INFORMATION TECHNOLOGY COMMITTEE

North Dakota Century Code (NDCC) Section 54-35-15.1 requires the Legislative Council during each biennium to appoint an Information Technology Committee in the same manner as the Council 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.

North Dakota Century Code 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.
4. Review macro-level issues relating to information technology.
5. Review the activities of the Information Technology Department.
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 the Information Technology Department 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 $250,000 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 the Information Technology Department 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 cost of $250,000 or more in one biennium or a total cost of $500,000 or more.
12. Receive and review information from the Information Technology Department and the affected agency regarding any information technology project of an executive branch agency with a total cost of between $100,000 and $250,000 as determined necessary by the Information Technology Department.
13. 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.
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 $250,000 or more.
15. Receive information from the State Board of Higher Education regarding higher education information technology planning, services, and major projects.

North Dakota Century Code Section 54-35-15.3 authorizes the Information Technology Committee to review any information technology project or information technology plan. The section provides that if the committee determines that 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 the suspension of the expenditure or money 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.

North Dakota Century Code Section 54-35-15.4 provides that 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 was also assigned the responsibility for receiving:

- A report from the State Board of Higher Education regarding higher education information technology planning, services, and major projects pursuant to NDCC Sections 15-10-44 and 54-35-15.2.
- A report from the Statewide Longitudinal Data System Committee before the 61st Legislative Assembly on the status of the plan for a longitudinal data system pursuant to NDCC 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 pursuant to NDCC 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 the Information Technology Department and higher education pursuant to NDCC Section 54-59-12.
- A report from the Information Technology Department regarding any executive branch agency or institution that does not agree to conform to its information technology plan or comply with statewide policies and standards pursuant to NDCC Section 54-59-13.
- The annual report from the Information Technology Department pursuant to NDCC Section 54-59-19.
- Reports from the Department of Corrections and Rehabilitation during the planning phase of the department's development of an inmate medical system and a project startup report before the inmate medical system is implemented pursuant to Section 12 of House Bill No. 1015 (2007).

Committee members were Senators Larry J. Robinson (Chairman), Randel Christmann, Richard Marcellais, Tom Seymour, and Rich Wardner; Representatives Craig Headland, Keith Kempenich, David Monson, Kenton Onstad, Mark S. Owens, and Robin Weisz; and Chief Information Officer Lisa Feldner.

The committee submitted this report to the Legislative Council at the biennial meeting of the Council in November 2008. The Council accepted the report for submission to the 61st Legislative Assembly.

PRIORITIZATION OF PROPOSED MAJOR COMPUTER SOFTWARE PROJECTS

North Dakota Century Code 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 committee regarding major computer software projects to the Information Technology Committee, Office of Management and Budget, and Appropriations Committees of the Legislative Assembly.

The committee received information from the Information Technology Department regarding the prioritization of proposed major computer software projects for the 2009-11 biennium and learned executive branch agencies developed and internally prioritized information technology projects, submitted their information technology budgets into the budget analysis and reporting system, and identified projects required to be prioritized by the State Information Technology Advisory Committee. The Information Technology Department compiled the information technology projects over $250,000 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 of these projects to the State Information Technology Advisory Committee for the committee's prioritization.

The State Information Technology Advisory Committee met on August 24-25, 2008, and prioritized major executive branch computer software projects for the 2009-11 biennium as follows:

	General Fund Projects			
			Preliminary Project Budget	
	Project	Agency	General Fund	Total Funds
1	Statewide seamless base map	Adjutant General	$2,100,000	$2,100,000
2	Computer-aided dispatch - Phase 2	Adjutant General	2,000,000	2,000,000
3	Additional State Radio towers	Adjutant General	7,200,000	7,200,000
4	Longitudinal data system	Information Technology Department	6,085,270	6,085,270
5	Eligibility determination system replacement	Department of Human Services	9,250,000	18,500,000
6	North Dakota business development engine	Secretary of State	3,400,698	3,400,698
6	Elementary and secondary education PowerSchool hosting	Information Technology Department	3,180,000	3,180,000
8	Taxpayer access program/financial institution tax	Tax Department	1,250,000	1,250,000
9	Criminal Justice Information Sharing (CJIS) Initiative project pool	Information Technology Department	1,027,535	1,327,535
10	Oil and gas taxes - GenTax integration	Tax Department	1,500,000	1,500,000
11	Business intelligence and data warehouse	Office of Management and Budget	500,000	500,000
12	Data center remodel	Information Technology Department	1,635,000	1,635,000
13	Integrate offender management systems	Department of Corrections and Rehabilitation	3,000,000	3,000,000
	Total		$42,128,503	$51,678,503

	Special Funds Projects		
	Project	Agency	Preliminary Project Budget
1	Student loan lender system	Bank of North Dakota	$3,500,000
2	Lab information management system replacement	Attorney General's office	700,000
3	Driver's license system replacement	Department of Transportation	15,000,000
4	System web portal	Workforce Safety and Insurance	1,500,000
5	Enterprise e-mail retention	Information Technology Department	1,065,000
6	FileNet - Phase 2	Workforce Safety and Insurance	950,000
7	Claims scanning	Workforce Safety and Insurance	350,000
	Total		$23,065,000

Federal Funds Projects		
Project	**Agency**	**Preliminary Project Budget**
1 Offender checking	Attorney General's office	$731,328
2 Longitudinal data system	Department of Public Instruction	5,000,000
3 Asset management analysis	Department of Transportation	503,000
Total		$6,234,328

The Information Technology Department will revise the prioritizations to reflect those projects that are included in the Governor's 2009-11 biennium budget and will present the prioritizations to the Appropriations Committees of the 2009 Legislative Assembly.

