
Nebraska Information Technology Commission

Progress Report

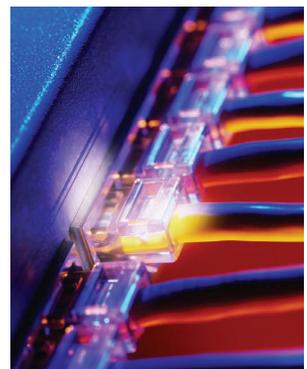
to

**Honorable Dave Heineman,
Governor**

and

**2006 Legislature,
Senator Pat Engel,
Executive Board Chair**

November 15, 2006





State of Nebraska
Nebraska Information Technology Commission
www.nitc.state.ne.us
501 S. 14th Street
P.O. Box 95045
Lincoln, NE 68509-5045
(402) 471-3560

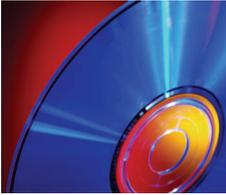
Contents

NITC Commissioners and Staff	4
Executive Summary	5
Introduction	7
Realization of Vision and Employment of Strategies	8
• Network Nebraska	9
• Nebraska Statewide Telehealth Network	10
• Statewide Synchronous Video Network	11
• Community IT Planning and Development	13
• Digital Education	15
• State Government Efficiency	16
• E-Government	17
• Security and Business Resumption	18
Improved Coordination and Assistance to Policymakers	19
Policy and Funding Recommendations	20
Policies, Standards, Guidelines and Architectures	21
Information Technology Clearinghouse	22
Input and Involvement of Interested Parties	22
Infrastructure Innovation, Improvement, and Coordination	23
Advisory Group Members	26
Appendix: Policy Objectives and Review Criteria	28

The vision of the NITC 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."



NITC Commissioners



Lieutenant Governor Rick Sheehy, Chair

Linda Aerni, Chief Executive Officer, Community Internet Systems

Pat Flanagan, Information Services Manager, Mutual of Omaha

Lance Hedquist, City Administrator, City of South Sioux City

Dr. Daniel J. Hoelsing, Superintendent, Laurel-Concord, Coleridge,
& Newcastle Public Schools

Mike Huggenberger, Director-Netlink, Great Plains Communications

Dr. Doug Kristensen, Chancellor, University of Nebraska at Kearney

Dr. Janie Park, President, Chadron State College

Trev E. Peterson, Attorney, Knudsen, Berkheimer, Richardson & Endacott, LLP

Senator Phil Erdman, Ex-officio Member

Staff

Brenda L. Decker, Chief Information Officer

Steve Henderson, IT Administrator, Planning and Project Management

Rick Becker, Government Information Technology Manager

Anne Byers, Community Information Technology Manager

Tom Rolfes, Education Information Technology Manager

Lori Lopez Urdiales, Administrative Assistant

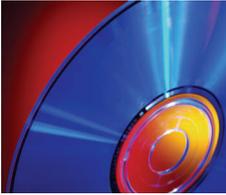
Executive Summary

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 adapt and therefore may never be completely realized. 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
 - Nebraska Statewide Telehealth Network
 - Statewide Synchronous Video Network
 - Community IT Planning and Development
 - 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. NITC Commissioners have also assisted policy makers by participating in the Distance Education Enhancement Task Force and the Broadband Services Task Force.
- 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 20 standards and guidelines. Within the past two years, 13 standards and guidelines have been adopted, including:

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 adapt and therefore may never be completely realized.





- Geospatial Metadata Standard
 - Land Record Information and Mapping Standards
 - Security Statement – State of Nebraska Home Page
 - Web Branding and Policy Consistency
 - Web Cookie Standard
 - E-mail Standard for State Government Agencies
 - Lotus Notes Guidelines for State Government Agencies
 - Lotus Notes Standards for State Government Agencies
 - Network Edge Device Standard for Entities Choosing to Connect to Network Nebraska
 - Information Technology Disaster Recovery Plan Standard
 - Wireless Local Area Network Standard
 - Identity and Access Management Standard for State Government Agencies
 - Scheduling Standard for Synchronous Distance Learning and Videoconferencing
-
- The NITC Web site and monthly newsletter serve as an information technology clearinghouse. Information on technology-related development for communities is also disseminated in partnership with Technologies Across Nebraska through a quarterly newsletter.
 - The NITC encourages and facilitates input and involvement of all interested parties by engaging in collaborative processes, involving three 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 three of its strategic initiatives: Network Nebraska, the Nebraska Statewide Telehealth Network, and the Statewide Synchronous Video Network. Network Nebraska has aggregated statewide telecommunications to a common infrastructure, lowering the unit cost of Internet service to participating entities by 67% through aggregated purchasing power. 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 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. The NITC, Technical Panel, and the Office of the Chief Information Officer, together with the entities that operate Network Nebraska, are working with education entities to implement LB 1208, creating a statewide distance learning system to replace aging, incompatible systems.

