

Network Nebraska 2010

Objective

- To develop a broadband, scalable telecommunications infrastructure that optimizes the quality of service to every public entity in the State of Nebraska.

Description

Network Nebraska aggregates disparate networks into a multipurpose core backbone extending from Omaha to Lincoln to Grand Island, with Ethernet clouds extending out to the furthest corners of the state. The State of Nebraska Office of the CIO, the University of Nebraska, Nebraska Educational Telecommunications Commission, Department of Education, Public Service Commission, and the Nebraska Information Technology Commission have formed the Collaborative Aggregation Partnership (CAP) to guide and implement Network Nebraska. The next phase of this initiative is to formalize business relationships and agreements and to enhance rural bandwidth through local aggregation.

The major components of this initiative include:

- Development of a scalable, reliable, and secure telecommunications infrastructure that enables any type of eligible entity (i.e., local and state government, K-12 and higher education, health care institutions) to purchase the amount of service that the entities need, when they need it, on an annual basis;
- Establishment of a catalog of value-added services that enables eligible entities to pick and choose applications that are pertinent to them (e.g., Internet1, Internet2, and videoconferencing);
- Implementation of a network operations center that offers a helpdesk, network diagnostics, and engineering assistance in order to ensure acceptable qualities of service;
- Establishment of a billing or accounting center to accept service orders, extend service agreements, provide consolidated billing, and to maintain customer accounts;
- The organization of advisory groups (i.e. Network Nebraska—Education) that can provide input and recommendations on network issues to the executive sponsors of such networks.

Benefits

Through aggregation of demand, adoption of common standards, and collaboration with network services and applications, participants can achieve many benefits, including:

- Lower network costs;
- Greater efficiency for participating entities;
- Interoperability of systems providing video courses and conferencing;
- Increased collaboration among all K-20 educational entities;
- New educational opportunities;
- Competitiveness with surrounding states; and
- Better use of public investments.

Action Plan

Current Action Items

1. Identify Tier II communities that offer opportunities for aggregation for services onto the network.

Action: The CAP will work with communities that express an interest in aggregating their public sector transport.

Lead: Network Nebraska (CAP)

Participating Entities: Specific communities, NITC Community Council, Nebraska League of Municipalities, Nebraska Association of County Officials, and public libraries

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation as is

2. The Chief Information Officer will continue the LB 1208 implementation by annually bidding infrastructure and connectivity for new regions of participants and developing the most cost-effective and efficient support structure possible for the statewide network.

Action: The Network Nebraska network design/support team will develop a memorandum of agreement with local and regional education entities in order to develop a cooperative support system for the statewide education network that will mitigate data transport and synchronous video problems.

Lead: Network Nebraska (CAP)

Participating Entities: Network Nebraska—Education Advisory Group, ESU-NOC, Higher education entities, NITC Education Council

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation as is

Action: The Chief Information Officer will annually update the State master purchase contracts for edge devices and monitor the local site purchases of such equipment in order to promote and encourage network equipment standardization.

Lead: Chief Information Officer

Participating Entities: Network Nebraska (CAP), ESU-NOC

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

3. Offer Internet I services to eligible network participants.

Action: The CAP will accept new orders for Internet service and continue to aggregate purchasing demand to secure a more economical price for statewide Internet service.

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, ESU-NOC, Higher Education Entities

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation as is

4. Prepare for the future of Network Nebraska as a statewide, multipurpose network.

Action: Develop appropriate participation criteria (e.g. type of entity, bandwidth expectations) and a differential catalog of services and fees for Network Nebraska to serve all network participants (i.e. public/nonpublic K-12, public/nonpublic higher education, museums, science centers, libraries, others).

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, Network Nebraska—Education Advisory Group

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

Action: Charter a work group to research advanced network services for Network Nebraska participants.

Lead: Network Nebraska (CAP)

Participating Entities: Network Nebraska—Education Advisory Group, NITC Education Council

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation as is

Action: Develop an online E-rate cost allocation calculator that will enable K-12 and non-K-12 entities to estimate the ineligible telecommunications costs resulting from offering non-K-12 services in a K-12 facility.

Lead: Education Council Funding/E-rate Task Group

Participating Entities: Distance Education Council

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

Action: Work to change the federal E-rate policies that create impediments and financial disincentives for collaborative usage of networks and videoconferencing by ineligible populations (Pre-K, adults, telehealth, etc...).

Lead: Nebraska E-rate Coordinator

Participating Entities: Educational Service Units, NITC Education Council

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: Continuation as is

Action: Annually reissue the Network Nebraska Marketing Survey and subsequent Report to help steer the strategic direction of Network Nebraska—Education.

Lead: Education Council Marketing Task Group

Participating Entities: Network Nebraska—Education Advisory Group.

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: New

Action: Annually update the Network Nebraska Marketing Plan.

Lead: Education Council Marketing Task Group

Participating Entities: Network Nebraska—Education Advisory Group.

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: New

Action: Research and pursue grant writing that would assist with the deployment of statewide technology services.

Lead: Education Council Marketing Task Group

Participating Entities: Network Nebraska—Education Advisory Group, ESU Coordinating Council.

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: New

Action: Review the viability and effectiveness of the Network Nebraska—Education Advisory Group and make appropriate changes to affect its structure, membership and meeting frequency.

Lead: Education Council

Participating Entities: Chief Information Officer

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: New

Action: Develop a business plan for Network Nebraska—Education.

Lead: Education Council Marketing Task Group

Participating Entities: CAP, Network Nebraska Advisory Group, ESU Coordinating Council, ESUs

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: New

Completed Action Items

Action: Create a Network Advisory Group and meeting structure for education entities to provide input to Network Nebraska (CAP).

Status: Completed 2009

Action: Review the Network Nebraska governance and leadership structure.

Status: Completed 2009

Discontinued Action Items

Action: The CAP will use the Network Nebraska website to showcase examples of successful public sector network and/or Internet service cooperation. CAP will encourage interaction and sharing between public entities.

Status: Discontinued 2009

Action: Implement a statewide on-line presentation and meeting software solution.

Status: Discontinued 2009

Action: Work to amend Nebraska Department of Education policies to include Pre-K as an eligible population for Universal Service Fund (E-rate) purposes.

Status: Discontinued 2009

IT Planning and Development 2010

Objective

- To foster community and economic development in Nebraska communities through the effective use of information technology.

