. This technique is useful when establishing and double checking the correct attributes between the street centerline database corresponding to the address point database.

1.2.2 Data Development

All data will consist of visual and verifiable address point information corresponding to some level of ground control. The geometric placement of address points can be derived from digitizing and using field GPS data collection.

1.2.2.1 Digitizing

Address point placement can be completed by visual registration using aerial imagery, site plans or other graphical resources that have been spatially adjusted to meet minimum spatial accuracy requirements. The data source used to digitize or place address points must meet the following minimum requirements.

Capture Scale for digitizing: 1:2400

Projection: Nebraska State Plane Coordinate System

Datum: North American Datum of 1983 (NAD83)

Source: Using aerial imagery that meets verified horizontal accuracy requirements for spatial resolution (12 inch minimum), preferably leaf-off. In cases where tree cover or other obstructions are identified in imagery, it will be necessary to conduct field verification of that location with a mapping grade GPS unit. The NAIP imagery therefore does not meet these accuracy standards.

LiDAR can also be used as a guide to support spatial accuracy placement of certain aspects of building footprints.

Imagery, LiDAR, or other source document that was used to digitize street centerlines that is newly acquired or not made available for public access will need to be provided to entity conducting quality control of the data.

For information regarding standards for imagery and LiDAR requirements for Nebraska, refer to the Elevation Acquisition using LiDAR Standards (NITC 3-203) and Imagery Standards (NITC 3-204).

1.2.2.2 Global Positioning Systems (GPS)

The development of address points can be utilized using field observation and data collection techniques using mapping grade GPS. Data collected using a mapping grade GPS will need to meet spatial accuracy requirements in section 1.2.3. Additional post processing of GPS data may be necessary to meet these spatial requirements, particularly when placement of address point falls within the boundary of a structure.

1.2.3 Spatial Accuracy

The minimum positional accuracy standards need to meet the following standard as set forth in the FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998)

1.2.3.1 Minimum Horizontal Accuracy Standard

Data that has been collected through digitization or visual representation methods must have an accuracy level of 3.28 to 9.84 feet (1-3 meters) or better.

When using mapping grade GPS, data will need to be collected at 3.28 feet (1 meter) or better. Additional requirements and suggestions for acquiring address point data by field GPS is located in the NENA GIS Data Collection and Maintenance Standards.

1.2.3.2 Minimum Vertical Accuracy Standard

There are no vertical accuracy requirements at this time. These standards are subject to change in the future as data maintenance and accuracy of address point placement is further needed in places such as structures having multiple floors.

1.2.4 Feature Type and Tables

1.2.4.1 Points

Single points will represent the address point features. Corresponding attribute information tied to each point is further defined in Section 1.3.6 Data Schema and Descriptions. Having one point per valid address ensures a one to one match for the purposes of geocoding.

1.2.4.2 Tables

Corresponding tables for one address point location but reference to multiple locations or sub-addresses can be further represented in tabular format. See Section 1.3.6 Data Schema and Descriptions for description on information for tables.

1.2.5 Projection and Datum

For data to be made available for NG9-1-1 operations, the data will need to be in a geographic coordinate system and not projected. This is necessary for the Emergency Call Routing Function (ECRF) or the Location Validation Function (LVF) uses for display.

EPSG:	4326 WGS84 / Latlong
Projection:	Geographic Coordinates, Plate Carrée, Equidistant Cylindrical, Equirectangular
Latitude of the origin:	0°
Longitude of the origin:	0°
Scaling factor:	1
False easting:	0°
False northing:	0°
Ellipsoid:	WGS84
Horizontal Datum:	WGS84
Vertical Datum:	WGS84 Geoid
Units:	decimal degrees
Global extent:	-180, -90, 180, 90

The NAD will also be projected and delivered in Nebraska (State) Plane Coordinate System projection and datum for North American Datum of 1983 (NAD83). The plane coordinate values for a point on the earth's surface should be expressed in feet. The data will also be made available as Web Mercator with WGS 1984 horizontal datum for use among other needed web services.

1.3 Address Attributes

1.3.1 General Address Components

There are several components that make up an address. Many are required to accurately define a specific address and location. When an address is matched against other address database files or for the purpose of generating an address it must be broken down into the individual components separated by a single space between the components. These standards follow the FGDC United State Thoroughfare, Landmark and Postal Address Data standard for address components. The minimum components required to accurately define an address are:

Primary Address Number:	123
Prefix Directional Street:	W
Street Name:	Main
Street Type:	ST
Street Direction:	NW
Unit Address Identifiers:	STE
Unit Number:	5
City:	Lincoln
State:	NE
Zip Code:	68509

Not all of the elements are required to be filled out for an address to be valid. However, the placeholders need to be present in the attribute table to accurately represent the accepted USPS standards. The USPS uses a parsing logic to enter address information into their appropriate fields. When parsing an address into the individual components, start from the right element of the address and work toward the left. Place each element in the appropriate field until all address components are isolated. This process facilitates matching files and produces the correct format for standardized output as well as isolating the mismatches to the closest possible fit before failing.

Associated attributes pertain to formatting and storing of address data within attribute tables that are external to and associated with feature attribute tables of geospatial datasets. For example, a city’s master address database could be associated with and address matched against a city-wide geospatial dataset of points.

Addressing authorities at the local level that maintain address data within each jurisdiction shall develop a master address database that can be referenced to the NAD when new street names are being created or assigned so that duplications are avoided. All street names and address numbers shall be kept consistent with geospatial datasets.

Additional information and guidelines for directional prefixes and suffixes, street naming, street type, address parity, sequential direction and consistency with distance-based address grid can be found in the Street Centerline Standards (NITC 3-205).

1.3.2 Unique Identification Code

A unique identifier is required for the statewide address point database. This unique identifier allows the data to be tied or joined to other spatial data sets having the same identifier. The field name for this unique code in NAD is “NEAddressID.” The first four (4) digits are the county name followed by number associated from the local addressing authority. In certain cases, the unique identifier may change at the local level. This is acceptable and will also need to be reflected as the change to the statewide address point database.

1.3.3 Use of Characters

Street addresses shall not contain characters such as hyphens, dashes, +, #, & or other non-alpha-characters or symbols. An alpha-character added to the address as a sub-number is preferable to a fraction (e.g., 123 A is preferable to 123 1/2).

1.3.4 Data Schema and Descriptions

The following table represents the necessary data schema including field names, descriptions, and associated domains for the address point database. The minimum required fields for these standards are represented by the following identifiers: “**R**” – required, “**RC**” –Recommended, and “**O**” – Optional.

