

NORTH DAKOTA LEGISLATIVE MANAGEMENT

Minutes of the

**INFORMATION TECHNOLOGY COMMITTEE**

Thursday, October 24, 2019  
Harvest Room, State Capitol  
Bismarck, North Dakota

Representative Corey Mock, Chairman, called the meeting to order at 9:00 a.m.

**Members present:** Representatives Corey Mock, Glenn Bosch, Shannon Roers Jones, Nathan Toman, Don Vigesaa, Robin Weisz; Senators Kyle Davison, Merrill Piepkorn, Larry J. Robinson, Shawn Vedaa; Citizen Member Shawn Riley

**Member absent:** Senator Terry M. Wanzek

**Others present:** Representatives Josh Boschee, Fargo, and Karen M. Rohr, Mandan, members of the Legislative Management

Allen H. Knudson, Legislative Council, Bismarck

See [Appendix A](#) for additional persons present.

**It was moved by Senator Robinson, seconded by Senator Davison, and carried on a voice vote that the minutes of the August 13, 2019, meeting be approved as distributed.**

**REPORT FROM THE CHIEF INFORMATION OFFICER**

Mr. Shawn Riley, Chief Information Officer, Information Technology Department, presented information ([Appendix B](#)) regarding the state information technology (IT) contractor vendor pool, including the number of vendors, commonly used vendors, and future plans for contracting for IT services. He said the Information Technology Department (ITD) has 402 full-time equivalent (FTE) positions and provides strategic direction to 49.5 additional IT FTE positions in the Governor's cabinet agencies. He said the IT vendor pool used by the Governor's cabinet includes 707 contractors. He said state IT contract costs totaled \$402.5 million during the 2017-19 biennium, of which \$157.8 million was spent by the Governor's cabinet agencies, primarily by ITD.

Mr. Greg Hoffman, Director, Administrative Services Division, Information Technology Department, said state agencies contract with IT contractors by using the state IT contractor vendor pool, managed service providers, and data strategy consulting services.

Mr. Hoffman said IT vendors provide a variety of services, including software development, project management, systems support, and application support. He said ITD has access to 39 percent of total state IT costs, including software, consultant and contractor, and equipment costs. He said unification of IT resources and personnel would increase ITD's access to IT cost information.

In response to a question from Senator Davison, Mr. Hoffman said the IT contractor vendor pool is effective for a period of 5 years. He said categories of IT services can be added or removed during the 5-year period, but new vendors cannot be added to the vendor pool until the 5-year period has expired and a new request for proposal is issued.

In response to a question from Senator Davison, Mr. Riley said the 5-year vendor pool period is challenging when innovative new technology is developed. He said vendors that create new technology cannot be contracted to provide services because the vendor often is a new company that was not included in the vendor pool at the beginning of the 5-year period.

In response to a question from Senator Robinson, Mr. Hoffman said the number of approved IT vendors fluctuates. He said the number of vendors in the approved vendor pool considered inactive and not awarded contracts for IT services also fluctuates. He said while some vendors considered active may not receive a request for work for months or years, there also are vendors that perform work for the state every day.

In response to a question from Chairman Mock, Mr. Hoffman said vendors are subject to a similar background check process as state employees. He said vendors are issued visitor badges that authorize the vendor access to areas necessary for the vendor to complete contracted work. He said some vendors provide services remotely and are not physically present in state facilities.

### **Statewide Interoperable Radio Network**

Mr. Duane Schell, Chief Technology Officer, Information Technology Department, presented information ([Appendix C](#)) regarding the statewide interoperable radio network (SIRN), including plans for use of the funding provided for SIRN for the 2019-21 biennium. He said ITD entered a contract with Motorola for the SIRN project to address communications coverage and interoperability challenges. He said SIRN is expected to be a 5-year project.

