

2008 Statewide Technology Plan Proposed Action Items

Network Nebraska. Network Nebraska, as a statewide network, will begin to shift its focus from technical upgrades and implementation to utilization and application development. To facilitate this shift, five continued and eight new action items are being recommended by the Education Council and the Collaborative Aggregation Partnership (CAP). E-rate eligibility issues and network input and governance are featured among the new action items.

New Action Items: 8
Continued Action Items: 5
Completed Action Items: 0

Community IT Planning and Development. This year's action plan will focus on helping communities develop content-rich Web sites in order to better promote the community and to recruit people to the area. The council will also focus on identifying best practices and conducting an assessment of the technology-related needs of communities.

New Action Items: 3
Continued Action Items: 0
Completed Action Items: 2

eHealth. The eHealth Council has developed seven action items which focus on assessing and prioritizing health IT activities, addressing health information security and privacy issues, addressing policy and regulatory issues related to universal service funding for telehealth, and exploring the development of a pilot project demonstrating the value of a statewide client identification number.

New Action Items: 7
Continued Action Items: 0
Completed Action Items: 3

Public Safety Communications System. The objective of this initiative is to develop the Nebraska Wireless Integrated Network of Systems (N-WINS) to consolidate state law enforcement agencies, and integrate statewide communications interoperability for public safety.

New Action Items: 1
Continued Action Items: 0
Completed Action Items: 3

Digital Education. The Education Council is recommending one new action item for higher education entities to list all dual enrollment and concurrent enrollment course listings on the statewide clearinghouse and scheduling software system. This initiative also includes three previous action items for continuation. The Distance Education Council is recognized as a lead entity to assist in moving these actions forward.

New Action Items: 1
Continued Action Items: 3
Completed Action Items: 0

State Government Efficiency. The objective of this initiative is to address multiple items improving efficiency in state government, including implementing enterprise shared services and adopting standards and guidelines. The new action item is entitled Statewide Geospatial Infrastructure Strategic Planning.

New Action Items: 1
Continued Action Items: 9
Completed Action Items: 3

E-Government. The online business registration project is a continuation item for this initiative. Phase 1 of this action item was completed in November 2007 with the creation of the Nebraska One-Stop Business Registration Information System website (<https://www.nebraska.gov/osbr/>).

New Action Items: 0
Continued Action Items: 1
Completed Action Items: 2

Security and Business Resumption. The objective of this initiative is to define and clarify policies, standards and guidelines, and responsibilities related to the security of the state's information technology resources. The new action item involves evaluating and recommending options for a Network Operations Center that will provide real-time monitoring of all critical assets.

New Action Items: 1
Continued Action Items: 3
Completed Action Items: 5

Network Nebraska

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.

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.

N1a **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: 2008

Funding: No funding required for this action item.

Status: Continuation

N1b **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.

Lead: Network Nebraska (CAP)

Participating Entities: NITC Community Council, ESU-NOC, Nebraska League of Municipalities, Nebraska Association of County Officials, public libraries

Timeframe: 2008

Funding: No funding required for this action item.

Status: Continuation

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.

N2a **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 network that will mitigate data transport and synchronous video problems.

Lead: Network Nebraska (CAP)

Participating Entities: Network Nebraska (CAP), ESU-NOC, Higher education entities, NITC Education Council

Timeframe: 2008

Funding: No funding required for this action item.

Status: Continuation – Revised

N2b **Action:** The Chief Information Officer will annually update the State master purchase contracts for edge devices and codec equipment and monitor the local site purchases of such equipment in order to promote and encourage network equipment and codec equipment standardization.

Lead: Chief Information Officer

Participating Entities: Network Nebraska (CAP)

Timeframe: 2008-2009

Funding: No funding required for this action item.

Status: Continuation

3. Offer Internet I services to eligible network participants.

N3a **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

Timeframe: 2008-2009

Funding: No funding required for this action item.

Status: Continuation

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

N4a **Action:** Develop an appropriate catalog of services and bandwidth thresholds for Network Nebraska to serve nonpublic K-12 and nonpublic higher education entities.

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, Association of Independent Colleges and Universities of Nebraska, Nonpublic Schools of Nebraska

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

N4b

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

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

N4c

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

Lead: Network Nebraska (CAP), Technical Panel for needs assessment

Participating Entities: All NITC groups and sub groups

Timeframe: 2008-09

Funding: No funding required for this action item to initiate needs assessment phase, funding and cost recovery schedule needed for future implementation and service support

Status: New

N4d

Action: Develop a formula for E-rate cost allocation that allows affordable fees for adult education and other ineligible population services to take place in K-12 settings.

Lead: Distance Education Council

Participating Entities: DEC Advisory Committee, NITC Education Council

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

N4e **Action:** Work to amend Nebraska Department of Education policies to include PreK as an eligible population for Universal Service Fund (Erate) purposes.

Lead: Nebraska Erate Coordinator

Participating Entities: Educational Service Units, State Board of Education, Nebraska Legislature

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

N4f **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 (preK, adults, telehealth, etc...).

Lead: Nebraska Erate Coordinator

Participating Entities: Educational Service Units, NITC Education Council

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

N4g **Action:** Create a Network Advisory Group and meeting structure for education entities to provide input to Network Nebraska (CAP).

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, Educational Service Units, Public and nonpublic higher education entities

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

N4h **Action:** Review the Network Nebraska governance and leadership structure.

Lead: Network Nebraska (CAP)

Participating Entities: NITC Education Council, Educational Service Units, Public and nonpublic higher education entities.

Timeframe: 2008-09

Funding: No funding required for this action item.

Status: New

Digital Education

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;
- 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 application of the 2000's. So much of what teachers, students, and administrators do today is tied to Internet-based information and communication. Nebraska's ranking of 2.8 students per high speed, Internet-connected computer in the classroom seems to compare favorably with the U.S. average of 3.7 students per high speed, Internet-connected computer. (Technology Counts 2007 Report) However, it still makes it challenging for students to complete their digital assignments when they are expected to share two or three students to a computer, or to wait their turn to be able to use a computer. Educators and administrators everywhere should continue to make technology investments until 1:1 computer 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

- D1** 1. **Set a deadline, and establish standard(s) related to the administration and maintenance of learning management systems and content management systems by K-12 schools.**

Lead: NITC Technical Panel

Participating Entities: Learning Management Systems Work Group, NITC Education Council, myeLearning.org, ESU Distance Education Council, UNL Independent Study High School

Timeframe: 2008-2009

Funding: No funding is required for this action item.

Status: Continuation. Required by LB 1208.

D2 2. Promote the availability, distribution, and use of digital media throughout the Nebraska educational community.

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

Lead: Distance Education Council

Participating Entities: NITC Education Council

Timeframe: 2008-2009

Funding: No funding is required for this action item.

Status: Continuation

D3 3. Develop an affordable plan to provide access to learning management system software for every teacher and learner who uses synchronous video distance learning and to also train teachers in effective instructional design to integrate synchronous and asynchronous technologies.

Lead: Distance Education Council

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

Timeframe: 2008-2009

Funding: No funding is required for this action item.

Status: Continuation

D4 4. Encourage higher education entities to list all dual enrollment and concurrent enrollment course opportunities on the statewide clearinghouse and scheduling software system.

Lead: Distance Education Council

Participating Entities: NITC Education Council, Higher education entities

Timeframe: 2008-2009

Funding: No funding required for this action item

Status: New