

NEBRASKA INFORMATION TECHNOLOGY COMMISSION
Varner Hall - Board Room
3835 Holdrege Street
Lincoln, Nebraska
Thursday, July 8, 2021
10:00 a.m. CT

Webcast via Zoom: <https://nebraska.zoom.us/j/95052618330>

AGENDA

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| 10:00 a.m. | 1. Roll call; meeting notice; Open Meetings Act information. |
| | 2. Public comment. |
| | 3. Approval of March 11, 2021 meeting minutes.* (<i>Attachment 3</i>) |
| | 4. Reports from the advisory councils and Technical Panel. |
| 10:05 a.m. | a. Education Council report – Tom Rolfes. (<i>Attachment 4-a</i>)
i. Approval of membership nominations.*
ii. Digital Education and Network Nebraska updates. |
| 10:20 a.m. | b. GIS Council report – John Watermolen. (<i>Attachment 4-b</i>) |
| 10:35 a.m. | c. Community Council report – Anne Byers. (<i>Attachment 4-c</i>)
i. Broadband update. |
| 10:50 a.m. | d. eHealth Council report – Anne Byers. (<i>Attachment 4-d</i>)
i. Approval of membership nomination.* |
| 11:05 a.m. | e. Technical Panel report – Kirk Langer.
i. Technical standards and guidelines.
1. Approval of Proposal 18. Amend the Information Security Policy.* (<i>Attachment 4-e-i-1</i>)
2. Approval of Proposal 19. Amend the minimum server configuration standard.* (<i>Attachment 4-e-i-2</i>)
ii. Technology access clause update. (<i>Attachment 4-e-ii</i>)
iii. Enterprise projects.
1. Approval of enterprise project designation for the Financial Systems Modernization Project (Dept. of Transportation).* (<i>Attachment 4-e-iii-1</i>)
2. Enterprise project status dashboard report. (<i>Attachment 4-e-iii-2</i>) |
| 11:45 a.m. | f. State Government Council report – Ed Toner. (<i>Attachment 4-f</i>)
i. NASCIO 2021 State IT Recognition Awards nomination submission. |
| 12:00 p.m. | 5. Adjourn. |

* Indicates an action item.

The Commission will attempt to adhere to the sequence of the published agenda, but reserves the right to adjust the order and timing of items and may elect to take action on any of the items listed. If you need interpreter services or other reasonable accommodations, please contact the Commission at 402-471-3560 at least five days prior to the meeting to coordinate arrangements.

Meeting notice was posted to the [NITC website](#) and the [Nebraska Public Meeting Calendar](#) on June 22, 2021. The agenda was posted to the NITC website on July 2, 2021.

[Nebraska Open Meetings Act](#) | [Commission Meeting Documents](#)

ZOOM WEBCAST INFORMATION

When: Jul 8, 2021 10:00 AM Central Time (US and Canada)

Topic: NITC

Please click the link below to join the webinar:

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Dial(for higher quality, dial a number based on your current location):

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Webinar ID: 950 5261 8330

International numbers available: <https://nebraska.zoom.us/j/95052618330>

Attachment 3

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Virtual Meeting

Thursday, March 11, 2021 10:00 a.m. CT

MINUTES

MEMBERS PRESENT:

Ed Toner, Chief Information Officer, Chair
Dr. Terry Haack, Bennington Public Schools
Dorest Harvey, US Strategic Command / J84
Dan Spray, Precision Technologies, Inc.
Gary Warren, Hamilton Telecommunications
Walter Weir, University of Nebraska

MEMBERS ABSENT:

Senator Suzanne Geist, Nebraska Legislature
Shane Greckel, Greckel Farms, LLC
LaShonna Dorsey, Mutual of Omaha
Tom Nutt, Phelps County Commissioner

ROLL CALL; MEETING NOTICE; OPEN MEETINGS ACT INFORMATION

The Chair, Ed Toner, called the meeting to order at 10:05 a.m. There were six members present at the time of roll call. A quorum existed to conduct official business. A link to the Nebraska Open Meetings Act was provided in the meeting invitation. The meeting notice was posted to the NITC website and the Nebraska Public Meeting Calendar on February 23, 2021. The agenda was posted to the NITC website on March 5, 2021.

PUBLIC COMMENT

There was no public comment.

APPROVAL OF NOVEMBER 12, 2020 MEETING MINUTES

Commissioner Harvey moved to approve the November 12, 2020 meeting minutes as presented. Commissioner Weir seconded. Roll call vote: Toner-Yes, Haack-Yes, Harvey-Yes, Spray-Yes, Warren-Yes, and Weir-Yes. Results: Yes-6, No-0, Abstained-0. Motion carried.

REPORTS FROM THE ADVISORY COUNCILS AND TECHNICAL PANEL

EDUCATION COUNCIL REPORT

Tom Rolfes

Digital Education and Network Nebraska updates. The circuit bids for RFP 6454 were opened on February 19th and are now being evaluated. Internet orders for 2021-22 are expected to increase about 8% for K-12 entities and about 9% for Higher Ed and non-E-rate eligible entities. The Office of the CIO has been involved in the Nebraska statewide eduroam pilot project for 2021-23 and is collaborating on the eduroam website and content to be shared with eligible K-12 entities. The Network Nebraska cybersecurity needs survey has had over a 50% response rate but the goal is to get to 100%. Patrick Wright, of the Office of the CIO, and Rick Haugerud, of the University of Nebraska, were thanked for their assistance with cybersecurity. Zoom licensing has exceeded 35,000 licenses in 2020-21. The orders for 2021-22 are about to be submitted.

Mary Niemiec, Education Council Co-Chair, is retiring at the end of June.

Mr. Rolfes entertained questions from the Commissioners.

GIS COUNCIL REPORT

John Watermolen

Approval of membership nomination. The GIS Council requested approval of a new member nomination to serve on the council. Mr. Neil Dominy would serve as the new Federal Liaison. He is the Assistant State Conservationist for Partnership and Initiatives, with Nebraska Natural Resource Conservation Service (NRCS). Mr. Dominy's bio was included in the meeting materials.

Commissioner Haack moved to approve the GIS Council membership nomination. Commissioner Harvey seconded. Roll call vote: Weir-Yes, Warren-Yes, Spray-Yes, Harvey-Yes, and Toner-Yes. Results: Yes-6, No-0, Abstained-0. Motion carried.

GIS Day was held virtually on November 18th. Five agencies presented GIS activities. There were 43 state employees, representing 13 agencies, in attendance. A state agency GIS utilization assessment was created and shared with the GIS council. Commissioners received a copy in the meeting materials.

There are currently 20 agencies utilizing NebraskaMAP. The Office of the CIO serves as a code agency. Agencies are stewards of their data. Nebraska is the only state that houses Public Service Commission (PSC) data and has one place to go for GIS data. Commissioner Toner recommended Commissioners to look at the COVID dashboard that the GIS team developed.

Mr. Watermolen entertained questions from the Commission.

COMMUNITY COUNCIL REPORT

Anne Byers

The Nebraska Regional Officials Council (NROC) and regional economic development districts announced the launch of a statewide broadband mapping initiative. Every Nebraskan is encouraged to take the one-minute speed test from any internet-enabled device, including cell phones. The meeting materials included a map showing the speed test results. A link to the test was also provided.

Ms. Byers provided a list of eleven broadband Legislative Bills being introduced this session.

The Rural Broadband Task Force will submit its next report to the Legislature by Nov. 1, 2021. The bulk of the work of the task force is done by its subcommittees. Subcommittees of the Rural Broadband Task Force have continued to meet. The Task Force is planning to meet again in late spring.

The federal stimulus act passed in December 2020 includes funding for broadband, including creating a \$300,000,000 broadband grant program within the Department of Commerce.

FCC announced results of the Rural Digital Opportunity Fund (RDOF) reverse auction on December 7. Over \$60 million in support over 10 years was awarded to 10 providers to serve 43,435 locations in Nebraska in the first phase of the RDOF reverse auction. All or nearly all of the locations in Nebraska will receive 1 Gbps service. LTD Broadband LLC and AMG Technology Investment Group LLC (NextLink) were the largest awardees in Nebraska. LTD Broadband LLC was awarded \$33,228,644.40 over 10 years to serve 28,729 locations. AMG Technology Group LLC was awarded \$25,350,146.70 over 10 years to serve 13,919 locations.

Ms. Byers entertained questions from the Commission.

EHEALTH COUNCIL REPORT

Anne Byers

NEHII and Iowa Health Information Network (IHIN) have merged and are now CyncHealth. The Boards of Directors of both the Nebraska Health Information Initiative (NEHII) and the Iowa Health Information Network (IHIN) approved forming a strategic partnership between the two non-profit organizations. NEHII

and IHIN are already collaborating on community information exchanges, known as Unite Nebraska and Unite Iowa, that address social determinants of health issues. Under the arrangement NEHII will continue all services of IHIN as IHIN remains the state designated entity for purposes of administering and governing the statewide Iowa health information network.

Approval of membership nomination. NEHII/CyncHealth has nominated their CIO, Leo Garcia, to represent NEHII/CyncHealth on the eHealth Council. eHealth Council members approved his nomination via e-mail. His bio was included in the meeting materials.

Commissioner Spray moved to approve the eHealth Council membership nomination. Commissioner Haack seconded. Roll call vote: Harvey-Yes, Spray-Yes, Warren-Yes, Weir-Yes, Toner-Yes, and Haack-Yes. Results: Yes-6, No-0, Abstained-0. Motion carried.

Ms. Byers entertained questions from the Commission.

TECHNICAL PANEL REPORT

Ed Toner

Enterprise Projects. Commissioner Toner reviewed the progress of the enterprise projects. The projects are progressing with no major issues.

