

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

INFORMATION TECHNOLOGY COMMITTEE

Thursday, March 22, 2018
Harvest Room, State Capitol
Bismarck, North Dakota

Representative Corey Mock, Chairman, called the meeting to order at 10:00 a.m.

Members present: Representatives Corey Mock, Randy Boehning, Glenn Bosch, Gary R. Sukut, Robin Weisz; Senators Howard C. Anderson, Jr., Kyle Davison, Richard Marcellais, Larry J. Robinson, Terry M. Wanzek; Citizen Member Shawn Riley

Member absent: Representative Christopher D. Olson

Others present: See [Appendix A](#)

It was moved by Senator Robinson, seconded by Senator Davison, and carried on a voice vote that the minutes of the December 20, 2017, meeting be approved as distributed.

**INFORMATION TECHNOLOGY DEPARTMENT INITIATIVES -
CLOUD COMPUTING AND SHARED SERVICES UNIFICATION**

Mr. Shawn Riley, Chief Information Officer, Information Technology Department, presented information ([Appendix B](#)) regarding information technology (IT) initiatives and changes, including those relating to shared services, functional alignments, and cloud computing; and current and future costs associated with each contract being entered, timeline for implementation, and any requests for legislative changes.

Mr. Riley said significant change is necessary in North Dakota IT to reduce costs, improve citizen experiences, improve people and process effectiveness, and align IT strategies. He said he conducted interviews of IT staff and reviewed documents to assess the operations of North Dakota IT. He said his assessment revealed opportunities for improvement, the need for long-term strategic goal changes, and a need to change strategy and operational processes to meet expected goals. He said the new IT strategies focus on alignment, efficiency, and delivery. He said IT shared services and unification relate to the alignment strategic focus while a transition to cloud computing relates to the efficiency and delivery strategic focuses.

Cloud Computing

Mr. Riley said cloud computing is the delivery of computer services over the Internet. He said the Information Technology Department (ITD) is transitioning to cloud computing because cloud technology has been an IT standard for 15 years, many on-premise technologies are becoming obsolete, and many new systems are cloud-based. He said cloud technology offers security, operational, and cost advantages. He said cloud technology allows for increased data storage capabilities at lower costs than on-premise data centers, increased ability to deploy new IT systems, and allows for the delivery of data and computer power to any platform at any location. He said other benefits include better experience delivery for customers, better system up-times and backups, and additional deployment flexibility.

Mr. Riley said ITD's strategy includes making North Dakota IT "cloud first." He said this strategy means new IT systems will be evaluated for deployment in the cloud as the first option and current IT systems will be evaluated for a transition to the cloud. He said there are strategies available to ITD to transition IT systems from the cloud if necessary. He said IT systems will not be automatically placed in the cloud and all system transitions to the cloud must be made in collaboration with agency personnel responsible for the system and data.

Mr. Riley said ITD has not conducted any studies of the appropriateness of hosting state government systems in a cloud setting due to the maturity of cloud technology.

Mr. Riley said North Dakota currently has 76 applications hosted using cloud services, including the Amber Alert system, Blue Alert system, North Dakota Response, North Dakota health information network, Microsoft Office 365, JobsND.com, and email services for ITD, the Governor's office, and the State Auditor's office.

Senator Marcellais suggested ITD provide a list of the 76 North Dakota applications using cloud services and when each application started using cloud services. Chairman Mock asked the department to provide this information to the committee at its next meeting.

Mr. Riley said IT security is the top ITD priority when transitioning to the cloud. He said the cloud does not automatically make North Dakota IT more secure, but it positions the state to increase overall security at a lower cost than currently available using on-premise data centers. He said cloud services provided by Microsoft and Amazon comply with open record laws and that records are still managed by the state. He said data in the cloud is encrypted and there are network boundary protections to secure the data. He said all systems are audited before and after cloud migrations.

Mr. Riley said the state currently has contracts to allow the purchase of cloud services from Microsoft, Amazon, IBM, and Oracle. He said the contract with Microsoft was renewed in May 2017 and the Amazon contract was renewed in July 2017. He said these contracts ensure North Dakota data is only used by and for North Dakota, considers account privacy and security, and complies with North Dakota Century Code Chapter 44-04 and North Dakota open record laws. He said ITD is in negotiations with Microsoft to consolidate over 60 state contracts for better pricing and to determine if standardizing Office 365 for all of state government is fiscally viable. He said there are 26 states using National Association of State Procurement (NASPO) contracts for cloud services.

Mr. Riley said while the costs of cloud computing services are approximately equal to on-premise technology costs currently, cloud computing will offer cost-savings in approximately 5 years. He provided an example of a Midwestern state that saved approximately \$31 million over 5 years by using cloud services rather than on-premises services. He said these cost-savings provide opportunities to restructure IT employees. He said Amazon has lowered cloud service prices 64 times in 10 years and other cloud service providers offer similar prices.

Mr. Riley said ITD does not currently have plans to move legislative branch systems to the cloud. He said ITD will work with the Legislative Council to decide how to best transition those systems.

In response to a question from Senator Anderson, Mr. Riley said the location of servers is not critical, as data hosted in the cloud can be hosted in multiple locations. He said ITD does not anticipate hosting North Dakota data at international cloud locations.

In response to a question from Senator Anderson, Mr. Riley said Microsoft and Amazon have multiple data centers throughout the country. He said data hosted in these data centers are continually backed up for redundancy and disaster recovery purposes.