INFORMATION TECHNOLOGY DEPARTMENT STRATEGIC PLAN

North Dakota Century Code Section 54-59-06 requires the Information Technology Department to develop and maintain a business plan. Pursuant to that directive, the department prepared a strategic business plan for the 2009-11 biennium. The plan includes 23 objectives relating to the department's mission to provide leadership and knowledge to assist customers in achieving information technology. The following is a summary of the objectives included in the plan:

Perspectives	Objectives
Customer	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
Financial	Make cost-effective investments
	Manage revenue
	Align rates with customer business needs
	Manage statewide technology spending
Internal processes	Standardize processes and approaches
	Deliver reliable and available services
	Deliver solutions on schedule
	Deliver projects on time and within budget
	Capture and followup on customer feedback
	Continuous sharing and understanding of business needs
	Plan for technology change
	Provide guidance on information technology best practices
	Deploy enterprise solutions
Learning and growth	Attract and hire quality people
	Maintain high employee satisfaction
	Support employee growth and development
	Retain talented employees

INFORMATION TECHNOLOGY DEPARTMENT ANNUAL REPORT

North Dakota Century Code Section 54-59-19 requires the Information Technology Department to prepare an annual report on information technology projects, services, plans, and benefits. Pursuant to that directive the department prepared a report 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	Wisconsin Division of Enterprise Technology Rates
Central computer central processing unit (CPU rates)	**Batch CPU** - $.93 per second	**Batch CPU** - $1.36 per second	**Batch CPU** - $2.36 per second	**Batch CPU** - $.51 per second
	CICS CPU - $.93 per second	**CICS CPU** - $1.36 per second	**CICS CPU** - $.69 per second	**CICS CPU** - $.67 per second
	ADABAS CPU - $.98 per second	**ADABAS CPU** - $1.36 per second	**ADABAS CPU** - $1.34 per second	**ADABAS CPU** - $.67 per second

Service	North Dakota Information Technology Department Rates	South Dakota Bureau of Information and Telecommunications Rates	Montana Information Technology Services Division Rates	Wisconsin Division of Enterprise Technology Rates
Network fees	**TSO CPU** - $.93 per second **Device fee** - $30.75 per device per month **DSL service** - Actual cost (ranges from $40 to $120) **ATM T-1 service** - $890 per month	**TSO CPU** - $1.36 per second **Device fee** - $40 per device per month **DSL service** - N/A **ATM T-1 service** - N/A **Access fee** - $65 per device per month	**TSO CPU** - $2.88 per second **Device fee** - $85.75 per device per month **DSL service** - $250 per month **ATM T-1 service** - $650 per month	**TSO CPU** - $.67 per second **Device fee** - $55 per device per month **DSL service** - $665 per month **ATM T-1 service** - $1,067 per month

Telephone Fees	
North Dakota Information Technology Department rates	Telephone line - $24 per device per month Speaker function - $3 per month Display function - $2 per month Voice mail (unlimited) - $5 per month
South Dakota Bureau of Information and Telecommunications rates	Telephone line - $13 per device per month Speaker function - Actual cost Display function - Actual cost Voice mail (unlimited) - $6 per month
Montana Information Technology Services Division rates	Telephone line - $14 per device per month Speaker function - $7 to $11 per month Display function - $3 to $7 per month Voice mail (three-minute limit) - $5 per month Voice mail (six-minute limit) - $8 per month Voice mail (eight-minute limit) - $10 per month
Wisconsin Division of Enterprise Technology rates	Telephone line - Per mile/drop Speaker function - Actual cost Display function - Actual cost Voice mail (unlimited) - $5.50 per month

Long Distance	
North Dakota Information Technology Department rates	In state - $.075 per minute Out of state - $.075 per minute 800 service - $.07 per minute
South Dakota Bureau of Information and Telecommunications rates	In state - $.08 per minute Out of state - $.09 per minute 800 service - $.09 per minute
Montana Information Technology Services Division rates	In state - $.105 per minute Out of state - $.105 per minute 800 service - $.10 per minute
Wisconsin Division of Enterprise Technology rates	In state - $.031 per minute Out of state - $.031 per minute 800 service - $.044 per minute
Minnesota Department of Administration rates	In state - $.07 per minute Out of state - $.20 per minute 800 service - $.049 per minute
Nebraska Division of Communications rates	In state - $.07 per minute Out of state - $.07 per minute 800 service - $.08 per minute

Software Development		
	Location	**Billing Rate Per Hour of Service**
Information Technology Department	Bismarck, North Dakota	$58 to $63
Applied Engineering, Inc.	Bismarck, North Dakota	$75 to $125
Eide Bailly LLP	Bismarck, North Dakota	$95 to $155
Enterprise Solutions, Inc.	Bismarck, North Dakota	$75 to $120
Nexus Innovations	Bismarck, North Dakota	$95 to $125
Vision Technology, Inc.	Bismarck, North Dakota	$70 to $75
Everest Consultants, Inc.	Beaverton, Oregon	$63 to $95
CIBER, Inc.	Vancouver, Washington	$65 to $100
Compuware	Plymouth, Minnesota	$80 to $120
Maximus	Rancho Cordova, California	$145 to $185

