

NORTH DAKOTA LEGISLATIVE MANAGEMENT
Minutes of the
INFORMATION TECHNOLOGY COMMITTEE

Tuesday, September 18, 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, Robin Weisz; Senators Howard C. Anderson, Jr., Kyle Davison, Richard Marcellais, Larry J. Robinson; Citizen Member Shawn Riley

Members absent: Representatives Christopher D. Olson, Gary R. Sukut; Senator Terry M. Wanzek

Others present: See [Appendix A](#)

It was moved by Representative Bosch, seconded by Representative Weisz, and carried on a voice vote that the minutes of the June 26, 2018, meeting be approved as distributed.

REPORT FROM THE CHIEF INFORMATION OFFICER
Cybersecurity

Mr. Shawn Riley, Chief Information Officer, Information Technology Department, presented information ([Appendix B](#)) regarding cybersecurity in North Dakota government. From March 2018 through August 2018, he said, North Dakota's information technology shared service has defended against 34 million vulnerability attacks, 3.3 million denial of service attacks, 88 million spam and phishing messages, and 1,300 "zero-day" attacks. He said a "zero-day" attack is a software attack that has no existing solution to mitigate the attack. During 2017, he said, 42 organizations in the United States had more than 1 million records stolen. He said state government must focus on delivering security services that will help the state effectively secure, defend, and respond to cyber attacks. He said because North Dakota is the second largest energy producer in the country, has significant nuclear and conventional military assets, and has decentralized citizen data, North Dakota is a target for cybersecurity criminals. He said data stolen in K-12 schools often is used for identify theft, ransom, and access to other systems. He said the Information Technology Department (ITD) has started strategic, operational, and workforce initiatives to mitigate cybersecurity risks.

In response to a question from Chairman Mock, Mr. Riley said if ITD successfully defends against 99.99999 percent of cyber attacks, the state will still be breached every 18 minutes.

In response to a question from Senator Robinson, Mr. Riley said the most common type of attacks are phishing attacks in which an employee has surrendered login credentials and other employee information.

In response to a question from Senator Robinson, Mr. Riley said the state has cybersecurity insurance, but the insurance is valuable when responding to cybersecurity incidents rather than preventing cybersecurity attacks. He said cybersecurity insurance may provide protection from legal action following a breach of information, but does not address how to replace lost data or any potential reputation damages.

Mr. Shane Swanson, Information Security Division, Information Technology Department, presented information ([Appendix C](#)) on strategic cybersecurity initiatives. During December 2017 through March 2018, he said, ITD conducted a security assessment of the Governor's cabinet and other select state agencies. He said the assessment assigned North Dakota state government a score of 1.2 on a 5 point scale measuring cybersecurity operating, security, defense, and response metrics. He said 1.4 percent of ITD's fiscal year 2017 budget and 2.9 percent of ITD staff are dedicated to cybersecurity. During fiscal year 2017, he said, the national average percentage of state and local government budgets focused on cybersecurity was 5.0 percent while the average percentage of staff focused on cybersecurity was 7.8 percent. He said while North Dakota K-12 education has multiple information technology full-time equivalent (FTE) staff positions, only 1 FTE position is a trained cybersecurity professional.

Mr. Sean Wiese, Chief Information Security Officer, Information Technology Department, presented information ([Appendix D](#)) on cybersecurity operations. In July 2018, he said, the state cybersecurity team detected more than 178,000 attacks on political subdivisions, of which 66,000 were targeting city governments and 111,000 were targeting county governments. He said North Dakota K-12 schools have been cyber attacked by North Korea and other nation states. He said more than one-third of North Dakota schools have been targeted with double-pulsar malware.

In response to a question from Representative Boehning, Mr. Wiese said the best practices to protect information and devices include keeping an accurate inventory listing, providing basic cyber training and practices, and tracking device activity.

Mr. Wiese said the information technology shared service includes 11 cybersecurity FTE positions to support 252,000 state, K-12, higher education, and political subdivision users. He said to address cybersecurity concerns, ITD will request \$11.4 million and 37 FTE positions as an optional package in ITD's 2019-21 biennium budget. He said the 37 FTE positions would include 8 state government FTE positions, 20 K-12 FTE positions, 5 higher education FTE positions, 2 Fintech investigations FTE positions in the Securities Department and Department of Financial Institutions, and 2 political subdivision FTE positions.

Senator Robinson said cybersecurity is an important topic that should be included in the department's base budget rather than in an option package for the department's 2019-21 biennium budget.