Description

Technology is an important economic development tool for communities. Telecommunications infrastructure is often compared to roads and water in its importance to communities. As important as infrastructure is the ability of community leaders to utilize technology effectively to enhance economic development opportunities. The 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. The Community Council recognizes the importance of building partnerships, leveraging resources, and building community capacity in addressing technology-related development. Over the past several years, partnerships have been developed with many partners including the University of Nebraska, Nebraska Department of Economic Development, Nebraska Public Service Commission, Nebraska Public Power District, the AIM Institute, and other organizations. Most recently, the NITC Community Council partnered with the University of Nebraska, Department of Economic Development, Nebraska Public Power District, and the AIM Institute to help Nebraska communities develop more effective websites.

The Nebraska Public Service Commission invited the NITC Community Council, Nebraska Department of Economic Development, and University of Nebraska to submit a proposal to address broadband planning as part of the Commission's broadband mapping proposal. The proposed project will identify barriers to the adoption of broadband and IT services, create and facilitate local technology planning teams, and collaborate with broadband service providers to encourage broadband deployment and use through the following approaches:

1. Regional planning teams will be formed to conduct regional assessments, prioritize needs, and develop strategies to address needs.
2. Nebraskans will be surveyed about their computer and Internet usage, challenges and desires for the future.
3. Regional forums will be conducted to present broadband mapping and mail survey results, to solicit feedback, and to kick off regional planning efforts.
4. Businesses will be surveyed through the Business Retention and Expansion process to identify the strengths and challenges they face in utilizing technology.

5. Seven to 10 focus groups will be held with anchor institutions and utility providers as well as populations with low usage rates to gain understanding into the barriers from their perspective.
6. Use of the Internet and computers will be encouraged through demonstration workshops and training in collaboration with the broadband service providers and information technology companies.
7. Regional technology plans as well as a statewide report and recommendations will be developed and presented to the Nebraska Information Technology Commission, Nebraska Public Service Commission, Department of Economic Development and University of Nebraska Lincoln. These plans will be made publicly available through the project website.

Benefits

The potential benefits of information technology to communities, businesses, local government, and residents are numerous:

- Communities can use their Web sites to publicize community events, communicate with former residents and prospective newcomers, and advertise available commercial sites.
- Communities can enhance promotional and informational activities through the use of newer technologies such as social networking or video content delivered through youTube or podcasts.
- Businesses can use information technology to decrease costs, increase sales, and provide better customer service.
- Local governments can use information technology to more efficiently deliver services and provide information to citizens.
- Residents can update their skills through continuing education, search for employment, network with others who share their interests, and share photos or videos with distant family members or Internet users worldwide.

Action Plan

Current Action Items

1. **Identify and address technology-related needs in communities through participation in the planning component of the state's Broadband Mapping program.**

Action: Serve as the project's advisory group, including assisting in the development of survey questions, the revision of materials for use with regional technology teams, and the development of a statewide report and recommendations.

Lead: University of Nebraska, Nebraska Department of Economic Development, and Community Council

Participating Entities: University of Nebraska, Nebraska Department of Economic Development, Community Council, Public Service Commission, and others

Timeframe: 2010-2011

Funding: Broadband Mapping program through the NTIA

Status: New

2. **Help Nebraska communities improve their Web sites.**

Action: Work with the Nebraska Department of Economic Development, University of Nebraska Extension, and NPPD to continue to provide assistance in website development to communities.

Lead: Nebraska Department of Economic Development and University of Nebraska

Participating Entities: Community Council, Nebraska Department of Economic Development, University of Nebraska Extension, and NPPD and other public power districts, and educational entities

Timeframe: 2010

Funding: Existing funding and staff

Status: Continuing

Discontinued Action Items

1. Monitor technology trends that affect Nebraska communities and play a leadership role in presenting these new technologies in a timely manner. (This action item will be incorporated into the broadband planning action item.)

eHealth 2010

Objective

- To foster the collaborative and innovative use of eHealth technologies through partnerships between public and private sectors, and to encourage communication and coordination among eHealth initiatives in Nebraska.

Description

Health information technology (Health IT), often referred to as eHealth, promises to improve individual patient care and public health while reducing costs and improving efficiencies. eHealth technologies include health information exchange, electronic medical records, electronic health records, personal health records, electronic prescribing, clinical decision support, computerized provider order entry, and telehealth.

Health Information Exchange is the electronic movement of health-related information among organizations according to nationally recognized standards. (NAHIT)

An Electronic Medical Record is an electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization. (NAHIT)

An Electronic Health Record is an electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization. (NAHIT)

A Personal Health Record is an electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual. (NAHIT)

Electronic Prescribing (eRx) is a type of computer technology whereby physicians use handheld or personal computer devices to review drug and formulary coverage and to transmit prescriptions to a printer or to a local pharmacy. (Office of the National Coordinator Glossary of Selected Terms)

A Decision-Support System (DSS) consists of computer tools or applications to assist physicians in clinical decisions by providing evidence-based knowledge in the context of patient-specific data. (Office of the National Coordinator Glossary of Selected Terms)

Computerized Provider Order Entry (CPOE) is a computer application that allows a physician's orders for diagnostic and treatment services (such as medications, laboratory, and other tests) to be entered electronically instead of being recorded on order sheets or prescription pads. (Office of the National Coordinator Glossary of Selected Terms)

Telehealth is the use of telecommunications and information technologies to provide healthcare services over distance and/or time, to include diagnosis, treatment, public health, consumer health information, and health professions education. (Minnesota e-Health Glossary of Selected Terms)

Electronic medical records provide the foundation for interoperable health information exchange. A survey conducted by researchers at Creighton Health Services Research Program in the summer of 2007 found that 30% of physicians in Nebraska and South Dakota used electronic medical records. The survey results are similar to national surveys, indicating that much progress still needs to be made.

The biggest barrier to the widespread adoption of eHealth technologies is the misalignment of benefits and costs. Providers bear the brunt of the costs for implementing eHealth technologies into their practices, but payers reap most of the benefits. Other barriers to eHealth adoption include implementation costs, impact on workflow processes, concerns about privacy and security, and a lack of a quantifiable return on investment.

Current Initiatives

The importance of electronic health records in efforts to improve the quality of care was officially recognized in 2004 when President Bush called for Americans to have electronic health records by 2014 and created the Office of the National Coordinator for Health IT. National bodies, including the Health Information Technology Standards Panel (HITSP), have worked to develop standards. The Certification Commission for Health IT (CCHIT) has begun certifying a variety of HIT solutions, including electronic medical records, e-prescribing systems, and personal health records. The National Governors Association (NGA) State Alliance for eHealth has provided information and recommendations to states.