Field Name	Field Type	Field Length	Field Description	Domain Name	Required Level
NEAddressID	String	12	Unique ID of address point where first 4 characters are the first 4 letters of each County name. The remaining 8 characters of the number are provided by the local addressing authority.	N/A	R

NEStreetID	Integer	20	Unique ID of corresponding street centerline segment	N/A	R
State_PID	String	30	County FIPS code plus local government PID number (See Statewide Parcel Database ID requirements)	N/A	R
County_ID	String	3	County FIPS code of where address point resides	CountyFIPS	R
PrefixAddressNumber	String	10	An extension that precedes the address number	N/A	R
AddressNumber	Integer	6	The numeric identifier of a location along a thoroughfare (i.e., 100, 2345, 31)	N/A	R
SuffixAddressNumber	String	15	An extension that follows the address number (i.e., A through Z)	SuffixAddressNumber	R
PreModifier	String	15	A street name modifier that precedes the street name. (i.e., Alternate, bypass, loop, private, spur, etc.)	PreModifier	R
PreDirectional	String	2	A street direction that precedes the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PreType	String	4	A street type that precedes the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
SeparatorElement	String	10	An element that precedes the StreetName which separates the PreType and StreetName	SeparatorElement	R
StreetName	String	30	Legal authoritative street name component of segment name	N/A	R
PostType	String	4	A street type that follows the street name (i.e., AVE, RD, ST, CIR, PL, PKWY, LN, DR, BLVD, ALY)	StreetType	R
PostDirectional	String	2	A street direction that follows the street name (i.e., N, S, E, W, NE, NW, SE, SW)	Direction	R
PostModifier	String	12	A descriptor that follows the street name and is not a suffix or a direction (i.e., Access, Central, Crossover, Scenic, Terminal, Underpass)	PostModifier	R
Building	String	60	The name of one among a group of buildings that have the same address number and street name, that are multiple independently named structures at the same address	N/A	R
Floor	String	10	A floor, story, or level within a building	N/A	O
NumberFloors	String	4	Number of floors in building	N/A	O
Room	String	10	A room identification in a building	N/A	RC

NumberRooms	String	4	Number of rooms in building or structure.	N/A	O
Seat	String	5	The place where a person may be located within a room or building.	N/A	O
Unit	String	4	A group or suite of rooms within a building that are under common ownership or tenancy, typically having a common primary entrance. (ie, A, 4, etc.)	N/A	R
UnitType	String	4	The unit type abbreviation. (ie, APT, BLDG, DEPT, FL, STE, UNIT)	UnitType	C
Location	String	20	For sub-address, other than building, floor, unit, room or seat. For example, northeast corner of building.	N/A	O
Subdivision	String	60	Subdivision name	N/A	C
City	String	40	Name of the municipality where the site is located. Also the postal community name associated to the zip code or postal code.	N/A	R
State	String	2	State name abbreviation	State	R
ZipCode	String	5	5 digit zip code	N/A	R
Ph_Zip4	String	4	Mailing post code +4 designation for the tax parcel	N/A	RC
FullAddress	String	75	Concatenated street address consisting of address number, pre direction, pre type, street name, street type, suffix direction, unit number, building, floor.	N/A	R
SubAddress	String	75	Entire sub-address string that consists of Building, Floor, Unit, and Location fields concatenated together	N/A	RC
LandmarkName	String	60	Common Place Name such as library, town hall, Chimney Rock, stadium	N/A	R
MSAG**	String	30	Service community name associated with the location of the address.	N/A	R
ESN**	String	5	Emergency Service Number associated with the location of the address identified by MSAG.	N/A	R
PSAP	String	25	Public Service Access Point identifier number	N/A	R
PrimaryPoint	String	3	Is this the primary point? Yes or No. Distinguishes between Primary and SubAddress points.	PrimaryPoint	R
PointType	String	3	Address point type (primary structure, primary property entrance, secondary	PointType	R

			structure, secondary property entrance, parcel centroid, etc.)		
PlaceType	String	75	Description of the type of feature for address (House, duplex, trailer, apartment, secondary structure, utility, school, hospital, commercial business, industrial, etc.)	N/A	RC
MilePost	String	150	Mile marker or measurement at location	N/A	RC
AddOwner	String	25	Current local entity responsible for creation of address data	N/A	R
AddMaint	String	25	Current local entity responsible for maintenance of address data	N/A	R
AddressSource	String	30	The primary data source for the attributes used in this record	AddressSource	R
SourceOfData	String	30	Entity that provided the data	N/A	R
Create_DT	Date	26	Date/time stamp data was collected	N/A	R
Update_DT	Date	26	Date/time stamp the record was last modified	N/A	R
UpdateBy	String	50	Person who made the last update to the record	N/A	R
RecentFieldEditor	String	30	Recent field editor of data	N/A	R
Add_Status__Code	String	2	Status code indicating operational condition of address point (1=active, 2=retired, 3=unknown)	N/A	R
ActiveDT	Date	26	Date when the segment is activated or becomes available for use.	N/A	R
UActiveDate	Date	26	Date when the segment becomes unactive or not available for use.	N/A	RC
Basement	String	3	Is there a basement? Yes, No	N/A	O
StrmShelter	String	25	The type of storm shelter	N/A	O
OccupTime	String	50	Time when the site/structure is typically occupied (7:00 – 6:00 pm)	N/A	O
X_COORD	Numeric	15	Points X coordinate	N/A	R
Y_COORD	Numeric	15	Points Y coordinate	N/A	R
Z_COORD	Numeric	7	Points Z elevation coordinate in feet. Height above mean sea level.	N/A	O
NatGrid	String	15	This is the US National Grid address up to 10 digits at 1 meter	N/A	O

Comments	String	255	Comments or notes	N/A	O
URIAddData	String	255	Route Uniform Resource Identifier for additional information about the location or building (eg, blueprints, contact information). This is usually in the form of http://{domain}.	N/A	O

** Not required in full NG9-1-1 implementation, used in legacy systems.

1.4 Data Format

The data format provided will need to be in a format that can be interpreted by commercial GIS software, preferably as an Esri geodatabase. A geodatabase schema including domains can be provided free upon request by contacting the State of Nebraska, Office of the CIO GIS Shared Services. Address data stored on NebraskaMAP will be in an Esri geodatabase format but provided through various formats for other users to consume.

Other supporting tabular data will need to be provided in MS ACCESS, DBF, or MS SQL formats.

1.5 Maintenance

Addressing authorities need to be identified at the local level for approval of new addresses and assuring the addresses are implemented towards the database. This will insure that the physical location and the attribute database is updated and maintained in a timely manner. After spatial and attribute updates and/or modifications are performed to the database it shall be submitted to the appropriate entity(s) responsible for performing quality control and maintenance of the NAD.

Maintenance of address points requires capturing addresses and locations associated with new developments as soon as possible. This means mapping new structures by creating a geographic point as soon as (a) an address is assigned by the municipality and, if possible, (b) the physical location of the structure can be determined. For example, if a building permit has been issued and it includes a street address for the construction of a new residence, once a foundation is poured, then it would be possible to visit the site and capture that location.

