

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.

Section 54-35-15.2 requires the committee to:

1. Meet at least once each calendar quarter.
2. Receive a report from the Chief Information Officer of the state at each meeting.
3. Review the business plan of the Information Technology Department (ITD).
4. Review macro-level issues relating to information technology.
5. Review the activities of ITD.
6. Review statewide information technology standards.
7. Review the statewide information technology plan.
8. Review information technology efficiency and security.
9. Review established or proposed information technology programs and information technology acquisitions by the executive and judicial branches.
10. Receive and review information, including a project startup report summarizing the project description, project objectives, business need or problem, cost-benefit analysis, and project risks and a project closeout report summarizing the project objectives achieved, project budget and schedule variances, and lessons learned, from ITD and the affected agency regarding any major information technology project of an executive branch agency. A major project is a project with a total cost of \$500,000 or more.
11. Receive and review information, including a project startup report summarizing the project description, project objectives, business need or problem, cost-benefit analysis, and project risks and a project closeout report summarizing the project objectives achieved, project budget and schedule variances, and lessons learned, from ITD and the affected institution regarding any major project of the State Board of Higher Education or any institution under the control of the State Board of Higher Education. A major project is a project that significantly impacts the statewide wide area network, impacts the statewide library system, or is an administrative project and is a project with a total cost of \$500,000 or more.
12. Receive and review information from ITD and the affected agency 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.
13. Receive a report from the Chief Information Officer regarding the recommendation of the State Information Technology Advisory Committee relating to the prioritization of proposed major information technology projects and other information technology issues.
14. Receive and review information, including a project startup report summarizing the project description, project objectives, business need or problem, cost-benefit analysis, and project risks and a project closeout report summarizing the project objectives achieved, project budget and schedule variances, and lessons learned, from the affected legislative or judicial branch agency regarding any information technology project of the legislative or judicial branch with a total cost of \$500,000 or more.
15. 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. The section provides 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. The Office of Management and Budget may suspend the expenditure authority if the office agrees with the recommendation of the committee.

Section 54-35-15.4 provides the Information Technology Committee may request the State Auditor to conduct an information technology compliance review. The review may consist of an audit of an agency's information technology management, information technology planning, compliance with information technology plans, and compliance with information technology standards and policies or an audit of statewide compliance with specific information technology standards and policies.

The committee has the responsibility for reviewing the activities of ITD, the business plan of the department, statewide information technology standards, the statewide information technology plan, and major information technology projects as provided in Section 54-35-15.2, as discussed earlier; for determining information technology compliance reviews to be conducted by the State Auditor as provided in Section 54-35-15.4; and for receiving:

- 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 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 15.1-02-18).
- 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 Commissioner of the State Board of Higher Education 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 statutory responsibilities for the 2013-14 interim, the Legislative Management assigned the committee the responsibility to study:

- Voice over Internet Protocol service and the effect of this service and other technologies on the telecommunications industry, including any recommended changes in regulation and taxation (2013 Senate Bill No. 2234).
- Issues related to the development of the current radio communication plan, its costs and components, and evolving technologies that will better serve the public (2013 Senate Bill No. 2353).

Committee members were Representatives Robin Weisz (Chairman), Corey Mock, Mark S. Owens, Roscoe Streyle, Blair Thoreson, and Nathan Toman; Senators Randall A. Burckhard, Richard Marcellais, Joe Miller, Larry J. Robinson, and Donald Schaible; and Chief Information Officer Mike Ressler.

INFORMATION TECHNOLOGY DEPARTMENT 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 2013-15 biennium. 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 following is a summary of the objectives included in the plan:

Business Perspectives	Objectives	Key Performance Indicators
Customer	<ul style="list-style-type: none"> • Meet customer service delivery expectations • Provide an "easy to do business with" environment • Provide a positive customer experience • Build and maintain strong relationships • Provide information technology services as needed • Provide technology direction 	<ul style="list-style-type: none"> • More than 90 percent of customers agree the department is a trusted business partner • More than 90 percent of customers choose the department as their preferred provider of strategic information technology services • More than 90 percent of customers agree that the department delivers information technology services that meet business needs • More than 90 percent of all incidents and requests are resolved by the estimated time • More than 99 percent of all incidents and requests are completed to the satisfaction of customers
Financial	<ul style="list-style-type: none"> • Make cost-effective investments • Manage revenue • Align rates with customer business needs • Manage statewide technology spending 	<ul style="list-style-type: none"> • The department's total net assets are within the acceptable Federal A-87 guidelines • The department's rates for select services are equal to or lower than the private sector • The department evaluates information technology spending as a percentage of state spending

Business Perspectives	Objectives	Key Performance Indicators
Internal processes	<ul style="list-style-type: none"> Standardize processes and approaches Deliver solutions on schedule and on budget Deliver reliable and available services Capture and follow up on customer feedback Continuous sharing and understanding of business needs Plan for technology change Provide guidance on information technology best practices Deploy enterprise solutions 	<ul style="list-style-type: none"> The state network, applications, and hosting services are secure and available to customers anytime and anywhere Enterprise services are delivered within service-level agreements
Learning and growth	<ul style="list-style-type: none"> Attract and hire quality people Maintain high employee satisfaction Support employee growth and development Retain talented employees 	<ul style="list-style-type: none"> Time to fill vacant positions (external) is less than 60 days Time to fill vacant positions (internal) is less than 30 days Employee satisfaction index is 2 or higher (based on a scale of 1 (dissatisfied) to 3 (satisfied)) Controllable employee turnover is less than 6 percent

INFORMATION TECHNOLOGY DEPARTMENT 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 2014 that includes an executive summary, rate comparisons, and information on the department's performance.

