

Nebraska Information Technology Commission

Progress Report
to the
Honorable Dave Heineman, Governor
and
Legislature,
Sen. John Wightman,
Executive Board Chair

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Executive Summary

The Legislature established the Nebraska Information Technology Commission (NITC) in 1998 to provide advice, strategic direction, and accountability on information technology investments in the state. Section 86-518 directs the NITC to submit a progress report to the Governor and Legislature by November 15 of each even-numbered year. This report is submitted in response to that requirement. Over the past two years, the NITC has realized many significant achievements in each of the seven criteria set forth in Section 86-524(2).

- The NITC's vision is being realized and short-term and long-term strategies have been articulated and employed. However, because technology constantly presents new challenges and opportunities, the NITC's vision will continually evolve. The NITC has developed a vision statement, goals, and strategic initiatives to articulate its vision and to highlight technology projects which have strategic importance to the State of Nebraska. In particular, significant progress has been made on priority areas designated as strategic initiatives by the NITC. Current strategic initiatives include:
 - Network Nebraska
 - Community IT Planning and Development
 - eHealth
 - Public Safety Communications System
 - Digital Education
 - State Government Efficiency
 - E-Government
 - Security and Business Resumption
- The statewide technology plan prepared annually by the NITC has been an effective vehicle for identifying key projects, building stakeholder support, coordinating efforts, and communicating with policy makers.
- Recommendations made by the commission to the Governor and Legislature have assisted policy and funding decisions. The review process and prioritization of new IT projects provides policy makers with information about the objectives, justification, technical impact, costs, and risks of proposed systems.
- In order to encourage interoperability and standardization, the NITC has adopted over 43 standards and guidelines. Within the past two years, 11 new or revised standards and guidelines have been adopted, including:
 - Project Status Reporting
 - Enterprise Projects
 - Blocking Email Attachments
 - Password Standard

- Scheduling Standard for Synchronous Distance Learning and Videoconferencing
 - IT Procurement Review Policy
 - Use of Computer-based Fax Services by State Government Agencies
 - Acceptable Use Policy
 - Web Branding and Policy Consistency
 - Agency Information Technology Plan Form
 - Social Media Guidelines
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- The NITC website and monthly newsletter serve as an information technology clearinghouse. In addition, the eHealth Council produces a newsletter to inform stakeholders of new research and developments.
 - The NITC encourages and facilitates input and involvement of all interested parties by engaging in collaborative processes, involving five advisory councils, the Technical Panel, and numerous workgroups and subcommittees. Additionally information is publicly distributed and public input is encouraged.
 - The NITC is addressing long-term infrastructure innovation, improvement, and coordination through Network Nebraska and related initiatives. Network Nebraska has aggregated statewide telecommunications to a common infrastructure, lowering the unit cost of Internet service to participating entities through aggregated purchasing power. In 2006, the Nebraska Legislature passed LB 1208, tasking the Chief Information Officer with providing access to all educational entities through Network Nebraska. By 2008, 183 education entities from the northeast and central parts of the state had joined Network Nebraska. Currently 228 education entities in the state are served by Network Nebraska. Of the 228 entities, 213 are K-12 districts and ESUs. The remaining 15 comprise the public and private colleges. Network Nebraska is not a state-owned network. Facilities are leased from private telecommunications providers in the state. In this way, the state hopes to stimulate private investment in Nebraska's telecommunications infrastructure.

The Nebraska Statewide Telehealth Network is also providing greater access to services across the state. The Nebraska Statewide Telehealth Network currently connects 67 rural hospitals, eight regional medical centers which serve as hub sites, seven Omaha metropolitan hospitals, 17 public health departments, and six bioterrorism labs in Nebraska.

Introduction

The Legislature established the Nebraska Information Technology Commission (NITC) in 1998 to provide advice, strategic direction, and accountability on information technology investments in the state. The NITC is chaired by Lieutenant Governor Rick Sheehy. Commissioners are appointed by the Governor and represent elementary and secondary education, postsecondary education, communities, the Governor, and the general public.

The NITC conducts most of its work through six advisory groups: the Community Council, Education Council, eHealth Council, Geographical Information Systems Council, State Government Council, and Technical Panel. Each council establishes ad hoc work groups to prepare recommendations on specific topics.

The Office of the Chief Information Officer provides support for the NITC, its Councils, the Technical Panel, and ad hoc groups. The Governor appointed Brenda Decker as Chief Information Officer in February of 2005. On March 7, 2006 the 99th Legislature of the State of Nebraska passed LB 921, changing the duties of the Office of the Chief Information Officer. As a result of LB 921, the Division of Communications and the Information Management Services Division became part of the Office of the CIO. This change in legislation has helped the State of Nebraska more closely align IT policy and IT operations.

Section 86-518 directs the NITC to submit a progress report to the Governor and Legislature by November 15 of each even-numbered year. This report is offered in fulfillment of that requirement.

Section 86-524(2) sets out the following review criteria:

1. The vision has been realized and short-term and long-term strategies have been articulated and employed;
2. The statewide technology plan and other activities of the commission have improved coordination and assisted policymakers;
3. An information technology clearinghouse has been established, maintained, and utilized of Nebraska's information technology infrastructure and of activities taking place in the state involving information technology, and the information flow between and among individuals and organizations has been facilitated as a result of the information technology clearinghouse;
4. Policies, standards, guidelines, and architectures have been developed and observed;
5. Recommendations made by the commission to the Governor and Legislature have assisted policy and funding decisions;
6. Input and involvement of all interested parties has been encouraged and facilitated; and
7. Long-term infrastructure innovation, improvement, and coordination has been planned for, facilitated, and achieved with minimal barriers and impediments.

Over the past two years, the NITC has realized many significant achievements in each of the seven criteria established by the Legislature. This report details those achievements. In particular, significant progress has been made on priority areas designated as strategic initiatives by the NITC. Current strategic initiatives include:

- Network Nebraska
- Community IT Planning and Development
- eHealth
- Public Safety Communications System
- Digital Education
- State Government Efficiency
- E-Government
- Security and Business Resumption

Realization of Vision and Employment of Strategies

The vision has been realized and short-term and long-term strategies have been articulated and employed.

The NITC has developed a vision statement, goals, and strategic initiatives to articulate its vision and to highlight technology projects which have strategic importance to the State of Nebraska. The NITC continues to make progress toward the realization of its vision. However, because technology constantly presents new challenges and opportunities, the NITC's vision will continually evolve.

Vision. The NITC vision statement is to “promote the use of information technology in education, health care, economic development, and all levels of government services to improve the quality of life of all Nebraskans.”

Goals. The NITC has established four goals:

1. Support the development of a robust statewide telecommunications infrastructure that is scalable, reliable, and efficient;
2. Support the use of information technology to enhance community and economic development;
3. Promote the use of information technology to improve the efficiency and delivery of governmental and educational services, including homeland security;
4. Promote effective planning, management and accountability regarding the state's investments in information technology.

Strategic Initiatives. In 2004 the NITC began identifying priority areas as strategic initiatives. Each strategic initiative includes a strategic plan. The development of the strategic plans has been a collaborative effort involving many individuals and entities. These efforts have been successful in gaining cooperation of many stakeholders. The

strategic initiatives form the core of the NITC's annual Statewide Technology Plan (www.nitc.ne.gov/stp).

The current list of strategic initiatives includes:

- Network Nebraska
- Community IT Planning and Development
- eHealth
- Public Safety Communications System
- Digital Education
- State Government Efficiency
- E-Government
- Security and Business Resumption

The past two years have brought significant progress in each of the strategic initiatives. A summary of each strategic initiative follows.

Network Nebraska

In order to develop a broadband, scalable telecommunications infrastructure that optimizes quality of service to public entities, the State of Nebraska and the University of Nebraska began aggregating their backbone network services into a core network backbone in 2003. In 2006, the Nebraska Legislature passed LB 1208 which named the statewide network as Network Nebraska, and tasked the Chief Information Officer (assisted by the University of Nebraska) with "providing access to all education entities as soon as feasible, but no later than July 1, 2012." Network Nebraska is also expected to "meet the demand of state agencies and local governments...Such network shall provide access to a reliable and affordable infrastructure capable of carrying a spectrum of services and applications, including distance education, across the state."

Network Nebraska is now represented as a compilation of three major sub-networks: The University of Nebraska Computing Services Network, State and County Government Network, and the K-20 Education Network. Each network has its own management staff, but takes advantage of co-location facilities, Internet and telecommunications contracts, and shared infrastructure wherever possible.

