

INFORMATION TECHNOLOGY COMMITTEE

North Dakota Century Code Section 54-35-15.1 requires the Legislative Management during each biennium to appoint an Information Technology Committee in the same manner as the Legislative Management appoints other interim committees. The committee consists of six members of the House of Representatives and five members of the Senate. The chief information officer (CIO) of the state serves as an ex officio nonvoting member of the committee.

Pursuant to Section 54-35-15.2, the committee's responsibilities include:

1. Meet at least once each calendar quarter.
2. Receive reports from the CIO.
3. Review the activities of the Information Technology Department (ITD).
4. Receive and review information related to information technology (IT) projects with a total cost of \$500,000 or more, including startup and closeout reports.
5. Receive and review information regarding any IT project of an executive branch agency with a total cost of between \$100,000 and \$500,000 as determined necessary by ITD.
6. Receive a report from the CIO regarding the recommendations of the State Information Technology Advisory Committee (SITAC) relating to the prioritization of proposed major IT projects and other IT issues.
7. Receive information from the State Board of Higher Education regarding higher education IT planning, services, and major projects.

Section 54-35-15.3 authorizes the Information Technology Committee to review any IT project or IT plan. If the committee determines a project or plan is at risk of failing to achieve its intended results, the committee may recommend the Office of Management and Budget (OMB) suspend the expenditure or funding appropriated for a project or plan. This duty did not require action by the Information Technology Committee during the 2021-22 interim.

Section 54-35-15.4 provides the Information Technology Committee may request the State Auditor to conduct an IT compliance review, including an agency's IT management and planning as well as compliance with IT plans and standards. This duty did not require action by the Information Technology Committee during the 2021-22 interim.

The committee is responsible for receiving various reports, including:

- A report from the State Board of Higher Education regarding higher education IT planning, services, and major projects (Sections 15-10-44 and 54-35-15.2).
- A report from the CIO regarding the recommendations of SITAC relating to the prioritization of proposed major IT projects and other IT issues (Sections 54-35-15.2 and 54-59-02.1).
- A report from the CIO regarding the coordination of services with political subdivisions and a report from the CIO and the CIO of the North Dakota University System regarding coordination of IT between ITD and higher education (Section 54-59-12).
- The annual report from ITD (Section 54-59-19).

In addition to its statutory responsibilities for the 2021-22 interim, the Legislative Management assigned the committee the following responsibilities:

- Receive a report from the CIO, before June 1 of each even-numbered year, regarding the implementation of distributed ledger technologies (Section 54-59-02.2).
- Receive a report from the Statewide Longitudinal Data System Committee on the status of the statewide longitudinal data system (SLDS), including recommendations for further development, cost proposals, proposals for legislation, and data sharing governance (Section 54-59-36).
- Receive a report from the CIO regarding all disclosed cybersecurity incidents as required in Chapter 54-59.1, including the status of the cybersecurity incident and any response or remediation to mitigate the cybersecurity incident (Section 54-59.1-07).
- Receive a report from the Emergency Services Communications Coordinating Committee (ESC3) before November 1, 2022, regarding the use of assessed communications services fee revenue and recommendations for changes to the operating standards for emergency services communications (Section 57-40.6-12).

- Receive a report from the Commissioner of University and School Lands regarding the status of the IT project (Section 5 of Senate Bill No. 2013 (2021)).
- Receive an annual report from ITD regarding any efficiencies gained and cost-savings realized as a result of the 2021-23 biennium IT unification initiative (Section 10 of Senate Bill No. 2021 (2021)).
- Study the effectiveness, efficiency, cost, and any cost-savings of the 2019-21 biennium and 2021-23 biennium IT unification initiatives and the feasibility and desirability of continuing the initiatives. The study must include a review of changes in fees, services, operations, processes, and systems (Section 14 of Senate Bill No. 2021).
- Study the costs incurred by ITD to deliver core technology services and cybersecurity services to state agencies and political subdivisions. The study must consider the feasibility and desirability of political subdivisions paying their share of the cost of these services (Section 15 of Senate Bill No. 2021).

Committee members were Representatives Glen Bosch (Chairman), Sebastian Ertelt, Keith Kempenich, Corey Mock, Nathan Toman, and Robin Weisz; Senators Cole Conley, Kyle Davison, Richard Marcellais, Dave Oehlke, and Kristin Roers; and Nonvoting Member Shawn Riley.

STUDY OF INFORMATION TECHNOLOGY UNIFICATION

Background

Pursuant to Section 14 of Senate Bill No. 2021, the committee studied the effectiveness, efficiency, cost, and any cost-savings of the 2019-21 biennium and 2021-23 biennium IT unification initiatives and the feasibility and desirability of continuing these initiatives. The study included a review of changes in fees, services, operations, processes, and systems.

2017-18 Interim

During the 2017-18 interim, ITD began the process of consolidating IT services, such as desktop support and help desk services, and consolidating full-time equivalent (FTE) IT positions in the Governor's cabinet of executive branch state agencies with existing ITD FTE positions and resources in a shared services IT unification initiative.

To start the unification initiative, ITD conducted an assessment of all executive branch IT employees, evaluating staff skills, needs, strategies, objectives, and costs. The major phases of the unification workforce transition process included data gathering, transitional grouping, deep data analysis, and reporting.

During the 2017-18 interim, ITD identified all positions in Governor's cabinet agencies that include IT-related functions to evaluate whether these positions would be included in the unification plan. The department estimated over 700 FTE positions in ITD and the Governor's cabinet agencies perform IT-related job duties. Phase 1 of ITD's workforce transition process evaluated 577 of these FTE positions and determined 513 FTE positions actually perform IT-related job functions, including 344 FTE positions in ITD.

2019-20 Interim

Section 7 of House Bill No. 1021 (2019) provided for a study during the 2019-20 interim regarding ITD's transition to the run-grow-transform model and the IT unification initiative. The study was to include a review of changes in fees, services, operations, processes, and systems.

During the 2019-20 interim, ITD reported to the Information Technology Committee on the effect the 2019-21 biennium IT unification initiative had on fees, services, operations, processes, and systems. The process to incorporate the new 96 FTE positions included a review of benefits, policies, operating procedures, and human resource-related matters. A challenge of transferring the new FTE positions to ITD was reconciling human resource policies between ITD and the employee's former employing agency. The department reported the success of the 2019-21 biennium IT unification pilot project would be measured by evaluating IT mission alignment, cost management, risk containment, processes, tools, contracts, FTE positions, cost of units of service, and volume purchasing efficiency.

Legislative Action

The 2019 Legislative Assembly approved a transfer of 96 FTE IT positions from five agencies to ITD, as a pilot project to consolidate IT resources and personnel in state government. The 2021 Legislative Assembly approved additional unification of state government IT resources and personnel, including the transfer of 53 FTE positions from 10 agencies to ITD.

The following is a summary of FTE positions transferred to ITD as a result of the 2019-21 and 2021-23 biennium IT unification initiatives:

Agency	FTE Positions Transferred - 2019-21 Biennium	FTE Positions Transferred - 2021-23 Biennium	Total FTE Positions Transferred
110 - OMB		4.00	4.00
190 - Retirement and Investment Office		2.00	2.00
226 - Department of Trust Lands (DTL)	2.00		2.00
301 - State Department of Health		4.00	4.00
303 - Department of Environmental Quality		1.00	1.00
325 - Department of Human Services	48.00		48.00
380 - Job Service North Dakota (JSND)		16.00	16.00
471 - Bank of North Dakota		16.00	16.00
504 - Highway Patrol		2.00	2.00
530 - Department of Corrections and Rehabilitation (DOCR)		6.00	6.00
540 - Adjutant General - Department of Emergency Services	4.00		4.00
601 - Department of Commerce		1.00	1.00
720 - Game and Fish Department		1.00	1.00
750 - Parks and Recreation Department	1.00		1.00
801 - Department of Transportation (DOT)	41.00		41.00
Total	96.00	53.00	149.00

Section 10 of Senate Bill No. 2021 required ITD to charge a state agency selected to participate in the 2021-23 biennium IT unification initiative a rate for the labor of any FTE position transferred to ITD during the 2021-23 biennium which may not exceed the salaries and wages and related operating expenses of the FTE positions for services the respective state agency was performing prior to the 2021-23 biennium. Legislative intent was provided that any FTE position transferred to ITD for the 2021-23 biennium IT unification initiative be transferred to the agency employing the position during the 2019-21 biennium, unless the 68th Legislative Assembly is presented with sufficient evidence of efficiencies gained and cost-savings realized by the state as a result of the 2021-23 biennium IT unification initiative. During the 2021-22 interim, ITD is required to report annually to the Legislative Management regarding any efficiencies gained and cost-savings realized as a result of the 2021-23 biennium IT unification initiative.