In response to a question from Representative Weisz, Mr. Dan Sipes, Chief Operating Officer, Information Technology Department, said the total cost to state agencies for ITD's cybersecurity initiatives is dependent on how the initiatives are funded. He said some cyber costs can be absorbed by ITD within the current service rates, but additional general fund appropriations may be needed. He said an alternative funding option is to increase ITD service rates, which may require additional appropriations for state agencies to pay ITD for additional cybersecurity costs.

In response to a question from Representative Boehning, Mr. Sipes said the \$11.4 million optional budget request does not include funding for the additional 37 FTE positions being requested. He said the \$11.4 million request is for cybersecurity tools and systems.

In response to a question from Chairman Mock, Mr. Riley said the \$11.4 million request is considered a one-time funding request, but there would be ongoing expenditures of approximately \$3.5 million to maintain the cybersecurity tools and systems.

Mr. Riley presented information ([Appendix E](#)) on cybersecurity workforce initiatives. He said more than 50 percent of the United States population has experienced a data breach in the past year. He said recruitment of cybersecurity professionals is difficult due to average national salaries and low unemployment for the profession. He said the proposed cybersecurity changes will require statutory changes, additional cybersecurity funding and staff, and the enforcement of minimum STAGEnet standards. He said funding restraints create challenges when hiring cybersecurity professionals. He said while ITD has approximately 20 vacant FTE positions due to funding constraints, those FTE positions cannot be reclassified to focus solely on cybersecurity.

Annual Report

Mr. Riley presented information ([Appendix F](#)) regarding ITD's annual report pursuant to North Dakota Century Code Section 54-59-19. He said major accomplishments during fiscal year 2018 included information technology unification, cybersecurity initiatives, health technology, education initiatives, and internal service delivery and automation. He said total fiscal year 2018 revenue totaled \$62.9 million. Of this amount, he said, 31 percent was related to computer hosting, 28 percent to software development, 18 percent to direct billback, 17 percent to network services, 5 percent to telephone services, and 1 percent to other services. He said the annual report provides information on ITD customer satisfaction surveys.

Information Technology Department 2019-21 Biennium Budget

Mr. Sipes presented information ([Appendix G](#)) regarding ITD's 2019-21 biennium budget request, including proposed budget reductions to comply with the Governor's budget guidelines and any optional adjustment requests. He said ITD's 2017-19 biennium budget included \$245.1 million and 344.30 FTE positions. He said ITD's 2019-21 biennium budget request will include a \$77.3 million reduction, of which \$58.9 million is considered one-time funding during the 2017-19 biennium and \$18.4 million is a reduction to ongoing funding. He said the department is authorized 344.30 FTE positions for the 2017-19 biennium, but 17.00 FTE positions will be eliminated for the 2019-21 biennium to comply with the Governor's guidelines. Of the 17.00 FTE positions, he said, 2.00 FTE positions will be from K-12 programs and 15.00 FTE positions will be from ITD operations.

In response to a question from Representative Boehning, Mr. Sipes said 23 ITD personnel have applied for the voluntary separation incentive program. He said ITD anticipates approving 19 of the 23 applications. He said some of these positions will not be refilled while some positions will be rehired at lower salaries.

Prioritization of Major Information Technology Projects

Mr. Justin Data, Data Manager, Enterprise Services Division, Information Technology Department, presented information ([Appendix H](#)) on the recommendations of the State Information Technology Advisory Committee (SITAC) regarding large software projects for consideration pursuant to Section 54-59-02.1 and the recommendations of SITAC regarding prioritization of proposed major information technology projects for the 2019-21 biennium pursuant to Section 54-35-15.2. He said a preliminary analysis of 2019-21 biennium information technology project requests includes total funding of \$106.0 million for the 2019-21 biennium and a total of \$118.8 million for a 5-year period. He said the projects are for systems in the Department of Human Services, Department of Transportation, Industrial Commission, Secretary of State's office, Retirement and Investment Office, and Workforce Safety and Insurance. He said additional projects will be added from other agencies, as the final prioritization of projects will be decided by SITAC on October 30, 2018. He said the final results will be forwarded to the committee.

In response to a question from Senator Robinson, Mr. Sipes said the Department of Human Services and Department of Transportation are requesting to move certain applications and systems from the mainframe. He said it is advantageous for both agencies to transition from the mainframe at the same time to avoid one agency experiencing a significant increase in the cost to maintain the mainframe.

