

## Strategic Initiative Accomplishments and Update—August, 2005

# Nebraska Statewide Telehealth Network

### Description

The Nebraska Statewide Telehealth Network is an interactive video and data network that provides integration among the hospitals, public health departments public health laboratories and other entities across the entire State of Nebraska. The major functions of the Network are to improve quality and access to care, particularly in rural Nebraska, to provide patient, provider and community education and to provide another communication source in the event of a natural, man-made or terrorist emergency.

The Nebraska Statewide Telehealth Network is a collaborative effort led by the Nebraska Hospital Association. Partners include:

- Nebraska Hospital Association
- Nebraska hospitals
- Nebraska Public Health Departments
- University of Nebraska Medical Ctr.
- Universal Service Administrative Company
- University of Nebraska System
- Nebraska Information Network
- Nebraska telecommunications
- Central Nebraska Area Health Education Center
- Northern Nebraska Area Health Education Center
- Nebraska Medical Association
- Nebraska Educational Television Commission
- Nebraska State Government
  - Lieutenant Governor's Office
  - Nebraska Public Service Commission
  - Nebraska Division of Communications
  - Nebraska Health and Human Services Section
    - Bioterrorism Preparedness and Response Section
    - Office of Rural Health
  - Nebraska Information Technology Commission
  - Nebraska Office of the Chief Information Officer
  - Nebraska Department of Education

### Accomplishments

- Videoconferencing equipment is in place or on order in all hospitals.
- Health departments are purchasing equipment.
- Firewall and router services are installed in a majority of sites and additional services have been ordered.
- T-1s and fiber for hospitals is in place or ordered. Western Nebraska hospitals are figuring out their configuration.
- Based on the evaluation data submitted for administrative meetings alone, the network saved \$129,752 in labor cost due to time saved driving to a meeting and \$104,817 in mileage costs from January to July of this year.

- Success stories such as St. Elizabeth's use of videoconferencing to share the progress of an 11 oz. baby with family, doctors and a social worker in North Platte and to develop plans for the care of the baby and the support of the family when the baby is released in August are increasing support for telehealth.

## **Current and Future Activities**

- Demonstrations of the scheduling systems used by other state networks will be scheduled as an initial step in evaluating and selecting a scheduling system.
- Completing remaining connections and training users to use the system will be a major thrust of the network evaluated to see if they could meet the needs of the Nebraska Statewide Telehealth Network.
- A web site is being developed.
- Privacy and security policies are being developed.
- An interim scheduling system is being developed.
- The Education Committee is working on making information on educational opportunities more readily available.
- The Nebraska Medical Association is working with the Nebraska Statewide Telehealth Network to develop a white paper addressing the concerns of physicians regarding the use of telehealth.
- Federal funding is being sought to support the management of the network.
- The Nebraska Statewide Telehealth Network is working with the Nebraska Health Information Initiative to study the future development of an interoperable electronic health record system in Nebraska.

## **Strategic Initiative Accomplishments and Update—August, 2005**

# **Network Nebraska Initiative**

### **Description**

The primary objective of Network Nebraska is to develop a broadband, scalable telecommunications infrastructure that optimizes the quality of service to every public entity in the state of Nebraska. The Division of Communications and the University of Nebraska engaged in a collaborative partnership that used existing resources to aggregate disparate networks into a multipurpose core backbone extending from Norfolk, Omaha, Lincoln, Grand Island, Kearney and North Platte to the Panhandle. They are assisted by Nebraska Educational Telecommunications. The next phase of this initiative is to formalize business relationships and agreements and to enhance rural bandwidth through aggregation. Potential benefits of Network Nebraska include 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.

### **Accomplishments**

The Division of Communications, 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. CAP has developed a multipurpose core backbone extending from Norfolk, Omaha, Lincoln, Grand Island, Kearney, North Platte, to the Panhandle. The K-20 community has started to migrate to this service as contracts have allowed. Project 42 (consisting of ESUs 10, 11, 15 and 16) and Lincoln Public Schools have purchased services from Network Nebraska to serve the schools in their areas. In addition to every State agency, all four campuses of the University of Nebraska are served by Network Nebraska, as well as three of the community colleges and Wayne State College.

Internet 1 pricing through Network Nebraska has experienced a 60% reduction in cost over the past 21 months due to aggregation of demand and volume purchasing. Through a UNL application to the University Corporation for Advanced Internet Development (UCAID), Nebraska education entities were approved for Sponsored Education Group Participation (SEGP) in Internet 2 in July 2004.