Information Technology Department

Staffing and the Coronavirus Pandemic

The committee received testimony from ITD regarding IT unification, including FTE positions transferred to ITD during the 2019-21 and 2021-23 bienniums and how IT unification affected ITD and the state's ability to respond to the Coronavirus (COVID-19) pandemic. The testimony indicated:

- Of the 96 FTE positions transferred to ITD for the 2019-21 biennium, 3 FTE positions were removed by budget reductions, 21 FTE positions are dedicated to operations and customer success roles, 61 FTE positions are dedicated to technology roles, 9 FTE positions are dedicated to data roles, and 2 FTE positions are dedicated to security roles.
- Of the 53 FTE positions transferred to ITD for the 2021-23 biennium, 8 FTE positions are dedicated to operations and customer success, 41 FTE positions are dedicated to technology roles, and 4 FTE positions are dedicated to data roles.
- The transition of state employees to remote working at the beginning of the COVID-19 pandemic was streamlined with unified agencies, as less time and effort were needed to activate and leverage unified tools and devices.

Rates and Fees

The committee received testimony from ITD regarding fees and rates charged by ITD to state agencies for services provided, how IT unification has affected rates, federal requirements of internal service fund agencies, how ITD manages the balance of the ITD operating service fund, and examples of rate reductions from prior bienniums. The testimony indicated:

- ITD maintains two billing categories, telecommunications rates, and data processing rates.
- For each biennium, ITD establishes IT rates for services provided to state agencies during the spring of each even-numbered year before the biennium.
- ITD does not maintain different rates for services provided to executive and nonexecutive branch agencies or for federally funded agencies and general fund agencies.
- Certain agencies have underfunded IT needs, which has been discovered during the IT unification initiative.
- If IT efficiencies are realized which result in a decrease in cost, the decreased cost to the agency often results in an increase in the quantity of IT services requested by the agency of ITD.

- Salaries and wages, operating expenses, and other related expenses are considered when establishing IT rates for services to be provided to state agencies.
- Not all efficiencies realized affect service rates.
- ITD is considered an internal service fund and is subject to federal Office of Management and Budget A-87 regulations, which are evaluated on June 30th of each year and which require ITD to limit available cash to the equivalent of 60 days of the agency's average operating expenses.
- ITD is concerned if the Legislative Assembly removes general fund appropriations from state agency budgets and appropriates the funding to ITD, federal funding received by agencies may no longer be available for IT services.

Service Agreements and Help Desk Requests

The committee received testimony from ITD regarding service level agreements entered with state agencies, services and rates agreed to, how the quality of services is measured, and the types and number of Help Desk requests from unified and nonunified agencies, including a comparison of the number of requests. The testimony indicated:

- ITD maintains service level agreements based on services offered and only enters agreements with specific agencies if the agencies have unique service needs.
- ITD and unified agencies engage in more detailed discussion regarding IT business needs, goals, objectives, and accomplishments compared to nonunified agencies.
- Services available to unified agencies which are not available to nonunified agencies include application patch and update management, service and demand management with real-time dashboard statistical updates, access to enterprise toolsets, and automation of manual processes.
- ITD receives an average of 12,000 Help Desk requests each month and after the integration of unified state agencies systems, the expectation is the average will increase to between 13,000 and 14,000 each month as unified agencies cease management of their IT service needs.
- Prior to IT unification, more than 20 incident management software applications were being utilized by executive branch agencies. The number of applications has been reduced to 5.

Challenges

The committee received testimony from ITD regarding challenges of implementing IT unification. The testimony indicated IT unification has resulted in the following challenges:

- IT unification was designed to be a 4-year process starting at the time each agency was unified in July 2019 and July 2021. The COVID-19 pandemic delayed nearly a year of planned IT unification work for agencies unified in July 2019.
- Additional effort has been needed to integrate unified devices and provide support for applications.
- Hesitation of some unified agencies to use Help Desk services rather than the FTE positions that no longer work for their agency.
- Concerns reported by some unified agencies of lack of personalized services when experiencing IT issues, the timeliness of responses from ITD, and a lack of desire to use ITD's customer success service.

Efficiencies and Cost-Savings

The committee received testimony from ITD regarding IT unification, including efficiencies gained and cost-savings realized as a result of the 2021-23 biennium IT unification initiative pursuant to Section 10 of Senate Bill No. 2021 (2021). The testimony indicated IT unification:

- Is evaluated by ITD based on the ability to save time and money and reduce redundant processes.
- Increases IT cost transparency, communication, collaboration, productivity, IT planning and strategy, quality of IT services provided, the efficiency of processes, tools, contracts, FTE positions, and volume purchasing, and has saved the state time and money.
- Provides for technology that is able to interconnect between agencies, a centralized strategic direction, increased collaboration, reduced security vulnerabilities, less wasted work, better usage and availability of data, and leveraging and reassignment of resources to higher value work.
- Lowered the average cost of IT labor and the ratio of IT devices managed per FTE position compared to when unified FTE positions were in their original agencies.
- Allowed ITD to receive a 16 percent discount on Microsoft productivity suite licensing, saving approximately \$1.6 million per biennium, and a 12 percent discount on desktop hardware, saving approximately \$504,000 per biennium.

- Allowed ITD to negotiate lower-cost enterprise contract agreements for Adobe Acrobat Pro licenses and Granicus short message services, saving approximately \$340,000 per biennium.
- Allows unified agencies to have IT devices replaced every 3 to 4 years rather than every 5 to 6 years.
- Reduced the time needed for application updates, remote support of devices, and application user account creation, which is approximately equivalent to 1.28 FTE positions.
- Reduced duplicated work by IT staff working in separate agencies by using an enterprise demand management system, sharing best practices, templates, and tools, and deploying demand management dashboards.
- Allows for FTE positions to be cross-trained in multiple areas of IT which reduces the risk of lost data or knowledge if only one individual is knowledgeable in an area and that individual is on vacation or terminates employment.
- Allowed ITD and the Bank of North Dakota project management office to consolidate, allowing the Bank to reallocate 1 FTE position to other work.
- Resulted in the formation of a public safety team consisting of representatives of ITD, DOCR, Highway Patrol, and Department of Emergency Services.
- Has not resulted in state agencies incurring additional costs due to work agreed upon before IT unification.

Future Information Technology Unification

The committee received testimony from ITD regarding potential IT unification for the 2023-25 biennium and future bienniums. The testimony indicated:

- The 2019-21 biennium and 2021-23 biennium IT unification initiatives have aligned the majority of executive branch IT resources, resulting in efficiencies and an increase in services provided.
- While prior IT unification initiatives were focused on the transfer of IT staff, future IT unification efforts will focus on improving technology so state agencies have similar IT processes and systems.
- ITD will not seek authorization from the 2023 Legislative Assembly to transfer FTE IT positions from other agencies to ITD for IT unification.

Agencies in Support of Information Technology Unification

The committee received testimony from DOT, the Bank of North Dakota, and Game and Fish Department regarding benefits or concerns of IT unification, any cost-savings realized as a result of IT unification, and a comparison of ITD invoices and bills for services provided to the agency before and after IT unification.

Department of Transportation

- Benefits of unification include workstation standardization, server consolidation, and contract management.
- Concerns of unification include district DOT offices losing onsite IT support; a lack of communication with ITD regarding ITD services, rates, and support; and DOT financial management lacking IT expertise to review, evaluate, and potentially correct ITD invoices, which was done previously by the IT staff transferred to ITD.
- An accurate comparison of DOT IT costs before and after IT unification is not possible due to DOT and ITD's accounting policies regarding overhead costs differing, but generalized information by business function can be provided.
- DOT monthly invoices from ITD include more than 4,000 service charges ranging from \$0.01 to \$57,000.
- DOT IT expenses increased \$4.5 million or 18.5 percent from the 2017-19 biennium to the 2019-21 biennium, of which \$2.4 million was related to a driver's license and motor vehicle large IT project and \$2.1 million was related to other ITD service charges, including salary and benefit hourly labor rates, hardware, software, desktop support, and other services.
- Some DOT IT projects and tasks undertaken after unifying with ITD could have been completed without unification but might not have been completed as soon, or certain strategic plans would not have been developed.

