

**Technical Panel
of the
Nebraska Information Technology Commission**

Wednesday, January 18, 2006 - 9:00 a.m.
Varner Hall - Board Room
3835 Holdrege St., Lincoln, Nebraska

AGENDA

Meeting Documents:

Click the links in the agenda
or [click here](#) for all documents (307 KB, 55 Pages)

1. Roll Call and Meeting Notice
2. Public Comment
3. Approval of Minutes - [December 13, 2005*](#)
4. Standards and Guidelines
 - Recommendation to the NITC*
 - [Land Record Information and Mapping Standards | Comments Received \(3\)](#)
5. Discussion: [Distance Education Enhancement Task Force Recommendations Affecting the NITC](#)
6. Statewide Technology Plan - Action Items*
 - [Network Nebraska](#)
 - [Statewide Synchronous Video Network](#)
 - [Digital Education](#)
 - [State Government Efficiency](#)
 - [Security and Business Resumption](#)
 -
 - [E-Government](#)
 - [Telehealth](#)
 - [IT Planning and Development](#)
7. Regular Informational Items and Work Group Updates (as needed)
 - Accessibility of Information Technology Work Group
 - CAP
 - Security Work Group - Revised Charter* [Link to be added]
 - Statewide Synchronous Video Network Work Group
8. Other Business
9. Next Meeting Date

Tuesday, February 14, 2006
10. Adjourn

* Denotes Action Item

(The Technical Panel will attempt to adhere to the sequence of the published agenda, but reserves the right to adjust the order of items if necessary and may elect to take action on any of the items listed.)

NITC and Technical Panel Websites: <http://www.nitc.state.ne.us/>

Meeting notice posted to the NITC Website: 13 DEC 2005 (rescheduled on 27 DEC 2005)

Meeting notice posted to the [Nebraska Public Meeting Calendar](#): 13 DEC 2005 (rescheduled on 27 DEC 2005)

Agenda posted to the NITC Website: 17 JAN 2006

TECHNICAL PANEL
Nebraska Information Technology Commission
Tuesday, December 13, 2005 - 9:00 a.m.
Varner Hall - Board Room
3835 Holdrege St., Lincoln, Nebraska
PROPOSED MINUTES

MEMBERS PRESENT:

Brenda Decker, Chief Information Officer, State of Nebraska
Steve Henderson, Department of Administrative Services, State of Nebraska
Christy Horn, University of Nebraska, Compliance Officer
Kirk Langer, Lincoln Public Schools
Walter Weir, University of Nebraska

MEMBERS ABSENT: Mike Beach, Nebraska Educational Telecommunications Commission

CALL TO ORDER, ROLL CALL, NOTICE OF PUBLIC MEETING

Mr. Weir called the meeting to order at 9:10 a.m. A quorum was present at the time of roll call. The meeting notice was posted to the NITC website and the Nebraska Public Meeting Calendar on November 16, 2005. The meeting agenda was posted to the NITC Website on December 8, 2005.

PUBLIC COMMENT

There was no public comment.

APPROVAL OF NOVEMBER MINUTES

Mr. Henderson moved to approve NOVEMBER 8, 2005 the minutes with the correction of Mr. Becker's name under "Other Business". Ms. Horn seconded the motion. Roll call vote: Henderson-Yes, Horn-Yes, Langer-Yes, and Weir-Yes. Results: Yes-4, No-0. Motion carried.

STANDARDS AND GUIDELINES - Set for Public Comment

Land Record Information and Mapping Standards. Mr. Larry Zink was present to answer questions. The GIS Steering Committee has approved draft standards for the Technical Panel review and 30-day comment period. Mr. Zink requested that the Advisory Committee receive and review the public comments as well.

Mr. Henderson moved to approve the draft Land Record Information and Mapping Standards for the 30-day public comment period. Ms. Horn seconded. Weir- Yes, Langer-Yes, Horn-Yes, and Henderson-Yes. Results: Yes-4, No-0. Motion carried.

STANDARDS AND GUIDELINES - Review of Existing Standards and Guidelines

Mr. Becker stated that these documents need to be reviewed. The panel could approve the standard/guideline as is and change review date, or assign the standard/guideline to a work group for review and recommendation. After discussion, it was decided to assign each to a work group.

Secure E-mail for State Government Agencies. The guideline was assigned to the E-mail work group for review and recommendation to the Technical Panel.

Ms. Decker arrived.

Minimum Workstation Configuration Guidelines for State Agencies. The guideline was assigned to PC/LAN group for review and recommendations to the Technical Panel.

Minimum Workstation Configuration Guidelines for K-12 Public Education. The guideline was assigned to the Education Council and the NOC group for review and recommendations to the Technical Panel. Mr. Langer is meeting with them today and will ask them to review.

Disaster Planning Procedures for Information Technology . The guideline was assigned to the Security Work Group for review and recommendations to the Technical Panel.

Members were asked to review them as well.

PORTFOLIO MANAGEMENT - NITC STRATEGIC INITIATIVES

Walter Weir, Chair

The University of Nebraska is using ProSight software package for portfolio management. Representatives from ProSight conducted a workshop for UNL. Mr. Weir demonstrated how the software may be used for portfolio management with the NITC Strategic Initiatives. The State of Nebraska utilizes the Clarity software. Both of these may be able to be used simultaneously. Mr. Weir also demonstrated the Application Rationalization process used at the University.

STATEWIDE TECHNOLOGY PLAN - ACTION ITEMS

At the January meeting, the NITC will be reviewing and voting on action items presented by the Technical Panel and councils. The Technical Panel has been involved in the following initiatives: Network Nebraska, Statewide Video Synchronous Network, Government Efficiency (standards/guidelines & project review process), and Security & Business Resumption.

Mr. Weir suggested inclusion of a project management action item. Due to the action items not being approved until the January NITC meeting, it was recommended to wait until the April NITC meeting to demonstrate the portfolio management software.

REGULAR INFORMATIONAL ITEMS AND WORK GROUP UPDATES (AS NEEDED)

Accessibility of Information Technology Work Group. Ms. Horn reported that she is attempting to bring the work group together.

CAP. Ms. Decker stated that the group is meeting today after the Technical Panel meeting. DEETF has finished its meetings and a report is being drafted. Members discussed some elements of the report.

Security Work Group. Mr. Hartman was not available for a report. Mr. Henderson commented that the work group will be working on action items.

Statewide Synchronous Video Network Work Group. Mr. Beach not available for a report.

ELECTION - TECHNICAL PANEL CHAIR FOR 2006

Ms. Decker nominated Walter Weir to serve as Chair of the Technical Panel for 2006. Mr. Henderson seconded. Roll call vote: Decker-Yes, Henderson-Yes, Horn-Yes, Langer-Yes, and Weir-Yes. Results: Yes-5, No-0. Results: Yes-5, No-0. Motion carried.

OTHER BUSINESS

Mr. Rolfes presented a document regarding the Distance Education Enhancement Task Force recommendations, and issues and questions that should be considered or addressed by the

Technical Panel and CAP group.

NEXT MEETING DATE & ADJOURN

The next meeting of the NITC Technical Panel will be held on Tuesday, January 10, 2006, at Varner Hall, 3835 Holdrege Street, in Lincoln, Nebraska.

Ms. Decker moved to adjourn the meeting. Mr. Henderson seconded. All were in favor. Motion carried.

The meeting was adjourned at 10:38 a.m.

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

The Technical Panel of the NITC is seeking comments on this draft standard. Submit comments by January 12, 2006 to rick.becker@nitc.ne.gov



Nebraska Information Technology Commission

STANDARDS AND GUIDELINES

DRAFT

Land Record Information and Mapping Standards

Category	Data and Information Architecture
Title	Land Record Information and Mapping Standards
Number	XX-XXX

Applicability	<input checked="" type="checkbox"/> State Government Agencies <input checked="" type="checkbox"/> All See each section <input checked="" type="checkbox"/> Excluding See Section 4.1 <input checked="" type="checkbox"/> State Funded Entities - All entities receiving state funding for matters covered by this document..... See each section <input checked="" type="checkbox"/> Other: Public Entities - Other public entities developing or acquiring geospatial data not supported by state funding See each section Definitions: Standard - Adherence is required. Certain exceptions and conditions may appear in this document, all other deviations from the standard require prior approval of <u>NITC Technical Panel</u> . Guideline - Adherence is voluntary.
---------------	---

Status	<input type="checkbox"/> Adopted <input checked="" type="checkbox"/> Draft <input type="checkbox"/> Other: _____
Dates	Date: 11-3-05 Draft Date Adopted by NITC: Other:

Prepared by: The Nebraska GIS Steering Committee and endorsed and referred to the Technical Panel of the Nebraska Information Technology Commission.
Authority: Neb. Rev. Stat. § 86-572(2c), 86-516(6)
<http://www.nitc.state.ne.us/standards/>

1.0 Standard

These standards/guidelines are primarily focused on those public entities responsible for maintaining property parcel maps for their particular jurisdiction. The last line following each standard or guideline refers to the type(s) of agency or entity to which that standard/guideline applies and whether it is a standard (adherence required) or guideline (adherence voluntary) for each type of entity.

- 1.1 Datum.** Local government multipurpose GIS/LIS (Geographic Information System/Land Information System) and their associated geospatial data layers should be based on the North American Datum (NAD) 83 and the North American Vertical Datum (NAVD) 88. Any existing systems developed based on other datums should consider conversion to these datum.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

- 1.2 Projection.** The Nebraska Plane Coordinate System, NAD 83, should be used as the primary map projection system for the recording of positions in local land-data systems in Nebraska. Selection of any other projection should be done reluctantly and only after most careful consideration. The plane coordinate values for a point on the earth's surface may be expressed in either meters or feet.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

- 1.3 Geodetic Control.** GIS/LIS systems developed with the goal of providing a multipurpose cadastre for local government use should be referenced to a local geodetic reference framework that is properly connected to the National Spatial Reference System (NSRS).

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.4 Public Land Survey System Control.

- 1.4.1 PLSS Geodetic Framework.** For all land in Nebraska that is subdivided according to the Public Land Survey System (PLSS), the geodetic reference framework for the cadastre should be the section corners of the PLSS for each section.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

- 1.4.2 Locate, Monument, and GPS Primary Corners.** At a minimum, local government entities developing a geospatial land information system should initially invest in a precision Global Positioning System (GPS) survey to locate, re-monument as necessary, and obtain the geographic coordinates of the major boundary defining corners that legally define the boundaries of their county jurisdiction(s). These precision GPS survey coordinates for the boundary defining corners should be collected and integrated as framework data into the land information system. This effort should be coordinated with officials from the adjacent county(ies) to ensure agreement on the location of the shared corners.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Guideline**

- 1.4.3 Progressive Monumentation.** In addition, each county (or municipality) that is planning to develop a GIS/LIS-based cadastre program should also consider initiating a progressive program to locate and/or re-monument, as

necessary, and collect geographic coordinates on other PLSS corners according to the legally established procedures and properly connect them to the National Spatial Reference System to obtain geodetic coordinates.