Due to advances in WAN Ethernet technology, Network Nebraska (K-20 Education) is now able to reach almost every education entity in the State through three core aggregation points: Grand Island--College Park, Lincoln--Nebraska Hall, and Omaha--Peter Kiewit Institute.

The development of the K-20 education sub-network has increased the number of customers served by Network Nebraska. Data and Internet customers currently include the three state colleges, all six community colleges, the University of Nebraska system,

several private colleges, and more than 190 school districts under 14 different educational service units. The number of educational entities could increase if any of the remaining K-12 districts in southeast Nebraska elect to participate in 2011. The Nebraska K-20 Education sub-network is completely funded by Participation and Interregional Transport Fees from its 228 members.

The development of the K-20 education network has increased the number of distance education courses available to Nebraska students. Through interactive videoconferencing, Nebraska high schools and community colleges exchange over 347 courses per year (2009-10) and that number is expected to increase. World languages, mathematics, science, and dual credit courses are popular offerings leveraged by our rural students.

Benefits of Network Nebraska also include flexible bandwidth utilization, Intranet routing, lower network costs, greater efficiency, interoperability of systems providing video courses and conferencing, increased collaboration among educational entities, new student learning opportunities, enterprise network management software, and better use of public investments. Network Nebraska has succeeded in lowering the unit cost of Internet service to participating entities through aggregated purchasing power. By combining Network Nebraska's K-12 Internet purchases into one state contract of almost 2Gbps, the K-12 E-rate-eligible price has gone from \$15/Mbps on July 1, 2009 down to \$6.10/Mbps on July 1, 2010, a 60% decrease in unit cost. This will benefit all current and new Network Nebraska schools, ESUs and colleges that purchase their Internet service from the statewide master contract.

Network Nebraska has also stimulated investments in telecommunications infrastructure. As the State bid connectivity to large regional areas of schools and colleges, the telecommunications companies responded with new network technologies such as metropolitan optical Ethernet, multi-protocol label switching (MPLS), and Ethernet "clouds", which have provided benefits for other nonpublic entities.

Network Nebraska has also provided support and assistance to the Nebraska Statewide Telehealth Network. The Nebraska Statewide Telehealth Network connects nearly all of Nebraska's hospitals and public health departments in one of the country's most extensive telehealth networks.

Network Nebraska has been made possible through a cooperative effort of the Collaborative Aggregation Partnership (CAP). CAP was established by Governor Dave Heineman (who was at the time Lieutenant Governor and NITC Chair) and former University of Nebraska President L. Dennis Smith. CAP is composed of several operational entities: Office of the CIO, University of Nebraska, and Nebraska Educational Telecommunications with policy assistance from the Nebraska Department of Education, Public Service Commission, and the NITC.

Network Nebraska is not a state-owned network. Facilities and circuits are leased from private telecommunications providers in the state, allowing the State of Nebraska to act as an anchor tenant.

Community IT Planning and Development

The NITC Community Council has been addressing technology-related development in Nebraska's communities since its formation in 1998. As technologies and the needs of communities have changed, programming and areas of emphasis have shifted. Partnerships have been forged to address specific projects. Most recently, the emphasis has been on broadband planning.

Broadband Planning

On January 12, 2010, the National Telecommunications and Information Administration awarded the Nebraska Public Service Commission approximately \$1.6 million for broadband data collection and mapping activities and nearly \$500,000 for broadband planning activities over a two-year period in Nebraska, bringing the total grant award to approximately \$2.1 million. On September 27, 2010 an additional \$3.5 million was awarded to the Public Service Commission for mapping and planning activities in years 2-5 five of the project. The NITC Community Council is partnering with the University of Nebraska, the Nebraska Department of Economic Development, and the AIM Institute to implement the planning component of the broadband mapping grant.

In March and April 2010, the University of Nebraska Center for Applied Rural Innovation surveyed Nebraska households on their Internet access and usage. The survey found that 81% of Nebraska households had Internet service with 76% of them using broadband. In comparison, 71% of U.S. households had Internet service with 64% having broadband service in October 2009, according the latest broadband report from the National Telecommunications and Information Administration.

The Nebraska survey revealed some gaps in Internet service among certain demographic groups:

- While 98 percent of households with incomes of at least \$75,000 had Internet access, only 54 percent of those with incomes under \$20,000 did. Ninety-four percent of the former had broadband, while only 44 percent of the latter did.
- Ninety-three percent of respondents ages 19 to 39 had Internet access, compared to 56 percent of those 65 and older. A similar dividing line was found in measuring broadband access.
- Ninety-four percent of people with at least a four-year college degree had Internet access. Forty-one percent of those with less than a high school education did. The numbers for broadband service: 91 and 31 percent, respectively.
- Eighty-six percent of people in Omaha had Internet access, compared to 62 percent in central Nebraska. The numbers for broadband access: 83 percent in Omaha, 81 percent in Lincoln; 56 percent in central Nebraska.

Other findings in the survey:

- Seventy-five percent of Nebraska households have access to a local place – for example, a library or school – where they can use an Internet-accessible computer for free. Forty-one percent of households without Internet access use those public resources.

- Forty-eight percent of households with only dial-up service say they don't have broadband because of its cost. Twenty-five percent said they're happy with dial-up.
- Fifty-six percent said someone works from home using the Internet at least a few times a month. Almost one-quarter work from home using the Internet every day.
- Most Nebraska households believe the following applications are important: exchanging health information so that providers have a complete health record when treating you (86%), using telehomecare to monitor chronic health conditions (80%), online banking (80%), using telemedicine to consult with health care providers (79%), taking advantage of distance learning opportunities (78%), using government services online (78%), and contributing to economic growth (76%).

The survey report, "Internet Connectivity and Use in Nebraska," is available at http://www.psc.state.ne.us/home/NPSC/NTIA/Internet_Connectivity_and_Use_in_Nebraska.pdf.

Regional forums, focus groups, a statewide conference, and other efforts are planned in 2011 to involve regions in broadband planning efforts.

Community Websites

In 2008 and 2009, the Community Council partnered with the University of Nebraska, Nebraska Department of Economic Development, Nebraska Public Power District, Twin Cities Development - Scottsbluff/Gering, and the AIM Institute to help communities develop content-rich websites in order to better promote the community and to recruit people to the area. The Developing Websites for Community Growth project provided hands-on assistance to 11 communities. The project strictly focused on content development, website enhancements, and marketing.

Communities participating included:

- Burwell
- Butler County
- Elwood
- Gering
- Grand Island
- Laurel
- Pender
- Scribner
- South Sioux City
- St. Paul
- Valentine

Communities participating in the project formed a website content committee and developed a site map. At the end of the project in June 2009, five communities had launched new websites. Communities can access project materials from the project website (www.websitesforgrowth.com).

eHealth

eHealth technologies include telehealth, electronic health records, e-prescribing, computerized physician order entry, and health information exchange. The widespread adoption of electronic health records and other eHealth technologies is expected to reduce medical errors, improve quality of care, and reduce health care costs for payers. Funding from the American Recovery and Reinvestment Act is fueling adoption of eHealth technologies. On March 15, 2010, the State of Nebraska received a \$6.8 million grant from the U.S. Department of Health and Human Services' Office of the National Coordinator for Health IT to create statewide health information exchange. The grant will enable the implementation of the strategic and operational eHealth plans developed by the NITC's eHealth Council. The Nebraska Information Technology Commission/Office of the CIO is administering the grant. As the State Health IT Coordinator, Lt. Governor Rick Sheehy is providing leadership and coordination for health information technology activities in the state.

The eHealth Council was formed by the NITC in 2007 to address issues related to the adoption of interoperable healthcare information technology by the healthcare delivery system in Nebraska. Members represent healthcare providers, eHealth initiatives, public health, consumers, payers and employers, and the State of Nebraska. The eHealth Council developed a strategic plan for eHealth in October 2009 which was submitted with the State of Nebraska's application for the State Health Information Exchange Cooperative Agreement. An operational plan was completed in April 2010. Revisions to the plans have been made to satisfy the requirements of the Office of the National Coordinator. The most recent versions of the plans are available from the NITC's website (nitc.ne.gov). The plans were approved by the Office of the National Coordinator in November 2010.

Vision

The strategic plan sets forth the following vision:

Stakeholders in Nebraska will cooperatively improve the quality and efficiency of patient-centered health care and population health through a statewide, seamless, integrated consumer-centered system of connected health information exchanges. Nebraska will build upon the investments made in the state's health information exchanges and other initiatives which promote the adoption of health IT.