Network Nebraska went live with its own website, <http://www.networknebraska.net> in January 2005 and also implemented a Network Information Center and helpdesk accessible via a toll-free number at 1-888-NET-NEBR (637-6327).

### **Current and Future Activities**

Current activities of this initiative include:

- Assisting in infrastructure planning for 180 K-12 and higher education entities affected by the expiration of DS-3 transport contracts from 2006 through 2009;
- Exploration into the development of regional network operations centers;
- Developing redundancy with transport and Internet services;

The future activities 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, public and private 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 reasonably priced services that enables eligible entities to pick and choose the services 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.

## **Strategic Initiative Accomplishments and Update—August, 2005**

# **Statewide Synchronous Video Network**

### **Description**

The primary objective of this initiative is to establish an Internet Protocol-based network that will interconnect all existing and future distance learning and videoconferencing facilities in the State of Nebraska. The 400+ interactive video facilities in Nebraska currently utilize a variety of video standards and bandwidth speeds that prevent interconnection between sub-networks. The Statewide Synchronous Video Network, as envisioned, would use compatible audio and video standards to enable any classroom or facility to connect with any other classroom or facility or to connect with multiple sites simultaneously. Benefits include greater sharing of educational courses and resources; more efficient use of available resources; one-to-many videoconferencing capabilities for alerts and emergency situations; and collaborative development across various service agencies.

Currently, Nebraska enjoys one of the most robust distributions of local connectivity and bandwidth among any of its rural neighbors. This equates to 192 DS-3 (45 megabits per second, JPEG and MPEG2 video) circuits to high schools served by telephone companies and 112 high school sites that are served by cable companies with 100 megabit per second, full duplex, fiber circuits with H.263 video. Other state agency and telehealth videoconferencing circuits consist of single or double dedicated T-1 (1.55 megabits per second) lines. Over 80 hospitals and 22 public health agencies have also been connected via synchronous videoconferencing.

Nebraska high school distance learning classrooms are some of the busiest in the nation; with each classroom being used about 50% of the school day across the entire system. Taking high school credit courses and higher education dual credit and college credit courses at a distance, students are able to fulfill graduation requirements and expand their high school experiences with opportunities that are unavailable at their local high school. Some high schools permit community and adult education classes in the evening hours.

### **Accomplishments**

The Nebraska Statewide Synchronous Video Work Group was chartered by the Technical Panel of the Nebraska Information Technology Commission on November 8, 2002 to develop the technical and non-technical recommendations needed in order to provide for a statewide, interconnected, synchronous video network serving citizens involved with education, state government, and telehealth.

Since this time, together with the Video Standards Work Group of the NITC, the number of video compression protocol standards in Nebraska was reduced from four to one (H.263/H.264). Also, the communication protocol for the statewide network was identified as H.323.

The Statewide Synchronous Video Work Group set about completing its charge, and has been assisted by the LB 689 Distance Education Enhancement Task Force:

- Conducted informative and working sessions to determine the needs, issues, and participants regarding synchronous video interoperability within and outside the state;
- Encouraged participants to improve educational opportunities in the state via continued evolving video distance education;
- Determined the support structures and augmentation needed to maximize the synchronous distance learning experience;
- Prepared an implementation plan for adherence to the new video/audio standards while making the most efficient use of the existing distance learning facilities;
- Identified a "core sponsor" for video distance education in the state that will be the focal point to coordinate all of the activities associated with enhancement of services and interrelationships that will be critical for continued success; and
- Evaluated options for providing ongoing support services.

## **Current and Future Activities**

Nebraska has enormous potential to assemble one of the country's best telecommunications networks for education, health care, and government. The Nebraska Information Technology Commission and its advisory groups have fostered a collaborative environment for participative decision making among several major subsectors. The Collaborative Aggregation Partnership, a team of University of Nebraska, Division of Communications, and Nebraska Educational Telecommunications staff have been successful in negotiating statewide backbone contracts for scalable bandwidth for public entities. Technological developments and breakthroughs in routing technology in the past two years have greatly enhanced the quality of service related to IP-based, H.26X video compression.

The new Statewide Synchronous Video Network design incorporates the requirements established by the Statewide Synchronous Video Network Work Group of the Nebraska Information Technology Commission. This network design has the flexibility to support both proprietary and standard protocols, and allows the participating entity full access to the available bandwidth. The network can grow to meet any bandwidth or application requirements, and has any optical interface available from Ethernet to OC192.

