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 is to consist of six members of the House of Representatives and five members of the Senate. The Chief Information Officer 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 Chief Information Officer.
3. Review the activities of the Information Technology Department (ITD).
4. Receive and review information related to information technology projects with a total cost of $500,000 or more, including startup and closeout reports.
5. Receive and review information regarding any information technology 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 Chief Information Officer regarding the recommendations of the State Information Technology Advisory Committee relating to the prioritization of proposed major information technology projects and other information technology issues.
7. Receive information from the State Board of Higher Education regarding higher education information technology planning, services, and major projects.

Section 54-35-15.3 authorizes the Information Technology Committee to review any information technology project or information technology plan. If the committee determines a project or plan is at risk of failing to achieve its intended results, the committee may recommend to the Office of Management and Budget (OMB) the suspension of the expenditure or funding appropriated for a project or plan.

Section 54-35-15.4 provides the Information Technology Committee may request the State Auditor to conduct an information technology compliance review, including an agency's information technology management and planning as well as compliance with information technology plans and standards.

The committee is responsible for receiving various reports, including:

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

In addition to its direct statutory responsibilities for the 2015-16 interim, the Legislative Management assigned the committee the following responsibilities:

- Receive a report from the Statewide Longitudinal Data System Committee on the status of the statewide longitudinal data system, including recommendations for further development, cost proposals, proposals for legislation, and data sharing governance (Section 54-59-36).
- Receive a report from the Information Technology Department before July 1, 2016, on the findings of the consultant hired by the Health Information Technology Office to provide for a health data study (2015 House Bill No. 1021).
- Receive a report from the Secretary of State certifying that the information technology components of the electronic filing system are ready for implementation before August 1, 2016 (2015 House Bill No. 1330).

Committee members were Representatives Mark S. Owens (Chairman), Ben Koppelman, Christopher D. Olson, Blair Thoreson, Nathan Toman, and Robin Weisz; Senators Kyle R. Davison, Richard Marcellais, David S. Rust, Larry J. Robinson, and Donald Schaible; and Chief Information Officer Mike Ressler.

INFORMATION TECHNOLOGY DEPARTMENT STRATEGIC PLAN AND ANNUAL REPORT

Strategic Plan

Section 54-59-06 requires ITD to develop and maintain a business plan. Pursuant to that directive, the department prepared a strategic business plan for the 2015-17 biennium. The primary areas of focus for the 2015-17 biennium strategic plan include maintaining and enhancing information technology security as well as evaluating and integrating cloud computing services. The plan includes 22 objectives relating to the department's mission to provide leadership and knowledge to assist customers in achieving information technology goals. The objectives are grouped into categories related to the customer experience, finances, internal processes, and employee professional development.

Annual Report

Section 54-59-19 requires ITD to prepare an annual report on information technology projects, services, plans, and benefits. Pursuant to the directive, the department prepared and presented a report for fiscal year 2016 that includes an executive summary, rate comparisons, and information on the department's performance.

The committee learned the department monitors the cost and revenue for each service to ensure that one service is not subsidizing another service. The federal government does not allow the department to charge rates that generate revenues in excess of costs; therefore, the department monitors its cash balances and adjusts rates accordingly. The department also monitors other entities' rates for similar services in an effort to maintain quality services at a fair price. The following is a summary of rate comparisons for the services that generate a majority of the department's revenue:

Service	North Dakota Information Technology Department Rates	South Dakota Bureau of Information and Telecommunications Rates	Montana Information Technology Services Division Rates	Minnesota Office of Enterprise Technology Rates
Central computer processing unit (CPU rates)	**Batch CPU** $.64 per second	**Batch CPU** $.50 per second	**Batch CPU** $2.71 per second	**Batch CPU** N/A
	Other CPU rates $.64 per second	**Other CPU rates** $.50 per second	**Other CPU rates** $1.20 - $1.90 per second	**Other CPU rates** N/A
Network fees	**Device fee** $59.00 per device per month	**Device fee** $73.00 per device per month	**Device fee** $71.41 per device per month	**Device fee** $66.95 per device per month
	Desktop support $100 per device per month	**Desktop support** Included	**Desktop support** $101.25 per hour	**Desktop support** $78.00 per hour
	Access, information, enterprise management fee Included	**Access, information, enterprise management fee** $53.25 per device per month	**Access, information, enterprise management fee** N/A	**Access, information, enterprise management fee** N/A
	DSL service Cost plus $175/5mb	**DSL service** Actual cost	**DSL service** $410.49/1.5mb	**DSL service** Cost plus 15 percent
	ETS-5 service $765 per month	**ETS-5 service** Actual cost	**ETS-5 service** Actual cost	**ETS-5 service** $220 plus circuit costs

