Information Technology Coordination
in the
Minnesota Legislature

Update

February 3, 2009

House Information Technology
House Sergeant at Arms
Senate Information Systems
Revisor of Statutes
Legislative Reference Library
Legislative Coordinating Commission

Information Technology Coordination in the Minnesota Legislature

Background
The 2007 Legislature adopted this provision giving direction to its staff:

"All legislative offices should, whenever possible, implement information technology systems that are compatible and work seamlessly across the legislature. Wherever possible, single systems should be implemented to avoid unnecessary duplication and inefficiency. The directors of information technology for the senate, House of Representatives, and the Legislative Coordinating Commission must submit a written report describing their efforts to collaborate on implementing shared information technology systems. The report must be submitted to the chairs of the house of representatives and senate committees with jurisdiction over rules and to the Legislative Coordinating Commission on January 15, 2008, and January 15, 2009." (Chapter 148, article 1, section 3, Subd 4 (e).)

The House, Senate and joint legislative offices submitted the first report required in February 2008. This report is an update on those activities that have occurred since the last report.

1. Voice over Internet Protocol.
Background. In 2008, the joint legislative offices merged their phone systems with the House Voice over Internet Protocol (VOIP) system. In a VOIP system, phone calls are managed on our computer network.

Senate begins using VOIP. In the summer of 2008, the Senate joined the legislative VOIP phone system. Because the Senate was overhauling its computer network, the Senate migrated to VOIP after the 2008 session. All legislative offices now use a single, centralized, VOIP phone system.

Advantages of a single phone system include:
- 5 digit dialing across the legislative branch;
- Comprehensive directory that include all legislators and staff
- A single phone system supported by the IT and telecommunications staff in each office, where staff can provide backup to each other across the legislature.

Dial 8
The Legislative VOIP phone system includes an emergency responder application that is activated when 9-1-1 is called. The application automatically contacts the Ramsey County Sheriff's 911 Call Center and Capitol Security. The system is also set up to automatically alert designated legislative staff by email and by dialing their preprogrammed contact telephone numbers. During the 2008 session the legislature experienced an abnormal number of errant 911 calls. In investigating possible causes, it was determined the most likely cause was unintentional multiple pressing of the "1" button when dialing long distance. Because there was a concern that the number of false alarms was detrimental to the overall safety at the legislature, legislative IS Offices and telecommunications staff proposed several options to

eliminate these accidental calls. A committee consisting of managers of the legislative offices agreed to the proposal to switch the outside dialing pattern to dialing "8" instead of "9". Now emergency services are requested by dialing "9-1-1" and local and long distance are initiated by dialing "8" or "8+1". Since the implementation of the new dialing pattern, we have had only a minor number of errant calls.

Formation of "VOIP Admins Group"

The VOIP Admins Group was formed in 2008 to encourage effective communication among the personnel administering the legislature's phone system. The personnel do similar jobs, but are physically located in 3 different buildings. The group meets monthly to share best practices and to review and discuss planned changes to the phone system. Meetings are attended by staff members from the House, Senate, Revisor's Office, the Legislative Reference Library and the Legislative Coordinating Commission. The Revisor's office continues to be responsible for the core network systems which support the VOIP telephone service.

2. Networks

The computer networks maintained by the House, Senate, Revisor and other offices must carry large, complex and widely varying types of data. Helping ensure that data flows seamlessly requires coordination and communication by the staff of each of the legislative offices.

Multicasting and hearing room audio.

The House and Senate record and broadcast video from selected hearings, and audio from all hearings. However, there have been challenges in broadcasting these signals between networks. Despite numerous efforts by staff, the barriers had not been consistently removed. Working together, a consultant was engaged who was able to remove the barriers that prevented the video and audio signals from being broadcast over each of the legislative networks. Members and staff can now view or hear all committee hearings on their workstations.

Wireless access

The House, Senate, and Revisors IT offices have been working the last couple of years to provide wireless access for their members and staff to their computer networks. This access permits legislator and staff to access email and documents on their network no matter where they are in the Capitol or State Office Building.

IT staff have been exploring methods to make it easier for members to access their networks when they log in, by trying to eliminate some of the authentication requirements while maintaining the security of the networks.

While a portion of the wireless access signal is dedicated for use by members and legislative staff, agency staff, lobbyists and the public may also access the internet through this system. Staff are discussing methods for increasing awareness of this service.

3. Web

Members of LNET, the Legislative Networking Group, completed updating and implementing a redesign of the Legislative Web Site. This process, led by the Legislative Reference Library, included revision of underlying code to make the Legislature's web-based resources more readily accessible to those who have disabilities. The redesigned website main page became a portal to frequently used portions of the site.