Goals

The strategic plan also set the following goals to be achieved while ensuring the privacy and security of health information, which is an essential requirement in successfully implementing health information technology and exchanging health information:

- Using information technology to continuously improve health care quality and efficiency through the authorized and secure electronic exchange and use of health information.
- Improving patient care and consumer safety;
- Encouraging greater consumer involvement in personal health care decisions;
- Enhancing public health and disease surveillance efforts;
- Improving consumer access to health care;
- Improving consumer outcomes using evidence-based practices.

eHealth Initiatives

Nebraska's eHealth plans build upon the investments made by stakeholders to develop health information exchange in the state. eHealth initiatives in the state include the Nebraska Health Information Initiative (NeHII), Electronic Nebraska Behavioral Health Information Network (eBHIN), Nebraska Statewide Telehealth Network, Western Nebraska Health Information Exchange, and Southeast Nebraska Health Information Exchange (SENHIE). Additionally, efforts are being made to coordinate activities with the DHHS Division of Medicaid and Long-term Care and the DHHS Division of Public Health.

The Nebraska Health Information Initiative (NeHII), the state's largest health information exchange, is a fully operational and sustainable health information exchange. NeHII will act as the integrator for the state, providing the technical infrastructure for the sharing of health information. NeHII was chosen to be the statewide integrator for several reasons:

- NeHII is the only health information exchange in Nebraska with a statewide focus on all types of providers and consumers.
- NeHII has successfully exchanged health information beginning with a pilot project in the Omaha area in the spring of 2009.
- NeHII is reaching a critical mass of users. At the end of 2009, NeHII covered 35% of the state's hospital beds. By the end of 2010, NeHII will cover approximately 45% of the state's hospitals beds.
- NeHII is scalable and has the capability to serve any health care provider in Nebraska.

NeHII is exchanging information between health care providers, including over 1,100 physicians and staff and 15 hospitals as of Oct. 2010. Data being exchanged includes laboratory, radiology, medication history and clinical documentation. In addition, insurance eligibility information is being sent and will be used to create a

comprehensive patient summary. NeHII is providing e-prescribing functionality, linking hospitals and provider with pharmacy services. NeHII offers physicians a basic, web-based electronic medical record (EHR) so that providers who have not yet implemented electronic medical records can participate at an affordable price. NeHII began with a pilot project in the Omaha area in April 2009 and announced their statewide implementation at their Annual Meeting July 9, 2009. Mary Lanning Memorial Hospital in Hastings and Great Plains Regional Medical Center in North Platte joined NeHII in 2010. The majority of the implementation funding or seed capital has been obtained through membership fees to the NeHII Collaborative. Partial funding for the pilot project was provided by a grant from the Nebraska Information Technology Commission. Funding from the State HIE Cooperative Agreement will be used to expand the services available through NeHII and to expand participation to hospitals and health care providers across the state. More information on NeHII is available at www.nehii.org.

The Electronic Behavioral Health Information Network (eBHIN) is currently developing an eHealth network to exchange behavioral health information among behavioral health providers in the Region V Service area, with the applications offered to other Regions in the State as time and resources allow. Phase I participants include Blue Valley Behavioral Health Center, BryanLGH Medical Center, CenterPointe, Child Guidance Center, Community Mental Health Center, Cornhusker Place, Family Services, Houses of Hope, Lincoln Council on Alcoholism and Drugs, Lincoln Medical Education Partnership, Lutheran Family Services, Mental Health Association, Region V Systems, and St. Monica's Home. eBHIN partners have received several grants including a planning grant from the U.S. Department of Health and Human Services Agency for Healthcare Research and Quality (AHRQ) in 2004, an AHRQ Ambulatory Care Grant in 2008, a three-year Rural Health Network Development Grant from the U.S. Department of Health and Human Services' Health Resources and Services Administration in 2008, Region V Systems, and a grant from the Nebraska Information Technology Commission. eBHIN will be participating in statewide health information exchange by connecting to NeHII. eBHIN will be utilizing the NextGen EMR application to order lab results and ePrescribe. Once connected with NeHII, the cost effectiveness of utilizing these functions via the NeHII applications will be explored to facilitate economies of scale. Funding from the State HIE Cooperative Agreement will provide startup funding for eBHIN.

The Southeast Nebraska Health Information Exchange (SENHIE) is improving the quality of care and increasing efficiency in Thayer County. Through a \$1.6 million Critical Access Hospital Health Information Technology Grant, Thayer County Health Services has implemented the state's first health information exchange. Medical information on patients in Thayer County now flows seamlessly among providers, including physicians at satellite clinics or at Thayer County Health Services in Hebron, physicians and pharmacists at St. Elizabeth's Regional Medical Center, emergency responders, pharmacists, and long term care facilities. SENHIE has declined to participate in statewide health information exchange by connecting to NeHII and is pursuing other options for connectivity.

The **Western Nebraska Health Information Exchange (WNHIE)** built health IT capacity in the Panhandle and developed plans to create a regional health information exchange. Partners include the Rural Nebraska Healthcare Network, Box Butte General Hospital, Chadron Community Hospital, Garden County Health Services, Gordon Memorial Hospital, Kimball Health Services, Memorial Health Center, Morrill County Community Hospital, Perkins County Health Services, Regional West Medical Center, Panhandle Public Health District, and Region I Mental Health and Substance Abuse. In early 2010, WNHIE evaluated its options, including connecting to NeHII instead of building a separate exchange. After careful consideration of costs and risks, WNHIE members decided to cease organizational activities and pursue other options for HIE connectivity. Efforts are being made to leverage the investments in health IT and in human capital made by WNHIE. The hospitals which participated in WNHIE have engaged NeHII in conversations about connecting.

The **Nebraska Statewide Telehealth Network** connects nearly all of the state's hospitals and all of the state's public health departments. The Nebraska Statewide Telehealth Network is used for patient consultations, teletrauma, teleradiology, continuing medical education, and other applications. The network has been well-received by physicians and consumers. On a 7-point scale, physicians using the network rated 6.69 on their future use of the system and 6.63 on their confidence in the network. The Nebraska Statewide Telehealth Network provides a critical emergency preparedness link between the Nebraska Division of Public Health and providers and facilities across the state. A secure audio/video connection can be made between state leadership and every end point for simultaneous live information exchange in an emergency situation. Funding from the State HIE Cooperative Agreement will be used to purchase wound cameras, stethoscopes, and ENT scopes to further expand access to specialty care for rural Nebraskans.

The eHealth Council is coordinating efforts with the **Nebraska Medicaid Program** (Medicaid). The Director of Medicaid, Vivianne Chaumont, is a member of the e-Health Council and holds a seat on the NeHII Board of Directors. Medicaid is undertaking a significant revision of its approach to the development and implementation of system support that places it in an ideal position to design the development and ultimate adoption of a system suite to accommodate the various components of the e-health objectives and to enhance its contributions to the statewide HIE effort. The Division of Medicaid and Long-Term Care is in the process of developing a State Medicaid HIT Plan (SMHP) which will include a five-year roadmap of activities that will be conducted under available funding streams and, while not duplicating effort, ensuring that all dependencies, along with technical and operational relationships, are considered.

Additionally, efforts are underway to interface several **public health data systems** with NeHII. The first system to be connected is the immunization registry. Connections will also be made to the Nebraska Electronic Disease Surveillance System and the state's syndromic surveillance system. The Nebraska Department of Health and Human Services Division of Public Health has been participating in weekly meetings with NeHII to plan the connections.

Public Safety Communications System

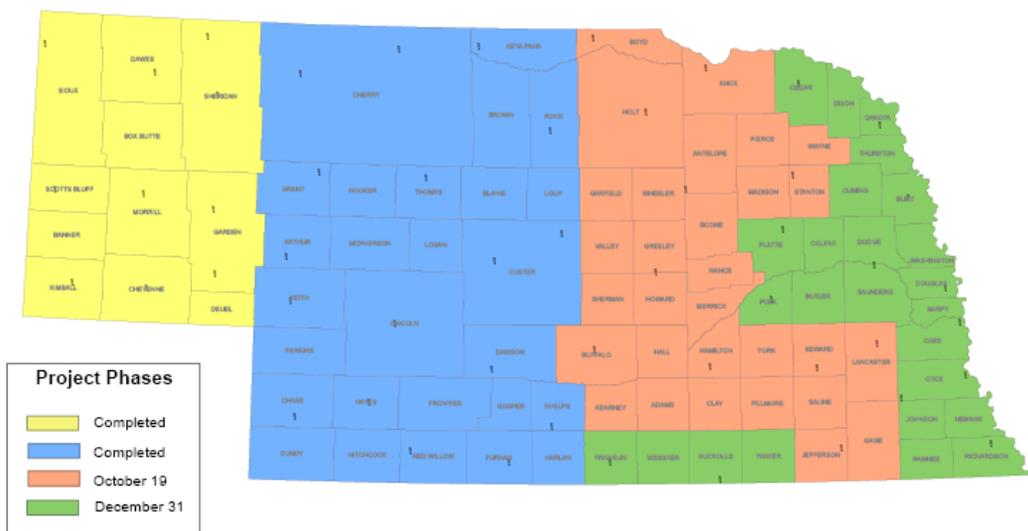
The Nebraska Statewide Radio Network is enabling interoperability with local, state and federal agencies. The system is part of the statewide interoperable communications initiative of state and local partnerships to improve public safety communications across Nebraska. The system is positioning Nebraska as a successful example of cooperation and leadership in developing partnerships that improves public safety communications across all of Nebraska. As of November 2010, the network is available to state agency personnel in a 68 county area, including 310 State Patrol vehicles, as well as 67 percent of NPPD utility crews. When complete, the network will connect public safety personnel from seven state agencies and NPPD utility crews. It will also allow for communication with local first responders, county emergency management personnel and some federal personnel in Nebraska.