Close the following enterprise project: Dept. of Health and Human Services' New Medicaid Management Information System (MMIS) project

During the past ten years, the project has been modified several times. The project is now in an operational phase. The Technical Panel recommends closing the project.

Commissioner Harvey moved to close the Department of Health and Human Services' New Medicaid Management Information System (MMIS) enterprise project. Commissioner Warren seconded. Roll call vote: Spray-Yes, Harvey-Yes, Haack-Yes, Toner-Yes, Weir-Yes, and Warren-Yes. Results: Yes-6, No-0, Abstained-0. Motion carried.

Mr. Toner entertained questions from the Commission.

STATE GOVERNMENT COUNCIL REPORT

Ed Toner

Mr. Toner reported on the Office of the CIO's work with agencies on office moves and updated the Commission on the 501 Building renovation.

ADJOURNMENT

Commissioner Haack moved to adjourn. Commissioner Warren seconded. All were in favor. Motion carried.

The meeting was adjourned at 11:57 a.m.

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

Attachment 4-a

TO: NITC Commissioners
FROM: Tom Rolfes, Education I.T. Manager
DATE: 7/8/2021
RE: Network Nebraska and Digital Education Initiative Reports

Education Council update: The Education Council met on April 21 and June 16 over Zoom. Progress is still being made on the NITC Action Items, even as schools and colleges grapple with the ongoing effects of the COVID-19 pandemic.

Network Nebraska Update:

- 1. Prepare for the future of Network Nebraska as a statewide, multipurpose, high capacity, scalable telecommunications network**
 - a. The Office of the CIO and State Purchasing are preparing for another RFP to bid out school districts, as requested, and public libraries interested in the E-rate Special Construction Matching Funds.
 - b. An estimated dozen public libraries plan to take advantage of the Public Service Commission's Special Construction Matching E-rate funds for new fiber for 2022-23.
 - c. The Network Nebraska Advisory Group held a special meeting on June 16 to finalize budgets and the draft Participation Fee, Interregional Transport Fee, and the statewide internet cost center.
 - d. Internet orders for 2021-22 increased about 16% for K-12 entities and about 9% for Higher Ed and non-E-rate eligible entities.
 - e. The University of Nebraska engineering team drafted a set of infrastructure upgrades that may be eligible for the U.S. Treasury Capital Project Section 604 funding which will be coming to Nebraska.

- 2. Effectively communicate to current and potential Network Nebraska Participants**
 - a. The Office of the CIO has been involved in the Nebraska statewide eduroam pilot project for 2021-23. A nationwide news release is being prepared for release by Internet2 and a statewide news release is being prepared by the Nebraska Dept of Education for a 7/21/2021 release.
<https://connectednebraska.com/>

- 3. Identify needs and deliver advanced services to meet the growing needs of its membership**
 - a. Patrick Wright, State Information Security Officer, has been negotiating a statewide enterprise agreement that will bring cybersecurity awareness training to 25,000 K-12 staff and 100,000 high school students.
 - b. Zoom licensing orders for 2021-22 are in the process of being collected.

Digital Education Update:

- 1. Disseminate informational reports to insure the success of Nebraska digital education**
 - a. Information about the FCC Emergency Connectivity Fund, FCC Emergency Broadband Benefit program, ESSER III Technology funding, and the U.S. Treasury Capital Projects funding has been distributed to ESUs for sharing with school districts. Presentations are scheduled for the Administrator Days Conference, July 28-30 in Kearney.

- 2. Expand awareness and address the need for equity of access**
 - a. Digital Equity data is being collected from Nebraska school districts and unserved student addresses are being mapped so that appropriate provider services can be arranged in each service area.
 - b. Office of the CIO staff have continued to monitor the development of wireless and satellite technologies to gauge their potential in narrowing the Homework Gap in areas where students households are unserved or underserved.

**Nebraska Information Technology Commission
EDUCATION COUNCIL**

2021-23 Membership Renewals/Replacements EXPIRING June 30, 2021

<u>Name</u>	<u>Representing</u>	<u>Status</u>
<u>HIGHER EDUCATION (2021-23 term)</u>		
Bret Blackman	UN System	Ted Carter Confirmation 6/29/21
<u>Derek Bierman</u>	Independent Colleges & Universities	Treva Haugaard Confirmation 6/29/21
<u>Edward Koster</u>	Community College System	Greg Adams Confirmation 6/29/21
Dr. Paul Turman	State College System	Paul Turman Confirmation 6/28/21
<u>K-12 EDUCATION (2021-23 term)</u>		
Dr. Ted DeTurk	Educational Service Units	Kraig Lofquist Confirmation 6/28/21
Trent Kelly	School Administrators	Mike Dulaney Confirmation 6/28/21
Stephen Hamersky	Private Education	John Perkinton Confirmation 6/29/21
Matt Chrisman	Public Teachers	Maddie Fennell Confirmation 6/28/21
<u>HIGHER EDUCATION (2021-22 PRO TEM)</u>		
<i>Mary Niemiec (ret.)</i>	UN System	Ted Carter Confirmation TBA

Note

Underlined Candidates are new voting members to the NITC Education Council and have a brief biographical statement attached to this document

RECOGNITION

The NITC Education Council wishes to recognize Ms. Mary Niemiec, University of Nebraska, and Mr. Chuck Lenosky, Creighton University, for their many years of service to the NITC and to the State of Nebraska, and wishes them well in their retirement.

Biographical Sketches

Derek Bierman

Derek Bierman has 12 years of experience in higher education leadership and most recently as Chief Information Officer for Doane University. He replaces Chuck Lenosky (retiring) for the 2021-23 term on the Education Council as a representative of the Council of Independent Nebraska Colleges (CINC) Foundation. Derek previously worked as Vice President of Technology Services for Northeast Community College, the Nebraska Public Power District, and also owned his own technology business in Norfolk. Mr. Bierman earned his B.S. Degree from Bellevue University, majoring in Management of Information Systems.

Edward Koster

Edward Koster has 15 years of experience in higher education leadership and has served at the Vice President for Research, Planning and Technology at Southeast Community College since 2014. He will represent the Nebraska Community College System on the Education Council. Prior to work at Southeast Community College Edward worked as the Chief Information Officer at Mount Marty College in Yankton, SD and the Director of Information Systems at Western Iowa Tech Community College. Mr. Koster has a Master's Degree in Business Administration from Wayne State College and a Bachelor's Degree in Finance from Northwest Missouri State University.

Attachment 4-b

June 29, 2021

To: NITC Commissioners

From: John Watermolen, State GIS Coordinator
Casey DunnGossin, Chair, GIS Council
Ryan Werner, Vice Chair, GIS Council

Subject: GIS Council Report

Department of Health and Human Services and Office of the CIO with a 2021 ESRI Special Achievement in GIS Award for the COVID Dashboards

GIS Council Updates

The GIS Council met on April 27th, 2021 virtually and we were able to reach quorum and take care of business matters.

Council had a discussion about the possibility of doing a new strategic plan by an outside vendor. This was done in 2012, with an internal review of the strategic plan in 2018. Council thinks that it would like to have an outside vendor, provided we can fund it.

Here are some highlights from the meeting.

Nebraska Spatial Data Infrastructure (NESDI) Updates

Below are the updates related to the Strategic Initiatives.

Nebraska Street Centerline and Address Program

Public Service Commission and their vendor are continuing to make progress on the NG911 datasets. The OCIO GIO staff and PSC continue working to make the data available in the Enterprise Geodatabase to share with other agencies and publish on NebraskaMap.

NebraskaMap

Continues to be utilized and have data sets and applications added to the site. Currently the site is being reviewed to make sure information is current and there are no broken links.

Nebraska Statewide Elevation Program

U.S. Geological Survey gave an update on the LiDAR Collection(s) for 2021 and 2022. When completed the entire state will be at a Quality Level 2 status

State Agency and Partners GIS Updates:

OCIO

- Merged the COVID case and vaccine dashboards into 1 dashboard. So far Case Dashboard has had 6 million views. Continue to work with DHHS on refinements to the dashboard
- Department of Agriculture – continue to work with Agency on getting more GIS implementation within the Agency. Have 2 applications built for different and it is opening the doors for more projects with the Department of Agriculture.
- Working with PSC NG911 to migrate the 911 data repository to NebraskaMap
- Continue to work on a web application for OCIO site support to help their staff
- Working on a Floor Plan/Employee locator for OCIO staff
- Working with Procurement and ESRI on an Enterprise License Agreement. It has been a long and slow process.
- Continue to support agencies to the best of the team's abilities
- Working with Secretary of State to provide guidance and information regarding the use of GIS and redistricting.
- Helped DHHS roll out the share your shot application

Nebraska State Patrol

- Continue to work on more GIS utilization- Waiting for state's ELA to be signed and implement to help take GIS within NSP to the next level and be able to collaborate with partners
- Moving to a new location.

University of Nebraska – Lincoln

- Software Licenses has been centralized
- Transition to ArcGIS Pro

Game and Parks Commission

- Annual update to Open Fields and Water applications
- Updating several other GPC applications related to hunting and fishing. ESRI is helping with guidance on how to upgrade some of these applications
- Finishing the implementation of ESRI recommendations for new3 infrastructure

Department of Natural Resources

- Updating field collection applications
- Helped organize new LIDAR data and derivatives from federal data collections.
- Waiting for the implementation of the states ELA
- Working on developing custom tool bars for agency users with ArcGIS Pro, to help with the migration to ArcGIS Pro

Sarpy County

- Moved into a new building
- Moving forward to revisit the GeoElection pilot project and implement some fo the findings.
- Starting to do prep work for redistricting.

Department of Transportation

- Continue to build and update applications internally for DOT divisions. Some of these applications use other agency data, which makes it easier with a shared data environment.