The committee learned the department tracks and 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 total 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 central processing unit (CPU rates)	Batch CPU - \$.58 per second CICS CPU - \$.58 per second ADABAS CPU - \$.58 per second TSO CPU - \$.58 per second	Batch CPU - \$.69 per second CICS CPU - \$.69 per second ADABAS CPU - \$.69 per second TSO CPU - \$.69 per second	Batch CPU - \$1.36 per second CICS CPU - \$1.11 per second ADABAS CPU - \$.97 per second TSO CPU - \$2.45 per second	Batch CPU - N/A CICS CPU - N/A ADABAS CPU - N/A TSO CPU - N/A
Network fees	Device fee - \$49.50 per device per month Local area network administrative fee - N/A Access, information, enterprise management fee - Included	Device fee - \$54.00 per device per month Local area network administrative fee - Included Access, information, enterprise management fee - \$60.25 per device per month	Device fee - \$51.15 per device per month Local area network administrative fee - \$111.07 per hour Access, information, enterprise management fee - N/A	Device fee - \$50.00 per device per month Local area network administrative fee - \$105.00 Access, information, enterprise management fee - \$85.00 per device per month

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
	DSL service - Cost plus \$175/5mb ETS-5 service - \$765 per month	DSL service - Actual cost ETS-5 service - Actual cost	DSL service - \$410.49/1.5mb ETS-5 service - Actual cost	DSL service - Cost plus 15 percent ETS-5 service - \$220 plus circuit costs

Telephone Fees	
North Dakota Information Technology Department rates	Telephone line - \$20 per device per month (Voice over Internet Protocol) Speaker and display function - \$3 per month Voice mail (unlimited) - \$5 per month
South Dakota Bureau of Information and Telecommunications rates	Telephone line - \$20 per device per month (analog) Speaker and display function - Actual cost Voice mail (unlimited) - \$6 per month
Montana Information Technology Services Division rates	Telephone line - \$26.96 per device per month (Voice over Internet Protocol) Speaker and display function - Included in fee Voice mail (three-minute limit) - \$5.20 per month Voice mail (additional minutes) - \$2.52 per month
Minnesota Office of Enterprise Technology rates	Telephone line - \$35 per device per month (Voice over Internet Protocol) Speaker and display function - Actual cost Voice mail (unlimited) - \$5 per month

Software Development		
	Location	Billing Rate Per Hour of Service
Information Technology Department	Bismarck, ND	\$69 to \$99
Applied Engineering, Inc.	Bismarck, ND	\$88 to \$102
Eide Bailly LLP	Bismarck, ND	\$90 to \$165
Enterprise Solutions, Inc.	Bismarck, ND	\$90 to \$130
Nexus Innovations	Bismarck, ND	\$94 to \$140
Agency MABU	Bismarck, ND	\$75 to \$80
Connvertex	Sandy, UT	\$100 to \$130
Bpro, Inc.	Pierre, SD	\$55 to \$75
Integration Architects	Minneapolis, MN	\$90 to \$125
QA Technologies	Omaha, NE	\$88 to \$95
Seven Seas Technologies	Chesterfield, MO	\$88 to \$103
TEK Systems	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 2014)	Target
Acceptable level of total net assets (ratio of total net assets to average monthly expenditures)	2011 - 1.7 2012 - 2.1 2013 - 2.1	2.5	< or = to 2
Percentage of Information Technology Department rates reported in the annual report that are competitive	2011 - 100% 2012 - 100% 2013 - 100%	100%	100%
Total number of customer projects and service requests completed:	2013		
• Service requests	43,131	45,948	Monitor
• Incidents	66,463	69,412	Monitor
Customer satisfaction indexes (percentages satisfied or very satisfied) related to:	2012 - 2013		
• Value	84.6% - 83.1%	87.3%	> or = to 92%
• Timeliness	79.1% - 83.6%	91.1%	> or = to 97%
• Quality	89.6% - 88.3%	92.4%	> or = to 97%
• Knowledge	92.5% - 93.3%	93.7%	> or = to 98%
• Professionalism and courtesy	97.0% - 98.4%	93.7%	100%
Employee satisfaction index (scale is zero dissatisfied to three very satisfied)	2012 - 2.20 2013 - 2.20	N/A	> or = to 2.0

Performance Measures	Baseline (Previous Years)	Current Status (June 2014)	Target
Controllable employee turnover	2012 - 7.81% 2013 - 6.06%	6.27%	Below 6%
Percentage of service levels met	To be determined	To be determined	100%
Percentage of strategic business plan objectives completed or on schedule	2012 - 49% 2013 - 39%	61%	> or = to 75%

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 variety of areas and continues to update and adopt new policies, standards, and guidelines as necessary. The policies, standards, and guidelines are categorized as follows:

Category	Number of Policies, Standards, and Guidelines
Application software	3
Communications	1
Data and information	5
Desktop	5
Document management	5
E-government	8
Geographic information systems	1
Information technology procurement	2
Project management	3
Records management	4
Security	11
Servers and storage	1
Enterprise architecture	1
Total	50

INFORMATION TECHNOLOGY PLANS

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 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 will present its statewide information technology plan to the Legislative Assembly in 2015. 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

Project Management Life Cycle Processes	Executive and Legislative Branch Activities
<p>Project origination - Evaluate projects proposed for the next planning cycle and reach a consensus on the projects to be selected</p>	<p>Agencies identify projects to create a product or develop a service that can solve a problem or address a need within the agency.</p> <p>Agencies develop a project proposal, including a business case and proposed solution, for each proposed project. The business case should include information on project description, project objectives, business need or problem, proposed solution, consistency and fit with the organization's mission, cost-benefit analysis, and project risks.</p> <p>Agencies prioritize information technology projects, submit their information technology plan, including project information, to ITD, and submit their information technology budgets into the Internet Budget Analysis and Reporting System (IBARS). In most cases, the budget for a project is the initial cost estimate. The most accurate project budget is not available until the completion of the project planning process.</p> <p>The State Information Technology Advisory Committee, a committee created by Section 54-59-07, reviews information regarding proposed major information technology projects for executive branch state agencies, excluding institutions under the control of the State Board of Higher Education and the judicial and legislative branches, and ranks those projects that receive the committee's affirmative recommendation. The following is a summary of the steps involved in the prioritization:</p> <ol style="list-style-type: none"> a. The Information Technology Department sorts proposed information technology projects over \$500,000 into the following three categories: <ol style="list-style-type: none"> (1) Projects requesting funds from the general fund for the investment or the ongoing maintenance costs. (2) Projects requesting funds from federal fund sources for the investment or the ongoing maintenance costs. (3) Projects requesting funds from other special fund sources for the investment or the ongoing maintenance costs. b. State agencies self-score projects over \$500,000 based on return on investment, customer service benefits, internal efficiency benefits, operational necessity, and project risk. c. The Information Technology Department presents a preliminary report, including information regarding agencies' self-scoring, to the State Information Technology Advisory Committee. In addition, agencies present a short summary of each project to the committee. d. The State Information Technology Advisory Committee prioritizes projects for each of the categories. e. The Information Technology Department forwards the prioritized listings for each of the categories to the Information Technology Committee and OMB for consideration in the development of the Governor's budget recommendation. <p>The Governor selects projects to be funded in the executive budget recommendation.</p> <p>The Information Technology Department revises the prioritized listings to reflect those projects that are funded in the Governor's budget recommendation and presents the listing to the Appropriations Committees of the Legislative Assembly.</p> <p>The Legislative Assembly selects projects to be funded in the legislatively approved budget.</p> <p>The Information Technology Department conducts a preliminary architectural review for projects funded and provides a recommendation to agencies regarding proceeding with the project.</p> <p>Agencies refine the business cases as appropriate for those projects funded in the legislatively approved budget.</p> <p>Agencies submit a copy of the final business case for a project to ITD.</p>
<p>Project initiation - Define the overall parameters of a project and establish the appropriate project management and quality environment required to complete the project</p>	<p>Agencies initiate the project by identifying the project sponsor, project manager, and project team; developing a project charter; and conducting a project kickoff meeting. A project charter is developed and executed to initiate a project and to secure commitment for the resources, including human, financial, and equipment, necessary for the project. A project charter should include information on project background, project scope, measurable project objectives, required resources, constraints, assumptions, and project authority.</p> <p>Agencies submit a copy of the project charter to ITD prior to any project expenditures or signing of vendor contracts.</p>