1.5.1 Reporting Errors and Handling Updates

The reporting of errors need to be directed to specific local (city and/or county) and/or state entity(s) involved in the workflow in a timely manner. Updated spatial and attribute information in database will also need to be redistributed. The date field in the database when the last record was modified will also need to be updated to ensure proper records management and communication with others in the workflow.

1.6 Quality Control

The quality of the NAD is evaluated based on the overall functional correctness and completeness of the attribute and spatial data. The FGDC and NENA have adopted nationally recognized standards for accuracy testing of GIS data. NENA recommends that address data for use in data exchanges associated with NG-911 call processing be based on the FGDC compliant database. Refer to the FGDC United State Thoroughfare, Landmark and Postal Address Data standard and the NENA Civic Location Data Exchange Format (CLDXF) Standard for these data exchange standards.

1.6.1 Attribute Accuracy

- a) Attribute fields are complete compared to source data having valid data elements, domain or range values.
- b) Correct spelling in comparison of source data.
- c) Standard first letter capitalized of every word and USPS capitalization of the State abbreviation.
- d) Not to contain duplicate address points, each address point should be uniquely identifiable by the attributes.
- e) Assure that the address points on the left or right of the street centerline are consistently either odd or even addresses.
- f) The address point database has a thematic approach to accuracy. In other words, the type of address points recorded reflect the appropriate attribute values associated to that type. The data schema is setup with several field names that help qualify these relationships and thematic criteria to ensure accuracy of address point information.
- g) For NG9-1-1 applications, the address for each point need to qualify and meet certain thresholds for the MSAG and ALI databases. For MSAG and ALI databases, the address for each point will need to be valid at a rate of 98 percent or better. For areas without an MSAG, the addresses in the point file will meet USPS Publication 28 standards. For the ALI database, this is determined by geocoding the addresses in the ALI database to the point layer with addresses developed for that area. Overall, the address data is consistent with source information from MSAG and ALI.
- h) The correct formatting of address attributes are used in these standards and are also included in the NENA standards and abbreviations as they are found in USPS Publication 28.
- i) The temporal quality is met by being current, updating appropriate attributes, and indicating the time the changes were made in the date updated field. Address points assigned early on due to missing or unknown structures may end up being incorrect later on as construction begins and structures are further identified.
- j) Internal QA/QC checks for allowable domain values, summary statistics and record counts.

1.6.2 Physical Location

The quality of the physical location will be evaluated based on:

- a) The placement of the address point representing it's real location and if it meets horizontal accuracy requirements. The National Standard for Spatial Data Accuracy (NSSDA) outlines a methodology for measuring positional accuracy. If additional testing is required, the NSSDA procedures outline the statistical procedures.
- b) The geometric placement of the address point is consistently logical to the context of other features such as street centerlines, parcels, emergency service zones, and other address points.

1.7 Integration with other Standards

1.7.1 Street Centerline Standards (NITC 3-205)

The address elements identified in these standards shall meet the same address field relationships found in the Street Centerline Standards NITC 3-205. This is to assure the connection of street addresses and routing to address points having the same address information.

1.8 Metadata

A requirement for address point data is creating and maintaining its metadata. The metadata for address point data will require detailing the characteristics and quality of submitted address points. Information needs to be provided to allow the user sufficient information so they can determine the data's intended purpose as well as how to access the data. The metadata requires a process description summarizing collection parameters such as: contact information, data source, scale, accuracy, projection, use restrictions, and date associated to each street centerline segment. The process description will also need to be included to describe methodology towards the deliverable products.

1.8.1 Federal Metadata

The Federal Metadata Content Standard from FGDC should be used when feasible and in every effort possible to assure high quality rigorous standards. All geospatial address point geodatabases, and their associated attribute databases should be documented with FGDC compliant metadata outlining how the data was derived, attribute field definitions and values, map projections, appropriate map scale, contact information, access and use restrictions, to name a few.

1.8.2 State Metadata

These standards need to apply to Nebraska's metadata standards located within NITC 3-201 Geospatial Metadata Standard. All metadata from address point data will need to be registered through the metadata portal at NebraskaMAP (<http://NebraskaMAP.gov>). All developers of Nebraska-related geospatial data are encouraged to use the site to either upload existing metadata and/or use the online tools available on the site to create the metadata for address point data.

2.0 Purpose and Objectives

2.1 Purpose

The purpose of this standard is to provide the necessary requirements for the creation, development, delivery, and maintenance of address point data to support a statewide NAD. These standards will help ensure that address data creation and development are current, consistent, accurate, publicly accessible, and cost-effective.

2.2 Objectives

These standards will guide the statewide NAD having the following objectives:

- 2.2.1 Provide guidance, address database schema, and necessary workflows to state and local officials as they work, either in-house or with private contractors, to create, develop and maintain address point data. This can increase the likelihood that the data created will be suitable for the range of intended applications and likely future applications. The maintenance of address data is necessary for the data to be current and accurate.
- 2.2.2 Enhance coordination and program management across jurisdictional boundaries by insuring that address point data can be horizontally integrated across jurisdictional and/or project boundaries, and other framework data layers for regional or statewide applications.
- 2.2.3 Save public resources by facilitating the sharing of address point data among public agencies or sub-divisions of agencies by incorporating data standards and following guidelines. Data that is developed by one entity can be done in a way that is suitable to

serve the multiple needs of other entities. This avoids the costly duplication of developing and maintaining similar address point data in the state.

- 2.2.4 Make address point data current and readily accessible to the wide range of potential users through NebraskaMAP and other necessary resources.
- 2.2.5 Facilitate harmonious, trans-agency and public policy decision-making and implementation by enabling multiple agencies and levels of government to access and appropriately use current address data. This can make it more likely that intersecting public policy decisions, across levels of government, will be based on the same information.
- 2.2.6 Lay the foundation for facilitating intergovernmental partnerships for the acquisition and development of high-quality address point data by defining standards that increase the likelihood that this data will meet the needs of multiple users.
- 2.2.7 Establish and promote the integration and interrelationships of address data with related NESDI framework layers through geometric placement and attributes.

3.0 Definitions

Accuracy

Absolute - A measure of the location of features on a map compared to their true position on the face of the earth.

Relative - A measure of the accuracy of individual features on a map when compared to other features on the same map.

Address

Actual or Real - The simple, everyday element that designates a specific, situs location, such as a house number or an office suite.

Range - Numbers associated with segments of a digital street centerline file that represent the actual high and low addresses at either end of each segment.

Theoretical - A location that can be interpolated along a street centerline file through geocoding software.

Vanity - A special address that is inconsistent with or an exception to the standard addressing schema.

Address matching – See Geocoding

Automatic Location Identification (ALI) - The automatic display at the PSAP of the caller's phone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates.

Attribute – The properties and characteristics of entities.

Datum – A set of values used to define a specific geodetic system.