Mr. Schell said SIRN will be a two-phase project. He said Phase 1 will relate to the SIRN core and public safety answering points (PSAPs) and Phase 2 will relate to the radio frequency network. He said each phase will include an execution group and a planning group. He said the anticipated completion date for the execution group of Phase 1 is July 2020, and the anticipated completion date for the execution group of Phase 2 is June 2022.

Mr. Schell said the total estimated cost of the project is \$207.1 million, of which \$206 million has been contracted with Motorola for the SIRN core and PSAPs (\$9 million), the SIRN network (\$97 million), and subscriber devices (\$100 million). He said network construction costs not contracted with Motorola are expected to total \$1.1 million. He said the estimated annual operating expenditures of SIRN are \$5 million to \$10 million.

Mr. Schell said the 2019 Legislative Assembly provided \$132.33 million for SIRN for the 2019-21 biennium, of which \$12.33 million is from the SIRN fund, \$20 million is from the strategic investment and improvements fund, \$80 million is from a Bank of North Dakota line of credit, and \$20 million is from Bank profits. He said ITD must use \$25 million of the line of credit before the Bank profits may be accessed.

In response to a question from Chairman Mock, Mr. Schell said because the SIRN project is anticipated to be a 5-year project, it is unlikely ITD will use the entire \$80 million Bank of North Dakota line of credit during the 2019-21 biennium.

In response to a question from Chairman Mock, Mr. Schell said ITD has negotiated a 10-year contract with Motorola for the maintenance of the SIRN system, including software support and upgrades. He said infrastructure, devices, and equipment upgrades are not included in the maintenance agreement but prices for these items have been negotiated.

Mr. Schell said revenue deposited in the SIRN fund is from a \$0.50 fee imposed on assessed communication services, which will be used for the SIRN core, radio frequency network, State Radio costs, and the state cost-share with political subdivisions for communication radios. He said political subdivision expenditures will include the cost of radio consoles and radio devices that cost less than the state cost-share of \$1,500.

In response to a question from Chairman Mock, Mr. Schell said mobile radio devices can cost between \$1,200 to \$7,000 depending on the type of device purchased. He said the devices emergency personnel carry are different from the devices installed in emergency response vehicles.

In response to a question from Representative Vigasaa, Mr. Schell said the Statewide Interoperability Executive Committee is establishing criteria to evaluate requests from political subdivisions for reimbursement of the state's cost-share of each radio device purchased. He said the criteria will address the appropriateness of the quantity and quality of each device purchased by political subdivisions seeking reimbursement from the state.

In response to a question from Senator Robinson, Mr. Schell said ITD and Motorola anticipate 137 towers will be needed to reach the target emergency services communication coverage of 95 percent. He said 53 of the 137 towers needed for the SIRN project are owned by the state, often by the Department of Transportation (DOT). He said the remaining 84 towers are not owned by the state and will require leases to gain access to the towers. He said state-owned towers have existing antennas and equipment for North Dakota National Guard and federal agency use. He said most commercial towers have utility and cellular company antennas and equipment attached to the tower. He said the total number of towers needed for SIRN may fluctuate as the project progresses.

In response to a question from Senator Robinson, Mr. Schell said the cost of building a new tower is approximately \$500,000, depending on the size, height, and capabilities of the tower.

In response to a question from Chairman Mock, Mr. Schell said Next Generation 9-1-1 services relate to citizens dialing 911 and being transferred to a PSAP while the SIRN project relates to the PSAP providing information to emergency service personnel. He said North Dakota is a Next Generation 9-1-1 compliant state.

### **Health Information Technology Office**

Ms. Shila Thorson, Director, North Dakota Health Information Technology, Information Technology Department, presented information ([Appendix D](#)) regarding an update of Health Information Technology Office initiatives and projects, including the status of the health information network expansion project and a flowchart of the state health IT network. She said the North Dakota Health Information Network (NDHIN) expansion project is expected to be a 5-year project. She said the goals of the project are to implement an active outreach program, upgrade to a new platform, and improve system interoperability. She said the outreach program will increase provider participation, the types of data shared, and utilization of the NDHIN.