This network design is consistent with the goals of the Nebraska Information Technology Commission and will integrate into Network Nebraska. Most importantly for those who qualify, this network is eligible for E-rate discounts.

The vision of the future statewide synchronous video network includes the umbrella capacity for any interactive video unit to be able to interconnect with any other interactive video unit, regardless of location. The vision of the future also includes assurances for network security and quality of service within a particular sub-network (i.e. telehealth, State Patrol, K-12 distance learning). Most end users are in agreement that the State should purchase or contract for a single software scheduling system that can remotely turn on a specific video unit, log system usage statistics, allow promotion of ad hoc education events, and secure permission for usage from local site coordinators.

## Strategic Initiative Accomplishments and Update—August, 2005

# Community IT Planning and Development

### Description

The NITC Community Council has partnered with the University of Nebraska Cooperative Extension and Rural Initiative to form the Technologies Across Nebraska partnership. Technologies Across Nebraska is a partnership of over 40 organizations working to help communities utilize information technology to enhance development opportunities. Technologies Across Nebraska facilitates technology-related development by building partnerships, leveraging resources, and strengthening community capacity.

### Accomplishments

**TANgents.** Articles from TANgents have been reprinted by several organizations including the Government Technology Magazine. Readers find TANgents a valuable source of information. 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." A recent survey of readers found that 89% felt reading TANgents has helped them learn about available resources; 79% indicated that reading TANgents has helped them better understand the importance of IT-related community and economic development.; and 69% indicated that reading TANgents has helped them understand how to better incorporate information technology into my community's community and economic development processes.

**IT Planning and Mini Grant Program.** Technologies Across Nebraska has worked with 21 communities or regional groups over the past three years to develop technology plans. The impact of the program has been significant. Two communities received grants totaling over \$400,000 to implement their plans. A new business has started in a third community. Several communities now have broadband services available. Two of the communities addressing broadband access also received Nebraska Internet Enhancement Fund grants to partner with telecommunications providers to bring wireless broadband services to their communities. Other communities are focusing on the technology needs of small businesses, offering e-commerce and technology training. One community has developed a video conferencing center available to local businesses and residents. One community is planning a community eBay project. Two communities are focusing on expanding e-government services. Several communities have utilized University of Nebraska Rural Initiative interns to assist them in implementing their technology plans.

Participants in the program are listed in the following table:

IT Planning and Mini Grant Participants		
2002-2003 Participants	2003-2004 Participants	2004-2005 Participants
<ul style="list-style-type: none"> <li>• Alliance</li> <li>• Crawford-Harrison</li> <li>• Custer County</li> <li>• Edgar</li> <li>• Fillmore County</li> <li>• Keya Paha/Brown/Rock Counties</li> <li>• West Point area</li> <li>• York</li> </ul>	<ul style="list-style-type: none"> <li>• Dakota City</li> <li>• Hastings</li> <li>• Homer</li> <li>• Lexington</li> <li>• Maskell</li> <li>• Valley County</li> </ul>	<ul style="list-style-type: none"> <li>• Chappell</li> <li>• Cheyenne County</li> <li>• Cuming County</li> <li>• Hartington</li> <li>• Kearney</li> <li>• Nemaha County</li> </ul>

## Current and Future Activities

**Mini Grants.** This year the NITC is offering mini grants for projects which use information technology to promote economic development. The Technology Innovation Grants for Economic Development program will offer mini grants of up to \$5,000. An estimated \$20,000 is available for competitive grants. The application deadline is Sept. 1, 2005.

**E-commerce Success Stories.** Technologies Across Nebraska, in partnership with the Rural Development Commission, has also examined e-commerce use by Nebraska businesses and e-commerce training in the state. Nebraska firms appear to be adopting e-commerce at a slower rate than firms nationwide. A 2004 survey of Nebraska businesses found that only 31% of small businesses had a Web site. In comparison, 45% of small businesses nationwide had a Web site in 2001.

In order to raise awareness of the benefits of e-commerce, the NITC is partnering with the Nebraska Rural Initiative to publish a booklet on e-commerce success stories and to publicize the resources available through the NITC and the Nebraska Rural Initiative. The booklet is scheduled to be published in October.

**Broadband Development Task Force.** Three Nebraska Information Technology Commissioners or designees will participate in the Broadband Services Task Force created by LB 645 to study the appropriate role of public entities in the provision of broadband.