In response to a question from Senator Marcellais, Mr. Riley said the state retains control of North Dakota data, not the cloud provider. He said the procedures for subpoenas are the same for cloud services as they are for on-premise services. He said North Dakota public record laws apply to state data hosted in the cloud. He said while the cloud as a whole is extremely secure, it is possible to breach certain systems within the cloud. He said ITD and cloud providers are invested in keeping data hosted in the cloud as secure as possible.

In response to a question from Senator Marcellais, Mr. Riley said the state will continue to partner with Dakota Carrier Network (DCN) as the state transitions to cloud services, which will provide faster service speeds. He said the increase in service speed can be obtained within the current ITD budget. He said additional equipment will be necessary but will be purchased by DCN.

In response to a question from Chairman Mock, Mr. Riley said if state systems need to be rewritten to be hosted in the cloud, the rewriting of applications can be done by either ITD or the organization that created the application. He said the organization responsible for the licensing cost of an application would also pay for the rewrite of the application for cloud compatibility.

In response to question from Chairman Mock, Mr. Riley said ITD has categorized which state systems are ready for deployment to the cloud, but does not have a comprehensive inventory list of state systems, software, and applications.

Chairman Mock asked ITD to compile a comprehensive inventory list of state systems, software, and applications, including which on-premise systems and applications are capable of transitioning to the cloud and which ones require licensing changes, modification, or need to be rewritten. He said this inventory list can assist state agencies when budgeting for IT needs.

In response to a question from Senator Marcellais, Mr. Riley said there are multiple layers of encryption between hosting sites to protect data in the cloud. He said there is encryption on the storage site, when the data is transferred, and on the transfer path. He said ITD can enable all three encryptions for certain applications in the cloud.

In response to a question from Senator Robinson, Mr. Riley said approximately 80 percent of data center systems are easy to transition to cloud services and 20 percent are relatively difficult. He said ITD will transition test and development systems to the cloud before production systems. He said ITD does not have a timeline for all systems to be moved to the cloud, as the cloud computing plan is still in preliminary stages. He said ITD has spent \$45,000 on the cloud computing plan.

In response to a question from Chairman Mock, Mr. Riley said of the \$45,000 spent on the cloud computing plan, \$30,000 is for the Microsoft Azure cloud platform and \$10,000 is for the Amazon cloud platform. He said these expenditures include direct cloud service costs and software-as-a-service costs. He said this funding is provided from the ITD technology fee and other available ITD funding. He said these costs are included in the NASPO contract. He said ITD anticipates spending additional 2017-19 biennium funding on the cloud computing plan. He said he is not aware of how many systems would require 2017-19 biennium funding to transition to cloud services.

In response to a question from Senator Marcellais, Mr. Riley said ITD is attempting to include the cost of cloud services in the current ITD rate structure, rather than requiring state agencies to include the cost of cloud services in their agency budgets. He said cloud costs may be incorporated into ITD rates over time.

In response to a question from Chairman Mock, Mr. Riley said ITD's current and anticipated future contracts do not include funding requirements for the 2019-21 biennium, but this may change before the 2019 legislative session.

In response to a question from Chairman Mock, Mr. Dan Sipes, Deputy Chief Information Officer, Information Technology Department, said if the 2019 Legislative Assembly does not provide funding for ITD's cloud computing plan, ITD has the ability to terminate the NASPO contract. He said ITD has not committed funding for cloud services beyond the 2017-19 biennium because ITD would need approval from the 2019 Legislative Assembly.

In response to a question from Chairman Mock, Mr. Sipes said NASPO secures cloud service contracts with cloud providers to allow states to obtain better contract prices. He said the State of Utah negotiated the base contract with NASPO, although other states are allowed to participate in the contract. He said North Dakota used the base contract with NASPO and added additional terms specific for North Dakota needs. He said ITD will issue a request for proposal (RFP) for cloud services if the NASPO contract does not meet all North Dakota needs.

In response to a question from Senator Marcellais, Mr. Riley said the majority of contracts entered include 1- to 3-year terms and allow the option to terminate the contract if necessary. He said longer contracts may provide better rates and ITD is evaluating the most beneficial options for services needed. He said if ITD needs to terminate a contract with a cloud provider, ITD staff are trained to manage cloud service systems for the state.

In response to a question from Representative Boehning, Mr. Riley said a feature of the NASPO contract includes a forced-lock term, which means ITD would receive a consistent agreed upon rate for cloud services for a predetermined period of time, such as 3 or 6 months. He said after the initial forced-lock period, if the cloud provider lowers the cost of the cloud services provided, ITD would also receive a reduction in the cost of cloud services. He said having adjustable rates is preferable because rates often become more favorable to the state over time.

In response to a question from Representative Boehning, Mr. Riley said as part of the NASPO contract, the state would be charged for the cost of each application, the storage of data, and the transfer of data. He said these costs vary for each application hosted in the cloud, allowing for lower costs than on-premise data centers.

In response to a question from Chairman Mock, Mr. Riley said Planet Technologies is a subcontractor of Microsoft. He said Planet Technologies has provided cloud governance services for the state, but ITD is not being charged for these services. He said ITD does not anticipate paying Planet Technologies for these governance services, but costs will be incurred when Microsoft begins to host state data in the cloud. He said the state is an important Microsoft client, which is why the state has is not being charged for the governance services provided by Planet Technologies.

In response to a question from Chairman Mock, Mr. Riley said the cloud services provided by Planet Technologies does not include new or unique intellectual property for the state or Planet Technologies.

In response to a question from Representative Boehning, Mr. Riley said the state currently utilizes six petabytes of electronic storage, which equals 6,000 terabytes. He said ITD is partnering with DCN to increase network capacity by 100 gigabytes, but ITD anticipates this capacity will be fully used within 2 years, resulting in the need to expand further.