Software Development		
	Location	**Billing Rate Per Hour of Service**
Information Technology Department	Bismarck, ND	$81 to $115
Applied Engineering, Inc.	Bismarck, ND	$88 to $102
Eide Bailly LLP	Bismarck, ND	$90 to $165
Enterprise Solutions, Inc.	Bismarck, ND	$90 to $140
Nexus Innovations	Bismarck, ND	$94 to $140
Agency MABU	Bismarck, ND	$75 to $80
Connvertex Technologies, Inc.	Sandy, UT	$100 to $130
BPro Inc.	Pierre, SD	$55 to $75
Integration Architects	Minneapolis, MN	$90 to $125
QAT Global	Omaha, NE	$88 to $95
Seven Seas Technologies, Inc.	Chesterfield, MO	$88 to $103
TEKsystems Inc.	Atlanta, GA	$88 to $103

The report included information on the department's performance measures. The following is an update on the department's performance measures:

Performance Measures	Baseline (Previous Years)	Current Status (June 2016)	Target
Acceptable level of total net assets (ratio of total net assets to average monthly expenditures)	2012 - 2.1 2013 - 2.1 2014 - 2.5	2.5 (June 2015)	< or = to 2.0
Total number of customer projects and service requests completed:	2014 - 2015		
• Service requests	45,948 - 46,875	45,943	Monitor
• Incidents	69,412 - 72,755	84,361	Monitor
Customer satisfaction indexes (percentages satisfied or very satisfied) related to:	2014 - 2015		
• Value	87.3% - 93.0%	87.3%	> or = to 92%
• Timeliness	91.1% - 95.3%	94.6%	> or = to 97%
• Quality	92.4% - 95.3%	96.4%	> or = to 97%
• Knowledge	93.7% - 95.3%	98.2%	> or = to 98%
• Professionalism and courtesy	93.7% - 100.0%	96.4%	100%
Employee satisfaction index (scale is zero dissatisfied to three very satisfied)	2012-13 - 2.20	2014-15 - 2.17	> or = to 2.0
Controllable employee turnover	2013 - 6.06% 2014 - 6.27%	8.03%	Below 6%
Percentage of strategic business plan objectives completed or on schedule	2014 - 61% 2015 - 54%	85%	> or = to 75%

INFORMATION TECHNOLOGY STANDARDS AND STATEWIDE PLAN
Information Technology Policies, Standards, and Guidelines

Section 54-59-09 requires ITD to develop statewide information technology 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 the department. Information technology policies, standards, and guidelines must be reviewed by the State Information Technology Advisory Committee. The committee learned the department has adopted policies, standards, and guidelines in a number of 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 information technology plan unless the Chief Information Officer grants an exemption. The plan must be prepared based on guidelines developed by the department and must be submitted to the department by August 15 of each even-numbered year unless the Chief Information Officer grants an extension. The department granted an exemption to the State Fair Association because the existing plan remains applicable in the 2017-19 biennium. No agencies received an extension for their required submissions. The department is required to review each entity's plan for compliance with statewide information technology policies and standards or to resolve conflicting directions among plans. Agencies of the judicial and legislative branches are required to file their information technology plans with the department by August 15 of each even-numbered year. Based on the information technology plans, the department must prepare a statewide information technology plan. The statewide information technology plan must be developed with emphasis on long-term strategic goals, objectives, and accomplishments.

The committee learned the department is in the process of developing the statewide information technology plan and will present the plan to the Legislative Assembly in 2017. The plan will communicate a shared vision between state government, higher education, and elementary and secondary education; outline strategic initiatives; and establish goals and strategies that will serve as a basis for more detailed planning efforts.

LARGE INFORMATION TECHNOLOGY PROJECTS

The committee is authorized to review any information technology project or information technology plan. If the committee determines that a project or plan is at risk of failing to achieve its intended results, the committee may recommend to OMB the suspension of the expenditure of money appropriated for the project or plan. In addition, the committee is directed to review a project startup and project closeout report for any large information technology project. A large information technology 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.