Project Management Life Cycle Processes	Executive and Legislative Branch Activities
<p>Project planning - Define the exact parameters of a project and ensure all the prerequisites for the project execution and control are in place</p>	<p>Agencies complete planning for a project by completing and approving a project plan. A project startup report should identify specific milestones throughout the project and its associated cost, schedule, and deliverables. At this time, agencies complete the budget for the project. This project budget is considered to be the baseline budget for all cost comparisons.</p>
<p>Project execution and control - Develop the project or service the project was commissioned to deliver</p>	<p>Agencies submit a copy of the project plan to ITD after the plan has been approved by the project sponsor.</p> <p>Agencies present a project startup report to the Information Technology Committee. A project startup report summarizes information from the business case, project charter, and project plan, including project description, project objectives, business need or problem, cost-benefit analysis, and project risks.</p>
<p>Project closeout - Assess the project and derive any lessons learned and best practices to be applied to future projects</p>	<p>The agency, ITD, and OMB, in consultation with the Attorney General, approve any contracts or agreements related to the project. An executive steering committee is appointed to oversee the project, including the overall project status, contract negotiation and execution, project budgets, project schedules, and project quality.</p> <p>Agencies launch the project. The assigned project manager is to manage every aspect of the project to ensure all the work is being performed correctly and on time.</p> <p>Agencies submit a project status report to ITD on a quarterly basis or when a project milestone exceeds 20 percent of planned cost or schedule. The status report includes an executive summary and information on budget, schedule, issues, risks, project accomplishments, and upcoming activities.</p> <p>Each calendar quarter, ITD prepares a large project summary report that summarizes the performance of large information technology projects and submits the report to the Information Technology Committee.</p> <p>Agencies formally acknowledge all deliverables produced during project execution and control have been completed, tested, accepted, and approved by the project sponsor.</p>
<p>Project closeout - Assess the project and derive any lessons learned and best practices to be applied to future projects</p>	<p>Agencies complete a postimplementation review for the project in order to assess the success of the project and to capture historical information. The postimplementation review should include information on the measurement and attainment of project objectives, project budget and schedule variances, and lessons learned.</p> <p>Agencies notify the State Information Technology Advisory Committee if the actual cost for the project exceeded the original budget by 20 percent or more or if the final project completion date extended beyond the original project scheduled completion date by 20 percent or more.</p> <p>Agencies submit a copy of the postimplementation review to ITD.</p> <p>Agencies present a project closeout report to the Information Technology Committee. A project closeout report summarizes information from the postimplementation review, including the project objectives achieved, project budget and schedule variances, and lessons learned.</p>

The committee learned the 2013 Legislative Assembly approved changes to Century Code related to the definition of a large information technology project and information technology project planning. The 2013 Legislative Assembly changed the definition of a large information technology project from a project with a total cost of \$250,000 to a project with a cost of \$500,000. The 2013 Legislative Assembly provided requirements for executive branch agencies, excluding entities under the control of the State Board of Higher Education, to include ITD in the planning process for information technology projects with an estimated cost of \$100,000 or more. The 2013 Legislative Assembly provided requirements for the use of an executive steering committee to oversee large information technology projects.

Review of Large Information Technology Projects

For major information technology projects in progress during the 2013-14 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 received by the committee:

Project Startup Reports				
Agency	Project Name	Project Description	Estimated Cost	Estimated Completion Date
Department of Commerce	Website migration	Redesign of main websites with backend feeder sites	\$512,780	April 2013

Project Startup Reports				
Agency	Project Name	Project Description	Estimated Cost	Estimated Completion Date
State Department of Health	Women, Infants, and Children (WIC) Electronic Benefits Transfer (EBT) Phase 1 Feasibility Study	Study the feasibility of developing an electronic benefits transfer system	\$259,697	November 2013
Department of Human Services	CHIPRA NDVerify	Use technology to provide statewide outreach, enrollment, and retention for assistance programs	\$650,910	August 2013
Department of Human Services	Vocational Rehabilitation Information System Replacement System	Develop a web-based, modern case management system	\$2,062,689	April 2013
Highway Patrol	Electronic Permitting	Combine all permitting systems into one automated routing system	\$2,560,000	October 2013
Information Technology Department	ND Health Information Network	Allow qualified organizations to access health information	\$6,857,046	March 2014
Department of Emergency Services	Central electronics bank replacement project	Update to modern technology	\$1,100,000	June 2013
Department of Human Services	Eligibility system modernization	Replace multiple systems with one system	\$59,290,077	June 2017
Tax Department	Taxpayer Access Point (TAP) project	Upgrade and enhance the current system	\$967,085	August 2014
Veterans' Home	Electronic medical records	Upgrade to an electronic medical records program	\$476,600	April 2013
Office of Management and Budget	Recruiting solutions project	Create an automated recruiting process	\$885,542	February 2014
Information Technology Department	Billing rewrite	Update a data processing system and a micrographics system related to billing	\$1,007,061	June 2015
Department of Emergency Services	Statewide records management system	Upgrade to current law enforcement records management system	\$1,280,018	October 2014