USGS/NRCS-Federal Government

- NRCS- looking at budget and no current plans for large LiDAR Collections
- NRCS and UNL is finishing up scanning many historic air photos and georeferencing them

Department of Revenue

- Helping to learn and migrate to ArcGIS Pro

Department of Health and Human Services

- Completed application to help show health care shortages statewide
- Working on an Opioid Dashboard to show location of resources and to provide information regarding Opioid Addiction in the State of Nebraska
- Working on several other internal public health map requests
- Released Share your Shot experience in June 2021

NE GIS Educations

- State GIS mapping contest was a success. More applicants this year than previous year. Many good projects were submitted

Douglas County

- Released several new applications- Vaccine Clinic Finder, TIF Viewer and Public Drone Viewer

Public Service Commission

- Continuing to work on street centerlines and address points for NG911
- 5 to 6 counties haven't been started yet for address points
- PSAP boundaries are going through the QA/QC process
- Starting to educate PSAPs on the data
- Address Points should be completed next year and then a locator will be created and available to the public

Lincoln-Lancaster

- Corridor Mapping for Lidar – Subbasin-watershed master plan
- ArcGIS Enterprise (Portal) has been installed and wrapping up the implementation and how to handle the dual data center issues
- GIS training in June with the possible option of opening it up to other groups in the state

League of Municipalities

- Redistricting
- Waiting for census data to arrive in order to start redistricting. There is concern about the data

Legislative Research

- Requests for maps from Senators for the current session and starting to focus on redistricting.
- Waiting for census data to arrive in order to start redistricting- mid August is tentative date to receive data. There is concern about the data
- Office of the CIO has offered support if needed.

Attachment 4-c

July 1, 2021

To: NITC Commissioners
From: Anne Byers
Subject: Community Council Report and Broadband Update

Broadband Bridge Grant Program. [LB 388](#) which was passed by the Legislature and signed by Governor Ricketts on May 26, 2021 established the Broadband Bridge Grant Program and the Nebraska Broadband Bridge Fund. The fund consists of state funds appropriated and federal funds received for broadband enhancement purposes. The Legislature appropriated \$20 million a year for two years for the Broadband Bridge Grant Program. Eligible areas include (in order of priority):

- (1) Unserved areas lacking broadband of 25/3 which need further support but have not received public assistance for development of a broadband network;
- (2) Unserved areas, that have received federal support for development of a broadband network, and that will not be completed within twenty-four months after the grant application deadline if the commission determines that a grant under the program will accelerate the deployment of the broadband network
- (3) Underserved areas that the commission determines have a digital inclusion plan.

The deadline for the first round of applications is Oct. 1, 2021. The Nebraska Public Service Commission [has opened a docket](#) to establish rules for the grant program.

Digital Inclusion Planning Guide and Workbook. The NITC Community has developed a Digital Inclusion Planning Guide and Workbook to help rural communities, counties, and regions develop digital inclusion plans. The material in the guide could also help Broadband Bridge Grant Program applicants meet the digital inclusion plan requirement. The proposed requirements for a digital inclusion plan set out by the Commission emphasize making service affordable to low-income consumers and making technologies provided as a result of the grant available to all individuals and communities in the coverage area. The guide has a broader focus, but some sections may still be helpful to applicants.

A draft of the Digital Inclusion Planning Guide and Workbook, Plan Template and spreadsheet is available at:

- [Digital Inclusion Planning Guide and Workbook](#)
- Digital Inclusion Plan Template ([Word](#)) ([PDF](#))
- [Digital Inclusion Plan Spreadsheet](#)

The following individuals volunteered to be on the Digital Inclusion Planning Guide Work Group or submitted feedback and comments:

- Pam Adams, American Broadband
- Brent Comstock, BCom
- Rebecca Johnson, BCom
- Charlotte Narjes, University of Nebraska at Lincoln
- Jina Ragland, AARP Nebraska

- Tom Rolfes, Office of the CIO/Nebraska Information Technology Commission
- Todd Stubbendieck, AARP Nebraska
- Amanda Sweet, Nebraska Library Commission

Rural Broadband Task Force Update. The Rural Broadband Task Force met on May 11, 2021. The Agriculture Subcommittee—which includes Zachary Honeycutt, Senator Curt Friesen, and Isaiah Graham, Dan Spray and Commissioner Mary Ridder—shared their initial findings:

- Agriculture is a significant part of Nebraska’s economy.
- Fully adopting next generation precision agriculture technologies in the United States would result in potential annual gross benefits of up to \$13 billion for row crops and \$20.6 billion for livestock and dairy with over a third of these benefits dependent on broadband.
- Farmers and ranchers need upload speeds of at least 30 Mbps to transfer the immense amount of data generated to the cloud.
- Rural areas of most Nebraska counties—including many of Nebraska’s top-producing agricultural counties—lack broadband with upload speeds of greater than 25 Mbps or fiber connectivity
- Different methods of connectivity are required for agriculture, including:
 - Low-bandwidth connectivity for devices like sensors or monitors often called internet of things (IoT) devices
 - High speed, centralized broadband with upload speeds of at least 30 Mbps up for targeted agricultural operational headquarters such as a farm or ranch operations center
 - High-speed decentralized coverage over large agricultural areas

The draft findings are available at

<https://ruralbroadband.nebraska.gov/reports/2021/AgricultureSubcommitteeInitialFindings.pdf>

Federal Funding

- The FCC Emergency Broadband Benefit program for low income families provides a discount of \$50 per month for broadband service and equipment per household until the funding runs out.
- The American Rescue Plan has approximately \$195 billion in funding for the Coronavirus State Fiscal Recovery Fund. Nebraska will receive approximately \$1 billion from the fund. Additional funding is earmarked for local governments. Broadband is an eligible use for funding from the Coronavirus State Fiscal Recovery Fund and the Coronavirus Local Fiscal Recovery Fund. The American Rescue Plan also provides \$10 billion for payments to States, territories, and Tribal governments to carry out critical capital projects that directly enable work, education, and health monitoring, including remote options, in response to the public health emergency.
- The National Telecommunications and Information Administration (NTIA) Broadband Infrastructure Program will provide funding to public-private partnerships for broadband projects in areas lacking broadband of 25 Mbps down and 3 Mbps up.

NTIA Indicators of Broadband Need. The White House and the National Telecommunications and Information Administration (NTIA) have released a national map showing speed test, broadband subscription, and FCC Form 477 broadband availability data. The release of the map as well as recent guidance from the U.S. Department of the Treasury for the Coronavirus State and Local Fiscal Recovery Funds seem to indicate a greater emphasis on speed test data for determining eligibility for funding for some broadband programs. The map is available at

<https://broadbandusa.maps.arcgis.com/apps/webappviewer/index.html?id=ba2dcd585f5e43cba41b7c1ebf2a43d0>

Nebraska Speed Test Project

Here is a link to the Nebraska Speed Test site: <https://www.nebraskaspeedtest.org/>

Attachment 4-d

July 1, 2021

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

The eHealth Council met on May 11 and discussed the use of health IT to respond to the COVID-19 pandemic.

Local Health Department Covid-19 Response. The Lancaster County Health Department hired nurses as contact tracers. In May of last year, a dashboard was created. In June, the Department developed a risk dial. Lancaster County Health Department fine-tuned processes to reduce the time to check in people for vaccinations at mass vaccination sites. On average, the vaccination process took 30 minutes from car to car. Setting up Wi-Fi at each vaccination site was critical. Approximately 24,000 vaccinations a week were administered during the peak period of the vaccination effort.

Nebraska Department of Health and Human Services Response. In order to respond to the COVID-19 pandemic, the Nebraska Department of Health and Human Services needed information on inpatient admissions, ICU patients, ventilator counts, hospital capacity and PPE needs. The Department partnered with CyncHealth for information for the scorecard and dashboard. The Department integrated lab reports with the contact tracing tool. In November 2020, the Department worked with Salesforce to create a more robust contact tracing tool which is available to local health departments. Possible future use cases include lead poisoning, STDs, and tuberculosis. In January, 2021, contact tracers began sending pre-contact tracing texts prior to calling contacts. The text increased the number of people answering calls. In March/April of this year, contact tracers also sent out a link to a survey. The response to the survey has been good. The Department also developed a Vaccine Registration and Administration System (VRAS) to sign up and schedule appointments. In the future the system could be used for booster shots or other vaccines. Vaccines administered by public health departments and pharmacies are reported to the immunization registry. The Veterans Administration, Department of Defense and Indian Health Services do not report to the state immunization registry. They report to the CDC. States get aggregate information on vaccines administered from the CDC.

CyncHealth and LB 411. LB 411 which was passed by the Legislature and signed by Governor Ricketts on May 24, 2011 requires most health care facilities to participate in CyncHealth (formerly NeHII). Facilities required to participate include:

- ambulatory surgical centers
- critical access hospitals
- general acute hospitals
- health clinics
- hospitals
- intermediate care facilities
- long-term care hospitals
- mental health substance use treatment centers
- PACE centers
- Pharmacies

- psychiatric or mental hospitals
- public health clinics
- rehabilitation hospitals
- diagnostic, laboratory, or imaging centers

This does not apply to a state-owned or state-operated facility or an assisted-living facility, a nursing facility, or a skilled nursing facility. Additionally, on or before January 1, 2022, each health insurance plan would be required to participate in the designated health information exchange through sharing of information.

