

TECHNICAL PANEL

Nebraska Information Technology Commission
Tuesday, July 10, 2001, 9:00 a.m.
Varner Hall, Regents Board Room
3835 Holdrege, Lincoln, Nebraska
PROPOSED MINUTES

MEMBERS PRESENT:

Bob Huber, Nebraska Educational Telecommunications Commission
Brenda Decker, Department of Administrative Services, State of Nebraska
Steve Schafer, Chief Information Officer, State of Nebraska
Mike Winkle, NITC Executive Director
Walter Weir, Chief Information Officer, University of Nebraska

MEMBERS ABSENT:

Christy Horn, Compliance Officer, University of Nebraska-Lincoln

OTHERS PRESENT:

Rick Golden, University of Nebraska
Ruth Michalecki
Tom Rolfes, Office of the CIO/NITC
Dave Wagaman, Budget Office, State of Nebraska
Steve Henderson, Department of Administrative Services, State of Nebraska
Kathy Tenopir, Legislative Fiscal Office, State of Nebraska
Dr. Jim Emal, University of Nebraska

CALL TO ORDER, ROLL CALL, AND MEETING NOTICE

The Chair, Walter Weir, called the meeting to order at 9:05 a.m. Roll call was taken. There were five members present at the time of roll call. A quorum was present to conduct official business. The meeting notice and agenda were posted to the NITC and Nebraska Public Meeting Calendar web site on July 3, 2001

PUBLIC COMMENT

There was no public comment.

APPROVAL OF [JUNE 12, 2001 MINUTES](#)

Under the section titled "Briefing-Department of Roads, 511 System and Intelligent Transportation System (ITS) the wording of the last sentence in the third paragraph was changed for clarification to read as follows: "Mr. Weir recommended that the project team work with the Technical Panel to protect the state's investment."

Mr. Winkle moved to approve with the June 12th minutes with the proposed change. Ms. Decker seconded the motion. Roll call vote: Huber-Yes, Decker-Yes, Schafer-Yes, Weir-Yes and Winkle-Yes. The motion was carried by unanimous vote.

[STATEWIDE TECHNOLOGY PLAN – SECTION 3](#)

A SGC work group meeting will be held this week to discuss revisions to the Agency Information Technology Plan form and the Project Proposal Form. The revisions will be presented to the SGC and the Technical Panel.

[Enterprise Architecture Timelines:](#)

Accessibility Architecture. The Work Group has not met since the approval of the Assistive Technology Clause for State Contracts in December. There are some concerns regarding the length of the [Accessibility Checklist](#) and the work that remains to be done in order to meet the timeline. Recommendations from the Work Group are to be completed by September 2001. Since Ms. Horn was not available, this will be an agenda item for the August meeting.

Application Architecture. No work group has been formed. It was suggested to identify large projects such as NIS, CJIS, GIS, HHS, and task them to address these issues regarding data and application architecture. Mr. Schafer and Mr. Henderson agreed to take the lead and will discuss how to involve large state agencies. Mr. Weir would like to bring in a consultant to discuss and explain application architecture to the Technical Panel.

Groupware Architecture. For subsection "Document Management", the Secretary of State's Records Division will be invited to discuss this with the Technical Panel.

Data and Information Architecture. GIS standards are in development.

E-Government Architecture. Guidelines are under development. A "Governor's Business Portal Initiative" grant will be submitted August 31st to the State Records Board. Mr. Schafer is exploring consultant services.

Hardware Platform Architecture. The same approach that was recommended for the Application Architecture will be taken. Mr. Becker, Mr. Schafer and Mr. Henderson agreed to further develop the concept.

Network Architecture. Subsection "Other" was taken out. It is anticipated that the completion of NETCOM standards for transport only will be completed by 12/01.

Security Architecture. The completion of the Security Handbooks is anticipated for August 2001.

Systems Management Architecture. For Subsection "Quality Assurance and Management", Mr. Schafer agreed to take the lead and to have a Work Group formed September 2001.

Video Architecture. Work group will be meeting again next week. After research, the Work Group has standards are down to two which be tested at the next meeting.

Discussion followed regarding the composition and duration of the Work Groups. Suggestions were as follows:

- put a time limit of perhaps 60 days to submit proposal to the Technical Panel with the 30 public review – total of 90 days to complete task.
- Contact persons on reviewers list to solicit volunteers for the remaining work groups, need to determine leadership of each work group.
- Facilitate a meeting where reviewers prioritize standards issues – determine standards and guidelines.

Mr. Becker had developed a prototype of the [NITC Enterprise Architecture \(Standards and Guidelines\)](#) web site for the members to review and suggestions. Mr. Henderson suggested including a search engine and index for better identification.

ADDITIONAL AGENDA ITEM: RECORDS BOARD, GRANT APPLICATION FROM THE CIO OFFICE, "GOVERNOR'S BUSINESS PORTAL INITIATIVE"

Mr. Schafer requested a technical review of application by the Technical Panel.

The Technical Panel, having reviewed the grant application entitled "Governor's Business Portal Initiative," finds that:

- The project is technically feasible.
- The proposed technology is appropriate for the project.
- The technical elements can be accomplished within the proposed time frame and budget.

Mr. Winkle moved to forward the Technical Panel technical review of the “Governor’s Business Portal Initiative” grant to the State Records Board. Ms. Decker seconded the motion. Roll call vote: Winkle-Yes, Weir-Yes, Schafer-Abstained, Decker-Yes, and Huber-Yes. Motion was carried by unanimous vote.

UPDATES

Wireless. Ms. Decker reported that the release of the RFP has been postponed for 30 days.

NETCOM. After discussions with the DAS Director, Lt. Governor and the CIO, it was decided to move the RFP due date to August 27th.

Security. The Security Handbooks should be ready by end of August. Incident reporting will be the next issue to be addressed by the Work Group. The CERT conference is scheduled for the first week in August.

Accessibility. No report.

E-government. The “Governor’s Business Portal Initiative” grant application will be submitted to the State Records Board.

Video Standards. The Work Group will be meeting again at the end of next week. Vendors will be invited to do testing and analysis.

OTHER:

Ms. Michalecki serves on the FCC’s Network Reliability and Interoperability Council V. A written report of their recommendations was distributed to the Technical Panel members. Council V’s next meetings are in September and October. Final recommendations of the group are to be submitted in January.

Mr. Weir distributed an article titled “Searching for New Directions for IT Financing” for informational purposes.

Ms. Decker alerted the Panel that the implementation of LB 833 may become an issue for the NITC and the Technical Panel. There are concerns regarding vendors, contracts, ongoing support, and video issues regarding connectivity.

NIS. The contract has not been signed. Consequently, the Kickoff that was scheduled for Friday has been cancelled. Negotiations are continuing.

Mr. Weir adjourned the meeting at 11:35 a.m.

Minutes were taken by Lori Lopez Urdiales and reviewed by Rick Becker of the Office of the CIO/NITC.

LB833 Excerpt pertaining to the Distance Learning Network Completion Grant

Sec. 2. (1) For fiscal years 2001-02 and 2002-03, the Excellence in Education Council shall grant up to twenty percent of the Education Innovation Fund, not to exceed one million five hundred thousand dollars per fiscal year, to a grantee for a distance education network completion grant. The distance education network completion grant shall fund engineering, equipment, and installation charges for two-way interactive distance education capacity for public high school buildings that do not currently have such capacity. The grant application shall:

- (a) Designate the State Department of Education as the fiscal agent for the grant;
- (b) Specify criteria for determining the public high school buildings for which the grant will fund engineering, equipment, and installation charges;
- (c) Specify criteria for determining the engineering, equipment, and installation charges which the grant will fund;
- (d) Specify the technique for prorating funding and collecting funds from districts if the charges for engineering, equipment, and installation for the public high school buildings for which grant funds are used exceed the grant funds available;
- (e) Specify the procedure for assuring that all projects meet the standards of the technical panel created in section 86-1511, including periodic reviews of projects by the technical panel;
- (f) Specify the timeline for completing a statewide two-way interactive distance education network that includes all participating public high schools; and
- (g) Specify that any equipment obtained through a grant is the property of the school district and not the department.

(2) For a public high school to participate in the grant, the school district must apply to the department as the fiscal agent on a form prescribed by the department on or before a date established by the department. The application shall require evidence that the school district has made a commitment to be part of a distance education consortium and that the distance education consortium has accepted the district's commitment. The application shall also require the applicant district to list the classes that the district anticipates accessing from the consortium or a community college and any classes that the district anticipates that it will offer to other districts in the consortium through distance education.

(3) The department as the fiscal agent may use up to twenty-five thousand dollars per fiscal year of the grant funds to fund a project manager.

Distance Learning Network Completion Grant Timeline (All dates subject to revision)

LB833 Signed	May 24, 2001
Distance Education Summit.....	June 5 - 6, 2001
Meeting with Distance Learning Coordinators	June 28, 2001
Fund Accrual Period Begins	July 1, 2001
Mail meeting materials to stakeholders.....	July 9, 2001
LB 833 Stakeholders' Meeting	July 13, 2001
LB 833 Stakeholders' Meeting (Rule 89)	August 21, 2001
NITC Technical Panel Project Overview	August 22, 2001
Intent to Apply Responses Due	September
Rule 89 Hearing Draft Approval	September 7, 2001
Public Hearing Notice Published.....	by September 10, 2001
Agenda Items Due for Nov. St. Board Mtg.....	October 11, 2001
Rule 89 Public Hearing	October 12, 2001
DL Application Finalized/Sent (tentative)	October 15, 2001
Support Materials Due for Nov. St. Board Mtg.....	October 18, 2001
Video Standard Approved by the NITC.....	November, 2001
Rule 89 Revisions Approved.....	November 2, 2001
Application Deadline (tentative)	December 15, 2001
Schools Schedule Classes for Fall 2002	Jan. - Feb., 2002
NDE Presentation to NITC Technical Panel	January 8, 2002
RFP Released.....	January 15, 2002
Bids – RFP Responses Due	March 1, 2002
Vendors Selected.....	March 15, 2002
Vendors Order Equipment	April 1, 2002
Potential 1st Installation Time Period.....	May-Sep., 2002
End of 1 st Fiscal Year.....	June 30, 2002
Schools Schedule Classes for Fall 2003	Jan. - Feb., 2003
Potential 2 nd Installation Time Period	May-Sep., 2003
End of 2 nd Fiscal Year and fund accrual	June 30, 2003
Project Completion Analysis	July, 2003
Potential 3 rd Installation Time Period	May-Sep., 2004
Final Project Report	January, 2005

School Systems With No Distance Learning Classroom (8/7/01)