Benefits of the system include:

- Shared statewide communications infrastructure
- Interoperability for the State Patrol and other agencies
- Ability for existing local communications systems to interconnect
- Technology platform is scalable, expandable and upgradeable
- Sharing opportunities for other local, state and federal agencies

The wireless radio network is being assembled in four phases. The map below shows the phases. Governor Heineman activated Phase I of the state’s radio network on Sept. 23, 2009 at Scotts Bluff National Monument. Phase II in West Central Nebraska was activated in March 2010. Phase III was completed in October 2010. Phase IV is nearing completion.

NEBRASKA STATE RADIO NETWORK
Projected Activation Timeframe



State agency partners in the project include the Nebraska State Patrol, the State Fire Marshal's Office, the Nebraska Game and Parks Commission, the Nebraska Emergency Management Agency, and the Nebraska Departments of Agriculture, Correctional Services and Roads. Other partners include the Office of the Chief Information Officer, which provides technical support for the statewide radio network, and Nebraska Educational Telecommunications, which has provided access to many existing radio towers across the state.

Governor Heineman and the Nebraska Legislature supported funding for the communications system in 2007. The Office of the CIO has coordinated a partnership with the Nebraska Public Power District to jointly develop the communications system infrastructure. NPPD is an equal partner in the state's efforts to plan, fund and implement the new statewide communications system. The State-NPPD partnership is a recognition that much can be accomplished through common need and sharing resources for Nebraska taxpayers and public safety first responders.

The OCIO has also coordinated with the Nebraska Emergency Management Agency (NEMA) and the Governor's Homeland Security Policy Group to implement the statewide interoperable communications plan using federal Homeland Security grants. The plan includes integration projects that will tie state and local communication resources together during emergencies. The plan standardizes the communications infrastructure to improve compatibilities across different legacy systems and provides the means to share critical information when needed.

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.

The initiative is dependent upon adequate Internet connectivity and transport bandwidth for learners, instructors, administrators, and for educational attendance sites. A minimum acceptable level of classroom technology will have to be established for the initiative to be successful.

The primary components of the Digital Education Initiative include:

- A statewide telecommunications network with ample bandwidth capable of transporting voice, video, and data between and among all education entities (See Network Nebraska.);
- Distance insensitive Internet pricing for all Nebraska education entities;
- Development of a statewide eLearning environment so that every teacher and every learner has access to a web-based, digital curriculum;
- Development of a statewide digital resource library so that any teacher or learner will be able to retrieve digital media for use in instructional and student projects;

- Synchronous videoconferencing interconnections between all schools and colleges;
- The means to coordinate and facilitate essential education opportunities for all students through a statewide student information system; and
- Regional Pre-K-20 education cooperatives that vertically articulate educational programs and opportunities.

Establishing a Digital Education environment is critical to Nebraska's future. Internet has gone from a "nice to have" educational application of the 1990's to the "must have" mission critical application of the 2010's. So much of what teachers, students, and administrators do today is tied to Internet-based information and communication. Nebraska's ranking of 2.8 students per high speed, Internet-connected computer in the classroom seems to compare favorably with the U.S. average of 3.7 students per high speed, Internet-connected computer. (Technology Counts 2007 Report) However, it still makes it challenging for students to complete their digital assignments when they are expected to share two or three students to a computer, or to wait their turn to be able to use a computer. Educators and administrators are urged to work to achieve the goal of attaining 1:1 computer availability.

The benefits of the Digital Education Initiative would include:

- Greater technical capacity for schools and colleges to meet the increasing demands of a more diverse customer base;
- More equitable and affordable Internet access for Nebraska schools and colleges;
- A comprehensive Web-based approach to curriculum mapping and organization and automation of student assessment data gathering and depiction;
- The availability of rich, digital media to the desktop that is indexed to Nebraska standards, catalogued, and searchable by the educator or student;
- A more systematic approach to synchronous video distance learning that enables Nebraska schools and colleges to exchange more courses, staff development and training, and ad hoc learning opportunities.

Network Nebraska is going through a significant upgrade process that began in July 2007. By moving to a high bandwidth, flexible IP network, participating education entities will be able to:

- Have ample bandwidth for local and regional transport to accommodate present and future education technology applications;
- Take advantage of nationwide Internet2 routing and resources;
- Purchase some of the lowest Internet access pricing in the country;
- Participate in a statewide, standards-based IP videoconferencing system between all schools and colleges;
- Post their course offerings and unfilled curriculum needs to a statewide clearinghouse and scheduling system for all synchronous and asynchronous distance learning;

- Position themselves to develop new and exciting regional and statewide applications of digital content to serve all students and teachers.

The furthering of the Digital Education initiative and completion of the Digital Education action items requires the participation of many education-related entities. The Educational Service Unit Coordinating Council (ESUCC) has been working with the NITC Education Council to develop a white paper to describe the future vision and feasibility of a statewide learning management and statewide content management system, which would greatly enhance Nebraska's eLearning system.

State Government Efficiency

The State of Nebraska is improving efficiency in state government through the development of standards and guidelines and the implementation of shared services.

Standards and Guidelines

In order to encourage interoperability and standardization, over 43 standards and guidelines have been adopted. Within the past two years, 11 new or revised standards and guidelines have been adopted, including:

- Project Status Reporting
- Enterprise Projects
- Blocking Email Attachments
- Password Standard
- Scheduling Standard for Synchronous Distance Learning and Videoconferencing
- IT Procurement Review Policy
- Use of Computer-based Fax Services by State Government Agencies
- Acceptable Use Policy
- Web Branding and Policy Consistency
- Agency Information Technology Plan Form
- Social Media Guidelines

Shared Services

Early in 2005 the State of Nebraska launched a shared services initiative to consolidate the purchase and operations of certain technology services. The initiative has been very successful in reducing costs and increasing efficiency. The NITC's State Government Council has played an important role in identifying the potential services which could be offered as a shared service. Over the past two years efforts have focused on the following shared services:

- Enterprise Maintenance / Purchase Agreements

- Geographic Information System (GIS)
- E-mail and collaboration services (including SharePoint and LiveMeeting)
- Business Continuity / Disaster Recovery
- Directory Services / Active Directory
- Enterprise Content Management
- Interactive Voice Response

Enterprise maintenance and purchase agreements. Enterprise maintenance and purchase agreements were among the first shared services, resulting in significant cost savings. The coordinated purchasing of IBM licenses and maintenance agreements saved over \$500,000 in FY2006, \$610,000 in FY 2007, and \$458,000 in FY2008. Savings were \$214,000 in FY 2009 and \$236,000 in FY2010 due to a reduction in the volume of new products being purchased. A new, two-year agreement is projected to save \$356,000 in FY2011 and \$246,000 in FY2012. The total savings from FY2006 through FY2012 have been \$2,620,000. In FY2010, the Office of the CIO entered into an enterprise agreement with Adobe, which will reduce prices on Adobe products by at least 20% once fully implemented.

The Office of the CIO has two projects underway that will generate significant benefits in the future. Through a new statewide enterprise agreement with Microsoft, all state agencies will have access to the most recent versions of Microsoft Office and the Windows Operating System. This will generate financial savings and provide operational efficiencies through standardization. The Office of the CIO is rebidding the state's contract for its software reseller that will include the highest volume publishers of software products. This will provide access to better pricing and streamline the procurement process.