In response to a question from Chairman Mock, Mr. Riley said ITD has compared the current costs of on-premises technology to the projected future cost of cloud-based technology, but has not completed a specific cost-benefit analysis or a financial effect analysis.

Chairman Mock asked that ITD provide its comparison of costs and any cost-benefit information to the Legislative Council. Mr. Riley said ITD is in the process of compiling the requested information and the information will be available in the near future.

In response to comments from Senator Davison, Mr. Riley said the transition to cloud services is a strategic IT approach and is not entirely related to cost-savings. He said it is not in the state's best interest to be utilizing on-premises data centers in 10 years, as infrastructure will be difficult to purchase to maintain the systems supported in the data centers. He said the transition from data centers to cloud services is similar to the transition the state has already made from mainframe technology to data centers, as mainframe technology is an outdated IT platform.

Chairman Mock asked that ITD provide the committee with cost estimates for cloud services for the 2017-19 biennium, 2019-21 biennium, and for future bienniums. He asked that ITD compare those estimated costs to the cost of continuing on-premises data centers instead of using cloud services.

Shared Services Unification

Mr. Riley said ITD is implementing an IT shared services unification plan to consolidate IT services, such as desktop support and help desk services, and IT personnel in the Governor's cabinet of executive branch state agencies. He said the unification plan will improve IT productivity by establishing common systems and processes for communication and collaboration among executive branch agencies. He said the unification plan will focus on cost reduction and operational efficiencies. He said the unification plan will provide data hosting, storage, and archiving opportunities. He said unification will eliminate IT redundancies in executive branch agencies, decrease enterprise risk, improve IT investment success, and maximize cyber defense by utilizing the same system, data protection, and IT training. He said the state currently has seven service management systems and four application development models. He said the unification plan would reduce the state to one service management system and one application development model.

Mr. Riley said the state currently focuses 91 percent of IT full-time equivalent (FTE) employees and resources to running operations, 9 percent to growing IT, and 0 percent to transforming IT. He said the cloud computing and shared services unification plans will allow state IT employees and resources to be allocated 50 percent to running operations, 30 percent to growing IT, and 20 percent to transforming IT.

Mr. Riley said ITD conducted an assessment of all executive branch IT employees, evaluating staff skills, needs, strategies, objectives, and costs. He said the major phases of the unification workforce transition process includes data gathering, transitional grouping, deep data analysis, and reporting. He said ITD held meetings with leaders of the Governor's cabinet agencies to understand the skills of each agency's IT staff. He said ITD identified all employees in these agencies that include IT-related functions to evaluate whether these employees would be included in the unification plan. He said functional alignments and transitional groupings are critical to the unification plan, allowing for staff with similar functions to be grouped together.

Mr. Riley said ITD initially estimated over 700 FTEs in ITD and the Governor's cabinet agencies perform IT-related job duties. He said Phase 1 of the workforce transition process evaluated 577 of these FTEs and determined 513 FTEs actually perform IT-related job functions. He said ITD employs 344 of these 513 IT FTEs.

Mr. Riley said ITD is currently in Phase 2 of the workforce transition process, which involves transitional grouping of IT employees. He said functional alignments will assist ITD in determining how IT FTEs can be utilized in the unification plan, including considering if the FTE is paid with federal funds, special funds, grant funds, or with constitutionally restricted funds. He said the unification plan will provide a 15 to 22 percent increase in IT work efficiency within 4 years of the unification plan implementation.

Mr. Riley said the unification plan includes the reorganization of top positions in ITD, including the establishment of the following positions, which will report directly to the Chief Information Officer:

- Chief Operations Officer;
- Chief Data Officer;
- Chief Technology Officer;
- Chief Reinvention Officer; and
- Chief Information Security Officer.

Mr. Riley said ITD has attempted to make these five positions nonclassified, but the State Personnel Board has not granted this request, instead requiring the positions to remain in the classified employee system.

Mr. Riley said the deep data analysis will allow ITD to evaluate the skills of each IT employee and provide better clarification of which job duties each employee will start, stop, and continue in the new IT shared service. He said the unification plan will be completed in December 2018 and the plan will include cost-savings, long-term projections, and a new organization chart.

Mr. Riley said ITD is not transferring IT staff or related funding from other agencies to ITD at this time. He said all IT employees and related funding will remain in the current respective agencies until changes are approved by the 2019 Legislative Assembly. He said IT employees will comply with human resource policies in their current agency for employee compensation decisions and performance reviews.

In response to a question from Chairman Mock, Mr. Riley said ITD has had conversations with the Human Resource Management Services (HRMS) Division of the Office of Management and Budget regarding the unification plan and how it will impact human resource-related situations involving the Governor's cabinet IT FTEs. He said additional discussions with HRMS will be needed as the unification plan continues to develop.

In response to a question from Chairman Mock, Mr. Riley said IT employees will remain in their current agencies during the 2017-19 biennium until any changes are approved by the 2019 Legislative Assembly. He said there are vacant IT positions in some agencies that may not be needed in the new unified shared service. He said ITD and the respective Governor's cabinet agency would collaborate when hiring new IT employees.

In response to a question from Chairman Mock, Mr. Riley said if the 2019 Legislative Assembly does not approve the transfer of IT FTEs or provide funding for the unification plan, ITD will work with the Legislative Assembly to determine how to best obtain efficiencies for North Dakota IT.

In response to a question from Representative Boehning, Mr. Riley said the current ITD turnover rate is approximately 8 percent per year, or about 27 FTEs. He said the state's demand for IT services far exceeds the staff resources available, so if IT staff are willing to learn new processes related to the cloud and the new IT shared services unification organization, existing staff will have work available and ITD will not consider replacing personnel.