ESU District/System Name	HS Bldgs.
9 Adams Central Jr-Sr High School	1
*14 Alliance Public Schools	1
4 Auburn Public Schools	1
13 Bayard Public Schools	1
3 Bellevue Public Schools	2
3 Bennington Public Schools	1
14 Chappell Public Schools	1
9 Clay Center Public Schools	1
7 Columbus Public Schools	1
1 Crofton Community Schools	1
7 David City Public Schools	1
9 Doniphan-Trumbull Public Schools	1
7 East Butler Public Schools	1
1 Emerson-Hubbard Public Schools	1
4 Falls City Public Schools	1
3 Fort Calhoun Community Schools	1
9 Giltner Public Schools	1
10 Grand Island Public Schools	1
9 Harvard Public Schools	1
9 Hastings Public Schools	1
7 High Plains Community Schools (Polk)	1
1 Homer Community Schools	1
7 Humphrey Public Schools	1
9 Kenesaw Public Schools	1
7 Lakeview Community Schools	1
14 Leyton Public Schools	1
10 Lexington Public Schools	1
18 Lincoln Public Schools	6
10 Litchfield Public Schools	1
14 Lodgepole Public Schools	1
8 Madison Public Schools	1
6 Mc Cool Junction Pub Schools	1
10 Northwest High School	1
19 Omaha Public Schools	7
7 Osceola Public Schools	1
3 Papillion-La Vista Public Schools	2
1 Ponca Public Schools	1
14 Potter-Dix Public Schools	1
7 Rising City Public Schools	1
7 Schuyler Central High School	1
7 Shelby Public Schools	1
14 Sidney Public Schools	1
9 So. Cen. Unified #5 (Lawrence, Sandy Creek, Superior)	3
14 South Platte Public Schools (Big Springs)	1
3 South Sarpy Dist 46	1
10 St Paul Public Schools	1
7 Polk County School District #15 (Stromsburg)	1
3 Waterloo Public Schools	1
10 Wood River Rural High School	1

1 Wynot Public Schools	1
Total Number of Eligible LB 833 HS Bldgs.	65

* Alliance not a member of an ESU but would probably join Western Consortium

Districts in Southeast Consortium (9 districts)

3 Bellevue Public Schools	2
3 Bennington Public Schools	1
3 Fort Calhoun Community Schools	1
3 Papillion-La Vista Public Schools	2
3 South Sarpy Dist 46	1
3 Waterloo Public Schools	1
4 Auburn Public Schools	1
4 Falls City Public Schools	1
6 Mc Cool Junction Pub Schools	1
18 Lincoln Public Schools	6
19 Omaha Public Schools	7
Possible Total High Schools in Southeast Consortium	24

List of Consortiums:

Southwest Nebraska Distance Learning Consortium	Shirley Schall
Western Nebraska Distance Learning Consortium	B.J. Peters
Tri-Valley Distance Education Consortium	John Stritt
Central Nebraska Distance Education Consortium	Chris Petroff
Sandhills Telecommunication Educational Project	Rich Schlesselman
Niobrara Valley Tele-Partnership	Nigel Buss
Northeast Nebraska Distance Learning Consortium	Nigel Buss
North Central Consortium	Nigel Buss
Southeast Nebraska Distance Learning Consortium	Don Ferneding
Eastern Nebraska Distance Learning Consortium	Diane Wolfe
Northeast Nebraska Learner's Academy	Nigel Buss
 Crossroads	 Phyllis Brunken

ADDITIONS TO RULE 89 DUE TO LB 833 (2001) DISTANCE LEARNING NETWORK COMPLETION (DLNC) GRANT

Course means a particular subject, subject area, or defined sequence of learning experiences with one or more students enrolled and in attendance.

Distance education capacity shall mean capacity for two-way, synchronous, interactive audio-video transmission.

Distance education consortium shall mean a group of parties who enter into an agreement pursuant to the Nebraska Interlocal Cooperation Act pursuant to section 13-801 R.R.S. et seq. for the purpose of establishing, maintaining and operating a two-way, synchronous, interactive video system for distance education purposes.

Distance Learning Network Completion Grant shall mean a grant to fund engineering, equipment, and installation charges for two-way, synchronous, interactive distance education capacity for Nebraska public high school buildings that do not currently have such capacity.

Engineering shall mean the design and planning for the installation of the equipment.

Equipment shall mean the basic distance learning hardware (e.g. television monitors, video cameras, microphones, speakers), instructor equipment (e.g. computer) and console, and ancillary items (e.g. cables, connectors, and echo canceller) that are on location at the school site to capture, display, and transport audio and video.

Installation charges mean the fees for the placing, affixing, or attaching of the equipment as well as the initial, one-time connection charges.

NITC shall mean the Nebraska Information Technology Commission created pursuant to section 86-1505 R.R.S.

Public high school shall mean an attendance center owned and operated by a public school district that is for high school grades as defined by section 79-101(6).

Technical standards shall mean the protocols developed by the NITC technical panel, pursuant to section 86-1511(2) R.R.S., as statewide requirements to achieve interoperability among distance education sites.

Distance Learning Network Completion Grants

The Distance Learning Network Completion Grants shall be available to public high schools that do not have interactive distance education capacity at the time of the grant application deadline.

Eligible applicants. Eligible applicants for this grant are public high school districts with one or more public high schools that do not have two-way interactive distance education capacity as of the grant application deadline.

Special purpose schools (school accredited under the waiver provision of 92 NAC 10-008.04) or programs that are designed only to meet the needs of a subset of the high school student population, are not eligible when operated in the confines of a facility that

is not the public school district's facility. Additionally, if a recognized high school leased a private facility in order to offer special classes (e.g. alternative education), the leased facility would not qualify as a public high school for the purposes of this grant program.

A district is not eligible under any of the following circumstances:

(a) Prior to the time of application or at any time between the application and the grant award, the State Committee for the Reorganization of School Districts receives, but has not acted upon, any petition filed pursuant to sections 79-413, 79-415 or 79-417 R.R.S., or any plan filed pursuant to the Reorganization of School Districts Act (sections 79-432 to 79-451 R.R.S.) when the contents of such petition or plan call for the dissolution and merger of an applicant district with any other district(s) and the closure or cessation of classroom operations of all high school buildings for which the applicant district is applying for grant funds.

(b) An Order approving a petition filed pursuant to sections 79-413, 79-415 or 79-417 R.R.S., or approving a plan filed under the Reorganization of School Districts Act, has been issued by the State Committee for the Reorganization of School Districts and when (i) the plan or petition's contents call for the dissolution and merger of the applicant district with any other district(s) and the closure or cessation of classroom operations of all the high school buildings for which the applicant district is applying for grant funds; and (ii) there has not yet been a special election held on the plan pursuant to section 79-447 R.R.S. or the plan was approved after such a special election.

School districts which are eligible to apply for the grant but do not apply as of the grant application deadline date shall forfeit their right to any DLNC grant benefits.

Application Process for the Distance Learning Network Completion Grant

Application requirements. Eligible applicant school districts shall apply to the department on a form prescribed by the department on or before a date established by the department. All applicant eligibility requirements must be met prior to or as of the grant application deadline. The grant application shall require the following:

evidence that the school district has made a commitment to be part of a distance education consortium;

that the distance education consortium has accepted the district's commitment, and that the applicant school district submit a list of:

the classes that the district anticipates accessing from the consortium or a community college; and

any classes that the district anticipates that it will offer to other districts in the consortium through distance education.

evidence that the local board of the applicant school district has made a financial commitment to pay the on-going, monthly line-lease charges and other expenses associated with items enabling distance education capacity but not covered by the grant.

Grant Policies. The following provisions apply to the Distance Learning Network Completion Grant.

NITC technical standards. At the time of school district application for state

funds for distance education implementation, school districts must adhere to the implementation plan of the technical standards.

In the case of the formation of a new distance education consortium applicants must meet the standards set by the NITC technical panel created in section 86-1511.

In the case of a school district joining an existing consortium, a waiver of this requirement may be given by the NITC in accordance with its powers under sections 86-1501 through 86-1514 R.R.S.

Equipment. The following provisions apply to the basic equipment to be installed in eligible school districts.

Options. The department shall prescribe the equipment options available to the school district applicants to: (1) ensure that equipment is compatible with the equipment in use by the distance learning consortium to which the applicant will join; and (2) ensure that the equipment meets the standards of the technical panel created in section 86-1511.

Ownership. Any equipment obtained through this grant is the property of the school district in which it is installed.

Order/priority of installation. The department will determine the order of and priority for the installation of distance education classrooms by taking into account the following:

demonstrated need to access other courses from other school districts or community colleges due to teacher shortages, accreditation issues, or other reasons which can be verified;

readiness of the high school physical plant for classroom equipment installation;

availability of distance education network connectivity; and

telecommunications provider ability to provide access to infrastructure.

Utilization. The distance education capacity must be used by the school district to:

Send at least one course per year for the benefit of Nebraska high school students enrolled at another school district, or

Receive at least one course per year from another public school district or a community college.

Application review. The application will be reviewed by department staff per the requirements listed in section 000.

Project review. The initial project plan shall be reviewed by the technical panel created in section 86-1511 R.R.S. to see that standards in place at the time of application are being met. Periodic reviews of the projects by the technical panel will be achieved through written reports by the department to the technical panel.

Distance Learning Network Completion Grant Funds. The following provisions apply to the use of Distance Learning Network Completion Grant funds:

Use of funds. Grant funds may be used to fund the allowable costs for engineering, basic equipment and installation of distance learning equipment for each qualifying school district.

Basic distance learning equipment shall include:

- television monitors
- video cameras
- microphones
- speakers
- instructor equipment such as a computer and a console to house such equipment
- ancillary items such as cables, connectors and echo cancellers that are on location at the school site to capture, display and transport audio and video.

Grant funds may be used to fund the allowable costs for achieving connectivity between the high school and the applicable distance education consortium such as necessary equipment or the installation of fiber optic cable.

Restrictions on the Use of Grant Funds. The following uses of grant funds are not allowed:

Equipment ordered and/or services contracted prior to or after the conclusion of the grant period.

Remodeling and/or construction of a classroom or other space including adding or increasing electrical service.

Equipment peripheral to the distance education capacity including items such as student computers and copiers.

On-going, monthly line-lease charges for connectivity between any of the following: (i) the school district and the distance education consortium of which they are a member; (ii) a distance education consortium and other distance education consortia; (iii) the applicant school district and other school districts which are not members of the distance education consortium.

Expenses associated with the upgrade of an existing distance education consortium's technology to comply with enhanced video standard requirements.

Expenses associated with the upgrade or installation of statewide distance education infrastructure.

Membership fees payable to the consortium to cover expenses such as scheduling services or a share of the salary of the consortium director.