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 a nine-member commission, chaired by Lieutenant Governor 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 four advisory groups: the Community Council, Education 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.

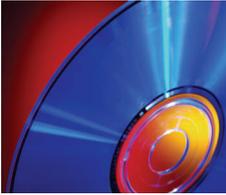
Section 86-518 directs the NITC to submit a progress report to the Governor and Legislature by November 15 of each even-numbered year. This report is offered in fulfillment of that requirement.

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.

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.





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
- Nebraska Statewide Telehealth Network
- Statewide Synchronous Video Network
- Community IT Planning and Development
- 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 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 adapt and therefore may never be completely realized.

Vision. The vision of the NITC 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. Developing 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.state.ne.us/stp).

The current list of strategic initiatives includes:

- Network Nebraska
- Nebraska Statewide Telehealth Network
- Statewide Synchronous Video Network
- Community IT Planning and Development
- 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

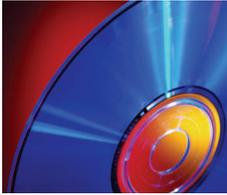
In order to develop a broadband, scalable telecommunications infrastructure that optimizes quality of service to public entities, the State of Nebraska and the University of Nebraska began aggregating their backbone network services into a single core network backbone called Network Nebraska in 2003. Aggregation of network services was expanded in 2004. Network Nebraska now extends to Norfolk, Omaha, Lincoln, Grand Island, Kearney, North Platte, and Scottsbluff. Data and Internet customers include all state agencies, the University of Nebraska system, all state colleges, three community colleges, and more than 270 school districts under ten educational service units. Network Nebraska has succeeded in lowering the unit cost



In July 2004, then Lieutenant Governor Dave Heine-man, UNL Assistant Vice Chancellor Kent Hendrickson, UNK Chancellor Doug Kristensen, and ESU 10 Systems Engineer Ron Cone “turned on” access to Internet 2 by Nebraska schools. Project 42—a consortium formed by ESUS 10, 11, 15, and 16—was able to deliver greater bandwidth and experience a savings of \$5,500 per month by joining Network Nebraska. Photo courtesy of ESU 10.

Network Nebraska now extends to Norfolk, Omaha, Lincoln, Grand Island, Kearney, North Platte, and Scottsbluff.





of Internet service to participating entities by 67% through aggregated purchasing power. 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%. Network Nebraska is not a state-owned network. Facilities and circuits are leased from private telecommunications providers in the state. In this way, the state hopes to stimulate private investment in Nebraska's telecommunications infrastructure.

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: DAS-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.

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. With the passage of LB 1208 in the 2006 Legislative session, Network Nebraska will become the primary transport for K-12 and higher education distance education services. Potential benefits of utilizing Network Nebraska for distance education include flexible bandwidth utilization, IP addressing, lower network costs, greater efficiency, interoperability of systems providing video courses and conferencing, increased collaboration among educational entities, new educational opportunities, and better use of public investments.

Nebraska 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. The network is used for patient consultations, teleradiology, trauma and emergency room care, continuing medical education, emergency communications and bioterrorism preparedness training, video medical interpreting services, and administrative meetings.

The Nebraska Statewide Telehealth Network is a collaborative effort of the Nebraska Hospital Association, Nebraska hospitals, the State of Nebraska (including the Nebraska Information Technology Commission, Office of the Chief Information Officer, Nebraska Public Service Commission, and Health and Human Services System), the University of Nebraska, area health education centers, the Nebraska Medical Association, and Nebraska telecommunications companies. Technical as-

sistance was provided by the University of Nebraska and the State of Nebraska.

The Nebraska Statewide Telehealth Network is improving patient outcomes and expanding continuing education opportunities for health professionals. Approximately 1,000 patient consultations were conducted over the network between July 1, 2005 and June 30, 2006. Mental health consultations and teleradiology are the services most often provided via the network. Telehealth helps patients reduce travel time and costs. In some cases, telehealth supports the mental and emotional health of patients who may not be willing or able to receive care the traditional way.

The Nebraska Statewide Telehealth Network is improving the operation of government in several ways. The system has greatly enhanced bioterrorism and public health preparedness. On February, 23, 2006 over 70 sites participated in the Avian Bird Flu Conference lead by U. S. Health and Human Services Secretary Mike Leavitt. The telehealth network is also generating significant savings in staff time and mileage costs, saving hospitals and public health departments over \$750,000 in staff time and nearly \$700,000 in mileage costs between January 2005 and May 2006.



The Nebraska Statewide Telehealth Network is improving patient outcomes and expanding continuing education opportunities for health professionals.