Membership

CyncHealth has nominated their chief operating officer, Paul Hakenkamp, to represent them on the eHealth Council. A brief resume is included below:

Paul HakenKamp

Experience

Chief Operations Officer, CyncHealth
Sep 2020 – Present

Director of Business Performance, OrthoNebraska
Dec 2018 – Sep 2020

Chief Information Security Officer, OrthoNebraska
Mar 2016 – Sep 2020

Director of Information Technology, Beatrice Community Hospital and Healthcare Center
May 2013 – Aug 2015

Senior Manager, Online System Support, Union Pacific Railroad
Dec 2012 – May 2013

Director of Information Technology, Bellevue Medical Center, The Nebraska Medical Center
May 2008 – Dec 2012

Education

University of Nebraska-Lincoln, Bachelors of Science, Management Information Systems

Attachment 4-e-i-1

State of Nebraska
Nebraska Information Technology Commission
Technical Standards and Guidelines

Proposal 18
Final

A PROPOSAL relating to the Information Security Policy; to amend sections 8-103, 8-209, 8-210, and 8-211; to adopt a new section relating to public accounts; to repeal the original sections; and to outright repeal section 8-212.

1 Section 1. Section 8-103 is amended to read:

2 **8-103. Roles and responsibilities.**

3 (1) State Agencies. Agencies that create, use, or maintain information systems for the state
4 must establish and manage an information security program consistent with this policy to ensure
5 the confidentiality, availability, and integrity of the state's information assets. Agencies may work
6 with the Office of the Chief Information Officer for assistance with implementing an information
7 security program.

8 (2) Office of the Chief Information Officer. The Office of the Chief Information Officer is
9 responsible for recommending policies and guidelines for acceptable and cost-effective use of
10 information technology in noneducation state government.

11 (3) State Information Security Officer. The state information security officer serves as a
12 security consultant to agencies and agency information security officers to assist the agencies in
13 meeting the requirements of this policy and other policies. The state information security officer
14 may also perform assessments of agency security for risk and compliance with this policy and
15 ~~the NIST Cybersecurity Framework~~ other security related policies and frameworks as applicable.

16 (4) Agency Information Security Officer. An agency information security officer may be
17 designated at the discretion of the agency. The agency information security officer has the

1 responsibility for ensuring implementation, enhancement, monitoring, and enforcement of
2 information security policies and standards for their agency. The agency information security
3 officer may collaborate with the Office of the CIO on information security initiatives within the
4 agency.

5 (5) Nebraska Information Technology Commission. The Nebraska Information Technology
6 Commission is the owner of this policy with statutory responsibility to adopt minimum technical
7 standards, guidelines, and architectures.

8 (6) Technical Panel. The Technical Panel is responsible for recommending technical
9 standards and guidelines to be considered for adoption by the Nebraska Information
10 Technology Commission.

11 (7) State Government Council. The State Government Council is an advisory group
12 chartered by the Nebraska Information Technology Commission to provide recommendations
13 relating to state government agencies.

14 (8) Security Architecture Workgroup. The Security Architecture Workgroup is chartered by
15 the State Government Council to make recommendations to the State Government Council and
16 Technical Panel on matters relating to security within state government; provide information to
17 state agencies, policy makers, and citizens about real or potential security threats or
18 vulnerabilities that could impact state business; document and communicate existing problems,
19 potential points of vulnerability, and related risks; and determine security requirements of state
20 agencies stemming from state and federal laws, regulations, and other applicable standards.

21 Sec. 2. Section 8-209 is amended to read:

22 **8-209. ~~State and agency~~Agency security planning and reporting.**

23 ~~The following standard and recurring reports are required to be produced by the state~~
24 ~~information security officer and each agency information security officer; these reports will~~
25 ~~reflect the current and planned state of information security at the agency.~~Pursuant to the terms

1 of certain federal data exchange agreements, state agencies may be required to maintain the
2 following documentation:

3 (1) Information security strategic plan (section 8-210);

4 (2) System security plan (section 8-211); and

5 (3) ~~Plan of action and milestones report (section 8-212)~~Other information security
6 documentation not covered by this section.

7 For agencies not subject to federal data exchange agreements, these planning documents
8 are considered guidelines and recommended as best practice.

9 Sec. 3. Section 8-210 is amended to read:

10 **8-210. Information security strategic plan.**

11 Proper risk-based planning is critical to ensure the most appropriate projects are prioritized
12 and funded by the state and its agencies. Information security planning is no exception.

13 Planning for information protection should be given the same level of executive scrutiny at the
14 state as planning for information technology changes. This plan ~~must~~should be updated and
15 published on an ~~annual~~biennial basis, and should include a ~~5~~two-year projection of key
16 security business drivers, and planned security infrastructure implementation, ~~and forecasted~~
17 ~~costs. It should include an educated view of emerging threats and protections, and an analysis~~
18 ~~of the potential impacts to state information assets.~~ This plan is necessary to ensure that
19 information security is viewed as a strategic priority, and is included as part of the overall
20 planning process.

21 Contents of the information security strategic plan:

22 (1) Summary of the information security, mission, scope, and guiding principles;

23 (2) Analysis of the current and planned technology and infrastructure design, and the
24 corresponding changes required for information security to stay aligned with these plans;

25 (3) Summary of the overall information risks assessments and current risk levels. ~~Detailed~~
26 ~~descriptions of significant security risks, and plans to mitigate or remediate those risks;~~

1 (4) Assessment of the current information security posture related to the future targeted
2 posture, identified gaps, and high-level timeline necessary to close or mitigate those gaps;

3 (5) Summary of the policies, standards, and procedures for information security, and
4 projected changes necessary to stay current and relevant;

5 (6) Summary of the information security education and awareness program, progress, and
6 timeline of events;

7 (7) Summary of disaster recovery and business continuity activity and plans if the agency is
8 required to maintain these documents by other requirement or policy;

9 (8) Analysis of the regulatory and contractual compliance environment, including potential
10 new regulations or pending contractual requirements that will affect information security; and

11 (9) Proposed ~~five~~two-year timeline of events and key deliverables or milestones; ~~and~~

12 ~~(10) Line item cost projections for all information security activity that is itemized by:~~

13 ~~(a) Steady state investments: The costs for current care and maintenance of the~~
14 ~~information security program;~~

15 ~~(b) Risk management and mitigation: The line item expenses necessary to mitigate or~~
16 ~~resolve security risks for the agency in a prioritized order;~~

17 ~~(c) Future technology: The line item forecasted expenses and timelines necessary to~~
18 ~~support emerging or changing technology, and to be ready for new and emerging threats; and~~

19 ~~(d) Regulatory: The line item expense necessary to meet all regulatory and contractual~~
20 ~~compliance requirements.~~

21 Sec. 4. Section 8-211 is amended to read:

22 **8-211. System security plan.**

23 The ~~state and agency~~ system security plan (SSP) provides an overview of the security
24 requirements of the information system including all in-house or commercially developed and
25 maintained systems and installations and to all external business partner systems and
26 installations operated by, or on behalf of the state. The SSP describes the controls in place or

1 planned for meeting those requirements and delineates responsibilities and expected behavior
2 of all individuals who access the system. The SSP ~~will address all control areas identified in the~~
3 ~~NIST SP 800-53 control framework, and~~ will describe the current controls in place to protect
4 information at a level commensurate with the sensitivity level of the system.

5 ~~The state information security officer will work with each agency information security officer~~
6 ~~to maintain an SSP incorporating each identified system managing information or used to~~
7 ~~process agency business.~~

8 The agency information security officer ~~and the state information security officer are required~~
9 ~~to~~ should develop or update the SSP in response to each of the following events: new system;
10 ~~major~~ significant system modification; increase in security risks/exposure; increase of overall
11 system security level; serious security violation(s); or every three years (minimum) for an
12 operational system.

13 Contents of the system security plan:

14 (1) System name and title, description and scope of system including each all in-house or
15 commercially developed system and installations included in the SSP;

16 (2) Responsible organization: Name and contact information for business area responsible
17 for the systems defined in the SSP. Decision authority for business functionality and business
18 risks;

19 (3) Key contacts: Name and contact information for personnel who can address system
20 characteristics and operation. IT maintenance personnel for the system, applications, and
21 infrastructure;

22 (4) System operation status and description of the business process, including a description
23 of the function and purpose of the systems included in the SSP;

24 (5) System information and inventory, including a description or diagram of system inputs,
25 processing, and outputs. ~~Describe information flow and how information is handled.~~ Include the

1 information classification for all information processed, accessed, or exposed. Include a system
2 network and workflow diagram;

3 (6) A detailed diagram showing the flow of ~~sensitive information, including CONFIDENTIAL~~
4 ~~and RESTRICTED information~~. Describe details where this data is stored, accessed, or
5 processed and include details of the security mechanisms applicable to this type of data;

6 ~~(7) Detailed information security descriptions, procedures, protocols, and implemented~~
7 ~~controls for all NIST SP 800-53 control areas within the scope of the system. Identify~~
8 ~~compensating controls or compliance gaps within this section of the SSP;~~

9 ~~(8) System interconnection or information sharing: Describe all interfacing or connections~~
10 ~~between two or more systems or business partners;~~

11 ~~(9)(7)~~ Applicable laws, regulations, or compliance requirements: List any laws,
12 regulations, or specific standards, guidelines that specify requirements for the confidentiality,
13 integrity, or availability of information in the system;

14 ~~(10)(8)~~ Review of security controls and assessment results that have been conducted
15 within the past three years; and

16 ~~(11)(9)~~ Information security risk assessment which includes identification of potential
17 threat/vulnerabilities in the information system, analysis of planned or actual security controls,
18 and potential impacts on operations, assets, or individuals.

19 Sec. 5. The following new section is adopted:

20 **8-302.1 Public accounts; passwords.**

21 This section sets forth the format, minimum requirements, and review procedures for public
22 accounts accessing state resources. This section applies to all public accounts created for use
23 within the State of Nebraska domain namespaces. Public accounts are accounts on state
24 managed systems that are to be used by the general public and are not to be used by state
25 employees or contractors to conduct state business.

1 (1) Information Access. A public account may only be used by the user to access their own
2 information.