Statewide Longitudinal Data System

Mr. Tracy Korsmo, Enterprise Information Technology Architect, Information Technology Department, presented information ([Appendix I](#)) regarding a Statewide Longitudinal Data System (SLDS) Committee report pursuant to Section 54-59-36. He said the North Dakota Choice Ready program is a tool to assist educators to ensure all students successfully graduate high school possessing the essential skills necessary to be ready for life. He said students strive to be postsecondary ready, workforce ready, or military ready. He said 24,000 e-transcripts have been sent using SLDS, including 17,000 to in-state public institutions and 7,000 to private or out-of-state institutions. He said the SLDS Committee's recommendation for future development includes adding early childhood into SLDS and to provide reports on North Dakota college certificate obtainment and employment in the state.

In response to a question from Chairman Mock, Mr. Korsmo said he does not anticipate any SLDS-related requests of the 2019 Legislative Assembly.

Statewide Interoperable Radio Network

Mr. Duane Schell, Chief Technology Officer, Information Technology Department, presented information ([Appendix J](#)) regarding the statewide interoperable radio network (SIRN). He said the fiscal note for 2017 House Bill No. 1178 estimated \$9.6 million of revenue would be generated for SIRN during the 2017-19 biennium. He said the updated estimate of revenue to be collected during the biennium is \$7.5 million to \$8.0 million. He said the current revenue in the SIRN fund is \$4.0 million. He said expenditures incurred through August 2018 totaled \$49,975. He said ITD is negotiating with a vendor for SIRN and intends to award the contract in December 2018. He said ITD does not anticipate borrowing funds from the Bank of North Dakota for SIRN during the 2017-19 biennium.

Health Information Technology Office

Mr. Sheldon Wolf, Director, Health Information Technology Office, Information Technology Department, presented an update ([Appendix K](#)) of Health Information Technology Office initiatives. He said the Health Information Technology Office is working with a vendor to do a gap analysis on the changes needed to the system for the new health information network expansion project.

Electronic Payment Processing System

Mr. Sipes presented information ([Appendix L](#)) regarding the status of the electronic payment processing system related to Sections 10 and 11 of 2017 Senate Bill No. 2021. He said the Bank of North Dakota finalized a contract with Chase Bank in August 2017. He said the Secretary of State, Parks and Recreation Department, Game and Fish Department, Workforce Safety and Insurance, and Highway Patrol have declined implementation of the system. He said the Department of Transportation has implemented the system on self-service kiosks and customers will be charged a 2.5 percent fee for credit card transactions. He said Job Service North Dakota and the Department of Labor and Human Rights voluntarily elected to implement the system.

EMERGENCY SERVICES COMMUNICATIONS COORDINATING COMMITTEE

Mr. Jerry Bergquist, Chairman, Emergency Services Communications Coordinating Committee, presented information ([Appendix M](#)) regarding an Emergency Services Communications Coordinating Committee (ESCCC) report ([Appendix N](#)) pursuant to Section 57-40.6-12. He said ESCCC was established in 2001 and is composed of two state and two local government representatives. He said the primary responsibility of ESCCC is to implement technologies that will efficiently and cost-effectively deliver 911 calls to one of the 21 North Dakota Public Safety Answering Points (PSAP). He said the primary funding source to provide 911-related services is through an emergency services communications system fee levied on telecommunication service in the state. He said all 53 counties and 1 city impose this fee. As of July 2018, he said, 23 county and city jurisdictions charge the maximum \$1.50 fee on assessed communication services while other jurisdictions charge a \$1.00 fee.

Mr. Bergquist said ESCCC is focusing on Next Generation 9-1-1 progress, technology consolidation, training guidelines, and the relationship between land mobile radio or SIRM, public safety mobile broadband, and Next Generation 9-1-1. He said legislation may be required to require their location be provided when a call is received by a PSAP.

In response to a question from Representative Bosch, Mr. Jason Horning, Next Generation 9-1-1 Program Manager, North Dakota Association of Counties, said as more technologies transition to Internet Protocol-based platforms, many states have started consolidating emergency services and 911 governance structures.

BLOCKCHAIN

At the request of Chairman Mock, the Legislative Council staff presented a concurrent resolution draft [[19.3043.01000](#)] relating to a study of distributed ledger technology and blockchain. The Legislative Council staff said the concurrent resolution draft requests the Legislative Management study the potential benefits of distributed ledger technology and blockchain for state government, including an evaluation of the effects on government accounting and budgeting, decisionmaking, information technology authentication, records management, remote electronic voting, and other e-government services and applications, such as tax collection, land registry, distribution of benefits, digital currencies, and other potential benefits. He said the concurrent resolution draft requests the Legislative Management report its findings and recommendations to the 2021 Legislative Assembly.