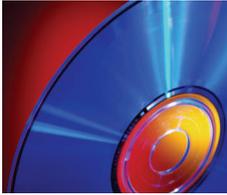
Born four months early and weighing only 13.9 ounces, Trey Keifer is the tiniest baby to ever survive at Saint Elizabeth Regional Medical Center. Through the Nebraska Statewide Telehealth Network, Trey's mother, Jessica Keifer, was able to arrange support services in North Platte; family members in North Platter were able to see Trey and to visit Jessica; and Trey's neonatologists at Saint Elizabeth were able to discuss his medical needs and care. Photo courtesy of Saint Elizabeth Regional Medical Center.

Statewide Synchronous Video Network

The NITC, Technical Panel, and the Office of the CIO, together with the entities that operate Network Nebraska, are working with education partners to create a statewide education network that is capable of transmitting voice, video, and data. With the conversion to IP networking over the next three years, distance education opportunities for students will become richer and more abundant. Classes will begin to be offered over this new network in August 2007.

The 400+ interactive video facilities in Nebraska currently utilize a variety of video technologies and bandwidth speeds that prevent interconnection between regional distance learning networks. Additionally, the legacy equipment in much of the state is no longer being supported by manufacturers.





Members of the first Edgerton Elite Science Camp videoconference with NASA astronaut and Nebraska native Clayton Anderson from the Edgerton Explorit Center's distance learning room. The new K-12 distance education network will expand educational opportunities like this to Nebraska schools. Photo courtesy of Edgerton Explorit Center.



In 2005, LB 689 established a Distance Education Enhancement Task Force to study the issue and make recommendations. Lieutenant Governor Rick Sheehy and Commissioner Eric Brown represented the NITC on the task force. Additionally, CIO Brenda Decker served on the task force as a representative of Governor Heine- man. Education IT Manager Tom Rolfes provided staff support to the task force.

The Distance Education Task Force issued a Distance Education Improvement Plan on Dec. 31, 2005. The plan is based on three general principles. First, school districts, educational service units (ESUs), and public postsecondary education institutions retain responsibility for making decisions related to participation in distance education. Second, the plan encourages the exchange of distance education courses using Network Nebraska. Third, the plan provides for statewide coordination through a new entity, the Distance Education Council. The Distance Education Improvement Plan formed the basis for LB 1208 which was signed into law this spring.

With the conversion to IP networking over the next three years, distance education opportunities for students will become richer and more abundant.

The NITC, Technical Panel, Network Nebraska, Chief Information Officer Brenda Decker, and Office of the CIO staff have been actively involved in many aspects of LB 1208 implementation. The NITC approved two standards related to distance education in 2006: the Scheduling Standard for Synchronous Distance Learning and Videoconferencing and the Network Edge Device Standard for Entities Choosing to Connect to Network Nebraska. The Chief Information Officer is handling bidding for equipment related to distance education for school districts, ESUs, and postsecondary institutions who want to participate in statewide leasing and/or purchasing contracts. An RFP for scheduling software was issued in October 2006. Three additional RFPs are being prepared. The Chief Information Officer and Network Nebraska have also been developing policies and procedures to allow school districts, ESUs, and public postsecondary education institutions to connect to Network Nebraska.

Community IT Planning and Development

The NITC has undertaken several projects which promote IT planning and development in Nebraska communities. In order to leverage state resources, the NITC has partnered with the University of Nebraska and other entities with an interest in technology-related development through Technologies Across Nebraska. Technologies Across Nebraska is a partnership of over 40 organizations led by the University of Nebraska Cooperative Extension, the Nebraska Rural Initiative, and the Nebraska Information Technology Commission. Technologies Across Nebraska facilitates technology-related development by building partnerships, leveraging resources, and strengthening community capacity.

Recent efforts have focused on introducing podcasting to Nebraska communities. Podcasting is a method of distributing audio and video files over the Internet. These files can be stored and played on computers or portable media devices at the listener's convenience. Podcasting is experiencing tremendous growth and could be an effective way to promote tourism, attractions, historic walking tours, trails, recreational areas, and other activities.

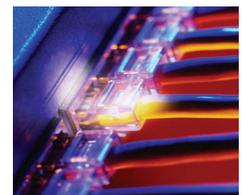
In 2006, Technologies Across Nebraska introduced the Podcasting Across Nebraska program to help local communities and regional groups develop podcasts to promote tourism and other activities. The program began in August 2006 with the training of nearly 30 individuals from the University of Nebraska, State of Nebraska, and other entities with an interest in promoting the effective use of technology in Nebraska communities. These individuals will help promote the use of podcasting and will provide training on podcast production in Nebraska communities. In August 2006, Technologies Across Nebraska also began accepting applications from communities and regional groups interested in participating in the program. Participants will be announced in November 2006. Communities and regional groups participating in the program will receive training on podcast production as well as equipment and software to produce podcasts. The University of Nebraska's mobile computer lab, the BITMobile, will be used to provide training on podcasting across the state. Network Nebraska will host podcasts produced through this program for 2 years.

