## Objective

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

## Description

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

**Shared Services**. The State Government Council has identified a number of potential shared services. The council chose the following shared services for further study and implementation at this time:

- Business Continuity / Disaster Recovery
- Directory Services
- E-mail
- Enterprise Maintenance / Purchase Agreements
- Geographic Information System (GIS)

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

### Benefits

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

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



### **Action Plan**

Action Items Shared Services

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

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

#### 2. Implement Directory Services as a shared service.

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

#### 3. Implement E-mail as a shared service.

Lead: Beverlee Bornemeier and Jayne Scofield

Participating Entities: State Government Council, E-mail Work Group

Timeframe: E-mail conversion continues in 2008.

Funding: Service rates

**Status:** Continuation. As of January 2008, approximately 1,800 state government e-mail accounts have been converted to the Exchange system. Conversion of accounts will continue throughout 2008. Additional actions will include activities related to archiving e-mail.

# 4. Implement Enterprise Maintenance / Purchase Agreements as a shared service.

Lead: Steve Schafer

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

**Timeframe:** Continuation: Software Reseller Contract Rebid during 2008 New: Others as identified during 2008.

Funding: No funding required.

**Status:** Ongoing. Master agreements have been established with McAfee, CA, and Symantec for anti-virus and related product suites. Various IBM and Microsoft licenses and maintenance agreements completed for 2008.

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

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

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

**Timeframe:** December 31, 2010 (continuation of earlier action item on Internet Mapping Services)

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

Status: Continuation. Twelve state and local government agencies have endorsed a Project Charter to indicate their support for, and partnership in, developing this online, enterprise-level GIS/geospatial data mapping and services portal. The bulk of the start up funding is targeted to the hiring of a technical lead for this project. A technical lead recruitment process is currently underway. The project will involve significant technical implementation challenges; including establishing the network, data sharing protocols, and web mapping and data services applications. The technology and system will allow for the live, interactive access and sharing of data from multiple Internet map servers operated by different agencies. The technology will allow agencies to leverage existing state and local investments in data and Internet map services, by other agencies, to build new applications incorporating these Internet map services into their application design. While there is a broad conceptual agreement on the outlines of the desired online network and services, additional planning will be required to define data sharing protocols, data sharing agreements, desired web services, and data access policies.

Action: Street Centerline-Address Database. Develop a plan (including responsibilities and resource requirements) for the coordinated development, data integration, on-going maintenance and online



distribution/Internet mapping service of a composite, "best available", statewide street centerline/address database.

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

Timeframe: December 31, 2009

**Funding:** No enterprise level funding available at this time. However, a grant has been submitted that if successful would provide funding to assist with the development of a business case for the enterprise-level development and maintenance of this database. Major data development funding is on-going through Public Service Commission, Dept. of Roads, and local governments.

Status: Continuation. The Public Service Commission, through the Wireless E911 fund, has worked with counties to contract for the development and maintenance this data for 80 Nebraska counties. The initial data development is complete for least 56 of those 80 counties. For another 27 counties, the initial data development is in process. In addition, Douglas, Lancaster, and Sarpy counties have developed and maintain this data inhouse. There are 10 rural counties for which there are currently no active plans for the development of this data. Currently these datasets are maintained in separate county files. The Dept. of Roads maintains geospatial data for all state highways and major local collector roads, but this data does not include street address information. While there are significant public resources being invested in the development of pieces this much needed data, there is currently no plan, or one agency responsible for the on-going collection, integration and distribution of this data in an integrated statewide database format. In 2007, the Office of the CIO and the State Patrol (NSP) cooperated to develop an integrated, "statewide", street centerline-address files for the 45 counties that were available at that time. This data was needed for the NSP's new statewide computer-aided dispatch system. The GIS Council has authorized the formation of an Advisory Committee on Street Centerline-Address Databases. That Advisory Committee has begun its work to develop recommendations for an on-going enterprise approach to developing, maintaining, and distributing a statewide, "best available" street centerline-address database from the multiple sources of this data.

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

Lead: Larry Zink, Coordinator, Nebraska GIS Council



Participating Entities: State Government Council; GIS Council

Timeframe: December 31, 2008

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

**Status:** Continuation. The NITC has adopted a Geospatial Metadata Standard (<u>http://www.nitc.state.ne.us/standards/data/</u> <u>metadata\_standard\_20050923.pdf</u>), which calls for the progressive documentation of state agency geospatial data, within a one-year timeframe (by Sept. 2006). The Department of Natural Resources, in partnership with the Nebraska GIS Council, has developed a Nebraska Geospatial Data Center (<u>http://www.dnr.state.ne.us/databank/geospatial.html</u>). This Data Center includes a geospatial data clearinghouse and metadata development tools. A two-day metadata training session was held in Lincoln in 2007 and another training session is scheduled for Omaha in 2008. There remains a large body of state agency GIS/geospatial data that has not been documented with metadata and has not been listed on the Data Center Clearinghouse Catalog. The planning Geospatial Data Sharing and Web Services Network will also require metadata document.