In response to a question from Chairman Mock, Mr. Riley said the 2017 Legislative Assembly provided funding of \$245.1 million, of which \$20.5 million, or 8.4 percent, is from the general fund; \$2.9 million, or 1.2 percent, is from federal funds; and \$221.7 million, or 90.4 percent, is from special funds, to ITD for the 2017-19 biennium.

In response to a question from Chairman Mock, Mr. Riley said he would provide funding source totals for all IT FTEs included in the unification plan as requested by the committee. He said ITD is aware of federal requirements restricting what job duties federally funded FTEs can perform. He said these restrictions have contributed to the unification plan approach ITD has taken, allowing IT FTEs to remain in their original agency yet still perform job duties associated with the unification plan.

In response to a question from Representative Bosch, Mr. Riley said the process used to develop the new unified IT organization chart included evaluating essential IT functions and optional IT functions to focus on the five core IT needs of the state, including operations, data, technology, reinvention, and security.

In response to a question from Chairman Mock, Mr. Riley said the Chief Data Officer, Chief Technology Officer, and Chief Reinvention Officer positions when filled will be paid during the 2017-19 biennium using salary savings from vacant ITD positions. He said ITD will hire personnel for these positions as soon as possible.

In response to a question from Chairman Mock, Mr. Riley said all executive agencies in the Governor's cabinet have been willing participants in the unification plan and there is no strategy in place if an agency does not want to participate in the plan any longer. He said if an agency decides it does not want to be included in the unification plan, ITD would have conversations with the agency and the Governor's office regarding the best course of action.

Chairman Mock asked that ITD provide the committee with updates if ITD includes executive branch agencies that are not in the Governor's cabinet in the unification plan.

In response to comments from Chairman Mock, Mr. Riley said ITD has received requests from a few non-Governor's cabinet executive branch agencies to be included in the unification plan. He said at this time, these agencies have not been included in the unification plan but there will be additional discussion regarding the inclusion of these agencies.

HEALTH INFORMATION TECHNOLOGY OFFICE

Mr. Sheldon Wolf, Director, Health Information Technology Office, Information Technology Department, presented information ([Appendix C](#)) regarding recent health information technology initiatives. He said the Health Information Technology Office obtained funding from the Centers for Medicare and Medicaid Services for the health information network expansion project. He said funding for the project during federal fiscal years 2018 and 2019 is \$21.9 million, of which \$19.7 million is from federal funds. He said the Health Information Technology Office has entered contracts with Orion Health, HealthTech Solutions, and CedarBridge Group for the project. He said the project will establish health information network infrastructure, provide medication information and registry connections, and allow for administrative process automation and simplification.

STATEWIDE INTEROPERABLE RADIO NETWORK

Mr. Duane Schell, Director, Network Services Division, Information Technology Department, presented information ([Appendix D](#)) regarding an update of the statewide interoperable radio network (SIRN) project. He said a RFP for the project was issued in November 2017. He said the deadline to receive proposals was February 15, 2018. He said the approximate date a contract will be entered with a vendor is July 1, 2018. He said to date, ITD has spent \$35,087, including legal fees for a project memorandum of understanding (MOU) and project management costs. He said ITD has not borrowed any funds from the Bank of North Dakota, as authorized in Section 7 of 2017 House Bill No. 1178. He said the estimated total revenue to be collected for the project is \$9.6 million for the 2017-19 biennium. He said the current balance of the SIRN fund is \$2.22 million. He said revenue collection has been less than anticipated but he is unsure if this is due to the timing of payments being transmitted from counties to the State Treasurer's office or due to a decrease in fees imposed on assessed communication services.

Mr. Schell said 34 counties have signed the SIRN frequency MOU. He said four counties have either disagreed or partially disagreed to the MOU. Of these counties, he said, two counties have issued letters of intent related to the SIRN project, one county has issued a resolution related to the project, and one county has rejected the SIRN MOU. He said the remaining counties have not issued a formal response to the SIRN MOU.

In response to a question from Representative Bosch, Mr. Schell said Bowman County rejected the SIRN MOU due to skepticism of the SIRN project, confidence in a separate project developed by Bowman County, and disagreements related to the use of radio frequencies.

In response to a question from Chairman Mock, Mr. Schell said ITD's goal is to have all counties participate in the SIRN project; however, participation from every county is not necessary for the project to be successful.

Mr. Mike Lynk, Director, State Radio, Department of Emergency Services, presented information ([Appendix E](#)) regarding public safety answering point (PSAP) costs and staffing procedures. He said there are 21 PSAPs in North Dakota. He said 25 counties are primarily dispatched by State Radio. He said during 2017 State Radio received 233,377 nonadministrative 911 calls, of which 79 percent were from wireless communication devices.

In response to a question from Representative Boehning, Mr. Terry Traynor, Assistant Director, North Dakota Association of Counties, said the state would not receive significant cost-savings by consolidating low-staffed PSAPs. He said PSAPs in rural areas, that may only have one or two dispatch employees, must be available to collect fines and receive administrative calls. He said when PSAP equipment needs to be replaced, cost-savings are realized when PSAPs use the state network rather than purchasing new equipment.

STAGENET

Mr. Schell presented information ([Appendix F](#)) regarding the North Dakota Statewide Technology Access for Government and Education network (STAGEnet). He said ITD executed a contract extension with DCN to increase infrastructure and bandwidth capacity of STAGEnet. He said the extension is for 2 years, starting on July 1, 2019. He said the extension includes an additional 100 gigabyte capacity and primarily benefits K-12 and higher education, as well as state and local governments. He said the extension reduces the cost per gigabyte of data provided and is considered a cost-neutral investment.