Under President Obama, the push to adopt health IT and to reform health care has intensified. The American Recovery and Reinvestment Act established several programs to support the meaningful use of health information technology. Meaningful use of health information technology includes the use of electronic health records, e-prescribing, and connectivity to a health information exchange. A detailed definition of Meaningful Use is being developed by the Centers for Medicare and Medicaid Services.

Several eHealth initiatives are currently underway in Nebraska, including the Nebraska Health Information Initiative (NeHII), Western Nebraska Health Information Exchange, Southeast Nebraska Health Information Exchange, Southeast Nebraska Behavioral Health Information Network, and the Nebraska Statewide Telehealth Network.

The Nebraska Health Information Initiative (NeHII), the state's largest health information exchange, is a fully operational and sustainable health information exchange. As the State Designated Entity for Nebraska, NeHII will act as the integrator for the state, providing the technical infrastructure for the sharing of health information. NeHII is exchanging laboratory, radiology, medication history and clinical documentation information between hospitals throughout the state including recent additions in non-metropolitan Nebraska, ensuring full statewide coverage. 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 (EMR) that is CCHIT certified, so that providers who have not yet implemented electronic medical records can participate at an affordable price. Over 300

physicians and staff are currently participating in NeHII. Over one million patient records are available through the system. NeHII announced their statewide implementation at their Annual Meeting July 9, 2009 where Lt. Governor Rick Sheehy also reported the Governor will designate NeHII as the State Designated Entity for health information technology. More information is available at www.nehii.org. 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.

The Southeast Nebraska Behavioral Health Information Network (SNBHIN) 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. Participants include Blue Valley Behavioral Health Center, BryanLGH Medical Center, CenterPointe, Child Guidance Center, Community Mental Health Center, Cornhusker Place, Family Services, Heartland Health Alliance, 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. SNBHIN 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.

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. Thayer County Health Services is totally electronic, including eMAR (electronic medication administration record), CPOE (computerized physician order entry), and e-prescribing. Thayer County Health Services has significantly reduced medication errors and achieved 100% medication reconciliation among providers using e-prescribing. SENHIE achieved a HIMSS HIE benchmark score of 6.023 out of a possible 7 points, setting the bar for critical access hospitals. SENHIE is fully funded and has a sustainable business model.

The **Western Nebraska Health Information Exchange (WNHIE)** will connect health care providers in the Panhandle. 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. WNHIE has 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, a three-year implementation grant from AHRQ, a HRSA Rural Network Development Grant, a Rural Health Care Pilot grant from the FCC, and a grant from the Nebraska Information Technology Commission.

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.

Benefits

Benefits of eHealth include:

- **Reducing medication errors.** More than 2 million adverse drug events could be prevented through e-prescribing, saving 4.5 billion annually and 190,000 hospitalizations per year.
- **Reducing health care waste.** Health IT adoption is estimated to save an average of \$42 billion annually during a 15-year adoption period.
- **Facilitating medical research.** Health IT can facilitate research on the effectiveness of new therapies and can accelerate the diffusion of health care knowledge.
- **Reducing variability in healthcare delivery and access.** Disparities exist in access to care and quality of care. Telehealth can provide access to specialists in rural areas. Clinical decision support systems can improve quality of care by providing treatment reminders at the point of care. Adults in the U.S. receive only about 55 percent of recommended care for a variety of common conditions. Clinical decision support systems have been shown to increase adherence to recommended care guidelines.
- **Empowering consumer involvement in health management.** Having access to medical histories as well as customized health education and guidance could increase consumer participation in their health maintenance and care.
- **Improving the identification and reporting of disease outbreaks and other public health threats.** One study found that the use of a countywide electronic system for public health reporting led to a 29% increase in cases of shigellosis identified and a 2.5 day decrease in reporting time.

Action Plan

Current Action Items

1. **Support the development of statewide health information exchange through the State HIE Cooperative Agreement Program, including developing strategic and operational plans and overseeing implementation.**

Lead: eHealth Council and Lt. Governor Sheehy

Participating Entities: eHealth Council, Lt. Governor Sheehy, NeHII, regional and specialty health information exchanges, and others.

Timeframe: 2010-2011

Funding: State HIE Cooperative Agreement Program

Status: New

2. **Develop a sustainable action plan to facilitate progress (present and future) in assuring privacy and security protections in the exchange of health information for and by each of our citizens.**

Lead: eHealth Council and Health Information Security and Privacy Committee (HISPC)

Participating Entities: eHealth Council, Nebraska HISPC, the DHHS legal department, the Attorney General's Office, the Office of the CIO, other state agencies that would become involved with PHI, and other stakeholders

Timeframe: 2010

Funding: No new funding is required.

Status: Continuation

3. **Support efforts of the Nebraska Statewide Telehealth Network Governing Board to advocate for ongoing support for line charges for telehealth. Activities supporting this action item could include writing letters of support to policy makers as well as sharing information on this issue with policymakers.**

Lead: eHealth Council

Participating Entities: eHealth Council, Nebraska Statewide Telehealth Network Governing Board, NITC, Lt. Governor Sheehy

Timeframe: 2010

Funding: No new funding is required.

Status: Continuation

- 4. Support efforts of the Nebraska Statewide Telehealth Network Governing Board to advocate for the reduction of barriers to connectivity posed by federal Universal Service Fund rules, regulations, and policies. Activities supporting this action item could include writing letters of support to policy makers as well as sharing information on this issue with policymakers. The eHealth Council will also explore the development of a position paper no longer than four pages in length which clarifies the issue, identifies barriers, specifies what action needs to be taken, and identifies opportunities that can be leveraged.**

Lead: eHealth Council

Participating Entities: eHealth Council, Nebraska Statewide Telehealth Network Governing Board, NITC, Lt. Governor Sheehy

Timeframe: 2010

Funding: No new funding is required.

Status: New

Completed Action Items (2008-2009)

1. Work with Lt. Governor Sheehy and other policymakers to develop a process to assess, evaluate and prioritize health IT activities (including statewide initiatives, proposed eHealth projects of the eHealth Council or other state entities, and eHealth components such as e-prescribing) in order to make funding recommendations. Criteria used to evaluate eHealth activities, will include return on investment (ROI) as well as additional evaluation criteria determined by the eHealth Council with input from policy makers.
2. Develop a plan and resources to inform citizens, health care providers, and other stakeholders about issues related to health information security and privacy and involve them in policy discussions.
3. The eHealth Council should ensure that an in-depth short-term study of existing laws and regulations, with guidance from representatives from the health professions, health educators and health organizations, be done in order to identify health information security and privacy and make recommendations.
4. Explore the optimal method for identifying clients in health information exchange.