It was moved by Senator Anderson, seconded by Senator Marcellais, and carried on a roll call vote that the concurrent resolution draft [[19.3043.01000](#)] relating to a Legislative Management study of distributed ledger technology and blockchain for state government be approved and recommended to the Legislative Management. Representatives Mock, Boehning, and Bosch and Senators Anderson, Davison, Marcellais, and Robinson voted "aye." No negative votes were cast.

CLOUD COMPUTING AND SHARED SERVICES UNIFICATION

Cloud Computing

Mr. Riley presented information ([Appendix O](#)) regarding ITD cloud computing initiatives. He said ITD has adopted a "cloud first" strategy, as new systems are being evaluated for deployment in the cloud as the first option. He said agency systems will not be moved without involvement from the agency. He said moving to the cloud will provide opportunities to increase storage capacity without additional capital investments or to decrease storage capacity without incurring a loss on capital investments that have not been fully amortized. He said cloud automation tools and migration applications will reduce the time necessary to patch systems as platform-as-a-service technologies are used more often.

Mr. Riley said server costs for on-premise systems are \$29 per server per month, while the cloud server costs are estimated to be \$38 per server per month or \$30 per server per month for some systems. He said storage costs for on-premise systems is \$160 per terabyte per month for premium storage and \$120 per terabyte per month for basic storage, while cloud storage costs are estimated to be \$80 per terabyte per month for premium storage. He said network costs for on-premise systems are \$94,100 per month for legacy systems, while deploying systems in the cloud is estimated to cost \$89,800 per month. He said cloud-related expenditures will not change ITD rates charged to state agencies during the 2019-21 biennium. He said no legislative action is necessary to continue to move applications and systems to the cloud.

Shared Services Unification

Mr. Riley presented information ([Appendix P](#)) regarding ITD shared services unification initiatives. He said the shared services unification process includes four phases, including data gathering, transitional groupings, deep data analysis, and reporting. He said ITD is in the deep data analysis. He said ITD has identified 511.00 information technology FTE positions, of which 344.30 FTE positions are employees of ITD and 167.00 FTE positions are from 12 Governor's cabinet agencies. He said funding for the salaries of the 167.00 Governor's cabinet information

technology FTE positions totals \$5.6 million from the general fund, \$8.4 million from special funds, and \$4.6 million from federal funds. He said the salaries of the 344.30 ITD FTE positions total \$74.7 million, of which \$12.2 million is from the general fund and \$62.5 million is from special funds.

Mr. Riley said 93.8 percent of information technology staff identified have completed or are in the process of completing a start-stop-continue analysis. After 4 years of the unification plan being implemented, he said, ITD estimates a 15 to 22 percent increase in efficiency for information technology FTE positions. He said the report phase includes providing information to the Legislative Assembly during the 2019 legislative session. He said legislative proposals will include budget requests for the new information technology shared services and a rebranding of ITD to the new shared service.

In response to a question from Chairman Mock, Mr. Riley said ITD's 2019-21 biennium budget request will include transfers of the 167 information technology FTE positions from the Governor's cabinet agencies and the Department of Trust Lands to the new shared service.

EDUCATION-RELATED INFORMATION TECHNOLOGY UPDATES

Higher Education

Mr. Darin King, Chief Information Officer, North Dakota University System, presented information ([Appendix Q](#)) regarding the most recent quarterly large information project summary report ([Appendix R](#)). He said the FAMIS Cloud Migration, Novelution, and Blackboard Learning Management projects are in green status. He said the FAMIS Cloud Migration project is 1.4 percent over budget and 6.8 percent ahead of schedule, the Novelution project is 20.4 percent under budget and 5.9 percent behind the revised baseline schedule, and the Blackboard Learning Management project is 2.5 percent under budget and 2.3 percent behind the revised baseline schedule.

In response to a question from Representative Bosch, Mr. King said the North Dakota University System employs 3 cybersecurity FTE positions. He said these FTE positions were hired in the last 3 years and focus on higher education cybersecurity from a systemwide approach. He said cybersecurity at each higher education institution is primarily maintained by information technology staff at each institution.