Ms. Thorson said the 2017 Legislative Assembly provided a \$43.6 million appropriation to ITD for the expansion project, of which \$40 million is from federal funding awarded to the Department of Human Services (DHS). She said project expenditures for the 2017-19 biennium totaled \$6.2 million. She said project expenditures for the 2019-21 biennium through September 2019 were \$1.8 million.

Ms. Thorson said the NDHIN upgrade to an Amadeus platform was completed in June 2019. She said additional project work will include establishing a health care provider directory, cancer registry modernization, and a qualified clinical data repository. She said a state-to-state electronic health exchange is expected to be completed in the fall of 2019. She said the electronic health exchange includes 35 states.

Ms. Thorson said the NDHIN includes a Patient Centered Data Home (PCDH) expansion, which will allow out-of-state providers access to health information of North Dakota citizens when citizens receive health services from providers in other states.

In response to a question from Chairman Mock, Ms. Thorson said basic patient information is available to providers now, but the PCDH expansion will allow sensitive and detailed information to be sent securely to the provider if requested. She said the type of information available will depend on the data each provider is willing to contribute to the PCDH expansion.

In response to a question from Representative Vigesaa, Ms. Thorson said each provider signs an agreement regarding the types of information to be shared on the PCDH expansion and NDHIN.

In response to a question from Chairman Mock, Ms. Thorson said North Dakota citizens and providers are automatically enrolled in the NDHIN but can elect to exclude their health records from the NDHIN.

## **STUDY OF INFORMATION TECHNOLOGY UNIFICATION**

### **Information Technology Department**

Mr. Riley presented information ([Appendix E](#)) regarding the committee's study of IT unification and the run-grow-transform model, including the effects of the IT unification initiative approved for the 2019-21 biennium on fees, services, operations, processes, and systems; the effects of ITD's transition to cloud computing on IT unification; and the effects of the IT unification initiative on state cybersecurity initiatives.

Mr. Riley said agencies included in the IT unification initiative for the 2019-21 biennium are:

- ITD;
- Department of Trust Lands (DTL);
- DHS;
- Parks and Recreation Department;
- DOT; and
- Department of Emergency Services.

Mr. Riley said agencies required to follow IT operational and strategic direction from ITD include:

- The Governor's office;
- Office of Management and Budget;
- State Department of Health (DOH);

- Department of Environmental Quality;
- Indian Affairs Commission;
- Job Service North Dakota (JSND);
- Department of Labor and Human Rights;
- Workforce Safety and Insurance (WSI);
- Highway Patrol;
- Department of Commerce;
- Game and Fish Department;
- Department of Financial Institutions (DFI); and
- Securities Department.

Mr. Riley said the Bank of North Dakota has expressed interest in being included in future IT unification initiatives. He said ITD and the Bank are evaluating the workforce transition process to identify the possibility of the Bank participating in IT unification starting in the 2021-23 biennium.

Mr. Riley said ITD will measure the success of the 2019-21 biennium IT unification pilot project by evaluating IT mission alignment, cost management, and risk containment. He said ITD will evaluate processes, tools, contracts, FTE positions, cost of units of service, and volume purchasing efficiency.

In response to a question from Chairman Mock, Mr. Riley said IT consolidation includes combining infrastructure resources from various agencies while IT unification includes combining all resources, including infrastructure, employees, and IT assets.

In response to a question from Senator Robinson, Mr. Riley said despite IT staff concerns of IT unification, employee turnover has not fluctuated. He said the average employee turnover rate is 4.5 to 6.0 percent each year.

In response to a question from Chairman Mock, Mr. Riley said executive branch agencies are required to use ITD services related to infrastructure, network, and data center needs. He said certain agencies are required by statute to use ITD for desktop support services. He said ITD offers other services agencies can choose to use rather than contracting with a third party for the service.