3 (2) Passwords. The following are the minimum requirements for public account passwords:

4 (a) Must contain a minimum of 12 characters;

5 (b) Must contain at least three of the following four complexity requirements: at least one
6 uppercase letter; at least one lowercase letter; at least one numeric value; or, at least one
7 special character; and

8 (c) Accounts must be locked temporarily after five failed password attempts.

9 (3) Review Process. Accounts with no successful login activity for a period of 24 months will
10 be disabled. Accounts with no successful login activity for 26 months will be deleted.

11 (4) Misuse or Abuse. Any misuse or abuse of a public accounts will cause the account in
12 question to be terminated.

13 Sec. 6. Original sections 8-103, 8-209, 8-210, and 8-211 are repealed.

14 Sec. 7. The following section is outright repealed: Section 8-212.

15 Sec. 8. This proposal takes effect when approved by the commission.

Attachment 4-e-i-2

State of Nebraska
Nebraska Information Technology Commission
Technical Standards and Guidelines

Proposal 19
Final

A PROPOSAL relating to the Information Security Policy; to amend sections 8-503; and to repeal the original section.

1 Section 1. Section 8-503 is amended to read:

2 **8-503. Minimum server configuration.**

3 The state recognizes the National Institute of Standards and Technology (NIST) along with
4 Center for Internet Security (CIS) Controls and Benchmarks as a source~~s~~ for recommended
5 security requirements that provide minimum baselines of security for servers.

6 NIST and CIS provides instructions, recommendations, and considerations to assist readers
7 in deploying servers in a secure method. All state system administrators should examine NIST
8 and CIS Control documents when installing or configuring servers. The documents are not all
9 inclusive, but rather meant as a means of prompting and guiding administrators through the
10 installation process.

11 Agencies must comply with the following NIST standards, guidelines, and checklists:
12 NIST SP 800-53, Security and Privacy Controls for Information Systems and Organizations;
13 NIST SP 800-70, National Checklist Program for IT Products; and NIST SP 800-44, Guidelines
14 on Securing Public Web Servers. Agencies should also strive to implement the highest tier
15 possible for the CIS Controls and Benchmarks.

16 Server Hardening. All State of Nebraska servers ~~that store, process, or have access to~~
17 ~~CONFIDENTIAL or RESTRICTED data~~ are required to be hardened according to these
18 standards. In addition, these servers must have a published configuration management plan as

1 defined below and approved by the ~~state information security officer~~Office of the CIO. The
2 following are server hardening standards:

3 (1) Servers may not be connected to the state network until approved by the Office of the
4 CIO. This approval will not be granted for ~~sensitive~~ servers until these hardening standards
5 have been met or risk levels have been accepted by agency management;

6 (2) The operating system must be installed by ~~IT~~ authorized IT personnel only, and all
7 vendor supplied patches must be applied. All software and hardware components ~~should~~ must
8 be currently supported by the vendor. All unsupported hardware and software components must
9 be identified and have a management plan for replacement that is approved by the ~~state~~
10 ~~information security officer~~Office of the CIO;

11 (3) All unnecessary software, system services, system and admin accounts, and drivers
12 must be removed or disabled unless doing so would have a negative impact on the server;

13 (4) Logging of auditable events, as defined in NIST SP 800-53 control objectives, will be
14 enabled. Audit logs will be secured and only accessible to accounts with privileged access and
15 retained for a minimum of one year or be retained in accordance with federal and state
16 guidance;

17 (5) Security parameters and file protection settings must be established, reviewed, and
18 approved by the ~~state information security officer~~Office of the CIO;

19 (6) All system software must have security updates and patches applied when made
20 available from the vendor. Priority setting of vulnerabilities will be based on impact to the agency
21 and as referenced in the National Vulnerability Database (<https://nvd.nist.gov>);

22 (7) ~~Hardened s~~Servers will be scanned monthly for unauthorized software or unauthorized
23 changes to the configuration baselines;

24 (8) ~~Hardened s~~Servers will be monitored with active intrusion detection, intrusion protection,
25 ~~or~~ and end-point security monitoring that has been approved by the state information security

1 officer. This monitoring must have the capability to alert IT administrative personnel within 1
2 hour;

3 (9) Servers must be loaded from standardized processes and software. These processes
4 and software shall be appropriately configured and protected, with integrity controls to ensure
5 only authorized and documented changes are possible;

6 (10) All significant changes to ~~hardened~~ servers must go through a formal change
7 management and testing process to ensure the integrity and operability of all security and
8 configuration settings. Significant changes must have a documented security impact
9 assessment included with the change; and

10 (11) Remote management of ~~hardened~~ servers must be performed over secured channels
11 only. Protocols ~~such as telnet, VNC, RDP, or others~~ that do not actively support approved
12 encryption, such as telnet, VNC, and RDP, should only be used if they are performed over a
13 secondary encryption channel, such as SSL or IPSECTLS; and

14 ~~(11)~~(12) Agencies must implement prevention techniques to protect against unauthorized
15 data mining of information from public facing systems (e.g. Captcha).

16 Sec. 2. Original sections 8-503 is repealed.

17 Sec. 3. This proposal takes effect when approved by the commission.

Attachment 4-e-ii

Technology Access Assurances:

- 1.) Commitment: The State of Nebraska is committed to ensuring that all information and communication technology (ICT), developed, leased, or owned by the State of Nebraska, affords equivalent access to employees, program participants and members of the public with disabilities, as it affords to employees, program participants and members of the public who are not persons with disabilities.

- 2.) Understanding and warrantee: By entering into this Contract, Contractor understands and agrees that if the Contractor is providing a product or service that contains ICT, as defined in (subsection XX), and such ICT is intended to be directly interacted with by the user or is public-facing, such ICT must provide equivalent access, or be modified during implementation to afford equivalent access, to employees, program participants, and members of the public who have and who do not have disabilities. The Contractor may comply with this section by complying with Section 508 of the Rehabilitation Act of 1973, as amended, and its implementing standards adopted and promulgated by the U.S. Access Board.

- 3.) Scope of ICT: ICT means information technology and other equipment, systems, technologies, or processes, for which the principal function is the creation, manipulation, storage, display, receipt, or transmission of electronic data and information, as well as any associated content. Contractor hereby agrees ICT includes computers and peripheral equipment, information kiosks and transaction machines, telecommunications equipment, customer premises equipment, multifunction office machines, software; applications, web sites, videos, and electronic documents. For the purposes of these assurances, ICT does not include ICT that is used exclusively by a contractor.

Attachment 4-e-iii-1

Nebraska DOT Financial Management Systems Modernization



Roadmap Project Fit-Gap Assessment

July 8, 2021



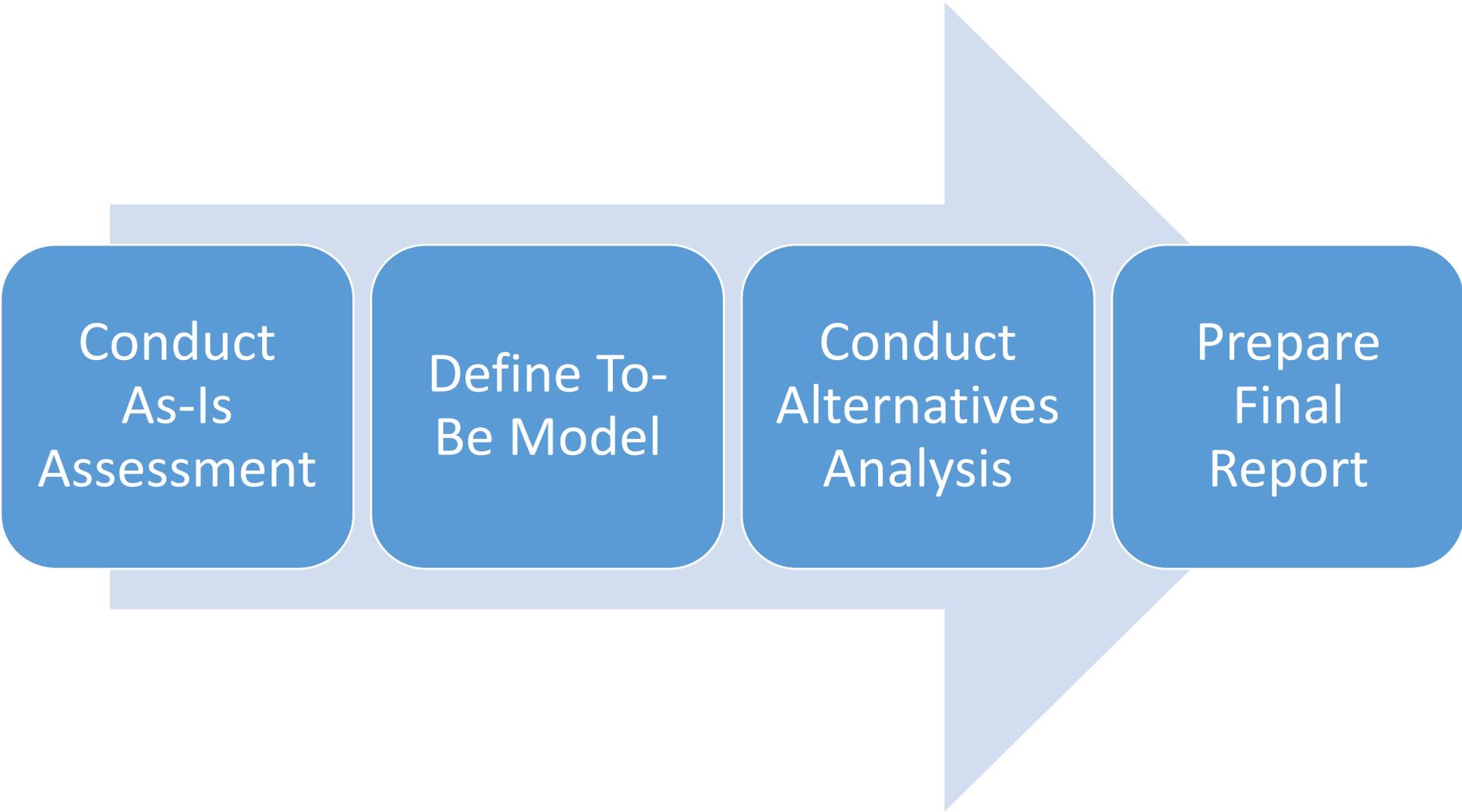
Agenda

- Project background and roadmap approach
- Alternatives and go forward approach
- Fit gap assessment
- Leadership recommendation
- Project schedule
- Project budget
- NDOT Recommendation
- Next steps