Grant Process

Funding. Funding will be available for the Distance Learning Network Completion Grant during fiscal years 2001-02 and 2002-03. The department shall prorate

grant benefits based on the final number of eligible public high schools. Grant benefits per eligible public high school will be based on functionality of the distance learning capacity installed rather than equity of the dollar value of the goods or services provided through the grant. If actual costs for all qualifying applicant high schools exceed the total amount of funding available for this grant, benefits for each high school will be based on a percentage of the total eligible grant costs for each high school.

Project period. Project implementation activities may extend over a three-year period.

Reports. A final report may be required from each school district that is a beneficiary of the DLNC grant. School districts shall be required to provide, upon request, such data related to the grant project as the Council or Department deems necessary. The department shall provide periodic reports to the NITC to satisfy the statutory requirement for periodic reviews of projects by the NITC technical panel.

Agency Comprehensive Information Technology Plan

Agency:

Date of last revision to this plan:

1. Agency Contact Information

Person responsible for Information Technology in the agency:

Name	<input type="text"/>
Phone Number	<input type="text"/>
E-mail	<input type="text"/>

Person to contact for additional information about the agency Comprehensive Information Technology Plan:

Name	<input type="text"/>
Phone Number	<input type="text"/>
E-mail	<input type="text"/>

If **this document** is posted on your agency's Web site, please provide the URL for this document:

<input type="text" value="http://"/>

2. Agency Mission, Goals and Objectives

Describe the mission of the agency. This is a statement of why the agency exists and its fundamental purpose. Describe the primary business goals and objectives for the next five years (or for that timeframe for which they are formally established).

Explain the primary programs or service areas of the agency and whom they impact. This should include primary beneficiaries, partners, and other organizations that have an interest in the agency's activities. Please identify how the organization interacts with these other agencies, local governments, the public, businesses, and other entities. How does the agency promote a customer focus and collaboration with these groups?

Please include the URL, if a fuller explanation of this topic is available on the agency's web site.

3. Current Use of Information Technology

3.A. Existing IT Environment

3.A.1. Applications

Off-the-shelf Applications

Provide the number of users, or estimated number of users, for each of the following applications:

	Number of users
Productivity Suite (word processing, spreadsheet, etc.)	
Microsoft Office	
Corel WordPerfect Office	
Other (Specify:)	
Internet Browser	
Microsoft Internet Explorer	
Netscape Navigator	
Other (Specify:)	
Document Viewer	
Adobe Acrobat	
Other (Specify:)	
Anti-Virus Software	
Norton	
McAfee	
Other (Specify:)	

List any other significant off-the-shelf applications utilized by the agency:

Custom Applications

List any significant custom applications developed for the agency:

3.A.2. Collaboration and Workflow

E-mail

E-mail Application	Number of users
Lotus Notes	
Microsoft Exchange	

POP3 Application (e.g. Microsoft Outlook, Eudora, etc.)	
OfficeVision	
Other (Specify:)	

Calendaring and Scheduling

If utilized by the agency, please list the common calendaring and scheduling product(s) used:

Document Management and Imaging

List any document management or imaging system(s) used by the agency:

Work Flow

List any other work flow application(s) utilized by the agency:

3.A.3. Data

Databases

List major databases maintained by the agency and the general purpose of each:

Data Exchange

List the significant electronic data exchanges your agency has with other entities:

3.A.4. Electronic Government - External

3.A.5. Electronic Government - Internal

[Leave blank. Electronic government information from agencies will be collected as part of the Governor’s Business Portal project and by the E-Government Architecture Work Group.]

3.A.6. Hardware, Operating Systems, and Networks

Hardware

Provide a general description of the elements of the computing environment (mainframe, midrange, PC workstations, etc.).

Desktop Operating System(s)

Operating System	Number of users
Windows 3.1	
Windows 95, 98, or ME	
Windows NT	
Windows 2000	
Windows XP	
OS/2	
Linux	
Mac OS	
Other (Specify:)	

Networks - LANs and WANs

Provide a general description of the agency's network environment, including type of network (e.g. Token Ring):

Networks - Operating System

Indicate the network operating system(s) utilized (indicate the estimated number workstations for each, if known):

Network Operating System	Number of users
Novell Netware	
Windows for Workgroups	
Windows 9x Peer Networks	
Windows NT	
Windows 2000	
OS/2 LAN Server	
Other (Specify:)	

3.A.7. Staffing

Identify, in general terms, the agency personnel resources currently devoted to supporting the items listed in this section (3.A). This should include both personnel whose job titles and description are clearly related to technology, other personnel whose responsibilities relate significantly to technology support regardless of job title, and contract staffing provided to the agency.

3.A.8. Other

Please list any other issues relating to your current IT environment:

3.B. Value

Describe and document the tangible and intangible benefits of the agency's investment in information technology.

3.C. Information Technology Training

Summarize the agency's efforts to address training needs relating to information technology. This should include:

- Training for users of information technology
- Training for IT staff who develop and support the information technology systems

3.D. Security

Please answer the following questions regarding your agency's efforts to maintain a secure information technology environment. [The questions refer to the Nebraska Information Technology Commission's Security Policies. These policies are available at <http://www.nitc.state.ne.us/standards/>]

	YES	NO
Has your agency implemented the NITC's Security Policies?		
If your answer to the previous question is NO, is your agency in the process of implementing the NITC's Security Policies?		
If your answers to the previous two questions are NO, has your agency implemented other security policies?		

Please provide contact information for the person responsible for IT security:

Name	<input type="text"/>
Phone Number	<input type="text"/>
E-mail	<input type="text"/>

Provide a general description of the agency's efforts to develop and implement a security program:

3.E. Disaster Recovery and Business Continuity Planning

	YES	NO
Does your agency have a disaster/emergency recovery plan?		
Does your agency perform regular back-ups of important agency data?		
Does your agency maintain off-site storage of back-up data?		

Provide a general description of the agency's efforts regarding disaster recovery and business continuity planning:

3.F. Accessibility (Technology Access for Individuals with Disabilities)

[To be added. This section will be based on the Accessibility Architecture document.]

4. Future Uses of Information Technology

4.A. Strategies and Future Direction

This section should summarize the agency's strategies and future direction for information technology within the agency. Topics should include:

- A summary of future changes in uses of technology, which the agency plans to implement.
- An overview of the agency's activities that promote collaboration.
- A discussion of factors and risks that will impact the success of the agency's information technology strategy.
- An overview of plans to implement e-government services.
- Your agency's efforts to retain IT staff, if applicable.

4.B. Future IT Projects

List significant information technology projects which are expected to be undertaken by the agency during the next two years. Provide a brief description of the project and simple statement on the status of the project.

PROJECT	STATUS

Nebraska Information Technology Commission

Project Proposal Form

**New or Additional State Funding Requests
for Information Technology Projects**

Project Title	
Agency/Entity	

Project Proposal Form

About this form...

This form is to be completed for all technology projects for which new or additional funding is requested from the Nebraska Legislature. An expanded description of the requests for which this form needs to be completed is available at <http://www.nitc.state.ne.us/forms/>.

Comments or questions about this form should be direct to the Office of the NITC:

Mail: 521 S 14th Street
 Lincoln, NE 68508
 Phone: (402) 471-3560
 Fax: (402) 471-4608
 E-mail: info@cio.state.ne.us

Section I: General Information

Project Title	
Agency (or entity)	

Contact Information for this Project:

Name	
Address	
City, State, Zip	
Telephone	
E-mail Address	

General Information (check boxes):

1. Is the project...?

<input type="checkbox"/>	Discretionary
<input type="checkbox"/>	Non-discretionary [Specify reason:]

2. Type of project

<input type="checkbox"/>	New IT system
<input type="checkbox"/>	E-government application for customers or employees
<input type="checkbox"/>	Automation of an operational activity
<input type="checkbox"/>	Implementation of new technology
<input type="checkbox"/>	Modification of existing IT system
<input type="checkbox"/>	Update or upgrade to maintain system functionality
<input type="checkbox"/>	Enhancement to provide additional functionality
<input type="checkbox"/>	Replacement of an existing system

Project Proposal Form

Section II: Executive Summary

Provide a one or two paragraph summary of the proposed project. This summary will be used in other externally distributed documents and should therefore clearly and succinctly describe the project and the information technology required.

Section III: Goals, Objectives, and Projected Outcomes

1. Describe the project, including: specific goals and objectives; expected beneficiaries of the project; and expected outcomes.
2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.
3. Describe the project's relationship to your comprehensive information technology plan.

Section IV: Project Justification / Business Case

Please provide the project justification in terms of tangible benefits (an economic return on investment) and/or intangible benefits to the agency or public. The narrative should address the following:

1. Tangible benefits: Economic cost/benefit analysis.
2. Intangible benefits: Benefits of the project for customers, clients, and citizens and/or benefits of the project for the agency.
3. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.
4. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

Section V: Technical Impact

Describe how the project enhances, changes or replaces present technology systems, or if new systems are being added. The narrative should address the following:

1. Descriptions of hardware, software, and communications requirements for this project. Describe the strength and weaknesses of the proposed solution;
2. Issues pertaining to reliability, security and scalability (future needs for growth or adaptation);

Project Proposal Form

3. Conformity with applicable NITC technical standards and guidelines (available at <http://www.nitc.state.ne.us/standards/>) and generally accepted industry standards;
4. Compatibility with existing institutional and/or statewide infrastructure.

Section VI: Preliminary Plan for Implementation

Describe the preliminary plans for implementing the project. The narrative should address the following:

1. Identify project sponsor(s) and examine stakeholder acceptance;
2. Define the roles, responsibilities, and required experience of the project team;
3. List the major milestones and deliverables for each milestone;
4. Training and staff development requirements and procedures;
5. Ongoing support requirements, plans and provisions.

Section VII: Risk Assessment

Describe possible barriers and risks related to the project. The narrative should address the following:

1. List the identified risks, and relative importance of each;
2. Identify strategies which have been developed to minimize risks.

Project Proposal Form

Section VIII: Financial Analysis and Budget

1. Financial Information

Financial and budget information can be provided in either of the following ways:

- (1) If the information is available in some other format, either cut and paste the information into this document or transmit the information with this form; or
- (2) Provide the information by completing the spreadsheet provided with this document.

Instructions: Double click on the Microsoft Excel icon below. An imbedded Excel spreadsheet will be launched. Input the appropriate financial information. Close the spreadsheet. The information you entered will automatically be saved with this document. If you want to review or revise the financial information, repeat the process just described.



Excel Spreadsheet
(Double-click)

- 2. Provide any on-going operation and replacement costs not included above, including funding source if known:

- 3. Please indicate where the funding requested for this project can be found in the agency budget request, including program numbers. Also, please provide a breakdown of all non-state funding sources and funds provided per source.