**TANgents.** Technologies Across Nebraska continues to publish a quarterly electronic newsletter, which reaches over 1,000 individuals with an interest in the use of technology to enhance economic and community development.

## Strategic Initiative Accomplishments and Update—August, 2005

# Digital Education (eLearning) Initiative

### Description

The primary objective of this initiative is to promote the effective and efficient integration of technology into the instructional process and to utilize technology to deliver enhanced educational opportunities to students at all levels throughout Nebraska on an equitable and affordable basis.

The primary components of the Digital Education Initiative would include:

- A statewide telecommunications network capable of transporting voice, video, and data between and among all education entities [see Network Nebraska];
- Ample bandwidth for local and regional transport to accommodate present and future education technology applications [see Statewide Synchronous Video Network];
- Distance insensitive Internet pricing for all Nebraska education entities;
- Development of a statewide eLearning environment so that every teacher and every learner has access to a web-based, digital curriculum;
- Development of a statewide digital resource library so that any teacher or learner will be able to retrieve digital media for use in instructional and student projects;
- Synchronous videoconferencing interconnections between all schools and colleges [see Statewide Synchronous Video Network];
- 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.

The Digital Education Initiative recognizes 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 anywhere at anytime; 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.

In 2004, the NITC Education Council referred to this initiative as the eLearning Initiative that mainly described the development of web-based learning management systems. In 2005, the focus is much broader and Digital Education really comprises the digitization of the entire instructional and learning environment, from the downloading of digital content resources to the availability of sophisticated software applications for the gathering and evaluation of assessment data.

## **Accomplishments**

The Nebraska Information Technology Commission did approve an eLearning workshop series to six areas of the State in October, 2004. Over one hundred fifty educators and administrators participated and contributed to a better understanding of eLearning needs and a future direction for Nebraska.

The Education Council of the NITC conducted three separate online surveys in May 2005 that collected information from administrators (130+), teachers (630+) and technology coordinators (70+). Questions were asked about the usage of Internet and the availability of computers and technical training. The summary data is being prepared for discussion by the Education Council at their September 16, 2005 meeting.

## **Current and Future Activities**

The ultimate future state of Nebraska's Digital Education initiative is largely undetermined. If higher education growth with learning management systems is any indication, Nebraska K-12 schools are on the edge of a tremendous growth period with eLearning. There are unmet needs in rural areas of the State to achieve equity of opportunity and eLearning is one tool to assist. Nebraska's 300+ interactive video, distance learning classrooms could immediately adopt course management software for course organization, electronic assessments, and teacher-student and student-student communications.

Digital media and content resources could be deployed on a statewide basis using regional servers so that a common set of chapterized content titles would be available to all participating entities. This deployment plan would ensure redundancy and also minimize the need for high bandwidth backbone transport.

Nebraska citizens and students would enjoy a much greater access to more flexible lifelong learning opportunities, should a statewide Digital Education and eLearning strategy be adopted. Additional educational opportunities often result in workforce development and enhanced economic vitality. Nebraska's economic engine could be improved through greater retention of high school and college graduates.

# Strategic Initiative Accomplishments and Update—August, 2005

## State Government Efficiency

### Description

The State Government Council and Technical Panel will address multiple items improving efficiency in state government, including: shared services; standards and guidelines; and the project review process. The council has identified and is working to implement seven “shared services” for state government agencies. Also, the council and Technical Panel will continue to develop standards and guidelines to better coordinate state agency technology efforts. Finally, the council and Technical Panel will review and recommend improvements to the IT project review process.

The primary components of this initiative are:

1. **Shared Services.** The State Government Council has identified a number of potential shared services. The council chose seven shared services for further study and implementation at this time. Interested agencies are meeting to further develop these services.
  - Blackberry
  - Business Continuity / Disaster Recovery
  - Directory Services
  - E-mail
  - Enterprise Maintenance / Purchase Agreements
  - Field Support Services
  - SAN (Storage Area Network)
2. **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.
3. **IT Project Review Process.** The State Government Council and Technical Panel will review and recommend improvement to the IT project review process. This process is primarily used in the review of IT projects as part of the state budget process.