Bank of North Dakota

- Benefits of IT unification include additional resources for innovation and project management, access to ITD's pool of resources, enhanced information security resources, a decrease in unnecessary procurement processes, improved strategic partnerships between the agencies, and assistance from ITD in overcoming IT inventory supply chain issues.

- Concerns of IT unification include ITD service times for the Bank's IT issues (i.e. help desk tickets), a lack of timely business communication from ITD, and having appropriate change management plans during unification staff transition.
- ITD developed an action plan to address each concern to provide additional value in the form of cost-savings, better software or IT resources, more efficient processes, or fewer unnecessary procedures.
- ITD designates a customer success manager for each unified agency and, while the Bank's assigned customer success manager is a position transferred from the Bank to ITD, the individual continues to be located at the Bank.
- The Bank believes IT unification will be successful for both agencies.

Game and Fish Department

- Benefits of IT unification include access to ITD technology solutions, enterprise licensing, procurement, support, training, user experience, software services including deployment and maintenance services, cybersecurity protection, and an enhanced ability to plan and collaborate with ITD for project development and management.
- Concerns of IT unification include the coordination of people, processes, and technology and the increase in cost after unifying with ITD.
- Since unifying with ITD at the start of the 2021-23 biennium, the Game and Fish Department has experienced a 10 percent reduction in phone costs and increases of 7 percent for IT development and 35 percent for data processing.

Agencies Not in Support of Information Technology Unification

The committee received testimony from DTL regarding benefits or concerns of IT unification, any cost-savings realized as a result of IT unification, and a comparison of ITD invoices and bills for services provided to DTL before and after IT unification and from the Insurance Commissioner, Department of Public Instruction (DPI), Industrial Commission, and Tax Commissioner regarding the potential benefits, issues, and concerns of IT unification, and the agency's interest in being included in future IT unification initiatives.

Department of Trust Lands

- The 2019 Legislative Assembly transferred 2 of DTL's 3 FTE IT positions to ITD, resulting in DTL partially unifying IT services with ITD.
- DTL has experienced concerns with IT unification, including the timeliness of programming services provided by ITD and whether ITD or DTL staff are responsible for certain services and duties.
- Suggestions to improve the IT unification process include establishing a process for communication between unified agencies and ITD regarding roles and responsibilities after unification; providing a clear understanding of how IT unification will affect capital projects; requiring ITD service invoices to provide additional detail to increase transparency regarding which services are provided and at which rates; increasing communication between ITD and agencies when service rates are increased, decreased, or are added or removed from invoices; and encouraging ITD to recognize the unique business model needs of each unified agency.
- ITD invoices for services provided to DTL totaled \$136,034 during fiscal year 2018, \$158,039 during fiscal year 2019, \$208,881 during fiscal year 2020, and \$222,817 during fiscal year 2021.
- If an agency elects to partially unify with ITD like DTL did, it would be beneficial for ITD to conduct the start, stop, continue process with both staff unifying with ITD and staff staying with the original agency to clearly define duties of IT staff in both agencies.

Insurance Commissioner

- Of the Insurance Commissioner's 38 FTE positions, 1 is an FTE IT position.
- A benefit of IT unification is having a larger team of IT staff to assist the agency with its IT needs.
- Concerns of IT unification include anticipated increases in IT costs after unifying with ITD and not having dedicated staff who are knowledgeable about national insurance IT systems.
- Other employees of the Insurance Department are capable of performing duties of the FTE IT position if that individual is on vacation or unable to work for a short time period.

Department of Public Instruction

- Of DPI's 86.25 FTE positions, 7 are FTE IT positions, which often work collaboratively with ITD.

- Potential benefits of DPI unifying IT staff with ITD are joining an agency with established processes to allow for sharing of IT expertise and best practices.
- Workforce transition evaluations need to be completed before DPI considers unifying with ITD to analyze IT costs, prevent unnecessary organization hierarchy, and improve ITD output and service response times.
- It is unknown if the needs of K-12 schools could continue to be met by DPI if the agency unifies IT staff with ITD, but conversations between the two agencies are ongoing.

Industrial Commission

- The Industrial Commission is not unified with ITD but uses ITD network, email, website, cybersecurity, license and certificate purchase, project management, IT procurement, and hosting services.
- The Industrial Commission recently completed a 3-year project to upgrade the agency's master database platform from a legacy system to a cloud-based, web-enabled system known as NorthStar, which was completed using ITD's project management process.
- The Industrial Commission does not support unifying with ITD by transferring FTE positions to ITD due to the unique IT needs of the agency, specifically related to the NorthStar system, institutional knowledge of Industrial Commission IT staff, and the need for timely responses to agency IT needs that can be best met with IT staff working for the Industrial Commission.

Tax Commissioner

- Of the Tax Commissioner's 118 FTE positions, 7 are FTE IT positions.
- Due to the complexity of the Tax Department's tax and revenue collection software, GenTax, and the need for timely responses to agency IT needs, the Tax Department does not support unifying with ITD.

Conclusion

The committee makes no recommendation regarding the study of IT unification. The committee concluded while there are hardware, software, and process improvements that may need monitoring, the process of transferring FTE IT positions through the IT unification process has been thoroughly studied for multiple years and there may no longer be a need to study IT unification.

STUDY OF GOVERNMENT CYBERSECURITY

Background

Pursuant to Section 15 of Senate Bill No. 2021 (2021), the committee studied the costs incurred by ITD to deliver core technology services and cybersecurity services to state agencies and political subdivisions. The study included a review of the feasibility and desirability of political subdivisions paying their share of the cost of these services.

2019-20 Interim

The 2019-20 Information Technology Committee received information from ITD regarding cybersecurity and minimum-security requirements for state and political subdivisions using the statewide technology access for government and education network (STAGEnet). The department reported efforts were being made to establish standards for government and educational entities to access STAGEnet, including default blocking of macros, removing unnecessary administrative rights on user devices, using multifactor authentication, ensuring proper data backups, using artificial intelligence to reduce ransomware risk, and requiring entities to report security events to ITD. The department formed a cybersecurity steering committee for state agencies and political subdivisions, which was expected to include participation from the University System, City of Fargo, and representatives of other cities, counties, school districts, the legislative and judicial branches, and tribal entities.

The committee was informed ITD has strategic cybersecurity authority for political subdivisions but no authority to enforce compliance with ITD's cybersecurity requirements. The department provides guidance and documentation to political subdivisions regarding cybersecurity minimum standards and best practices for access to STAGEnet, but because ITD does not have the authority to enforce the standards and practices or monitor compliance with ITD guidance, political subdivisions may choose whether the requirements are implemented at the local level. Concerns related to cybersecurity compliance from political subdivisions were addressed in House Bill No. 1314 (2021). The bill requires political subdivisions to report cybersecurity incidents to ITD.

Cybersecurity Funding

The 2021 Legislative Assembly added \$19,486,225 for ITD cybersecurity initiatives for the 2021-23 biennium, of which \$6,500,000 is considered one-time funding from the federal Coronavirus Relief Fund and \$12,986,225 is considered ongoing funding from the general fund and ITD operating service fund. The Legislative Assembly also

authorized the addition of 29 FTE cybersecurity positions, 17 of which relate to state cybersecurity and 12 FTE positions to local cybersecurity. Of the total, 23 FTE cybersecurity positions are funded from the general fund and 6 of the local FTE cybersecurity positions are funded from the ITD operating fund. Additional cybersecurity funding approved for the 2021-23 biennium is as follows:

	FTE Positions	General Fund	Special Funds	Federal Funds	Total
Salaries and wages	29.00	\$5,840,142	\$1,523,515	\$0	\$7,363,657
Operating expenses		5,251,534	240,000	6,500,000	11,991,534
Capital assets		131,034	0	0	131,034
Total	29.00	\$11,222,710	\$1,763,515	\$6,500,000	\$19,486,225

In addition to funding added by the 2021 Legislative Assembly, ITD's 2021-23 biennium base budget included \$5.8 million for cybersecurity-related salaries and wages, of which \$2.3 million is from the general fund and \$3.5 million is from special funds, for 20 FTE cybersecurity positions and 3 temporary positions. A total of 49 FTE cybersecurity positions are authorized for the 2021-23 biennium.