State Agencies: **Guideline** State Funded Entities: **Guideline** Other: **Guideline**

1.5 PLSS Base Map. Local governments considering the development of a multipurpose GIS, should consult with the Nebraska State Surveyor’s Office to locate and access the best available data on the Public Land Survey System (PLSS) for their geographic area. To assist the State Surveyors Office in maintaining a repository of the best available PLSS data, local governments participating in the Nebraska Land Information System Program should share any enhanced PLSS data, for their geographic area, with the State Surveyors Office so that it might be integrated into the PLSS repository database.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.6 Ortho-base (Aerial Layer) or Base Maps. Both a Public Land Survey System base map and an orthophoto (surface features) base map should be used to provide the geospatial reference framework upon which a local government multipurpose land information system is developed. Both base maps should be tied to the National Spatial Reference System and have a level of spatial accuracy appropriate to the range of applications planned for a given area.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.7 Map Scale and Spatial Accuracy.

1.7.1 Minimum Horizontal Accuracy Standard. Public entities developing a GIS/LIS program should conduct data collection and development in a manner to achieve at least the minimum level of horizontal spatial accuracy consistent with the National Horizontal Map Accuracy Standards corresponding to a 1:12,000 (1"= 1,000') scale map (90% of the “well defined” horizontal locations must be within ±33.3 ft. of their real world location).

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.7.2 Additional Accuracy Considerations. Beyond this minimum horizontal map accuracy, public entities are encouraged to consider the following recommended map scales and their corresponding National Horizontal Map Accuracy Standards in determining the positional accuracy needed for base maps in the development of a local government GIS/LIS:

<u>Relative Size of Property Parcels</u>	<u>Map Scale</u>	<u>Nat'l Horizontal Map Accuracy Std.</u>	<u>Equivalent Metric Scale</u>
Urban areas	1:600 (1" = 50')	±1.7 ft.	1:500
	1:1,200 (1" = 100')	±3.3 ft.	1:1,000
Large urban & suburban	1:2,400 (1" = 200')	±6.7 ft.	1:2,500
Rural areas	1:4,800 (1" = 400')	±13.3 ft.	1:5,000
	1:9,600 (1" = 800')	±26.7 ft.	1:10,000
	1:12,000 (1" = 1,000')	±33.3 ft.	1:10,000

State Agencies: **Guideline** State Funded Entities: **Guideline** Other: **Guideline**

1.8 Legal Lot and Parcel Layers. Two graphic data layers are necessary to provide the foundation for a wide variety of local government GIS/LIS applications that involve land subdivision and/or ownership.

a). The legal lot layer consisting of legal land subdivisions. These are aliquot portions of the PLSS, filed subdivision plats and irregular tracts defined by filed deeds.

b). The parcel layer that defines ownership tracts of land. These tracts may group multiple legal lots into one taxable account and that typically represents the boundaries of a landowner's property. These data layers include locational coordinates for points representing property corners, lines between property corners representing property boundaries and closed polygons representing the property area.

State Agencies: **Standard**

State Funded Entities: **Standard**

Other: **Standard**

1.9 Parcel Identifiers.

a). Each county/region should adopt a system of unique, permanent feature identifiers (PID) that provide the link between each graphic land ownership parcel polygon and the attribute information (ownership, size, situs address, value, etc.) related to that specific land ownership property parcel.

b). A county/region PID system must be designed in a manner such that a unique, statewide PID can be defined and maintained for each property parcel by using the county FIPS code (Federal Information Processing Standards Publications) as a prefix to the county/region's PID system.

c). To maintain this unique one-to-one association between a specific property parcel and its related attribution information, new PIDs should be assigned whenever a property parcel is altered by either splitting it into two or more parcels or by combining two or more parcels to form a new parcel. The previous PIDs should not be used for these new modified parcels, but the historical PID associations should be maintained through a parent/child PID reference table.

State Agencies: **Standard**

State Funded Entities: **Standard**

Other: **Standard**

1.10 Spatial Data Format. A broad range of state and regional applications require property parcel information. Many of these applications require the combining of data across jurisdictional boundaries. To facilitate these applications, the property parcel spatial (graphic) data should be either maintained in a manner that allows it to be readily integrated in a common geographic data format (i.e., shapefile) or be capable of being exported into a common geographic data format (i.e., shapefile), while including the parcel identifiers.

State Agencies: **Standard**

State Funded Entities: **Standard**

Other: **Guideline**

1.11 Metadata. All geospatial land record databases, and their associated attribute databases should be documented with Federal Geographic Data Committee (FGDC) compliant metadata outlining how the data was derived, attribute field definitions and

values, map projections, appropriate map scale, contact information, access and use restrictions, etc.

State Agencies: **Standard**

State Funded Entities: **Standard**

Other: **Standard**

1.12 Attribute Data. To provide the foundation necessary for a wide variety of local government applications, non-graphic, attribute data should be organized within the GIS/LIS, which describes individual property parcels relative to their basic parcel characteristics, tenure, value, history, buildings and units within the parcel, and tax status. In most cases, much of this attribute data will already exist in separate databases within a variety of local agencies and should be tied to the graphic property parcel via the unique PID. To meet a range of state and regional applications that require property parcel information, the following types of property parcel data should be maintained (for every property parcel?) and (be) available in a manner that allows it to be harvested, translated, and integrated into a statewide property parcel attribute dataset.

PID# Parcel identifier (county FIPS code plus local government PID)
Situs Address..... Address of parcel (may be multiple fields)
Owner Address..... Address of property owner (may be multiple fields)
Township Township #
Section..... Section #
Range Range #
Range Direction..... East or West
Legal Description..... Narrative legal description of parcel
Assessed Value..... Total assessed value of property (land and improvements)
Land Value..... Assessed value of land
Area (Deeded) Area of parcel according to the deed
Property Class (Res, Ag, Com, Rec., Ind.)
Property Sub-class i.e., Ag (Dryland, Irrigated, Grassland/Pasture, Waste)
Ownership type..... Federal, State, County, Private, Tribal, Exempt, Other and Unknown
Tax District..... County ID plus Tax Dist. #
School District State number definition
Landuse Actual landuse with NPAT defined general categories
Property Parcel Type... NPAT defined categories
Status (Vacant, Improved or Improved only) (NPAT defined)
Location (Urban, Sub-urban, Rural)(NPAT defined)
City Size..... 1st class, 2nd class, primary, metro, or village
Source Document..... Sales/transfer reference or document (book & page)
Recording Date..... Most recent sales/transfer date
Sales Value..... Most recent sales value

State Agencies: **Standard**

State Funded Entities: **Standard**

Other: **Standard**

2.0 Purpose and Objectives

The purpose of these standards and guidelines is to help realize the maximum long-term return on and overall utility of the public's investment in the modernization of how Nebraska's land records are maintained and distributed.

2.1 Background

Land records and land ownership records are public records that are used by wide cross-section of our society and its institutions. Ready access to current and accurate land

records is critical to our state's overall economy and the efficient functioning of many of its public and private institutions.

Historically land records have been maintained on paper records and paper maps. This made it very difficult and costly to update and keep current records and maps in areas where there was significant turnover in property ownership. Paper records and maps also made it difficult to share land record information outside of the physical office where they were maintained. Paper records and maps also made it difficult to conduct analyses of broader land ownership and land valuation patterns. Computerization in general, and GIS/geospatial technologies in particular, have revolutionized how land and land ownership records can be maintained, analyzed, shared, and distributed.

Modern computerized land records and maps make it relatively easy to update and keep current land records and maps. Computerization and GIS/geospatial technologies now routinely enable easy, reliable access to land records and maps via the Internet to a wide variety of users. Land records in computerized relational databases and GIS parcel maps have provided a wide array of new information management tools that can be used to integrate land records with other data and analyze and display land ownership, land valuation and other broader land-related patterns. Among other uses, these tools help ensure that all property is on the tax rolls and that the property is tax equally.

Modern computerized land records and maps can provide a wide array of potential benefits to a wide array of users. However, to realize many of these benefits, it is important that when these databases and maps are originally developed they follow a minimal set of standards and guidelines that support this potential broad array of applications and benefits. In many instances, it is not this broader array of potential uses that is the immediate stimulus, which causes a local or state agency to undertake a modernization of its land records and maps. Therefore, these standards and guidelines serve the function of raising the awareness of these potential future applications and the related need to incorporate minimal standards beyond those needed for immediate applications.

These standards and guidelines are intended to help ensure that modernized land records are developed on a solid technical foundation. A foundation, which will enable both the original developing agency, and other interested entities, to build on this initial investment and maintain and enhance the data and enable it to be utilized for multi-purposes by multiple users. These standards and guidelines are also intended to facilitate partnerships between local, state, and federal entities to support the development and maintenance of modernized land records

2.2 Objectives

These standards and guidelines to guide the modernization of land records in Nebraska have the following objectives:

- 2.2.1. Provide guidance to state and local officials as they work, either in-house or with private contractors, to develop and/or acquire computerized, geospatial data related to land records and maps and thereby increase the likelihood that the data acquired and/or developed will be suitable for the range of intended applications and likely future applications.

- 2.2.2. Improve public policy development and implementation by helping to make land records more current and readily accessible and by making available to land record management applications the wide range of analytical tools available through GIS/geospatial technology.
- 2.2.3. Enhance coordination and program management across jurisdictional boundaries by insuring that modernized land records and maps can be readily integrated across jurisdictional boundaries for regional applications (e.g., school districts, NRDs, emergency response, etc.) or statewide applications.
- 2.2.4. Save public resources by facilitating the sharing of computerized land records among public agencies or sub-divisions of agencies by incorporating data standards and following guidelines which will make it more likely that the computerized land records developed by one entity will also be suitable to serve the multiple needs of other entities and thereby avoid the costly duplication of developing and maintaining similar land records.
- 2.2.5. Make land records and land ownership maps more readily accessible to the wide range of potential users
- 2.2.6. Facilitate harmonious, trans-agency public policy decision-making and implementation by enabling multiple agencies and levels of government to access and appropriately use common geospatial datasets and thereby make it more likely that intersecting public policy decisions, across levels of government, will be based on the same information.
- 2.2.7. Lay the foundation for facilitating intergovernmental partnership to the modernization of land records by defining standards and guidelines that increase the likelihood that computerized land records will meet the needs of multiple users.

3.0 Definitions

3.1 Attribute Data

Properties and characteristics of property parcel or other spatial data entities.

3.2 Datum

A Geodetic Reference System is the true technical name for a datum. A datum is a combination of an ellipsoid, which specifies the size and shape of the earth, and a base point from which the latitude and longitude of all other points are referenced.

3.3 Entity

Any object about which an organization chooses to collect data.

3.4 Geodetic Control

A set of surveyed monuments used to define a spatial reference system and used to register map sheets and transform coordinates for a particular project.