### Accomplishments

- Shared Services: Work groups have been formed to study and implement the seven shared services. One shared service -- Blackberry -- is in production.
- Standards and Guidelines: The following standards, guidelines and resource documents have been adopted:
  - Technology Access Clause
  - Accessibility Policy
  - Security Statement - State of Nebraska Home Page
  - Web Branding and Policy Consistency
  - E-mail Standard for State Government Agencies

- Use of Computer-based Fax Services by State Government Agencies
- Blocking E-mail Attachments
- Unsolicited Bulk E-mail
- Lotus Notes Guidelines for State Government Agencies
- Lotus Notes Standards for State Government Agencies
- Best Practices for Management of Lotus Notes E-mail Records
- IP Communication Protocol Standard for Synchronous Distance Learning and Videoconferencing
- Contracting Guidelines for Upgrade of Distance Learning Services
- Acceptable Use Policy - State Data Communications Network
- Security Policies
- Disaster Recovery Planning Procedures
- Wireless Local Area Network Guidelines
- Remote Access Guidelines
- Identity and Access Management Standard for State Government Agencies
- Security Officer Instruction Guide
- IS Technical Staff Handbook (template)
- Computer User's Security Handbook (template)
- Security Officer Working Paper
- Video and Audio Compression Standard for Synchronous Distance Learning and Videoconferencing
- IT Project Review Process: Since 1999, the councils and Technical Panel have reviewed 93 information technology related budget requests; and numerous grant requests.

## **Current and Future Activities**

- Shared Services: Work groups will continue to study and implement the seven shared services.
- Standards and Guidelines: The process of reviewing and adopting standards and guidelines is ongoing.
- IT Project Review Process: The State Government Council and Technical Panel will be reviewing the entire process for gathering information and reviewing IT related budget requests.

# Strategic Initiative Accomplishments and Update—August, 2005

## E-Government

### Description

This initiative builds on the *E-Government Strategic Plan for Nebraska State Government* developed by the State Government Council. The principles guiding the initiative 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.

The three goals for e-government are:

1. **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. The plan contains 17 action items in the following areas: citizen portal enhancement; business portal enhancements; education portal; and forms automation.
2. **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.
3. **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.

### Accomplishments

- In 2000, the first *E-government Strategic Plan* was adopted. The plan has been updated annually by the State Government Council. Completion of the action items has come from two major sources, first from individual and collaborative agency initiatives and, second, from enhancements to the state's Web portal.
- State Web Portal
  - In 2000 the NOL portal was redesigned to present information in categories
  - Sub-portals for business, citizens, education, and state employees added

- “Live Help” and “Ask a Librarian” help features available
- Public Meeting Calendar
- In 2005 the portal was redesigned and re-branded as “*Nebraska.gov*”.
- Some of the improvements from the redesign site: improved layout and design; enhanced search feature, powered by Google; local government section added; and RSS feeds added.
- *Nebraska.gov* (formerly, NOL) has developed and launched several specific e-government applications, including interactive permits and registrations; more than 80 online professional license renewals for nine different agencies; and tax filing applications for income, sales and withholding taxes. Some 300 services are available through the portal.
- Since publication of the first e-government strategic plan, state agencies have added considerable content and many interactive services to their Web sites. A few examples include:
  - Game and Parks Commission – Online campground and lodging reservations
  - Department of Revenue – Tax Forms and online tax filing options such as Individual Income Tax forms 1040NS, 1040N; Sales and Use Tax Form 10; and the 941N for withholding payments
  - Department of Labor – UIConnect for unemployment insurance taxes
  - Public Employees Retirement System – Access to Pension-Related Information
  - State Treasurer – Child Support Web site
  - Nebraska Supreme Court – Court Records Retrieval System
  - Nebraska Workers’ Compensation Court - Claims Administrator’s Extranet First Report of Injury Search Application
- Web Branding and Policy Consistency Standard adopted in June 2005
- Annual E-government Conferences since 1999

## Current and Future Activities

Below are some of the recent actions items and recommendations for implementing e-government. The State Government Council will be reviewing and updating the action items later this year.

- Work with the Secretary of State’s Office to provide enhancements to election related information and services.  
Status: Completed. Enhancements made for November 2004 election.
- Work with the Accountability and Disclosure Commission to provide for secure online filings and improved access to information.  
Status: Improvements to information access completed.
- Work with the Legislature to provide additional tools to track legislative information.  
Status: Completed.
- Work with the Nebrask@ Online Manager and county officials to provide the means for online payment of property taxes and other local fees.  
Status: State Records Board grant for a pilot project with six counties.
- Working with the various agencies involved in business registration – including the Secretary of State, Department of Revenue, and Department of Labor – create an online system for business registration.  
Status: Work group established. Analysis underway by Nebraska.gov and agencies.
- Prepare draft standards for all agency home pages to include privacy and security statements.  
Status: Completed

# Strategic Initiative Accomplishments and Update—August, 2005

## Security and Business Resumption

### Description

This initiative will define and clarify policies, standards and guidelines, and responsibilities related to the protection of the state's information technology resources. Information security refers to policies and procedures that are aimed at preventing problems that would threaten the safety and integrity of information resources. Business resumption refers to plans and activities aimed at responding to an event in a manner that mitigates the severity of problems and accelerates recovery.