Educational Technology Council

Ms. Rosi Kloberdanz, Director, Educational Technology Council, Information Technology Department, presented information ([Appendix S](#)) regarding elementary and secondary education information technology activities. She said the EduTech Pre K-12 strategic plan summary includes a vision that all students will graduate choice ready, with the knowledge, skills, and disposition to be successful. As of July 2018, she said, there were 112,641 active students on PowerSchool. She said the Center for Distance Education (CDE) is requesting an innovation waiver from the Department of Public Instruction to allow CDE to develop and deliver to students and schools online traditional courses, online competency-based courses, project competency-based courses, and experiential competency-based courses. She said from July 1, 2018, through September 5, 2018, CDE has enrolled 1,162 students in 966 courses. She said there are 13 CDE SmartLabs providing learning opportunities to 2,149 students.

LARGE INFORMATION TECHNOLOGY PROJECT REPORTING

Startup and Closeout Reports

Mr. Data presented information ([Appendix T](#)) regarding large information technology project reporting and the most recent quarterly summary status report. He said of the 21 large information technology projects, 5 were in the initiating phase, 6 were in the planning phase, 9 were in the executing phase, and 1 was in the closing phase. He said all projects are in green status.

Mr. Data presented a startup report ([Appendix U](#)) for the State Department of Health medical marijuana system. He said the project execution start date was July 24, 2018, the baseline end date is December 12, 2018, and the baseline budget is \$231,050. He said it was anticipated the budget for this project would exceed the \$500,000 major information technology project threshold. He said although the actual project baseline budget is less than this threshold, the Executive Steering Committee has continued to report on the project.

Mr. Data presented a closeout report ([Appendix V](#)) for the Department of Transportation REAL ID project. He said the project was completed in June 2018 and was 5.0 percent ahead of schedule. He said the actual cost of the project was \$494,341, which was 0.3 percent under budget.

Mr. Data presented a closeout report ([Appendix W](#)) for the State Department of Health immunization information system project. He said the project was completed in June 2018 and was on schedule compared to the final baseline and 5.8 percent behind schedule compared to the original baseline. He said the actual cost of the project was \$3,568,398, which was 6.4 percent under budget compared to the final baseline and 0.17 percent under budget compared to the original baseline.

Workforce Safety and Insurance

Mr. Timothy Schenfisch, Information Technology Director, Workforce Safety and Insurance, presented a status report ([Appendix X](#)) on the claims and policy system (CAPS) replacement project. He said the CAPS program will replace core Workforce Safety and Insurance business applications. He said there are 20 releases to the project and each release is considered a major information technology project. He said Release 6, Policy Maintenance Part 2, began in June 2018, and will end in May 2019. As of August 2018, he said, Release 6 was 30 percent complete, on schedule, and estimated to finish 27 percent under budget. He said \$378,139 has been spent through August 31, 2018, compared to a total Release 6 budget of \$2,698,860.

Department of Human Services

Ms. Michele Gee, Director, Economic Assistance Division, Department of Human Services, presented information ([Appendix Y](#)) regarding the eligibility systems modernization project. She said Phase 1 of the project was implemented in February 2016. She said Phase 2 of the project is scheduled to be completed in March 2019. She said Phase 2 will incorporate the child care assistance program, supplemental nutrition assistance program, and temporary assistance for needy families program into the eligibility systems modernization program. She said Phase 3 of the project will implement the remaining Medicaid eligibility coverages for individuals who are aged, blind, and disabled. She said the estimated completion date for Phase 3 is December 2019. She said Phase 4, to implement the low-income home energy assistance program, will be completed in the fall of 2020. She said the total costs of Phases 1, 2, and 3 is \$158.3 million, including an actual Phase 1 cost of \$49.8 million and a budgeted total of \$108.5 million for Phases 2 and 3.

Ms. Maggie D. Anderson, Director, Medical Services Division, Department of Human Services, presented information ([Appendix Z](#)) regarding the Medicaid management information system project. During fiscal year 2018, she said, 4,187,340 Medicaid claims were processed using the Medicaid management information system, averaging 348,945 claims per month. She said until the Medicaid management information system is certified, operational expenditures from the "go live" date of October 5, 2015, are matched 50 percent with federal funds. Once certified, she said, the federal matching percentage increases to 75 percent. She said the final certification is expected to occur during the first quarter of 2019.

Secretary of State

Mr. Jim Silrum, Deputy Secretary of State, presented information ([Appendix AA](#)) regarding the status of the File 2.0 project, including information on historical and current average times to process business registrations and the estimated average time needed after implementation of the File 2.0 project. He said the business registration, business information, and contractor licensing modules of the project will be deployed as early as October 2018. He said the lobbyist module will be the last module to be deployed but is expected to be ready by the end of 2018.