3.5 Geographic Information System (GIS)

A system of computer hardware, software, and procedures designed to support the compiling, storing, retrieving, analyzing, and display of spatially referenced data for addressing planning and management problems. In addition to these technical components, a complete GIS must also include a focus on people, organizations, and standards.

3.6 Geospatial Data

A term used to describe a class of data that has a geographic or spatial nature. The data will usually include locational information (latitude/longitude or other mapping coordinates) for at least some of the features within the database/dataset.

3.7 Global Positioning System (GPS)

GPS is a method for identifying locations on earth using triangulation calculations of satellite positions. Originally created by the United States Military, it has since found numerous commercial applications.

3.8 Land Information System (LIS)

A special type of GIS that manages and analyzes data related to land ownership (e.g., tax parcels, urban infrastructure, property assessment). A GIS used for municipal or county level applications is typically structured as an LIS.

3.9 Map Scale

The scale of a map is the ratio between a distance on the map and the corresponding distance on the earth, with the distance on the map typically expressed as 1. Thus, a scale of 1:100,000 means 1 inch on the map equals 100,000 inches (approximately 1.6 miles) on the earth. Large scale maps depict a small area and show more detail. Small scale maps depict a large area and show less detail

3.10 Metadata

Data describing a GIS database or data set including, but not limited to, a description of a data transfer mediums, format, and contents, source lineage data, and any other applicable data processing algorithms or procedures.

3.11 Monumentation of PLSS Corners

Monumentation in surveying refers to the practice of marking known horizontal and vertical control points with permanent structures such as concrete pedestals and metal plaques. Once surveyed and marked, these monuments can be used for further surveying and for the alignment of land-parcel boundaries and infrastructure.

3.12 National Spatial Reference System (NSRS)

A consistent national coordinate system that defines latitude, longitude, height, scale, gravity, and orientation throughout the Nation, and how these values change with time. Consequently, it ties spatial data to geo-referenced positions.

3.13 Nebraska Plane Coordinate System

Nebraska Plane Coordinate System means the system of plane coordinates for designating the geographic position of points on the surface of the earth, within the State of Nebraska, which have been established by the National Ocean Service/National Geodetic Survey, or its successors, for defining and stating the geographic positions or locations of points on the surface of the earth, within the State of Nebraska. The Nebraska Plane Coordinate System is a Lambert conformal conic projection of the North American Datum of 1983, having standard parallels at north latitudes 40 degrees 00 minutes and 43 degrees 00 minutes along which parallels the scale shall be exact. The origin of coordinates is at the intersection of the meridian 100 degrees 00 minutes west of Greenwich and the parallel 39 degrees 50 minutes north latitude. This origin is given the coordinates. N = 0 meters and E = 500,000 meters. (State of Nebraska Statutes, Section 76-2502)

3.14 Orthophoto

An aerial photo that has been corrected to eliminate the effects of camera tilt and relief displacement. The ground geometry is recreated as it would appear from directly above

each and every point. Digital orthophotos can be created by scanning the original photograph and applying a process called differential rectification to each pixel in the image. In creating digital orthophotos, it is also possible to remove the effects of tangential displacement.

3.15 Parcel Identifier (PID)

A unique number identifying a specific property on the assessment and tax rolls and used as a cross reference between graphic/mapping data and tabular attribute data.

3.16 Projection

A system to portray all or part of the earth, which is an irregular sphere, on a planar, or flat surface

3.17 Public Land Survey System (PLSS)

The Public Land Survey System (PLSS) is a way of subdividing and describing land in the United States. All lands in the public domain are subject to subdivision by this rectangular system of surveys (townships, range, sections, quarter-sections, etc.), which is regulated by the U.S. Department of the Interior, Bureau of Land Management.

3.18 Shapefile

A Shapefile is an ESRI digital vector (non-topological) storage format for storing geometric location and associated attribute information that can be generated by a wide variety of GIS software packages.

3.19 Spatial Accuracy

The accuracy of a map in representing the geographic location of an object relative to its true location on the surface of the Earth based on geographic coordinates.

4.0 Applicability

4.1 State Government Agencies

State agencies that have the primary responsibility for maintaining land ownership records and property parcel maps for a particular jurisdiction(s) or geographic area (e.g. Nebraska Dept. of Property Assessment and Taxation for counties for which it has assumed the primary assessment role) are required to comply with those sub-sections identified as a “Standard” for “State Agencies” in section 1. Those state agencies with oversight responsibilities in this area are required to ensure that their oversight guidelines, rules, and regulations are consistent with these standards.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding, directly or indirectly, for property parcel mapping and/or property tax assessment and have the primary responsibility for maintaining property parcel maps for a particular jurisdiction or geographic area are required to comply with those sub-sections identified as a “Standard” for “State Funded Entities” in section 1.

4.3 Other

Other entities, such as local government agencies (e.g. County Assessor, County Register of Deeds, municipalities) that have the primary responsibility for developing and maintaining land ownership records and property parcel maps are required to comply with those sub-sections identified as a “Standard” for “Other” in Section 1.

4.4 Exemption

Exemptions may be granted by NITC Technical Panel upon request by an agency.

4.4.1 Exemption Process

Any agency may request an exemption from these standards by submitting a “Request for Exemption” to the NITC Technical Panel. Requests should state the reason for the exemption. Reasons for an exemption include, but are not limited to: statutory exclusion; federal government requirements; or financial hardship. Requests may be submitted to the Office of the CIO via e-mail or letter (Office of the CIO, 521 S 14th Street, Suite 301, Lincoln, NE 68508). The NITC Technical Panel will consider the request and grant or deny the exemption. A denial of an exemption by the NITC Technical Panel may be appealed to the NITC.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. (N.R.S. 86-516 §6)

5.2 State Agencies

The Nebraska Department of Property Assessment and Taxation will be responsible for ensuring that its rules and regulations relative to land ownership records and property parcel (tax) mapping include those subsections in Section 1 that are identified as a “Standard” for “Other” and are consistent overall with those standards.

5.3. Granting Agencies and Entities

State granting or fund disbursement entities or agencies will be responsible for ensuring that these standards are included in requirements and regulations related to fund disbursements as they relate to land (property parcel) records or property parcel mapping.

5.4 Other

Local governments agencies that have the primary responsibility for land ownership records and property parcel mapping will be responsible for ensuring that those subsections defined for “Other” as a “Standard” in Section 1 will be incorporated in land record modernization and geospatial data development efforts and contracts.

6.0 Related Documents

6.1 Federal Geographic Data Committee (FGDC) Cadastral Data Content Standards

http://www.fgdc.gov/standards/status/sub3_5.html

6.2 Nebraska Guidebook for Local Government Multipurpose Land Information Systems. http://www.calmit.unl.edu/gis/LIS_Std_Intro.html

6.3 Federal Geographic Data Committee Content Standard for Digital Geospatial Metadata Workbook (For use with FGDC-STD-001-1998) Version 2.0

http://www.fgdc.gov/publications/documents/metadata/workbook_0501_bmk.pdf

Land Record Information and Mapping Standards

Comment 1

----- Forwarded by Larry Zink/DASDOC/NEBRLN on 12/16/2005 07:25 AM -----

Larry: I read the Draft Standards and they seem very comprehensive. The only thing I found is that on page 6, paragraph that starts "Modern Computerized land records and maps make it relatively easy to update and keep current land records and maps." there was a problem in the grammar in the last sentence. The last sentence should read "Among other uses, these tools help ensure that all property is on the tax rolls and that the property is taxed equally."

Other than that, it seems very well thought out and hopefully will be adopted. Thank you for the effort you and the committee put into this.
Sincerely;

Arnold J. Radloff, PE.

Senior Utility Engineering Specialist

Lincoln Water System, Public Works & Utilities Dept.

2021 North 27th. Street

Lincoln, NE. 68503

402-441-5917

----- Forwarded by Larry Zink/DASDOC/NEBRLN on 12/16/2005 11:18 AM -----

"Skinner, Ethel" <ESkinner@pat.state.ne.us>

To <lzink@notes.state.ne.us>

cc

Subject LRMScomments.doc

12/16/2005 09:39 AM

most of my comments are in red bold. there are a couple of things in blue bold. thanks for looking at them! Ethel

Nebraska Information **Larry, See my information in red. Thanks, Ethel**

Technology Commission

STANDARDS AND GUIDELINES

DRAFT

Land Record Information and Mapping Standards

Category Data and Information Architecture

Title Land Record Information and Mapping Standards

Number XX-XXX

Applicability

State Government Agencies

All..... **See each section**

Excluding **See Section 4.1**

State Funded Entities - All entities

receiving state funding for matters covered by this document..... **See each section**

Other: Public Entities- Other public

entities developing or acquiring geospatial data not supported by state funding **See each section**

Definitions:

Standard - Adherence is required. Certain exceptions and conditions may appear in this document, all other deviations from the standard require prior approval of NITC Technical Panel.

Guideline - Adherence is voluntary.

Status Adopted **Draft** Other: _____

Dates

Date: 11-3-05 Draft

Date Adopted by NITC:

Other:

Prepared by: The Nebraska GIS Steering Committee and endorsed and referred to the Technical Panel of the Nebraska Information Technology Commission.

Authority: Neb. Rev. Stat. § 86-572(2c), 86-516(6)

<http://www.nitc.state.ne.us/standards/>

The Technical Panel of the NITC is seeking comments on this draft standard. Submit comments by January 12, 2006 to rick.becker@nitc.ne.gov

Nebraska Information Technology Commission

Standards and Guidelines

Land Record Information and Mapping Standards Page 2 of 10

1.0 Standard

These standards/guidelines are primarily focused on those public entities responsible for maintaining property parcel maps for their particular jurisdiction. The last line following each standard or guideline refers to the type(s) of agency or entity to which that standard/guideline applies and whether it is a standard (adherence required) or guideline (adherence voluntary) for each type of entity.

1.1 Datum. Local government multipurpose GIS/LIS (Geographic Information System/Land Information System) and their associated geospatial data layers should be based on the North American Datum (NAD) 83 and the North American Vertical Datum (NAVD) 88. Any existing systems developed based on other datums should consider conversion to these datum.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.2 Projection. The Nebraska Plane Coordinate System, NAD 83, should be used as the primary map projection system for the recording of positions in local land-data systems in Nebraska. Selection of any other projection should be done reluctantly and only after most careful consideration. The plane coordinate values for a point on the earth’s surface may be expressed in either meters or feet.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.3 Geodetic Control. GIS/LIS systems developed with the goal of providing a multipurpose cadastre for local government use should be referenced to a local geodetic reference framework that is properly connected to the National Spatial

Reference System (NSRS).

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.4 Public Land Survey System Control.