Project Management Lifecycle Process

The committee received information regarding the project management life cycle process which includes:

- **Project origination** - Proposed projects are evaluated for the next planning cycle, and the selected projects are included in the biennial budgeting process.

- **Project initiation** - The overall parameters of a project are defined, and project management is established to monitor the project.

- **Project planning** - The exact parameters of a project are defined to ensure all the prerequisites for the project execution and control are in place.

- **Project execution and control** - The project developer produces deliverable results, and the project manager monitors the status of the project.

- **Project closeout** - The project is assessed to identify any lessons learned and best practices to be applied to future projects.

Review of Large Information Technology Projects

For major information technology projects in progress during the 2015-16 interim, the committee received and reviewed quarterly status reports compiled by ITD, project startup and project closeout reports, and other information regarding specific information technology projects. The following is a summary of the project startup and project closeout reports and the iterative project reports received by the committee:

Project Startup Reports				
			Estimated	
Agency	Project Name	Project Description	Cost	Completion Date
Department of Health	Dakota immunization information system	Database for vaccination data for North Dakota residents	$3,574,410	April 2018
Department of Health	Women, infants, and children management information system	System upgrade to improve functionality	$466,832	January 2016
Department of Human Services	Transformed Medicaid statistical information system	Improved data extraction system related to the Medicaid management information system	$967,216	June 2015
Department of Human Services	Eligibility system modernization	Replacement of current eligibility systems with a single system to comply with the federal Affordable Care Act	$45,436,315	October 2017 - March 2018
Department of Transportation	Motor vehicle system replacement	Database replacement for all owner and vehicle records	$8,514,160	June 2016
Bank of North Dakota	Managed file transfer project	Develop a system to securely transfer financial files between the Bank and its partners	$646,152	May 2016
Judicial branch	Disaster recovery system project	Establish a disaster recovery site in a remote location to minimize data loss	$2,000,000	December 2016

Project Closeout Reports				
			Actual	
Agency	Project Name	Project Description	Cost	Completion Date
Department of Public Instruction	Statewide Longitudinal Data System (SLDS) for K-12	Implementation of a prekindergarten through postsecondary education data system	$4,721,496 (Budget of $4,625,552)	43 months - 2 months ahead of schedule
Information Technology Department	K-12 identity management	Development of an active directory to manage users for state applications in K-12 education	$395,802 (Budget of $451,283)	6 months - The same number of months scheduled
Tax Department	Taxpayer Access Point (TAP) business registration	Upgrading the current system to provide additional electronic services	$966,689 (Budget of $1,000,000)	12 months - The same number of months scheduled
Job Service North Dakota	WyCAN project	Replacement system for existing mainframe application	$22,085,727 (Budget of $76,490,063)	**Project was terminated**

Project Closeout Reports				
			Actual	
Agency	**Project Name**	**Project Description**	**Cost**	**Completion Date**
Department of Emergency Services	Statewide records management system project	Replacement for an existing law enforcement records management system	$1,084,312 (Budget of $1,172,579)	12 months - 8 months behind schedule
Information Technology Department	Billing system rewrite	Rewrite of two billing systems	$933,931 (Budget of $1,007,853)	21 months - 2 months behind schedule
Veterans' Home	Electronic medical records project	Upgrade of the medical records program to a new electronic health records program	$330,295 (Budget of $427,101)	31 months - 23 months behind schedule
Department of Health	Women, infants, and children management information system	System upgrade to improve functionality	$424,070 (Budget of $450,675)	12 months - 1 month behind schedule
Department of Human Services	Medicaid management information system project	Replacement of current Medicaid management system to comply with the federal Affordable Care Act	$102,326,059 (Budget of $113,062,140)	112 months - The same number as the revised schedule
Department of Emergency Services	Statewide seamless base map project	Create a database with detailed, seamless maps of the entire state	$3,900,000 (Budget of $3,927,957)	59 months - 6 months behind schedule

Iterative Project Reports
Workforce Safety and Insurance - Claims and policy system replacement project
Replacement of core business applications related to claims and policies to improve customer service

Phase	**Costs**	**Completion Dates**
• Phase 1 - Planning and analysis	N/A	June 2015 (Actual)
• Phase 2 - Database consolidation	$4,833,317 (Estimated)	April 2017 (Estimated)
• Phase 3 - Policy application redesign	$10,000,000 (Estimated)	October 2019 (Estimated)
• Phase 4 - Claims application redesign	$15,000,000 (Estimated)	April 2023 (Estimated)
• Phase 5 - Transition, program, closeout	$45,000 (Estimated)	September 2023 (Estimated)