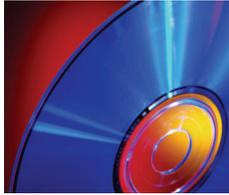
Technologies Across Nebraska also produces a quarterly newsletter on technology-related development. *TANgents* reaches approximately 1,500 individuals and is helping

Linda Fettig, Executive Director of the Nebraska Rural Development Commission, records her thoughts on podcasting during a podcast training session for resource providers.



In 2006, Technologies Across Nebraska introduced the Podcasting Across Nebraska program to help local communities and regional groups develop podcasts to promote tourism and other activities.





In 2005, the NITC awarded mini grants for projects which enhance economic and workforce development efforts.

Nebraskans understand the importance of IT-related community and economic development. *TANgents* is available from Technologies Across Nebraska's Web site (technologiesacrossnebraska.unl.edu). Respondents to a reader survey indicated that *TANgents* was a useful source of information and helped them learn about available resources. One reader commented, "*TANgents* plays an important role in keeping Nebraskans aware of development and new opportunities to improve IT options for rural citizens in the State. I hope you will continue to provide this service."

In 2005, the NITC awarded mini grants to Wayne Public Library, Hartington Public Library, Atkinson Public Library, City of Aurora, and UNL Extension in Burt County for projects which enhance economic and workforce development efforts through the Technology Innovation Grants for Economic Revitalization (TIGER) program.

The City of Aurora received \$5,000 to analyze what IT services, materials, and products are purchased from outside the geographic area. This information will be used to target IT enterprises for recruitment to Aurora. The Aurora Technology Center is also updating its Web site and brochure. Since the implementation of the TIGER grant, additional grants from Microsoft and USDA Rural Development have been secured. The TIGER grant has been a catalyst that helped generate much enthusiasm and brought forth numerous community volunteers to aid in the overall effort to work towards the recruitment and retention of information technology businesses and services.

Wayne Public Library received \$1,680 to develop and offer technology classes on Basic Excel, Basic PowerPoint, Job Searching on the Internet, and Basic Computer Strategies. The classes have made the library more visible in the business community.

The Hartington Public Library received \$2,119 to purchase four computers to provide patrons with better access to information, greater continuing education opportunities, and technology expertise. Classes have been offered on electronic retailing, beginning computers, computer maintenance and security, and Excel applications. A series of computer workshops for senior citizens was also offered.

The Atkinson Public Library purchased two computers in order to offer the Edge entrepreneurial training program at the library. Eleven students completed the program. Students used the computers in class to research information and out-



Lieutenant Governor Rick Sheehy presents Wayne Public Library Director Luran Lofgren with a "check" for \$1,680. Five Nebraska communities received mini grants from the Technology Innovation Grants for Economic Revitalization (TIGER) program.

side of class to complete assignments. A new business has been started by a student enrolled in the class. Now that the Edge class is finished, two high school students are starting a computer class for seniors. Library patrons use the computers daily to retrieve e-mail, surf the Internet, or to use the Microsoft Office programs the library has available. The library will be offering computer classes during the winter months.

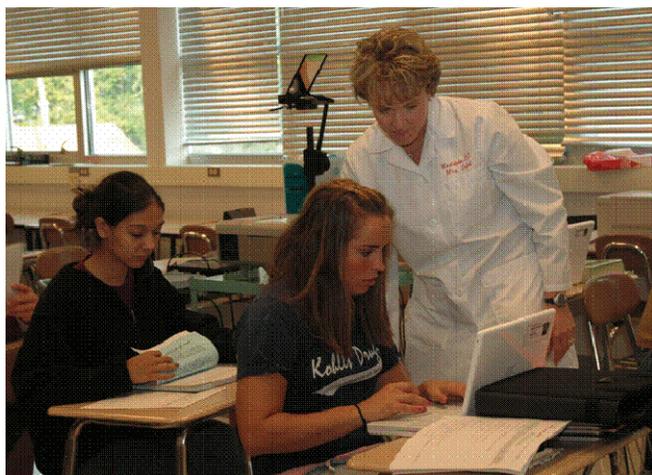
UN-L Extension in Burt County received \$5,000 to build a business portal for home-based and small businesses to market goods and services produced in the Oakland (NE) area. The goal is to initially offer a free Web presence to spur growth in local businesses. As these businesses grow and their needs change, so will their Web sites. The business portal will be sustained by having businesses owners pay for modifications, upgrades and more sophisticated back-end applications as 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 NITC sponsored a series of six day-long planning workshops across the state in 2004 that brought staff together from a variety of education entities. The workshops revealed that K-12 and higher education shared many similarities and challenges in licensing, rising costs, technical support, training, and instructional design. There was interest in the NITC continuing facilitation of statewide activities and updates.