Mr. Riley presented information ([Appendix F](#)) regarding the effects of the IT unification initiative on state cybersecurity initiatives. He said the Legislative Assembly approved Senate Bill No. 2110 (2019) to require ITD to advise and oversee cybersecurity strategy for all executive branch agencies, including institutions under the control of the State Board of Higher Education, counties, cities, school districts, and other political subdivisions. He said the Legislative Assembly approved 8 new cybersecurity FTE positions for ITD for the 2019-21 biennium.

Mr. Riley said in August 2019, ITD began conducting a cybersecurity assessment of all agencies included in the IT unification initiative pilot project or agencies required to follow IT operational and strategic direction from ITD to determine IT strategy options. As of October 24, 2019, he said, 19 of 21 agencies have returned their cybersecurity self-assessment survey. He said 32 percent of these agencies scored under a 1.0 on a 5.0 scale related to the agency's cybersecurity maturity and capability. He said ITD will be sending surveys to 589 additional state, county, city, and other government agencies in late October 2019.

In response to a question from Representative Bosch, Mr. Riley said if an agency has not unified IT staff with ITD but it hosts data in the ITD data center, the agency's data is just as secure as the data of a unified agency.

In response to a question from Representative Boschee, Mr. Riley said IT resources and staff of boards and commissions have not been identified as possible entities to include in IT unification initiatives.

### **Department of Transportation**

Mr. Mark Nelson, Deputy Director, Department of Transportation, presented information ([Appendix G](#)) regarding the department's inclusion in the IT unification pilot project for the 2019-21 biennium, including any department benefits, issues, or concerns of IT unification.

Mr. Nelson said prior to the approval of the IT unification initiative, some of the 41 DOT IT staff were concerned with of unification, primarily due to the IT staff being required to transfer to a different agency. He said the DOT IT employees were hired to work at the DOT, enjoyed DOT culture, and wanted to remain DOT employees. He said DOT and ITD worked together during the transfer of IT staff to address staff concerns related to benefits, leave balances, personnel files, background checks, and work weeks. He said IT staff transferred from DOT to ITD remain located in their DOT location and are doing the same work they were performing prior to unification. He said most of the duties and responsibilities of these individuals have been unchanged. He said additional time will be needed to evaluate the cost-effectiveness of the unification initiative pilot project.

In response to a question from Chairman Mock, Mr. Nelson said DOT has not experienced a reduction in the level of IT services provided to the department as a result of IT unification. He said IT staff transferred from DOT to ITD can discuss concerns and issues with DOT supervisors.

### **Department of Trust Lands**

Ms. Jodi A. Smith, Commissioner, Department of Trust Lands, presented information ([Appendix H](#)) regarding the department's inclusion in the IT unification pilot project for the 2019-21 biennium, including any department benefits, issues, or concerns of IT unification. She said two of DTL's three FTE positions were transferred to ITD as part of the unification initiative. She said DTL and ITD communicated often while transferring the FTE positions. She said ITD ensured the business needs of DTL were met during the unification transition.

Ms. Smith said the unification of IT FTE positions was mostly beneficial for DTL. As a result of the IT unification initiative, she said DTL estimates annual savings of approximately \$150,000 related to a reduction of IT salaries and wages expenses. She said a combination of unification, new cloud-based software systems, and a new website platform has resulted in IT efficiencies.

Ms. Smith said the uncertainty of the unification initiative being approved during the legislative session was difficult for DTL staff. She said the unification initiative has resulted in a delay of services by requiring DTL to submit a service request to ITD rather than having DTL staff address IT concerns directly.

In response to a question from Chairman Mock, Ms. Smith said a benefit of the IT FTE positions being transferred from DTL to ITD is that those individuals will have additional opportunities for promotion due to ITD having a larger IT staff.