1.4.1 PLSS Geodetic Framework. For all land in Nebraska that is subdivided according to the Public Land Survey System (PLSS), the geodetic reference framework for the cadastre should be the section corners of the PLSS for each section.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.4.2 Locate, Monument, and GPS Primary Corners. At a minimum, local government entities developing a geospatial land information system should initially invest in a precision Global Positioning System (GPS) survey to locate, re-monument as necessary, and obtain the geographic coordinates of the major boundary defining corners that legally define the boundaries of their county jurisdiction(s). These precision GPS survey coordinates for the boundary defining corners should be collected and integrated as framework data into the land information system. This effort should be coordinated with officials from the adjacent county(ies) to ensure agreement on the location of the shared corners.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Guideline**

1.4.3 Progressive Monumentation. In addition, each county (or municipality) that is planning to develop a GIS/LIS-based cadastre program should also consider initiating a progressive program to locate and/or re-monument, as

Nebraska Information Technology Commission

Standards and Guidelines

Land Record Information and Mapping Standards Page 3 of 10

necessary, and collect geographic coordinates on other PLSS corners according to the legally established procedures and properly connect them to the National Spatial Reference System to obtain geodetic coordinates.

State Agencies: **Guideline** State Funded Entities: **Guideline** Other: **Guideline**

1.5 PLSS Base Map. Local governments considering the development of a multipurpose GIS, should consult with the Nebraska State Surveyor's Office to locate and access the best available data on the Public Land Survey System (PLSS) for their geographic area. To assist the State Surveyors Office in maintaining a repository of the best available PLSS data, local governments participating in the Nebraska Land Information System Program should share any enhanced PLSS data, for their geographic area, with the State Surveyors Office so that it might be integrated into the PLSS repository database.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.6 Ortho-base (Aerial Layer) or Base Maps. Both a Public Land Survey System base map and an orthophoto (surface features) base map should be used to provide the geospatial reference framework upon which a local government multipurpose land information system is developed. Both base maps should be tied to the National Spatial Reference System and have a level of spatial accuracy appropriate to the range of applications planned for a given area.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.7 Map Scale and Spatial Accuracy.

1.7.1 Minimum Horizontal Accuracy Standard. Public entities developing a GIS/LIS program should conduct data collection and development in a manner to achieve at least the minimum level of horizontal spatial accuracy consistent with the National Horizontal Map Accuracy Standards corresponding to a 1:12,000 (1"= 1,000') scale map (90% of the "well defined" horizontal

locations must be within 33.3 ft. of their real world location).

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.7.2 Additional Accuracy Considerations. Beyond this minimum horizontal map accuracy, public entities are encouraged to consider the following recommended map scales and their corresponding National Horizontal Map Accuracy Standards in determining the positional accuracy needed for base maps in the development of a local government GIS/LIS:

Relative Size Nat'l Horizontal Map Equivalent

of Property Parcels Map Scale Accuracy Std. Metric Scale

Urban areas 1:600 (1" = 50') 1.7 ft. 1:500

1:1,200 (1" = 100') 3.3 ft. 1:1,000

Large urban & suburban 1:2,400 (1" = 200') 6.7 ft. 1:2,500

Rural areas 1:4,800 (1" = 400') 13.3 ft. 1:5,000

1:9,600 (1" = 800') 26.7 ft. 1:10,000

1:12,000 (1" = 1,000') 33.3 ft. 1:10,000

State Agencies: **Guideline** State Funded Entities: **Guideline** Other: **Guideline**

Nebraska Information Technology Commission

Standards and Guidelines

Land Record Information and Mapping Standards Page 4 of 10

1.8 Legal Lot and Parcel Layers. Two graphic data layers are necessary to provide the foundation for a wide variety of local government GIS/LIS applications that involve land subdivision and/or ownership.

- a). The legal lot layer consisting of legal land subdivisions. These are aliquot portions of the PLSS, filed subdivision plats and irregular tracts defined by filed deeds.
- b). The parcel layer that defines ownership tracts of land. These tracts may group multiple legal lots into one taxable account and that typically represents the boundaries of a landowner's property. These data layers include locational coordinates for points representing property corners, lines between property corners representing property boundaries and closed polygons representing the property area.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.9 Parcel Identifiers.

- a). Each county/region should adopt a system of unique, permanent feature identifiers (PID) that provide the link between each graphic land ownership parcel polygon and the attribute information (ownership, size, situs address, value, etc.) related to that specific land ownership property parcel.
- b). A county/region PID system must be designed in a manner such that a unique, statewide PID can be defined and maintained for each property parcel by using the county FIPS code (Federal Information Processing Standards Publications) as a prefix to the county/region's PID system.
- c). To maintain this unique one-to-one association between a specific property parcel and its related attribution information, new PIDs should be assigned whenever a property parcel is altered by either splitting it into two or more parcels or by combining two or more parcels to form a new parcel. The previous PIDs should not be used for these new modified parcels, but the historical PID associations should be maintained through a parent/child PID reference table.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.10 Spatial Data Format. A broad range of state and regional applications require property parcel information. Many of these applications require the combining of data across jurisdictional boundaries. To facilitate these applications, the property

parcel spatial (graphic) data should be either maintained in a manner that allows it to be readily integrated in a common geographic data format (i.e., shapefile) or be capable of being exported into a common geographic data format (i.e., shapefile), while including the parcel identifiers.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Guideline**

1.11 Metadata. All geospatial land record databases, and their associated attribute databases should be documented with Federal Geographic Data Committee (FGDC) compliant metadata outlining how the data was derived, attribute field definitions and Nebraska Information Technology Commission

Standards and Guidelines

Land Record Information and Mapping Standards Page 5 of 10

values, map projections, appropriate map scale, contact information, access and use restrictions, etc.

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

1.12 Attribute Data. To provide the foundation necessary for a wide variety of local government applications, non-graphic, attribute data should be organized within the GIS/LIS, which describes individual property parcels relative to their basic parcel characteristics, tenure, value, history, buildings and units within the parcel, and tax status. In most cases, much of this attribute data will already exist in separate databases within a variety of local agencies and should be tied to the graphic property parcel via the unique PID. To meet a range of state and regional applications that require property parcel information, the following types of property parcel data should be maintained (for every property parcel?) and (be) available in a manner that allows it to be harvested, translated, and integrated into a statewide property parcel attribute dataset.

PID#..... Parcel identifier (county FIPS code plus local government PID)

Situs Address..... Address of parcel (may be multiple fields)

Owner Address..... Address of property owner (may be multiple fields)

Township Township #

Section..... Section #

Range Range #

Range Direction..... East or West

Legal Description..... Narrative legal description of parcel

Assessed Value..... Total assessed value of property (land and improvements)

Land Value..... Assessed value of land

Area (Deeded) Area of parcel according to the deed

Property Class (Res, Ag, Com, Rec., Ind.)

Property Sub-class i.e., Ag (Dryland, Irrigated, Grassland/Pasture, Waste)

Ownership type..... Federal, State, County, Private, Tribal, Exempt, Other and Unknown

Tax District..... County ID plus Tax Dist. #

School District State number definition

Landuse Actual landuse with NPAT defined general categories

Property Parcel Type... NPAT defined categories

Status (Vacant, Improved or Improved only) (NPAT defined)

Location (Urban, Sub-urban, Rural)(NPAT defined)

City Size..... 1st class, 2nd class, primary, metro, or village

Source Document..... Sales/transfer reference or document (book & page)

Recording Date..... Most recent sales/transfer date The Recording Date (to me at least) on line 26 of the Real Estate Transfer is the date it was recorded at the Register of Deeds Office. The Sale Date on line 3 of the Real Estate Transfer is the date it actually sold. The Dept of Property Assessment and Taxation uses the Sale Date to help identify a sale in their system along with the county number, the deed book and deed page.

Sales Value..... Most recent sales value

State Agencies: **Standard** State Funded Entities: **Standard** Other: **Standard**

2.0 Purpose and Objectives

The purpose of these standards and guidelines is to help realize the maximum long-term return on and overall utility of the public's investment in the modernization of how Nebraska's land records are maintained and distributed.

2.1 Background

Land records and land ownership records are public records that are used by a wide crosssection of our society and its institutions. Ready access to current and accurate land

Nebraska Information Technology Commission

Standards and Guidelines

Land Record Information and Mapping Standards Page 6 of 10

records is critical to our state's overall economy and the efficient functioning of many of its public and private institutions.

Historically land records have been maintained on paper records and paper maps. This made it very difficult and costly to update and keep current records and maps in areas where there was significant turnover in property ownership. Paper records and maps also made it difficult to share land record information outside of the physical office where they were maintained. Paper records and maps also made it difficult to conduct analyses of broader land ownership and land valuation patterns. Computerization in general, and GIS/geospatial technologies in particular, have revolutionized how land and land ownership records can be maintained, analyzed, shared, and distributed.

Modern computerized land records and maps make it relatively easy to update and keep current land records and maps. Computerization and GIS/geospatial technologies now routinely enable easy, reliable access to land records and maps via the Internet to a wide variety of users. Land records in computerized relational databases and GIS parcel maps have provided a wide array of new information management tools that can be used to integrate land records with other data and analyze and display land ownership, land valuation and other broader land-related patterns. Among other uses, these tools help ensure that all property is on the tax rolls and that the property is taxed equally.

Modern computerized land records and maps can provide a wide array of potential benefits to a wide array of users. However, to realize many of these benefits, it is important that when these databases and maps are originally developed they follow a minimal set of standards and guidelines that support this potential broad array of applications and benefits. In many instances, it is not this broader array of potential uses that is the immediate stimulus, which causes a local or state agency to undertake a modernization of its land records and maps. Therefore, these standards and guidelines serve the function of raising the awareness of these potential future applications and the related need to incorporate minimal standards beyond those needed for immediate applications.

These standards and guidelines are intended to help ensure that modernized land records are developed on a solid technical foundation. A foundation, which will enable both the original developing agency, and other interested entities, to build on this initial investment and maintain and enhance the data and enable it to be utilized for multi-purposes by multiple users. These standards and guidelines are also intended to facilitate partnerships between local, state, and federal entities to support the development and maintenance of modernized land records

2.2 Objectives

These standards and guidelines to guide the modernization of land records in Nebraska have the following objectives:

2.2.1. Provide guidance to state and local officials as they work, either in-house or with private contractors, to develop and/or acquire computerized, geospatial data related to land records and maps and thereby increase the likelihood that the data acquired

and/or developed will be suitable for the range of intended applications and likely future applications.

Nebraska Information Technology Commission
Standards and Guidelines

Land Record Information and Mapping Standards Page 7 of 10

2.2.2. Improve public policy development and implementation by helping to make land records more current and readily accessible and by making available to land record management applications the wide range of analytical tools available through GIS/geospatial technology.

2.2.3. Enhance coordination and program management across jurisdictional boundaries by insuring that modernized land records and maps can be readily integrated across jurisdictional boundaries for regional applications (e.g., school districts, NRDs, emergency response, etc.) or statewide applications.

2.2.4. Save public resources by facilitating the sharing of computerized land records among public agencies or sub-divisions of agencies by incorporating data standards and following guidelines which will make it more likely that the computerized land records developed by one entity will also be suitable to serve the multiple needs of other entities and thereby avoid the costly duplication of developing and maintaining similar land records.