Geographic Information Systems (GIS). The NITC has adopted six GIS-related action items as part of its Statewide Technology Plan:

- **Nebraska Geospatial Data Sharing and Web Services Network.** This effort, since branded as the NebraskaMAP, is a collaborative, enterprise-level effort to develop an online GIS web portal which will allow users to search for, find, and access GIS data and data services related to the geographic area of Nebraska. A prototype system has been developed at the University of Nebraska under a contractual arrangement with the Office of the CIO (OCIO). The system is currently being transferred to the OCIO. While a limited number of datasets will be stored directly in conjunction with the OCIO implementation, the majority of the data available through NebraskaMAP will be remotely accessed GIS data already being served online by a variety of state, local and federal agencies. As the project matures a variety of data services will be built on this infrastructure platform, such as a user providing an address (or a collection of addresses in a database) and getting back map locations (coordinates) corresponding to those addresses. As this enterprise infrastructure matures significant cost savings can be achieved by reducing the duplication of costly software licenses, highly skilled technical personnel, and customized applications.

- **Statewide Street Centerline-Address Database.** An accurate mapping of street, road and highway centerlines, with associated address ranges, is a key GIS database for many applications, particularly public safety and health applications. Commercially available datasets of this type tend to be fairly accurate for urbanized areas, but fairly poor for rural areas. In Nebraska a number of different state and local agencies produce pieces of this type of data (typically on a county-by-county basis), but no one agency has the responsibility to develop or compile a statewide street centerline-address dataset. An advisory committee of the GIS Council developed a set of draft guidelines and standards for integrating this data from multiple sources. One-time funding available to the NebraskaMAP project allowed for the development of an integrated statewide street centerline-address database from multiple sources. This database can now be used to support the NebraskaMAP effort and many other applications such as the Nebraska State Patrol's statewide dispatch system. A remaining challenge is that this effort used one-time funding to develop a one-point-in-time snapshot of the data. This type of data is fairly dynamic and there is not currently in place a system to capture and integrated updated data into a statewide dataset.
- **Metadata and State Geospatial Data Catalog.** Metadata is "data about data" or the formal documenting of what is in a given dataset, how it was developed, what data values mean, and how do you get a copy of the data. Metadata is the key to preserving the value of GIS data after the individuals who originally developed the data are no longer available. It is also the key to sharing GIS data and enabling others to use that data correctly. Traditionally it has been very difficult to get the developers of GIS data to take the time to document that data with metadata. As part of the NebraskaMAP project, metadata development tools have been developed and customized. Training sessions have been held. There is an NITC standard in place requiring the development of metadata. The struggle now is to follow up with state and local agencies to encourage them to document their data.
- **Statewide Geospatial Infrastructure Strategic Planning.** The NITC GIS Council is charged with seeking to coordinated GIS implementation across state, local and federal agencies as it relates to the geographic area of Nebraska. Many of the items outlined in a previously developed statewide strategic plan have been achieved and it is timely to renew that strategic vision. Funding has been secured from a Federal Geographic Data Committee grant and an RFP is under development. The plan is to hire a consultant to assist this strategic planning effort and to have new statewide strategic plan by the end of 2011.
- **Planning for Periodic, Collaborative Orthoimagery Acquisition.** Georeferenced aerial imagery is used in the vast majority of GIS applications. The acquisition of updated aerial imagery is expensive and fairly challenging relative to technical specifications. The GIS Council has worked with several state and local entities to help in the collaborative acquisitions of two major datasets over the last two years. In 2009, the GIS Council helped to organize a partnership between several state, local and federal agencies to partner with the

USDA-Farm Services Agency to acquire statewide color aerial imagery with one-meter resolution per imagery pixel. This collaborative effort costs \$58,000 to acquire updated imagery that costs in total more than one million dollars. In 2009-2010, the GIS Council also worked with state and local agencies to plan and acquire updated 2010 high-resolution imagery (6-inch pixel resolution) for much of the urban area of Nebraska. This effort was lead and primarily funded by local governments with the GIS Council and some state agencies assisting and contributing.

- **Planning for Statewide LiDAR Acquisition.** GIS data on the shape and relative elevation of the earth's surface is important for many GIS applications. Until recently the acquisition of the data for an area of any substantial size has been cost prohibitive and therefore the much of data that was available was 50-60 years old. New LiDAR (**L**ight **D**etection **A**nd **R**anging) technology has significantly reduced the acquisition costs, although it is still very costly. LiDAR has been compared to using radar from an airplane to bounce off the earth's surface to determine relative elevation. The GIS Council has sponsored an advisory committee to develop draft standards/specifications for LiDAR data acquisition. The GIS Council has also help to organize collaborative efforts to acquire LiDAR data for sections of Nebraska. Over the last couple years, LiDAR data has either been collected or contracted for approximately one quarter of the state.

E-mail and Collaboration Services. In 2008, the State made the strategic decision to standardize on the Microsoft Exchange platform for the delivery of email. The enterprise e-mail system currently has over 17,700 mailboxes and a yearly uptime of 99.96%. As a part of the e-mail package, additional services were procured and are now being implemented to augment the effectiveness of that product. During this past year, the Office of the CIO has rolled out Office Communications Server (OCS). Agencies have been using the Live Meeting and Desktop Video Conferencing capabilities to conduct training, hold meetings with staff geographically disbursed throughout the State as well as for the Statewide Open Enrollment. In order to further deploy this service, the OCIO is working on integrating OCS with the state Nebraska Video Conferencing Network (NVCN). The goal is to integrate the capabilities of OCS through a Multipoint Control Unit (MCU) to allow participation in multipoint conferences with high speed capabilities.

Several agencies have embraced the enterprise SharePoint environment as a vehicle for team members to track projects and to collaboratively create and edit documents in the form of Team Sites. SharePoint includes several features that allow users to manage projects, coordinate tasks and keep track of deadlines. The use of document libraries in the SharePoint environment by many groups as a place to store important documents that can be retrieved and viewed by others is a popular use of the shared environment. To date, 55 agency sites and 221 personal sites have been created in SharePoint.

Business Continuity and Disaster Recovery. The State of Nebraska continues to address business continuity and disaster recovery by employing a multi-faceted approach to business continuity and disaster recovery planning, emphasizing the development of partnerships as well as the identification and prioritization of critical

business functions. Additional information is included in under the Security and Business Resumption section of this report.

Directory Services/Active Directory. Discussions on directory services are underway.

Enterprise Content Management. Enterprise Content Management (ECM) is the combination of strategies, methods and tools used to capture, manage, store, preserve, and deliver content related to an organization's functions. Content can include documents, email, images, video, audio, and any information in digital format. The ECM tool being purchased by the State also allows electronic forms and workflow to streamline processes.

The Office of the CIO issued an RFP in September 2009. After a rigorous evaluation and product demonstrations, the Office of the CIO, a contract was signed on August 20, 2010 with eDocument Resources. The State purchased "Onbase" which is manufactured by Hyland Software.

General benefits to the public include:

1. Allowing Internet access to documents for the public to view.
2. Providing citizens, regulated entities, and business partners with the option of submitting information through electronic forms, monitor the status of activity relating to their submission, and obtain access to all authorized content.
3. Supporting faster responses to requests for information and assistance.

General benefits to agencies include:

1. Providing fully automated processes that substantially reduce printing, copying and handling of paper.
2. Providing easy tracking of the status of activities.
3. Providing a means for agencies to apply record retention rules consistently to all documents and data in an automated process.
4. Providing a means for agency staff in offices throughout the state to have access to agency documents and records more efficiently and timely.
5. Providing a more efficient means for agencies to respond to public records requests.
6. Reducing or eliminate the need for physical space for storing paper records.
7. Enhancing disaster recovery and business resumption, in case paper records are destroyed. Presently many agencies have no real backup to the paper records that are essential for conducting business.
8. Improving management of records relating to litigation. This is particularly valuable for complex highly technical cases. For example, the Attorney General's Office can have direct access to electronic documents rather than obtaining paper copies.

Interactive Voice Response. The Department of Labor, Department of Revenue and the Department of Health and Human Services are working collaboratively with the Office of the CIO to move onto a centralized Interactive Voice Response (IVR). Although the project has faced challenges with maintaining the appropriate specialized application development staffing required, it has been a great example of four agencies working together to create efficiencies and standardization for the citizens of Nebraska. Once fully deployed, there will be an opportunity for other agencies to benefit from use of the system, gaining additional efficiencies.

E-Government

Nebraska has been recognized as a leader in e-government. The 2010 Digital States Survey, conducted by the Center for Digital Government, awarded the State of Nebraska a letter grade in the “B” category. According to the report, that grade indicates:

“These states are trending up. They show results in many categories. Leadership uses modernization to change entrenched practices and prepare for more sustainable operations. Collaboration incentives are in place. Measures are used in key areas. Cuts tend to be made across the board.”