In response to a question from Chairman Mock, Ms. Smith said the DTL financial management IT project will be completed during the 2019-21 biennium but the land management IT project likely will need to be continued into the 2021-23 biennium.

### **State Department of Health**

Ms. Brenda Weisz, Chief Financial Officer, State Department of Health, presented information ([Appendix I](#)) regarding the department not being selected for the IT unification pilot project for the 2019-21 biennium, any department benefits, issues, or concerns of IT unification, and the department's interest in future IT unification initiatives.

Ms. Weisz said DOH has a positive working relationship with ITD and that the two departments work together often. She said communication and coordination of projects are potential concerns of future IT unification initiatives. She said DOH also has a potential concern regarding the loss of IT expertise in the agency. She said ITD has attempted to address these concerns by developing a key customer management process to connect the two departments.

Ms. Weisz said there are more benefits of IT unification than issues or concerns. She said unification with ITD will provide additional IT support. She said IT unification will allow DOH to dedicate more resources to transforming and growing technology rather than running technology. She said unification will bring consistency to DOH products and processes, such as software licensure, electronic filing of documents, and product development and utilization.

Ms. Weisz said DOH would be interested in future IT unification initiatives.

In response to a question from Chairman Mock, Ms. Weisz said DOH has 4 IT FTE positions that were considered for IT unification.

In response to a question from Representative Roers Jones, Ms. Weisz said if DOH is selected for future IT unification initiatives, DOH believes it would continue to be well prepared to address health emergencies in the state.

In response to a question from Chairman Mock, Ms. Weisz said if DOH is selected for future IT unification initiatives, DOH can adjust for the loss of knowledge and specialization within the department by focusing on customer management with ITD. She said while 4 IT FTE positions would be transferred to ITD, having those individuals remain in the same locations as other DOH employees would lessen the loss of department specialization, because those employees would still be working with DOH systems and employees.

### **Workforce Safety and Insurance and Job Service North Dakota**

Mr. Bryan Klipfel, Executive Director, Workforce Safety and Insurance, and Interim Executive Director, Job Service North Dakota, presented information ([Appendix J](#)) regarding JSND and WSI not being selected for the IT unification pilot project for the 2019-21 biennium, any department benefits, issues, or concerns of IT unification, and JSND and WSI's interest in future IT unification initiatives.

Mr. Klipfel said the biggest challenge of IT unification is related to funding. He said JSND is 98 percent federally funded and WSI receives 100 percent of its funding from special funds from employer premiums. He said these funding sources will need to be considered if JSND and WSI are selected for future IT unification initiatives and FTE positions are transferred to ITD. He said if IT costs increase, JSND does not have additional federal funds to address the increase. He said if WSI IT costs increase, an increase in employer unemployment insurance premiums may be necessary.

Mr. Klipfel said IT unification would add value to WSI, JSND, and the state. He said IT unification can strengthen the level of services provided by creating alignment, leveraging knowledge, ensuring collective compliance, and monitoring services. He said IT unification will produce efficiencies in services provided to customers. He said IT unification would provide additional data security and cybersecurity.

Mr. Klipfel said WSI and JSND would be interested in future IT unification initiatives.

In response to a question from Chairman Mock, Mr. Klipfel said JSND has 16 IT-related FTE positions and WSI has 12 IT-related FTE positions that were considered for IT unification. He said while the requirement for WSI and JSND to follow strategic IT direction from ITD has resulted in efficiencies, IT unification is necessary to realize greater efficiencies.

### **Other**

Chairman Mock distributed a letter from Governor Burgum regarding IT unification ([Appendix K](#)).

### **Data Center**

The committee toured the ITD data center in the State Capitol. The committee observed state agency servers and the mainframe while learning the history and usage of the data center, including the effect of cloud computing on data centers and computing power.