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 2008)	Target
Acceptable level of total net assets	2005 - 2.0 2006 - 1.4 2007 - 1.7	1.4	< or = to 2.0
Percentage of Information Technology Department rates reported in the annual report that are competitive	2006 - 100% 2007 - 100%	100%	100%
Total number of customer projects and service requests completed: • Service requests • Incidents	2007 28,564 48,792	32,105 53,738	Monitor Monitor
Customer satisfaction indexes (percentages satisfied or very satisfied) related to: • Value • Timeliness • Quality • Knowledge • Professionalism and courtesy	2006 - 2007 91.7% - 87.3% 92.5% - 87.4% 93.7% - 95.5% 93.1% - 94.8% 96.5% - 97.1%	 86.9% 86.9% 93.0% 97.0% 99.0%	 92% 97% 97% 98% 100%
Employee satisfaction index	2006 - 2.13 2007 - 2.13	2.13	2.0
Controllable employee turnover	2006 - 7.0% 2007 - 4.6%	6.8%	Below 6.0%
Percentage of service levels met	100%	100%	100%
Percentage of strategic business plan objectives completed or on schedule	2006 - 85% 2007 - 46%	43%	75%

POLICIES, STANDARDS, AND GUIDELINES

North Dakota Century Code Section 54-59-09 requires the Information Technology Department 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
Information Technology Department	5
Application software	3
Communications	2
Data and information	4
Desktop	5
Document management	6
E-government	9
Network	7
Security	10
Servers and storage	1
Total	52

INFORMATION TECHNOLOGY PLANS

North Dakota Century Code 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 subject to acceptance by the Information Technology Department. The plan must be submitted to the department by July 15 of each even-numbered year. The plan must be prepared based on guidelines developed by the department; must emphasize the long-term strategic information technology goals, objectives, and activities for the current biennium and next two bienniums; and must include a list of information technology assets owned, leased, or employed by the entity. 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 July 15 of each even-numbered year. Based on the information technology plans, the department must prepare a statewide information technology plan.

The committee received information from the Information Technology Department regarding information technology plans and learned 46 of the 53 state agencies submitted their information technology plans on or before July 15. Four additional state agencies submitted their information technology plans by October 1. Two of the remaining three state agencies plan to submit their information technology plans by the end of October 2008. The remaining state agency--State Fair Association--does not intend to file a plan. The department will present to the 2009 Legislative Assembly a statewide information technology plan that 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.

MAJOR 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 the Office of

Management and Budget 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 major information technology project, which is defined in statute to be an executive, judicial, or legislative branch project with a cost of $250,000 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 Life Cycle Processes

The committee learned the project management life cycle for major information technology projects consists of five processes--project origination, project initiation, project planning, project execution and control, and project closeout. The following is a summary of the project management life cycle processes and activities relating to planning and executing major information technology projects:

Project Management Life Cycle Processes	Activities

Project origination - Evaluate projects proposed for the next planning cycle and reach a consensus on the projects to be selected	1. Agencies identify projects to create a product or develop a service that can solve a problem or address a need within the agency.
	2. 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.
	3. Agencies prioritize information technology projects and submit their information technology budgets into the budget analysis and reporting system. 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.
	4. The State Information Technology Advisory Committee, a committee created by NDCC 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:
	  a. The Information Technology Department sorts proposed information technology projects over $250,000 into the following three categories:
	    (1) Projects requesting funds from the **general fund**.
	    (2) Projects requesting funds from **special funds** sources.
	    (3) Projects requesting funds from **federal funds**.
	  b. State agencies **self-score projects** 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, on the projects to the State Information Technology Advisory Committee.
	  d. The State Information Technology Advisory Committee prioritizes the projects by funding source category.
	  e. The Information Technology Department forwards the prioritizations to the Information Technology Committee and the Office of Management and Budget for consideration in the development of the Governor's budget recommendation.
	5. The Governor selects projects to be funded in the executive budget recommendation.
	6. The Information Technology Department revises the prioritizations to reflect those projects that are funded in the Governor's budget recommendation and presents the prioritizations to the Appropriations Committees of the Legislative Assembly.
	7. The Legislative Assembly selects projects to be funded in the legislatively approved budget.
	8. Agencies refine the business cases as appropriate for those projects funded in the legislatively approved budget.
	9. Agencies submit a copy of the final business case for a project to the Information Technology Department.

Project initiation - Define the overall parameters of a project and establish the appropriate project management and quality environment required to complete the project	10. 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. 11. Agencies submit a copy of the project charter to the Information Technology Department prior to any project expenditures or signing of vendor contracts.
Project planning - Define the exact parameters of a project and ensure that all the	12. Agencies complete planning for a project by completing and approving a project plan. A project plan should identify specific milestones throughout the project and their 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.

Project Management Life Cycle Processes	Activities
prerequisites for the project execution and control are in place	13. Agencies submit a copy of the project plan to the Information Technology Department after the plan has been approved by the project sponsor. 14. 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.
Project execution and control - Develop the project or service that the project was commissioned to deliver	15. Agencies launch the project. The assigned project manager is to manage every aspect of the project to ensure that all the work is being performed correctly and on time. 16. Agencies submit a project status report to the Information Technology Department 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. 17. Each calendar quarter, the Information Technology Department prepares a large project summary report that summarizes the performance of large information technology projects and submits the report to the Information Technology Committee. 18. Agencies formally acknowledge that all deliverables produced during project execution and control have been completed, tested, accepted, and approved by the project sponsor.
Project closeout - Assess the project and derive any lessons learned and best practices to be applied to future projects	19. 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. 20. 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. 21. Agencies submit a copy of the postimplementation review to the Information Technology Department. 22. 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.