The State’s Web portal, Nebraska.gov, was recognized by the Center for Digital Government as one of the top state Web portals in 2007, 2008 and 2009. Nebraska.gov, was redesigned in June 2008 and offers over 300 services. The new portal offers an enhanced, more accessible design featuring larger and brighter images. The site has been designed to be accessed by both full-sized computers and mobile devices. The site has also been translated into twelve languages.

An annual e-government conference is held every November to showcase successful e-government projects and to keep both managers and IT staff informed on developments in e-government and technology. The conference is presented in partnership with *Government Technology Magazine*.

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. Mobile device use and its security related aspects have been a recent working sub-group topic and the group will have basic policy ready to submit to the Technical Panel before the year’s end. Work has also been done trying to unify our approach to federal audits and to reduce the individual agency work along with providing a consistent and accurate response to audit requirements. The Whole Disk Encryption (WDE) contract was again renewed in April with 330 devices, mainly laptops, currently using the product and encrypting their local storage. The contract for vulnerability management was also renewed this year. Agencies can now utilize the service to complete required PCI compliancy scans that have previously been

additional costs to the Agencies. Work to migrate the PCI compliancy scanning for applications to the vulnerability service to save additional costs is still ongoing.

For the past 5 years the OCIO has hosted the Nebraska Cyber Security conference. In previous years sponsors have been used to reduce the fees and provide valuable training for the State, educational participants and county workers. This year through additional sponsors and the selection of presenters and keynote speakers with limited travel needs, the conference costs were waived for the Agencies who registered through the Office of the CIO.

The NITC has also supported cyber security awareness efforts in conjunction with October's designation as Cyber Security Awareness month. Governor Heineman signed a proclamation on Oct. 6, 2010, declaring October as Nebraska Cyber Security Awareness month. The NITC/Office of the CIO sent brochures, posters and materials co-branded with the Multi-State Information and Analysis Center to over one-hundred State agencies, counties and to the educational service units.

A Cyber Security workgroup portal was also setup this year to facilitate interaction and the sharing of information with Agency representatives. The portal contains a calendar of security related events, training opportunities (both free and paid) and current security news. The portal is also being used to increase interaction of the workgroup beyond monthly meetings of Agency representatives and to provide a conduit to continue business between scheduled meetings.

Presentations on security and awareness were also given over the course of 2010 for Agencies at the 2010 Nebraska Infrastructure Protection Conference, the 2010 Nebraska Cyber Security Conference and recently at the 2010 Nebraska Digital Government Summit.

Efforts to improve disaster recovery and business continuity capabilities continue. The State of Nebraska has mitigated risks to public safety and the state's economy by employing a multi-faceted approach to business continuity and disaster recovery planning, emphasizing the development of partnerships as well as the identification and prioritization of critical business functions.

The iterative process, coordinated by the Office of the CIO, began in 2001 and is ongoing. Components of the State of Nebraska' Business Continuity and Disaster Recovery Planning include:

- o The completion, in May of 2009, of a multi-year effort to improve resiliency of mainframe computing environments by the State of Nebraska in cooperation with the University of Nebraska by establishing a disaster recovery facility in Omaha. At this facility, mirrored storage is connected to State of Nebraska and University of Nebraska sites with a high speed optical fiber link. Data is written in Omaha just a few seconds after it is stored in Lincoln. In addition to the mirrored storage, there is access to a special mainframe processor in Omaha that is configured for disaster recovery support. Mutual Testing of this new environment is ongoing, to include five major tests of the mainframe processor in Omaha within the next four years.

- Continued cooperation between the State of Nebraska and University of Nebraska to include:
 - Strengthening network resiliency with shared facility space
 - Developing additional mutual relationships with other political subdivisions
 - Developing and implementing six month project plans
- Hardening physical security of the state's critical infrastructure. In 2010 the Department of Homeland Security (DHS) was invited to conduct Site Assistance Visits at several locations, including the State of Nebraska's primary data center, to provide an overview of security vulnerabilities. The Office of the CIO continues to work with the Nebraska State Patrol - Capitol Security Division and Administrative Services - State Building Division to implement options for consideration provided by DHS.
- Awarding a contract to a new vendor to continue the shared Automated Notification Service which allows for rapid emergency notification.
- Replacement of the state's uninterruptable power supply at the primary data center which is expected to be completed in early 2011.
- An ongoing exercise program to test and improve capabilities through planning, validation through exercise and revision based on feedback from the exercise.

Improved Coordination and Assistance to Policymakers

The statewide technology plan and other activities of the commission have improved coordination and assisted policymakers.

The statewide technology plan annually prepared by the NITC has been an effective vehicle for identifying key projects, building stakeholder support, coordinating efforts, and communicating with policy makers.

The current plan was prepared in the first quarter of 2008. The plan focuses on eight strategic initiatives:

- Network Nebraska
- Community IT Planning and Development
- eHealth
- Public Safety Communications System
- Digital Education
- State Government Efficiency
- E-Government
- Security and Business Resumption

These initiatives were identified by the NITC and its advisory groups. These groups include representatives of a wide array of entities, including health care providers, education, local government, the private sector, and state agencies. This process has proven to be effective in building stakeholder support. These initiatives are collaborative projects involving many entities both inside and outside of state government. The statewide technology plan provides a method of communicating the importance of these initiatives, progress made, and plans for further implementation. The plan is sent to members of the Legislature and the Governor. The primary role of the NITC in these initiatives has been facilitation and coordination. The success of these initiatives testifies to the NITC's effectiveness at facilitation, coordination, and communication with policymakers.

The NITC and Office of the CIO staff have testified at hearings and given briefings to legislative committees several times over the past two years, including:

- Joint briefing for members of the Appropriations Committee and Transportation and Telecommunications Committee, November 5, 2010

The Chief Information Officer and the staff or advisory groups of the NITC are occasionally called upon to provide analysis or review of technology initiatives, explanation of state-specific information technology data, and other requests as needed by the Governor and Legislature.

Policy and Funding Recommendations

Recommendations made by the commission to the Governor and Legislature have assisted policy and funding decisions.

Section 86-516 (8) directs the NITC to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel," as part of the biennial budget process. Prior to budget submissions, agencies submit IT plans which are reviewed by the Office of the CIO and the NITC Technical Panel. This information provides a context in which to better review IT projects submitted by agencies. Technical reviews of information technology projects are conducted by a team of reviewers. With input from the NITC State Government and Education Councils, the Technical Panel further reviews the project proposals. Using information from the review process, the NITC makes funding recommendations to the Governor and the Legislature by November 15 of each even-numbered year. The review process and prioritization of new IT projects provides policy makers with information about the objectives, justification, technical impact, costs, and risks of proposed systems. The agency comprehensive information technology plans and the project proposal forms for budget requests of new IT spending provide policy makers with far more information in a consistent format than before. The Technical Panel also conducts voluntary review of IT projects and projects awarded funding through the NITC Community Technology Fund and Government Technology Fund.

Policies, Standards, Guidelines, and Architectures

Policies, standards, guidelines, and architectures have been developed and observed.

In order to encourage interoperability and standardization, over 43 standards and guidelines have been adopted. The development of standards and guidelines has helped the State of Nebraska achieve greater interoperability and efficiency. The process encourages public input from all involved constituents. Most standards are developed by a work group consisting of stakeholders from state government agencies and other interested entities. The Technical Panel recommends approval of standards and guidelines to the NITC. All standards are approved at open NITC meetings after a 30-day comment period.

Within the past two years, 11 new or revised standards and guidelines have been adopted, including:

- Project Status Reporting
- Enterprise Projects
- Blocking Email Attachments
- Password Standard
- Scheduling Standard for Synchronous Distance Learning and Videoconferencing
- IT Procurement Review Policy
- Use of Computer-based Fax Services by State Government Agencies
- Acceptable Use Policy
- Web Branding and Policy Consistency
- Agency Information Technology Plan Form
- Social Media Guidelines

Information Technology Clearinghouse

An information technology clearinghouse has been established, maintained, and utilized of Nebraska's information technology infrastructure and of activities taking place in the state involving information technology, and the information flow between and among individuals and organizations has been facilitated as a result of the information technology clearinghouse.

The NITC's website and newsletter (www.nitc.ne.gov) serve as an information technology clearinghouse, providing access to an extensive amount of information including resources for communities, health care providers, educational entities, and state government.

The NITC website is the official repository for agenda, minutes, and documents for the NITC, its councils and their workgroups. The section on "Standards and Guidelines" provides access to all technical standards and guidelines adopted by the NITC or under development.