2.2.5. Make land records and land ownership maps more readily accessible to the wide range of potential users

2.2.6. Facilitate harmonious, trans-agency public policy decision-making and implementation by enabling multiple agencies and levels of government to access and appropriately use common geospatial datasets and thereby make it more likely that intersecting public policy decisions, across levels of government, will be based on the same information.

2.2.7. Lay the foundation for facilitating intergovernmental partnership to the modernization of land records by defining standards and guidelines that increase the likelihood that computerized land records will meet the needs of multiple users.

3.0 Definitions

3.1 Attribute Data

Properties and characteristics of property parcel or other spatial data entities.

3.2 Datum

A Geodetic Reference System is the true technical name for a datum. A datum is a combination of an ellipsoid, which specifies the size and shape of the earth, and a base point from which the latitude and longitude of all other points are referenced.

3.3 Entity

Any object about which an organization chooses to collect data.

3.4 Geodetic Control

A set of surveyed monuments used to define a spatial reference system and used to register map sheets and transform coordinates for a particular project.

3.5 Geographic Information System (GIS)

A system of computer hardware, software, and procedures designed to support the compiling, storing, retrieving, analyzing, and display of spatially referenced data for addressing planning and management problems. In addition to these technical components, a complete GIS must also include a focus on people, organizations, and standards.

3.6 Geospatial Data **this number needs to be on the same page as the info (move it down to the next page)**

Nebraska Information Technology Commission
Standards and Guidelines

Land Record Information and Mapping Standards Page 8 of 10

A term used to describe a class of data that has a geographic or spatial nature. The data will usually include locational information (latitude/longitude or other mapping coordinates) for at least some of the features within the database/dataset.

3.7 Global Positioning System (GPS)

GPS is a method for identifying locations on earth using triangulation calculations of satellite positions. Originally created by the United States Military, it has since found numerous commercial applications.

3.8 Land Information System (LIS)

A special type of GIS that manages and analyzes data related to land ownership (e.g., tax parcels, urban infrastructure, property assessment). A GIS used for municipal or county level applications is typically structured as an LIS.

3.9 Map Scale

The scale of a map is the ratio between a distance on the map and the corresponding distance on the earth, with the distance on the map typically expressed as 1. Thus, a scale. **If you are going to use periods on all the others, use one here also.**

of 1:100,000 means 1 inch on the map equals 100,000 inches (approximately 1.6 miles) on the earth. Large scale maps depict a small area and show more detail. Small scale maps depict a large area and show less detail

3.10 Metadata

Data describing a GIS database or data set including, but not limited to, a description of **a kind of have a problem with what is said here...should the 'a' be left out or the s left off of mediums or what?** data transfer mediums, format, and contents, source lineage data, and any other applicable data processing algorithms or procedures.

3.11 Monumentation of PLSS Corners

Monumentation in surveying refers to the practice of marking known horizontal and vertical control points with permanent structures such as concrete pedestals and metal plaques. Once surveyed and marked, these monuments can be used for further surveying and for the alignment of land-parcel boundaries and infrastructure.

3.12 National Spatial Reference System (NSRS)

A consistent national coordinate system that defines latitude, longitude, height, scale, gravity, and orientation throughout the Nation, and how these values change with time. Consequently, it ties spatial data to geo-referenced positions.

3.13 Nebraska Plane Coordinate System

Nebraska Plane Coordinate System means the system of plane coordinates for designating the geographic position of points on the surface of the earth, **within the State of Nebraska** **Do you want this in this sentence twice?**

Nebraska, which have been established by the National **Ocean** Service/National Geodetic **is it the Ocean or Oceanic?**

Survey, or its successors, for defining and stating the geographic positions or locations of points on the surface of the earth, **within the State of Nebraska**. The Nebraska Plane Coordinate System is a Lambert conformal conic projection of the North American Datum of 1983, having standard parallels at north latitudes 40 degrees 00 minutes and 43 degrees 00 minutes along which parallels the scale shall be exact. The origin of coordinates is at the intersection of the meridian 100 degrees 00 minutes west of Greenwich and the parallel 39 degrees 50 minutes north latitude. This origin is given the coordinates. N = 0 meters and E = 500,000 meters. (State of Nebraska Statutes, Section 76-2502)

3.14 Orthophoto

An aerial photo that has been corrected to eliminate the effects of camera tilt and relief displacement. The ground geometry is recreated as it would appear from directly above

each and every point. Digital orthophotos can be created by scanning the original photograph and applying a process called differential rectification to each pixel in the image. In creating digital orthophotos, it is also possible to remove the effects of tangential displacement.

3.15 Parcel Identifier (PID)

A unique number identifying a specific property on the assessment and tax rolls and used as a cross reference between graphic/mapping data and tabular attribute data.

3.16 Projection

A system to portray all or part of the earth, which is an irregular sphere, on a planar, or flat surface. **< Need a period here.**

3.17 Public Land Survey System (PLSS)

The Public Land Survey System (PLSS) is a way of subdividing and describing land in the United States. All lands in the public domain are subject to subdivision by this rectangular **plural...**

Every thing else here is

system of surveys (townships, ranges, sections, quarter-sections, etc.), which is regulated by the U.S. Department of the Interior, Bureau of Land Management.

3.18 Shapefile

A Shapefile is an ESRI digital vector (non-topological) storage format for storing geometric location and associated attribute information that can be generated by a wide variety of GIS software packages.

3.19 Spatial Accuracy

The accuracy of a map in representing the geographic location of an object relative to its true location on the surface of the Earth based on geographic coordinates.

4.0 Applicability

4.1 State Government Agencies

State agencies that have the primary responsibility for maintaining land ownership records and property parcel maps for a particular jurisdiction(s) or geographic area (e.g. Nebraska Dept. of Property Assessment and Taxation for counties for which it has assumed the primary assessment role) are required to comply with those sub-sections identified as a “Standard” for “State Agencies” in section 1. Those state agencies with oversight responsibilities in this area are required to ensure that their oversight guidelines, rules, and regulations are consistent with these standards.

4.2 State Funded Entities

Entities that are not State agencies but receive State funding, directly or indirectly, for property parcel mapping and/or property tax assessment and have the primary responsibility for maintaining property parcel maps for a particular jurisdiction or geographic area are required to comply with those sub-sections identified as a “Standard” for “State Funded Entities” in section 1.

4.3 Other

Other entities, such as local government agencies (e.g. County Assessor, County Register of Deeds, municipalities) that have the primary responsibility for developing and maintaining land ownership records and property parcel maps are required to comply with those sub-sections identified as a “Standard” for “Other” in Section 1.

4.4 Exemption

do we need ‘the’ added in here?

Exemptions may be granted by **the** NITC Technical Panel upon request by an agency.

Nebraska Information Technology Commission

Standards and Guidelines

4.4.1 Exemption Process

Any agency may request an exemption from these standards by submitting a

“Request for Exemption” to the NITC Technical Panel. Requests should state the reason for the exemption. Reasons for an exemption include, but are not limited to: statutory exclusion; federal government requirements; or financial hardship. Requests may be submitted to the Office of the CIO via e-mail or letter (Office of the CIO, 521 S 14th Street, Suite 301, Lincoln, NE 68508). The NITC Technical Panel will consider the request and grant or deny the exemption. A denial of an exemption by the NITC Technical Panel may be appealed to the NITC.

5.0 Responsibility

5.1 NITC

The NITC shall be responsible for adopting minimum technical standards, guidelines, and architectures upon recommendation by the technical panel. (N.R.S. 86-516 §6)

5.2 State Agencies

The Nebraska Department of Property Assessment and Taxation will be responsible for ensuring that its rules and regulations relative to land ownership records and property parcel (tax) mapping include those subsections in Section 1 that are identified as a “Standard” for “Other” and are consistent overall with those standards.

5.3. Granting Agencies and Entities

State granting or fund disbursement entities or agencies will be responsible for ensuring that these standards are included in requirements and regulations related to fund disbursements as they relate to land (property parcel) records or property parcel mapping.

5.4 Other **should this be singular?**

Local governments agencies that have the primary responsibility for land ownership records and property parcel mapping will be responsible for ensuring that those subsections defined for “Other” as a “Standard” in Section 1 will be incorporated in land record modernization and geospatial data development efforts and contracts.

6.0 Related Documents

6.1 Federal Geographic Data Committee (FGDC) Cadastral Data Content Standards

http://www.fgdc.gov/standards/status/sub3_5.html

6.2 Nebraska Guidebook for Local Government Multipurpose Land Information Systems. http://www.calmit.unl.edu/gis/LIS_Stds_Intro.html

6.3 Federal Geographic Data Committee Content Standard for Digital Geospatial Metadata Workbook (For use with FGDC-STD-001-1998) Version 2.0

http://www.fgdc.gov/publications/documents/metadata/workbook_0501_bmk.pdf

Land Record Information and Mapping Standards

Comment 3

----- Forwarded by Larry Zink/DASDOC/NEBRLN on 01/17/2006 01:51 PM -----

Gene Thomsen/DOR/NEBRLN

To rick.becker@nitc.ne.us

cc lzink@notes.state.ne.us

12/16/2005 09:12 AM

Subject Re: Fw: Review of Draft Neb Land Record Info and Mapping Stds [Link](#)

Rick;

1.1 DATUMS

Why wouldn't you use the newest datum NAD 83/95 instead of NAD 83? There is about 2 foot of difference between the two.

Gene Thomsen

**DEETF Recommendations Affecting the NITC and its advisory groups
December 30, 2005**

Distance Education Enhancement Task Force Recommendations that affect the NITC Technical Panel, in the event that they are agreed to by the Legislature:

1. "The Chief Information Officer will also bid for equipment (hardware and software) related to distance education, which meets at least **minimum standards as set by the Nebraska Information Technology Commission** for school districts, E.S.U.'s, and public postsecondary institutions who want to participate in statewide leasing and/or purchasing contracts." p.3

A. What, if any, additional standards are needed?

B. Who shall be responsible for drafting these minimum standards?

C. To which pieces of equipment and software do they apply?

D. If new standards are needed, how quickly must these standards be approved by the NITC?

2. "The Distance Education Council shall provide scheduling software or scheduling services **meeting any standards established by the Nebraska Information Technology Commission.**" p.5

A. Who shall be responsible for drafting these minimum standards (bid specifications)?

B. How quickly must these standards be approved by the NITC

C. How will the NITC coordinate with the Distance Education Council?

3. "(Distance Education) Council purchases of hardware and software related to distance education in excess of \$10,000 **will need to be approved by the Technical Panel of the NITC as being in compliance with NITC standards.** p.5

A. What system or process of approval will be used?

4. "The Distance Education Council may also administer, or delegate the administration of, **learning management systems that are in compliance with NITC standards...**" p.6

A. What additional standards are needed?

B. Who shall be responsible for drafting these minimum standards?

C. If new standards are needed, how quickly must these standards be approved by the NITC?

=====

Distance Education Enhancement Task Force Recommendations that affect the Collaborative Aggregation Partnership (CAP) and the operations of Network Nebraska, in the event that they are agreed to by the Legislature:

1. "The Nebraska Chief Information Officer will arrange for all school districts, E.S.U.'s, and public postsecondary education institutions to have the opportunity to **link to Network Nebraska** at the earliest available opportunity." p. 3

A. How does CAP define “link to” or “participate in” in networking terms?

2. “A technology allowance will be added to the Tax Equity and Educational Opportunities Act **for access and transport charges** equal to 85% of the local system costs minus federal reimbursements from the E-rate program.” p.6

A. How does CAP plan to charge school districts for access and transport charges on a fair and equitable basis?

3. “A technology allowance will be added to the minimum allocation in the E.S.U. infrastructure funding formula **for access and transport charges** equal to 85% of the E.S.U. costs minus any federal reimbursements from the E-rate program.” p.6

A. How does CAP plan to charge ESUs for access and transport charges on a fair and equitable basis?

4. “Coordination of the Distance Education Council will include, but not be limited to: **Scheduling and prioritization for access to Network Nebraska** by school districts, ESUs, and private not-for-profit elementary and secondary schools contracting with Network Nebraska.” p.5

A. What does it mean to coordinate scheduling and prioritization for access to Network Nebraska?

5. “A system shall be established by the (Distance Education) Council for prioritizing courses if the **network reaches capacity...**” p.5

A. What communication mechanism will be used to help the Network Nebraska operations staff to know which videoconference(s) to preserve and which to delete?