Review of Major Information Technology Projects

The committee received and reviewed quarterly reports of major information technology projects compiled by the Information Technology Department, project startup and project closeout reports relating to major information technology projects, 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 Human Services	Children with disabilities project	Senate Bill No. 2326 (2007) provides optional medical assistance for families of children with disabilities whose net income does not exceed 200 percent of the federal poverty level. The project consists of the information technology changes necessary to implement the new program.	$306,826	February 2008
Department of Human Services	Medicaid enterprise management and administrative reporting system	Implementation of an enterprise management and administrative reporting system to provide Medicaid utilization and budget forecasting reports	$337,114	February 2008
Department of Transportation	Time and labor project	Automate the manual-based paper timesheet process with electronic authorization and workflow	$318,118	January 2008
Department of Transportation	Geographic information system (GIS) image log project	Create a web-enabled, geographically driven image log application that will utilize current payment management images as well as the state's current GIS infrastructure	$229,200	May 2007
Attorney General's office	Automated fingerprint identification system upgrade	Upgrade of the automated fingerprint identification system equipment and software used in partnership by the North Dakota Bureau of Criminal Investigation, Minnesota Bureau of Criminal Apprehension, and South Dakota Division of Criminal Investigation	$385,025	December 2007
Information Technology Department	STAGEnet video transition project	Transition of the service and operation of the videoconferencing network for kindergarten through grade 12, state agencies, and political subdivisions from the North Dakota University System Interactive Video Network to the Information Technology Department	$385,882	September 2007

		Project Startup Reports		
Agency	**Project Name**	**Project Description**	**Estimated Cost**	**Estimated Completion Date**
Legislative Assembly	Legislative applications replacement system project - Phase 2	Replacement of legislative applications	$3,910,825	November 2008
Information Technology Department	Project management information system	Acquisition, implementation, configuration, support, and end-user training of an enterprise management information system to be used by state agencies to support the application of project management principles and methodologies	$283,030	March 2008
Workforce Safety and Insurance	Information technology transformation program system replacement project - Phase 2	Replacement of existing core business applications with a commercial, off-the-shelf integrated software solution. Phase 2 of the project is the implementation phase of the selected solution--Valley Oak Systems' iVOS product.	$12,813,171 with $1,186,829 in reserve	December 2009
Public Employees Retirement System	PERSLink	Implementation of a new integrated benefits administration system that will include web-enabled, self-service functionality	$10,502,214	September 2010
Judicial branch	Unified court information system	Implementation of a commercial, off-the-shelf case management system to replace the current unified court information system	$5,375,000 to $7,375,000	July 2011
State Treasurer's office	Tax distribution rewrite	Rewrite of the existing outstanding checks and tax distribution applications to a new language for a more user-friendly and easy to maintain environment	$664,942	May 2009
Job Service North Dakota	Unemployment insurance modernization program	Conversion of the agency's unemployment insurance system functionality to a modern integrated system that is more capable of quickly adapting to the changing needs of internal and external stakeholders	$15,000,000	Seven- to nine-year program
Department of Corrections and Rehabilitation	Inmate medical system	Obtain and implement an electronic medical record system that allows the agency to administer, manage, and record all aspects of medical care provided to both adult and juvenile offenders	$1,000,000	May 2009
Department of Public Instruction	Foundation aid system rewrite project	Establish an educational portal to be accessed by department staff, school administrators, and special education administrators to aid in reducing duplicate data collection and collaborating on information dissemination	$350,000	June 2009
Department of Public Instruction	Special education individualized education program project	Implementation of a statewide web-based special education case management system	$1,000,000	December 2008
Department of Public Instruction	Teacher licensure application rewrite project	Rewrite of the department and the Education Standards and Practices Board systems from the mainframe to a modern architecture capable of meeting the data reporting demands that are required by federal and state laws	$665,400	June 2009
Department of Human Services	Master client index project	Provide the base architecture needed to create a single client view across the department's services and programs	$686,603	October 2009
Department of Human Services	Children and family services front-end project	Implementation of a single case management system for the department's child abuse and neglect, in-home treatment and wraparound, and foster care programs	$1,027,257	August 2009
Department of Human Services	Continuous Medicaid eligibility project	Modification of the department's eligibility system--Vision--to accommodate continuous Medicaid eligibility for children under 19 years of age who are either categorically needy or optionally categorically needy	$366,502	October 2008
Department of Human Services	Electronic benefits transfer reprocurement project	Reprocurement of a vendor to provide electronic benefits transfer of food stamps benefits	$320,000	September 2009
Information Technology Department	Criminal Justice Information Sharing (CJIS) Initiative portal 2.0 project	Modification of the CJIS portal so the addition of new record types is completed by configuration rather than by development	$280,000	January 2009

Project Startup Reports				
Agency	**Project Name**	**Project Description**	**Estimated Cost**	**Estimated Completion Date**
Office of Management and Budget	Absence management	Implementation of an online, self-service absence request and management application	$551,000	November 2008
State Department of Health	Disease surveillance and management system	Implementation of a flexible and configurable, commercial, off-the-shelf electronic disease surveillance and outbreak management system	$550,000	March 2009