Data Stewardship – Entity(s) responsible for developing and maintaining the data.

Entity – A data entity is any object about which an organization chooses to collect data.

Geocoding – A mechanism for building a database relationship between addresses and geospatial features. When an address is matched to the geospatial features, geographic coordinates are assigned to the address.

Geospatial feature – A point, line or polygon stored within geospatial software.

Line – A linear feature built of straight line segments made up of two or more coordinates.

Master Street Address Guide (MSAG) - A listing of streets and house number which describes the exact spelling of streets, street number ranges, and other address elements.

National Emergency Number Association (NENA) – A professional association consisting of emergency number agencies and telephone company personnel responsible for the planning, implementation, establishing national standards, management, and administration of emergency number systems.

Nebraska Spatial Data Infrastructure (NESDI) - A framework of geospatial data layers that have multiple applications, used by a vast majority of stakeholders, meet quality standards and have data stewards to maintain and improve the data on an ongoing basis. These layers are also consistent with the Federal National Spatial Data Infrastructure (NSDI).

Point - A geospatial feature that is stored as a single X-Y coordinate pair. Some data systems store X-Y-Z coordinates, where Z represents elevation of the point above a given surface (or datum).

Projection – A map projection flattens the earth, allowing for locations to be systematically assigned new positions so that a curved surface can be represented on a flat map.

Public Safety Answering Point (PSAP) - An entity operating under common management which receives 9-1-1 calls from a defined geographic area and processes those calls according to a specific operational policy.

State Plane Coordinate System - The State Plane Coordinate System is a set of 124 geographic zones or coordinate systems designed for specific regions of the United States. It uses a simple Cartesian coordinate system to specify locations rather than a more complex spherical coordinate system (the geographic coordinate system of latitude and longitude). By thus ignoring the curvature of the Earth, "plane surveying" methods can be used, speeding up and simplifying calculations. The system is highly accurate within each zone (error less than 1:10,000). Outside a specific state plane zone, accuracy rapidly declines, thus the system is not useful for regional or national mapping

Unique Identification Code – Every element is assigned an identification code, making it unique from other elements. For these standards, the first four (4) digits are the county name followed by number associated from the local addressing authority.

USGS United States Geological Survey - is a scientific agency of the United States government. The scientists of the USGS study the landscape of the United States and its natural resources.

4.0 Applicability

4.1 State Government Agencies

State agencies that have the primary responsibility for developing and maintaining address point data for a particular jurisdiction(s) or geographic area (e.g. for counties for which it has assumed the primary role) are required to comply with the standards as described in Section 1. Those state agencies with oversight responsibilities in this area are required to ensure that their oversight guidelines, rules, and regulations are consistent with these standards.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding, directly or indirectly, for address point development and maintenance for a particular jurisdiction or geographic area are required to comply with the standards as described in Section 1.

4.3 Other

Other entities, such as city and local government agencies (e.g. County Engineer, PSAPs, and municipalities) that receive state funds have the primary responsibility for developing and maintaining address point data are required to comply with the standards as described in Section 1.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. Neb. Rev. Stat. § 86-516(6)

5.2 State Agencies

The State of Nebraska, Office of the CIO (OCIO) GIS Shared Services will be responsible for ensuring that standards and guidelines relative to development, meeting quality control standards, and approving address points for the statewide address point database for distribution are conducted according to subsections in Section 1. The OCIO GIS Shared Services will be responsible for assuring that metadata is completed and the data is registered and available for distribution through NebraskaMAP.

5.3 Granting Agencies and Entities

State granting or fund disbursement entities or agencies will be responsible for ensuring that these standards are included in requirements related to fund disbursements as they relate to address points.

5.4 Other

Local government agencies that have the primary responsibility and authority for address naming and point placement will be responsible for ensuring that those sub-sections defined in Section 1 will be incorporated in the address point data development efforts and contracts.

6.0 Authority

6.1 NITC GIS Council

According to Neb. Rev. Stat. § 86-572(2), the GIS Council shall: Establish guidelines and policies for statewide Geographic Information Systems operations and management (a) The acquisition, development, maintenance, quality assurance such as standards, access, ownership, cost recovery, and priorities of data bases; (b) The compatibility, acquisition, and communications of hardware and software; (c) The assessment of needs, identification of scope, setting of standards, and determination of an appropriate enforcement mechanism; (d) The fostering of training programs and promoting education and information about the Geographic Information Systems; and (e) The promoting of the Geographic Information Systems development in the State of Nebraska and providing or coordinating additional support to address Geographic Information Systems issues as such issues arise.

7.0 Related Documents

- 7.1 NENA."NENA Next Generation 9-1-1 (NG9-1-1) Civic Location Data Exchange Format (CLDXF) Standard." NENA-STA-004. March 23, 2014. NENA Joint Data Technical/Next Generation Integration Committees, Next Generation Data Development Working Group (NGDD).
- 7.2 National Emergency Number Association. "NENA Information Document for Development of Site/Structure Address Point GIS Data for 9-1-1."NENA-STA-XXX (Currently in Public Review), http://www.nena.org/?NG911_Project.
- 7.3 National Emergency Number Association. "NENA Standard for NG9-1-1 GIS Data Model."NENA-STA-XXX (Currently in Public Review).
- 7.4 NENA GIS Data Collection and Maintenance Standards, NENA 02-014, July 17, 2007
- 7.5 NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI, NENA 71-501, Version 1.1, September 8, 2009
- 7.6 Federal Geographic Data Committee (FGDC) United States Thoroughfare, Landmark and Postal Address Data Standard. FGDC Document Number FGDC-STD-016-2011. February 2011.
- 7.7 NITC 3-201 Geospatial Metadata Standard – <http://nitc.ne.gov/standards/3-201.html>
- 7.8 NITC 3-205 Street Centerline Standards. (Waiting Review and Approval)
- 7.9 United States Postal Service Publication 28. "Postal Addressing Standards."
- 7.10 FGDC Geospatial Positioning Accuracy Standards Part 3, Appendix 3-D (FGDC-STD-007.3-1998)
- 7.11 NITC 3-203 Elevation Acquisition using LiDAR Standards
- 7.12 NITC 3-204 Imagery Standards

8.0 Appendices

8.1 Domains

Domains are provided for street centerline, alternate street names, and centerline points. This information provides consistency in reporting of data across multiple data sets.