Project Background

- There are a number of opportunities for streamlining financial management business processes
 - Reconciliation required between NDOT systems and the State's E1 environment
 - Redundant data entry into multiple systems
- NDOT's As-Is financial systems environment includes a number of mainframe-based applications which are at technical end-of-life
 - Resources with experience in the COBOL programming language are difficult to find & costly
 - It is more difficult to integrate modern commercial software packages with the existing mainframe applications
 - There is significant manual effort required by BTSD staff to support on-going operational usage of several of the applications

Financial Systems Roadmap Project Approach



Conduct
As-Is
Assessment

Define To-
Be Model

Conduct
Alternatives
Analysis

Prepare
Final
Report

Alternatives Analyzed

1

Utilize EnterpriseOne keeping PFS and integrate with planned new State e-Procurement application

3

Implement DOT ERP keeping PFS and integrate with planned new State e-Procurement application; DOT ERP could be pilot for next generation state ERP application

4

Implement DOT ERP including replacing PFS and integrate with planned new State e-Procurement application; DOT ERP could be pilot for next generation state ERP application

6

Migrate existing legacy applications into a new technology platform as a Phase 1 and then enhance with must have requirements and integrations in a Phase 2

Note: 7 alternatives were initially identified. Alternatives 2, 5, and 7 were determined to be non-viable for various reasons including recent investment in PFS (Alt 2) and the high-probability the State will pursue an eProcurement application (Alt 5). Alt 7 was the Do-Nothing alternative

Proposed Go-Forward Approach

- Further evaluate Alternative 1 by doing a fit/gap analysis
 - Work with DAS and OCIO to assess NDOT financial processing requirements
 - Develop NDOT use cases and test in E1 environment
 - Identify and solution gaps
 - Have DAS and OCIO prepare cost estimate and schedule for potential implementation
 - Conduct Go/No Go checkpoint based on results of fit/gap
- Based on results of fit/gap, proceed with Alternative 1 or 6 as appropriate (assuming budget approved by NDOT leadership)

Fit-Gap Assessment Approach

Define use cases for EnterpriseOne

Complete execution of use cases with DAS/OCIO

Go / No-Go decision

Prepare workplan on selected alternative

Fit-Gap Use Cases Studied

Use Case 1-3 . Accounts Payable (Construction Contract Payment, Highway Reference Post, Consultant Payment)

Use Case 4. Procure to Pay

Use Case 5. P-Card

Use Case 6. Agreement & Contract Tracking (ACT)

Use Case 7. Labor Distribution

Use Case 8. Accounts Receivable - SPD

Leadership Recommendation

- Continue with analysis of E1 implementation with additional follow-up to:
 - Confirm sufficient DAS/OCIO resources available to complete the implementation based on a three-year schedule
 - Obtain agreement on a governance model from DAS
 - Examine phasing of implementation to achieve NDOT benefits sooner
 - Discuss concurrence on a uniform approach to shared data
 - Define areas of high level-of-effort (LOE) and brainstorm approaches for those areas

Three –Year Phased Implementation Plan

	Task Name	Start	Finish	Duration	2022			2023				2024				2025			
					Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1			
1	NDOT (3-Year / 6 Phase Imp Plan)	4/11/2022	3/31/2025	776d	[Gantt bar spanning from Q2 2022 to Q1 2025]														
2	Initiate Project	4/11/2022	5/31/2022	37d	[Gantt bar from Q2 2022 to Q1 2023]														
3	Update Work Plan & Resources Finalized	4/11/2022	5/31/2022	37d	[Gantt bar from Q2 2022 to Q1 2023]														
4	Negotiate SOW w/DAS & OCIO	4/11/2022	5/31/2022	37d	[Gantt bar from Q2 2022 to Q1 2023]														
5	Confirm Preliminary DOT Efforts	6/1/2022	6/1/2022	0d	[Milestone diamond at start of Q2 2022]														
6	Confirm DOT efforts completed	6/1/2022	6/1/2022	0d	[Milestone diamond at start of Q2 2022]														
7	Implementation Phase 1	6/1/2022	1/17/2023	165d	[Gantt bar from Q2 2022 to Q1 2023]														
8	Cost Update to NDOT, JV/JE	6/1/2022	12/23/2022	148d	[Gantt bar from Q2 2022 to Q4 2022]														
9	Deploy and Post Prod Support	12/27/2022	1/17/2023	16d	[Gantt bar from Q4 2022 to Q1 2023]														
10	Implementation Phase 2	10/17/2022	7/10/2023	191d	[Gantt bar from Q4 2022 to Q3 2023]														
11	Inventory, ACT, State Gas	10/17/2022	6/23/2023	180d	[Gantt bar from Q4 2022 to Q2 2023]														
12	Deploy and Post Prod Support	6/26/2023	7/10/2023	11d	[Gantt bar from Q2 2023 to Q2 2023]														
13	Implementation Phase 3	4/3/2023	1/8/2024	201d	[Gantt bar from Q1 2023 to Q4 2023]														
14	AR, Data Warehouse / Reporting	4/3/2023	12/7/2023	179d	[Gantt bar from Q1 2023 to Q4 2023]														
15	Deploy and Post Prod Support	12/11/2023	1/8/2024	21d	[Gantt bar from Q4 2023 to Q1 2024]														
16	Implementation Phase 4	10/2/2023	7/5/2024	200d	[Gantt bar from Q4 2023 to Q2 2024]														
17	AP, Kronos	10/2/2023	6/13/2024	184d	[Gantt bar from Q4 2023 to Q2 2024]														
18	Deploy and Post Prod Support	6/17/2024	7/5/2024	15d	[Gantt bar from Q2 2024 to Q2 2024]														
19	Implementation Phase 5	3/1/2024	3/31/2025	776d	[Gantt bar from Q1 2024 to Q1 2025]														
20	Remaining Functionality & Apps	3/1/2024	2/28/2025	261d	[Gantt bar from Q1 2024 to Q4 2024]														
21	Deploy and Post Prod Support	3/3/2025	3/31/2025	21d	[Gantt bar from Q1 2025 to Q1 2025]														
22	Project Management	4/11/2022	3/31/2025	776d	[Gantt bar from Q2 2022 to Q1 2025]														
23	Organizational Change Management	4/11/2022	3/31/2025	776d	[Gantt bar from Q2 2022 to Q1 2025]														

Cost to Build Alternative 1 (after Fit-Gap)

Total Cost of Implementation	January 2021 Estimate (3-year timeline)			
	FY 2022	FY 2023	FY 2024	Total
Implementation				
OCIO Staffing	\$540,360	\$540,360	\$540,360	\$1,621,080
Customization (E1 Specialist)	\$630,640	\$630,640	\$630,640	\$1,891,920
Training	\$5,000	\$5,000	\$20,000	\$30,000
Program Mgmt/IV&V	\$385,459	\$385,459	\$231,276	\$1,002,194
OCM	\$144,507	\$180,634	\$180,634	\$505,774
Other Integration (Lucity, Kronos and OpenGov)	\$176,222	\$176,222	\$58,692	\$411,135
Subtotal Before Contingency	\$1,882,188	\$1,918,314	\$1,661,601	\$5,462,103
Contingency at 10%	\$188,219	\$191,831	\$166,160	\$546,210
Total Estimated Cost	\$2,070,406	\$2,110,146	\$1,827,761	\$6,008,313

10-year Total Cost of Ownership	\$ 1,078,744.74
--	------------------------

10-year cost of ownership reflects re-direction of NDOT IT staff in years 4-10 and elimination of mainframe costs

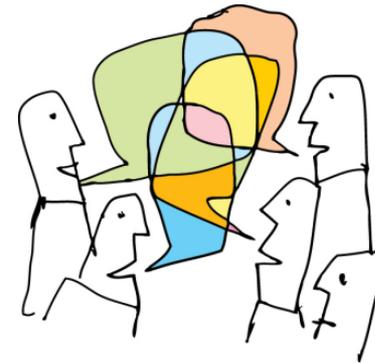
NDOT Recommendation

- NDOT consensus on go/no-go decision
 - Proceed with E1 Implementation with a three-year multi-phased roll-out
- Recent work completed
 - Develop work plan for E1 Implementation
 - Present project to NITC for major project designation

Next Steps

- Designate NDOT implementation team individuals/roles based on the governance structure
- Develop contract(s) for implementation support (NDOT and DAS)
- Begin work on Project Initiation Phase of E1 Implementation

Questions & Discussion



Attachment 4-e-iii-2

Projects Status Dashboard

June 2021

Enterprise Projects - Current

Agency/Entity	Project	NITC Designated
Nebraska Council of Regions	Nebraska Regional Interoperability Network	03/15/2010
Office of the CIO	Centrex Replacement	07/12/2018
Department of Health and Human Services	iServe Nebraska	11/12/2020

Note: Status is self-reported by the agency

Project Storyboard: Centrex Conversion

Project Manager	Kortus, Julie	Status Report Date	6/2/21
Project Type	Major Project	Status	Approved
Stage	Build	Progress	Started
Total Estimated Cost	\$2,800,000.00	Estimate to Complete	
Actual Cost To Date			

Project Dates		
	Start	Finish
Plan	10/10/17	12/31/22
Baseline	10/10/17	12/31/22
Days Late	0	0

Status Report Indicators		
Overall		
Schedule		
Scope		
Cost and Effort		

Project Description

To secure the most cost efficient Hosted Voice Over Internet Protocol Telephony (VOIP) Services. This solution will replace the State's Centrex service throughout the State of Nebraska. The purpose of the project is to provide phone service that includes the most up-to-date VOIP features and functionality as a hosted service with equipment ownership, maintenance and service remaining with the Contractor.