#### Action: Statewide Geospatial Infrastructure Strategic Planning.

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

Lead: Larry Zink, Coordinator, Nebraska GIS Council

Participating Entities: State Government Council; GIS Council

Timeframe: June 30, 2009

**Funding:** A \$50,000 strategic planning grant proposal has been submitted to the Federal Geographic Data Committee (FGDC) by the Office of the CIO on behalf of the Nebraska GIS Council. If funded, the majority of these grant funds will be used to hire a consultant to assist with this planning process. If not funded, the strategic planning process will still move forward, but on a reduced scale and pace.

**Status:** New. Over the last 5-6 years, the activities of the Nebraska GIS Council have been guided by an existing Strategic Plan, the goals of which were originally developed in 2001. The Council has endorsed a major outreach and planning effort to develop a new GIS/Geospatial Strategic Plan with the goal of facilitating the coordination and collaboration of the broader

GIS user community in Nebraska. A grant application has been submitted. A Strategic Planning Advisory Committee has been established to oversee the process and has developed a conceptual outline of the planning process. The GIS Council, through its Planning Advisory Committee, will lead this process but the active support of the NITC, the State Government Council and its member agencies would be very helpful.

6. Explore requirements for issuing an RFP to contract vendors that provide temporary IT personnel. Meet with participating state agencies to gain input on how to structure and manage a new contract. The current contract originally expired on June 30, 2006 with an option to renew for an additional two years.

Lead: Office of the CIO

**Participating Entities:** Office of CIO, DAS Materiel Division and state agencies

Timeframe: To be completed by August 2008

Funding: No funding required.

Status: Continuation

#### **Standards and Guidelines**

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

Lead: Rick Becker

Participating Entities: Technical Panel, State Government Council

Timeframe: Ongoing

Funding: None

**Status:** Ongoing. New and revised standards and guidelines adopted in 2007: Remote Access Standard, Emergency Information Page, Remote Administration of Internal Devices, Minimum Server Configuration, SMTP Routing Standard, DNS Forwarding Standard, Information Security Policy, Data Security Standard, Password Standard, and Email Policy for State Government Agencies.



#### Other

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

- Lead: Office of the CIO Participating Entities: State Government Council Timeframe: 2008 Funding: None Status: Continuation
- 9. Review issues and determine process for project status reporting.
  - Lead: Office of the CIO
  - Participating Entities: State Government Council
  - Timeframe: 2008
  - Funding: None
  - Status: Continuation. An RFP has been issued (updated--June, 2008).

#### **Future Action Items**

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

- Active Directory
- Automated Building Systems (HVAC, access, etc.)
- Backup Management
- Data Network Design
- Data Security
- Database Management
- Desktop Support
- Desktop Virtualization
- Document Management
- Electronic Filing
- Electronic Records Management
- Encryption

- Enterprise Knowledge Management Databases
- General Platform Management
- Help Desk
- Instant Messaging
- Interactive VRU Applications
- Payment Portal
- Project Management
- R&D
- Remote Access
- Security
- Server Consolidation / Virtual Servers
- Software Deployment and Management
- SQL Database Design and Development
- Videoconferencing
- Voice Network Design
- VoIP
- Wireless
- Wiring Services
- Workflow

### Completed Action Items (2007-2008)

#### Standards and Guidelines

**1. New and revised standards and guidelines adopted in 2007:** Remote Access Standard, Emergency Information Page, Remote Administration of Internal Devices, Minimum Server Configuration, SMTP Routing Standard, DNS Forwarding Standard, Information Security Policy, Data Security Standard, Password Standard, and Email Policy for State Government Agencies.

#### Other

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

3. Review options for integrating agency IT plans and IT project proposal forms into new budget system.

# **E-Government**

## Objective

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

## Description

The three goals for e-government are:

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

The e-government principles guiding the council are:

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

E-government should be considered a continuous process of using technology to serve citizens and improve agency operations.

## **E-Government**



• An enterprise approach is essential to e-government, including the topics of accessibility for disabled persons, architecture, directories, funding, portal, privacy, security, and other issues; and

E-government is defined as the use of technology to enhance information sharing, service delivery, constituency and client participation, and governance by transforming internal and external relationships.

### **Benefits**

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

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

### **Action Plan**

#### **Action Items**

1. Work with the various agencies involved in business registration including the Secretary of State, Department of Revenue, and Department of Labor — to create an online system for business registration.

Lead: Nebraska.gov

**Participating Entities:** State Government Council, Nebraska.gov, agencies

Timeframe: 2008

Funding: To be determined.

**Status:** Continuation. Phase 1 of this action item was completed in November 2007 with the creation of the Nebraska One-Stop Business Registration Information System Web site (<u>https://www.nebraska.gov/osbr/</u>).