EDUCATION-RELATED INFORMATION TECHNOLOGY UPDATES

Higher Education

Mr. Darin King, Chief Information Officer, North Dakota University System, presented information ([Appendix G](#)) regarding higher education information technology activities, including the most recent large project summary report ([Appendix H](#)). He said the Novelution Electronic Grants Administration project is in yellow status, as the project is 5.6 percent under budget and 28.0 percent behind schedule. He said due to project delays related to PeopleSoft, the project is 60 days behind schedule. He said the University System will delay the launch of the sponsored research module until late spring 2018. He said the Blackboard Learning Management System project is in green status, as the project is 2.4 percent under budget and 3.0 percent behind schedule.

In response to a question from Senator Davison, Mr. King said five higher education campuses have not implemented the Blackboard Learning Management System because the system was not initially performing to expectations.

In response to a question from Senator Anderson, Mr. King said the University System decided to use the Blackboard Learning Management System at all higher education campuses to gain efficiencies so each campus was not using separate learning management systems. He said when each campus used a separate learning management system, there was often confusion when students attended more than one campus or had transferred from one campus to another.

Mr. King said pursuant to Section 54-59-12, the University System is coordinating with ITD for IT services. He said the University System and ITD meet monthly to discuss IT needs of the state and higher education. He said ITD and the University System share systems, discuss security initiatives, and collaborate to provide IT to the state and higher education. He said the state network operated by ITD is crucial for higher education IT.

In response to a question from Chairman Mock, Mr. King said the University System is not involved in the cloud-first service initiatives being implemented by ITD. He said the University System has many on-premise services that have been slowly transitioned to cloud-based services. He said many of these transitions are cost neutral initially, but the University System anticipates cost-savings in the future. He said the University System has not compiled a comprehensive inventory list of all higher education systems and each system's ability to transition to cloud services. He said the University System is implementing a hybrid cloud strategy that includes both on-premises and cloud services.

Educational Technology Council

Ms. Rosi Kloberdanz, Director, Educational Technology Council, Information Technology Department, presented information ([Appendix I](#)) regarding elementary and secondary education IT activities. She said the Educational Technology Council, Department of Public Instruction, and North Dakota Council of Educational Leaders will form a committee to focus on providing recommendations for improvements to state education reporting systems and requirements. As of January 2018, she said, the total number of active students in PowerSchool was 112,791. She said the Educational Technology Council and Microsoft are partnering to integrate PowerSchool with Office 365.

Ms. Kloberdanz said there have been 513 Ask ME interactions between students and professionals since the spring of 2017. She said the service is provided at no cost. She said since September 1, 2017, EduTech staff have presented or hosted 485 professional learning and outreach opportunities for K-12 schools.

Representative Boehning expressed support for the Ask ME interaction program. He said he supports the initiative to focus on exposing students to the potential of trade-related careers.

In response to a question from Senator Robinson, Ms. Kloberdanz said the North Dakota Center for Distance Education has served over 8,000 students during the 2017-18 school year.

LARGE INFORMATION TECHNOLOGY PROJECT REPORTING

Startup and Closeout Reports

Mr. Justin Data, Data Manager, Enterprise Service Division, Information Technology Department, presented information ([Appendix J](#)) regarding large information technology project reporting and the most recent quarterly summary status report ([Appendix K](#)). He said the department has redesigned the presentation of quarterly summary status reports. The report is now presented through an online project dashboard. He said the new project dashboard will require less maintenance and provide better ability to modify each project's status.

Mr. Data provided a startup report ([Appendix L](#)) for the Department of Transportation REAL ID project. He said REAL ID is a nationwide system resulting from 2005 congressional action intended to prevent terrorism, reduce fraud, and improve the reliability and accuracy of state-issued driver's license and identification cards. Starting in October 2020, he said, current driver's licenses and identification cards will not be accepted for official purposes, such as boarding aircrafts, accessing federal facilities, or entering nuclear power plants. He said the new system will allow the department to retain source documents and to print driver's license and identification cards that comply with new federal requirements. He said the project has a baseline end date of September 2018 and a baseline budget of \$550,000.

Mr. Data provided a closeout report of Release 4 and a startup report ([Appendix M](#)) of Release 5 of the Workforce Safety and Insurance (WSI) claims and policy system (CAPS) replacement project. He said Release 4 of the project was completed in November 2017 at a cost of \$1.7 million. He said Release 4 was 4.0 percent behind schedule and 11.3 percent under budget. He said Release 5 started in October 2017 and will provide policy maintenance functionality and enhance legal forms for the project. He said Release 5 has a baseline budget of \$1.8 million and a baseline end date of June 29, 2018. He said the total amount spent on the CAPS replacement project through Release 4 is \$6.5 million compared to a total project budget of \$8.3 million.

Workforce Safety and Insurance

Mr. Doug Hintz, Business Services Supervisor, Workforce Safety and Insurance, presented information ([Appendix N](#)) regarding the status of the WSI CAPS replacement project. He said the project was started in July 2015 and includes 20 releases, or major IT subprojects. He said the project will provide web-based industry technology for core business systems supporting injury services and employer services and will replace existing client-server based systems. He said the project will provide enhanced reporting and accessibility to information and improve the ability to respond to customer and staff requests. As of February 28, 2018, he said, Release 5 of the project is 55 percent complete, on schedule, and 8.3 percent under budget. He said of the \$1,835,649 Release 5 budget, \$920,909 has been spent. He said Release 6 will begin in late June or early July 2018.

In response to a question from Senator Marcellais, Mr. Hintz said the entire project will be completed in 2025. He said each release requires 6 to 9 months to complete.