Project Closeout Reports				
Agency	**Project Name**	**Project Description**	**Actual Cost**	**Actual Completion Date**
Department of Human Services	Temporary assistance for needy families diversion project	Integrate the diversion assistance program into the existing temporary assistance for needy families program in the Vision system	Actual expenditures of $146,701, compared to the budget of $244,972	Completed within the scheduled completion date of August 2006
Department of Transportation	Priority systems rewrite	Integration of the planning improvement program and the statewide transportation program processes into one system	Actual expenditures of $270,607, compared to the budget of $290,525	Completed in May 2007, approximately one month earlier than the scheduled completion date of June 2007
Department of Transportation	Geographic information system image log project	Create a web-enabled, geographically driven image log application that will utilize current payment management images as well as the state's current GIS infrastructure	Actual expenditures of $212,300, compared to the budget of $229,200	Completed in June 2007, approximately one month later than the scheduled completion date of May 2007
Tax Department	Integrated tax system	Implementation of the commercial, off-the-shelf integrated tax system named GenTax developed by FAST Enterprises	Actual expenditures of $11,650,704, compared to the budget of $13,791,044	Completed within the scheduled completion date of June 2007
Public Employees Retirement System	Legacy application system replacement - Phase 3	Develop and execute a request for proposal and select a vendor to replace the agency's multiple legacy applications with a single integrated modern application	Actual expenditures of $480,421, compared to the budget of $590,326	Completed in July 2007, approximately one month later than the scheduled completion date of June 2007
Legislative Assembly	Legislative applications replacement system project - Phase 1	Planning for the replacement of legislative applications, including a cost-benefit analysis and design requirements documentation	Completed on budget with actual expenditures of $737,367	Completed in May 2007, approximately one month earlier than the scheduled completion date of June 2007
Information Technology Department	STAGEnet video transition project	Transition of the service and operation of the videoconferencing network for kindergarten through grade 12, state agencies, and political subdivisions from the North Dakota University System Interactive Video Network to the Information Technology Department	Actual expenditures of $338,813, compared to the budget of $385,882	Completed within the scheduled completion date of September 2007
Department of Human Services	National provider index	Update of the legacy Medicaid management information system and other applications used to process claims to accept the new national provider identifier	Actual expenditures of $384,317, compared to the budget of $476,576	Completed within the scheduled completion date of December 2006
Department of Public Instruction	Online reporting system upgrade (STARS)	Replacement of the agency's online reporting system with a new upgraded system	Actual expenditures of $278,306, compared to the budget of $340,247	Completed within the scheduled completion date of October 2007
Department of Transportation	Time and labor project	Automate the manual-based paper timesheet process with electronic authorization and workflow	Completed on budget with actual expenditures of $321,312	Completed within the scheduled completion date of December 2007
Secretary of State	Knowledge base/central indexing system	Acquire and implement a new software application to replace existing technology systems for central indexing system functions	Actual expenditures of $770,105	The project was terminated.

Project Closeout Reports				
Agency	Project Name	Project Description	Actual Cost	Actual Completion Date
Information Technology Department	Project management information system	Acquisition, implementation, configuration, support, and end-user training of an enterprise management information system to be used by state agencies to support the application of project management principles and methodologies	Actual expenditures of $296,892, compared to the budget of $310,603	Completed in February 2008, approximately one month earlier than the scheduled completion date of March 2008
Department of Human Services	Children with disabilities project	Implementation of the necessary information technology changes to implement the optional medical assistance for families of children with disabilities whose net income does not exceed 200 percent of the federal poverty level	Actual expenditures of $170,213, compared to the budget of $284,406	Completed within scheduled completion date of February 2008
Department of Human Services	Medicaid enterprise management and administrative reporting system	Implementation of an enterprise management and administrative reporting system to provide Medicaid utilization and budget forecasting reports	Actual expenditures of $374,642, compared to the budget of $337,114	Completed in April 2008, approximately two months later than the scheduled completion date of February 2008
Secretary of State	Central voter file project (election administration system)	Completion of the agency's election improvement program by tying together the uniform election system and the election management system under the umbrella of the PowerProfile EE	Actual expenditures of $1,255,692, compared to the budget of $1,523,574	Completed in May 2008, approximately nine months later than the scheduled completion date of August 2007
Attorney General's office	Automated fingerprint identification system upgrade	Upgrade of the automated fingerprint identification system equipment and software used in partnership by the North Dakota Bureau of Criminal Investigation, Minnesota Bureau of Criminal Apprehension, and South Dakota Division of Criminal Investigation	Actual expenditures of $394,825, compared to the budget of $385,882	Completed in June 2008 approximately six months later than the scheduled completion date of December 2007
Department of Emergency Services	Public safety mobile communications project	Implementation of a new radio system with the capability of operating in either an analog or digital mode	Completed on budget with actual expenditures of $8,101,386	Completed in August 2008, approximately 22 months later than the scheduled completion date of October 2006
Job Service North Dakota	Case management system	Replacement of the agency's existing customized case management system with a commercial, off-the-shelf application	Actual expenditures of $820,731, compared to the budget of $854,919	Completed in September 2008 approximately 16 months later than the scheduled completion date of May 2007

Legislative Assembly - Legislative Applications Replacement System Computer Project

The 2007 Legislative Assembly provided a $3,910,827 general fund appropriation for Phase 2 of the legislative applications replacement system computer project. An executive steering group consisting of representatives of the Legislative Assembly, the Legislative Council staff, and the Information Technology Department was established to coordinate the project. The Legislative Council entered contracts with Enterprise Solutions, Inc., Bismarck, for project management services and PTC Global Services for software development.

The committee learned PTC Global Services completed Phase 1 of the project, which included a cost-benefit analysis, design requirements documentation, and proof of concept in May 2007 for a cost of $737,367. PTC Global Services completed Phase 2, stage 0, the catalyst, conference committee, and business process validation in May 2007 at a cost of $531,209. Phase 2 of the project consisted of 46 milestones organized into 10 application bundles. In July 2008 PTC Global Services reported the new system would not be complete for the 2009 Legislative Assembly due to delivery failures in late May 2008 requiring PTC's development of a new system architecture. In August 2008 representatives of the Legislative Council staff, PTC Global Services, and the Information Technology Department met to review the proposed new architecture for the project. The Information Technology Department had additional questions and concerns with the proposed architecture. On September 24, 2008, PTC Global Services sent a notice of intent to cancel the Statement of Work for the project. The Legislative Council staff is working to close out the project, including reviewing work accomplished, capturing reusable items,

transferring all data and documentation, and working on knowledge transfer for moving forward with the legislative applications replacement system.