Information Technology Department

Cybersecurity Services

The committee received testimony from ITD regarding government cybersecurity, including ITD cybersecurity services provided to state agencies and political subdivisions, the cost and percentage share of cybersecurity services provided to state agencies and political subdivisions, and information regarding cybersecurity targets, threats, concerns, and breaches in state agency and political subdivisions systems. The testimony indicated:

- ITD provides network, data center, endpoint, administrative, and informative cybersecurity services to unified agencies.
- ITD provides most network, data center, endpoint, administrative, and informative cybersecurity services to nonunified agencies but does not provide administrative risk assessment services, and partially provides data center zero trust services, vulnerability management endpoint services, and endpoint detection and response services.
- ITD provides network services to cities, counties, school districts, and higher education institutions, some endpoint and administrative services, and no data center and informative cybersecurity services.
- ITD provides services to schools to help secure K-12 data to the extent possible, including endpoint detection and response services, cybersecurity awareness training for staff, and vulnerability management services to allow staff to scan devices and identify concerns.
- ITD's desired cybersecurity status is to unify all state agencies and to provide network, endpoint, and administrative cybersecurity services to state agencies, cities, counties, school districts, and higher education institutions; except administrative risk assessment services and data loss prevention informative services would continue to be provided only to state agencies. Data center services would continue to be provided only to state agencies.
- Other cybersecurity services provided by ITD include cybersecurity training, threat hunting services, system risk assessments, dark web monitoring, and cyber governance policies for the secure implementation of systems.
- On a 5-point scale, cybersecurity capabilities and maturity are measured at 1.91 for state agencies, 1.05 for counties, 0.97 for schools, and 0.76 for cities, compared to a goal of 3.7 for all entities.
- ITD's projected cybersecurity expenses for the 2021-23 biennium are \$27.1 million, of which \$8.4 million is for endpoint detection and response, \$4.1 million is for vulnerability management, \$1.4 million is for cybersecurity awareness and training, \$9.2 million is for cybersecurity monitoring, and \$4.0 million is for cybersecurity risk management.
- The state chose not to renew its cybersecurity insurance policy beginning in July 2021, due to significantly increased premium costs.
- ITD has statutory authority to regulate state agency and political subdivision activity on STAGEnet, but that authority rarely has been used due to complaints from political subdivisions, leading to difficulties regulating political subdivision activity on STAGEnet.
- ITD is considering requesting the 2023 Legislative Assembly consider legislation regarding cybersecurity requirements to access STAGEnet and cybersecurity concerns of boards and commissions that maintain citizen data.

Cybersecurity Requirements

The committee received testimony from ITD regarding the ability of the state to defend against cybersecurity attacks, the status of state and local government cybersecurity infrastructure and capacity, including STAGEnet cybersecurity requirements for state agencies and political subdivisions, the effects of House Bill No. 1314 (2021), and a list of North Dakota state and local government ransomware attacks known to the public. The testimony indicated:

- House Bill No. 1314 has allowed for additional cybersecurity communication between ITD and counties, cities, and schools.
- ITD manually evaluated 49,775 cybersecurity incidents in 2021, of which 6 were reported on a form developed as a result of House Bill No. 1314.
- ITD may request additional funding from the 2023 Legislative Assembly for cybersecurity initiatives, the development of new unified architecture, and expanded support for boards and commissions.

Cybersecurity Funding Alternatives

The committee received testimony from ITD regarding revenue received from state agencies and political subdivisions for IT services, potential alternative cybersecurity funding sources, and any proposed legislation needed related to political subdivisions potentially paying their share of the cost of government cybersecurity. The testimony indicated:

- Nearly all counties, cities, and school districts cooperate and collaborate with ITD regarding IT services and cybersecurity policy.
- Approximately 5 percent of cybersecurity service fee revenue collected by ITD is from political subdivisions.
- It is unknown what metric should be used to allocate government cybersecurity costs to state agencies compared to political subdivisions. Potential metrics include the number of agencies, counties, cities, universities, and schools; network connections or endpoints managed by each organization; total data hosted; risk assessments; training; or other cybersecurity policies.
- Potential funding sources for government cybersecurity include the general fund, foundation aid stabilization fund, state aid distribution fund, or funding from public-private partnerships.

Memorandums of Understanding

The committee received testimony from ITD regarding memorandums of understanding entered as a result of House Bill No. 1417 (2021), which amended Section 54-59-05. The testimony indicated:

- The state has entered memorandums of understanding with the Mandan, Hidatsa, and Arikara (MHA) Nation and joined a joint-state cybersecurity operation center with South Dakota, Montana, Kansas, and New Jersey.
- The goal of the agreement with MHA Nation is to provide antivirus services, vulnerability analysis on software, and cybersecurity awareness training to reduce phishing attacks.
- The joint-state cybersecurity operation center agreement will provide opportunities for collaboration and sharing of best practices between states when preparing for cybersecurity threats.
- ITD is considering requesting the 2023 Legislative Assembly amend Section 54-59-05 to allow ITD to provide optional services to tribal governments to prevent cybersecurity threats instead of allowing ITD only to assist tribal governments after a cybersecurity incident has occurred.

Political Subdivisions

The committee received testimony from the following political subdivisions and their associations regarding cybersecurity services provided by ITD, cybersecurity needs, the feasibility of paying for the local share of government cybersecurity services, and any preventative cybersecurity threat controls implemented, such as multifactor authentication or zero trust security procedures.

Ward County

- Employs 4 FTE IT positions and supports 280 end users and 340 exchange email accounts.
- Collaborates with ITD for various IT and cybersecurity services, including desktop and server operating system critical updates; application updates; troubleshooting of state-owned applications; installation and administration of antimalware, firewall, access control policies, and other policies; employee onboarding; and end user training.
- Collaborates with other county IT departments to share cybersecurity policies and best practices.

City of Fargo

- Receives various IT and cybersecurity services from ITD, including access to STAGEnet, Interactive Video Network video conference, next generation firewall services, antivirus scanning, malware detection, sandboxing of unknown attachments, dark web motioning services, and installation of equipment to protect against distributed denial of service attacks.
- Utilizes multifactor authentication for all city external Internet connections and maintains its firewall and applications between STAGEnet and the City of Fargo production networks to provide local control and additional protection against cybersecurity attacks.
- Evaluates risk, cost, and impact on time and staff resources before implementing cybersecurity tools.
- Is willing to discuss the feasibility of paying for the local share of government cybersecurity costs.

Bismarck Public Schools

- Provides technology services for 13,468 students and 2,247 employees, including classroom and administrative technology, network and security services, and infrastructure and support technology.
- Provides user awareness training and establishes policies, standards, and safeguards to increase cybersecurity education of students and staff and promote cybersecurity best practices.
- Works with ITD by utilizing STAGEnet; implementing systems, applications, and user protections; sharing firewall technology for antivirus scanning and protection against distributed denial of service attacks; using ITD systems and dark web monitoring services and endpoint protection services; and sharing information.
- Obtains cybersecurity insurance through the North Dakota Insurance Reserve Fund.

North Dakota Association of Counties

- NRG Technology Services is a for-profit entity created by the North Dakota Association of Counties (NDAoC) more than 30 years ago to provide IT services, such as network and equipment replacement services, to counties and other organizations.
- NRG Technology Services provides IT services for 32 counties while the remaining counties employ IT staff or hire a third-party provider for IT services.
- NRG Technology Services and ITD often work together to provide IT services to counties.
- Despite ITD providing certain cybersecurity services or products at discounted or at no cost, some counties are not interested in receiving those services because there is concern the additional services will require too much time and effort from county staff.
- Because some counties do not accept cybersecurity services from ITD when the services are provided at no cost, counties likely would not support the state requiring counties to pay the local cost of government cybersecurity services.

North Dakota League of Cities

- Providing IT and cybersecurity services to the 356 cities in the state is challenging when city populations range from large populations in Fargo and Bismarck to a population of one person in Ruso.
- Eight cities employ IT staff and each of those cities collaborate with ITD for cybersecurity services.
- Some cities receive IT services from NRG Technology Services.
- Because city government resources can be limited and most cities do not have dedicated IT staff, it may not be feasible for cities to pay the local cost of government cybersecurity services.