Department of Human Services

Mr. Tom Solberg, Deputy Director, Department of Human Services, presented information ([Appendix O](#)) regarding the status of the eligibility systems modernization project. He said Phase 1 of the project was completed in February 2016, and included the implementation of the Medicaid and children's health insurance program eligibility determination for individuals under the federal Affordable Care Act. He said Phase 2 of the project includes Medicaid eligibility determination for individuals who are aged, blind, or disabled, as well as eligibility determination for the supplemental nutrition assistance program, temporary assistance for needy families, and the child care assistance program.

Mr. Solberg said the Department of Human Services is requesting an extension with the vendor for Phase 2 to ensure correct determination of eligibility and benefits for these programs. He said Phase 2 will allow applicants and recipients to check eligibility and report changes online and also combine eligibility determination from four systems for county eligibility workers. He said the cost of Phase 1 was \$49.8 million and the Phase 2 budget is \$77.2 million. He said the estimated Phase 2 extension will cost \$25 million, of which \$20 million is from federal funds and \$5 million is from the general fund.

In response to a question from Chairman Mock, Mr. Solberg said the original completion date for the project was April 2018, but the Phase 2 extension will delay completion until 2019. He said the department does not anticipate requesting any additional funding for the project from the Emergency Commission and Budget Section during the 2017-18 interim.

In response to a question from Representative Boehning, Mr. Traynor said 2017 Senate Bill No. 2206 requires the Director of the Department of Human Services to report to the 2019 Legislative Assembly regarding the implementation of a state-paid economic assistance and county social service program. He said the IT needs related to Senate Bill No. 2206 are currently the responsibility of the counties. He said the future county and state responsibility for these IT costs is being evaluated.

In response to a question from Representative Boehning, Mr. Solberg said while the county social service program will be related to the eligibility systems modernization project, he does not anticipate additional costs for the eligibility system due to the requirements of Senate Bill No. 2206.

Mr. Erik Elkins, Assistant Director, Medical Services Division, Department of Human Services, presented information ([Appendix P](#)) regarding the status of the Medicaid management information system. He said the project was completed in October 2015. He said the system includes a web portal for providers to receive remittance advice, submit claims, and verify member eligibility. He said the pharmacy portion of the system includes a user interface, which allows pharmacy staff to make system changes rather than submitting work requests to programmers, allowing for greater flexibility. He said the provider enrollment portion of the system provides the ability to link providers to five or more locations without issuing a new Medicaid provider number. He said the enrollment portion of the system provides a direct interface with the Drug Enforcement Agency, National Provider Identifier, and Clinical Laboratory Improvement Amendments.

Secretary of State

Mr. Alvin A. Jaeger, Secretary of State, presented information ([Appendix Q](#)) regarding the status of the File 2.0 project. He said a business process modeling study was performed in 2015, which provided direction for the project's RFP. He said the project is on schedule and under budget. As of January 31, 2018, he said, \$1,008,899 has been spent on the project, compared to a total project budget of \$2.7 million. He said the project completion date is September 14, 2018.

In response to a question from Chairman Mock, Mr. Jaeger said the agency receives 75,000 annual reports per year. He said the number of limited liability companies in North Dakota has increased 135 percent since 2011. He said the project will allow customers to file reports and registrations online, as well as pay fees online.

Department of Public Instruction

Ms. Linda Schloer, Director, Child Nutrition and Food Distribution Programs, Department of Public Instruction, presented information ([Appendix R](#)) regarding the status of the ND Foods 2.0 project. She said the ND Foods computer system was developed and managed by ITD in 2012 to manage United States Department of Agriculture (USDA) child nutrition and food distribution programs, including program applications, claims, and USDA foods. She said the ND Foods 2.0 project will improve decisionmaking capabilities, staff efficiencies, and reporting processes. She said the project was completed in January 2018, 104.4 percent ahead of the anticipated completion date of September 2019. She said the total project cost was \$676,020, which is \$1,778,602, or 72.4 percent, less than the project budget of \$2,454,622.

STUDY OF INFORMATION TECHNOLOGY DEPARTMENT SERVICE RATES

Information Technology Department

Mr. Sipes, presented information ([Appendix S](#)) regarding responses to questions posed by state agencies relating to IT project development costs, timelines, risks, and cloud computing. He said because ITD is an internal service fund agency, ITD is not allowed to generate a profit and therefore cannot provide fixed bids to state agencies when providing estimates for agency IT projects. He said ITD estimates the cost of projects as best as possible, but due to time constraints, complexity of projects, miscommunication between agency personnel and ITD staff, and the inability to generate a profit, the actual cost of a project may differ from the initial estimate. He said if agencies are willing to pay more to complete a project faster, ITD will contract with private providers to provide assistance on the project. He said STAGenet allows for redundancy for disaster recovery for both on-premise and cloud-based technologies.

In response to a question from Chairman Mock, Mr Sipes said ITD has two diverse paths in Bismarck and Fargo to the state network and data center. He said if one diverse path fails, the state has enough capacity to provide necessary IT services through the other diverse path to the network.