Information Technology Department - Mainframe Migration Project

The committee learned the Information Technology Department is in the process of completing a mainframe migration project. The department's objectives for the project were revised in November 2007. The following is a summary of the original and revised objectives and the current status of the objectives:

Original Objectives (December 2005)	Revised Objectives (November 2007)	Current Status
Remove the need for the mainframe skill-set	Remove the need for the mainframe skill-set	This objective will be met when the mainframe is removed. The department has hired consultants to supplement the existing staff which has been reduced because of retirements.
Save $1.9 million per year beginning in July 2009	Save $2.4 million per year beginning in July 2011	The department estimates these savings will begin in July 2013.
Realize financial break-even point in 2012	Realize financial break-even point in 2016	If the existing applications are rewritten by July 2013, the break-even date will be 2017.
Position the department for the future	Position the department for the future	The project has succeeded in migrating 46 applications off the mainframe.

The committee learned the department had originally planned to migrate 84 applications from the mainframe to other information technology platforms. Due to project difficulties and delays, the department migrated only 46 applications from the mainframe with the final application being migrated on August 9, 2008. Several applications at the Department of Human Services, Bank of North Dakota, Department of Transportation, and Legislative Assembly will remain on the mainframe. The department anticipates finalizing system documentation relating to the mainframe migration project by November 28, 2008.

Department of Human Services - Medicaid Management Information System Rewrite Project

The committee learned the 2005 Legislative Assembly appropriated $29,188,859, of which $3,667,820 was state matching funds from the permanent oil tax trust fund, to the Department of Human Services to rewrite the Medicaid management information system. The 2007 Legislative Assembly provided additional funding of $31,072,641, of which $3,643,133 is state matching funds from the general fund, for the project. The department did not spend all of the state matching funds during the 2005-07 biennium and was authorized to continue the unspent funds into the 2007-09 biennium for the project. As a result, the department used these funds to obtain additional federal matching funds of $2,267,871 for the project. Total funding available for the project is:

	State Match	Federal Funds	Total
2005-07 appropriation	$3,667,820	$25,521,039	$29,188,859
2007-09 appropriation	3,643,133	27,429,508	31,072,641
Additional federal matching funds		2,267,871	2,267,871
Total	$7,310,953	$55,218,418	$62,529,371

The committee learned ACS State Healthcare, LLC (ACS), the project vendor, is also deploying a similar Medicaid management information system in New Hampshire and Alaska. ACS may be behind schedule in its development of the Medicaid management information system. The department is negotiating with ACS regarding revisions to the project schedule. The negotiations are focused on the postdesign phases of the project, including the estimation of the implementation work effort to finalize system configuration, data conversion, training, and system and user acceptance testing. All of these functions are dependent on the timely delivery of the ACS product with North Dakota requirements. A delay in the project schedule is not anticipated to have an impact on the project's budget.

The committee learned the department is continuing to prepare system design specifications. The department anticipates completing system design in January 2009 and will begin the implementation phase of the project after the system design is complete. The following is a summary of project expenditures through August 2008:

	Project Budget	Expenditures	Budget Remaining
General fund	$3,643,133	$1,055,855	$2,587,278
Federal funds	55,218,418	15,897,673	39,320,745
Other funds	3,667,820	1,007,597	2,660,223
Total	$62,529,371	$17,961,125	$44,568,246

Department of Corrections and Rehabilitation - Inmate Medical System

Section 12 of House Bill No. 1016 (2007) provides that the Department of Corrections and Rehabilitation provide an update on the inmate medical system to the Information Technology Committee and the Budget Section at the completion of the project planning phase and prior to the project implementation phase. The section also provides that Budget Section approval is required before the department proceeds with project implementation.

The committee learned the purpose of the Department of Corrections and Rehabilitation's inmate medical system project is to obtain an electronic medical

record system that allows the department to administer, manage, and record all aspects of medical care provided to both adults and juvenile offenders. The system will also provide an integrated pharmacy system, including automated drug inventory ordering, dosage tracking, and drug cost-analysis reporting. The department selected a vendor to supply a commercial, off-the-shelf inmate medical system and received Budget Section approval to proceed with the project implementation on June 18, 2008. The project is estimated to cost $1 million and be completed in May 2009.

INFORMATION TECHNOLOGY DEPARTMENT COORDINATION OF SERVICES

North Dakota Century Code Section 54-59-12 provides for the review and coordination of information technology between the Information Technology Department, higher education, and political subdivisions. In addition, Sections 15-10-44 and 54-35-15.2 provide that the Information Technology Committee is to 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 House Bill No. 1461 (2007) provides that the State Board of Higher Education is to manage and regulate information technology planning and services for institutions under its control. Pursuant to House Bill No. 1461, the North Dakota University System chief information officer has drafted policies, standards, guidelines, and procedures to be followed for project management, oversight, and reporting of information technology projects.