Department of Human Services - Eligibility system modernization project
Replacement of current eligibility systems with a single system to comply with requirements of the Patient Protection and Affordable Care Act

Phase	**Costs**	**Completion Dates**
• Phase 1 - Convert systems that determine eligibility under the federal Affordable Care Act	$45,436,315 (Actual)	February 2016 (Actual)
• Phase 2 - Planning for conversion of other system components	$25,000,000 (Estimated)	October 2016 (Estimated)
• Phases 3, 4, and 5 - To be determined after Phase 2	$40,000,000 (Estimated)	December 2018 (Estimated)

Department of Human Services - Medicaid Management Information System

The committee received information from the Department of Human Services (DHS) regarding the Medicaid management information system project. The primary function of the system is the payment of Medicaid claims from health care providers for individuals enrolled in the Medicaid program. The project was completed in October 2015 with a preliminary actual cost of $102,326,059. The department will remit five additional progress payments to the vendor, Xerox, during the 2-year certification process. The project started in June 2006 with an original budget of $60,202,453 and an estimated completion date of April 2008. At the time of this report, the department and Xerox were in the process of resolving system deficiencies. The known deficiencies relate to primary care provider referrals, recipient liability, member eligibility, and mass adjustments. The department is in the process of transferring call center services from Xerox to the department to more efficiently and effectively assist health care providers with questions about the system.

Department of Human Services - Eligibility Systems Modernization Project

The committee learned the eligibility systems modernization project replaces the current legacy eligibility determination systems with a fully integrated system that includes the federal Affordable Care Act requirements. The project includes five phases, each with separate budgets and timelines. The preliminary estimated cost for the total project is $110 million, including approximately $30 million of state funding. The first phase was implemented in February 2016; however, at the time of this report, DHS was in the process of working with the vendor, Deloitte, to resolve outstanding critical system defects. The first phase provides a self-service portal to assist individuals with determining their eligibility under the federal Affordable Care Act requirements. The department is in the process of planning the second phase of the project, which is anticipated to be complete in the fall of 2017. The second phase will determine

eligibility for various programs, including the supplemental nutrition assistance program, temporary assistance for needy families, and the child care assistance program.

Department of Human Services - Transformed Medicaid Statistical Information System
The committee learned the transformed Medicaid statistical information system project is a system designed to improve the process for extracting data from the Medicaid management information system for federal reporting requirements. The project fell behind schedule due to delays and defects in the Medicaid management information system project. The committee learned the revised estimated cost is $1.56 million, and the revised estimated completion date is September 2016.

Job Service North Dakota - WyCAN Project
The committee received information from representatives of Job Service North Dakota regarding the termination of the agency's WyCAN project. The project was being developed by a consortium of four states, including Wyoming, Colorado, Arizona, and North Dakota. North Dakota's participation in the project was terminated in April 2015 because the system being developed no longer aligned with the specific needs of the agency. No state funds were expended on the project; however, Job Service North Dakota did expend $22,085,727 of federal funds. Job Service North Dakota will continue to use the current system with minor modifications as an interim solution. Job Service North Dakota is in the process of identifying a long-term solution to replace the current system on the mainframe.

Workforce Safety and Insurance - Information Technology Transformation Program Project
The committee received information from representatives of Workforce Safety and Insurance (WSI) regarding the claims and policy system replacement project. During the 2013-15 biennium, WSI terminated an information technology transformation program project, because the vendor, Aon eSolutions, Inc., failed to provide adequate evidence that the project could be completed. Workforce Safety and Insurance filed suit against the vendor and received a settlement payment of $5 million. Workforce Safety and Insurance replanned the project and began development on the claims and policy system replacement project in July 2015. The project has four major phases, each with multiple smaller phases. The first phase includes business analysis and detailed planning, which was completed in June 2015. The first of three projects within the second phase was completed in April 2016 at a cost of $1.3 million, which was 6 weeks ahead of schedule and 21 percent under budget. At the time of this report, WSI was in the process of completing the second of three projects within the second phase with a budgeted cost of $1.65 million. The estimated cost of the entire claims and policy system replacement project is approximately $30 million.