Nebraska Information Technology Commission
Project Proposal Form
Section VIII: Financial Analysis and Budget

Project Title:
Agency/Entity:

	Estimated Prior Expended	Request for FY2003 (Year 1)	Request for FY2004 (Year 2)	Request for FY2005 (Year 3)	Request for FY2006 (Year 4)	Future	Total
1. Personnel Costs (a)							\$ -
2. Contractual Services							
2.1 Design							\$ -
2.2 Programming							\$ -
2.3 Project Management							\$ -
2.4 Other							\$ -
3. Supplies and Materials							\$ -
4. Telecommunications							\$ -
5. Training							\$ -
6. Travel							\$ -
7. Other Operating Costs							\$ -
8. Capital Expenditures (b)							
8.1 Hardware							\$ -
8.2 Software							\$ -
8.3 Network							\$ -
8.4 Other							\$ -
TOTAL COSTS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
General Funds							\$ -
Cash Funds							\$ -
Federal Funds							\$ -
Revolving Funds							\$ -
Other Funds							\$ -
TOTAL FUNDS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

NOTES:

- (a) If new FTE positions are included in the continuing costs/request, please provide a breakdown by position, including separate totals for salary and fringe benefits, on a separate sheet.
- (b) Please itemize equipment on a separate sheet.

Technical Panel of the Nebraska Information Technology Commission

State Enterprise Architecture

Revised: 10 August 2001

Architecture	Subsection	Work Group	Lead	Standards / Guidelines Status
Accessibility Architecture		Assistive Technology WG	Horn	ADOPTED: TP endorsed assistive technology clause for state contracts 12/12/2000 IN DEVELOPMENT: Accessibility policies and checklists – Draft to the TP Aug. 2001; TP recommendation Sept. 2001; NITC for approval Nov. 2001
Application Architecture	To be created. (NIS; CJIS; GIS, etc.)		Schafer / Henderson	
Groupware Architecture	Directory Services	Directory Services WG	SGC	ACTIONS: Creating a root directory for Microsoft Active Directory users. To be completed by Aug. 2001 IN DEVELOPMENT: Reviewing enterprise directory issues. Recommendations by Dec. 2001
	E-mail	E-mail, Calendaring, and Scheduling WG	SGC	ADOPTED: Standards adopted for state agencies on 11/18/1997
	Calendaring and Scheduling	E-mail, Calendaring, and Scheduling WG	SGC	
	Document Management			(State Records Board)
Data and Information Architecture	GIS	GIS Steering Committee	GIS	IN DEVELOPMENT: Resolution adopted by TP on 2/13/01 requesting standards from GIS Steering Committee
	Others		Schafer / Henderson	
E-Government Architecture		E-Government WG	Schafer	IN DEVELOPMENT: Guidelines under development. GTCF grant application Aug. 2001
Hardware Architecture	NIS Project		Henderson	GUIDANCE: Guidance document from NIS project on PC configurations dated May 1, 2001.
	Workstations		Henderson	IN DEVELOPMENT: Draft guidelines to TP Aug. 2001; ; TP recommendation Sept. 2001; NITC for approval Nov. 2001
Network Architecture	NETCOM	Network Architecture WG	Decker	IN DEVELOPMENT: RFP issued Apr. 2001; bids to be opened Aug. 27, 2001
	Other	Network Architecture WG	Decker	
	Cabling			IN DEVELOPMENT: Draft guidelines to TP Aug. 2001; ; TP recommendation Sept. 2001; NITC for approval Nov. 2001
Security Architecture		Security Architecture WG	Schafer	ADOPTED: Security policies adopted by the NITC on 1/23/01 IN DEVELOPMENT: Handbooks being prepared for completion by Aug. 2001

Technical Panel of the Nebraska Information Technology Commission

Architecture	Subsection	Work Group	Lead	Standards / Guidelines Status
Systems Management Architecture	Project Status Reporting		Schafer	ADOPTED: Guidelines adopted 6/22/00
	Quality Assurance and Management	Work Group to be created		
Video Architecture		Video Standards WG	Beach	IN DEVELOPMENT: Developing video standards for distance learning.

Accessibility Architecture

Title	Accessibility Policy
Category	Accessibility Architecture
Date Adopted	
Date of Last Revision	July 27, 2001

A. Authority

Section 86-1506 (6). "(The Nebraska Information Technology Commission shall) adopt minimum technical standards, guidelines, and architectures upon recommendation by the technical panel created in Section 86-1511."

B. Purpose and Objectives

The purpose of this document is to define and clarify policies, standards, and guidelines that will help agencies meet the needs of people with disabilities.

LB 352 (2000) required the Commission for the Blind and Visually Impaired, the Nebraska Information Technology Commission, and the Chief Information Officer to develop a technology access clause by January 1, 2001. The Technology Access Clause applies to all purchases of information technology. The clause includes the following provisions:

"The intent and purpose of these standards is to ensure that the needs of Nebraskans with disabilities are met through reasonable accommodation of the information technology products and services of the state. Future information technology products, systems, and services including data, voice, and video technologies, as well as information dissemination methods, will comply with the following standards to the greatest degree possible.

1. Effective, interactive control and use of the technology including, but not limited to, the operating system, applications programs, and format of the data presented must be readily achievable by individuals with disabilities. The intent is to make sure that all newly procured information technology equipment; software and services can be upgraded, replaced or augmented to accommodate individuals with disabilities.
2. Information technology made accessible for individuals with disabilities must be compatible with technology used by other individuals with whom the individual with a disability must interact.
3. Information technology made accessible for individuals with disabilities must be able to be integrated into networks used to share communications among employees, program participants, and the public.
4. Information technology made accessible for individuals with disabilities must have the capability of providing equivalent access to telecommunications or other interconnected network services used by the general population.
5. These provisions do not prohibit the purchase or use of an information technology product that does not meet these standards provided that:
 - a. There is no available means by which the product can be made accessible and there is no alternate product that is or can be made accessible; or
 - b. The information manipulated or presented by the product is inherently unalterable in nature (i.e., its meaning cannot be preserved if it is conveyed in an alternative manner).

Accessibility Architecture

- c. The information technology products or services are used in conjunction with an existing information technology system, and modifying the existing system to become accessible would create an undue burden.
- d. The agency is able to modify or replace the information technology product with one that will accommodate the needs of individuals with disabilities.

“When development, procurement, maintenance, or use of electronic and information technology does not meet these standards, individuals with disabilities will be provided with the information and data involved by an alternative means of access.”

The primary objectives of accessibility standards and guidelines include:

- 1. Where feasible, people with disabilities can use the same information technology systems as people without disabilities;
- 2. Early planning for accessibility will make it easier to provide reasonable accommodations when information technology systems are not accessible.

C. Standards and Guidelines

- 1. FUNCTIONAL PERFORMANCE CRITERIA (SECTION 1194.31)
 - a. General-Alternative Access
 - (1) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.
 - (2) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.
 - (3) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided.
 - (4) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.
 - (5) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.
 - (6) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.
- 2. SOFTWARE APPLICATIONS AND OPERATING SYSTEMS (SECTION 1194.21)
 - a. Navigation

Accessibility Architecture

- (1) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.
 - (2) A well defined, on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that Assistive Technology can track focus and focus changes.
- b. Image / Information Display
- (1) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to Assistive Technology. When an image represents a program element, the information conveyed by the image must also be available in text.
 - (2) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.
 - (3) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.
 - (4) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.
- c. Compatibility.
- (1) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.
- d. Use of Color
- (1) Applications shall not override user selected contrast and color selections and other individual display attributes.
 - (2) Color-coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
 - (3) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.
- e. Animation
- (1) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.
- f. Forms.
- (1) When electronic forms are used, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

Accessibility Architecture

3. WEB-BASED INTERNET INFORMATION AND APPLICATIONS (SECTION 1194.22)
 - a. Navigation
 - (1) Redundant text links shall be provided for each active region of a server-side image map.
 - (2) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.
 - (3) Row and column headers shall be identified for data tables.
 - (4) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.
 - (5) Frames shall be titled with text that facilitates frame identification and navigation.
 - (6) A method shall be provided that permits users to skip repetitive navigation links.
 - b. Image / Information Display
 - (1) Documents shall be organized so they are readable without requiring an associated style sheet.
 - (2) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
 - (3) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.
 - (4) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by Assistive Technology.
 - (5) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with the provisions of Section 2 (Software Applications and Operating Systems), above.
 - c. Information Display Alternatives
 - (1) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).
 - (2) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.
 - (3) Use of Color
 - (a) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.
 - (4) Forms
 - (a) When electronic forms are designed to be completed on-line, the form shall allow people using Assistive Technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
 - (5) Timed Responses.
 - (a) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

Accessibility Architecture

4. TELECOMMUNICATIONS PRODUCTS (SECTION 1194.23)
 - a. Image / Information Display
 - (1) Where provided, caller identification and similar telecommunications functions shall also be available for users of TTYs, and for users who cannot see displays.
 - (2) Products that transmit or conduct information or communication shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide the information or communication in a usable format. Technologies which use encoding, signal compression, format transformation, or similar techniques shall not remove information needed for access or shall restore it upon delivery.
 - b. Technology Links Compatibility
 - (1) Telecommunications products or systems, which offer voice communication but do not include TTY functionality, shall provide a standard non-acoustic connection point for TTYs. Microphones shall be capable of being turned on and off to allow the user to intermix speech with TTY use.
 - (2) Telecommunications products, which include voice communication functionality, shall support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols.
 - (3) Where a telecommunications product delivers output by an audio transducer which is normally held up to the ear, a means for effective magnetic wireless coupling to hearing technologies shall be provided.
 - (4) Interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) shall be reduced to the lowest possible level that allows a user of hearing technologies to utilize the telecommunications product.
 - c. Volume Control
 - (1) For transmitted voice signals, telecommunications products shall provide a gain adjustable up to a minimum of 20 dB. For incremental volume control, at least one intermediate step of 12 dB of gain shall be provided.
 - (2) If the telecommunications product allows a user to adjust the receive volume, a function shall be provided to automatically reset the volume to the default level after every use.
 - d. Voice Mail
 - (1) Voice mail, auto-attendant, and interactive voice response telecommunications systems shall be usable by TTY users with their TTYs.
 - (2) Voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems that require a response from a user within a time interval, shall give an alert when the time interval is about to run out, and shall provide sufficient time for the user to indicate more time is required.
 - e. Controls or Keys / Physical Operation

Accessibility Architecture

- (1) Products, which have mechanically operated controls or keys, shall comply with the following: Controls and Keys shall be tactilely discernible without activating the controls or keys.
- (2) Products which have mechanically operated controls or keys shall comply with the following: Controls and Keys shall be operable with one hand and shall not require tight grasping, pinching, twisting of the wrist. The force required to activate controls and keys shall be 5 lbs. (22.2N) maximum.
- (3) Products, which have mechanically operated controls or keys, shall comply with the following: If key repeat is supported, the delay before repeat shall be adjustable to at least 2 seconds. Key repeat rate shall be adjustable to 2 seconds per character.
- (4) Products which have mechanically operated controls or keys shall comply with the following: The status of all locking or toggle controls or keys shall be visually discernible, and discernible either through touch or sound.