The workshops revealed that K-12 and higher education shared many similarities and challenges in licensing, rising costs, technical support, training, and instructional design.



Many K-12 schools as well as colleges and universities in Nebraska are using online support tools to enhance student learning. Westside High School teacher Brenda Zabel uses Blackboard.com in her classes. Video tutorials let students replicate and review lab activities. Posted assignments can be printed and completed. A discussion board provides “virtual office hours.” Students may electronically post comments and questions, and classmates and teachers can respond to their postings.



Network Nebraska will go through a significant upgrade process beginning 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 distance-insensitive Internet pricing;
- Develop a statewide eLearning environment so that every teacher and every learner has access to a Web-based, digital curriculum;
- Develop 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;
- Enable synchronous videoconferencing interconnections between all schools and colleges [see Statewide Synchronous Video Network];
- Have the capacity to coordinate and facilitate essential education opportunities for all students through a statewide student information system for K-12; and
- Establish regional PreK-20 education cooperatives that vertically articulate educational programs and opportunities.

LB 1208 tasked the development of statewide standards for learning management systems to the Technical Panel. The Technical Panel plans to begin development of these standards in November 2006.

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 20 standards and guidelines have been adopted. Within the past two years, 13 standards and guidelines have been adopted, including:

- Geospatial Metadata Standard
- Land Record Information and Mapping Standards
- Security Statement – State of Nebraska Home Page
- Web Branding and Policy Consistency
- Web Cookie Standard
- E-mail Standard for State Government Agencies
- Lotus Notes Guidelines for State Government Agencies
- Lotus Notes Standards for State Government Agencies
- Network Edge Device Standard for Entities Choosing to Connect to Network Nebraska
- Information Technology Disaster Recovery Plan Standard
- Wireless Local Area Network Standard

Early in 2005 the State of Nebraska launched a shared services initiative to consolidate the purchase and operations of certain technology services.

- Identity and Access Management Standard for State Government Agencies
- Scheduling Standard for Synchronous Distance Learning and Videoconferencing

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 potential services which could be offered as a shared service. Enterprise agreements with major providers have proven to be a key cost saving strategy. In FY2006 over \$500,000 was saved by coordinating purchases of IBM licenses and maintenance agreements. The total savings for FY2007 will be \$610,000. Due to the success of enterprise purchasing from IBM, cities and counties are exploring aggregating their contracts with State of Nebraska contracts. Agencies continue to benefit from the enterprise agreement in place with Microsoft. The Office of the CIO also coordinated the State's application for a settlement with Microsoft, resulting in state agencies qualifying for \$173,133 in vouchers for eligible purchases. The State of Nebraska is working with providers of anti-virus software to obtain better pricing for state agencies. An enterprise Blackberry service was launched in June 2005, saving more than \$28,000. Shared Storage Area Network (SAN) services were deployed in April 2006. Other services identified for shared services include business continuity/disaster recovery, directory services, consolidated e-mail, field services support, and GIS.

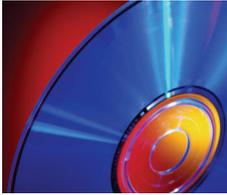
E-Government

Nebraska has been recognized as a leader in e-government. Nebraska ranked 14 in the Center for Digital Government's Digital States Survey in 2006, up from 22 in 2004. The State's Web portal, Nebraska.gov, was recognized by the Center for Digital Government as one of the top state Web portals in 2005. Nebraska.gov, was redesigned in June 2005 and offers over 300 services. Enhancements to Nebraska.gov include virtual tours of the Capitol and Governor's office, a help center which can instantly connect users to an operator; a robust search engine; an improved statewide public meeting calendar; an e-mail notification service which provides updates on the activities of state agencies, boards, and commissions; and a "How Do I?" section that provides direct links to frequently requested information and services. Nebraska is among the first states in the nation to utilize Really Simple Syndication (or RSS) technology to deliver up-to-the-minute news and information to the desktops of citizens.

Individual agencies are also using e-government to improve customer service and to increase efficiency. The Department of Roads' Internet bidding service has reduced potential errors and alleviated the costly transcription of bid data. The service is popular with contractors because it saves them time and money. Online tax

Nebraska has been recognized as a leader in e-government. Nebraska ranked 14 in the Center for Digital Government's Digital States Survey in 2006.





filing is another service that has improved state government efficiency and provided more convenient services for our citizens. Banks, title companies and law firms can obtain court records online using the JUSTICE system, saving their employees a drive to the county courthouse. The BillTracker Service allows users to monitor legislative activity and receive automated e-mail updates as legislation of interest to them progresses.

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. The 2006 conference will target managers and address their concerns regarding technology implementation and management.