Mr. Sipes presented information ([Appendix T](#)) regarding information related to ITD services and rates, including software development, network services, and telephone services. He said ITD has 96 data processing services and 22 telecommunications services with specific rates. He said 2015-17 biennium ITD service billings totaled \$121.1 million consisting of the following services:

Service Type	Percentage of ITD Revenue by Service
Computer hosting	31.5%
Software development	26.8%
Direct bill-back	19.1%
Network services	16.4%
Telephone	5.7%
Other	0.5%
Total	100.0%

Mr. Sipes said software development revenue totaled \$32.4 million, telephone service revenue totaled \$9.1 million, and network service revenue totaled \$19.8 million during the 2015-17 biennium. He said these revenues are collected from customers for the following:

ITD Costs	Percentage of Software Development Revenue	Percentage of Telephone Service Revenue	Percentage of Network Service Revenue
Senior project manager	11.3%		
Senior analyst	21.3%		
Analyst III	25.6%		
Analyst II	20.2%		
Programmer	8.8%		
Contract programming	7.4%		
Other	5.1%		
Basic phone services		47.7%	
Chargebacks		21.5%	
Phone features		17.9%	
Long distance/800		10.7%	
Interactive voice response		2.3%	
Technology fees			52.1%
Political subdivision wide area network access			19.0%
State wide area network access			10.9%
Broadband access			8.3%
State Radio circuits			6.9%
Virtual private network, domain name system, and firewall			2.7%
Total	100.0%	100.0%	100.0%

Mr. Sipes said the state agency wide area network access fee is \$850 per month, the telephone rate is \$20 per phone per month, and the long distance rate is \$0.045 per minute for the 2017-19 biennium. He said the revenues from these services are collected from customers for the following costs:

ITD Cost	WAN Access Percentage of Use	Telephone Percentage of Use	Long Distance Percentage of Use
Circuit costs	72.8%	32.3%	
Equipment	8.2%	3.3%	
Overhead	4.9%	4.9%	4.9%
ITD support	4.6%	24.5%	25.4%
Operational	4.6%	12.1%	
Service desk	4.0%	3.9%	4.0%
Security	1.0%		
Software		19.1%	
Long distance charges			65.7%
Total	100.0%	100.0%	100.0%

Mr. Sipes said 2017-19 biennium technology fees are charged \$64 per FTE per month. He said the fee is allocated as follows:

ITD Technology Fee Revenue Use	Percentage of ITD Technology Fee Revenue Use
ITD Support	29.2%
Operational	22.3%
Equipment	14.4%
Security	13.2%
Email	9.1%
Overhead	4.9%
Service desk	4.0%
Network backbone	2.0%
Internet	0.9%
Total	100.0%

In response to a question by Chairman Mock, Mr. Sipes said the technology fee rate may be affected by the unification plan and an anticipated increase in ITD FTEs. He said charging a technology fee by FTE is the model ITD prefers to use.

In response to a question from Representative Bosch, Mr. Sipes said ITD charges a 4.9 percent overhead rate for agency services to pay for costs of ITD accounting, human resources, and the office of the Chief Information Officer. He said ITD considers staff salaries and benefits, rent expenses, software costs, overhead costs, and other costs, when establishing service rates to ensure ITD staff maintain a billable rate of 75 percent when providing services to customers. He said ITD rates are comparable to private providers.

In response to a question from Senator Robinson, Mr. Sipes said while ITD monitors department service rates to other state's IT service rates, it is difficult to compare ITD service rates to the rates of other states, due to the difference in services provided in each state and to the rate structure of each service provided in other states.

State Auditor's Office

Mr. Joshua C. Gallion, State Auditor, presented information regarding the State Auditor's office experiences with IT services provided by ITD and other sources. He said ITD is structured to meet the needs of large agencies but services offered for medium or small agencies are limited, causing these agencies to pay for services designed for large agencies. He said while the rates charged by ITD are fair given the services provided, small agencies often do not need the level of services provided by ITD; therefore, increasing IT costs of the agency. He said the "one-size-fits-all" approach ITD uses to provide services does not work for small agencies.

Mr. Gallion said while ITD has knowledgeable staff, ITD services are costly compared to the services offered by private providers, such as Midco Internet services. He said private service providers offer customizable IT solutions but ITD does not. He said the cost for computers and desktop support is excessive and the cost of phone services is twice as costly compared to private providers. He said the State Auditor's office could reduce IT costs by being allowed to use private providers for certain services instead of ITD.

Department of Trust Lands

Ms. Jodi A. Smith, Commissioner, Department of Trust Lands, presented information ([Appendix U](#)) regarding the department's experiences with IT services provided by ITD and other sources. She said the department receives multiple services from ITD, including data processing, networking and telephone services, professional services for the preparation of RFPs, and project management services. She said the department has three IT employees who manage the department's customized IT systems, computer support, web development, internal and external websites, and other applications. She said these employees work with ITD as needed for network support, outages, upgrades, and major IT project management. She said the rates charged by ITD are fair, although ITD data storage costs are more expensive than the private sector.

At the department's request, Ms. Smith said, an information security risk assessment was conducted in February 2018. She said the purpose of the assessment was to identify and report potential IT opportunities and sensitive data risks. She said the assessment was part of the state's risk management process and helped the department implement an appropriate control environment to reduce cybersecurity risks. She said the department is completing the implementation of control enhancements to address recommended improvements from the assessment. She said the assessment could not have been possible without ITD. She said ITD should consider utilizing the private sector for agency specific needs when necessary.

State Library

Ms. Mary Soucie, State Librarian, presented information ([Appendix V](#)) regarding the State Library's experiences with IT services provided by ITD and other sources. She said the State Library receives multiple services from ITD, including telecommunication services, records management, mainframe disk storage, wide area network access, shared file and print services, active directory services, and website hosting. She said the State Library receives database resources, library system software services, cloud hosting, remote software, and software subscriptions from private providers. She said North Dakota public libraries depend on the services provided by ITD. She said while the State Library appreciates the value received from services provided by ITD, there are communication concerns between the agency and ITD. She said the State Library has been charged by ITD for services the agency has not received, causing staff to contact ITD to correct the billing. She said ITD would benefit from implementing a new process to ensure accurate billing of state agencies.