Public Safety Communications System

2010

Objective

- To develop the Nebraska Statewide Radio Network to consolidate the communications systems of state law enforcement agencies and to integrate statewide communications interoperability for public safety.

Description

The OCIO-Network Services team coordinates with the Nebraska Emergency Management Agency (NEMA) and the Governor's Homeland Security Policy Group to prioritize federal Homeland Security grants for developing interoperable communications. Much of the interoperability progress has occurred at the regional and county levels across the state. In 2007 Governor Heineman and the Nebraska Legislature supported funding for the state communications system. The state communications system will enable the State Patrol, Game and Parks Commission, and Fire Marshal's Office to consolidate onto the same communications system. This will create a standard technology platform for state agencies achieve statewide coverage and interoperability with regional systems.

Two governance councils were created by executive order for state and regional interoperability agreements. The Nebraska Council of Regions (NCOR) and the Nebraska Wireless Interoperable Network (NWIN) are charged with coordinating use agreements and protocols between users and systems. The driving principle behind the Nebraska Communications Plan is that the state agencies are a peer to local regional agencies. These two councils replace the Regional Interoperability Advisory Board (RIAB), which sunset January 2009. Nebraska is continuing its progress toward creating a system of systems to integrate regional and state public safety communications resources.

OCIO and the Nebraska Public Power District (NPPD) have completed an interlocal agreement to jointly own and operate the Statewide Radio Network.

Next steps involve these major milestones:

- Continue implementing the statewide communications system
- Coordinate with NPPD to establish network, NOC and system operating procedures

- Establish the regional interoperability network
- Integrate state and regional communications assets

Benefits

The state plan standardizes the communication infrastructure to improve compatibilities across different legacy systems and provide the means to share critical information as needed. The interoperable communications network consolidates state law enforcement and investigative agencies on a single technology platform. The system improves radio coverage, technology, and capacity. The infrastructure is able to grow as additional agencies migrate to the system. The system is leveraging existing assets to the greatest degree feasible while providing network security and operational autonomy for the user agencies. Benefits of the system include:

- Reducing multiple agency systems to a consolidated shared infrastructure;
- Providing the ability for the State Patrol and other agencies to be interoperable, where old state systems lack the necessary capacity and technology;
- Leveraging existing local communications systems and tower assets;
- Reduce the cost of the initial system by utilizing a technology platform which is expandable and upgradeable as needed;
- Enable sharing opportunities on a shared statewide infrastructure.

Action Plan

Current Action Items

1. CIO-Network Services will:

- Plan and implement the regional network. (In Process – RFP issued August 28, 2009)

Lead: CIO-Network Services

Participating Entities: State Patrol, Game and Parks Commission, State Fire Marshal's Office, Department of Correctional Services, Department of Agriculture, Nebraska Emergency Management Agency, Department of Roads, NPPD, and additional agencies as needed.

Timeframe: February 2008 – September 2010

Funding: State funding and DHS grant funding allocated for infrastructure and

agency equipment. NPPD partnership funds half of infrastructure and creates interlocal agreement to co-own and co-operate the system with OCIO.

Status: In process

Completed Action Items (2007-2009)

1. RFP requirements and procurement process (Completed March 2008).
2. Contracts in place to develop tower infrastructure, license frequencies and consulting assistance for RFP technical evaluations and implementation.
3. Initiated regional leadership meeting to coordinate state and local interoperability planning in all regions of the state.
4. Conduct competitive bid process for the system. (Completed October 8, 2008)
5. Establish interoperability governance structure. (Completed December 2008)

Digital Education 2010

Objective

- 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.

Description

This initiative will involve the coordination and promotion of several major systems and applications that heretofore have either been developed mostly at the local level or have not been replicated statewide.

The initiative will be 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 Digital Education Initiative will recognize that many standalone and disparate software applications are needing to undergo integration and convergence so that an instructor can: 1) research digital content, 2) construct a lesson or unit on a computer in a series of virtual or face-to-face or videoconferencing activities using rich multimedia, 3) assess the learners electronically, and then 4) move the student data to a database or data warehouse, 5) export relevant achievement and attendance data to a web-based student information system so parents, or the students themselves, can view it from home; 6) export data to a statewide student information system; and then finally 7) make “real-time” instructional decisions based upon the recently documented progress of the learners.

The primary components of the Digital Education Initiative would 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 and learning management system;
- 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 PreK-20 education cooperatives that vertically articulate educational programs and opportunities.

Benefits

Establishing a Digital Education Initiative 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 source of information for the 21st Century. 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 everywhere should continue to make technology investments until 1:1 computer or Internet-connected device use is attained.

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.

Each of the components of the Digital Education Initiative is vital to future student success in Nebraska. The components are especially pertinent in that these applications and services provide the foundation for capacity building in our schools and colleges.

Action Plan

Current Action Items

Promote the availability, distribution, and use of digital media throughout the Nebraska educational community.

Action: Set a deadline, and establish standard(s) related to the administration and maintenance of content management systems by K-12 schools.

Lead: NITC Technical Panel

Participating Entities: Learning Management Systems Work Group, ESU Coordinating Council, Distance Education Council

Timeframe: 2010-2011

Funding: No funding is requested for this action item at this time.

Status: Continuation with minor revisions

Action: Promote the usage of the National Repository for Online Courses (NROC) content by Nebraska educators

Lead: Partnership For Innovation (PFI)

Participating Entities: ESU Coordinating Council, NITC Education Council Services Task Group

Timeframe: 2010-2011

Funding: No funding is requested for this action item at this time.

Status: New

Action: Develop an affordable plan to provide access to learning management system software and a digital content management system for every teacher and learner and to also train teachers in effective instructional design to integrate synchronous and asynchronous technologies.

Lead: ESU Coordinating Council

Participating Entities: Technical Panel's Learning Management System Work Group, NITC Education Council, ESU Technology Affiliate Group

Timeframe: 2010-2011

Funding: No funding is requested for this action item at this time.

Status: Continuation with minor revisions

Action: Provide training and encourage all education providers to list all dual enrollment and concurrent enrollment courses, and all enrichment opportunities on the statewide clearinghouse and scheduling software system.