4. Computer room

The IT offices of the Revisor, House, Senate, Legislative Coordinating Commission and the Reference Library maintain a central computer room in the State Office Building. This room contains servers, routers, switches and storage devices that support the legislature's complex computer network. To ensure reliability and security for this computer network, this space includes:

- •An uninterrupted supply of electricity
- • Fire and smoke detection equipment
- • Dedicated air flow bringing cold air in to the space and exhausting hot air
- • Limiting access to authorized personnel

Power supply

In the past year, IT staff from the Office of the Revisor and House Sergeant at Arms Office staff worked closely with the Department of Administration, Plant management Division, to improve the uninterrupted supply of electricity. When the Department replaced the State Office Building's emergency backup generator, they agreed to increase the size of the new generator so that it could support the computer room's electrical needs. The one-time costs to connect the computer equipment in the computer room to the new generator are being shared by the various offices.

Use of space

Originally, the computer room was largely occupied by a main frame maintained by the Revisor of Statutes. Since that office migrated to a file server system, the main frame has been dismantled and removed. This space has been re-designed, and the Revisor, House, Senate, LCC and the Reference Library all maintain their core computer network hardware in this room. The Revisor's office continues to maintain the shared systems that protect the equipment in the room, such as the air conditioning units and the fire suppression system.

5. Bill Status System Redesign

Background. The Revisor maintains a bill status system that is utilized by the House, Senate, and public. The purpose of this system is to record each body's actions on each introduced bill and make this information publicly available. The contents of this database are also used by the House and Senate to create calendars during session and permanent journals after session. The bill status system consists of secure, web-based forms for data input, a database for storing the information, and reporting programs to retrieve and display the actions on a specific bill.

The previous system suffered from two defects. First, the forms for data entry were inefficient and time consuming for House and Senate Index staff. Also the forms were programmed in a vendor-specific programming language that required an annual support contract. Second, the database needed a redesign to accommodate the increasing number of authors and actions per bill.

Description of Project. The Revisor, House, and Senate worked to redesign the data input forms and database tables. The Legislative Reference Library provided input on optimal layout of the input forms. The Revisor programmed the data input forms in free, open source, programming languages. Nineteen original forms were reduced to five. House and Senate Index are using these forms in the 2009 session.

The database tables containing the bill status information were also redesigned. Bill status data from 1995-2007 was migrated into the new tables. The new tables allow the House and Senate to change the numbers of authors, topics, actions per bill without changing the structure of the database tables. The new tables will also reduce software maintenance by House, Senate, and Revisor IS because software programs will seldom need to be modified when the number of authors/topics/actions change.

6. Preserving State Government Digital Information (NDIIP & Minnesota Historical Society)

Background. The Library of Congress' National Digital Information Infrastructure and Preservation Program (NDIIPP) has funded a two-year project to work with selected state legislatures in exploring methods to provide enhanced online access to legislative materials in digital form. The Minnesota Historical Society (MHS) is leading the effort in partnership with Minnesota Office of the Revisor of Statutes, Legislative Reference Library, California Digital Library, California Legislative Council, California State Library, Illinois State Library, Kansas Legislative Computer Services, Kansas State Historical Society, Library of Congress, National Conference of State Legislature, Tennessee Department of State, Thomson Reuters, University of North Carolina and the Vermont State Archives.

Description of Project. Robert Horton, Minnesota Historical Society, described the projects as follows.

"The business case for providing and preserving legislative records in digital format includes the understanding that there are a wide variety of uses of government data that can be created for little cost. This is one of the compelling reasons to invest in preserving digital legislative records. In addition to being the law to preserve and provide access to legislative information, the high use value increases the value of long-term preservation of the information."

The goals of the project are to work with legislative data to:
- Capture content
- Make it available online
- Make it more useful online
- Plan for preservation
- Develop a sustainable model

The Revisor and Thomson Reuters are prototyping a "wrapper schema" as a method of collecting legislative data – specifically bills. The method creates a file containing the content of the bill and metadata about the bill. The theory is that this file format will be well suited for data transmission, extraction, and archiving.

7. ***Pandemic flu planning.*** State agencies have been engaged in planning for continuing critical operations in the event of a pandemic flu outbreak or other disaster that affects state employees, facilities or networks. With assistance from the Minnesota Management and Budget department, the Legislature is also beginning its own planning so that it can continue critical operations in the event of a major disaster.   Because our Information Technology infrastructure is a core function, IT staff are participating in these planning efforts. Some issues include succession planning, back-up systems, and remote access.