Project Closeout Reports				
Agency	Project Name	Project Description	Actual Cost	Actual Completion Date
Department of Public Instruction	Food and Nutrition Program (NDFoods)	Replaces the existing child nutrition and food distribution programs to provide more accurate and timely information for the department and all program sponsors	Actual expenditures of \$810,284, compared to the baseline budget of \$1,090,780	Completed in 31 months, the same number of months as scheduled
State Seed Department	SSAS 09 Upgrade	Upgrade the current application software from obsolete development tools to current tools that meet state technology standards	Actual expenditures of \$362,340, compared to the baseline budget of \$358,000	Completed in 37 months, the same number of months as scheduled
Department of Emergency Services	Central electronics bank replacement project	Update to modern technology	Actual expenditures of \$1,013,823, compared to the baseline budget of \$1,100,000	Completed in 2 months, the same number of months as scheduled
Public Employees Retirement System	PERSLink	Upgrade to a new benefits processing system	Actual expenditures of \$10,069,779, compared to the baseline budget of \$10,502,214	Completed in 57 months, 4 months behind schedule
Highway Patrol	Electronic Permitting	Combine all permitting systems into one automated routing system	Actual expenditures of \$1,824,842, compared to the baseline budget of \$2,560,000	Completed in 25 months, the same number of months as scheduled
Workforce Safety and Insurance	Information technology transformation program	Upgrade to an electronic claims processing system	Actual expenditures of \$17,133,609, compared to a baseline budget of \$17,813,289	Project was terminated

Project Closeout Reports				
Agency	Project Name	Project Description	Actual Cost	Actual Completion Date
State Department of Health	Immunization information system interoperability	Upgrade to an immunization record system and allow integration into the North Dakota Health Information Network	Actual expenditures of \$589,954, compared to a baseline budget of \$620,021	Completed in 37 months, one month behind schedule
Department of Human Services	NDVerify	Upgrade to an electronic processing system for medical coverage verification	Actual expenditures of \$610,463, compared to a baseline budget of \$708,735	Completed in 14.5 months, 1.5 months behind schedule
Bank of North Dakota	CashPlus project	Upgrade to improve federal fund sweeps and commercial loan servicing	Actual expenditures of \$470,163, compared to a baseline budget of \$459,900	Completed in 20 months, 2 months ahead of schedule
Department of Commerce	Website migration	Redesign of main websites with backend feeder sites	Actual expenditures of \$507,120, compared to a baseline budget of \$546,530	Completed in 20 months, 4 months behind schedule
State Department of Health	Electronic benefits transfer study	Conduct a feasibility study prior to implementing an electronic benefits transfer program	Actual expenditures of \$270,673, compared to a baseline budget of \$326,663	Completed in 19 months, 4 months behind schedule
Department of Human Services	Vocational Rehabilitation Information System Replacement System	Develop a web-based, modern case management system	Actual expenditures of \$1,990,995, compared to a baseline budget of \$2,500,000	Completed in 18 months, the same number of months as scheduled
Department of Public Instruction	eTranscripts	Develop an electronic transcript processing system	Actual expenditures of \$615,296, compared to a baseline budget of \$608,265	Completed in 28 months, 1 month behind schedule
Information Technology Department	North Dakota Health Information Network	Allow qualified organizations to access health information	Actual expenditures of \$5,129,562, compared to a baseline budget of \$5,437,277	Completed in 19 months, 2 months behind schedule
Job Service North Dakota	Workforce data quality initiative	Enhanced data collection and reporting system	Actual expenditures of \$1,067,028, compared to a baseline budget of \$1,005,000	Completed in 23 months, 3 months behind schedule
Office of Management and Budget	Recruiting solutions project	Create an automated recruiting process	Actual expenditures of \$573,895, compared to a baseline budget of \$870,902	Completed in 3 months, the same number of months as scheduled

Department of Human Services - Medicaid Management Information System

The committee received information from the Department of Human Services (DHS) regarding development of a new Medicaid management information system. The primary function of the system is the payment of Medicaid claims from health care providers for individuals enrolled in the Medicaid program. The department launched the provider enrollment function in April 2013. The project has experienced several project delays. System testing is ongoing and all critical defects must be remediated before the project is complete. At the time of this report, DHS was negotiating with the project vendor, Xerox, to determine a revised completion date, which is anticipated to be in the summer of 2015. The system is anticipated to be in operation for at least 15 years upon completion. The schedule below provides information on project expenditures through September 2014:

	Budget	Expenditures	Remaining
General fund	\$7,533,297	\$5,225,768	\$2,307,529
Federal funds	78,043,573	53,347,428	24,696,145
Other funds	2,968,137	2,193,526	774,611
Total	\$88,545,007	\$60,766,722	\$27,778,285

Department of Human Services - Eligibility Systems Modernization Project

The committee learned the project replaces the current legacy eligibility determination systems with a fully integrated system that includes the federal Affordable Care Act requirements. The federal Affordable Care Act requirements are complex and have resulted in delays. An executive steering committee voted to temporarily suspend work on the eligibility systems modernization project. The Department of Human Services is exploring alternate system replacement options. At the time of this report, DHS was using a contingency system. The Centers for

Medicare and Medicaid Services provides enhanced federal financial participation of 90 percent for the Medicaid requirements of the system, and the enhanced federal financial participation is available through December 31, 2015. As a result, DHS issued a request for proposal for additional project assistance in order to accelerate the project's schedule and maximize the availability of federal funds for the project.

Workforce Safety and Insurance - Information Technology Transformation Program Project

The committee received information from representatives of Workforce Safety and Insurance regarding the termination of the information technology transformation program project. The project began in 2007 to replace an existing claims and policy software system. Workforce Safety and Insurance began withholding payments to Aon plc in September 2011 when software tests indicated only 30 percent completion. The contract with Aon plc was not renewed in December 2012 after Aon plc failed to provide adequate evidence that the project could be completed. Lessons learned from the project included holding vendors responsible, requiring full-time onsite resources from the vendor, investing in workflow maps for business processes, and avoiding project solutions that require significant modifications to commercial off-the-shelf software. Workforce Safety and Insurance filed a lawsuit against Aon plc in March 2014 related to the project. The trial is scheduled to begin in the fall of 2016.