Key Accomplishments

Status Report Update

As of 6/2/2021:
 6865 lines have been removed from Windstream and CenturyLink.
 400 lines belong to agencies that will not be converting
 591 lines were moved off of the Centrex contract and onto a new B1 contract.

10,000 lines were in the RFP to be taken off of the Centrex contract from Windstream and CenturyLink territory.

Project is 78.6% complete.

The OCIO Voice Team met with the Public Service Commission to seek help with porting issues between Lumens and ALLO.

In parallel with this project, over 800 softphones have been deployed using the same resources assigned to this project.

Upcoming Activities



Current Risks More Risks...

Risk	Probability	Impact	Priority	Status	Target Resolution	Owner
Bandwidth at Sites				Work in Progress	6/30/20	Kortus, Julie

Project Storyboard: iServe Nebraska

Project Manager	Agarwal, Ankush	Status Report Date	5/26/21
Project Type	Major Project	Status	Approved
Stage	Design	Progress	Started
Total Estimated Cost	\$11,200,000.00	Estimate to Complete	16.96%
Actual Cost To Date	\$1,900,000.00		

Project Dates		
	Start	Finish
Plan	4/6/20	12/31/21
Baseline	4/6/20	9/30/21
Days Late	92	92

Status Report Indicators		
Overall		
Schedule		
Scope		
Cost and Effort		

Project Description
 IHHS - Clarity Plan for IS&T Contractors Timesheets JC 266171 WO 266110 April 2020 thru Sept 30 2021. 7/28/2020 Project Name & Timesheets Change to iServe JC/WO number remained same. 10/21/20 PM name from Annette Pilcher to Ankush Agarwal

Key Accomplishments
 Work Order 1 (Planning Review & Refinement) kicked off.
 Work Order 2 (User Experience Design) kicked off.
 Work Order 3 (Core Portal Development) let to vendor pool.

Status Report Update
 Key Activities on Track. Work Orders 1 and 2 for the Portal project have kicked off and the foundational infrastructure and cloud environment stand-up are nearing completion.

Upcoming Activities
 Select Work Order 3 Vendor and plan for kick off.
 Complete Cloud Environment Build out.
 Secure vendor for Work Order 4 Identity and Access Management development.

Issues by Priority

Risks by Priority

Current Issues
 No matching records were found

Project Storyboard: Nebraska Regional Interoperability Network (NRIN)

Project Manager	Krogman, Sue	Status Report Date	5/27/21
Project Type	Major Project	Status	Approved
Stage	Build	Progress	Started
Total Estimated Cost	\$12,500,000.00	Estimate to Complete	83.24%
Actual Cost To Date	\$10,405,204.00		

Project Dates		
	Start	Finish
Plan	10/1/10	8/31/21
Baseline	10/1/10	8/31/21
Days Late	0	0

Status Report Indicators		
Overall		
Schedule		
Scope		
Cost and Effort		

Project Description

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.

Key Accomplishments

Investment Justifications have been created and submitted for grant dollars to continue the build-out.

Status Report Update

UPDATE FOR MAY 2021 – Work priority has shifted to the far SE corner of the state. Requests have been made to finish up the Pawnee City to Falls City path in order to enable the City of Beatrice to dispatch for them. Line of sights have been driven and the Path Analysis are being completed. In the NC Region of the state, fiber is being added to the network and four major paths across the sandhills are in the process of being installed. This will enable a greater portion of the NC Region to have great coverage for the network.

UPDATE FOR APRIL 2021 – There have been no installations done since the last NITC report due to the weather. Pre-work to ready equipment and materials are being done in the warehouse as well as requests for path designs and structural analysis. Having these ready to go will allow the installations to go smoother and faster.

Upcoming Activities

The project work has shifted to the southeast corner of the State.

Issues by Priority	Risks by Priority

Current Issues

No matching records were found

Attachment 4-f

BOTTLING LIGHTNING: “IT” HAPPENED IN NEBRASKA



Submitted by Ed Toner, CIO State of Nebraska
Prepared by Tim Cao and Holly West
Project Completed: March 2021

NEBRASKA
Good Life. Great Vision.

OFFICE OF THE CIO

INTRODUCTION

Thunderous clouds brood lowly over the rolling Nebraska plains. Wind picks up waving the fields of grain in the birthplace of ideas like the only State Unicameral and the invention of the strobe light, and Kool-Aid to go with our famous corn-fed beef Runza sandwiches. Lightning sparks like giant nerve synapses, communicating ethereal ideas across the panorama. *To have accomplished success in an unlikely way -- Nebraskans have bottled so much lightning in this Great American Desert.*

Nebraska's AS/400 hosting service transcends technology. Like bottling lightning, to have accomplished it was unlikely. It was unlikely that a State technology service provider could earn buy-in from hundreds of county stakeholders (and steak lovers) to become a trusted partner. The following chapters describe how they did it, all with a State-architected hosting solution, a solution that improved security, service reliability, and saved taxpayers millions of dollars.

In Q1, 2021, Nebraska migrated the 88th and final county-owned IBM AS/400 server to the State's virtual hosting environment. The total effort involved cooperation from nearly every level of State and County governments. This unique project is being nominated by the State CIO for NASCIO recognition in the category of Cross-Boundary Collaboration & Partnerships.

EXECUTIVE SUMMARY

In the early 1990s, before the existence of Client/Server technology, the State of Nebraska needed to install IBM AS/400 servers in every county across Nebraska. Since then, with high-speed Internet available to many of Nebraska's 93 counties, it was time to round up the servers and bring them back to the corral. Resources from the Office of the CIO (OCIO) were tapped in 2009 to perform an assessment before the next round of "server refresh" (or server replacements). 110 Aging State-owned AS/400s were sprawled across the state to provide services at the county level; the question wasn't whether to replace them, but "how?".

Counties purchased and maintained their own AS/400 servers too. Virtually all 93 Nebraska counties had two machines, each as big as an ox, residing in their courthouses. The servers sat side by side, yet without any redundancies. Since one server was owned by the State and the other owned by the county, they supported different applications to do different jobs. Even though they supported multiple critical tier apps, the servers often went without upgrades. Support was a growing burden each year as the machines outlived their lifetimes, the alternative to replacement. The locations presented persistent security risks. Servers were vulnerable to outages, powered by local electricity, a shared utility among all tenants of the building, and the spaces didn't quite meet cooling standards (let alone industry data center standards).

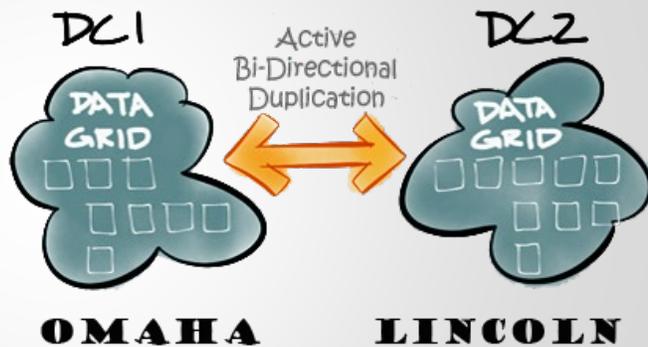
From their assessment, the OCIO found an unexpected business opportunity. The AS/400s were

being underutilized, by a long shot, particularly in rural counties where population sizes were small. A consolidated environment was feasible and would be more cost efficient for taxpayers. The State Data Centers provided the location with the infrastructure necessary to support a hosting service; they were secure, cooled, and facilitated support efficiencies and scheduled maintenance. If the State's systems could benefit from the security, space, cost, and support of hardware, they figured the county systems could benefit too, but they would first need to earn support and buy-in. Together with their vendors and strategic partners, the OCIO architected a practical environment and proposed a two-phased strategy to implement it:

Phase 1: Secure agency partnership. Consolidate all State-owned AS/400 servers into one pair, migrate installed applications. Replicate the servers across two secure data centers.

Phase 2: Gain county buy-in. Consolidate county owned AS/400 servers in a second pair, migrate all installed applications and replicate the servers across the two secure data centers.

By March 2021 Nebraska successfully eliminated a total of 198 IBM AS/400 servers from 93 county server closets. In the process, the cross-functional team migrated 398 installed applications from 198 servers, to two consolidated server pairs, fully replicated across the State's two geographically diverse data centers.



Support from State Partners

When it came to forming partnerships at the State level for an AS/400 Cloud service, the OCIO was well positioned. Some of the State's AS/400s were already prime for a refresh. Those servers supported applications for the Department of Motor Vehicles (DMV) and the Nebraska Supreme Court (NSC), such as Vehicle Title and Registration (VTR) system and the Court's Case Management (JUSTICE) system. Instead of allowing 110 servers to age out and refresh 1:1 over the next decade, the divisions would purchase a pair of servers and the OCIO would replicate them across their two data centers, then they would decommission the remaining servers that were situated in the counties.

The OCIO leveraged cost and a service level agreement with their tenants. The servers would have a logical partition for every county in the state running the JUSTICE and VTR software. The logical partitions could host the needed applications and took the burden of support, backups, and hardware costs from the counties. Tenants would save millions over the life of the servers; cost efficiency was clearly on the side of the Cornhuskers. As a requirement, the OCIO committed to refreshing the hardware keeping up with the latest technology available to ensure reliable service. The OCIO team began installing servers in the State Data Centers and started migrating State applications in 2011.