Lieutenant Governor Rick Sheehy has been leading a series of discussions with agency directors to contemplate business priorities and timelines for restoration in the wake of a disruptive event. Nebraska is one of the first states to discuss restoration priorities.

Security and Business Resumption

The State of Nebraska continues to make progress in addressing security and business resumption. Steve Hartman was named the State's Information Security Officer. Under his facilitation, the NITC Security Workgroup resumed meeting on a monthly basis, and most standards and guidelines were reviewed and prioritized for updates. Two new standards have been developed: the Remote Access Guidelines and the Wireless Local Area Network Standard. Beginning in January 2006, the Office of the CIO began capturing security metrics measuring Help Desk calls, network activity, and e-mail statistics to aid in identifying areas of security concerns and hacker activity. On May 24, 2006 the first Nebraska Cyber Security Conference was held. The conference was geared toward veteran front-line workers and offered practical information in break out sessions that could be applied immediately upon returning to work. A capacity crowd listened to nationally recognized speakers Patrick Gray, Dr. Bill Hancock, and Dr. Blaine Burnham speak about current security threats and issues. A threat assessment is currently being completed. Every server in the State of Nebraska was included in the assessment. A Cyber Security Web site has been developed (www.nebraska.gov/cybersafe) to keep the public and State of Nebraska employees informed of security issues.

Disaster recovery and business continuity has also been addressed. More than 10 meetings of the Disaster Recovery Shared Services group have taken place. As a result, the NITC standard for disaster recovery planning was revised and approved. A



Dr. Blaine Burnham presents at the first Nebraska Cyber Security Conference on May 24, 2006.

“standard contents” outline pertaining to agency disaster recovery plans is under final review. The Office of the CIO and the NITC continue joint efforts with the University of Nebraska to improve mutual recovery capabilities. Lieutenant Governor Rick Sheehy has been leading a series of discussions with agency directors to contemplate business priorities and timelines for restoration in the wake of a disruptive event. Nebraska is one of the first states to discuss restoration priorities.

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 January 2006. The plan focuses on eight strategic initiatives:

- Network Nebraska
- Nebraska Statewide Telehealth Network
- Statewide Synchronous Video Network
- Community IT Planning and Development
- 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 hospitals, 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.

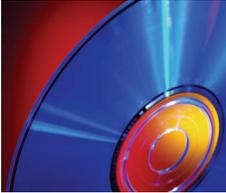
NITC Commissioners have also participated in two task forces formed by the Legislature. The Distance Education Enhancement Task Force created by LB 689 (2005), met from July to December 2005, and included membership from the NITC (Lt. Governor Sheehy, Dr. Eric Brown) and a representative of the Governor’s Office

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.



(CIO Brenda Decker). In addition, five of the 14 staff members of the Task Force came from either the NITC staff, Education Council, or Technical Panel.

The NITC has also participated in the Broadband Services Task Force created by LB 645 to study issues related to wholesale provision of broadband by public power suppliers. Lieutenant Governor Rick Sheehy, Chancellor Doug Kristensen, Commissioner Linda Aerni represented the Commission on the Task Force. The Task Force will present its findings to the Legislature by Dec. 1, 2006. Support for the task force was provided by staff of the Nebraska Information Technology Commission.



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 18, 2005
- LB 921 hearing for members of the Government, Military and Veterans Affairs Committee on January 26, 2006
- LB 1208 hearing for members of the Education Committee on Feb. 13, 2006
- Briefing for members of the Appropriations Committee on the Statewide Radio System on Feb. 6, 2006

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

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.

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, for which new or additional funding is requested” 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.

Policies, Standards, Guidelines, and Architectures

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

In order to encourage interoperability and standardization, over 20 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.

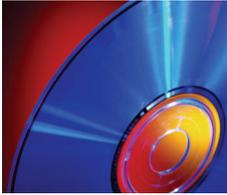
Within the past two years the following standards and guidelines have been adopted:

- Geospatial Metadata Standard
- Land Record Information and Mapping Standards
- Security Statement – State of Nebraska home Page
- Web Branding and Policy Consistency
- Web Cookie Standard
- E-mail Standard for State Government Agencies
- Lotus Notes Guidelines for State Government Agencies
- Lotus Notes Standards for State Government Agencies
- Network Edge Device Standard for Entities Choosing to Connect to Network Nebraska
- Information Technology Disaster Recovery Plan Standard
- Wireless Local Area Network Standard
- Identity and Access Management Standard for State Government Agencies
- Scheduling Standard for Synchronous Distance Learning and Videoconferencing

The development of standards and guidelines has helped the State of Nebraska achieve greater interoperability and efficiency.



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 Web site (www.nitc.state.ne.us) and newsletter serve as an information technology clearinghouse, providing access to an extensive amount of information including resources for communities, educational entities, and state government.

The NITC Web site 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 a monthly 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 Web site.