5. VIDEO AND MULTI-MEDIA PRODUCTS (SECTION 1194.24)**a. TV**

- (1) All analog television displays 13 inches and larger, and computer equipment that includes analog television receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals. As soon as practicable, but not later than July 1, 2002, wide screen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, shall be equipped with caption decoder circuitry which appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals.
- (2) Television tuners, including tuner cards for use in computers, shall be equipped with secondary audio program playback circuitry.

b. Video & Multi-Media

- (1) All training and informational video and multimedia productions which support the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, shall be open or closed captioned.
- (2) All training and informational video and multimedia productions, which support the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, shall be audio described.
- (3) Display or presentation of alternate text presentation or audio descriptions shall be user-selectable unless permanent.

6. SELF-CONTAINED, CLOSED PRODUCTS (SECTION 1194.25)

- a. ?????? Self-contained products shall be usable by people with disabilities without requiring an end-user to attach Assistive Technology to the product. Personal headsets for private listening are not Assistive Technology.
- b. Response Time

Accessibility Architecture

- (1) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.
- c. Controls or Keys / Physical Operation
 - (1) Where a product utilizes touch screens or contact-sensitive controls, an input method shall be provided that complies with the provisions in Section 4.e, above.
 - (2) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.
- d. Audio / Voice Output
 - (1) When products provide auditory output, the audio signal shall be provided at a standard signal level through an industry standard connector that will allow for private listening. The product must provide the ability to interrupt, pause, and restart the audio at anytime.
 - (2) When products deliver voice output in a public area, incremental volume control shall be provided with output amplification up to a level of at least 65 dB. Where the ambient noise level of the environment is above 45 dB, a volume gain of at least 20 dB above the ambient level shall be user selectable. A function shall be provided to automatically reset the volume to the default level after every use.
- (3) Use of Color
 - (a) Color-coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.
 - (b) When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels shall be provided.
- (4) Image / Information Display
 - (a) Products shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
- (5) Location Accessibility
 - (a) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: The position of any operable control shall be determined with respect to a vertical plane, which is 48 inches in length, centered on the operable control, and at the maximum protrusion of the product within the 48 inch length on products which are freestanding, non-portable, and intended to be used in one location and which have operable controls.
 - (b) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is 10 inches or less behind the reference plane, the height shall be 54 inches maximum and 15 inches minimum above the floor.
 - (c) Products which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Where any operable control is more than 10 inches

Accessibility Architecture

and not more than 24 inches behind the reference plane, the height shall be 46 inches maximum and 15 inches minimum above the floor.

- (d) Products, which are freestanding, non-portable, and intended to be used in one location and which have operable controls shall comply with the following: Operable controls shall not be more than 24 inches behind the reference plane.

7. DESKTOP AND PORTABLE COMPUTERS (SECTION 1194.26)
- a. ?????? Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards.
 - b. Controls or Keys / Physical Operation
 - (1) All mechanically operated controls and keys shall comply with the provisions of Section 4.3, above.
 - (2) If a product utilizes touch screens or touch-operated controls, an input method shall be provided that complies with the provisions of section 4.3, above.
 - c. When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.

D. Key Definitions

1. Agency shall mean any governmental entity, including state government, local government, or third party entities under contract to the agency.
2. Alternate formats are usable by people with disabilities and may include, but are not limited to, Braille, ASCII text, large print, recorded audio, and electronic formats that comply with this part.
3. Alternate methods are different means of providing information, including product documentation, to people with disabilities. Alternate methods may include, but are not limited to, voice, fax, relay service, TTY, Internet posting, captioning, text-to-speech synthesis, and audio description.
4. Assistive technology includes any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to increase, maintain, or improve functional capabilities of individuals with disabilities.
5. Electronic and information technology includes information technology and any equipment or interconnected system or subsystem of equipment, that is used in the creation, conversion, or duplication of data or information. The term electronic and information technology includes, but is not limited to, telecommunications products (such as telephones) information kiosks, and transaction machines, World Wide Web sites, multimedia, and office equipment such as copiers and fax machines. The term does not include any equipment that contains embedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where

Accessibility Architecture

- information technology is integral to its operation, are not information technology.
6. Equivalent facilitation provides that nothing in this part is intended to prevent the use of designs or technologies as alternatives to those prescribed in this part provided they result in substantially equivalent or greater access to and use of a product for people with disabilities.
 7. Information technology is any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. The term information technology includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources.
 8. Operable controls are the component of a product that requires physical contact for normal operation. Operable controls include, but are not limited to, mechanically operated controls, input and output trays, card slots, keyboards, or keypads.
 9. Product is an electronic and information technology.
 10. Self-contained, Closed Products are products that generally have embedded software and are commonly designed in such a fashion that a user cannot easily attach or install assistive technology. These products include, but are not limited to, information kiosks and information transaction machines, copiers, printers, calculators, fax machines, and other similar types of products.
 11. Telecommunications are the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.
 12. TTY is an abbreviation for teletypewriter. Machinery or equipment that employs interactive text based communications through the transmission of coded signals across the telephone network. TTY's may include, for example, devices known as TDDs (telecommunication display devices) or telecommunication devices for deaf persons) or computers with special modems. TTYs are also called text telephones.
 13. Undue burden means significant difficulty or expense. In determining whether an action would result in an undue burden, an agency shall consider all agency resources available to the program or component for which the product is being developed, procured, maintained, or used.

E. ApplicabilityGENERAL STATEMENT

These policies are intended to be sufficiently generic to apply to a wide range of governmental and educational agencies in the State of Nebraska. Each agency or operational entity must develop detailed procedures to implement broad policies and standards. Compliance with these security policies and standards will be a requirement during consideration of funding for any projects requiring review by the NITC. Compliance may be used in audit reviews or budget reviews.

COMPLIANCE AND ENFORCEMENT STATEMENT

Accessibility Architecture

The Governing board or chief administrative officer of each organization must develop internal compliance and enforcement policies as part of its information accessibility efforts. Such policies should be reasonable and effective. The NITC intends to incorporate adherence to accessibility policies as part of its evaluation and prioritization of funding requests. The NITC recommends that the Governor and Legislature give due consideration to requests for accessibility improvements during the budget process.

F. Responsibility

An effective program for accessibility involves cooperation of many different entities. Major participants and their responsibilities include:

1. Nebraska Information Technology Commission. The NITC provides strategic direction for state agencies and educational institutions in the area of information technology. The NITC also has statutory responsibility to adopt minimum technical standards and guidelines for acceptable and cost-effective use of information technology. Implicit in these requirements is the responsibility to promote adequate accessibility for information systems through adoption of policies, standards, and guidelines.
2. Technical Panel Accessibility Work Group. The NITC Technical Panel, with advice from the Accessibility Work Group, has responsibility for recommending accessibility policies and guidelines and making available best practices to operational entities.
3. Assistive Technology Partnership.
4. University of Nebraska Accommodation Resource Center The Accommodation Resource Center (ARC) provides training, loan devices and support for accommodation using assistive technology in both the education and employment environment. The ARC website is <http://ar.unl.edu>
5. Federal Information Technology Accessibility Initiative. The Federal Information Technology Accessibility Initiative (FITA) is an interagency effort, coordinated by the General Services Administration, to offer technical assistance and to provide an information means of cooperation and sharing of information on implementation of Section 508. Questions about 508 standards can be sent to 508@access-board.gov.
6. Web Accessibility Initiative The Web Accessibility Initiative has created guidelines which are grouped by priority and are very similar to the final Section 508 rules. The guidelines can be found at <http://www.w3.org/wai>.
7. Agency and Institutional Heads. The highest authority within an agency or institution is responsible for accessibility of information resources that are consistent with this policy. The authority may delegate this responsibility but delegation does not remove the accountability.
8. Information Technology Staff. Technical staff must be aware of the opportunities and responsibility to meet the goals of accessibility of information systems.

G. Related Policies, Standards and Guidelines

Technology Access Clause
Section 504 of the Rehabilitation Act

Accessibility Architecture

Electronic and Information Technology Accessibility Standards, Architectural and Transportation Barriers Compliance Board, 36 CFR Part 1194 can be found at <http://www.access-board.gov/sec508/508standards.htm>

**NEBRASKA TECHNOLOGY ACCESS CLAUSE
DESKTOP AND PORTABLE COMPUTERS**

QUESTION	Y	N	N/A
Are controls and keys tactilely discernible without activating the controls or keys?			
Are controls and keys operable with one hand without requiring tight grasping, pinching, or twisting of the wrist?			
Is the force required to activate controls and keys 5 lbs. (22.2 N) maximum?			
Is the status of all locking or toggle controls visually discernible, and discernible either through touch or sound?			
If key repeat is supported, the delay before the repeat is adjustable to at least 2 seconds and key repeat rate is adjustable to 2 seconds per character?			
If a product utilizes touch screens or touch-operated controls, an input method shall be provided that complies with the above five requirements?			
When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, is provided?			
Where provided, at least one of each type of expansion slots, ports and connectors comply with publicly available industry standards for connecting assistive technology devices?			
Is all product support documentation provided to end-users available in alternate formats upon request at no additional charge?			
Do end-users have access to descriptions of the accessibility and compatibility features of products in alternate formats or alternate methods upon request at no additional charge?			
Are individuals providing support services trained to accommodate the communication needs of end-users with disabilities?			