Distance Education Enhancement Task Force Recommendations that affect the NITC Education Council, in the event that they are agreed to by the Legislature:

1. “If there is not a member of the Distance Education Council in the membership of either the NITC or the Technical Panel of the NITC, **the NITC will be required to have a member of the Distance Education Council on any ad hoc technical advisory group or workgroup that establishes, coordinates, or prioritizes needs for education.**” p.4

A. Does this mean the NITC Education Council?

B. Does it apply to any other existing advisory group or workgroup?

**NITC Strategic Initiatives
Action Items**

Network Nebraska

Action Items - Completed (from 2004-05 Plan)

- C1. Created a Service Level Agreement for use by CAP and the eligible network participants.**
- C2. Created a Network Nebraska Level 1 Helpdesk.**
- C3. Created a Network Nebraska Website.**

Action Items - Discontinued (from 2004-05 Plan)

Action Items - Proposed for 2006

P1. Identify Tier II communities that offer opportunities for aggregation for services onto the network

P1.1 The CAP will identify and work with communities that express an interest in aggregating their public sector transport.

Lead	Network Nebraska (CAP)
Participating Entities	Specific communities, NITC Community Council, Nebraska League of Municipalities, Nebraska Association of County Officials, NITC Education Council
Timeframe	February 2006-December 2006
Funding	No funding required for this action item.
Status	New

P1.2 The CAP will write and release a brief that explains the technical feasibility of sharing public sector transport over high bandwidth, IP-based circuits in order to incentivize Tier II aggregation.

Lead	Network Nebraska (CAP)
Participating Entities	NITC Education Council, NITC Community Council, ESU-NOC, Nebraska League of Municipalities, Nebraska Association of County Officials
Timeframe	February 2006-December 2006
Funding	No funding required for this action item.
Status	New

P2. The Chief Information Officer will arrange for all school districts, ESUs, and public postsecondary education institutions to have the opportunity to link to Network Nebraska at the earliest available opportunity.

P2.1 The Chief Information Officer will establish criteria for “link to” and “participation in” Network Nebraska in order to satisfy the requirements of LB XXXX.

Lead	Chief Information Officer
Participating Entities	Network Nebraska (CAP)
Timeframe	February 2006
Funding	No funding required for this action item.
Status	New

P2.2 The Chief Information Officer will determine the specifications of any regional aggregation centers that must be established in order to serve the statewide data traffic of K-12 and postsecondary education institutions.

Lead	Chief Information Officer
Participating Entities	Network Nebraska (CAP)
Timeframe	February 2006-April 2006
Funding	No funding required for this action item.
Status	New

P3. Offer Internet I services to eligible network participants.

P3.1 The CAP will accept new orders for Internet service and continue to aggregate purchasing demand to secure a more economical price for statewide Internet service.

Lead	Network Nebraska (CAP)
Participating Entities	NITC Education Council, NITC Community Council
Timeframe	February 2006-December 2006
Funding	No funding required for this action item.
Status	Continuation

P4. Meet with the Technical Subcommittee of the Nebraska Telehealth Network to discuss issues related to network administration, scheduling and management.

P4.1 The Collaborative Aggregation Partnership will conduct ongoing discussions with the Technical Subcommittee of the Nebraska Telehealth Network.

Lead	Network Nebraska (CAP)
Participating Entities	Nebraska Telehealth Network Technical Subcommittee, NITC Technical Panel
Timeframe	February 2006-December 2006
Funding	No funding required for this action item.
Status	Continuation

P5. Implement a cost and funding model to allow shared use of the statewide backbone for data transport.

P5.1 Develop an equitable cost and funding model that takes into account the number of participating entities, student populations, and the cost for transport and ongoing aggregation services.

Lead	Network Nebraska (CAP)
Participating Entities	Network Customers
Timeframe	March 2006-June 2006
Funding	Funding determined by LB XXXX
Status	New

Action Items - Future

F1. Develop a three-phase (2007-09) upgrade plan for statewide backbone transport that includes the demand created by the upgrade of K-12 districts and colleges converting to IP networking.

F2. Investigate the feasibility of offering advanced network services to Network Nebraska customers.

**NITC Strategic Initiatives
Action Items**

Statewide Synchronous Video Network

Action Items - Completed (from 2004-05 Plan)

- C1. Identified a single audio and video standard for low-bandwidth distance learning and videoconferencing.**

Action Items - Discontinued (from 2004-05 Plan)

- D1. Acquisition of upgrade or replacement equipment and/or software that ensures compliance with the audio and video standard.**

D1.1 Development and submission of a Congressional funding request to fund upgrade of classroom and networking resources necessary to bring K-12 and higher education distance learning facilities into compliance.

D1.2 Equipment RFP, bidding, ordering, delivery and installation of equipment.

- D2. Development of training modules for new users.**

D2.1 Development of training modules to accompany equipment orientation.

Action Items - Proposed for 2006

- P1. Acquisition of upgrade or replacement equipment and/or software that ensures compliance with the audio and video standard.**

P1.1 The Chief Information Officer will determine the list of biddable hardware and software items related to distance education for purposes of enhancing distance education according to LB XXXX.

Lead	Chief Information Officer
Participating Entities	NITC Technical Panel, DAS-DOC, ESU-NOC
Timeframe	March 2006-April 2006
Funding	No funding required for this action item
Status	New

P1.2 The Chief Information Officer will bid for equipment (hardware and software) related to distance education, which meets at least minimum standards as set by the Nebraska Information Technology Commission for school districts, E.S.U.'s, and public postsecondary institutions who want to participate in statewide leasing and/or purchasing contracts.

Lead	Chief Information Officer
Participating Entities	DAS-DOC, DAS Purchasing
Timeframe	March 2006-May 2006
Funding	Determined by the Legislature through LB XXXX
Status	New

P1.3 The Chief Information Officer will designate a fiscal entity or entities to oversee ordering, delivery and installation of distance learning equipment.

Lead	Chief Information Officer
Participating Entities	To be named.
Timeframe	March 2006-August 2006
Funding	Determined by the Legislature through LB XXXX
Status	Continuation

P2. Development or purchase of a scheduling system or enterprise resource management program that allows potential users to know the location and availability of resources, and/or set up or reserve ad hoc or regularly scheduled events with other entities.

P2.1 Research scheduling systems and enterprise resource management programs.

Lead	NITC Technical Panel's Statewide Synchronous Video Work Group
Participating Entities	NET, NDE, NITC staff
Timeframe	February 2006
Funding	No funding required for this task.
Status	Continuation

P2.2 The Nebraska Information Technology Commission shall establish standards or bid specifications related to synchronous video scheduling software or scheduling services.

Lead	NITC Technical Panel
Participating Entities	NITC Technical Panel's Statewide Synchronous Video Work Group
Timeframe	February 2006-April 2006
Funding	No funding required for this task.
Status	New

P2.3 Purchase or develop a scheduling system and/or enterprise resource management program.

Lead	Distance Education Council for K-12; each agency for their respective purchases.
Participating Entities	Network Nebraska (CAP)
Timeframe	Summer, 2006
Funding	To be determined by LB XXXX.
Status	Continuation

P3. Implement a network bandwidth management system or network operations center that assures pre-determined qualities of service, depending upon the type of data traffic.

P3.1 Implement a network operations center that assures particular qualities of service.

Lead	Network Nebraska (CAP)
Participating Entities	Network Nebraska customers
Timeframe	April 2006 –July 2006
Funding	To be determined.
Status	Continuation

P4. Develop an event clearinghouse that allows promotion, marketing, and registration for interactive video events.

P4.1 Develop a web-based clearinghouse that allows originators to post events and users to register for or view the date, time and frequency of individual events.

Lead	ESU Distance Education Council
Participating Entities	NITC Technical Panel's Statewide Synchronous Video Network Work Group, NITC Education Council
Timeframe	April – July, 2006
Funding	To be determined by LB XXXX.
Status	Continuation

P5. Develop a cost and funding algorithm to allow shared use of the statewide backbone for interstate distance learning and videoconferencing.

P5.1 Research models from other States' education networks.

Lead	Network Nebraska (CAP)
Participating Entities	NITC Technical Panel's Statewide Synchronous Video Work Group
Timeframe	Ongoing
Funding	No funding required for this task.
Status	Continuation

Action Items - Future

F1. Develop a three-phase (2007-09) equipment and transport upgrade plan for synchronous video distance learning that affects a majority of the public high school districts and public postsecondary institutions.

**NITC Strategic Initiatives
Action Items**

Digital Education (formerly eLearning Initiative)

Action Items - Completed (from 2004-05 Plan)

- C1. Organized a series of October 2004 Planning Workshops to bring together participants who have a stake in improving educational and training opportunities for Nebraska citizens through eLearning.**

Action Items - Discontinued (from 2004-05 Plan)

- D1. Develop a design document detailing the technology components, standards, costs and administration of a Nebraska eLearning Knowledge Repository for the sharing of educational content.**
- D2. Work with education and staff development professionals to document strategies, techniques and tools used in course management and create a clearinghouse of eLearning best practices and training modules.**

Action Items - Proposed for 2006

- P1. The NITC Technical Panel will establish standards related to the procurement and use of learning management systems by K-12 schools.**

Lead	NITC Technical Panel
Participating Entities	NITC Education Council, myeLearning.org, ESU Distance Education Council, UNL Independent Study High School
Timeframe	March 2006 – May 2006
Funding	No funding is required for this action item.
Status	Required by LB XXXX.

- P2. Promote the availability, distribution, and use of digital media throughout the Nebraska educational community.**

Lead	NITC Education Council
Participating Entities	NET, ESUs, School districts, State Colleges, Community Colleges, independent universities, University of Nebraska
Timeframe	March 2006 – December 2006
Funding	No funding is required for this action item.
Status	New

Action Items - Future

F1.