Mr. Silrum said several sections of Century Code state a business name cannot be deceptively similar to a business name that already exists in the state. He said North Dakota is one of three states that have a deceptively similar law. He said the remaining states have name availability laws that allow business registrations if the business name is discernible on the record maintained by that state's Secretary of State. He said North Dakota's deceptively similar laws require additional Secretary of State staff time to review each business registration application to compare to existing business names.

Mr. Silrum said from September 2016 through August 2018, business registrations have averaged 1,655 registrations per month with a low of 1,375 in July 2018 and a high of 2,124 in May 2017. He said the number of days for the Secretary of State's office to file a document has ranged from 10 to 26 days, with an average of 17 days, during this time. He said it is unknown how much the File 2.0 project will improve business registration processing times.

STUDY OF INFORMATION TECHNOLOGY DEPARTMENT SERVICES AND RATES

Mr. Terry Traynor, Executive Director, North Dakota Association of Counties, presented information ([Appendix BB](#)) regarding the relationship between the North Dakota Association of Counties and ITD, including information technology services provided by ITD and rates charged for services. He said several state agencies interact with counties through numerous software systems, including social service eligibility, election reporting, court records, and marriage licensing. He said each county uses STAGEnet as its wide area network and many systems used by the counties have security access requirements established by ITD. He said ITD provides the wide area network for all counties and has a modified rate structure to support each county's bandwidth needs at a reasonable cost. He said while some counties may say ITD rates are too high, most counties believe they are paying for a quality service and receiving a quality service from ITD.

Mr. Traynor said to meet the requirements of the growing number and complexity of state and county systems, each county must maintain its desktops and local networks. Larger counties, he said, have found it efficient to hire

full-time staff to maintain information technology systems, but most counties contract for this service. He said many counties contract with the North Dakota Association of Counties Resources Group (NRG), which is a subsidiary of the North Dakota Association of Counties. He said NRG and ITD staff work together to ensure STAGEnet and local networks are secure and efficient for North Dakota counties. He said NRG communicates with the counties to inform county officials of ITD initiatives, network rates, and security threats.

At the request of Chairman Mock, Mr. Riley commented regarding the ITD services and rates study. He said ITD appreciates the study performed by the committee and the feedback received. He said operational assessments and unification initiatives will include information reviewed as part of the study. He said ITD's goal is to improve operational effectiveness, including managing the cost per unit of service provided to ITD customers.

It was moved by Senator Davison, seconded by Senator Robinson, and carried on a roll call vote that because rates charged and services provided by ITD may change due to recent department initiatives relating to cloud computing and shared services unification of information technology employees, the committee recommends the Legislative Assembly continue to monitor ITD services and rates and the impact on state agencies. Representatives Mock, Boehning, and Bosch and Senators Anderson, Davison, Marcellais, and Robinson voted "aye." No negative votes were cast.

COUNTY ROAD SIGNAGE AND CITY STREET MAPPING

Mr. Traynor presented information ([Appendix CC](#)) regarding county road signage and city street mapping. He said North Dakota has more than 40,000 rural intersections. He said it is difficult to have locational or street name signage for each rural intersection due to the cost of the signage, the labor to install the signage, and the ongoing costs to maintain the signage. He said an average-sized county recently purchased signs for township roads that intersect with state and county highways, or approximately 25 percent of the county's intersections, for \$45,000, which did not include installation. He said counties and townships often place a higher priority on gravel, grading, culverts, bridges, and traffic signage rather than locational and street name signage. He said GPS mapping services have reduced the need for counties to have road signage at all rural intersections, although GPS mapping requires a cell signal, which is not always available in rural settings. He said the Department of Emergency Services is working with 911 jurisdictions on a statewide seamless base map project to create a geographic information system that will be used to route all 911 calls in the state.

In response to a question from Representative Boehning, Mr. Traynor said the cost to purchase and install signs range from \$120 to \$160 per intersection, depending on the sign. He said the estimated total cost for county intersection signs is more than \$5 million.

OTHER

Mr. Shannon Kellogg, Director of Public Policy, Amazon Web Services, provided a report ([Appendix DD](#)) regarding trends in cloud computing and information technology modernization.

It was moved by Senator Robinson, seconded by Senator Davison, and carried on a voice vote that the Chairman and the Legislative Council staff be requested to prepare a report and to present the report to the Legislative Management.

No further business appearing, Chairman Mock adjourned the meeting at 4:00 p.m.

Levi Kinnischtzke
Fiscal Analyst

ATTACH:30