**NEBRASKA TECHNOLOGY ACCESS CLAUSE
VIDEO AND MULTIMEDIA PRODUCTS**

QUESTION	Y	N	N/A
Are all analog television displays 13 inches and larger, and computer equipment including an analog television receiver or display circuitry equipped with caption decoder circuitry that appropriately receives, decodes, and displays closed captions from broadcast, cable, videotape, and DVD signals?			
Are all wide screen digital television (DTV) displays measuring at least 7.8 inches vertically, DTV sets with conventional displays measuring at least 13 inches vertically, and stand-alone DTV tuners, whether or not they are marketed with display screens, and computer equipment that includes DTV receiver or display circuitry, equipped with caption decoder circuitry which appropriately receives, decodes, and displays close captions from broadcast, cable, videotape, and DVD signals (not later than July 1, 2002)?			
Are all television tuners, including tuner cards for use in computers equipped with secondary audio program playback circuitry?			
Are all training and informational video and multimedia productions supporting the agency's mission, regardless of format, that contain speech or other audio information necessary for the comprehension of the content, open or closed captioned or a procedure in place to provide interpreting services?			
Are all training and informational video and multimedia productions supporting the agency's mission, regardless of format, that contain visual information necessary for the comprehension of the content, audio described?			
Is display or presentation of alternate text presentation or audio descriptions user-selectable unless permanent?			
Is all product support documentation provided to end-users available in alternate formats upon request at no additional charge?			
Do end-users have access to descriptions of the accessibility and compatibility features of products in alternate formats or alternate methods upon request at no additional charge?			
Are individuals providing support services trained to accommodate the communication needs of end-users with disabilities?			

**NEBRASKA TECHNOLOGY ACCESS CLAUSE
SOFTWARE APPLICATION AND OPERATING SYSTEMS**

QUESTION	Y	N	N/A
Are product functions executable from a keyboard where the function itself or the result of performing the function can be discerned textually?			
Are applications designed in such a way that they do not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards?			
Are applications designed in such a way that they do not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer?			
Is there an on-screen indication of the current focus provided that moves among interactive interface elements as the input focus changes and is programmatically exposed so that assistive technology can track focus and focus changes?			
Is there sufficient information about a user interface element including the identity, operation and state of the element made available to allow the use of assistive technology to access the application?			
Is there text available for any image representing a program element?			
Is the meaning assigned to bitmap images used to identify controls, status indicators, or other programmatic elements consistent throughout an application's performance?			
Is textual information provided through operating system functions for displaying text including text content, text input caret location and text attributes?			
Do applications allow user selected contrast and color selections and other individual display attributes?			
Does information displayed by animation have at least one non-animated presentation mode at the option of the user?			
Does the page include content (such as applets or content requiring plug-ins) that may cause the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz?			
Does the application eliminate color coding as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element?			
Are color and contrast adjustments that permit a variety of color selections capable of producing a range of contrast levels available?			
Do electronic forms allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues?			
Is all product support documentation provided to end-users available in alternate formats upon request at no additional charge?			
Do end-users have access to descriptions of the accessibility and compatibility features of products in alternate formats or alternate methods upon request at no additional charge?			
Are individuals providing support services trained to accommodate the communication needs of end-users with disabilities?			

**NEBRASKA TECHNOLOGY ACCESS CLAUSE
SELF CONTAINED, CLOSED PRODUCTS**

QUESTION	Y	N	N/A
Is this self contained product usable by people with disabilities without requiring an end-user to attach assistive technology to the product?			
When a timed response is required, is the user alerted and given sufficient time and the ability to indicate more time is required?			
Are controls and keys tactilely discernible without activating the controls or keys?			
Are controls and keys operable with one hand without requiring tight grasping, pinching, or twisting of the wrist?			
Is the force required to activate controls and keys 5 lbs. (22.2 N) maximum?			
Is the status of all locking or toggle controls visually discernible, and discernible either through touch or sound?			
If key repeat is supported, the delay before the repeat is adjustable to at least 2 seconds and key repeat rate is adjustable to 2 seconds per character?			
When biometric forms of user identification or control are used, is there an alternative form of identification or activation which does not require the user to possess particular biological characteristics provided?			
When products provide auditory output, is the audio signal provided at a standard signal level through an industry standard connector that will allow for private listening and provide the ability to interrupt, pause, and restart the audio at anytime?			
When products deliver voice output in a public area, is there an incremental volume control provided with output amplification up to a level of at least 65 dB?			
Where the ambient noise level of the environment is above 45 dB, is a volume gain of at least 20 dB above the ambient level user selectable?			
Is there a function provided to automatically reset the volume to the default level after every use?			
Color coding is not used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.			
When a product permits a user to adjust color and contrast settings, a range of color selections capable of producing a variety of contrast levels is provided.			
Is the product designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz?			
If the product is free standing, is the position of any operable control determined with respect to a vertical plane, 48 inches in length, centered on the operable control, with a maximum protrusion of the product within the 48 inch length?			
If the product is free standing, are any operable controls 10 inches or less behind the reference plane with at least a 15 inch minimum and 54 inch maximum?			
If the product is free standing, are any operable controls at least 10 inches but not more than 24 inches behind the reference plane with a height no greater than 46 inches or less than 15 inches above the floor?			
Are operable controls less than 24 inches behind the reference plane?			
Is all product support documentation provided to end-users available in alternate formats upon request at no additional charge?			
Do end-users have access to descriptions of the accessibility and compatibility features of products in alternate formats or alternate methods upon request at no additional charge?			
Are individuals providing support services trained to accommodate the communication needs of end-users with disabilities?			

**NEBRASKA TECHNOLOGY ACCESS CLAUSE
TELECOMMUNICATIONS PRODUCTS**

QUESTION	Y	N	N/A
Are standard no-acoustic connection points provided for teletypewriters (TTYs). provided for telecommunications products or systems that provide a function allowing voice communication and which do not themselves provide a TTY functionality?			
Are microphones capable of being turned on and off to allow the user to intermix speech with TTY use?			
Do telecommunications products that include voice communication functionality support all commonly used cross-manufacturer non-proprietary standard TTY signal protocols?			
Are voice mail, auto-attendant, and interactive voice response telecommunications systems usable by TTY users with their TTYs?			
Do voice mail, messaging, auto-attendant, and interactive voice response telecommunications systems requiring a response from a user within a time interval give an alert when the time interval is about to run out, and provide sufficient time for the user to indicate more time is required?			
Is caller identification, and similar telecommunications functions available for user of TTYs, and for users who cannot see displays?			
Is a gain adjustable up to a minimum of 20 dB available for transmitted voice signals in telecommunications products?			
Is there at least one intermediate step of 12 dB for incremental volume control provided?			
If the telecommunications product allows a user to adjust the receive volume, is a function provided to automatically reset the volume to the default level after every use?			
Is there a means provided for effective magnetic wireless coupling to hearing technologies provided where a telecommunications product delivers output by an audio transducer which is normally held up to the ear?			
Is interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) reduced to the lowest possible level allowing a user of hearing technologies to utilize the telecommunications product?			
Do any products that transmit or conduct information or communication pass through cross-manufacturer, non-proprietary, industry-shared codes, translation protocols, formats or other information so that information or communication remains in a usable format?			
Do technologies using encoding, signal compression, format transformation, or similar techniques preserve information needed for access or restore it upon delivery?			
Are controls and keys tactilely discernible without activating the controls or keys?			
Are controls and keys operable with one hand without requiring tight grasping, pinching, or twisting of the wrist?			
Is the force required to activate controls and keys 5 lbs. (22.2 N) maximum?			
If key repeat is supported, is the delay before repeat adjustable to at least 2 seconds and the key repeat rate adjustable to 2 seconds per character?			
Is the status of all locking or toggle controls visually discernible, and discernible either through touch or sound?			
Is all product support documentation provided to end-users available in alternate formats upon request at no additional charge?			
Do end-users have access to descriptions of the accessibility and compatibility features of products in alternate formats or alternate methods upon request at no additional charge?			
Are individuals providing support services trained to accommodate the communication needs of end-users with disabilities?			

**NEBRASKA TECHNOLOGY ACCESS CLAUSE
WEB PAGE ACCESSIBILITY QUESTIONNAIRE**

QUESTION	Y	N	N/A
Does each non-text element on the page have a text equivalent via “alt” (alternative attribute) or does the page otherwise include a meaningful description of the non-text element in the text accompanying non-text element?			
For any multimedia content, is text captioning provided for all audible output and audible output provided for all critical visual information?			
Are all audio descriptions and text captions synchronized with their associated dynamic content?			
Is the page capable of being understood and navigated even if users do not have the ability to identify specific colors or differentiate between colors?			
If the page uses cascading style sheets or JavaScript style sheets, is it viewable without style sheets or with style sheets turned off or not supported by the browser?			
If the page uses cascading style sheets or JavaScript style sheets, is it designed so that it does not interfere with style sheets set by the browser?			
If the page includes any server-side image maps, are duplicate text links provided for all links within the server-side image maps?			
If the page includes one or more client-side image maps, does each map region have a text equivalent via “alt” (alternative text attribute) or does the page otherwise include a meaningful description of the non-text element in the text accompanying it?			
If the page includes data in tables (either HTML tables or preformatted text tables using the <PRE>tag), and if any of the tables has two or more rows (including header or data cells), does each cell provide identification or row and column headers?			
If the page uses frames, does each frame have a title that meaningfully describes it?			
Does the page include content (such as applets or content requiring plug-ins) that may cause the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz?			
If the page uses scripts, such as JavaScript or scripts in Macromedia Flash content, and if the scripts affect any content displayed to the user, is there equivalent text provided by the page or the script that is accessible to a screen reader?			
If the web page uses applets, such as downloadable Java applets, does it also contain the same information and functionality in an accessible format?			
If the page uses other programmatic objects (such as Flash, Shockwave, etc. or otherwise requires the use of plug-ins or programmatic support), does the page include the link required for accessing the content of the page and is that plug-in or programmatic item accessible to people with disabilities?			
If the page includes links to .pdf (Adobe Acrobat’s portable document format) files, were those .pdf files created in a way that is likely to maximize their usability for people with disabilities?			
If the page includes one or more electronic forms that are designed for completion online, does each form permit users of assistive technology to access the information, field elements, and functionality required for completion and submission of the form including all directions and cues?			
If the page contains one or more forms designed to be completed online but is inaccessible to people with disabilities in some respect, does the page include an alternate accessible form or a link to an alternate accessible form?			
If the page includes navigational links to other web pages within the same website, is there a link allowing users of screen readers to skip over those links?			
If the page requires users to respond within a fixed amount of time before the users is “timed out,” is the user alerted that he or she will be timed out and given sufficient time to indicate that more time is required before actually being timed out?			
Taking into consideration your responses to the previous questions, if your page contains barriers to access for people with disabilities, do you have an alternative text-only page that contains the same information and is updated as often as the reviewed page?			
Is all product support documentation provided to end-users available in alternate formats upon request at no additional charge?			
Do end-users have access to descriptions of the accessibility and compatibility features of products in alternate formats or alternate methods upon request at no additional charge?			
Are individuals providing support services trained to accommodate the communication needs of end-users with disabilities?			