Lead: ESU Coordinating Council

Participating Entities: NITC Education Council, Higher education entities

Timeframe: 2010-2011

Funding: No funding is requested for this action item at this time.

Status: Continuation with minor revisions

Action: Develop and deploy a statewide digital content repository that allows the assignment of digital property rights and the uploading, cataloguing, metatagging, searching, and downloading of digital learning objects by Nebraska educators.

Lead: Nebraska Educational Telecommunications (NET) & ESU Coordinating Council

Participating Entities: Nebraska Department of Education, Education Council Services Task Group, ESU Instructional Materials Committee, Distance Education Council, Partnership for Innovation (PFI)

Timeframe: 2010-2011

Funding: Considerable funding will be required for this action item

Status: New

Action: Monitor the Nebraska Statewide Assessment System (NeSAS) and develop strategies that will assure its continued success and use of the most efficient and scalable technology infrastructure.

Lead: Technical Panel

Participating Entities: Education Council Services Task Group, ESU-NOC

Timeframe: 2010-2011

Funding: No funding is requested for this action item at this time.

Status: New

Action: Develop a business plan for Network Nebraska—Education to provide Digital Education resources statewide.

Lead: Education Council Marketing Task Group

Participating Entities: CAP, Network Nebraska Advisory Group, ESU Coordinating Council, ESUs

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time.

Status: New

Completed Action Items

Action: Negotiate a statewide purchase of the National Repository for Online Courses

Status: Completed

Discontinued Action Items

State Government Efficiency

2010

Objective

- To address multiple items improving efficiency in state government, including implementing enterprise shared services and adopting standards and guidelines.

Description

The primary components of this initiative are the implementation of shared services and the development of standards and guidelines.

Shared Services. The State Government Council has identified a number of potential shared services for state government. Action items are included for those services that are actively being reviewed and implemented.

Standards and Guidelines. The State Government Council, working with the Technical Panel, will continue to develop standards and guidelines to better coordinate state agency technology efforts.

Benefits

Benefits of this initiative include lower costs, easier interoperability among systems, greater data sharing, higher reliability, and improved services.

Action Plan

Action Items

Shared Services

1. Implement Business Continuity/Disaster Recovery as a shared service.

Action items are included in the Security and Business Resumption initiative.

2. Implement Directory Services as a shared service.

Action items are included in the Security and Business Resumption initiative.

3. Implement Enterprise Maintenance / Purchase Agreements as a shared service.

Lead: Steve Schafer

Participating Entities: State Government Council, EM/PA Work Group

Timeframe: Continuation:

Funding: No funding required.

Status: Ongoing.

4. Implement interactive VRU applications as a shared service.

Lead: Jayne Scofield

Participating Entities: OCIO, Department of Revenue, Department of Labor, Department of Health and Human Services

Timeframe: 2010

Funding: Participant funded

Status: New

5. Explore implementation of content management as a shared service.

Lead: Beverlee Bornemeier

Participating Entities: SGC's Content Management Work Group

Timeframe: 2010

Funding: Participant funded

Status: New. RFP issued in 2009.

6. Implement Geographic Information System (GIS) as a shared service.

Action: Nebraska Geospatial Data Sharing and Web Services Network.

Develop a Nebraska enterprise-level geospatial web portal, with Internet mapping and data services, to serve the users of Nebraska related GIS/geospatial data and enable those users to efficiently and reliably find, access, display, and build public information applications utilizing the geospatial data maintained by a wide variety of state, local and federal agencies and where appropriate, provide for a coordinated security system, including the possibility for limited data access and password protection..

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

Timeframe: December 31, 2010

Funding: A total of \$215,000 in grant funding has been secured from the NITC Collaborative Fund, the State Record Board, and the US Geological Survey to underwrite a two-year start up period for this project. An additional \$25,000 will be sought from the State Records Board and \$60,000 from contributing state agency partners for a total of \$300,000. This funding to be supplemented by in-kind technical services provided from state and local agencies.

Status: Continuation. Twelve state and local government agencies have endorsed a Project Charter to indicate their support for, and partnership in, developing this online, enterprise-level GIS/geospatial data mapping and services portal. A Project Manager/Technical Lead was hired for this project through a contractual arrangement between the OCIO and UNL CALMIT and has been working since late December 2008. The project involves significant technical implementation challenges; including establishing the network, data sharing protocols, and web mapping and data services applications. The technology and system will allow for the live, interactive access and sharing of data from multiple Internet map servers operated by different agencies. The technology will allow agencies to leverage existing state and local investments in data and Internet map services, by other agencies, to build new applications incorporating these Internet map services into their application design. The project has the potential to interface with and support other efforts which seek to pull together existing geospatial data from multiple sources, such as the State Patrol's Fusion Center project or the Douglas and Sarpy Counties effort to develop a common operating platform for emergency response. The project has been branded as the NebraskaMAP and an initial working prototype of the portal has been developed at UNL CALMIT and is available at "<http://www.nebraskamap.gov>". Current efforts are focused on refining this initial working prototype, developing architectural specifications for developing a production model at the OCIO and developing some initial applications to demonstrate the merits of this collaborative data sharing project. Two initial applications - services have been identified and are under development: serving statewide street centerline-address data (with a geocoding service) and serving statewide aerial imagery.

Action: Street Centerline-Address Database. Develop a plan (including

responsibilities and resource requirements) for the coordinated development, data integration, on-going maintenance and online distribution/Internet mapping service of a composite, “best available”, statewide street centerline/address database.

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

Timeframe: December 31, 2010

Funding: Limited initial development funding is available at this time through a commitment from the State Patrol and NEMA. Data development funding is on-going through Public Service Commission, Dept. of Roads, and local governments.

Status: Continuation. The decision by the NebraskaMAP Committee to identify the provision of statewide street centerline/address data, and related geocoding services, as one of its initial enterprise services for this project has significantly enhanced this development of street centerline/address action item. Some of the resources of the NebraskaMAP project have been diverted to developing an initial statewide centerline-address database by integrating the “best available” data from multiple state and local agencies. This initial statewide integration of available data should be completed by the end of 2009.

The Public Service Commission, through the Wireless E911 fund, continues to work with counties to contract for the development and maintenance this data for 90 Nebraska counties. The initial data development is complete for least 80 of those 90 counties. For the other 10 counties, initial data development is in process. In addition, Douglas, Lancaster, and Sarpy counties have developed and maintain this data in-house. These datasets are maintained in separate county files. The Dept. of Roads maintains geospatial data for all state highways, however this data does not include street address information but it does include milepost addressing information. While there are significant public resources are being invested in the development of pieces this much needed data, outside of the NebraskaMAP effort, there still needs to be work done to develop a plan and agency responsibility for the on-going collection, integration and distribution of this data in an integrated statewide database format.