## **LARGE PROJECT REPORTING**

Mr. Justin Data, Director, Project Management Office, Information Technology Department, presented information ([Appendix L](#)) regarding large IT project reporting, including the success rate of North Dakota state large IT projects, the frequency of establishing new baselines for large IT projects, and an example of budgeting for salaries and wages, operating expenses, and capital asset expenditures as part of a large IT project.

Mr. Data said the National Association of State Chief Information Officers (NASCIO) recently released a report revealing only 13 percent of large IT projects were successful while 58 percent of the projects were challenged and 29 percent failed. He said NASCIO defined a large IT project as a project with a budget of at least \$6 million. He said NASCIO considered successful projects as on time, on budget, and are on target; challenged projects are over budget, late, or have an unsatisfactory target; and failed projects are those that were either canceled prior to completion or were not used after implementation.

Mr. Data said ITD reviewed all state large IT projects, defined as a project with a budget of at least \$500,000, completed between July 2005 and September 2017. He said the review revealed 96 percent of large IT projects were within budget while 4 percent were over budget. He said the analysis revealed 92 percent of state large IT projects were on schedule while 8 percent were behind budget. He said of the more than 100 projects included in the analysis, 4 projects failed and were canceled.

Mr. Data said ITD sampled 25 large projects that included work performed by third-party contractors for a 7-year period to evaluate the average contract amount for a large IT project. He said for purposes of comparison, "extreme", multiyear projects exceeding \$10 million were excluded from the evaluation. He said the most expensive contract in the large IT project sample was \$4.54 million while the lowest priced contract was \$493,143. He said the

average contract was \$1.47 million. He said if the "extreme" projects are considered, the average contract for a large IT project was approximately \$13 million.

Mr. Data said ITD analyzed data for 51 large IT projects. He said the analysis revealed 26 projects established new baselines, of which 16 projects set new schedule baselines and 23 projects set new cost baselines. He said of the 26 projects, 6 decreased the cost baseline and 20 increased the cost baseline while 1 project shortened the schedule baseline and 15 projects extended the schedule baseline.

In response to a question from Representative Roers Jones, Mr. Data said of 51 large IT projects evaluated for new baselines, 2 projects were considered "extreme" multiyear projects with budgets exceeding \$10 million.

Mr. Data said salaries and wages, operating expenses, and capital asset expenditures are not monitored at the project budget level by ITD but may be monitored by agency accounting personnel. He said if the salaries and wages of ITD staff are billable to a project or if a contractor bills hourly, these costs are added to the project budget. He said there are exceptions to this process if, for example, the salary of an employee is paid from a grant that also is funding the project.

Mr. Data presented the most recent quarterly summary status report on large IT projects ([Appendix M](#)). He said the Project Management Office has revised the process for updating and submitting large IT project reporting information. He said a dashboard detailing all large IT projects is updated eight times each day. He said data is recorded at the end of each quarter for documentation purposes. He said the dashboard report can be viewed online, provides current information, and contains more information than previous versions.

The Information Technology Department distributed the following project startup and closeout reports ([Appendix N](#)) completed in August 2019 and September 2019:

#### **Startup Reports**

- DOH - Electronic Women, Infants, and Children Project
- ITD - SIRN
- Secretary of State - Elections Program

#### **Closeout Reports**

- Secretary of State - File 2.0 Project

## **EDUCATION-RELATED INFORMATION TECHNOLOGY**

### **Higher Education**

Mr. Darin King, Vice Chancellor for IT/Chief Information Officer, North Dakota University System, presented information ([Appendix O](#)) regarding an update of higher education IT initiatives and projects. He said the University System is transitioning to a hybrid cloud environment, which is expected to increase higher education IT performance by 200 to 300 percent and provide \$400,000 of annual savings.

Mr. King said all higher education campuses are expected to have access to a new college scheduler in the spring of 2020, which will allow students to enroll in classes using mobile devices. He said the University System single signon portal will provide multifactor authentication, be accessible from mobile devices, and be finalized in the spring of 2020.