SuffixAddressNumber

Domain	Description
A	A
B	B
C	C
D	D
E	E
F	F
G	G
H	H
I	I
J	J
K	K
L	L
M	M
N	N
O	O
P	P
Q	Q
R	R
S	S
T	T
U	U
V	V
W	W
X	X
Y	Y
Z	Z

PreModifier

Domain	Description
Alternate	Alternate
Archway	Archway
Behind	Behind
Business	Business
Bypass	Bypass
Center	Center
De	De
Del	Del
Drive	Drive
Entrance	Entrance
Extended	Extended
Head	Head
Historic	Historic
La	La
Le	Le
Loop	Loop
New	New
Old	Old
Olde	Olde
Our	Our
Out	Out
Private	Private
Public	Public
Spur	Spur
The	The
To	To

Direction

Domain	Description
N	North
S	South
E	East
W	West
NE	Northeast
NW	Northwest
SE	Southeast
SW	Southwest

SeperatorElement

Domain	Description
And	And
At	At
By The	By The
Con	Con
De Las	De Las
For	For
For The	For The
In The	In The
Of	Of
Of The	Of The
On The	On The
The	The
To	To
Y	Y

PostModifier

Domain	Description
Access	Access
Alternate	Alternate
Approach	Approach
Business	Business
Bypass	Bypass
Center	Center
Central	Central
Centre	Centre
Company	Company
Concourse	Concourse
Connector	Connector
Crossing	Crossing
Crossover	Crossover
Cut Off	Cut Off
Cutoff	Cutoff
Dock	Dock
End	End
Entrance	Entrance
Executive	Executive
Exit	Exit
Extended	Extended
Extension	Extension
Industrial	Industrial
Interior	Interior
Loop	Loop
Overpass	Overpass
Private	Private
Public	Public
Ramp	Ramp
Scenic	Scenic
Service	Service
Spur	Spur
Terminal	Terminal
Transverse	Transverse
Underpass	Underpass

State

Domain	Description
NE	Nebraska
CO	Colorado
WY	Wyoming
SD	South Dakota
IA	Iowa
MO	Missouri
KS	Kansas

PointType

Domain	Description
1	Primary Structure
2	Primary Property Entrance
3	Secondary Structure
4	Secondary Property Entrance
5	Parcel Centroid
6	Other location in Parcel
7	Site
8	Geocoded from Street Centerlines
9	Other

AddressSource

Domain	Description
County911AL	County 911 Address List
CountyAP	County Address Points
CountyBF	County Building Footprint
CountyCP	County Common Places
CountyParcels	County Parcels
GDRAP	GDR Address Points
MunicipalAP	Municipal Address Points
MunicipalParcels	Municipal Parcels
StateAP	State Address Points
Other	Other

PrimaryPoint

Domain	Description
Y	Yes
N	No

StreetType (for both PreType and PostType) Additional commonly used street suffixes and abbreviations are located within the USPS Publication 28.

Domain	Description
Acrs	Acres
Aly	Alley
Anx	Annex
Arc	Arcade
Ave	Avenue
Bay	Bay
Bch	Beach
Bg	Burg
Bgs	Burgs
Blf	Bluff
Blfs	Bluffs
Bld	Boulevard
Bnd	Bend
Br	Branch
Brg	Bridge
Brk	Brook
Brks	Brooks
Btm	Bottom
Byp	Bypass
Byu	Bayou
Chas	Chase
Cir	Circle
Cirs	Circles
Clb	Club
Clf	Cliff
Clfs	Cliffs
Clos	Close
Cmn	Common
Cmns	Commons
Chrs	Corners
Cor	Corner
Cors	Corners

StreetType, continued

County Hwy	County Road
County Rte	County Touring Route
Cp	Camp
Cpe	Cape
Cres	Crescent
Crk	Creek
Crse	Course
Crst	Crest
Cswy	Causeway
Ct	Court
Ctr	Center
Ctrs	Centers
Cts	Courts
Curv	Curve
Cv	Cove
Cvs	Coves
Cyn	Canyon
DI	Dale
Dm	Dam
Dr	Drive
Drs	Drives
Drwy	Driveway
Dv	Divide
End	End
Est	Estate
Ests	Estates
Expy	Expressway
Ext	Extension
Exts	Extensions
Fall	Fall
Farm	Farm
Fld	Field
Flds	Fields
Fls	Falls
Flt	Flat
Flts	Flats
Frd	Ford
Frds	Fords
Frg	Forge
Frgs	Forges

Frk	Fork
Frks	Forks
Frst	Forest
Fry	Ferry
Ft	Fort
Fwy	Freeway
Gate	Gate
Gdn	Garden
Gdns	Gardens
Gln	Glen
Glns	Glens
Grds	Grounds
Grn	Green
Grns	Greens
Grv	Grove
Grvs	Groves
Gtwy	Gateway
Hbr	Harbor
Hbrs	Harbors
HI	Hill
Hls	Hills
Holw	Hollow
Hrbr	Harbor
Hts	Heights
Hvn	Haven
Hwy	Highway
I	Interstate
Inlt	Inlet
Is	Island
Isle	Isle
Iss	Islands
Jct	Junction
Jcts	Junctions
KnI	Knoll
Knls	Knolls
Ky	Key
Kys	Keys
Land	Land
Lck	Lock
Lcks	Locks
Ldg	Lodge

Lf	Loaf
Lgt	Light
Lgts	Lights
Lk	Lake
Lks	Lakes
Ln	Lane
Lndg	Landing
Loop	Loop
Mall	Mall
Mdw	Meadow
Mdws	Meadows
Mews	Mews
MI	Mill
Mls	Mills
Mnr	Manor
Mnrs	Manors
Msn	Mission
Mt	Mount
Mtn	Mountain
Mtns	Mountains
Mtwy	Motorway
Nck	Neck
Opas	Overpass
Orch	Orchard
Otlk	Outlook
Oval	Oval
OvIk	Overlook
Park	Park
Pass	Pass
Path	Path
Pike	Pike
Pkwy	Parkway
PI	Place
Pln	Plain
Plns	Plains
Plz	Plaza
Pne	Pine
Pnes	Pines
Pr	Prairie
Prom	Promenade
Prt	Port

StreetType, continued

Prts	Ports
Psgc	Passage
Pt	Point
Pts	Points
Radl	Radial
Ramp	Ramp
Rd	Road
Rdg	Ridge
Rdgs	Ridges
Rds	Roads
Rdwy	Roadway
Rise	Rise
Riv	River
Rnch	Ranch
Row	Row
Rpd	Rapid
Rpds	Rapids
Rst	Rest
Rte	Route
Rue	Rue
Run	Run
Shls	Shoals
Sho	Shoal
Shr	Shore
Shrs	Shores
Skwy	Skyway
Smt	Summit
Spg	Spring
Spgs	Springs
Spur	Spur
Sq	Square
Sqs	Squares
St	Street
Sta	Station
State Hwy	State Touring Highway
State Pkwy	State Parkway
State Rte	State Route
Stra	Stravenue
Strm	Stream
Sts	Streets