Technologies Across Nebraska also produces a quarterly electronic newsletter, *TANgents*, which helps Nebraskans understand the importance of IT-related community and economic development. Respondents to a reader survey indicated that *TANgents* was a useful source of information and helped them learn about available resources.

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

The NITC's Web site and newsletter serve as an information technology clearinghouse, providing access to an extensive amount of Information resources for communities, educational entities, and state government.

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 three advisory councils, the Technical Panel, and numerous workgroups and subcommittees. Additionally information is publicly distributed and public input is encouraged through the NITC's Web site, 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:

- Telehealth Subcommittee
- Technologies Across Nebraska
- Internet2 Steering Committee
- Synchronous Video Standards Work Group
- Directory Services Work Group
- E-Government Strategy Work Group
- Lotus Notes Collaboration Work Group
- Juvenile Data Sharing Work Group
- Accessibility Work Group
- Security Standards Work Group
- Statewide Synchronous Video Work Group
- LB 1208 Cost Structure and Billing Activity Group
- LB 1208 Distance Education Council Collaboration Activity Group
- LB 1208 Network Nebraska Design/Support Activity Group
- LB 1208 Statewide eRate Application Activity Group
- LB 1208 Statewide Scheduling System Activity Group
- LB 1208 Edge Device Bidding Activity Group
- LB 1208 Video Codec Bidding Activity Group
- LB 1208 Other Distance Learning Equipment Bidding Activity Group

The NITC engages in collaborative processes, involving three advisory councils, the Technical Panel, and numerous workgroups and subcommittees.

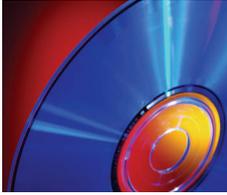
Infrastructure Innovation, Improvement and Coordination

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

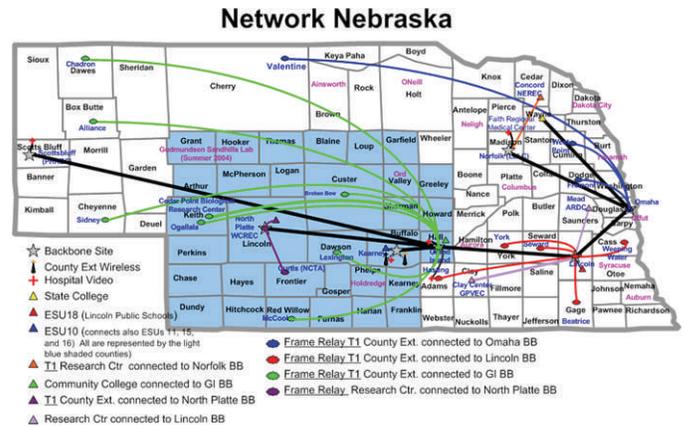
The NITC is addressing long-term infrastructure innovation, improvement, and coordination through three of its strategic initiatives: Network Nebraska, Nebraska Statewide Telehealth Network, and the Statewide Synchronous Video Network. Although separate initiatives, their development is being carefully coordinated in order to reduce costs and maximize efficiency and interoperability.

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





Network Nebraska is one of three initiatives through which the NITC is addressing infrastructure development. By aggregating State telecommunications services to a common core backbone, Network Nebraska has generated cost savings to public entities. Facilities are leased from private telecommunications providers, stimulating private investment into Nebraska's telecommunications infrastructure.



The NITC is addressing long-term infrastructure innovation, improvement, and coordination through Network Nebraska, the Nebraska Statewide Telehealth Network, and the Statewide Synchronous Video Network.

University of Nebraska's four campuses; ten of the Educational Service Units; three of the state's community colleges; all three state colleges; and three independent colleges. 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.

Network Nebraska has been made possible through a cooperative effort of the CIO-Division of Communications, 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).

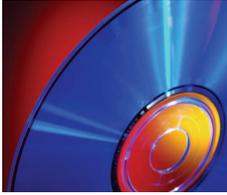
The first phase of the multipurpose backbone became operational in September 2003 serving Omaha, Lincoln, and Grand Island with the second phase following in February 2004 extending service to Norfolk, Kearney, North Platte, and the Panhandle. In October 2006, the original circuit from Scottsbluff to 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%. 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 is facilitating the coordination and development of a statewide telehealth network and a statewide synchronous video 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.

The NITC, Technical Panel, and Office of the CIO, together with the entities that operate Network Nebraska, are working with education entities to create a statewide distance learning system to replace aging, incompatible systems. The NITC approved two standards related to distance education in 2006: the Scheduling Standard for Synchronous Distance Learning and Videoconferencing and the Network Edge Device Standard for Entities Choosing to Connect to Network Nebraska. The Chief Information Officer is handling bidding for equipment related to distance education for school districts, ESUs, and postsecondary institutions who want to participate in statewide leasing and/or purchasing contracts. An RFP for scheduling software was issued in October 2006. Three additional RFPs are being prepared. The Chief Information Officer and Network Nebraska have also been developing policies and procedures to allow school districts, ESUs, and public postsecondary education institutions to connect to Network Nebraska.