Secretary of State - Data Processing System Project

The committee learned the Secretary of State's data processing system project began in 2010, experienced project delays, and needed additional funding for the 2013-15 biennium. The delays and funding shortages were related to the agency's small staff with limited information technology expertise, the complexity of the agency's responsibilities, and the rapid economic growth in recent years. The project's revised budget of \$5.5 million is approximately \$2 million more than the original project budget of \$3.7 million. Pursuant to Section 54-59-05(4), ITD borrowed \$950,000 from the Bank of North Dakota at an interest rate of 1.75 percent. The \$950,000 that was borrowed is anticipated to be sufficient to continue work on the project for the remainder of the 2013-15 biennium. The project budget for the 2015-17 biennium is anticipated to include funding to repay the loan as well as the additional funding needed to complete the project. The project is anticipated to be completed in the 2015-17 biennium.

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 Appropriations Committees of the Legislative Assembly.

The committee received information from ITD regarding the prioritization of proposed major computer software projects for the 2015-17 biennium and learned executive branch agencies developed and internally prioritized information technology projects and submitted their information technology plans to the department. The Information Technology Department compiled the information technology projects over \$500,000 by funding source. State agencies self-scored the projects based on return on investment, customer service benefits, internal efficiency benefits, operational necessity, and project risk. The Information Technology Department presented the self-scoring to the State Information Technology Advisory Committee for the committee's prioritization.

The State Information Technology Advisory Committee met on September 24, 2014, and prioritized major executive branch computer software projects proposed for the 2015-17 biennium as follows:

General Fund Projects				
Rank	Project	Agency	Preliminary Project Budget	
			General Fund	Total Funds
1	DOCSTARS to Elite upgrade	Department of Corrections and Rehabilitation	\$1,100,000	\$1,100,000
2	Workforce software	Department of Corrections and Rehabilitation	618,136	618,136
	Total		\$1,178,136	\$1,718,136

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. Pursuant to these directives, the committee received information from representatives of higher education, elementary and secondary education, and political subdivisions regarding information technology activities.

Higher Education

Planning, Services, and Major Projects

The committee learned Section 15-10-44 provides that the State Board of Higher Education manage and regulate information technology planning and services for institutions under its control. Pursuant to this section, the State Board of Higher Education has adopted a policy that requires the preparation and approval by the board of a comprehensive information technology plan along with periodic progress reports to the board.

The committee learned the North Dakota University System's information technology 2013-2014 annual report includes the following goals:

- Support University System infrastructure needs.
- Improve University System information technology-enabled business processes and services while providing and managing resources to align with strategic goals.
- Improve and enhance student learning and users' focus.
- Improve and enhance collaborative efforts.

The committee learned the University System had the following major information technology accomplishments:

- Completed new information technology facilities, including a new information technology office building on the University of North Dakota (UND) campus (November 2013) and a new data center on the UND campus (January 2014).
- Completed organizational changes, including a Vice Chancellor for Information Technology and Institutional Research, and a new Deputy Chief Information Officer.
- The University System's System Information Technology Services was renamed Core Technology Services.
- Continued work to integrate the University System into the statewide longitudinal data system. The statewide longitudinal data system includes the ability to share transcripts electronically and to conduct statistical research.
- Implemented project management for large information technology projects.
- Continued work to consolidate email tenants and research email archiving products.
- Improved security measures through collaborative efforts with ITD, including the installation of intrusion detection devices at the University System data center and in the four quadrants.

Information Technologies Building and Data Center

The committee learned the construction of the Information Technologies Building and data center was completed approximately one month behind schedule at a cost of approximately \$17.1 million compared to a baseline budget of approximately \$17.5 million. The Legislative Assembly authorized \$12.5 million from the general fund and \$5 million from University System information technology funding resulting from one-time savings or efficiencies for the projects. Over 100 technology staff are located in the University System's Information Technologies Building. The University System's data center includes 5,000 square feet of raised floor Tier 3 data center space and 5,000 square feet of equipment and operational support space. The committee conducted a tour of the Information Technologies Building and the data center on the campus of UND.

Security Attacks

The committee learned a server breach was discovered at the University System's data center in February 2014. The server contained approximately 73,000 files with a total of 87 gigabytes of data. The server contained approximately 290,000 student records dating back to 2004, 890 staff records, and no health records. A user account was compromised allowing access to the server. The data was not copied or transferred from the server. The University System contracted with AllClear ID to provide identity theft protection coverage for one year for every individual with personal information on the server at a cost of \$87,000 and to provide call center services for 90 days at a cost of \$132,000. The Bureau of Criminal Investigation (BCI), Federal Bureau of Investigation (FBI), and Highway Patrol conducted investigations and forensic analyses on the server. As a result of the incident, the University System continues to develop enhanced security measures, including multiple-step verification systems and intrusion detection devices.

The committee learned at least 50 employees from North Dakota State University (NDSU) received a targeted phishing email in August 2014. The user credentials for eight employees were compromised in the security attack. The University System locked ConnectND to prevent user access and worked with ITD to conduct systemwide scans to identify the extent of the attack. The servers and applications at NDSU were not compromised in the attack. North

Dakota State University is working with the FBI to investigate the attack. The University System plans to provide additional employee security awareness training and to implement other security-related information technology hardware to help prevent these types of security attacks.

The committee learned North Dakota State College of Science identified a security attack in which approximately 150 computers were infected with malware. The malware was detected on September 2, 2014, but had been present on computers since the middle of August 2014. Personal information for 15,600 students, including social security numbers, was on 68 of the 150 computers. The State College of Science contracted with AllClear ID to mail letters, to provide call center services, and to provide identity theft protection for one year for every individual with personal information on the computers. The State College of Science is in the process of conducting forensic analysis on the computers, changing administrative passwords, installing malware detection software, installing a new firewall, and reviewing information technology security plans.

Elementary and Secondary Education

The committee learned the Educational Technology Council is created by Section 54-59-17 for coordinating education 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. The PowerSchool application has been implemented in all elementary and secondary schools and was updated in the summer of 2014. EduTech staff is in the process of implementing Microsoft Office 365 in schools.