The committee received and reviewed quarterly reports of major information technology projects compiled by the North Dakota University System and project startup and project closeout reports relating to major information technology projects. The following is a summary of the project startup and project closeout reports received by the committee:

Project Startup Reports			
Project Name	**Project Description**	**Estimated Cost**	**Estimated Completion Date**
ConnectND student administration system infrastructure upgrade	Installation of new storage and servers for the ConnectND student administration system production environment	$1,700,000	August 2007
TouchNet project	Implementation of software modules that will allow all campuses to accept online credit card payments with payments processed through a payment card industry-compliant vendor	$329,481	February 2008
Campus solutions upgrade	Upgrade of the ConnectND student administration system from Version 8.0 to the new PeopleSoft campus solutions Version 9.0, change of the database from Microsoft SQL to Oracle, and implementation of the user productivity kit	$1,350,000	August 2008
Northern Tier Network	Implementation of a multiple 10 gigabit optical network to reach east and west from Seattle to Chicago and north and south from Winnipeg to Omaha. North Dakota's segments will border Montana to the west, Minneapolis to the east, the Canadian border to the north, and a location yet to be determined in South Dakota to the south	$6,000,000	Ongoing

Project Closeout Reports			
Project Name	**Project Description**	**Actual Cost**	**Actual Completion Date**
ConnectND student administration system infrastructure upgrade	Installation of new storage and servers for the ConnectND student administration system production environment	Actual expenditures of $1,356,875, compared to the budget of $1,700,000	Completed in July 2007 approximately one month earlier than the scheduled completion date of August 2007
Campus solutions upgrade	Upgrade of the ConnectND student administration system from Version 8.0 to the new PeopleSoft campus solutions Version 9.0, change of the database from Microsoft SQL to Oracle, and implementation of the user productivity kit	Actual expenditures of $1,136,226, compared to the budget of $1,350,000	Completed in June 2008 approximately two months earlier than the scheduled completion date of August 2008

ConnectND System

The committee learned the North Dakota University System's 2007-09 appropriation for a common information services (CIS) pool of $31,477,093, includes an increase of $6 million from the general fund for support of the ConnectND system, of which $2.3 million is one-time funding and $3.7 million is base funding.

During the 2007 Legislative Assembly, the University System developed 10 recommendations for stabilizing the ConnectND system. The University System has begun implementing all of the recommendations with the funding provided by the 2007 Legislative Assembly. The following is a summary of the current status of the recommendations:

Recommendation	Current Status
Increase investment in human resources by 11.5 new full-time equivalent (FTE) positions	The system has filled 8.5 of the 11.5 FTE positions. The system is experiencing difficulties in filling and retaining staff in the remaining 3 FTE positions.
Upgrade the finance system and improve the grants and contracts module	The upgrade was completed in conjunction with the Office of Management and Budget and the Information Technology Department in May 2008.
Upgrade the hardware, software, electrical, and backup generator systems at the University of North Dakota data center	The upgrade was completed prior to the start of the fall 2007 semester.
Upgrade the student administration software from Version 8.0 to Version 9.0	The upgrade was completed in June 2008.
Perform a student administration system security risk assessment	The initial activity of identifying the general composition of the assessment was completed during the summer of 2007. The system is in the process of planning for the full assessment.
Develop a comprehensive student administration data center disaster recovery plan	The University System is in the process of developing the plan. The plan is anticipated to be complete in November 2008.
Implement a consistent toolset for manageability	Staff has decided to use Microsoft's Windows software for an operating system and has acquired Oracle's database software for database use. The transition was completed in June 2008.
Implement a data warehouse solution	Planning is in progress. The University System is working with the Statewide Longitudinal Data System Committee to ensure a smooth flow of data between the University System data warehouse and the statewide longitudinal data system.
Implement a student administration admissions customer relationship management solution	Customer relationship management software was selected and purchased. The University System is in the early stages of implementation.
Implement Oracle's user productivity kit solution to support the development of documentation during upgrades	The software has been installed and is available in conjunction with the implementation of the upgrades to the finance and student administration systems.

Northern Tier Network

The committee learned the Northern Tier Network Consortium, which was founded in 2003, seeks to develop and sustain advanced networking capabilities in order to support the education, research, and economic vitality of the Northern Tier region. The Northern Tier Network is an ultra high-speed regional network with multiple optical waves capable of transferring about 10 gigabytes of information per second per wave. Each Northern Tier Network state is responsible for the development and ongoing support of its segment of the network. North Dakota's east and west segment of the network will be utilizing donated fiber from AT&T, and the University System is planning for the north and south segment of the network.

The committee learned the 2007 Legislative Assembly provided one-time funding of $2,773,800 from the permanent oil tax trust fund for the Northern Tier Network infrastructure. The University System also received a federal grant for costs associated with implementing the network. The estimated cost for implementing the network is $6 million and the estimated annual recurring costs for maintenance for the network is $1 million. The University System anticipates approximately $1 million of the funding from the permanent oil tax trust fund will be carried forward to fiscal year 2010 and will be used to pay for annual maintenance costs.

The committee learned NDCC Section 15-10-45 provides that the University System may use the Northern Tier Network infrastructure only for the purpose of supporting the research and education missions of the University System. The University System may not use the Northern Tier Network infrastructure for traditional Internet, voice, video, or other telecommunications services beyond those required for research networks. The provisions of Section 15-10-45 also prohibit the University System from utilizing commercial peering services offered through Internet2. The University System plans to ask the 2009 Legislative Assembly to clarify and reduce the legislative restrictions in Section 15-10-45.

The committee received information from Qwest Communications and the North Dakota Association of Telecommunications Cooperatives and learned that these organizations oppose the reduction of the legislative restrictions placed upon the North Dakota University System and the Northern Tier Network.

Internet2

The committee learned Internet2 is a research and development consortium led by higher education institutions in partnership with private industry and other government agencies to develop and deploy advanced network applications and technologies. North Dakota State University and the University of North Dakota are members of Internet2 and the other North Dakota University System higher education institutions, kindergarten through grade 12, and the Flatlands Disability Network are sponsored education group participants. Internet2 facilitates high-performance applications not possible on the Internet, supports development of revolutionary applications, allows the transfer of large data sets quickly, and allows testing of new technologies.