A GIS Council Advisory Committee on Street Centerline-Address Databases has developed recommendations for a data model and process for integrating multiple, and varied local government centerline-address data into a statewide dataset. This data model is being tested and will be revised as a part of the NebraskaMAP effort.

Action: Metadata and State Geospatial Data Catalog. Document existing state agency GIS/geospatial data with formal metadata and encourage the listing of available geospatial data in Nebraska Geospatial Data Center Clearinghouse Catalog.

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

Timeframe: December 31, 2010

Funding: Primarily supported through in-kind support of state and local agency personnel

Status: Continuation. The NITC has adopted a Geospatial Metadata Standard (http://www.nitc.state.ne.us/standards/data/metadata_standard_20050923.pdf), which calls for the progressive documentation of state agency geospatial data, within a one-year timeframe (originally by Sept. 2006). The Department of Natural Resources, in partnership with the Nebraska GIS Council, developed a Nebraska Geospatial Data Center, which included metadata development tools. Metadata training sessions have been held in Lincoln and Omaha. Despite the existence of the NITC standard requiring metadata, the availability of metadata development tools and training, there remains a large body of state agency GIS/geospatial data that has not been documented with metadata and has not been listed on the Data Center Clearinghouse Catalog. It has been proposed that the Nebraska Geospatial Data Center, operated by the Department of Natural Resources, be transferred to the NebraskaMAP geospatial data portal. It is hoped that that development of the NebraskaMAP - Geospatial Data Sharing and Web Services Network will help to further the development of metadata documentation, as metadata is a requirement for the functioning of the NebraskaMAP online data sharing tools.

Action: Statewide Geospatial Infrastructure Strategic Planning. Develop an enterprise-level, statewide, GIS/geospatial infrastructure strategic plan for the geographic area of Nebraska. The planning process should involve the broader GIS user community (state, local, and federal agencies, tribes and the private sector) and seek to identify parallel needs and plans for geospatial data, standards, online distribution networks and services, coordination, funding, and policies.

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

Timeframe: December 2010

Funding: A \$50,000 strategic planning grant proposal has been awarded by the Federal Geographic Data Committee (FGDC) to the Office of the CIO on behalf of the Nebraska GIS Council. The majority of these grant funds are to be used to hire a planning consultant.

Status: Continuation. Over the last 6-7 years, the activities of the Nebraska GIS Council have been guided by an existing Strategic Plan, the goals of which were originally developed in 2001. The Council has endorsed a major outreach and planning effort to develop a new GIS/Geospatial Strategic Plan with the goal of facilitating the coordination and collaboration of the broader GIS user community in Nebraska. Due to a prioritization of other efforts, this strategic planning process has been delayed but will proceed in 2010. A Strategic Planning Advisory Committee will be established to oversee the process. The GIS Council, through its Planning Advisory Committee, will lead this process but the active support of the NITC, the State Government Council and its member agencies will be very helpful.

Action: Planning for Periodic, Collaborative Orthoimagery Acquisition.

Research and develop recommendations for standards, policies, infrastructure, and funding to support collaborative efforts by state, local and federal agencies to periodically acquire updated orthoimagery. Most GIS applications require or benefit from the availability of current aerial imagery. The acquisition of updated, orthorectified (corrected for camera tilt and the slope of the earth's surface) imagery requires a significant public investment, but if done collaboratively, on a regular periodic basis, these costs can be minimized and shared across a broad user community.

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: GIS Council, state, local and federal government agencies

Timeframe: December 2010

Funding: It is believed that existing staff and resources will be sufficient to complete this planning process.

Status: This effort will seek to learn from, and build on, existing collaborative imagery acquisition efforts such as the Nebraska-Iowa Regional Orthoimagery

Consortium (NIROC) and the USDA Farm Services Agency – National Aerial Imagery Program (NAIP).

Action: Planning for Statewide LiDAR Acquisition. Research and develop a plan outlining the needs for; benefits of; recommended standards; and funding proposals for developing an updated and enhanced digital model of the earth's surface for the geographic area of Nebraska. A wide range of applications benefit from having available current, accurate information on the relative height and slope of the earth's surface. In the past the collection of this type of information on a large geographic area was cost prohibitive. Relatively new LiDAR (**L**ight **D**etection and **R**anging) technology uses airborne remote sensing, radar-like technology and has sufficiently lowered the costs/benefit ratio to make it feasible to acquire updated, accurate digital surface modeling data for large geographic areas.

Lead: Doug Hallum, Nebraska Department of Natural Resources and Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: GIS Council; Nebraska Department of Natural Resources; and state, local and federal agencies

Timeframe: December 2010

Funding: It is believed that existing staff and resources will be sufficient to complete this planning process

Status: An interagency working group has been established under the auspices of the GIS Council, and supported by staff from the Department of Natural Resources, to explore this area and develop recommendations. A collaborative intergovernmental effort was undertaken in the summer of 2009 to contract for the collection of LiDAR data in south central Nebraska for area approximately one-fifth of the total geographic area of Nebraska. That data is expected to be available early in 2010. Current discussions are underway to collect LiDAR for the urban areas around Douglas, Sarpy and Lancaster Counties. This action item will build upon these existing efforts.

Standards and Guidelines

7. The State Government Council working with the Technical Panel, will continue to develop standards and guidelines to better coordinate state agency technology efforts.

Lead: Rick Becker

Participating Entities: Technical Panel, State Government Council

Timeframe: Ongoing

Funding: None

Status: Ongoing. New and revised standards and guidelines adopted in 2008-2009: NITC 1-101: Definitions; NITC 1-103: Waiver Policy; NITC 1-201: Agency Information Technology Plan; NITC 1-202: Project Review Process; NITC 1-203: Project Status Reporting; NITC 1-204: IT Procurement Review Policy; NITC 1-205: Enterprise Projects; NITC 5-202: Blocking Email Attachments; NITC 5-301: Use of Computer-based Fax Services by State Government Agencies; NITC 7-101: Acceptable Use Policy; NITC 7-403: Scheduling Standard for Synchronous Distance Learning and Videoconferencing; NITC 8-301: Password Standard; NITC 8-401: Incident Response and Reporting Standard

Other

8. Review issues and determine process for maintaining an inventory of non-education state government technology assets, including hardware, applications, and databases.