The committee learned the Center for Distance Education provides North Dakota's online distance education. The center has modified its mission to ensure that all North Dakota middle and high school students regardless of location have access to educational opportunities. The center's key objectives are to:

- Reduce the cost of courses.
- Increase North Dakota enrollments.
- Increase electives and advanced courses in small schools.
- Establish partnerships.
- Increase the center's performance.

North Dakota enrollments in distance education increased from 511 in 2008 to 2,749 in 2013. The course completion rate in 2013 was 94.1 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 have also 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.

Recommendations

The committee recommends a bill [[15.0369.02000](#)] related to higher education information technology including email systems, email retention, and records retention policies. The bill amends Section 15-10-44(1) to require all institutions under the control of the State Board of Higher Education to receive email services through one consolidated system operated by the State Board of Higher Education. The bill also requires the State Board of Higher Education and the institutions under the control of the State Board of Higher Education to retain all emails for five years. The bill also clarifies that the State Board of Higher Education and the institutions under the control of the State Board of Higher Education are included in the state's record retention policies.

The committee recommends a bill [[15.0370.01000](#)] related to information technology reports from the State Board of Higher Education. The bill amends Sections 54-35-15.2(11) and 54-59-12 to require the Chief Information Officer of the University System rather than the Commissioner of the State Board of Higher Education to coordinate with ITD and to report to the Information Technology Committee.

INFORMATION TECHNOLOGY RELATED STUDIES

The Legislative Management assigned the committee the responsibility to study Voice over Internet Protocol (VoIP) service and the effect of this service and other technologies on the telecommunications industry, including any recommended changes in regulation and taxation and to study issues related to the development of the current radio communication plan, its costs and components, and evolving technologies that will better serve the public. The committee also received the results of a desktop support study, information technology hardware relocation and consolidation study, and an information technology staffing analysis of the Department of Public Instruction.

Voice Over Internet Protocol Service Study

The Information Technology Committee was assigned a study of VoIP service pursuant to Section 1 of 2013 Senate Bill No. 2234. The study was to include consideration of changes in regulation and taxation.

Background Information

The committee learned there were no previous studies of VoIP service. The 2013 Legislative Assembly considered Senate Bill No. 2234 that, as introduced, precluded state entities and political subdivisions from regulating VoIP and Internet Protocol (IP) services. The bill was amended to provide for a Legislative Management study of VoIP service, which was approved by the 2013 Legislative Assembly.

Issues Related to Voice Over Internet Protocol Service

The committee learned one of the issues related to VoIP service is the operability of 911 services. When using VoIP service, data and voice messages are transmitted over the Internet, and public safety authorities may not be able to determine the location of the caller. VoIP service users must register their location with the VoIP provider so the caller's location is available for public safety authorities. VoIP service may not be available during a power outage unless there is a battery backup to power an Internet connection. When VoIP service was initially available, VoIP service providers did not always collect and remit fees to political subdivisions for emergency services communications systems. As of 2012, at least 16 VoIP service providers were collecting and remitting the appropriate fees.

The committee learned another issue related to VoIP service is state and federal regulation. Traditional telephone service has been regulated by the Federal Communications Commission (FCC) since 1934, but regulations for VoIP are still being developed. The FCC is the primary regulator for VoIP, and state regulation has generally been limited to emergency services communication and consumer protection. State and local governments retain the ability to collect taxes and fees from companies that provide VoIP services. Recently, at the request of telecommunications companies, states have passed legislation to prohibit VoIP and IP service regulation at the state and local level, essentially providing that VoIP and other IP services will be regulated only at the federal level. As of 2013, 29 states, including California, Texas, Wisconsin, Illinois, and Indiana, have passed legislation to limit state and local regulation of VoIP services. Telecommunications companies assert this type of legislation provides stability as they invest in infrastructure upgrades.

The committee received information from the Public Service Commission regarding VoIP regulation in North Dakota. The Public Service Commission does not have jurisdiction to regulate VoIP services based on current North Dakota and federal laws. The Public Service Commission works to ensure that VoIP customers are receiving fair rates for communication services. The Public Service Commission also assists customers and providers to resolve conflicts, such as coverage gaps.

The committee learned from VoIP service providers VoIP and other IP services may provide technical advantages and lower costs compared to traditional landline phone service. VoIP technology can transmit video, data, and voice messages, but traditional landline phones are limited to voice messages. VoIP services have helped businesses to reduce communication costs, enhance efficiencies, and create new opportunities. The committee learned from a representative of the American Legislative Exchange Council regulating VoIP service under utility and retail laws could increase the cost of VoIP service for consumers and could decrease VoIP service and infrastructure innovation and development.

Recommendation

The committee makes no recommendation regarding the study of VoIP service.

Study of Issues Related to the State Radio Communication Plan

The committee was assigned a study of issues related to the State Radio communication plan pursuant to Section 3 of 2013 Senate Bill No. 2353. The study was to consider input from city, county, and state public safety entities, including members represented on the Statewide Interoperability Executive Committee.

Background Information

The committee learned the 2007-08 Public Safety Committee conducted a study of the Department of Emergency Services, including the Division of State Radio. The committee recommended several bill drafts, including a bill draft to provide a \$7.2 million general fund appropriation to the Adjutant General for purchasing or leasing infrastructure and equipment for up to eight additional radio towers to expand coverage of the State Radio system. The 2009 Legislative Assembly did not provide funding for additional radio towers but did include funding of \$500,000 in House Bill No. 1016 to study the effects of NG911 (\$100,000), alternatives to constructing new State Radio towers (\$75,000), and implementing a new State Radio tower site near Wales (\$325,000).

The committee learned the 2009-10 Public Safety and Transportation Committee and the 2009-10 Taxation Committee studied the equity of the 911 fee structure, including consideration of fees, taxes, assessments for services, equity of services, and payments among residents in service areas; fee collection methods; and current and future funding of emergency services communications in the state. The Public Safety and Transportation Committee recommended 2011 House Bill No. 1045, which was approved by the Legislative Assembly, to provide for changes in emergency communications operating standards as recommended by the Emergency Services Communications Coordinating Committee. The committee also recommended 2011 Senate Bill No. 2046, which was not approved by the Legislative Assembly, to provide \$110,302 for the operations costs of the state message switch, to provide \$5,500,000 for purchasing or leasing up to 12 additional State Radio towers, and to increase fees charged for the use of the law enforcement teletype system.