Ter	Terrace
Tlpk	Trailer Park
Tpke	Turnpike
Trak	Track
Trce	Trace
Trfy	Trafficway
TrkTrl	Truck Trail
Trl	Trail
Trlr	Trailer
Trwy	Thruway
Tunl	Tunnel
Turn	Turn
Twrs	Towers
Un	Union
Uns	Unions
Upass	Underpass
US Hwy	Federal Highway
US Rte	US Route
Vale	Vale
Via	Viaduct
Vis	Vista
VI	Ville
Vlg	Village
Vlgs	Villages
Vls	Villas
Vly	Valley
Vlys	Valleys
Vw	View
Vws	Views
Walk	Walk
Wall	Wall
Way	Way
Ways	Ways
Wds	Woods
Wels	Wells
WI	Well
Wood	Wood
Xing	Crossing
Xrd	Crossroad
Xrds	Crossroads

UnitType

Domain	Description
APT	Apartment
BSMT	Basement
	Blank, unable to determine
BLDG	Building
DEPT	Department
FL	Floor
FRNT	Front
HNGR	Hanger
KEY	Key
LBBY	Lobby
LOT	Lot
LOWR	Lower
OFC	Office
PH	Penthouse
PIER	Pier
REAR	Rear
RM	Room
SIDE	Side
SLIP	Slip
SPC	Space
STOP	Stop
STE	Suite
TRLR	Trailer
UNIT	Unit
UPPR	Upper

CountyFIPS

Domain	Description	Domain	Description	Domain	Description
1	Adams	63	Frontier	125	Nance
3	Antelope	65	Furnas	127	Nemaha
5	Arthur	67	Gage	129	Nuckolls
7	Banner	69	Garden	131	Otoe
9	Blaine	71	Garfield	133	Pawnee
11	Boone	73	Gosper	135	Perkins
13	Box Butte	75	Grant	137	Phelps
15	Boyd	77	Greeley	139	Pierce
17	Brown	79	Hall	141	Platte
19	Buffalo	81	Hamilton	143	Polk
21	Burt	83	Harlan	145	Red Willow
23	Butler	85	Hayes	147	Richardson
25	Cass	87	Hitchcock	149	Rock
27	Cedar	89	Holt	151	Saline
29	Chase	91	Hooker	153	Sarpy
31	Cherry	93	Howard	155	Saunders
33	Cheyenne	95	Jefferson	157	Scotts Bluff
35	Clay	97	Johnson	159	Seward
37	Colfax	99	Kearney	161	Sheridan
39	Cuming	101	Keith	163	Sherman
41	Custer	103	Keya Paha	165	Sioux
43	Dakota	105	Kimball	167	Stanton
45	Dawes	107	Knox	169	Thayer
47	Dawson	109	Lancaster	171	Thomas
49	Deuel	111	Lincoln	173	Thurston
51	Dixon	113	Logan	175	Valley
53	Dodge	115	Loup	177	Washington
55	Douglas	117	McPherson	179	Wayne
57	Dundy	119	Madison	181	Webster
59	Fillmore	121	Merrick	183	Wheeler
61	Franklin	123	Morrill	185	York

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: LINK – Procurement		Contact: Bo Botelho				
Start Date	01/14/2013	Orig. Completion Date	10/31/2013	Revised Completion Date	Pending	
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						
Project Description						
<p>Workday Procurement standardizes business processes for procurement documents. Workday Procurement will be the data entry location for all procurement documents (requisitions, purchase orders and contracts). Approvals and printing of the documents will be processed in Workday. Selected supplier websites will be available for access to state contracted pricing through punch-out capability. Purchase Orders will be interfaced in to the State’s financial system for encumbering, receipts, and accounts payable. Suppliers will be available for selection in Workday and their associated commodities and procurement contact information will be maintained within Workday.</p> <p>Project Estimate: \$1,895,800 (\$1,624,009.27 has been expended)</p>						
Comments						
<p>The Workday Procurement project has been suspended. The Department will continue to prioritize the current upgrading of the EnterpriseOne financial system and ongoing support of the existing HCM solution.</p>						

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: Network Nebraska Education						Contact: Tom Rolfes
Start Date	05/01/2006	Orig. Completion Date	06/30/2012	Revised Completion Date	08/01/2015	
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						
Project Description						
<p>Network Nebraska-Education is a statewide consortium of over 260 K-12 and higher education entities working together to provide a statewide backbone, commodity Internet, distance education, and other value-added services to its participants. Network Nebraska-Education is managed by the State Office of the CIO partnering with the University of Nebraska Computing Services Network (UNCSN).</p> <p>Project Budget (2014-15): \$717,781 (\$477,934 has been expended)</p>						
Comments						
<p>February update: Since the last reporting period, State Purchasing made an intent to award to Cogent Communications for Internet service out of 1623 Farnam in Omaha. The unit cost is expected to decrease by \$.68/Mbps/month, or about a 50% drop in price. Discussions have continued with ESU 3 schools and the Lincoln Diocese schools and both groups are expected to join the network on 7/1/2015. The Network Nebraska Advisory Group met to recommend implementation of dynamic provisioning of Internet for the upcoming year, which will permit Network Nebraska to experience some cost avoidance by reducing the purchase of unused Internet bandwidth, and redirecting those funds into the hardware and infrastructure to deliver the Internet. Internet orders are due from all entities by March 1, 2015, and the deadline for E-rate filing is March 26, 2015.</p> <p>December update: Looking ahead to the fall 2014 procurement, Omaha commodity Internet will be rebid.. After hearing from the FCC that there will be no national preferred master contracts for internal connections equipment, the ESU-NOC voted to have the Office of the CIO and State Purchasing procure maximum discounts on up to 9 different types of equipment such as wireless access points, cabling, switches/routers, etc... This will become an invitation to bid to extend over the life of the FCC equipment funding (2015-2020) with a possible fiscal impact of \$52 million for Nebraska K-12 schools.</p> <p>Additional Comments/Concerns: The Network Nebraska-Education Participation Fee fund account has been updated with the 2014-15 estimated costs and the 2nd quarter UNCSN invoice submitted on 1/29/2015.</p> <p>Even though the Chief Information Officer fulfilled the Legislative benchmark of “providing access (the ability to connect) to every public K-12 and public higher education entity at the earliest date and no later than July 1, 2012” [Neb. Rev. Stat. 86-5,100], the NITC Technical Panel has extended the enterprise project designation for Network Nebraska-Education until 8/1/2015 so that all public school districts that want to participate have actually connected.</p>						

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: Nebraska State Accountability (NeSA) (formerly Statewide Online Assessment) Contact: John Moon

Start Date	07/01/2010	Orig. Completion Date	06/30/2011	Revised Completion Date	6/30/2015	
	February	December	December	October	September	July
Overall Status						
Schedule						
Budget						
Scope						

Project Description

Legislative Bill 1157 passed by the 2008 Nebraska Legislature required a single statewide assessment of the Nebraska academic content standards for reading, mathematics, science, and writing in Nebraska’s K-12 public schools. The new assessment system was named Nebraska State Accountability (NeSA), with NeSA-R for reading assessments, NeSA-M for mathematics, NeSA-S for science, and NeSA-W for writing. The assessments in reading and mathematics were administered in grades 3-8 and 11; science was administered in grades 5, 8, and 11; and writing was administered in grades 4, 8, and 11.