**NITC Strategic Initiatives
Action Items**

State Government Efficiency

Action Items - Completed (2004-2005)

Shared Services

- C1. Blackberry service deployed.
- C2. Directory Services: Authentication standard adopted.
- C3. E-mail: Standard for state government revised.
- C4. E-mail: "Basic E-mail" service deployed.
- C5. Enterprise Maintenance / Purchase Agreements: Agreements with IBM (software license; software maintenance; hardware maintenance) and Microsoft (software license); and enterprise approach for Microsoft settlement.

Standards and Guidelines

- C6. Adopted standards and guidelines: Lotus Notes Standard; Lotus Notes Guideline; Identity and Access Management Standard; Web Branding and Policy Consistency Standard; Revised E-mail Standard for State Government Agencies; and GIS Metadata Standard.

Action Items - Proposed for 2006

Shared Services

The State Government Council has identified seven services for further study and potential implementation as a "shared service" for state agencies. Interested agencies are meeting to further develop these services.

- P1. Business Continuity / Disaster Recovery
- P2. Directory Services
(Action items for these shared services are included in the "Security and Business Resumption" initiative.)
- P3. E-mail

Lead	Beverly Bornemeirer
Participating Entities	State Government Council; E-mail Work Group

Timeframe	
Funding	
Status	

P4. Enterprise Maintenance / Purchase Agreements

Lead	Steve Schafer
Participating Entities	State Government Council; EM/PA Work Group
Timeframe	March 2006: Antivirus agreement
Funding	No funding required
Status	- Review of antivirus options underway - Other agreements to be determined

P5. Field Support Services

The Field Support Services work group is looking for avenues to provide better desktop, server, network, and other Information Technology support to staff outside of the Lincoln area.

Lead	Dale Fangmeier
Participating Entities	State Government Council; Field Support Services Work Group
Timeframe	March 31, 2006 - Define shared field support June 30, 2006 - Identify potential areas to do a pilot project December 31, 2006 - Choose and implement a project
Funding	To be determined at time of project selection.
Status	Ongoing

P6. Geographic Information System ("GIS")

P6.1. METADATA. Document existing state agency GIS/geospatial data with formal metadata and encourage the listing of available geospatial data in Nebraska Geospatial Data Center Clearinghouse Catalog.

Lead	Larry Zink, Coordinator, Nebraska GIS Steering Committee
Participating Entities	State Government Council; GIS Steering Committee
Timeframe	December 31, 2006

Funding	\$25,000 grant is likely to be solicited, if grant award is not forthcoming efforts will still be undertaken as resources allow
Status	The NITC has adopted a Geospatial Metadata Standard (http://www.nitc.state.ne.us/standards/data/metadata_standard_20050923.pdf), which calls for the progressive documentation of state agency geospatial data, within a one-year timeframe. The Nebraska Department of Natural Resources, in partnership with the Nebraska GIS Steering Committee, has developed a Nebraska Geospatial Data Center (http://www.dnr.state.ne.us/databank/geospatial.html). This Data Center includes a geospatial data clearinghouse and metadata development tools.

P6.2. STREET CENTERLINE-ADDRESS DATABASE. Develop a plan (including responsibilities and resource requirements) for the coordinated development, data integration, on-going maintenance and online distribution/Internet mapping service of a composite, "best available", statewide street centerline/address database.

Lead	Larry Zink, Coordinator, Nebraska GIS Steering Committee
Participating Entities	State Government Council; GIS Steering Committee
Timeframe	December 31, 2006
Funding	Investments are planned or currently being made in this data by the Public Service Commission, the State Patrol, and the Dept. of Roads. It is hoped that within these agencies the needed funds can be found to underwrite any interagency planning costs.
Status	The Public Service Commission (Enhanced E911), the State Patrol (statewide computer-aided dispatch), the Dept. of Roads (highway planning and maintenance and accident reporting), and the Dept. of Revenue (Internet and catalog sales tax collection) all have current initiatives that require current statewide street centerline/address databases. In addition, there are numerous other state agency applications that require this data: homeland security, bioterrorism, health and social services delivery, economic development, etc. Under the auspices of the GIS Steering Committee and the CIO, initial meetings have been held with some parties to encourage and facilitate coordination of investments in data development. Further work is needed to develop a plan to insure statewide development, data integration, on-going maintenance, and arrangements for online distribution.

P6.3. INTERNET MAPPING SERVICES. Develop a plan for the coordinated delivery of Internet mapping services by state agencies, with the objectives of making GIS services and existing GIS/geospatial data readily available to a broader array of agencies, improving data access and services to the public, minimizing unnecessary duplication of effort, providing data and system backup, and where appropriate, provide for a coordinated security system, including the possibility for limited data access and password protection.

Lead	Larry Zink, Coordinator, Nebraska GIS Steering Committee
Participating Entities	State Government Council; GIS Steering Committee
Timeframe	December 31, 2006
Funding	Initial planning should be possible with existing resources available for agencies currently providing or developing Internet mapping services. More detailed planning and implement may require additional resources, which would become clearly as a result of the initial planning.
Status	A number of state agencies already have or are investing in the development of Internet mapping services: Dept. of Natural Resources, Dept of Roads, Game and Parks Commission, CALMIT-UNL, Dept. of Environmental Quality, Health and Human Services System, Emergency Management Agency and others. In addition to some agency-specific geospatial databases, most of these agency Internet mapping services rely in several geospatial databases that are common to each other (aerial imagery, street centerlines/addresses, political subdivision maps, elevation data, surface water features, etc.). If properly configured, the technology allows for the live, interactive access and sharing of data from multiple Internet map servers. The technology also allows others to leverage these existing state investments in Internet map services by building new applications, which incorporate the existence of these Internet map servers into their application design. If properly configured, the technology also enables the interactive access of data from existing Internet map servers provided by local and federal agencies and the private sector.

P7. Storage Area Network (“SAN”)

This service provides a storage area network (SAN) for server-based systems. A SAN consists of storage devices and servers connected by high speed networks, usually fiber optic channels. Connectivity, reliability and switching capabilities are key characteristics of a SAN. The purpose of a SAN is to provide network-attached data storage that is scalable and serves multiple applications.

The server-based SAN includes four service options:

1. Storage
2. Access via iSCSI Connection
3. Access via Host Bus Adapter (HBA) Connection
4. Virtual Server (a partition within the SAN storage unit)

In combination, these four service options will support many potential configurations. An agency can connect its server to the SAN storage unit through the state's network using the common iSCSI network interface card. Data transfer is at local area network speeds for servers on the state's campus network. Faster transfer rates are possible by installing a HBA adapter in the agency's server and connecting it to the SAN storage unit via fiber optic cable. This option requires an initial investment in the HBA adapter and purchase or lease of fiber. The server with the HBA adapter must be located within 2 kilometers of the SAN storage unit. An agency can avoid the cost of fiber by locating its server in the server farm located in the

501 Building. Yet another option is to pay for a virtual server within the SAN unit, instead of maintaining a physically separate server.

Lead	Jeff Dean
Participating Entities	State Government Council
Timeframe	SAN for server-based systems will be deployed by April 27, 2006
Funding	Funding is through DOC revolving funds and rates will be established.
Status	<ul style="list-style-type: none"> - Receipt of SAN is expected by January 2006 - Essential MOU's are in place - Tentative Rates have been set - Begin moving customers to new SAN Fabric by February 2006

Standards and Guidelines

- P8. The State Government Council ("SGC"), working with the Technical Panel, will continue to develop standards and guidelines to better coordinate state agency technology efforts.

Lead	Rick Becker
Participating Entities	Technical Panel; State Government Council
Timeframe	Ongoing
Funding	None
Status	<p>Generally, the following process is followed for each proposed standard or guideline affecting state government agencies:</p> <ol style="list-style-type: none"> 1. The SGC, or another entity, identifies a technology or practice for which a standard or guideline would be beneficial 2. Draft document created 3. SGC reviews and makes recommendation 4. Technical Panel reviews and posts the draft document for a 30-day comment period 5. Technical Panel reviews comments received and makes a recommendation to the NITC 6. NITC reviews proposed standard or guideline and takes action

IT Project Review Process

The State Government Council (“SGC”) and Technical Panel will review and recommend improvements to the IT project review process.

- P9. Review and revise the “Agency Information Technology Plan” form, which is completed by agencies prior to each biennial budget cycle.

Lead	Rick Becker
Participating Entities	Technical Panel; State Government Council
Timeframe	February 2006: SGC and Technical Panel review existing form and recommend changes March 2006: SGC and Technical Panel approve revisions
Funding	None
Status	New action item

- P10. Review and revise IT project review process for agency budget requests.

Lead	Rick Becker
Participating Entities	Technical Panel; State Government Council
Timeframe	April 2006: SGC and Technical Panel review IT project review process, including the project proposal form, and recommend changes May 2006: SGC and Technical Panel approve revised form and review process
Funding	None
Status	New action item

- P11. Review and revise procurement review process for IT related purchases by state agencies.

Lead	Steve Schafer
Participating Entities	State Government Council
Timeframe	Work beginning in Summer 2006
Funding	None
Status	New action item

Action Items - Future

F1. Services identified as potential "shared services" by the State Government Council:

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

**NITC Strategic Initiatives
Action Items**

Security and Business Resumption

Action Items - Completed (from 2004-2005 Plan)

- C1. Directory Services: Established an authentication standard
- C2. Directory Services: Piloted single sign-on
- C3. Network Security and Network Management: Configured all public IP addresses (164.119) behind the state's firewall complex
- C4. Network Security and Network Management: Implemented an intrusion detection and prevention system on the state's Internet connection as part of a layered defense.
- C5. Disaster Planning: Conducted an "executive overview" briefing to state agencies (using either the State Government Council or the Security Work Group as a forum) explaining the progress and current and future activities in the development of disaster recovery plans.

Action Items - Discontinued (from 2004-2005 Plan)

- D1. Directory Services: Implement a content management structure for all agencies.
- D2. Directory Services: Establish a two-factor authentication standard.

Action Items - Proposed for 2006

SECURITY

- P1. Conduct annual independent security audits

Multiple federal programs require periodic computer security audits, including HIPAA, HAVA, and Bioterrorism grants from the Center for Disease Control. Computer security audits are a widely accepted best practice across the public and private sector.

Lead	State Security Officer
Participating Entities	State Government Council; Security Work Group

Timeframe	- Investigate opportunities for aggregating efforts of several state agencies that face federal requirements for security audits - Ongoing - Security audit completed by April 2006
Funding	Funding identified
Status	RFP is ready, release date to be determined

P2. Centralized Directory Services

P2.1. Pilot Federated Identity Proof of Concept
(Provide a Citizen Portal that would allow citizen to self-provision application themselves.)