### **Future Action Items**

1. Work with the Nebraska.gov manager and county officials to provide the means for online payment of property taxes and other local fees. This system is currently being provided by NACO/MIPS. Nebraska.gov will consider the cost benefit of moving forward with this project.

2. Work with the Nebraska State Patrol to review options for providing online access to certain, limited, criminal history information.

# **E-Government**



3. Develop an online application for use by businesses attempting to find a suitable site for business development.

4. Develop strategies to address the following government-to-government activities:

- Intergovernmental Cooperation Groups. Expand upon current intergovernmental cooperative efforts like the CJIS Advisory Committee and 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 governments use to interact with state government.

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

6. Develop method of providing authentication for "first time" users.

7. Work with the Department of Motor Vehicles to provide for online vehicle registration.

#### Completed Action Items (2007-2008)

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

2. Department of Motor Vehicles to provide for online specialty plate ordering, to be completed in March 2008.

## Objective

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

## Description

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

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

Major activities include:

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

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



### Benefits

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

### **Action Plan**

#### **Action Items**

#### Security

#### 1. Implement security incident response team.

Lead: State Security Officer and State Patrol

Participating Entities: State Government Council, Security Work Group

Timeframe: Spring / summer 2008

Funding: No funding required for this task.

Status: Continuation

#### 2. Enhance Network Security and Network Management.

**Action:** Evaluate and recommend options for a Network Operation Center that will provide real-time monitoring of all critical assets within the State of Nebraska.

Lead: Office of the CIO - Wide Area Network

Participating Entities: State Government Council

Timeframe: 2008

**Funding:** Homeland Security Grant funding / Additional funding has yet to be determined.

Status: New

#### **Business Resumption**

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

Lead: Office of the CIO and University of Nebraska

Participating Entities: State Government Council

Timeframe: Ongoing

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

**Status:** Continuation. An alternate site providing greater geographical separation has been selected. In the pursuit of establishing that alternate site, the University of Nebraska and the Office of the CIO are reviewing vendor RFP responses and are preparing to act on two important items:

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

The intent is to complete the acquisition/implementation of both items in the next year. When completed, the University and the State will not only have their critical data mirrored at a geographically separated site, but will have the capability at the alternate site to continue the most critical enterprise server production processing with less than 10 hours interruption.

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

Lead: Steve Henderson / Dave Berkland

Participating Entities: State Government Council

Timeframe: Ongoing



Funding: No funding required.

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

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

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

#### **Future Action Items**

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

#### Completed Action Items (2007-2008)

#### Security

**1. 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:** Implementation timeframe is March/April 2008.

Funding: Government Technology Collaboration Fund

**Status:** Completed. An RFP was awarded Feb. 7, 2008 to IBM to implement the Qualys solution on 2600 devices.

Digital Nebraska: Envisioning Our Future 2007 Update

**2. Enhance Network Security and Network Management.** (New action items listed above, completed action items listed here.)

**Action:** Investigate and recommend an enterprise solution to ensure that encrypted traffic adheres to State security requirements.

Lead: Office of the CIO - Network Support

Participating Entities: State Government Council

Timeframe: Feb. 2008

Funding: No funding required for this task.

**Status:** Completed with the migration of all Avaya firewalls to the Fortinet infrastructure.

**Action:** Evaluate and recommend options for providing encryption to clients across the state's Wide Area Network.

Lead: Office of the CIO - Wide Area Network

Participating Entities: State Government Council

Timeframe: March 2008

Funding: No funding required for this task.

**Status:** Completed. The State of Nebraska has entered into a contract with PGP for whole disk encryption.

**Action:** Evaluate and recommend options for providing compliance auditing across the state's Wide Area Network.

Lead: State Security Officer and Office of the CIO - Wide Area Network

Participating Entities: State Government Council

Timeframe: 1<sup>st</sup> Qtr 2008

Funding: No funding required for this task.

**Status:** Completed. The State of Nebraska has purchased Cisco's Compliance Manager and has been attending training classes for staff.



#### **Business Resumption**

#### 3. Encourage testing and updating of disaster plans.

Lead: Steve Henderson / Dave Berkland

Participating Entities: State Government Council

Timeframe: Ongoing

Funding: No funding required.

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

### Annual conference addresses cyber security threats

The 3<sup>rd</sup> annual Nebraska Cyber security conference was held in Lincoln, Nebraska on Tuesday, April 22, 2008. This year's conference was opened up to include IT professionals from the private sector, education, and law enforcement. Over 125 IT administrators, managers, police officers, and members of USSTRACOM attended the day-long event.

This year's conference keynote speaker was Greg Garcia, the Assistant Secretary of Cyber Security and Telecommunications, with the Department of Homeland Security. Mr. Garcia talked about the threats and risks the nation faces on a daily basis. He explained how the Federal government, working through organizations like the Multi-State Information Sharing and Analysis



Greg Garcia, Assistant Secretary of Cyber Security and Telecommunications, with the Department of Homeland Security, talked about the threats the nation faces.