Secretary of State - Data Processing System Project
In March 2016, the committee received a report from the Secretary of State certifying that the information technology components of the electronic filing system were ready for implementation pursuant to 2015 House Bill No. 1330. Approximately 325,000 files were successfully transferred from the mainframe system to the new system, and the data processing system project was activated for public use on March 1, 2016.

PRIORITIZATION OF PROPOSED MAJOR COMPUTER SOFTWARE PROJECTS
Section 54-59-02.1 requires the State Information Technology Advisory Committee to prioritize major computer software projects. The Chief Information Officer is to submit recommendations of the State Information Technology Advisory Committee regarding major computer software projects to the Information Technology Committee, OMB, and the Appropriations Committees of the Legislative Assembly.

The committee received information from ITD regarding the prioritization of proposed major computer software projects for the 2017-19 biennium. Executive branch agencies internally prioritized information technology projects and submitted their information technology plans to ITD. The Information Technology Department compiled the information technology projects over $500,000 by funding source. The State Information Technology Advisory Committee prioritized major executive branch computer software projects proposed for the 2017-19 biennium as follows:

Project	Preliminary Project Budget	
	General Fund	Total Funds
General fund projects		
1. Department of Corrections and Rehabilitation - Electronic health records system replacement	$935,907	$935,907
2. Information Technology Department - Statewide interoperable radio network	56,553,669	65,350,835
3. Secretary of State - E-voting equipment replacement	9,000,000	9,000,000
4. Department of Human Services - Child care licensing system	3,000,000	3,000,000
5. Secretary of State - Statewide electronic pollbooks	3,000,000	3,000,000
Total general fund projects	$72,489,576	$81,286,742

Project	Preliminary Project Budget	
	General Fund	Total Funds
Federal funds projects		
1. Department of Human Services and Information Technology Department - Health information technology network enhancement for care coordination services		$48,000,000
2. State Department of Health - Women, infants, and children electronic benefit transfer integration of contractor components		1,739,220
3. Department of Public Instruction - NDFoods system corrections and enhancements		2,267,371
Total federal funds projects		$52,006,591
Special funds projects		
1. Department of Transportation - Real ID implementation		$510,000
2. Workforce Safety and Insurance - Claims and policy system replacement project Phase 3		10,150,121
3. Job Service North Dakota - Unemployment processing system replacement (This is a federal funds project that was mistakenly submitted as a special funds project by Job Service North Dakota.)		11,000,000
4. Department of Transportation - Driver's license system rewrite		11,585,000
5. Department of Trust Lands - Accounting, asset management, and records system replacement		5,250,000
6. Workforce Safety and Insurance - Secure portal for injured workers, employers, and medical providers		1,050,660
7. Department of Transportation - Traffic data editing and analysis		1,074,000
8. Workforce Safety and Insurance - Reporting system replacement		535,000
Total special funds projects		$41,154,781
Total all projects	$72,489,576	$174,448,114

INFORMATION TECHNOLOGY DEPARTMENT COORDINATION OF SERVICES

Section 54-59-12 provides for the review and coordination of information technology between ITD, higher education, and political subdivisions. In addition, Sections 15-10-44 and 54-35-15.2 provide that the Information Technology Committee receive information from the State Board of Higher Education regarding higher education information technology planning, services, and major projects.

Higher Education

Planning, Services, and Major Projects

The committee received information from the State Board of Higher Education regarding higher education information technology activities pursuant to Section 15-10-44 and 54-35-15.2. The committee learned the North Dakota University System had the following major information technology initiatives for the 2015-17 biennium:

- The University System is in the process of completing a functional consolidation project related to Section 8 of 2015 House Bill No. 1003. The project includes consolidation of email systems, databases, and servers from the individual systems used by campuses to a delivery system established by the University System. The University System is in the process of documenting the components of the existing systems and developing policies and procedures for the new consolidated delivery system.

- The University System is in the process of completing an email consolidation and archiving project related to 2015 House Bill No. 1051. At the time of this report, the University System completed the email consolidation for all campuses except North Dakota State University and Valley City State University. In addition, some department level email servers need to be consolidated.

- The University System is planning for a learning management system consolidation project. The University System plans to renegotiate an existing contract with Blackboard Inc., to replace a variety of learning management systems with a single systemwide learning management system. The consolidation is anticipated to result in cost-savings and improved student and faculty user experiences.