The committee learned the 2013 Legislative Assembly considered Senate Bill No. 2353 that, as introduced, created a Statewide Interoperability Board and provided an appropriation of \$5 million to purchase radio-related communications equipment. The bill was amended to rename the Statewide Interoperability Board the North Dakota Statewide Interoperability Executive Committee, to remove the \$5 million appropriation, and to provide an appropriation of \$25,000 for costs related to the Statewide Interoperability Executive Committee. The Legislative Assembly approved Senate Bill No. 2353 as amended.

State Radio Broadcasting System Infrastructure

The committee learned the State Radio broadcast system is comprised of the dispatch center located in Bismarck and remote tower locations across the state. The original broadcast equipment transmitted radio frequencies using analog signals. In 2004 the Department of Emergency Services entered an \$8.1 million lease purchase agreement with Motorola for the conversion of the Division of State Radio tower infrastructure and base equipment from analog to digital. The final lease payment on the infrastructure and equipment was made during the 2011-13 biennium.

The committee learned State Radio identified coverage gaps in the broadcast system during the 2007-08 interim, and the 2009 Legislative Assembly provided \$500,000 for a study of NG911 (\$100,000), alternatives to constructing new State Radio towers (\$75,000), and implementing a new tower site near Wales (\$325,000). The 2011 Legislative Assembly provided \$1,500,000 for the construction of new towers to address some of the coverage gaps, and the 2013 Legislative Assembly provided \$1,175,000 for more radio towers.

The committee learned the federal Middle Class Relief and Job Creation Act of 2012 created the First Responder Network Authority (FirstNet) as an independent authority within the United States Department of Commerce National Telecommunications and Information Administration to provide emergency responders with the first high-speed, nationwide network dedicated to public safety. Upon completion of the switch from analog to digital television, the FCC established portions of the 700 megahertz (MHz) radio frequency to establish a nationwide, interoperable wireless broadband communications network for state, local, and tribal public safety personnel. The 700 MHz signal can be broadcast over large geographic areas and can provide enhanced capabilities for smartphones, tablets, laptops, and other mobile devices. FirstNet is currently seeking input from communications device manufacturers to identify cost-effective solutions for a high-speed network, including equipment capable of broadcasting and receiving 700 MHz signals. Although the network has not yet been established, this development reflects the future of public safety communications.

The committee received information from a representative of the Grand Forks Public Safety Answering Point regarding the operations of a public safety answering point (PSAP). The committee conducted a tour of the Grand Forks Public Safety Answering Point and observed the information technology hardware used at the PSAP.

The committee received information from representatives of the Attorney General's office, Highway Patrol, the Game and Fish Department regarding the agencies' use of the radio broadcast system. The Attorney General's office did not have any concerns or issues with its use of the radio broadcast system. Based on an internal assessment, 44 percent of Highway Patrol troopers reported receiving unclear transmissions multiple times per day. The Game and Fish Department's use of the radio broadcast system has decreased in recent years because of the use of mobile phones.

The committee received information from a representative of the Statewide Interoperability Executive Committee regarding the committee's activities. The Statewide Interoperability Executive Committee conducted a communications survey and received approximately 400 responses from users of the radio broadcast system. The Statewide Interoperability Committee was in the process of receiving funding commitments from state agencies and other emergency services provider organizations for a land mobile radio study. The Statewide Interoperability Committee received a proposal from Televate to conduct the study at a cost of \$200,000, and the Statewide Interoperability Committee plans to proceed with the study when all of the funding commitments have been received. The Statewide Interoperability Committee anticipates providing the results of the study to the 2015 Legislative Assembly.

Recommendation

The committee makes no recommendation regarding the study of issues related to the State Radio communication plan.

Desktop Support Study

The committee received a report from ITD regarding the results of a desktop support study pursuant to Section 9 of 2013 Senate Bill No. 2021. The committee learned ITD contracted with Eide Bailly LLP to conduct the study. The study included interviewing employees from over 50 agencies and comparing agency practices to industry benchmarks. The results of the study included the recommendation for a hybrid model in which ITD would provide desktop support to 32 smaller agencies, while 16 larger agencies would provide their own desktop support.

Recommendation

The committee recommends a bill [[15.0157.03000](#)] related to the implementation of the results of a desktop support study. The bill creates a new section in Chapter 54-59 and amends Section 54-59-05. The bill requires approximately 35 state agencies to obtain centralized desktop support services from ITD and requires the department to make available five major desktop support services for all state agencies. The five major desktop support services include procurement services, information technology hardware inventory management services, a standardized system to track user issues, antivirus software, and mobile device management services.

Hardware Relocation and Consolidation Study

The committee received a report from OMB regarding the results of an information technology hardware relocation and consolidation study pursuant to Section 8 of 2013 Senate Bill No. 2021. The committee learned OMB contracted with UmmelGroup International, Inc., to conduct the study. Based on the results of the study, consolidation of the information technology equipment is unlikely to provide significant cost-savings, but relocating the hardware to the ITD data centers would increase physical and network security. The recommendations of the study include consolidating and relocating the information technology hardware from the Public Service Commission, the Department of Mineral Resources, and the State Water Commission to ITD. The study results recommended not consolidating and relocating the hardware from the Attorney General's office because of the federal security requirements related to the Criminal Justice Information Sharing (CJIS) Initiative. The recommendation is to consolidate only the hardware and not information technology staff. Benefits of consolidation include enhanced security, improved backup and redundancy measures, and the potential for up to 15 percent time saving for the agencies' information technology staff. The results identified that the risks of consolidation include personality conflicts, loss of key agency personnel, and additional time required to learn a new system. The committee learned OMB will not be proposing any legislative changes related to information technology hardware consolidation and relocation nor will it be reflecting the consolidation recommendations in the executive budget.

Recommendation

The committee recommends a bill [[15.0156.01000](#)] related to the implementation of the results of a hardware relocation and consolidation study. The bill exempts the information technology hardware operated by the Attorney General's office from consolidation and relocation and removes the ability of OMB to grant exemptions from the required use of hosting services and other information technology-related services. As a result, the information technology hardware operated by the Department of Mineral Resources, Public Service Commission, and State Water Commission would be relocated and consolidated to ITD.