Conclusion

The committee makes no recommendation related to the study of government cybersecurity.

LARGE INFORMATION TECHNOLOGY PROJECTS

The committee is authorized to review any IT project or IT plan. If the committee determines a project or plan is at risk of failing to achieve its intended results, the committee may recommend OMB suspend the expenditure of money appropriated for the project or plan. In addition, the committee may review a project startup and project closeout report for any large IT project. A large IT project is defined in Section 54-35-15.2 to be an executive, judicial, or legislative branch project with a cost of \$500,000 or more or a higher education project that impacts the statewide wide area network, impacts the statewide library system, or is an administrative project.

Review of Large Information Technology Projects

For major IT projects in progress during the 2021-22 interim, the committee received and reviewed quarterly status reports compiled by ITD, project startup and project closeout reports, and other information regarding specific IT projects. Testimony submitted by ITD indicated of the 66 projects in an initiating, planning, executing, transitioning, or closing project stage during the 2nd quarter of 2022:

- The total budgeted costs for all projects is \$500.7 million and the combined budget variance for all projects was \$14.4 million below budget.
- No projects exceeded the 20 percent budget variance threshold and all projects were in "green" budget status.
- 5 projects exceeded the 20 percent schedule variance threshold and were in "red" schedule status.
- The 5 projects in red schedule status were the Bank of North Dakota's Dynamics One Stop Shop project, DOCR's electronic medical records project, the Attorney General's midwest automated finger information system network and automated biometric identification system project, ITD's enterprise service management service catalog 3 project, and DPI's statewide automated reporting system infrastructure project.

Department of Trust Lands Information Technology Project

The committee received testimony from DTL regarding the department's IT project pursuant to Section 5 of Senate Bill No. 2013 (2021). The 2017 Legislative Assembly appropriated \$3.6 million for an IT system replacement project. The IT system being replaced includes data management systems no longer supported by vendors. The IT project includes the replacement of all department software and IT equipment, which is being done in coordination with ITD and OMB. The major components of the IT project include unclaimed property, financial management and accounting, and land management. The testimony indicated:

- DTL continued the entire \$3.6 million of special funds appropriated for the project during the 2017-19 biennium into the 2019-21 biennium, of which approximately \$2.2 million was spent during the 2019-21 biennium and \$1.4 million was continued into the 2021-23 biennium.
- DTL anticipates spending \$3.6 million on the project during the 2021-23 biennium, of which \$1.4 million is funding continued from prior bienniums, \$1.6 million is from special funds appropriated by the 2021 Legislative Assembly, and \$600,000 is from special funds available pursuant to continuing appropriation authority.
- Funding for the 2021-23 biennium is to complete the land management portion of the project, which is separated into a surface project and a minerals project. The surface project was completed in November 2021 and the minerals project was expected to be completed in October 2022.
- DTL anticipates requesting approximately \$80,000 for enhancements to the financial management, accounting, and land management software during the 2023-25 biennium.
- DTL entered a 5-year agreement with a vendor for maintenance of the department's IT systems after the project is complete.

Information Technology Department - Statewide Interoperable Radio Network

The committee received testimony from ITD regarding the statewide interoperable radio network (SIRN) project, which consists of three phases. Phase 1 relates to the SIRN core, console replacements, and public safety answering points (PSAPs) and is separated into four groups based on PSAP geographic location. Phase 2 relates to the SIRN network, towers, radio frequency, and mobile radio coverage, and includes two groups--one for state towers and one for leased towers. Phase 3 relates to SIRN devices and radios.

The department was appropriated \$132.3 million for the SIRN project for the 2019-21 biennium, of which \$12.3 million was ongoing funding from the SIRN fund, \$20 million was from the strategic investment and improvements fund, \$80 million was from a Bank of North Dakota line of credit, and \$20 million from Bank profits. The Bank profits transfer could not be made until ITD spends \$25 million of the line of credit. The line of credit was authorized for 6 years, but the transfer of Bank profits only could be completed during the 2019-21 biennium.

Funding

The testimony indicated:

- ITD was unaware the Bank profits transfer was limited to the 2019-21 biennium and did not spend funding from the line of credit during the 2019-21 biennium.
- ITD anticipates requesting additional funding from the 2023 Legislative Assembly, including funding to replace the \$20 million of Bank profits appropriated for ITD for the 2019-21 biennium which was not used.
- Through September 2022, ITD has accessed \$20 million of the \$80 million Bank line of credit.

- Due to the COVID-19 pandemic and supply chain issues, ITD anticipates the SIRN project will be over budget and delayed, resulting in an estimated completion date of 2026.

Network, Towers, and Radios

The testimony indicated:

- The majority of PSAPs have converted to new Motorola consoles compatible with SIRN, with the remaining individual and multicounty PSAPs scheduled to convert by the end of 2022 and the State Radio PSAP scheduled to convert in 2024.
- Group 1 of Phase 2 consists of 82 tower sites. The group 1 towers are expected to provide 95 percent radio coverage with 95 percent reliability.
- Between 135 and 138 towers will be included in SIRN, of which the state owns 45 towers. The state incurs lease expenses for the privately owned towers.
- Through April 2022, 4,856 of an estimated 20,000 radios have been purchased by local public safety agencies and \$7.25 million of an estimated \$30 million of reimbursement requests have been submitted by these agencies for the state's \$1,500 cost-share responsibility for each radio.
- ITD anticipates most local public safety agencies will purchase radios in 2023 and 2024.

Operating and Maintenance Costs, Future Network Governance, and Revenue

The testimony indicated:

- ITD anticipates the ongoing biennial maintenance cost of SIRN will be \$20 million after completion of the project, excluding radio maintenance and local PSAP maintenance costs. The estimated system and network maintenance cost for the 2023-25 biennium is \$17.5 million.
- ITD anticipates utilizing funding available in the SIRN fund, which collects approximately \$4.5 million annually from a \$0.50 fee imposed on assessed communication services, to pay a portion of the maintenance costs and line of credit repayments.
- The estimated operating expenses for the network are approximately \$6.4 million to \$9.3 million during fiscal years 2023, 2024, and 2025, as follows:

Operating Expenses	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Total
Network connectivity	\$1,300,000	\$1,370,000	\$1,550,000	\$4,220,000
Tower leasing costs	3,200,000	4,520,000	4,900,000	12,620,000
Labor costs	1,100,000	1,320,000	1,380,000	3,800,000
Vendor maintenance	840,000	1,010,000	1,470,000	3,320,000
Total estimated expenses	\$6,440,000	\$8,220,000	\$9,300,000	\$23,960,000

- The estimated amount available in the SIRN fund from previous bienniums through the end of the 2023-25 biennium for ongoing maintenance costs is approximately \$32 million. Estimated expenditures through the 2023-25 biennium total approximately \$36.3 million, of which \$6.5 million is for ongoing maintenance costs through the remainder of the 2021-23 biennium, \$17.5 million of ongoing maintenance costs for the 2023-25 biennium, and \$12.3 million of principal and interest payments and risk costs through the 2023-25 biennium.
- ITD anticipates requesting an additional \$4.3 million from the 2023 Legislative Assembly to pay the remaining costs but if the variable interest rate on the line of credit continues to increase, additional interest will accrue on the outstanding balance, resulting in more funding requested for repayments.
- A summary of estimated ongoing SIRN operating revenue and expenses is as follows:

Revenue or Expense Description	Estimated Revenues or Expenses
Available funding in the SIRN fund as of September 2022	\$18,500,000
Estimated additional 911 fee revenue during fiscal years 2023, 2024, and 2025	13,500,000
Total estimated revenue through the 2023-25 biennium available for operating expenses	\$32,000,000
Estimated operating expenses during fiscal years 2023, 2024, and 2025	(\$23,960,000)
Estimated fiscal year 2023 loan interest repayment based on a 4 percent interest rate	(2,200,000)
Estimated fiscal year 2024 loan interest repayment based on a 4 percent interest rate	(3,200,000)
Estimated fiscal year 2025 loan interest repayment based on a 4 percent interest rate	(5,900,000)
Risk contingency for additional operating expenses that may be incurred	(1,000,000)
Total estimated expenses	(\$36,260,000)
Estimated expenses exceeding estimated revenues	(\$4,260,000)

PRIORITIZATION OF PROPOSED MAJOR COMPUTER SOFTWARE PROJECTS

Section 54-59-02.1 requires ITD to submit information regarding proposed major IT projects over \$500,000 for executive branch state agencies, excluding institutions under the control of the State Board of Higher Education and agencies of the judicial and legislative branches, to SITAC. The State Information Technology Advisory Committee is required to review and rank the projects. The CIO is required to submit SITAC recommendations to the Information Technology Committee, OMB, and the Appropriations Committees of the Legislative Assembly. The judicial and legislative branches must notify the committee each biennium on major IT projects and priorities. Section 54-35-15.2(13) requires the CIO to provide a report to the Information Technology Committee regarding the prioritization of major IT project recommendations.