Lead: Office of the CIO

Participating Entities: State Government Council

Timeframe: 2010

Funding: None

Status: Continuation

9. Provide access to OCIO electronic billing information for state agencies.

Lead: Steve Schafer

Participating Entities: Office of the CIO and State Government Council

Timeframe: 2010

Funding: None

Status: New.

Future Action Items

1. Services identified as potential shared services by the State Government Council

include:

- Active Directory
- Automated Building Systems (HVAC, access, etc.)
- Backup Management
- Data Security
- Database Management
- Desktop Support
- Desktop Virtualization
- Electronic Filing
- Electronic Records Management
- Encryption
- Enterprise Knowledge Management Databases
- General Platform Management
- Help Desk
- Payment Portal
- Project Management
- R&D
- Remote Access
- Security
- Server Consolidation / Virtual Servers
- Software Deployment and Management
- SQL Database Design and Development
- Voice Network Design
- VoIP
- Wireless
- Wiring Services

Completed Action Items (2007-2009)

Standards and Guidelines

1. New and revised standards and guidelines adopted: [2007] NITC 8-303: Remote Access Standard; NITC 4-204: Emergency Information Page; NITC 8-304: Remote Administration of Internal Devices; NITC 8-103: Minimum Server Configuration; NITC 7-103: SMTP Routing Standard; NITC 7-102: DNS Forwarding Standard; NITC 8-101: Information Security Policy; NITC 8-102: Data Security Standard; NITC 8-301 Password Standard; and NITC 5-201: Email Policy for State Government Agencies. [2008-2009]

NITC 1-101: Definitions; NITC 1-103: Waiver Policy; NITC 1-201: Agency Information Technology Plan; NITC 1-202: Project Review Process; NITC 1-203: Project Status Reporting; NITC 1-204: IT Procurement Review Policy; NITC 1-205: Enterprise Projects; NITC 5-202: Blocking Email Attachments; NITC 5-301: Use of Computer-based Fax Services by State Government Agencies; NITC 7-101: Acceptable Use Policy; NITC 7-403: Scheduling Standard for Synchronous Distance Learning and Videoconferencing; NITC 8-301: Password Standard; NITC 8-401: Incident Response and Reporting Standard.

Other

- 2. Review and revise procurement review process for IT related purchases by state agencies. (2007)**
- 3. Review options for integrating agency IT plans and IT project proposal forms into new budget system. (2007)**
- 4. Email shared service implementation. (2009)**
- 5. Video conferencing shared service implementation. (2009)**
- 6. Instant messaging shared service implementation. (2009)**
- 7. Review secure file transfer shared service options. (2009)**
- 8. RFP for contract vendors that provide temporary IT personnel. (2009)**
- 9. Review issues and determine process for project status reporting. (2009)**

E-Government

2010

Objective

- To further the use of e-government to improve services and increase the efficiency and effectiveness of agencies.

Description

The three goals for e-government are:

- **Government-to-Citizen and Government-to-Business.** Anyone needing to do business with state government will be able to go to the state's Web site, easily find the information or service they need, and if they desire, complete all appropriate transactions electronically. Areas to be addressed include citizen portal enhancement; business portal enhancements; education portal; and forms automation.
- **Government-to-Government.** State agencies will improve services and increase the efficiency and effectiveness of government operations through collaboration, communication, and data sharing between government agencies at all levels.
- **Government-to-Employee and Internal Operations.** Agencies will examine internal operations to determine cost-effective e-government applications and solutions. The purpose of these efforts is to improve efficiency and effectiveness by replacing manual operations with automated techniques.

The e-government principles guiding the council are:

- E-government should be considered a continuous process of using technology to serve citizens and improve agency operations;
- Internet technologies create new opportunities for major change, including self-service, integration of information and services, and elimination of time, distance and availability of staff as constraints to providing information and services;
- Agencies have responsibility for performing statutory functions, which means that agency directors must retain ownership of data, responsibility over the use of information technology, and prioritization of projects within the agency to achieve

the greatest benefit;

- Cooperation is critical to achieving the goals of e-government, in order to integrate information and services and allow the easy exchange of information;
- An enterprise approach is essential to e-government, including the topics of accessibility for disabled persons, architecture, directories, funding, portal, privacy, security, and other issues; and
- E-government is defined as the use of technology to enhance information sharing, service delivery, constituency and client participation, and governance by transforming internal and external relationships.

Benefits

The primary benefits from the use of e-government are:

- Improved services for citizens and businesses.
- Increased efficiency and effectiveness for agencies.

Action Plan

Action Items

1. Provide better mobile browsing access and functionality for state government websites.

Lead: State Government Council

Participating Entities: Office of the CIO, Webmasters Workgroup

Timeframe: Ongoing

Funding: None

Status: New action item.

2. Provide for better access to information and services from the OCIO by providing services through an online Apps Catalog and Store.

Lead: Steve Schafer

Participating Entities: Office of the CIO, State Government Council

Timeframe: 2010

Funding: To be determined.

Status: New action item.

3. Maintain the Education Portal on the State of Nebraska website.

Lead: Nebraska.gov (Nebraska Interactive LLC)

Participating Entities: Education Council

Timeframe: 2010-2011

Funding: No funding requested for this action item at this time

Status: New

Future Action Items

1. Work with the Nebraska.gov Manager and county officials to provide the means for online payment of property taxes and other local fees. This system is currently being provided by NACO/MIPS. Nebraska.gov will consider the cost benefit of moving forward with this project.
2. Work with the Nebraska State Patrol to review options for providing online access to certain, limited, criminal history information.
3. Develop an online application for use by businesses attempting to find a suitable site for business development.
4. Develop strategies to address the following government-to-government activities:
 - Intergovernmental Cooperation Groups. Expand upon current intergovernmental cooperative efforts like the CJIS Advisory Committee and the GIS Council; and develop new cooperative groups for those agencies that have specific, shared interests.
 - Integration of Government Information and Services. Develop strategies for using Internet technologies to provide integrated access to information and services to

citizens, businesses, employees, and other governmental entities.

- Forms Automation. Work with state agencies and political subdivisions to identify and prioritize opportunities for automating forms that local government uses to interact with state government.

5. The State Government Council will identify specific improvements and value-added services to be incorporated into the state employee portal.

6. Develop method of providing authentication for “first time” users.

Completed Action Items (2007-2009)

1. Phase 1 of the online business registration project was completed in November 2007 with the creation of the Nebraska One-Stop Business Registration Information System website (<https://www.nebraska.gov/osbr/>).