Information security and business resumption will serve statutory goals pertaining to government operations and public records. These include:

1. Insure continuity of government operations (Article III, Section 29 of the Nebraska Constitution; Nebraska Revised Statutes Sections 28-901 and 84-1201);
2. Protect safety and integrity of public records (Nebraska Revised Sections 28-911, 29-3519, and 84-1201);
3. Prevent unauthorized access to public records (Nebraska Revised Statutes Sections 29-3519, 81-1117.02, and 84-712.02);
4. Insure proper use of communications facilities (Nebraska Revised Statutes Section 81-1117.02); and
5. Protect privacy of citizens (Nebraska Revised Statutes Section 84, Article 7).

A strategy for security and business resumption of information technology systems is essential for meeting the statutory objectives listed above. In addition, there are several federal laws and regulations regarding privacy and security of information. These include HIPAA (Health Insurance Portability and Accountability Act), IT Requirements for Public Health Preparedness and Response for Bioterrorism (Center for Disease Control), Sarbanes-Oxley Act of 2002, Help America Vote Act of 2002 (HAVA), Graham-Leach-Bliley Act (GLBA), and the Family Education Rights and Privacy Act (FERPA).

### Accomplishments

Every version of the Statewide Technology Plan of the NITC has included one or more action items pertaining to security for information technology systems. Past achievements include:

- Establishing the Security Work Group, with broad representation from state government and education sectors, to provide a forum for sharing information and developing standards and guidelines. Adopting a comprehensive set of security policies in January 2001 by the NITC. These policies include: Information Security Management, Access Control, Disaster Recovery, Education, Training and Awareness, Individual Use, Network Security, and Security Breaches and Incident Reporting.
- Publishing three security handbooks tailored to security officers, IS technical staff, and the general user.
- Offering training on the use of the security handbooks.
- Developing detailed information on:
  - Incident Response and Reporting Procedures;
  - Disaster Recovery Planning Procedures;
  - Wireless Local Area Network Guidelines;
  - Remote Access Guidelines.

- Sponsoring a Security Awareness Day (July 15, 2002).
- The NITC funded security audits in 2003 and 2004.

Several agencies have undertaken special projects and initiatives to improve security of information technology systems. These include:

- Department of Administrative Services
  - Implemented layered security and firewall management of the state's network;
  - Developed directory services capability for better authentication and identity management;
  - Updating the disaster recovery plan for Information Management Services Division;
  - Distributing security notices from the Multi-State Information Sharing and Analysis Center to agency security contacts.
- Health and Human Services
  - Designated a security officer for information technology;
  - Implemented HIPAA Privacy and Security regulations;
  - Developing agency security policies and procedures;
- Department of Roads
  - Designated a security officer for information technology;
  - Updating the disaster recovery plan for information technology services;
  - Developing agency security policies and procedures.
- University of Nebraska
  - In collaboration with DAS-IMServices, NU is developing a shared, fast recovery capability, through mutual assistance of physically distant data centers. Fiber optic cable has been installed between the State and University.
  - Hired a University Information Security Officer
  - Work is progressing on the design and implementation of a Directory Service / Identify Management System.
  - Disaster recovery plan is going through major revisions to update and incorporate new options.
  - UN has implemented various firewalls in locations where it is needed.
  - Implemented a University-wide security focus group to share information, patch management, awareness training, incident reporting, and other educational opportunities.
  - University-wide licensing for McAfee Anti-Virus Software
  - Implemented various federally mandated regulations (HIPAA, GLBA, FERPA).
- Multiple Agencies
  - Implementing recommendations stemming from the March 2004 Network Perimeter Security Sweep.

## Current and Future Activities

Major activities include:

1. Developing an overall security strategy, including policies, security awareness, and security infrastructure improvements;
2. Network security standards and guidelines;
3. Education and training;
4. Authentication (directory services project);
5. Disaster recovery for information technology systems (as part of a broader business continuity planning);
6. Compliance with federal privacy and security mandates;
7. Security assessments.