In response to a question from Chairman Mock, Ms. Soucie said there are 88 public libraries in North Dakota. She said of this number, the State Library pays for Internet services for 22 public libraries. She said many public libraries receive Internet services from ITD while some rely on local private providers. She said these libraries can submit IT help desk requests to either the State Library or ITD. She said all North Dakota public libraries use at least one type of IT service from ITD.

Department of Agriculture

Mr. Tom Bodine, Deputy Commissioner, Department of Agriculture, presented information ([Appendix W](#)) regarding the department's experiences with IT services provided by ITD and other sources. He said the department receives desktop support services from ITD. He said ITD owns and manages a majority of department IT software and hardware, although some department computers are still used for field functions and maintained by department staff. He said partnering with ITD has increased IT support and reduced the amount of time department employees spend on computer functions.

Mr. Bodine said the department contracts with private providers for online registration, licensing programs, website management, and online databases. He said private providers often provide specialized services and are more cost efficient when creating programs. He said the department has concerns regarding how technology will be implemented in the future. He said ITD can be a leader to help agencies with assisting agency customers, but expressed concern regarding ITD's "one-size-fits-all" approach to agency IT services.

In response to a question from Senator Davison, Mr. Bodine said the department would like ITD to provide additional e-commerce guidance so department employees do not have to dedicate staff time to these functions.

Council on the Arts

Ms. Robin Bosch, Administrative Officer, Council on the Arts, presented information ([Appendix X](#)) regarding the Council on the Arts' experiences with IT services provided by ITD and other sources. She said the Council on the Arts receives desktop support services and Microsoft Office software support from ITD. She said ITD understands state infrastructure and services are provided efficiently. She said receiving services from ITD has been preferable to receiving services from private providers. She said ITD is often more reliable and requires less time from agency staff. She said when services are received from private providers, additional staff time is needed to explain agency processes and needs. She said the flat-rate billing used by ITD is preferable to per-hour billing for services. She said rates charged by ITD for services provided are appropriate.

Parks and Recreation Department

Dr. Melissa Baker, Director, Parks and Recreation Department, presented information ([Appendix Y](#)) regarding the department's experiences with IT services provided by ITD and other sources. She said the department receives multiple services from ITD, including network services, telephone services, software development, records management, website hosting, and data storage. She said the department does not receive many IT services from private providers. She said the department is pleased with services provided by ITD but believes efficiencies can be obtained in ITD to allow services to be offered at lower costs. She said the department supports the shared services unification plan, as it will allow additional access to software, data management platforms, and other services.

State Water Commission

Mr. Chris Bader, Information Technology Director, State Water Commission, presented information ([Appendix Z](#)) regarding the commission's experiences with IT services provided by ITD and other sources. He said in 2007 the commission submitted a proposal to ITD for storage options for the aerial dissemination service project, which included satellite images and aerial photos of North Dakota land and water conditions dating back to the 1930s. He said the proposal included a \$0.14 per-gigabyte, per-month storage fee.

Mr. Bader said a fee was not agreed upon between ITD and the commission and in 2013, ITD proposed a storage fee of \$1.00 per gigabyte, per month. He said because ITD's proposal was too costly, the commission developed and deployed a spatial indexing system and dissemination platform for the aerial dissemination service project. He said although ITD's infrastructure proposal included a more comprehensive system than the commission's internal infrastructure, ITD's level of service and corresponding cost was greater than the commission needed for the project. He said the commission has spent approximately \$100,000 on the project over a period of 5 years. He said if the commission would have used ITD services for the project, the commission would have spent \$6,517,500 during this time.

In response to a question from Chairman Mock, Mr. Bader said the commission receives network, telephone, email, and groupware services from ITD.

In response to a question from Representative Boehning, Mr. Bader said the number of additional images that will need to be scanned for the aerial dissemination services project depends on future natural disasters.

Department of Transportation

Mr. Russ Buchholz, Information Technology Director, Department of Transportation, presented information ([Appendix AA](#)) regarding the department's experiences with IT services provided by ITD and other sources. He said

the Department of Transportation (DOT) receives multiple services from ITD, including network and server communication services, database support, and application support. He said due to rising ITD costs, DOT has not used ITD's large IT project programming services in the last 10 years. He said DOT has instead created and deployed multiple IT projects and systems using DOT IT staff or private providers. He said ITD's overhead costs are relatively expensive.

In response to a question from Mr. Riley, Mr. Buchholz said DOT prefers to transition to cloud-based services. He said a certain amount of DOT's data is not of a sensitive nature; therefore, security risks for storing this data in the cloud would be minimal. He said the cloud offers redundancy and cost benefits.

In response to a question from Chairman Mock, Mr. Buchholz said DOT created a travel information map that captures pictures from over 400 camera angles to evaluate travel conditions for the public. He said DOT does not store the images taken, as the images are overwritten by new images every 4 to 5 minutes. He said DOT currently has enough data storage capacity for department needs.

In response to a question from Representative Boehning, Mr. Buchholz said driver's license systems are hosted on the mainframe, not in the cloud. He said it is in the best interest of DOT to migrate department systems off of the mainframe. He said driver's license and motor vehicle systems cannot share information because the mainframe technology they are hosted on is too old, which has become costly for the department. He said DOT hopes the 2019 Legislative Assembly provides funding to allow DOT and ITD to migrate these systems off of the mainframe.

OTHER INFORMATION

Chairman Mock said the next committee meeting will be in June 2018.

No further business appearing, Chairman Mock adjourned the meeting at 4:50 p.m.

Levi Kinnischtzke
Fiscal Analyst

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