Lead	Nebraska Directory Services
Participating Entities	State Government Council; DAS-IMServices
Timeframe	June 2006
Funding	Funding identified
Status	Design phase started

P3. Implement incident reporting requirements

Lead	State Security Officer
Participating Entities	State Government Council; Security Work Group
Timeframe	- Develop incident reporting process - May 2006 - Communicate reporting requirements to agencies - May 2006
Funding	No funding required for this task.
Status	In progress

P4. Network Security and Network Management

P4.1. Investigate and recommend an enterprise solution to ensure that encrypted traffic adheres to State security requirements.

Lead	Division of Communications
Participating Entities	State Government Council
Timeframe	To be determined
Funding	No funding required for this task.

Status	
--------	--

P4.2. Evaluate and recommend options for providing encryption to clients across the state's Wide Area Network

Lead	Division of Communications
Participating Entities	State Government Council
Timeframe	To be determined
Funding	No funding required for this task.
Status	

BUSINESS RESUMPTION

P5. Implement shared disaster recovery facilities

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

Lead	DAS IMServices and Univ. of Nebraska
Participating Entities	State Government Council
Timeframe	Ongoing
Funding	The cost and source of funding have not been determined.
Status	Initial hardware and communications capabilities in place. Additional implementation work ongoing.

P6. Promote disaster planning for information technology systems, in conjunction with agency business continuity plans

Lead	Steve Henderson / Dave Berkland
Participating Entities	State Government Council
Timeframe	Ongoing

Funding	No funding required
Status	<ul style="list-style-type: none"> - Director-level meetings, chaired by Lieutenant Governor Sheehy, to discuss restoration of services began in November 2005 - Business Continuity and Disaster Recovery work group developing: (a) elements of a common planning document and (b) approach for implementation of ICS (Incident Command System)

P7. Encourage testing and updating of disaster plans

Lead	Steve Henderson / Dave Berkland
Participating Entities	State Government Council
Timeframe	Ongoing
Funding	No funding required
Status	Continuation

**NITC Strategic Initiatives
Action Items**

E-Government

Action Items - Completed (from 2004-2005 Plan)

- C1. Worked with the Secretary of State's Office to provide enhancements to election related information and services.
- C2. Worked with the Accountability and Disclosure Commission to provide for secure online filings and improved access to information. Improvements posted. Nebraska.gov is researching the progress of the online filing component.
- C3. Worked with the Legislature to provide additional tools to track legislative information, including the ability to track multiple bills from one location and the use of e-mail "push" technology.
- C4. The Department of Education developed online teacher/administrator certification.
- C5. Local Government Portal: Nebraska.gov redesign included a "Local" portal.
- C6. Marketing strategy developed to increase public awareness and the use of e-government services.
- C7. Standard adopted for agency websites to include and privacy and security statements and common branding.

Action Items - Discontinued (from 2004-2005 Plan)

- D1. Under sponsorship of the Education Council of the NITC, the Nebraska.gov Manager will work with the Education Council educational institutions to provide enhancements to the Education Portal, including but not limited to:
 - Information Technology Training Calendar;
 - Searchable database of educational courses, degrees, and programs;
 - Statewide application for admission to higher education institutions.

Action Items - Proposed for 2006

- P1. Work with the Department of Motor Vehicles to provide online vehicle registration, online license reinstatement and online specialty plate ordering.

Lead	Department of Motor Vehicles
Participating Entities	State Government Council

Timeframe	Specialty Plate Ordering - March 2006 License Reinstatement - June 2006 Online Vehicle Registration - December 2006
Funding	Department of Motor Vehicles
Status	In progress.

- P2. Working with the various agencies involved in business registration -- including the Secretary of State, Department of Revenue, and Department of Labor -- create an online system for business registration.

Lead	Nebraska.gov
Participating Entities	State Government Council
Timeframe	March 2006: Review and revise scope of project
Funding	To be determined after review of scope
Status	The scope of the "One Stop Business Registration" process has changed due to the requirements and limitations of the involved parties. This project will be reviewed and possibly reintroduced with redesigned scope.

- P3. Improve the business forms database maintained by Nebraska.gov and enhance the search capabilities.

Lead	Nebraska.gov
Participating Entities	State Government Council
Timeframe	July 2006
Funding	State Records Board Grant
Status	Work ongoing.

Action Items - Future

- F1. Work with the Nebraska.gov Manager and county officials to provide the means for online payment of property taxes and other local fees. Status: On hold. This system is currently being provided by NACO/MIPS. Nebraska.gov will consider the cost benefit of moving forward with this project.
- F2. Work with the Nebraska State Patrol to review options for providing online access to certain, limited, criminal history information.

- F3. Develop an online application for use by businesses attempting to find a suitable site for business development.
- F4. Develop strategies to address the following government-to-government activities:
- Intergovernmental Cooperation Groups. Expand upon current intergovernmental cooperative efforts like the CJIS Advisory Committee and GIS Steering Committee; and develop new cooperative groups for those agencies that have specific, shared interests.
 - Integration of Government Information and Services. Develop strategies for using Internet technologies to provide integrated access to information and services to citizens, businesses, employees, and other governmental entities.
 - Forms Automation. Work with state agencies and political subdivisions to identify and prioritize opportunities for automating forms that local government uses to interact with state government.
- F5. State Employee Portal Enhancements. The State Government Council will identify specific improvements and value-added services to be incorporated into the state employee portal.
- F6. Develop method of providing authentication for "first time" users.

Draft Telehealth Action Items

Revised Jan. 12, 2006

Explore the relationship between the Nebraska Health Information Initiative and the Nebraska Statewide Telehealth Network. Although separate initiatives, the Nebraska Health Information Initiative and the Nebraska Statewide Telehealth Network are complementary projects and involve many of the same stakeholders and partners.

Action: Schedule meetings between the Nebraska Health Information Initiative and the Nebraska Statewide Telehealth Network as needed.

Lead Agency: NITC Telehealth Subcommittee

Timeframe: Ongoing

Encourage the expanded use of the Nebraska Statewide Telehealth Network to provide mental health consultations and behavioral medicine. Telehealth has been demonstrated to be an effective delivery mechanism for mental health consultations and behavioral medicine. In fact, mental health consultations have been one of the most often used applications of telemedicine in the state and in the United States. The demand for telehealth consultations has been driven by the shortage of mental health services in many parts of the state. With the development of a statewide telehealth network, the opportunity exists to expand the delivery of mental health and behavioral health services through telehealth to other underserved areas of the state.

Action: Facilitate a meeting of stakeholders including the Nebraska Medical Association, physicians, hospitals, and HHSS including Medicaid and the Office of Rural Health.

Lead Agency: Nebraska Statewide Telehealth Network and the NITC Telehealth Subcommittee:

Timeframe: Initial meeting will be held in early 2006

Encourage collaborative efforts with education and state government. The Nebraska Statewide Telehealth Network is a potential resource for both education and state government. Telehealth network sites could be used for educational programming and meetings in communities.

Action: Explore the development of a scheduling system compatible with that used by education and state government.

Lead Agencies: Nebraska Statewide Telehealth Network Scheduling Committee and the Synchronous Video Work Group

Timeframe: 2006

Facilitate the continued testing of the Nebraska Statewide Telehealth Network for homeland security and public health alerts and training. The Nebraska Statewide Telehealth Network can be used for bioterrorism training and alerts. As the connections for phase II of the Nebraska Statewide Telehealth Network near completion, additional testing will need to be done and policies regarding the use of the network for bioterrorism alerts and training will need to be developed.

Action: Conduct regular tests of the Nebraska Statewide Telehealth Network for bioterrorism alerts and develop policies regarding the use of the network for bioterrorism alerts and training.

Lead Agency: Nebraska Statewide Telehealth Network and HHSS Bioterrorism

Timeframe: Ongoing

Encourage the delivery of health education through the telehealth network. The delivery of health education is one of the primary anticipated uses of the telehealth network.

Action: Develop a listing of available educational programs to be posted on the Nebraska Statewide Telehealth Network Web site.

Lead Entity: NSTN Education Committee

Timeframe: Ongoing

Assist the Nebraska Statewide Telehealth in identifying and obtaining additional sources of funding.

Action: Set up a meeting with USDA Rural Development Telecommunications.

Lead Agency: Nebraska Statewide Telehealth Network and NITC Telehealth Subcommittee

Time Frame: First quarter 2006

Draft IT Planning and Development Action Items

Support local efforts to effectively use e-commerce through the Technology Innovation Grants for Economic Revitalization (TIGER) program. The NITC announced grantees for the 2005 TIGER program on November 8, 2005. The grant award period is January 16, 2006- January 15, 2007

Lead: Community Council

Timeframe: January 2006 – January 2007

Support community IT development by working with the University of Nebraska and other Technologies Across Nebraska Partners, including the following action steps:

- Work with the Nebraska Rural Initiative on an e-commerce booklet to promote and coordinate e-commerce training across the state.
- Continue partnering with Technologies Across Nebraska and the University of Nebraska to promote technology-related development through the quarterly newsletter, *TANgents*.
- Continue to maintain and update the TAN and Community IT Toolkit Web sites, including adding funding information.
- Explore the use of video and audio casting (often called vodcasting and podcasting) to promote tourism and industrial development sites in the state.
- Provide and/or promote training opportunities on effectively using technology to enhance development opportunities and the delivery of services, especially in the area of IT-related economic development.

Expected Outcomes

Lead: Technologies Across Nebraska and Community Council

Timeframe: January-December 2006

**Nebraska Information Technology Commission
Technical Panel**

**Security Architecture Work Group
Charter**

(Adopted: January 18, 2006)

Purpose	Prepare policies and guidelines for the security architecture for state government agencies and educational institutions. Make recommendations to the Technical Panel on matters relating to security within state government.
Sponsor	Office of the CIO
Scope / Boundaries	Security architecture includes protection of the physical, intellectual, and electronic assets of the state, including its security polices, network access controls, virus protection, network administration, transaction security, and workstation security. The security architecture must address issues relating to authentication, authorization, confidentiality, data integrity, non-repudiation, and isolation which includes all wired or wireless data communication inbound and outbound of the State's protected network environment.
Desired Goals and Outcomes	<p>Educate – provide information to state agencies, educational institutions, policy makers, and citizens about security issues.</p> <p>Research – document existing problems, potential points of vulnerability, and related risks.</p> <p>Requirements – determine security requirements of state agencies and educational institutions stemming from state and federal laws or regulations.</p> <p>Recommendations - prepare a report and make recommendations to the Technical Panel regarding problems, requirements, security policy, and guidelines.</p> <p>Polices and Guidelines – prepare draft polices and guidelines, using the procedures outlined in Section 3 of the Statewide Technology Plan.</p>
Membership	<p>Facilitator – State Information Security Officer</p> <p>Any member of the NITC Councils or Technical Panel may participate on the work group, with permission of the sponsor. The sponsor of the workgroup may solicit memberships from other entities to provide a cross section of perspectives and information.</p>
Reporting	The facilitator of the work group or representative of the sponsor will report to the Technical Panel every month.
Timeframe	This work group will continue in existence until this charter is repealed.