Network Architecture

Title	Category 5e Cabling Guidelines
Category	Network Architecture
Date Adopted	
Date of Last Revision	August 2, 2001

A. Authority

Section 86-1506 (6). "(The Nebraska Information Technology Commission shall) adopt minimum technical standards, guidelines, and architectures upon recommendation by the technical panel created in Section 86-1511."

B. Purpose and Objectives

The purpose of this document is to define and clarify policies, standards, and guidelines pertaining to installation of cabling systems.

The primary objectives of these guidelines include:

1. Improve versatility and compatibility of systems;
2. Reduce maintenance problems;
3. Provide vendors with an explicit set of guidelines that will meet state requirements;

C. Standards and Guidelines

Unless unique requirements dictate other types of cable, networks should comply with industry standards for installing category 5e cabling systems. These cabling guidelines are intended to provide a reference for the installation of computing cabling systems. They are not intended to endorse any single product or vendor. They may be used as specifications in cabling contracts or requests for procurement.

1. Work to be done

- Install ladder racking in each communications closet from where the station cables enter the room to relay rack locations. Racking is to be securely attached to walls and approximately seven feet above finished floor.
- Assemble and install a relay rack in each communication closet. Rack to be bolted to the floor and attached to the ladder racking. Verify exact location with site contact. Rack position should not interfere with access to voice blocks or floor/wall cabling sleeves.
- Relay rack must be properly grounded.
- Install category 5e rated, rack mountable patch panel to relay rack for data cable termination. TIA/EIA-568-A, unshielded twisted pair, category 5 for data.
- Install wire management panels under each patch panel.
- Install cable raceway as necessary.

Network Architecture

- Install one category 5e data cable to each designated data jack outlet. Each cable is to be home-run to the appropriate communication closet. All cables are to be one continuous length with no splices between outlet jacks and patch panels.
- Wiring installed in ceilings must be bundled and supported off of the ceiling (cable raceway or Cat 5 rated J hooks are recommended).
- Terminate all wires at each outlet jack and appropriate patch panel location. Data jacks and patch panels are to be configured using TIA 568B color scheme. All terminations at patch panel are to be done in sequential order by room number and/or jack number.
- Test all data cables for proper connectivity and certify for category 5e, 100 MHz compliance and provide a 15-year minimum warranty.
- Install fire stop material after all cabling is installed as required.
- Label all jacks at each outlet location and on all patch panel locations using a commercially available label maker.
- Cable differentiation: Jackets for voice and data cables should be different colors to make differentiation easier.

2. Materials to be used

- Relay racks should be Chatsworth P/N 46353-503 (19" X 7' free standing) or equivalent.
- Ladder rack should be Chatsworth P/N 10250-112 or equivalent.
- Patch panels* are to be 'fully loaded' category 5e compliant, rack mountable and configured using the TIA 568B color scheme with 110 connecting hardware on the back side.
- Wire management panels are to be 19" with a minimum of four cable guides sized to accommodate a quantity of patch cords to match corresponding patch and jack count.
- Data cable is to be category 5e rated, 4 pair, 24 gauge, unshielded twisted pair. The jacket material must meet appropriate fire rating.
- Data jack* is to be RJ-45, category 5e rated, gray or black in color, configured using the TIA 568B color scheme.
- Faceplates should be single gang in size where appropriate and should accommodate the appropriate number of data jacks required at each location.
- Hubs for AS/400 connections should be Powerstar IV dual hubs with twinax inputs. Baluns for AS/400 terminals should be twinax to RJ45, with pins 4 and 5.

*Note: Patch panels and jacks are to be of the same manufacturer. Materials not listed above are at the discretion of the contractor.

3. Labeling

- Label all jacks at each outlet location and on all patch panel locations using a commercially available label maker.
- A labeling scheme will be provided to the County's on-site point of contact.
- Additional labeling requirements are indicated in each section under "Work to be done..."

Network Architecture**4. Workmanship**

Cables not run above lay-in ceilings and inside walls will be concealed in non-metallic surface raceway and supported in such a manner to protect the cabling while not detracting from the facility aesthetics unless otherwise directed by the County's on-site point of contact.

The new data outlet boxes and/or faceplates are to be mounted at the same height above the finished floor or work surface as any existing outlets, unless otherwise instructed by the site contact. Cabling raceway material shall make vertical runs as close to a room corner as possible, where feasible.

Equipment rack installation locations shall be coordinated with the site contact.

The contractor is to supply all materials and test equipment as required to perform the work as outlined in this document.

The contractor shall be responsible for all cutting, drilling and patching required for the installation of the cabling as outlined. All floor and wall penetration locations are to be coordinated with the site contact. Any questions pertaining to structure stability shall be forwarded to the site contact, which will forward it to the agency Facilities Maintenance Office for resolution.

The contractor shall be responsible for all clean up associated with the execution of this project.

All installation methods shall conform to the appropriate and most current recommended standards, as well as any associated technical systems bulletin, as published by the TIA committee of ANSI.

5. Testing

All data locations shall be tested for category 5e compliance. A written test results document is to be provided by the contractor to the site contact upon completion of project and prior to submittal of bill.

6. Warranty

Provide a minimum 15-year warranty for Category 5e compliance for the data network. All installations shall conform to the standards of EIA/TIA-568-A. Certification of this compliance is required. All materials and labor are to be warranted for a period of not less than 15 years from date of acceptance. This warranty shall be in writing and provided prior to issuance of warrant.

D. Key Definitions

1. Agency shall mean any governmental entity, including state government, local government, or third party entities under contract to the agency.
2. Networking Services

Network Architecture**E. *Applicability***

These policies are intended to be sufficiently generic to apply to a wide range of governmental and educational agencies in the State of Nebraska. All Agencies and local government agencies, which utilize networking services of the Information Management Services Division and the Division of Communication, must follow these guidelines when installing new cabling systems. Any exceptions must have approval of the Division of Communications and IMServices Division.

F. *Responsibility*

1. Division of Communications
2. Information Management Services Division
3. Nebraska Information Technology Commission. The NITC provides strategic direction for state agencies and educational institutions in the area of information technology. The NITC also has statutory responsibility to adopt minimum technical standards and guidelines for acceptable and cost-effective use of information technology. Implicit in these requirements is the responsibility to promote adequate accessibility for information systems through adoption of policies, standards, and guidelines.

G. *Related Policies, Standards and Guidelines*

Other Network Architecture Standards (to be developed)

Hardware Architecture

Title	Minimum Workstation Configuration Guidelines
Category	Hardware Architecture
Date Adopted	
Date of Last Revision	August 13, 2001

A. *Authority*

Section 86-1506 (6). "(The Nebraska Information Technology Commission shall) adopt minimum technical standards, **guidelines**, and architectures upon recommendation by the technical panel created in Section 86-1511."

B. *Purpose and Objectives*

The purpose of this document is to define and clarify guidelines, describe **minimum** performance configurations, and establish purchasing guidelines for personal computers. These guidelines are not intended to endorse or support any single hardware or software vendor. They are presented to promote conformity and to ensure compatibility with future state initiatives. These guidelines are subject to periodic review.

The primary objective of these guidelines include recommendations to:

1. Improve versatility and compatibility of desktop systems;
2. Provide a guide to agency on when to upgrade existing personal computers;
3. Reduce maintenance problems; and,
4. Provide agencies with a set of purchasing guidelines that should satisfy future state initiatives.

As the State of Nebraska begins to develop Internet enabled applications, and e-Government and e-Business applications that are delivered over public and private Intranets and the Internet, it is imperative that agencies maintain desktop clients that can efficiently run these new applications. Agency desktop personal computers should be able to:

1. Execute network applications;
2. Support Internet technologies;
3. Extend the desktop communications to the state telecommunications backbone;
4. Support e-Business and e-Government applications; and,
5. Provide desktop security, encryption, and virus protection services when connected to the state telecommunications systems.

A. *Standards and Guidelines*

1) Existing Personal Computers:

In order to avoid obsolescence, agencies should develop a plan to upgrade or replace existing personal computers if they do not support the following minimum system requirements:

Hardware Architecture**Minimum Hardware Guidelines for Existing Personal Computers**

- (1) CPU: 133 MHz or higher Pentium-compatible CPU
- (2) Memory: 64 MB RAM
- (3) Hard Disk: 2 GB hard disk with a minimum of 650MB of free space
- (4) Operating System:
 - (a) Windows 98, 2nd Edition (physical security policies should be in place)
- (5) LAN Connection:
 - (a) Ethernet 10/100
 - (b) 4MB Token Ring

2) Minimum New Personal Computer Purchasing Guidelines:

When purchasing new personal computers, an agency should consider the following minimum guidelines.

- a. Standard Desktop Hardware
 - (1) CPU: 500 MHz Pentium-compatible CPU or higher
 - (2) Memory: 128 MB RAM or higher
 - (3) Disk: 6 GB or larger
 - (4) LAN Connection: Ethernet: 10/100
 - (5) Operating System:
 - (a) Windows 2000 (recommended)
 - (b) Windows NT 4.0 Service Pack 6a, (with 128 MB RAM and 128 bit encryption)
 - (c) Windows XP (requires 256 MB RAM)
- b. GIS Workstation Desktop Hardware
 - (1) CPU: 500 MHz Pentium-compatible CPU or higher (650 MHz or higher recommended)
 - (2) Memory: 128 MB RAM (256 MB RAM recommended)
 - (3) Disk: 10 GB Fast Open or larger (e.g., SCSI)
 - (4) LAN Connection: Ethernet: 10/100
 - (5) Operating System:
 - (a) Windows 2000 (recommended)
 - (b) Windows NT 4.0 Service Pack 6a, (with 128 MB RAM and 128 bit encryption)
 - (c) Windows XP (requires 256 MB RAM)
- c. Server Hardware:
 - (1) CPU: 500 MHz Pentium-compatible CPU or higher (650 MHz or higher recommended)
 - (2) Memory: 256 MB RAM minimum up to 4 gigabytes (GB) maximum (the higher the memory, the better the performance)
 - (3) Disk: 10 GB Fast Open or larger (e.g., SCSI)
 - (4) CPU Support: Up to four CPUs on one machine
 - (5) LAN Connection: Ethernet: 10/100 minimum (Fast Ethernet if available)
 - (6) Operating System:
 - (a) Windows 2000 (recommended)
 - (b) Windows XP Server

Hardware Architecture

- d. Software Recommendations:
 - (1) Office Productivity: MS Office 2000 Standard Edition (recommended)
 - (2) Simple Terminal Emulation:
 - (a) TELENET3270
 - (b) TELENET5250
 - (3) Advanced 3270/5250 Terminal Emulation with Host Addressable Printing
 - (a) IBM Host Client Access Package
 - (4) Internet Browser:
 - (a) MS Explorer 5.0 or higher with 128-bit encryption, and XML compliance.
 - (b) Netscape 6.4 or higher with 128-bit encryption, and XML compliance.
 - (5) Virus Protection:
 - (a) Anti-Virus software (Norton Anti-Virus recommended)
 - (b) Anti-Virus subscription service to protect against newest attacks
- 3) All agencies and local government agencies that utilize networking services of the Nebraska Department of Administrative Services' Information Management Services Division and/or the Division of Communications should migrate to Windows NT 4.0 or Windows 2000 Professional in order to support network security.
- 4) Any agency or local government agency that operates a direct connection to the public Internet shall install firewall services between their public Internet connection and any connection to the state telecommunications network.
- 5) All agencies that receive public Internet e-mail service shall require virus protection on the desktop or mail server.