After the conclusion of the committee's work, SITAC met in October 2022 and prioritized the following major IT project requests from DTL, Department of Health and Human Services (DHHS), ITD, Workforce Safety and Insurance (WSI), DOT, Secretary of State (SOS), DOCR, JSND, and Department of Water Resources (DWR):

Rank	Agency	Project Name	General Fund Request	Federal Funds Request	Special Funds Request	Total Request
1	DTL	Online payment processing			\$500,000	\$500,000
2	DHHS	Contract management system	\$3,000,000			3,000,000
3	DHHS	Retirement of legacy systems	3,200,000	\$4,800,000		8,000,000
4	ITD	Enterprise digitization	28,452,986		2,519,168	30,972,154
5	WSI	myWSI Releases 7, 8, and 9			1,830,000	1,830,000
6	ITD	K-12 Classlink	1,905,888			1,905,888
7	DOT	Automated vehicle location			2,520,000	2,520,000
8	WSI	Claims and policy System Releases 11, 12, and 13			4,950,000	4,950,000
9	DHHS	Retirement of inpatient electronic health record system - Advanced institutional management software	1,000,000			1,000,000
10	DHHS	Grant management system	2,000,000			2,000,000
11	SOS	Campaign finance system replacement	925,000			925,000
12	DOCR	Strategy planning for offender management replacement	757,000			757,000
13	ITD	Universal vulnerability management project	17,368,614			17,368,614
14	DOT	Security expert door security		865,000		865,000
15	ITD	Enterprise customer relationship management system	11,527,830		501,808	12,029,638
16	JSND	Unemployment insurance system replacement	40,257,896			40,257,896
17	DHHS	Retirement of outpatient electronic health record system - Regional office automated program	1,000,000			1,000,000
18	ITD	Security expert building security system enhancement	2,075,367		591,000	2,666,367
19	DWR	Migration of big data	7,025,952			7,025,952
20	DHHS	Child support case management system replacement	20,000,000	40,000,000		60,000,000
21	DWR	Data engine abstraction	2,260,260			2,260,260
22	DHHS	Criminal background check process automation	1,000,000			1,000,000
23	DWR	File services migration	579,600			579,600
24	DHHS	Procure to pay system	3,000,000			3,000,000
Total			\$147,336,393	\$45,665,000	\$13,411,976	\$206,413,369

INFORMATION TECHNOLOGY DEPARTMENT STRATEGIC PLAN AND ANNUAL REPORT

Strategic Plan

Section 54-59-06 requires ITD to develop and maintain a business plan and Section 54-35-15.2 requires the committee to review the plan. Pursuant to that directive, ITD prepared a strategic business plan for the 2023-25 biennium. The 2023-25 biennium will focus on closing workforce gaps, enabling decisionmaking, managing risk, and improving citizen and business engagement during the 2023-25 biennium.

Annual Report

Section 54-59-19 requires ITD to prepare an annual report on IT projects, services, plans, and benefits and to provide the report to the committee. Pursuant to that directive, ITD prepared and presented a report for fiscal year 2021, which included an executive summary, accomplishments, financial metrics and financial statements, and performance measures. The report highlighted the customer success program, improvements to the delivery of IT services, health technology accomplishments, cybersecurity threats and accomplishments, and the records management program.

The final fiscal year 2022 report was not yet available when the committee completed its interim responsibilities but ITD reported to the committee in September 2022 that major objectives that will be noted in the report will include deploying a world-class government experience, securing all government-held data in North Dakota, and delivering the most efficient government services in America.

INFORMATION TECHNOLOGY STANDARDS AND STATEWIDE PLAN

Information Technology Policies, Standards, and Guidelines

Section 54-59-09 requires ITD to develop statewide IT policies, standards, and guidelines based upon information received from state agencies and institutions. Except institutions under the control of the State Board of Higher Education, each executive branch agency and institution is required to comply with the policies and standards developed by ITD. Information technology policies, standards, and guidelines must be reviewed by SITAC. The department has adopted policies, standards, and guidelines in several areas and continues to update and adopt new policies, standards, and guidelines as necessary.

Statewide Information Technology Plan

Section 54-59-11 requires every executive branch agency, except institutions under the control of the State Board of Higher Education, to prepare an IT plan unless the CIO grants an exemption. Section 54-35-15.2 requires the committee to review the plan. The plan must be prepared based on guidelines developed by ITD and must be submitted to ITD by August 15 of each even-numbered year unless the CIO grants an extension. The Information Technology Department is required to review each entity's plan for compliance with statewide IT policies and standards or to resolve conflicting directions among plans. Agencies of the judicial and legislative branches are required to file IT plans with ITD by August 15 of each even-numbered year. Based on the IT plans, ITD must prepare a statewide IT plan. The statewide IT plan must be developed with emphasis on long-term strategic goals, objectives, and accomplishments.

The committee received testimony from ITD regarding the statewide IT plan. The testimony indicated although the deadline for each agency to submit its IT plan to ITD for inclusion in the statewide IT plan was August 15, 2022, some agencies are authorized extensions through September 2022. The department anticipates the statewide IT plan will be published in November or December 2022.

EDUCATION INFORMATION TECHNOLOGY

University System

The committee received testimony from the State Board of Higher Education regarding higher education IT activities pursuant to Sections 15-10-44 and 54-35-15.2. The testimony indicated:

- The Novelution electronic grants administration project is a modular-based electronic grants administration application that will provide a central repository for researchers to monitor projects and improve accuracy. The project was in green status during the 2nd quarter of 2022 and was 24.7 percent under budget and 0.1 percent behind schedule compared to the project revised baseline.
- The University of North Dakota's AssetWorks project is being developed to replace the current facilities asset management information system. The project was in the execution phase and in red status during the 2nd quarter of 2022 and was 1.5 percent over budget and 18.3 percent behind schedule compared to the project revised baseline. The project was projected to be completed in July 2022 but was rebaselined to be completed in September 2022.
- The University System may request \$1 million from the 2023 Legislative Assembly for ITD endpoint protection software, \$800,000 for a University System security operations center, including 2 FTE security analyst positions, and \$3 million for increasing software contract maintenance costs.

Elementary and Secondary Education

The committee received testimony from EduTech regarding IT initiatives for elementary and secondary education, including accomplishments, future initiatives, the PK-20W Initiative, computer and cybersecurity standards and credentials, public-private partnerships, and EduTech's goal to encourage North Dakota students to become computer science and cybersecurity professionals. EduTech provides IT services and professional development to North Dakota elementary and secondary schools, manages PowerSchool application upgrades, and assists faculty and staff with the implementation of Microsoft Office 365 in schools. The testimony indicated:

- By the end of calendar year 2022, EduTech will no longer provide web hosting services to schools due to schools needing more dynamic web hosting services than EduTech can provide.
- EduTech is working with schools to find a different web hosting service to meet the needs within each school's available funding resources.

- EduTech entered a new Microsoft Office 365 licensing partnership with schools to reduce school spending, ensure schools receive necessary services, and improve license renewal efficiencies.

INFORMATION TECHNOLOGY COORDINATION OF SERVICES

Section 54-59-12 provides for the review and coordination of IT among ITD, higher education, and political subdivisions. In addition, Sections 15-10-44 and 54-35-15.2 provide the Information Technology Committee is to receive information from the State Board of Higher Education regarding higher education IT planning, services, and major projects. The committee received testimony from ITD, the University System, and NDAoC regarding coordination of services. The testimony indicated:

- ITD has frequent discussions with the University System and political subdivisions regarding IT needs of state and local government agencies.
- The University System and ITD collaborate to address cybersecurity, financial, human resources, network, distance education, and interactive video network services.
- ITD and political subdivisions collaborate to address network, cybersecurity, SIRN, election systems, 911, clerk of courts, geographic information system, criminal justice information sharing, and health alert network services.