The NITC has published an electronic newsletter, *NITC.news*, since June, 2000. *NITC.news* provides current information on information technology issues and developments. The current readership is approximately 1,000. It includes public officials, community leaders, educational personnel, and interested persons. Past copies of *NITC.news* are available on the NITC website. The eHealth Council also publishes an electronic newsletter which is available from the NITC website.

Additionally, NITC staff members handle requests for information on technology projects and development and facilitate the exchange of information.

Input and Involvement of Interested Parties

Input and involvement of all interested parties has been encouraged and facilitated.

The NITC engages in collaborative processes, involving five advisory councils, the Technical Panel, and numerous workgroups and subcommittees. Additionally information is publicly distributed and public input is encouraged through the NITC's website, through e-mail distribution, and through publication of the NITC's monthly news letter, *NITC.news*. NITC staff also present information on NITC initiatives at conferences, workshops, and meetings across the state. The list of NITC Commissioners, council members, and Technical Panel members is included in this document.

Active work groups and subcommittees over the past two years include:

- State Government Council – Enterprise Content Management Shared Service Work Group
- State Government Council – Email Archive Work Group
- State Government Council – Webmasters Work Group
- Technical Panel – Accessibility of Information Technology Work Group

- Technical Panel – Learning Management System Standards Work Group
- Technical Panel – Security Architecture Work Group
- Technical Panel – Statewide Synchronous Video Network Work Group
- Community Council – Developing Websites for Community Growth Steering Committee
- eHealth Council – Health Information Security and Privacy Committee (HISPC)
- eHealth Council – HISPC Legal Work Group
- eHealth Council – HISPC Education Work Group
- eHealth Council – E-Prescribing Work Group
- eHealth Council – PHR Work Group
- eHealth Council – eHealth Plan Work Group
- GIS Council – Street Centerline-Address Database Work Group
- GIS Council – LiDAR Work Group
- GIS Council – Geospatial Data Sharing and Web Services Work Group
- GIS Council – Strategic Planning Work Group
- Education Council – Marketing Task Group
- Education Council – Services Task Group
- Education Council – E-rate/Funding Task Group
- Education Council – Network Nebraska Governance Task Group
- Education Council – Network Nebraska Advisory Group

Infrastructure Innovation, Improvement and Coordination

Long-term infrastructure innovation, improvement, and coordination has been planned for, facilitated, and achieved with minimal barriers and impediments.

The NITC is addressing long-term infrastructure innovation, improvement, and coordination through Network Nebraska and related initiatives.

Network Nebraska has aggregated statewide telecommunications to a common infrastructure, generated considerable cost savings to public entities, and decreased the unit cost of Internet service by leveraging the consolidated demand of all participating entities. Since September 2003, Network Nebraska has grown to serve the data and Internet service needs of all state agencies with outstate circuits, the University of Nebraska's four campuses, all six of the state's community colleges, all three state colleges, and more than 190 school districts under 14 different educational service units. The number of customers is expected to continue growing due to the favorable Internet

rates and the high quality of service offered by Network Nebraska. The number of educational entities is expected to grow even more when the last 60 public K-12 entities elect to join the Network. Additionally, 140 public libraries are 2010 recipients of grants from the federal Broadband Technology Opportunities Program and Bill and Melinda Gates Foundation to upgrade their infrastructure and public computer centers. The Network Nebraska K-20 sub-network is one possible alternative for them to interconnect with each other and purchase less expensive Internet.

Network Nebraska has been made possible through a cooperative effort of the state Office of the CIO, University of Nebraska, and Nebraska Educational Telecommunications, with policy assistance from the Nebraska Department of Education, and the Public Service Commission. This partnership is known as the Collaborative Aggregation Partnership (CAP).

The first phase of the multipurpose backbone became operational in September 2003, serving Omaha, Lincoln, and Grand Island with the second phase following in February 2004 extending service to Norfolk, Kearney, North Platte, and the Panhandle. In October 2006, the original circuit from Scottsbluff to Grand Island to Lincoln which served as a pilot for Network Nebraska was upgraded, providing Scottsbluff with the same capabilities as Omaha and Lincoln. The benefits of this upgrade include the ability to incrementally increase bandwidth and cost savings of up to 30%. More recently, the Office of the CIO rebid the statewide Internet contract for Network Nebraska to negotiate a 60% lower Internet rate to begin July 1, 2010 out of Omaha's Peter Kiewit Institute and Lincoln's Nebraska Hall. This will benefit all current and new Network Nebraska schools, ESUs and colleges that purchase their Internet service from the statewide master contract. Network Nebraska has also stimulated investments in telecommunications infrastructure.

Network Nebraska is not a state-owned network. Facilities are leased from private telecommunications providers in the state. In this way, the state hopes to stimulate private investment into Nebraska's telecommunications infrastructure.

Additionally, the NITC has facilitated the coordination and development of a statewide telehealth network. The Nebraska Statewide Telehealth Network currently connects 67 rural hospitals, eight regional medical centers which serve as hub sites, seven Omaha metropolitan hospitals, 17 public health departments, and six bioterrorism labs in Nebraska. Members of CAP have provided technical assistance in the development of the Nebraska Statewide Telehealth Network. The telehealth network will also be able to obtain telecommunications services at the same rate negotiated by the Chief Information Officer for Network Nebraska.

Awards and Recognition

- Governor Heinman was selected as one of the “2010 Top 25 Doers, Dreamers and Drivers” by *Government Technology* magazine.
- Nebraska received a grade of “B-” in the Center for Digital Government’s Digital States Survey in 2010.
- The State of Nebraska’s Web portal, Nebraska.gov, ranked in the top 10 in 2007, 2008 and 2009 Center for Digital Government’s Best of the Web awards.
- The Nebraska Judicial Branch Internet Payment System received an Honorable Mention in the 2010 Digital Government Achievement Awards.
- CIO Brenda Decker received the Meritorious Service Award from the National Association of State CIOs (NASCIO) at the NASCIO Annual Conference in September 2010.
- The State of Nebraska was awarded \$6.8 million through the State HIE Cooperative Agreement program by the U.S. Department of Health and Human Services, Office of the National Coordinator on March 15, 2010. The grant is being administered by the NITC/Office of the CIO.

Fun Facts

- 4 past and present Chairs (Kim Robak, Dave Maurstad, Dave Heineman, and Rick Sheehy) have presided over the NITC.
- 6 advisory groups (Community Council, Education Council, eHealth Council, GIS Council, State Government Council, and Technical Panel) have assisted the NITC.
- 43 standards and guidelines have been adopted by the NITC.
- 55 Commission meetings have been held.
- 23 work groups have been active during the past two years.
- 81% of Nebraska households have Internet service with 76% of them using broadband.¹ In comparison, 71% of U.S. households have Internet service with 64% having broadband service.²
- Nearly 1.7 million patients from Nebraska and neighboring states have information in NeHII's master patient index.
- Fifteen hospitals in Nebraska and Iowa and over 1,000 physicians and health care providers are participating in NeHII.
- The eHealth plans developed by the eHealth Council underwent 5 revisions before being approved by the Office of the National Coordinator. Nebraska was among the first 15 states to have plans approved.
- 228 education entities are currently served by Network Nebraska.
- 99% is the proportional reduction of the unit price of Internet since the State and University began cooperatively bidding the State's Internet (2002-2010).
- The Nebraska Statewide Radio Network is now available to state agency personnel in a 68 county area, including 310 State Patrol vehicles, as well as 67 percent of NPPD utility crews. When complete, the network will connect public safety personnel from seven state agencies and NPPD utility crews.
- The enterprise e-mail system has over 17,700 mailboxes and receives an average of 300,000 e-mails per weekday. Approximately 94% of these e-mails are stopped by filtering to eliminate spam, virus, and other threats.
- During 2010, the OCIO enterprise firewall blocked approximately 12,000 well-engineered attacks with the sole purpose of penetrating the State of Nebraska's network. While it also blocks thousands of other attacks daily, most of those are port scanning programs or some more common attack.

¹ See Internet Connectivity and Use in Nebraska--
http://www.psc.state.ne.us/home/NPSC/NTIA/Internet_Connectivity_and_Use_in_Nebraska.pdf .

² See Exploring the Digital Nation: Home Broadband Internet Adoption in the United States--
http://www.ntia.doc.gov/reports/2010/ESA_NTIA_US_Broadband_Adoption_Report_11082010.pdf .