Security Audit and Vulnerability Assessment

The committee received information regarding the results of an audit report for the University System's technology security audit and vulnerability assessment. The audit was conducted by Telecommunications Systems during the 2013-15 biennium. The audit identified 12 critical and high-risk vulnerabilities related primarily to missing software patches and upgrades and improper user credential management. The University System corrected many of the vulnerabilities during the audit process, and the University System continues to enhance security.

Elementary and Secondary Education

The committee received information from the Educational Technology Council, which is created by Section 54-59-17, regarding information technology initiatives for elementary and secondary education. The council provides governance for EduTech and the Center for Distance Education. The council's initiatives include classroom transformation and new technology grants and approving schools' technology plans.

The committee learned EduTech provides information technology services and professional development to North Dakota elementary and secondary schools. EduTech continues to manage PowerSchool application upgrades and to assist faculty and staff with the implementation of Microsoft Office 365 in schools.

The committee learned the Center for Distance Education continues to provide North Dakota's online distance education. The center is in the process of eliminating all printed course materials in a planned conversion to digital content. North Dakota enrollments in distance education increased from 511 in 2008 to 4,940 in 2016. The course completion rate in 2016 was 96.5 percent, compared to a national benchmark of 90 percent.

Political Subdivisions

The committee learned the coordination of information technology services between ITD and political subdivisions is essential to the efficient delivery of services. The Information Technology Department through the statewide information technology network provides the network connectivity, Internet access, firewall security, videoconferencing, and secure wireless access that supports the delivery of services. Information Technology Department personnel meet regularly with the technology resources group of the North Dakota Association of Counties to discuss issues and strategize about future improvements and enhancements. Information Technology Department personnel also have provided training to city representatives regarding the state's comprehensive records management program, which provides information on records retention and methods of records disposal for all city departments. During the 2015-16 interim, ITD coordinated with emergency services personnel and political subdivisions while studying the State Radio network and the feasibility and desirability of implementing a statewide radio interoperability network.

OTHER INFORMATION
State Radio Interoperability Network

The committee received information regarding the State Radio interoperability network initiative. The 2015 Legislative Assembly appropriated $1.5 million to ITD in Senate Bill No. 2016 to determine the feasibility and desirability of developing a statewide radio interoperability network. The Information Technology Department contracted with Televate LLC to conduct a study of a technical and feasible plan to deploy an integrated public safety network. Representatives of the Statewide Interoperability Executive Committee, selected state agencies, and public safety personnel provided comments to the committee regarding some concerns about the existing radio network and support for the study. In August 2016 the committee received the final report of the study conducted by Televate, LLC. The results of the study included an inventory of the current system along with a comparison of various options to implement a new interoperable network. The study identified a hybrid very high frequency (VHF) portable network as the most cost effective solution to meet the needs of public safety personnel. The estimated cost to implement the hybrid VHF portable network is $172.2 million with ongoing annual operating costs of approximately $12.9 million. The study recommended implementing the interoperable network in phases over a 5-year period with approximately $65 million of the $172.2 million project costs anticipated in the 2017-19 biennium.

In addition, ITD used $1.1 million from a federal grant to map critical service areas related to the FirstNet initiative. The FirstNet initiative will provide a dedicated wireless network for public safety data communication, but will not replace radio communication systems.

Desktop Support Services

The committee received information from ITD regarding the implementation of required desktop support services pursuant to Section 7 of 2015 House Bill No. 1021. Based on the provisions of the bill, 19 state agencies were required to receive desktop support services from ITD. The Information Technology Department deployed desktop support services for 18 of the 19 state agencies over the course of the first fiscal year of the 2015-17 biennium. Although required to receive desktop support services, the Department of Career and Technical Education anticipates delaying the implementation of desktop support services until the 2017-19 biennium due to budget reductions in the 2015-17 biennium. The results of a customer satisfaction survey conducted by ITD in June 2016 indicated that the users were very satisfied with the quality of service provided by ITD.

2015-17 Biennium Budget Changes

The committee learned the budget for the criminal justice information sharing system was transferred by the 2015 Legislative Assembly from ITD to the Attorney General's office, including 3 FTE positions and $3.1 million of funding. The committee learned the original general fund appropriation for ITD was $27,905,987 for the 2015-17 biennium. The

appropriation was reduced by $1,130,192, or 4.05 percent, due to budget allotments ordered by the Governor in February 2016. The appropriation was reduced by an additional $697,650, or 2.5 percent, due to budget allotments ordered by the Governor in August 2016. These reductions to the general fund appropriation for ITD were reflected in Senate Bill No. 2379 as approved by the Legislative Assembly during the August 2016 special legislative session. The reductions were primarily related to the statewide longitudinal data system (SLDS), EduTech, the Center for Distance Education, the K-12 network, the Educational Technology Council, and operating expenses.