DISTRIBUTED LEDGER TECHNOLOGY REPORT

Pursuant to Section 54-59-02.2, the committee received a report regarding the implementation of distributed ledger technologies. The testimony provided by ITD indicated:

- Of the 87 blockchain projects in state government during the 2021-23 biennium through May 2022, 63 projects (72.4 percent) were in pilot or exploration phases, 16 projects (18.4 percent) were in rolling-out or production phases, and 8 projects (9.2 percent) were no longer active.
- The projects relate to paper credentials, such as transcripts, diplomas, and licenses; web applications and images; machine readable digital credentials, such as digital wallets and backpacks; and job data exchanges, which include publishing job opportunities and qualifications.

STATEWIDE LONGITUDINAL DATA SYSTEM INITIATIVE

Pursuant to Section 54-59-36, the committee received a report from the Statewide Longitudinal Data System Committee on the status of SLDS. The testimony provided by ITD indicated during the 2021-22 interim, the Statewide Longitudinal Data System Committee entered data-sharing agreements with the University System, DHHS, DOT, JSND, DPI, Department of Career and Technical Education, and North Dakota Workforce Council, and is considering entering agreements with the judicial branch and DOCR.

DISCLOSED CYBERSECURITY INCIDENTS

Pursuant to Section 54-59.1-07, the committee received a report regarding all disclosed cybersecurity incidents. The committee received testimony from ITD regarding disclosed cybersecurity incidents, including the status of the cybersecurity incident and any response or remediation to mitigate the cybersecurity incident. The testimony indicated:

- ITD prevents or detects more than 4.5 billion cybersecurity threats on STAGEnet each year.
- Due to the volume of cybersecurity incidents, cybersecurity analyst workload has increased, resulting in staff resignations and the need for additional cybersecurity analysts to reduce the amount of work performed by each analyst.

EMERGENCY SERVICES COMMUNICATIONS COORDINATING COMMITTEE

Pursuant to Section 57-40.6-12, the committee received a report from ESC3 regarding changes to the operating standards for emergency services communications. The Emergency Services Communications Coordinating Committee was established in 2001 and is composed of two state and two local government representatives. The primary responsibility of ESC3 is to implement technologies that will efficiently and cost-effectively deliver 911 calls to 1 of the 21 North Dakota PSAPs. The primary funding source to provide 911-related services is through an emergency services communications system fee levied on telecommunication services in the state. All 53 counties and 1 city impose this fee. The testimony provided by ESC3 indicated:

- As of September 2022, 40 county and city jurisdictions charge the maximum \$2.00 fee on assessed communication services while 14 jurisdictions charge a \$1.50 fee.
- ESC3 does not anticipate any changes to Chapter 57-40.6 will be recommended to the Legislative Management for the 2023 legislative session.

OTHER INFORMATION

Information Technology Security Audits

2019-21 Biennium

Senate Bill No. 2004 (2019) included funding of \$450,000 for the State Auditor's office to contract with consultants to test IT system security of ITD and the University System. The State Auditor's office planned to contract with ManTech International Corporation to conduct the audits of ITD and University System IT systems but due to the COVID-19 pandemic, ManTech was not able to conduct the audits. In August 2020, the State Auditor's office entered a contract with one of ManTech's subcontractors, Secure Yeti, to conduct the audits. In March 2021, the committee received testimony from the State Auditor's office and Secure Yeti regarding the 2019-21 biennium security audits. The testimony indicated:

- The purpose of the audit was to assess the security of IT in state government and identify potential vulnerabilities in the state network, systems, and applications.
- The audit revealed 128 vulnerabilities, of which 5 were considered critical risk, 57 were high risk, 33 were medium risk, and 33 were low risk.
- Of the 95 critical, high, and medium risk vulnerabilities, 10 key findings were identified and related to intrusion monitoring, detection, and response; insecure legacy protocols; and insecure password policies; critical University System data center infrastructure not being adequately protected by physical barriers; misconfigured wireless networks; unauthenticated simple mail transfer protocol (email) relay, remote shell, and phishing; externally exposed network resources; patching and configuration management; and the need to display an acceptable use policy for STAGEnet when users access a website or system on STAGEnet.
- ITD and the University System were aware of the vulnerabilities identified in the audit.
- During the audit, ITD and the University System indicated the key findings in the audit report will not require significant network, system, or process changes to mitigate potential risks and vulnerabilities.
- ITD has the resources available to respond to the risks identified in the audit, but there are communication processes and delays between ITD and other agencies that have prevented timely responses to those risks.
- The University System does not have the resources to respond to the risks identified in the audit.

2021-23 Biennium

House Bill No. 1004 (2021) included funding of \$450,000 for the State Auditor's office to contract with consultants to test IT system security of ITD and the University System. The committee received testimony from the State Auditor's office regarding the status of the IT security audits. The testimony indicated:

- The State Auditor's office has contracted with Secure Yeti to conduct IT reviews of ITD and the University System for the 2021-23 biennium.
- The reviews are estimated to be completed before the 2023 legislative session.
- Completion of the IT reviews has been delayed due to communication and network access delays from ITD.

Information Technology Department Budget

Infrastructure Investment and Jobs Act Funding

The committee received testimony from ITD regarding federal funding available to North Dakota for state and local government cybersecurity as a result of the federal Infrastructure Investment and Jobs Act (IIJA) and future plans for the funding. The testimony indicated:

- ITD anticipates approximately \$122 million of federal funding may be available as a result of IIJA during the 2021-23 and 2023-25 bienniums, of which \$5 million is for a broadband equity, access, and deployment (BEAD) planning grant program, \$100 million is for the BEAD program which will be distributed to each state for broadband projects, \$500,000 is for a digital equity grant program, and \$16.5 million is for a state and local cybersecurity grant program.
- The state digital equity capacity grant program and state digital equity planning grant program are competitive programs authorized in IIJA for feasibility analysis and planning of broadband infrastructure in underserved areas for which ITD intends to apply when the federal government starts accepting funding applications.
- The middle mile grant program is a competitive program authorized in IIJA for broadband infrastructure deployment available during federal fiscal years 2022 through 2026 for which ITD intends to apply when the federal government starts accepting funding applications.
- The state and local cybersecurity grant program is for providing funding to tribal and local governments and requires a statewide security plan and a security planning committee.

- Of the funding estimated to be available to North Dakota for the state and local cybersecurity grant program, 80 percent must be distributed by the state to local government agencies and at least 25 percent of the 80 percent must be distributed to rural local government agencies.
- The state's matching requirement for the state and local cybersecurity grant program is 10 percent in the 1st year and increases 10 percent each year to a total of 40 percent in the 4th year, after which time any ongoing operational costs are the responsibility of the state.
- To accept the state and local cybersecurity grant program funding, a lengthy application and cybersecurity plan must be completed and ITD must establish a 50-member planning committee consisting of representatives from the state, counties, cities, and health and education institutions, of which at least one-half of the members must be cybersecurity or IT professionals.
- ITD has concerns the time and resources necessary to accept and distribute the state and local cybersecurity grant program funding may exceed the benefits of the funding, due to the possibility of needing to reallocate department resources from other projects to complete the application, form the planning committee, and distribute the funding.
- Funding available as a result of IJA is in addition to the \$45 million appropriated by the Legislative Assembly during the November 2021 special legislative session from the federal Coronavirus Capital Projects Fund to ITD for broadband infrastructure grants to underserved areas of the state, which was made available as a result of the federal American Rescue Plan Act.