Project Estimate: \$5,364,408 (\$2,174,622.75 has been expended)

Comments

February update:

The NeSA- W window is scheduled to close on February 6, 2015. Almost 38,000 of the 8th and 11th grade online writing tests were completed by January 30th. About 5,000 online tests still need to be completed. Unlike previous years, there were very few technological issues during the 2015 testing. There have been very few reports of software issues this year. Another 24,000 students took the writing practice tests in preparation for the actual testing. In reports made by Nebraska Department of Education observations and informal statements by teachers the students seem to be very focused on the test performance.

The student data will be uploaded to DRC for NeSA-Reading, Math, and Science (NeSA-RMS) Operational Tests on February 1, 2015. The NeSA-reading, math and science assessments are scheduled for March 23rd through May 1, 2015. Along with teacher developed C4L tests, practice tests for reading, math and science have been available since August 29, 2014.

Discussions with DRC have begun on future improvements to the NeSA testing.

December update:

The student data will be uploaded to DRC for NeSA-Writing (NeSA-W) Operational Tests on December 5, 2014. The NeSA- W window is scheduled for January 19 through February 6, 2015 while districts have been conducting practice tests for NeSA-W since August 29, 2014. NDE has encouraged districts to participate in the NeSA-W practice tests with over 7,379 tests completed so far. Students have completed 1072 NeSA-W field test since the window opened on November 10, 2014. There have been minimal reports of any technology issues. The testing engine is the same for field testing and for secure operational testing.

NeSA-W test administration training for test administrators and N-TACS have been scheduled for January 5th, 6th, and 7th and invitations posted on the NDE Assessment website, <http://www.education.ne.gov/Assessment/Index.html> .

DRC and NDE has responded to district concerns about chromium browser “bug” that randomly turns on the “overwrite” mode and the connection requirement for dictionary/thesaurus/spell check tools to work. More technical explanation was posted on the eDIRECT site for districts to access.

Additional Comments/Concerns:

Nebraska State Accountability (NeSA) is a statewide assessment system mandated by Nebraska Statute. Nebraska

***Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015***

Department of Education has contracted with Data Recognition Corporation (DRC) to continue the development of the assessment system including management, development, delivery, administration, scanning/imaging, scoring, analysis, reporting, and standard setting for the online and pencil/paper reading, science, writing, and mathematics tests (NeSA-RMS) for July 1, 2014 through June 30, 2015. DRC will facilitate the delivery, administration, scanning/imaging, scoring, analysis, and reporting for the alternate pencil/paper reading, science, and mathematics tests during the same assessment window. DRC will deliver the online writing assessment (NeSA-W) for grades 8 and 11 and the pencil/paper writing assessment for grade 4 as well.

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: Nebraska Regional Interoperability Network (NRIN)		Contact: Sue Krogman			
Start Date	10/01/2010	Orig. Completion Date	06/01/2013	Revised Completion Date	09/30/2015 09/30/2016
	February	December	October	September	July May
Overall Status					
Schedule					
Budget					
Scope					
Project Description					
<p>The Nebraska Regional Interoperability Network (NRIN) is a project that will connect a majority of the Public Safety Access Points (PSAP) across the State by means of a point to point microwave system. The network will be a true, secure means of transferring data, video and voice. Speed and stability are major expectations; therefore there is a required redundant technology base of no less than 100 mbps with 99.999% availability for each site. It is hoped that the network will be used as the main transfer mechanism for currently in-place items, thus imposing a cost-saving to local government. All equipment purchased for this project is compatible with the networking equipment of the OCIO.</p> <p>Project Estimate: \$10,820,003 (\$8,915,330.26 has been expended)</p>					
Comments					
<p>NEMA is struggling with issues of governance and maintenance of the network. Governance would be needed at the local jurisdiction and not at the state agency (there is no state agency is heading the project, it's all run at the local jurisdiction). There is no formal governance heading the project.</p> <p>February update: There has been an extreme amount of equipment installed and sites that have been brought on line thanks to the ability of work being able to continue with no interruptions. The MOU that NEMA has with the OCIO utilizing the two contractors with MSA's has been a huge benefit to this project. Because of the knowledge both contractors have of Ceragon Equipment and the use of an OCIO employee to configure the Juniper routers, we have seen a great improvement in the amount of work being accomplished. Weather may be a factor between now and the next report, but that is and has been an issue all along.</p> <p>December update: All issues on the process have been alleviated and the quote, invoicing and billing process has been addressed and refined. Weather conditions should not be a big factor over the next couple of months as the majority of the work to be completed will be inside buildings and/or shelters.</p> <p>Additional Comments/Concerns: It's possible that upcoming target dates might be missed. Based on the uncertainty of the infrastructure needed for the project and the time involved in obtaining the environmental approvals to proceed with the project, any target dates are fluid. Delays are inevitable due to the difficulty in locating adequate tower sites and negotiating leasing agreements and/or MOU's.</p>					

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: MMIS		Contact:					
Start Date	N/A	Orig. Completion Date		N/A	Revised Completion Date		N/A
	February	December	October	September	July	May	
Overall Status							
Schedule							
Budget							
Scope							
Comments							
<p>Project On Hold until renewed</p> <p>Funding has been appropriated for a MMIS replacement in the current biennial budget starting July 1, 2014. Once the project moves forward (a RFP will be developed) DHHS will resume monthly reporting.</p>							