In response to a question from Chairman Mock, Mr. King said he anticipates the University System still needing an on-premises data center in 3 to 5 years, but less space will be needed as data is transferred to cloud servers.

## **STUDY OF BLOCKCHAIN IN STATE GOVERNMENT**

The Legislative Council staff presented a memorandum entitled [Study of Blockchain Technology - Background Memorandum](#). He said House Concurrent Resolution No. 3004 (2019) provides for a study during the 2019-20 interim regarding the potential benefit value of blockchain technology implementation and utilization in state government administration and affairs, including a comprehensive assessment of government areas in which blockchain technology can assist with agency affairs and administration, accounting and budgeting, transactions, creating necessary audit trails, authorizing a decision, authenticating authority, and establishing a system of record; and an analytical evaluation of implementing smart contracts to improve efficiencies in contract enforcement, the cost-effectiveness and increased security of utilizing a blockchain technology electronic voting system, and the exploration of other eGovernment services and applications, such as identity management, tax collection, land registry, distribution of benefits, and digital exchanges.

The Legislative Council staff said in 2008 a new technology known as blockchain was created as an open, decentralized ledger that records transactions between two parties permanently without needing third-party authentication. He said blockchain is a list of transactions called "blocks" that are shared between multiple parties in which new transactions are added at the end of the blockchain.

The Legislative Council staff said the existing data is never changed or deleted when new data is added. He said if a portion of data is changed, the entire blockchain will change, resulting in the user being able to detect the change in data. He said when a transaction is initiated, it is bundled into a block, which is then verified for legitimacy by the majority of the participants in the system and added to the blockchain. He said the blockchain contains a verifiable record of every transaction made in the system.

The Legislative Council staff said blockchain is intended to be a decentralized technology so the data can be hosted at multiple locations. If data is destroyed at one location, he said, the data remains available at other locations.

The Legislative Council staff said blockchain is a form of distributed ledger technology (DLT), which is a database containing replicated, shared, and synchronized digital data available to users at multiple sites, countries, or institutions without the use of a central administrator or centralized data storage.

The Legislative Council staff said in 2015, Vermont became the first state to pass blockchain-related legislation by requiring the Vermont Attorney General, Department of Financial Regulation, and Secretary of State to report to the Vermont General Assembly on opportunities and risks of creating a presumption of validity for electronic facts and records that employ blockchain technology.

As of June 2019, the Legislative Council staff said, the National Conference of State Legislatures reported 33 additional states, including North Dakota, have passed blockchain-related legislation. He said the Legislative Assembly approved House Bill Nos. 1045 and 1048 (2019) related to blockchain.

### **Information Technology Department**

Mr. Dorman Bazzell, Chief Data Officer, Information Technology Department, presented information ([Appendix P](#)) regarding the committee's study of blockchain in state government, including an explanation of blockchain and DLT and the potential use in state government, examples of the use of blockchain and DLT in other state governments, and examples of the use of blockchain and DLT in the private sector.

Mr. Bazzell said other states and countries have used blockchain for various purposes, including document archiving, voting and election systems, land registry, digital evidence, vital records, and health care data exchanges. He said other uses of blockchain for North Dakota government include eTranscripts, driver's license services, WSI claims, land registry and county parcel services, and citizen identity needs. He said the private sector has started using blockchain for financial transactions, ownership of assets, supply chain processes, payments, health care, and customer engagement.

Mr. Bazzell said blockchain technology records and encrypts data in a ledger that cannot be changed, is secure, and can be used to help citizens.

In response to a question from Senator Piepkorn, Mr. Riley said blockchain technology can be compared to a road while applications using the blockchain technology, such as electronic transcripts, Bitcoin, voting systems, and ledger uses, are comparable to cars using the road, or blockchain, to accomplish goals and complete transactions.