Earning County Buy-in

In the counties, Phase 1 freed up office space, provided data security, and demonstrated the reliable State-supported system. The DMV and NSC partnership had traction. Counties were aware of the State's Phase 2 plan; a second pair of servers to house the consolidated county systems. Splitting a pair of servers would be cost effective, true. The OCIO's cost recovery model would bill only for the services used and splitting infrastructure costs with the other stakeholders sounded good. Still, county officials hesitated, consolidating county servers on a State system – it was unheard of. The consultants said it couldn't be done (the order was too tall in the teeth, they said).

The OCIO needed unanimous consensus from each county commission, board, clerk, treasurer, etc. So, they pulled themselves up by their bootstraps and took their lightning bottle idea to “the voice of the counties”, the Nebraska Association of County Officials (NACO) in 2015. NACO, a non-profit organization, serves to represent the

interests of elected and appointed county officials. The OCIO calculated if their business case could earn NACO support, the counties would buy in.

The Case for Cost Avoidance

To put it mildly (for a Nebraskan's flavor palate), the county owned AS/400 servers were outdated, oversized and amassing expense. Costs to the counties were factored in the following ways:

- Counties individually purchased AS/400 servers; typically, this cost \$12,000 – \$20,000, plus maintenance for the hardware and software, costs to have it installed and setup, costs for backup tapes, printers, and PC's.
- Lagging system upgrades exposed data to security and technology gaps.
- Utilization was exceptionally low. The infrastructure was not cost-efficient for single county dedicated use.
- Counties were paying expensive maintenance and support, relying on the vendor for such service.

“The transition from physical servers located in courthouses across the state to consolidated virtual servers with DR pairs has increased our overall security position as well as our reliability and uptime for staff and judges while simultaneously bringing down costs. The project has also saved the counties and local court staff from being responsible for bare metal servers kept locally in closets and having to manually back up to tape. The migration was a much-needed upgrade which has been a key component in preserving the long-term viability of our JUSTICE program.”

BOTTLING LIGHTNING: IT HAPPENED IN NEBRASKA

- They were literally at the whim of the windy Great Plains; Servers solely relied on local power with no backup power. Therefore, systems went down when local power went out.
- Servers went down without redundancy or replication, and to increase the risk of productivity loss (and long lines at the DMV or disruption to Supreme Court proceedings) the only data backup was supplied by tapes.
- Calls for maintenance could be especially taxing. Nebraska is 430 miles long, driving east to west; it is ranked the 16th largest area of the 50 United States. Lincoln, the capitol, is in the southeast portion of the State. If systems went down, State support would have required up to 12 hours of IT travel time, mileage, meals and hotel cost.

The NACO Agreement

The voice of the counties was listening. They made two requirements of the hosting providers: 1) reliable system availability and

2) good customer service. The OCIO needed only refer to its Phase 1 migration to show they could satisfy the first requirement. They had security, high availability, and real-time backup with two redundant server pairs.

One of NACO's services to the Nebraska counties is writing custom software, provided from a subsidiary organization, Multi-County Information and Programming Services (MIPS). Counties use MIPS applications to manage Payroll, Accounts Payable, Retirement, Budget, Voter Registration, Personal Property Billing, Real estate, etc. Any work on the systems would need to be done by MIPS. So, in order to meet the second requirement, the OCIO worked out an agreement with MIPS to install all of the county applications on the State AS/400, define the printers to the AS/400, and setup user ID's and passwords. Additionally, MIPS personnel would have full time access to the State's servers for software support and maintenance. For extra assurance, the OCIO opened its 24x7 support desk directly to the counties for AS/400 services.

NEBRASKA BY THE NUMBERS:

- 88 of 93 Counties in Nebraska have applications on the State's consolidated servers.
- 398 Installed applications migrated to one of two completely redundant AS/400 pairs.
- 198 Servers living in the counties were decommissioned and eliminated.

Lifetime (average) Cost of an AS/400:

... \$12,000 – \$20,000 (Plus maintenance, installation, backup, printers, and PCs)

Annual Cost Savings average for Nebraska Counties:

... \$2,850 Per county-owned server

... \$1.25 Million cost collectively avoided by 88 counties over five years.

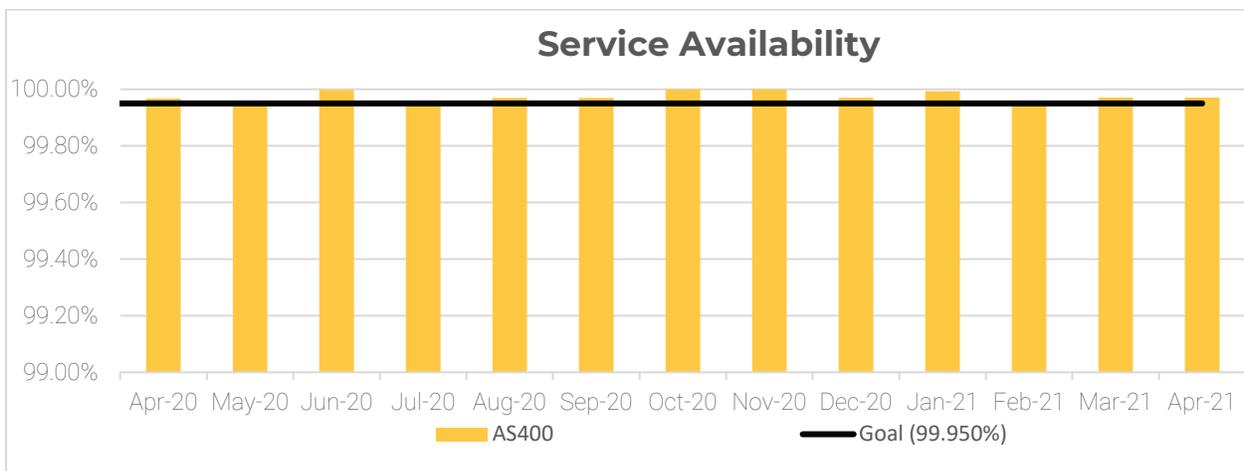
Now having formed a partnership, the State-OCIO and NACO crafted a joint message to the counties; NACO would support the State's AS/400 hosting service. The OCIO followed up, reaching out to counties. They explained the migration process and asked the counties to help plan a timeline – when could they ditch their server closets once and for all? They ensured each county's unique requirements could be met, then involved MIPS and the OCIO's Midrange team to begin the migration process.

The people process took much time. County officials discussed, voted, and sometimes circled back to revise the requirements. Once the hard work was done, the OCIO could begin the technical work; such was the process for six years. The first of the Phase 2 county migrations took place in late 2015; 69 counties had joined by July 2018; and finally, in 2021 the 88th and last apposite county joined the State's consolidated AS/400 hosting solution.

Impact

The primary reason for Nebraska's success was the State's ability to provide a competitive level of service. This can only be replicated where the infrastructure exists to support a hosting service. Success can be observed in the following ways:

1. Compared to what the counties had previously paid for hardware, software and support the State's solution reduced overall cost up to 90% for some counties (average per OCIO cost analysis). Previously, each county budgeted for fully equipped, fully supported AS/400 hardware, software licensing and ongoing support. The State consolidated those AS/400s, partitioned them and split cost 88 ways. The cost recovery model bills each county for the applications and services used. The OCIO concluded collectively the counties gained a minimum Annual Cost Avoidance of \$2,850, which in five years (typical lifetime of the server) saves over one million dollars.
2. Going from a single server without any redundancies to the State's dual-located, completely redundant servers in the Lincoln and Omaha data centers far exceeded what availability that the counties were previously afforded. The State consistently achieves availability of 99.95% uptime for the virtual AS/400 environment (see graph below).



3. The OCIO refreshes data center hardware to keep the technology current, which provides faster and more reliable service. The service provider, not the county, maintains the latest software patches and updates. The OCIO staff works with MIPS to send out any application updates to the counties. Counties don't have to do anything on these tasks, and the State notifies them in advance of any planned outage.
4. After consolidation counties were able to upload Personal Identifiable Information (PII) in an approved and secured manner.
5. NACO support did two things for the State: a) established a working relationship with county partners, especially once the State showed they were able to meet the requirements; b) allowed the OCIO to prequalify as reliable, worthy partner for local municipalities with a dependable solution at a more reasonable cost.
6. All NACO and MIPS conditions were exceeded. The State continually optimizes its two fully redundant data centers. The collocated institutions each have dedicated power supply with backup generator. State and County AS/400s benefit from the redundancies between hardware, data replication and power as this has been tested in recent years.
7. Software maintenance and hardware issues are all done by the OCIO at no additional cost to the counties. The counties are no longer responsible to troubleshoot cooling, security, tapes, electric wiring, etc. The OCIO does routine maintenance, installing program temporary fixes to the operating system. These often contain security enhancements.
8. The entire process of supporting AS/400 servers became more efficient. The OCIO opened its 24x7 support desk to the counties. However, the impact to the service desk was minimal due to the efficiency and redundancy of the new environment.
9. The OCIO's cost recovery model for the project was replicated in the State Agency infrastructure consolidation (completed in 2018).
10. This project is also realizing the benefits of the infrastructure consolidation of 2018 with Statewide Site Support supporting the counties.

In conclusion, Nebraska's cross-boundary collaboration and partnership showcases that collaboration between State and local governments can improve services for taxpayers. By becoming a hosting service provider, the State of Nebraska demonstrated its leadership and commitment to their customers across the state. As the State expected it to be, this project is worthy of the investment because of the gained service reliability and cost savings. Ongoing investments will be focused on maintaining high availability, efficiencies, and improving customer service – any of which will benefit the citizens.

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