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: District Dashboards							Contact: Dean Folkers
Start Date	07/01/2013	Orig. Completion Date	06/30/2015	Revised Completion Date			
	February	December	October	September	July	May	
Overall Status							
Schedule							
Budget							
Scope							
Project Description							
<p>Made possible by a Statewide Longitudinal Data System (SLDS) grant from the United States Department of Education in 2012, the focus of the Nebraska Ed-Fi Dashboard initiative is to provide readily available data to the Nebraska classrooms to facilitate informed decision-making. Potential users include teachers, counselors, and administrators. NDE intends to leverage the Ed-Fi dashboard solution made available by the Michael & Susan Dell Foundation to provide Nebraska with an advanced student performance dashboard system to be customized for Nebraska needs. The Ed-Fi data standard will serve to define the initial data elements powering the Nebraska Ed-Fi dashboard.</p> <p>Our Plan of Work for design, development, and piloting of the Nebraska Dashboards will commence in three phases, each to proceed subsequently upon successful completion of the previous phase, between the months of September 2013 and December 2014. The phases include: Phase I - Dashboard Readiness (September 2013-February 2014), Phase II – Dashboard Development (February 2014-June 2014), and Phase III – Dashboard Deployment (June 2014-December 2014).</p> <p>Project Estimate: \$466,623.75 has been expended, grant funds only</p>							
Comments							
<p>February update: No status report for February.</p> <p>December update: The project is running behind the original baseline schedule by about five - six months. The primary cause for extended project duration is changes in the pilot SIS vendor implementation schedules. All three pilot SIS vendors, Pearson, Tyler Technologies and Infinite Campus, are experiencing delays in planned start of development and readiness for data staging with pilot districts. The project and sponsor have agreed to adjust the dashboard schedule to align with vendor schedules. The revised plan is to start staging activities in early 2015, dependent upon vendor progress, and reschedule the dashboard pilot testing for spring 2015. Delays in vendor implementation and data staging will have an impact on the planned start of data warehouse validation with production data. However, the project is still on schedule for data warehouse and accountability data mart pilot testing in the spring of 2015. Additionally, there have been delays in Nebraska SSO integration, development of the Nebraska SSO portal, on premise implementation for Ed-Fi v.Next and completion of dashboard co-development required for the initial pilot. These delays impact the overall timeline and budget but are not a significant factor in readiness for data staging with the pilot districts.</p> <p>October update: Overall the project is running behind schedule by about four months for vendor implementation, SSO implementation, Ed-Fi v.Next on premise support and planned co-development/ knowledge transfer activities with Nebraska Department of Education staff. The project and sponsor have agreed to adjust the dashboard schedule due to vendor delays in development activities. The revised plan is to start staging activities in late fall 2014, dependent upon vendor progress, and reschedule the dashboard pilot testing for early 2015. Delays in vendor implementation and data staging will have an impact on the planned start of data warehouse validation. However, the project is still on schedule for data warehouse and accountability data mart pilot testing in the spring of 2015. The delay in co-development will not have an impact on planned staging activities with vendors nor the start of pilot testing.</p>							

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: EnterpriseOne System Upgrade	Contact: Lacey Pentland					
Start Date	10/01/2013	Orig. Completion Date	10/03/2014	Revised Completion Date	Spring, 2015	
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						
Project Description						
<p>The State of Nebraska has been using JD Edwards to support the State’s agencies for over ten years. The current EnterpriseOne 9.0 system is relatively stable with a medium level of modifications. The program is planned, as much as possible, to be a technical upgrade with minimal impact on the existing business processes, interfaces and the related applications. The current applications landscape is proposed to be upgraded as follows:</p> <ul style="list-style-type: none"> • Upgrade from E1 9.0 to E1 9.1 to stay current with the JD Edwards technology stack • Migrate/Retrofit required customizations to E1 9.1 based on the keep drop analysis • Be on the latest stack • Simplification of the existing ecosystem – minimize customization, expand usage of JDE application • Leverage standard functionalities provided by new features of E1 9.1 <p>Project Estimate: \$2,250,000 (\$1,096,750.20 has been expended)</p>						
Comments						
<p>February update:</p> <p>The PD910 environment is being used for the user acceptance testing phase which is well under way. The EnterpriseOne team is working through the issues as they arise. There are 3-4 weeks remaining for user acceptance testing but at this time we have not run into any issues which would prevent us from moving forward with Go-Live.</p> <p><u>Current work completed:</u></p> <ul style="list-style-type: none"> • Functional Testing completed on 12/11/2014. • Mock Go-Live Conversion occurred 12/12/2014 – 12/16/2015. • UAT Phase: PD910 environment created and UAT started 12/22/2014. • On-boarded new resources to help for the remainder of the project. <p><u>Next Steps:</u></p> <ul style="list-style-type: none"> • UAT phase is scheduled to be completed by mid-February 2015. • Planning for performance testing (stress test), training and cutover at Go-Live. <p>December update:</p> <p>The EnterpriseOne 9.1 system is stable and the modification disposition phase was completed on 11/10/2014. Functional testing started 10/20/2014 with a target date for completion on 12/11/2014. UAT is in the planning stages, a Mock Go-Live conversion is scheduled to start on 12/12/2014 in preparation for the UAT phase.</p>						

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Project: Medicaid Eligibility & Enrollment System		Contact: Eric Henrichsen				
Start Date	10/28/2014	Orig. Completion Date	06/30/2016	Revised Completion Date	N/A	
	February	December	October	September	July	May
Overall Status						
Schedule						
Budget						
Scope						
Project Description						
<p>The Affordable Care Act (ACA) included numerous provisions with significant information systems impacts. One of the requirements was to change how Medicaid Eligibility was determined and implement the changes effective 10/1/2014. As a result of the lack of time available to implement a long-term solution, the Department of Health and Human Services implemented a short-term solution in the current environment to meet initial due dates and requirements. This solution did not meet all Federal technical requirements for enhanced Federal funding but was approved on the assumption that a long-term solution would be procured. An RFP was developed and procurement has been completed with Wipro selected as the Systems Integrator for an IBM/Curam software solution.</p> <p>Project Estimate: \$57,741,564 (\$9,770,337 has been expended)</p>						
Comments						
<p>February update:</p> <p>The project is gaining some momentum as a project approach for Requirements Gathering has been developed and agreed upon. Work on an Integrated Master Schedule is progressing as well but a little behind the project approach work. Business Process Reengineering sessions have completed. Preparation work for Fit-Gap and Operation Process Reengineering stages is under way. The project and vendor are making improvements in many areas, but there is still cause for general concern.</p> <p>December update:</p> <p>The project continues to have a slow start and the vendor is having difficulties developing an acceptable integrated project plan and project approach. "Business Process Reengineering" (review of Curam functionality and attempt to understand where state requirements vary from what exists) sessions have nearly completed but next steps are not very clear and completely agreed upon. The project and vendor are making improvements in many areas, but there is still cause for general concern and action plans needed. The vendor has delivered a "Go To Green" plan with improvement actions and due dates listed.</p> <p>Additional Comments/Concerns:</p> <p>The project master schedule is well behind the original schedule. The vendor and the State of Nebraska have agreed to the project approach in concept, but the vendor is struggling to produce the documentation and a project plan to support it. One additional risk, many state resources are not full-time on the project and have other duties including other Legislative mandates to implement. The vendor is having difficulty in filling key roles on the project.</p>						

Nebraska Information Technology Commission
Enterprise Project Status Dashboard – as of February, 2015

Color Legend		
	Red	Project has significant risk to baseline cost, schedule, or project deliverables. Current status requires immediate escalation and management involvement. Probable that item will NOT meet dates with acceptable quality without changes to schedule, resources, and/or scope.
	Yellow	Project has a current or potential risk to baseline cost, schedule, or project deliverables. Project Manager will manage risks based on risk mitigation planning. Good probability item will meet dates and acceptable quality. Schedule, resource, or scope changes may be needed.
	Green	Project has no significant risk to baseline cost, schedule, or project deliverables. Strong probability project will meet dates and acceptable quality.
	Gray	No report for the reporting period or the project has not yet been activated.