In response to a question from Representative Roers Jones, Mr. Bazzell said existing documents and records can be inputted in blockchain technology. He said new documents and records can then be added as they become available.

In response to a question from Senator Piepkorn, Mr. Bazzell said transactions on a public blockchain can be viewed by anyone seeking to access the data. He said information in private blockchain systems, including blockchain the state would use, would not be accessible to unauthorized users.

In response to a question from Representative Roers Jones, Mr. Bazzell said using blockchain for state purposes would require partnering with private sector companies as well as training IT staff on how to use blockchain technology.

In response to a question from Chairman Mock, Mr. Bazzell said additional research is needed to determine whether legislation is required to allow the use of blockchain technology for state purposes.

In response to a question from Senator Davison, Mr. Riley said ITD has to comply with more than 300 federal and state data usage regulations. He said many of the regulations are similar but result in challenges for ITD. He said ITD anticipates requesting the 2021 Legislative Assembly to address the state data usage regulations.

### **Insurance Commissioner**

Mr. Jon Godfread, Insurance Commissioner, presented information regarding the Insurance Department's use of blockchain technology. He said the Insurance Department can use blockchain technology to obtain real-time data on insurance policies rather than receiving annual reports that contain data that is more than 1 year old. He said the Insurance Department is using an open source blockchain with private sector vendors to obtain insurance policy data. He said because the blockchain is open source, ITD can access it and structure it to meet the needs of the Insurance Department.

Mr. Godfread said insurance companies are required to send insurance policy data to the Insurance Department, but the department is trying to change how the information is sent. He said the changes necessary to access real-time insurance data using blockchain relate to department policy changes of how the data is required to be entered rather than amending North Dakota Century Code. He said North Dakota would be the first state to use blockchain for insurance information purposes.

Mr. Godfread said the ledger capabilities of blockchain technology can help the Insurance Department reduce the number of paper checks the department receives and deposits.

Mr. Godfread said providing real-time insurance policy information through blockchain could be valuable to other agencies, such as DOT, which could use the information to verify a driver has auto insurance prior to reissuing a driver's license, resulting in a reduction of uninsured motorists on the road.

In response to a question from Chairman Mock, Mr. Godfread said by using the open source blockchain, each insurance company can choose to share data with other insurance companies, but the Insurance Department would have access to all data on the blockchain. He said the Insurance Department and private vendors will host a workshop with insurance companies in early 2020 to demonstrate how blockchain has been used nationally for insurance purposes.

In response to a question from Representative Toman, Mr. Godfread said the majority of insurance companies have not expressed concerns of new blockchain process requirements. He said he believes the new process will be easier than the current process.

## **OTHER**

### **Robotic Process Automation**

Mr. Jim Kelly, Founder and CEO, ThreeBridge Solutions, presented information ([Appendix Q](#)) regarding robotic process automation (RPA). He said ThreeBridge Solutions is an IT and business consulting company operating in 22 states that was founded in 2009 in Minneapolis, Minnesota. He said RPA is an emerging technology that can be used to automate mundane, repetitious aspects of jobs.

Mr. Bazzell said RPA often contains few costs, is easy to implement, and requires no custom software. He said RPA and artificial intelligence are similar technologies. He said ITD is partnering with ThreeBridge Solutions to explore RPA in ITD and DFI.

Mr. Riley said 24 percent of state employees are eligible for retirement in the next 4 years. He said RPA can remove certain mundane work from state jobs to create a more citizen-focused workforce to assist in recruiting new employees. He said RPA can eliminate wasted time of state employees by automating repetitious processes. He said RPA can decrease the amount of resources dedicated to running operations and increase resources dedicated to growing and transforming state government. He said an example of current RPA use in state government is ITD programming state email systems to filter more than 99 percent of cyber attacks before the emails reach state employees.

No further business appearing, Chairman Mock adjourned the meeting at 4:20 p.m.

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Levi Kinnischtzke  
Fiscal Analyst

ATTACH:17