The NITC has also participated in the Broadband Services Task Force created by LB 645 to study issues related to wholesale provision of broadband by public power suppliers. Lieutenant Governor Rick Sheehy, Chancellor Doug Kristensen, and Commissioner Linda Aerni represented the Commission on the Task Force. The Task Force will present its findings to the Legislature by Dec. 1, 2006.





Advisory Group Members

Community Council	Education Council	State Government Council
<p>Ted Smith, Chair, Norfolk Public Library</p> <p>Stacey Aldrich, Omaha Public Library</p> <p>Chris Anderson, City of Central City</p> <p>K.C. Belitz, Columbus Area Chamber of Commerce</p> <p>Len Benson, Faith Regional Health Systems</p> <p>Scott Bovick, City of Nebraska City</p> <p>Don Costello, University of Nebraska</p> <p>Linda Fetting, Rural Development Commission</p> <p>Norene Fitzgerald, York County Development Corporation</p> <p>Donna Hammack, St. Elizabeth Hospital Foundation</p> <p>John Jordison, Great Plains Communications</p> <p>Brandon Kelliher, Great Plains Regional Medical Center</p> <p>Lynn Manhart, Central City Public Library</p> <p>Brad McPeak, AIM Institute</p> <p>Michael Nolan, City of Norfolk</p> <p>Max Thacker, University of Nebraska Medical Center</p> <p>Jerry Vap, Public Service Commission</p> <p>Steve Williams, Department of Economic Development</p> <p>Delane Wycoff, MD, Pathology Services, PC</p>	<p>Dr. Jack Huck, Co-Chair, Southeast Community College</p> <p>Dr. Terry Haack, Co-Chair, Bennington Public Schools</p> <p>Arnold Bateman, University of Nebraska-Lincoln</p> <p>Stan Carpenter, Nebraska State College System</p> <p>Clark Chandler, Nebraska Wesleyan University</p> <p>Ron Cone, ESU 10</p> <p>Dr. Eileen Ely, Western Nebraska Community College</p> <p>Yvette Holly, University of Nebraska Medical Center</p> <p>Jeff Johnson, Centennial Public Schools</p> <p>Joe LeDuc, Catholic Diocese of Lincoln</p> <p>Chuck Lenosky, Creighton University</p> <p>Dennis Linster, Wayne State College</p> <p>Rich Molettiere, Omaha North High School</p> <p>Ed Rastovski, Wahoo Public Schools</p> <p>Linda Richards, Ralston Public School Board</p> <p>Bob Uhing, ESU 1</p> <p>Non-Voting Liaisons</p> <p>Brenda Decker, Chief Information Officer</p> <p>Dr. Marshall Hill, Coordinating Commission for Postsecondary Education</p> <p>Mike Kozak, Nebraska Department of Education</p> <p>Michael Winkle, Nebraska Educational Telecommunications Commission</p>	<p>Brenda Decker, Chair, Chief Information Officer</p> <p>Bob Beecham, Department of Education</p> <p>Michael E. Behm, Crime Commission</p> <p>Dennis Burling, Department of Environmental Quality</p> <p>Mike Calvert, Legislative Fiscal Office</p> <p>Tom Conroy, CIO—IM Services</p> <p>John Craig, Department of Roads</p> <p>Mary Jane Egr, 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>Lauren Hill, Governor’s Policy Research Office</p> <p>Butch Lecuona, Department of Labor</p> <p>Scott McFall, Nebraska State Patrol</p> <p>Glenn Morton, Workers’ Compensation Court</p> <p>Dick Nelson, Health and Human Services—Finance and Support</p> <p>Beverly Neth, Department of Motor Vehicles</p> <p>Gerry Oligmueller, DAS—Budget Division</p> <p>Jayne Scofield, CIO—Division of Communications</p> <p>Robin Spindler, Department of Correctional Services</p> <p>Rod Wagner, Library Commission</p> <p>Janice Walker, Supreme Court</p>

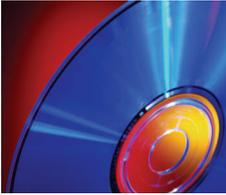
Technical Panel

Walter Weir, Chair,
University of Nebraska
Brenda Decker,
Chief Information Officer
Michael Beach,
Nebraska Educational
Telecommunications
Commission
Christy Horn,
University of Nebraska—
Lincoln
Kirk Langer,
Lincoln Public Schools



The NITC encourages collaboration among its advisory groups. The Technical Panel hosted a joint meeting of all of the NITC advisory groups on August 9, 2005.





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."





Nebraska Information Technology Commission
www.nitc.state.ne.us