2023-25 Biennium Budget Request

The committee received testimony from ITD regarding legislation ITD may request during the 2023 legislative session and the department's 2023-25 biennium budget request, including a review of maintenance and operations, mainframe, network, server hosting, storage, application hosting, desktop support, technology, Microsoft licensing, telecommunications, and other rates and fees. The testimony indicated:

- Technology requests during the 2023 legislative session may include proposals to address concerns from ITD and state agencies that use ITD services relating to how to close workforce gaps, enabling decisionmaking, managing risk, and improving citizen and business engagement.
- ITD's 2023-25 biennium budget request was not finalized at the conclusion of the committee's work but the request will include a proposal to add 2 FTE positions for the customer success management program to assist agencies with strategic planning, technology research and updates, and communication between ITD and other agencies for collaboration on IT projects and best practices.
- Other potential requests for funding may be for enterprise digitization of aging technologies in multiple state agencies, vulnerability assessment software, DPI and DHHS programs, operational inflationary increases, and requests for additional FTE positions to meet demand from state agencies for IT projects and services.
- Certain enterprise services provided to the majority of executive branch state agencies, such as the customer success management program, could be funded through a general fund appropriation to ITD rather than general fund appropriations to other agencies and a special fund appropriation to ITD to collect funding from the agencies. This change would result in an increase of approximately \$5 million from the general fund in ITD's budget, a decrease of approximately \$5 million from the general fund in other agency budgets, and a decrease of approximately \$5 million from special funds in ITD's budget.

Health Information Technology

North Dakota Health Information Network

The committee received testimony from ITD regarding the continued development of North Dakota Health Information Network (NDHIN). The North Dakota Health Information Network is a public-private partnership for the secure exchange of health information that enables clinical users, such as providers, nurses, and clerical staff to easily and efficiently view information relating to a patient's electronic medical record. The North Dakota Health Information Network expansion project includes the establishment of health information network infrastructure, providing medication information and registry connections, and allowing for administrative process automation and simplification.

In Section 1 of Senate Bill No. 2021 (2017), the Legislative Assembly appropriated \$43.6 million for the NDHIN expansion project. Of the amount appropriated to ITD, \$40.5 million was from federal Health Information Technology for Economic and Clinical Health (HITECH) funds distributed by the federal Centers for Medicare and Medicaid Services (CMS) to DHHS. Federal funds were available through a Medicaid advanced planning document and required a 10 or 15 percent match. The matching funds were generated from billings to providers, payers, and from the electronic health information exchange fund.

Funding was projected to be available for the project through the 2021-23 biennium with an anticipated completion date of September 2021; however, due to funding changes made by the federal government, DHHS and ITD anticipate only \$22 million will be received for the project.

Health Information Funding and Transfer

As a result of changes made by the federal government, it was anticipated federal funding for NDHIN will be limited starting in the 2021-23 biennium, as CMS only will match up to 15 percent of funding spent for state health information networks, rather than 85 to 90 percent. The 2021 Legislative Assembly added \$5.5 million of federal funds, resulting in a total of \$6.0 million of federal funds spending authority available to ITD for the Health Information Technology Office for the 2021-23 biennium.

In Section 3 of Senate Bill No. 2021 (2021), the Legislative Assembly identified an additional \$6 million of one-time funding is included in Section 1 of the bill from the health IT planning loan fund, which the Bank of North Dakota is required to transfer, at the request of the CIO, to the electronic health information exchange fund for the purpose of defraying the expenses of the Health Information Technology Office and NDHIN during the 2021-23 biennium. Legislative intent is provided that the funding from the health IT planning loan fund be transferred only to the extent federal funding is not available to defray the expenses of the Health Information Technology Office and NDHIN during the 2021-23 biennium.

The committee received testimony from ITD regarding activities of the Health Information Technology Advisory Committee, NDHIN, and other health IT initiatives, including any transfers from the health IT planning loan fund made pursuant to Section 3 of Senate Bill No. 2021 (2021). The testimony indicated:

- Federal funding available from the HITECH Act expired in September 2021.
- In February 2022, CMS certified NDHIN as a Medicaid management information system, which may allow ITD to request up to 75 percent federal reimbursement for NDHIN expenditures; however, ITD continues to work with CMS regarding the appropriate cost allocation formula for approval of NDHIN expenditure reimbursements.
- When a cost allocation formula is approved by CMS, ITD will be able to submit expenditure reimbursement requests for costs incurred since October 2020 which were not reimbursable with HITECH funding.
- In November 2021, ITD requested the Bank transfer \$3 million of the \$6 million available in the health IT planning loan fund to the electronic health information exchange fund to pay for expenditures of NDHIN and other health IT initiatives until additional federal funding is available. An additional transfer of \$500,000 may be requested before the end of the 2021-23 biennium.

Veterans' Home Information Technology

Section 5 of Senate Bill No. 2007 (2021) amended Section 54-59-05 to exclude IT of the Veterans' Home from the requirement to be provided, supervised, and regulated by ITD. Section 6 of the bill amended Section 54-59-22 to exclude email, file and print administration, database administration, application server, and hosting services of the Veterans' Home from being required to be provided by ITD.

Information Technology Department

The committee received testimony from ITD regarding the status of the Veterans' Home IT and the effect on state and local cybersecurity and STAGEnet as a result of Senate Bill No. 2007. The testimony indicated:

- Any IT changes made pursuant to Senate Bill No. 2007 have the potential to weaken the security of the Veterans' Home and STAGEnet by increasing the frequency of malicious hacking and ransomware attacks.
- The Veterans' Home IT programs do not have vulnerability mitigation software and have less antivirus software coverage than would be provided by ITD.
- If an agency is not required to comply with ITD network standards or uses an alternative network solution instead of STAGEnet, there is a security risk to other state agencies and political subdivisions when communicating with the agencies on STAGEnet because ITD does not have access to that agency's network activity.
- If an agency uses an alternative network to STAGEnet and a cybersecurity incident occurs, ITD's response time is approximately 24 hours instead of 15 minutes.

Veterans' Home

The committee received testimony from the Veterans' Home regarding IT initiatives and activities undertaken as a result of changes made in Senate Bill No. 2007 and the agency's plans for IT and cybersecurity services during the 2021-23 biennium, including costs associated with those services. The testimony indicated the Veterans' Home has chosen to continue receiving IT and cybersecurity services from ITD for the 2021-23 biennium to avoid purchasing additional computers and Microsoft Office 365 licenses and having to host a private email server that may not integrate with state systems.

Legislative Branch Information Technology

The committee received testimony from the Legislative Council regarding the status of the legislative branch IT expansion approved in Senate Bill No. 2001 (2021). The testimony indicated:

- Through August 2022, of the 8 FTE IT positions added by the 2021 Legislative Assembly, 7 FTE positions have been filled, including 4 FTE developer positions, 2 FTE administrator positions, and 1 FTE IT specialist position.
- The legislative branch website is being redesigned with an estimated deployment date in October 2022.
- The Legislative Council IT staff have migrated all Legislative Council staff from the nd.gov email tenant to the ndlegis.gov email tenant and are migrating members of the Legislative Assembly.
- The migration of legislator email accounts is approximately 9 months behind schedule due to communication delays and collaboration issues from ITD.
- Hardware was purchased earlier this year but was not useable for multiple months due to network access delays from ITD.

Records Management

The committee received testimony from ITD regarding state records management requirements of Chapter 54-46. Section 54-46-03 establishes the CIO or an individual designated by the CIO to serve as the State Records Administrator who is responsible for establishing and administering the records management program for the executive branch, including the efficient and economical creation, utilization, maintenance, retention, and final disposition of state records. The testimony indicated:

- A records retention schedule is maintained in the executive branch records management system, which consists of the general schedule that contains retention policies for records commonly used by all executive branch state agencies as well as agency-specific records retention schedules.
- A records management task force consisting of the State Archivist, State Auditor, Attorney General, and State Records Administrator approve changes to records retention schedules and are responsible for reviewing historical, fiscal, and legal values to record series submitted by executive branch state agencies.
- Each year, executive branch agencies must report and certify to the State Records Administrator certain records have been disposed of according to retention requirements on the general schedule and agency-specific schedules; however, the task force does not review the content of records being disposed.
- Email by itself is not a record but the data contained in the email may be considered a record.
- Email records are classified under electronic communications on the general schedule but due to recent events regarding the deletion of emails, the records management task force is working to update the electronic communications policy.
- Because state agencies are the owners of record data, each agency is responsible for content review of records being disposed.
- When agencies are disposing of records, it is not yet possible to have a program that would search all record content to determine if certain records should be maintained.
- When an executive branch state employee terminates employment and the state agency requests the former employee's email account be deleted, Microsoft's policy provides there are 30 days available to review data in the email account before the account is permanently deleted.