2. Department of Motor Vehicles provided for online specialty plate ordering in March 2008.

3. Phase 2 of the online business registration project was completed in January 2009. In December of 2008, new code was launched, giving One Stop users the option to create a basic account allowing them to save their business start up checklist, and to file online. In January of 2009 the first online filings were integrated. The Office of the Secretary of State’s Business Division accepted its first corporate filings online through the system, LLC Biennial Reports and LLP Annual reports.

4. Department of Motor Vehicles provided for online vehicle registration renewals in December 2008.

Security and Business Resumption

2010

Objective

- To define and clarify policies, standards and guidelines, and responsibilities related to the security of the state's information technology resources.

Description

Information security serves statutory goals pertaining to government operations and public records. These include:

- Insure continuity of government operations (Article III, Section 29 of the Nebraska Constitution; Neb. Rev. Stat. § 28-901 and 84-1201);
- Protect safety and integrity of public records (Neb. Rev. Stat. § 28-911, 29-2391, and 84-1201);
- Prevent unauthorized access to public records (Neb. Rev. Stat. § 29-319, 81-1117.02, and 84-712.02);
- Insure proper use of communications facilities (Neb. Rev. Stat. § Section 81-1117.02); and
- Protect privacy of citizens (Neb. Rev. Stat. § 84, Article 7).

Major activities include:

- Development of an overall security strategy, including policies, security awareness, and security infrastructure improvements;
- Network security standards and guidelines;
- Education and training;
- Authentication (directory services);
- Disaster recovery for information technology systems (as part of a broader business continuity planning);

- Compliance with federal privacy and security mandates;
- Security assessments.

Benefits

Benefits will include lower costs by addressing security from an enterprise perspective, cost avoidance, and protecting the public trust.

Action Plan

Action Items

Security

1. Implement security incident response team.

Lead: State Information Security Officer and State Patrol

Participating Entities: State Government Council, Security Work Group

Timeframe: 2010

Funding: No funding required for this task.

Status: Continuation

2. Develop policies and procedures governing the use of mobile devices on the state network and review and make recommendations on the use of personal devices on the state network.

Lead: State Information Security Officer

Participating Entities: State Government Council, Security Work Group

Timeframe: 2010

Funding: No funding required.

Status: New

3. Review and revise policies and procedures relating to identity management and directory services.

Lead: State Information Security Officer

Participating Entities: State Government Council, Security Work Group

Timeframe: 2010

Funding: No funding required.

Status: New

Business Resumption

4. Implement shared disaster recovery facilities. Mission critical systems have three common requirements: 1) Recovery times must be measured in hours, not days or weeks. 2) Recovery facilities should be physically separated so that they will not be affected by a single disaster. 3) There must be staff available to assist with the recovery efforts. Achieving these requirements is very expensive. Sharing disaster recovery facilities and establishing a collaborative approach to disaster recovery is one strategy for managing costs. The Office of the CIO and the University of Nebraska are jointly developing a fast recovery capability using mutual assistance of physically separated data centers.

Lead: Office of the CIO and University of Nebraska

Participating Entities: State Government Council

Timeframe: Ongoing

Funding: The cost and source of funding have not been determined.

Status: Continuation. An alternate site providing greater geographical separation has been established. The University of Nebraska and the Office of the CIO have acted on two important items:

- Established a fiber optic communications link between the University and State enterprise server primary sites located in Lincoln and an alternate site that provides greater geographic separation.
- Acquired and implemented an enterprise server that can provide backup and execute assigned processing loads.

The acquisition and implementation of both items are complete. The University and the State not only have their critical data mirrored at a geographically separated site, but are working toward the capability, at the alternate site, to continue the most critical enterprise server production processing with less than

10 hours interruption.

The University of Nebraska and the Office of the CIO will continue to:

- Develop plans and procedures for fast recovery capability using the mutual assistance of physically separated data centers.
- Develop a capabilities-based all-hazards approach to a multi-year exercise program to evaluate plans, procedures and infrastructure associated with the alternate site. The purpose of this exercise program will be to measure and validate performance of capabilities and critical tasks.

5. Promote disaster planning for information technology systems, including developing elements of a common planning document and developing an approach for common governance during an event.

Lead: Steve Henderson / Mark Robertson

Participating Entities: State Government Council

Timeframe: Ongoing

Funding: No funding required.

Status: Continuation. The Director-level meetings, chaired by Lt. Governor Sheehy, identified critical business functions and categorized them into one of three categories: public safety, public health and institutional care. Progress has been made with public safety (lead by Nebraska State Patrol) in identifying:

- The agencies that work together in the public safety domain
- The data the partners use to complete their work
- The IT infrastructure used to support the data

Initial kick-off meetings have been held with public health (lead by Department of Health and Human Services) to identify the same items. Work continues with Nebraska Emergency Management Agency to understand and refine the implementation of the incident command system and its interactions with the State EOC. Work to integrate continuity of operations, disaster recovery, emergency operations and emergency action plans has begun.

6. Convene a work group to improve disaster recovery and business continuity procedures, including homeland security preparedness, for all public entities.

Lead: Steve Henderson / Mark Robertson

Participating Entities: State Government Council

Timeframe: Ongoing

Funding: No funding required.

Status: New

Completed Action Items (2007-2009)

Security

1. Conduct annual independent security audits. (2008)

2. Enhance Network Security and Network Management.

Action: Investigate and recommend an enterprise solution to ensure that encrypted traffic adheres to State security requirements. **Status:** Completed. Migration of all Avaya firewalls to the Fortinet infrastructure. (2008)

Action: Evaluate and recommend options for providing encryption to clients across the state's Wide Area Network. **Status:** Completed. The State of Nebraska has entered into a contract with PGP for whole disk encryption. (2008)

Action: Evaluate and recommend options for providing compliance auditing across the state's Wide Area Network. **Status:** Completed. The State of Nebraska has purchased Cisco's Compliance Manager and has been attending training classes for staff. (2008)

Business Resumption

3. Encourage testing and updating of disaster plans. The Continuity of Operations Planning/Disaster Recovery Planning Shared Services Group worked to develop and act on ways to better coordinate disaster recovery planning and to provide for more consistent disaster recovery plans. **Status:** Completed. An NITC standard ("Information Technology Disaster Recovery Plan Standard") has been put in place. Work has been completed to better understand disaster recovery plan assumptions and dependencies. (2008)