Information Technology Staff Analysis

The committee received information from the Department of Public Instruction (DPI) regarding the results of an information technology staffing analysis pursuant to Section 15 of 2013 House Bill No. 1013. Eide Bailly LLP completed the analysis and made the following recommendations:

- Establish a clear organizational separation between the research and management information system functions within DPI;
- Maintain the current organizational structure of 4 full-time equivalent (FTE) programmer positions within DPI;

- Transfer 2 FTE internal management information system support positions to ITD;
- Establish a measurement and accountability section consisting of 4 FTE positions within DPI;
- Establish a shared technical support function with the Educational Technology Council; and
- Complete a planned data mapping project to confirm DPI's use of collected data.

Recommendation

The committee makes no recommendations regarding the information technology staff analysis.

OTHER INFORMATION
2015-17 Biennium Rates and Budget Request

The committee received information from representatives of ITD regarding technology rates for the 2015-17 biennium. Assuming state agencies purchase the same level of services in the 2015-17 biennium as the most recent 12-month period, the department estimates fee changes for the 2015-17 biennium will generate approximately a total of \$3.3 million more revenue to the department. A \$20 million bond for ConnectND will be fully paid in July 2014 resulting in savings of approximately \$1.4 million for the 2015-17 biennium.

The following is a summary of select rates for the 2015-17 biennium compared to the 2013-15 biennium:

Description of Service	2013-15 Budget Rate	2015-17 Budget Rate
Analyst/project manager	\$69/hour	\$73/hour
Analyst II	\$75/hour	\$81/hour
Analyst III	\$83/hour	\$95/hour
Senior analyst/senior project manager	\$94/hour	\$105/hour
Architect	\$99/hour	\$122/hour

The committee requested information regarding the ITD budget request for the 2015-17 biennium, including information on total funding being requested compared to the 2013-15 legislative appropriation and information on major increases and decreases. The committee learned the department had not submitted its 2015-17 budget request at the time of this report, 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 2013-15 biennium, Cyber Security Solutions Division, ManTech Mission, Cyber, and Intelligence Solutions Group performed the testing. The testing included external vulnerability assessment, internal vulnerability assessment, application vulnerability assessment, security assessment of nonconsolidated information technology services, and penetration testing. The following is a summary of the findings:

Test	Findings
External vulnerability assessment	There were three high-risk vulnerability findings, seven medium-risk vulnerability findings, and one low-risk vulnerability finding. The findings were classified into two categories--misconfigured systems or applications and operating systems or software applications that were missing critical security patches.
Internal vulnerability assessment	There were 24 high-risk vulnerability findings and 3 medium-risk vulnerability findings. The findings are classified into two categories--misconfigured systems or applications and operating systems or software applications that were missing critical security patches.
Application vulnerability assessment	The NDGOV State Portal has one medium-risk vulnerability finding, and the CJIS application has two medium-risk vulnerability findings.
Security assessment of nonconsolidated information technology services	The physical security measures varied greatly between the agencies depending on the specific mission of the agency assessed. The physical security of the agencies assessed ranged from adequate to very good.
Penetration testing	The test team was able to access either user- or system-level access during five of the nine executed scenarios. The test team did not succeed in achieving system access on the remaining four 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 included maturing a structured patch management program, segregating critical servers and development systems, requiring the use of encrypted protocols for remote management, restricting access to protocols for remote management from the Internet, and developing a formal vulnerability scanning program for nonconsolidated services.

Statewide Longitudinal Data System Initiative

The committee received information from representatives of ITD and the University System regarding the statewide longitudinal data system. The Information Technology Department and the University System continue to support the development of the statewide longitudinal data system both technically and professionally. The benefits of the system include the ability to conduct research including a project completed in September 2014 related to remediation classes.

Health Information Technology

The committee learned the North Dakota Health Information Network became operational in March 2014. The project was completed under budget at a cost of approximately \$5.1 million, but two months behind schedule. All of the major hospitals in the state are connected to the system and over 90 percent of all hospitals in the state are anticipated to have electronic health records implemented by the end of calendar year 2015. As of September 2014, approximately 400,000 users are registered in the North Dakota Health Information Network. Health care providers reported that the health information technology revolving loan fund is a major contributing factor in the implementation of an electronic health records system. Patients can view their medical records through the patient portal, but may have to access multiple portals to view all of their medical records because each health care provider has a separate portal for its patients. Additional features and applications may be added to the network in the future, including an image exchange viewer to allow x-rays and other medical images to be shared electronically.

The committee learned ITD is in the process of developing 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 hub could be used to create registries and would allow health information to be exchanged securely between health care providers, pharmacies, law enforcement, school systems, and other state and federal agencies.

New Information Technology Building

The committee learned ITD moved into a new building in August 2014. The building is approximately 85,000 square feet and allowed the department to consolidate staff from five separate locations into one location. The lease rate is \$17 per square foot for 10 years. The terms of the lease allow the department to renew the lease for an additional 10 years. The committee conducted a tour of the building located at 4201 Normandy Street, Bismarck.

Information Technology Staff Transfer

The committee learned 4 FTE positions were transferred from Workforce Safety and Insurance to ITD pursuant to 2013 Senate Bill No. 2021. Workforce Safety and Insurance's average monthly billable time per FTE position for fiscal year 2014 was 86 percent for a total of \$494,305 resulting in an increase of \$173,705 in the agency's costs. The Information Technology Department and Workforce Safety and Insurance will continue to collaborate to determine the most efficient billing methods and rates.

High-Speed Internet Initiative

The committee received information regarding the Dakota Fiber Initiative. The Information Technology Council of North Dakota is in the process of developing the Dakota Fiber Initiative to provide affordable, world-class Internet speed and reliability to every individual in the state. The Information Technology Council of North Dakota completed an Internet supply and demand analysis in Fargo and West Fargo and is in the process of completing a statewide assessment at the time of this report. The Information Technology Council of North Dakota is exploring policies to encourage telecommunications companies to increase the availability and affordability of high-speed Internet across the state. The committee observed a demonstration of broadband capabilities which included browsing websites on two computers with varying Internet connection speeds.