D. Key Definitions

1. Agency shall mean any governmental entity, including state government, local government, or third party entities under contract to the agency.
2. Networking Services shall mean any system that transmits any combination of voice, video, and/or data between users.

E. Applicability

These guidelines are intended to be sufficiently generic to apply to a wide range of governmental and educational agencies in the State of Nebraska.

Agencies should follow these guidelines whenever they intend to support networking services on the desktop. The guidelines may not apply whenever the desktop does not share network services, when there is no connection to state or local networking services, or whenever an application requires a different hardware and software configuration to function.

F. Responsibility

1. Division of Communications
2. Information Management Services Division

Hardware Architecture

3. Nebraska Information Technology Commission. The NITC provides strategic direction for state agencies and educational institutions in the area of information technology. The NITC also has statutory responsibility to adopt minimum technical standards and guidelines for acceptable and cost-effective use of information technology. Implicit in these requirements is the responsibility to promote adequate accessibility for information systems through adoption of policies, standards, and guidelines.

G. Related Policies, Standards and Guidelines

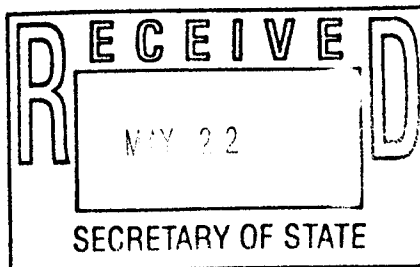
Category 5e Cabling Standards

Other Network Architecture Standards (to be developed)



May 15, 2001

Mr. John A. Gale, Chair
Nebraska State Records Board
Suite 2300, State Capitol
Box 94608
Lincoln, NE 68509-4608

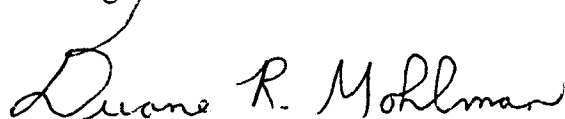


Dear Mr. Gale:

Attached is our *Application for State Records Board Grant to Improve Access to Public Information*. This application details our proposal entitled *Archiving and Digital Access to the Conservation and Survey Division (University of Nebraska-Lincoln) Aerial Photography Collection*.

We look forward to hearing from you concerning the status of this application. If we can be of further assistance, or if you need additional information, please do not hesitate to contact us.

Best regards:



Duane R. Mohlman, Data Systems Coordinator
Voice 472-7528
Fax 472-4608
dmohlman1@unl.edu



Leslie M. Howard, GIS Specialist
Voice 472-9192
Fax 472-4608
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Application for State Records Board Grant to Improve Access to Public Information

Agencies desiring grants from the Nebraska State Records Board for projects to improve access to state government information should complete this application and follow any procedures outlined in this application and any accompanying materials.

1. Name of agency applying for grant

Conservation and Survey Division
Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln

2. Title or brief description of the project

Archiving and Digital Access to the Conservation and Survey Division Aerial Photography Collection.

3. Grant request amount

\$25,000

4. Will there be a fee for accessing records associated with this project?

There will be no fee for accessing the collection. However, we would like to charge a nominal fee to cover the cost of any media.

5. If yes, provide any statutory reference or authorization for the fee.

n/a

6. Please describe the project in detail (you may attach this description).

The Conservation and Survey Division (CSD), University of Nebraska-Lincoln, houses a large and valuable collection of tens of thousand aerial photographs. The majority of these 9"x9" photographs were taken between the 1930s and 1970s. The aerial photography collection is a critical and widely used resource for natural resource planners, land managers and owners, educators and the public. In addition, many of the land areas have multiple images spanning different time periods. The spatial and temporal aspects of the aerial photography make for a unique and historically significant collection.

Currently, the collection only exists as hardcopy photographs. The only availability to our clientele is to physically visit our office. When photographs are requested, our only option is to have high quality copies made from the UNL Printing and Duplicating office. The cost of duplication is significant and adds to the handling and wear of the original photography. Due to the age and heavy use of these photographs, a significant portion of the aerial photography collection is rapidly deteriorating. In order to preserve the collection for future users, it is necessary to digitally archive the collection as soon as possible.

In the fall of 2000, we were fortunate enough to receive a grant from the Nebraska Information Technology Commission (NITC). This grant allowed us to purchase the equipment (large-bed scanners, two personal computers with significant storage, and various supplies). However, the remaining money, which is for personnel, is now nearly depleted.

With these grant funds from the State Records Board, which would be used almost entirely for personnel, we could continue to scan the photographs without interruption. Other than personnel, the only additional expense we anticipate is additional disk space. In addition, with these grant funds, we could make excellent progress over the 2001 summer since many of our current student-workers would be available for more hours.

The photographs are being scanned on a county basis. In the near future, it is our hope to make the completed counties digitally accessible. We are currently reviewing policies to make them available upon request via FTP, email attachments, and/or a media source--whichever meets the customer's needs. We are also exploring the possibilities of making some or all of the data available through our web site.

7. Please describe whom the beneficiary or recipient of this service will be and projected activity for access or use of the proposed service.

A significant portion of CSD's primary clientele would benefit from this project. The clientele include natural resource districts; local, county, state and federal agencies; land owners and land resource planners; earth science educators and school districts; consultants; the general public; and more. Currently, all of our customers must come to our office to research the aerial photography collection. If copies of any photographs are needed, which is usually the case, customers must pay the cost of reproduction (currently \$5.00 per photograph) and incur a waiting period (usually 24 to 48 hours). With these funds, the collection would be more readily available (FTP, email attachments, or possibly the web) making access more efficient and inexpensive for all.

Of equal importance is the fact that CSD itself would be a beneficiary. As mentioned, because of age and heavy use, the aerial photography collection is deteriorating. With these funds, the collection would not only be made more accessible at little or no charge, but would be permanently preserved and archived.

8. Estimated timeline for implementation

Because of last fall's NITC grant, the equipment has been purchased and is currently being used. Several UNL student-workers have been trained, hired, and are currently on the job. Therefore, implementation would be immediate since it would be a continuation of a current project. It is important to mention that with these funds, we would be able to keep our current staff employed, and not have to incur a break in the project thereby causing us to hire and train another group of student-workers.

And, as mentioned before, with summer break coming soon, our current student-workers would be able to work additional hours.

9. Agency contribution to project

The Conservation and Survey Division (CSD) will continue to provide:

- Office space
- Project equipment previously purchased with the NITC grant
- Miscellaneous office supplies
- Supervision and project management by the two current full-time managerial/professional computer personnel (Duane Mohlman and Les Howard)
- Technical support from our part-time computer technician (as needed).

10a. Has this project ever been submitted as a budget request (explain)?

No

10b. Does the project require additional statutory authority (explain)?

No

10c. Why is the grant money needed for the project, and, if applicable, how will the service be sustained once the grant money is expended?

As part of our internal technology and strategic action plans, the Conservation and Survey Division has focused on making our natural resource data more easily and widely available to our clientele. For example, over 60 GIS datasets, approximately 100,000 geologic logs from well registration records (thanks to a previous State Records Board grant), statewide digital raster graphic coverage, and the Nebraska elevation dataset, are all available via the web. The availability of the aerial photography collection in digital format would be another significant contribution toward the implementation of this plan.

Unfortunately, CSD does not have the financial resources to make our massive aerial photography collection electronically accessible or to digitally archive it. The NITC grant allowed us to purchase the equipment, hire and train the student-workers, and perform an extensive amount of scanning. However, and in the near future, that grant will run out of money. Thus, we would use most, if not all, of the requested \$25,000 for just personnel costs. This would have two immediate benefits: 1) the project keeps going without interruption, and thus, 2) means we don't have to spend the resources hiring and training another crew. Therefore, we feel this \$25,000 would allow us to make excellent progress on this important project.

11. Please describe how this project will enhance the delivery of state agency services or access to those services (you may attach a separate sheet if needed)..

The aerial photography collection is rapidly deteriorating due to age and amount of use. We need to preserve it before this resource is permanently lost. Thus, digitally archiving seems to be the most effective and efficient method. In addition, this means that we can make this resource electronically available to the citizens of Nebraska. This eliminates trips to our office, reduces everyone's cost, and improves turn-around time.

12. Please describe how this project will (you may respond to any or all of these criteria in your answer, attach additional pages if needed).

1) Improve the efficiency of agency operations;

Our two primary project goals are to digitally preserve and archive the CSD aerial photography collection and make the collection more widely available and more easily accessible. We feel this will improve our agency's efficiency and effectiveness by eliminating the need for our clientele to make multiple trips to our office, the expense of reproduction, and wait time. These efforts will also greatly expand citizen/clientele access to government information by making this product available to anyone, anywhere as well as reduce the cost and bureaucracy (no need to reproduce). Further, it encourages use of technology and serves as another example of government e-commerce whereby cost is reduced while delivery of service is improved. These efforts will also improve the collaboration between agencies and the general public by providing an often-preferred digital or electronic product.

2) Facilitate collaboration among state agencies;
and

3) Facilitate collaboration between state agencies and other public institutions;

A significant portion of our clientele are other state agencies and public institutions. Many of these agencies and institutions prefer a digital or electronic product over hardcopy (in this case hardcopy photographs). We feel having the aerial photography collection available in digital format will be of great help to other state agencies and public institutions.

4) Support public/private partnerships in the delivery of public services

13. Contact person for any questions regarding this application.

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Proposed Budget:

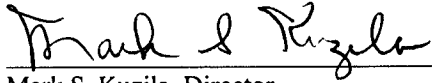
Personnel (UNL student-workers and temporaries)	\$23,000
Data Storage	<u>\$ 2,000</u>
TOTAL	\$25,000

Agency Director

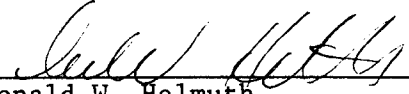
Board of Regents
University of Nebraska

Signed this 7th day of May, 2001

Date: 5-11-01



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Lincoln, NE 68509-4608