2017-19 Biennium Rates and Budget Request

The committee received information from representatives of ITD regarding technology rates for the 2017-19 biennium. Assuming state agencies purchase the same level of services in the 2017-19 biennium as the most recent 12-month period, the department estimates fee changes for the 2017-19 biennium will generate approximately $900,000 of additional revenue to the department. The following is a summary of selected data processing rates for the 2017-19 biennium compared to the 2015-17 biennium:

Description of Service	2015-17 Budget Rate	2017-19 Budget Rate
Analyst	$73/hour	$76/hour
Analyst II	$81/hour	$85/hour
Analyst III or Project Manager	$95/hour	$99/hour
Senior Analyst or Senior Project Manager	$105/hour	$114/hour
Architect/Consultant	$122/hour	$132/hour

The committee requested information regarding the ITD budget request for the 2017-19 biennium, including information on total funding being requested compared to the 2015-17 legislative appropriation and information on major increases and decreases. The committee learned the department had not yet submitted its 2017-19 budget request because the department has been granted an extension until September 30, 2016, and therefore, information was not available.

Information Technology Department Vulnerability Assessment and Penetration Testing

The committee learned the State Auditor's office contracts for a vulnerability assessment and penetration test of the state's information technology network. For the 2015-17 biennium, ManTech International Corporation performed the testing. The testing included external and internal vulnerability assessments, security infrastructure review, incident response review, application vulnerability assessments, and penetration testing. The following is a summary of the findings:

Test	Findings
External and internal vulnerability assessments	The assessment tested 57 publicly accessible network segments and 127 internal network segments. Vulnerability findings were present for all risk levels (critical, high, medium, low). The findings were classified into two categories--patch management and configuration management.
Security infrastructure review	The test team evaluated ITD's policies and procedures. The review identified no critical risk vulnerability findings, but did include high-, medium-, and low-risk vulnerability findings.
Incident response review	The test team evaluated an incident response exercise performed by ITD staff. The review identified no critical or low-risk vulnerability findings, but did include high- and medium-risk vulnerability findings.
Application vulnerability assessments	The Workforce Safety and Insurance web application was tested. There were no critical or high-risk vulnerability findings, but medium- and low-risk vulnerability findings were present.
Penetration testing	The test team executed multiple direct exploitation scenarios depicting an employee-based attack. The test team achieved direct system access under all scenarios.

The committee learned the findings are typical with an enterprise system that is similar in size to the state of North Dakota's system. The recommendations include enforcing a structured patch management program, providing additional staff training, updating and enforcing policies and procedures, reviewing and updating all encryption, and implementing and enforcing policies and procedures for effective continuous network monitoring.

Statewide Longitudinal Data System Initiative

The Legislative Management assigned the committee the responsibility to receive a report from the Statewide Longitudinal Data System Committee on the status of SLDS pursuant to Section 54-59-36. The committee received information from ITD regarding the department's continued support of SLDS both technically and professionally. During the 2015-16 interim, a scholarship eligibility software application was developed and integrated into SLDS. The Statewide Longitudinal Data System Committee submitted proposed legislation to the Higher Education Committee relating to the required use of standardized course codes and eTranscripts by school districts. The Higher Education Committee recommended a bill draft to the Legislative Management to implement the recommendations of the Statewide Longitudinal Data System Committee.

Health Information Technology

The committee learned ITD is continuing to develop a plan for a North Dakota Health Information Hub. The hub is a project to streamline the management of health information by integrating information from multiple sources into one consolidated hub. The committee received information from representatives of ITD regarding a health data study pursuant to Section 3 of 2015 House Bill No. 1021. The Information Technology Department was unable to obtain funding to complete the study as required by the provisions of the bill. However, the University of North Dakota conducted website scanning to identify existing state health data centers that could serve as models for North Dakota. The study identified the priorities of potential system users as well as the key features of data hubs in other states. Based on the results of the study, ITD believes a data hub developed for Rhode Island could serve as a model for the development of North Dakota's data hub.