Advisory Group Members

Technical Panel	Community Council	Education Council
<p>Walter Weir, Chair, University of Nebraska Computer Services Network</p> <p>Michael Winkle, Nebraska Educational Telecommunications</p> <p>Brenda Decker, Office of the CIO</p> <p>Christy Horn, University of Nebraska Central Administration</p> <p>Kirk Langer, Lincoln Public Schools</p>	<p>Norene Fitzgerald, Chair</p> <p>Chris Anderson, City of Central City</p> <p>Rod Armstrong, AIM Institute</p> <p>Linda Fettig, Nebraska Rural Development Commission</p> <p>Dean Folkers, Nebraska Department of Education</p> <p>Roger Hahn, Nebraska Information Network</p> <p>Darla Heggem, Twin Cities Development, Scottsbluff-Gering</p> <p>John Jordison, Great Plains Communications</p> <p>Lynn Manhart, Central City Public Library</p> <p>Joan Modrell, Nebraska Department of Labor</p> <p>Tim O'Brien, Nebraska Department of Economic Development</p> <p>Jerry Vap, Public Service Commission</p>	<p>Dr. Michael Chipps, Co-Chair, Mid-Plains Community College</p> <p>Dr. Terry Haack, Co-Chair, Bennington Public Schools</p> <p>Arnold Bateman, University of Nebraska-Lincoln</p> <p>Ed Hoffman, Nebraska State College System</p> <p>Clark Chandler, Nebraska Wesleyan University</p> <p>Ron Cone, ESU 10</p> <p>Randy Schmailzl, Metropolitan Community College</p> <p>Stephen Hamersky, Daniel J. Gross Catholic High School</p> <p>Yvette Holly, University of Nebraska Medical Center</p> <p>Jeff Johnson, Centennial Public Schools</p> <p>Chuck Lenosky, Creighton University</p> <p>Dennis Linster, Wayne State College</p> <p>Craig Pease, Ashland-Greenwood Public Schools</p> <p>Jeff Stanley, Conestoga Public Schools</p> <p>Leonard Hartman, Alliance Public Schools</p> <p>Dr. Bob Uhing, ESU 1</p> <p>Brenda Decker, Office of the CIO</p> <p>Dr. Marshall Hill, Coordinating Commission for Postsecondary Education</p> <p>Mike Kozak, Nebraska Department of Education</p> <p>Gary Targoff, Nebraska Educational Telecommunications Commission</p>

eHealth Council	GIS Council	State Government Council
<p>Dr. Delane Wycoff, Co-Chair, Pathology Services, PC</p> <p>Marsha Morien, Co-Chair, UNMC College of Public Health</p> <p>Kimberly Galt, Creighton University School of Pharmacy and Health Professions</p> <p>Wende Baker, Southeast Nebraska Behavioral Health Information Network and Region V Systems</p> <p>Joyce Beck, Thayer County Health Services</p> <p>Vivianne Chaumont, Department of Health And Human Services, Division of Medicaid and Long Term Care</p> <p>Susan Courtney, Blue Cross Blue Shield</p> <p>Joni Cover, Nebraska Pharmacists Association</p> <p>Joel Dougherty, OneWorld Community Health Centers</p> <p>Senator Annette Dubas, Nebraska Legislature</p> <p>Congressman Jeff Fortenberry, represented by Marie Woodhead</p> <p>Kimberly Galt, Creighton University School of Pharmacy and Health Professions</p> <p>Donna Hammack, Nebraska Statewide Telehealth Network and St. Elizabeth Foundation</p> <p>Alice Henneman, University of Nebraska-Lincoln Extension in Lancaster County</p> <p>Harold Krueger, Western Nebraska Health Information Exchange and Chadron Community Hospital</p> <p>Jeff Kuhr, Three Rivers Public Health Department, Fremont</p> <p>Ken Lawonn, NeHII and Alegent Health</p> <p>Sue Medinger, Department of Health and Human Services</p> <p>Kay Oestmann, Southeast District Health Department</p> <p>John Roberts, Nebraska Rural Health Association</p> <p>Greg Schieke, Wide River Technology Extension Center</p> <p>Nancy Shank, Public Policy Center</p> <p>Lianne Stevens, The Nebraska Medical Center, Omaha</p> <p>September Stone, Nebraska Health Care Association</p> <p>Steve Urosevich, Department of Correctional Services</p> <p>Vacant</p>	<p>Mike Schonlau, Chair, Omaha/Douglas County</p> <p>Jeff McReynolds, Vice Chair. Lincoln-area</p> <p>Chad Boshart, Military Department/Nebraska Emergency Management Agency</p> <p>Karis Bowen, Department of Health and Human Services</p> <p>Lash Chaffin, League of Nebraska Municipalities</p> <p>Timothy Cielocha, Nebraska Public Power District</p> <p>Steve Cobb, State Surveyor</p> <p>Jack Dohrman, Clerk of the Legislature</p> <p>Eric Herbert, Sarpy County GIS</p> <p>Les Howard, Conservation and Survey Division – UNL</p> <p>Mike Hybl, Public Service Commission</p> <p>Lauren Kinter, Governor’s Policy Research Office</p> <p>James Langtry, US Geological Survey</p> <p>Josh Lear, Department of Natural Resources</p> <p>John Miyoshi, Lower Platte North Natural Resources District</p> <p>Paul Mullen, Metropolitan Area Planning Agency</p> <p>James W. Ohmberger, Office of the CIO</p> <p>Sudhir Ponnappan, Nebraska Game and Parks Commission</p> <p>Mike Preston, Kirkham Michael</p> <p>Ruth Sorensen, Department of Revenue</p> <p>Bill Wehling, Department of Roads</p> <p>Paul Yamamoto, Department of Environmental Quality</p>	<p>Brenda Decker, Chair, Office of the CIO</p> <p>Michael E. Behm, Crime Commission</p> <p>Beverlee Bornemeier, Office of the CIO, Enterprise Computing Services (alternate)</p> <p>Dennis Burling, Department of Environmental Quality</p> <p>Mike Calvert, Legislative Fiscal Office</p> <p>Carlos Castillo, Department of Administrative Services</p> <p>Douglas Ewald, Department of Revenue</p> <p>Pat Flanagan, Private Sector</p> <p>John Gale, Secretary of State of Nebraska</p> <p>Rex Gittins, Department of Natural Resources</p> <p>Dorest Harvey, Private Sector</p> <p>Eric Henrichsen, Department of Health and Human Services</p> <p>Jeremy Hosein, Governor’s Policy Research Office</p> <p>Catherine Lang, Department of Labor</p> <p>Glenn Morton, Workers’ Compensation Court</p> <p>John Munn, Department of Banking and Finance</p> <p>Beverly Neth, Department of Motor Vehicles</p> <p>Gerry Oligmueller, DAS—Budget Division</p> <p>Marilyn Peterson, Department of Education</p> <p>Jayne Scofield, Office of the CIO, Network Services</p> <p>Robin Spindler, Department of Correctional Services</p> <p>Col. Bryan Tuma, Nebraska State Patrol</p> <p>Rod Wagner, Library Commission</p> <p>Janice Walker, Supreme Court</p> <p>Bill Wehling, Department of Roads</p>

Appendix

Policy Objectives and Review Criteria

Section 86-518 directs the NITC to submit a progress report to the Governor and Legislature by November 15 of each even-numbered year. This report is offered in fulfillment of that requirement.

Section 86-524 further directs the Appropriations Committee and Transportation and Telecommunications Committee to conduct a joint review of the activities of the NITC by the end of the calendar year of every even-numbered year. Section 86-524 also provides three objectives and a list of criteria for evaluating progress. This report is intended to provide information to assist the Legislature in conducting its review.

Policy Objectives

Section 86-524 states: "It shall be the policy of the state to:

1. Use information technology in education, communities, including health care and economic development, and every level of government service to improve economic opportunities and quality of life for all Nebraskans regardless of location or income;
2. Stimulate the demand to encourage and enable long-term infrastructure innovation and improvement; and
3. Organize technology planning in new ways to aggregate demand, reduce costs, and create support networks; encourage collaboration between communities of interest; and encourage competition among technology and service providers."

Review Criteria

Section 86-524 states: "In the review, the committees shall determine the extent to which:

1. The vision has been realized and short-term and long-term strategies have been articulated and employed;
2. The statewide technology plan and other activities of the commission have improved coordination and assisted policymakers;
3. An information technology clearinghouse has been established, maintained, and utilized of Nebraska's information technology infrastructure and of activities taking place in the state involving information technology, and the information flow between and among individuals and organizations has been facilitated as a result of the information technology clearinghouse;
4. Policies, standards, guidelines, and architectures have been developed and observed;

5. Recommendations made by the commission to the Governor and Legislature have assisted policy and funding decisions;
6. Input and involvement of all interested parties has been encouraged and facilitated; and
7. Long-term infrastructure innovation, improvement, and coordination has been planned for, facilitated, and achieved with minimal barriers and impediments.”