2009-11 Budget Request

The committee learned the University System's budget request for the 2009-11 biennium includes information technology-related items totaling $14,275,320, of which $2,525,320 is for base funding

and $11,750,000 is for one-time funding. The following is a summary of specific information technology-related budget request items for the 2009-11 biennium beyond regular parity or cost-to-continue funding requests:

Base funding	
Current bandwidth services - For the 2007-09 biennium, $420,000 of system information technology services parity cost was funded as one-time funding instead of base funding. The one-time funding was used to cover the costs of current bandwidth during the 2007-09 biennium. Bandwidth demands are not anticipated to decrease in the 2009-11 biennium; therefore, base funding is needed to sustain current bandwidth services.	$420,000
Future bandwidth services - Funding for increased bandwidth needs based on projected traffic growth of 50 percent.	800,000
On-line Dakota Information Network web developer - A new position to enhance and ease the use of the library system.	150,000
Northern Tier Network maintenance - Funding for annual maintenance costs for the Northern Tier Network for the second year of the 2009-11 biennium. Maintenance costs for the first year of the biennium will be paid for with carryover funding from the 2007-09 biennium.	1,000,000
Followup information on North Dakota education and training (FINDET) system - Staff and related costs to continue support of the two FTE positions that provide information on graduates and student performance. This level of funding will also provide 100 percent of the support for this activity in the University System office budget.	155,320
Subtotal - Base funding	$2,525,320
One-time funding	
Interactive Video Network (IVN) CODEC replacement - The videoconference technology in IVN classrooms needs to be upgraded to allow for high-definition videoconferencing.	$350,000
CIS collaboration and emergency pool - Funding to be allocated by the University System chief information officer in support of technology and tools that foster more effective and efficient delivery of central information technology services and to address unforeseen needs not anticipated in the budget process.	200,000
Joint North Dakota University System and University of North Dakota information technology facility - Funding for a facility to jointly house University System information technology service operations and University of North Dakota information technology systems and services.	11,200,000
Subtotal - One-time funding	$11,750,000
Total	$14,275,320

Elementary and Secondary Education

The committee learned the Educational Technology Council is created by NDCC 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:

- Qwest technology grants - The council administered a teacher technology grant program with funding from the Qwest Foundation. The council awarded 10 grants on a competitive basis in December 2007.
- Classroom transformation grants - The council awarded 22 classroom transformation grants to

schools in February 2008. The grants require a 50 percent local school match.
- Video classroom grants - The council awarded four video classroom grants to kindergarten through grade 12 video network consortiums for new or upgraded video classrooms and one video grant award for statewide IP videorecording capability. The grants require a 60 percent local match.

The committee learned the Educational Technology Council will submit a 100 percent budget request for the 2009-11 biennium with no optional requests.

EduTech offers a variety of services to North Dakota schools and educators for improving student achievement. EduTech's initiatives include:

- Core information technology services - EduTech provides core information technology services to schools, including e-mail, web hosting, desktop protection, and Internet filtering.
- Professional development services - EduTech provides professional development services to schools to assist educators with enhancing learning in the classroom.
- PowerSchool application - EduTech provides support to schools for the PowerSchool application, a student information system.

The committee learned EduTech will submit a 100 percent budget request for the 2009-11 biennium with one optional request relating to expansion of the PowerSchool application to all elementary and secondary schools.

The committee learned the Center for Distance Education, formerly known as the Division of Independent Study, was established in 1935 by the Legislative Assembly to provide distance education courses for students in kindergarten through grade 12 and adults. The center has developed and published North Dakota studies fourth grade workbooks and eighth grade textbooks. The center and the State Historical Society have collaborated to develop and publish a high school textbook entitled *North Dakota History*. The center has also developed a North Dakota studies website.

The committee learned the Center for Distance Education will submit a 100 percent budget request for the 2009-11 biennium with four optional requests relating to employee compensation, additional online course enhancement and development, North Dakota studies, and civics education.

Political Subdivisions

The committee learned the coordination of information technology services between the Information Technology Department, counties, and cities 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 North Dakota Association of Counties to discuss

issues and strategize about future improvements and enhancements. The Information Technology Department and the North Dakota League of Cities have developed records retention schedules for all departments of city government.

OTHER INFORMATION
Information Technology Department
2009-11 Budget Request

The committee received information from representatives of the Information Technology Department regarding the department's budget request for the 2009-11 biennum. The committee learned the department's budget request for the 2009-11 biennium includes several optional package adjustments, including adjustments relating to additional bandwidth for elementary and secondary schools, statewide deployment of the PowerSchool application for elementary and secondary schools, deployment of a statewide longitudinal data system, Criminal Justice Information Sharing Initiative projects, and ongoing costs relating to the statewide automated victim information and notification system.

The committee learned Section 6 of House Bill No. 1021 (2007) provides legislative intent that 28 new FTE positions for the Information Technology Department for the 2007-09 biennium are identified as project-specific and may be filled while the projects are being developed and funding is available. The department anticipates requesting authority to continue many of these positions for the 2009-11 biennium.

Information Technology Vendor Pool

The committee received information from representatives of the Information Technology Department regarding the department's information technology vendor pool. The committee learned due to an ongoing need for information technology contract professionals in a variety of skill-set categories, the department established an information technology vendor pool in July 2005. The department's contracts for the vendor pool expired on June 30, 2008; therefore, the department issued a request for proposal for a rebid of the vendor pool. The vendor pool includes vendors for the following information technology service categories:

Information Technology Service	Number of Categories
Software development	10
Web design and e-government	2
Project management and business analyst	2
Geographic information systems	3
Database administration	3
System and server administration	3
Business intelligence	2
Network and telecommunications	3
Quality assurance	2
Information systems security	1
PC support	1
Total	32

The committee learned the Information Technology Department accepted 38 of the 46 proposals received for the vendor pool. The new contract term is from July 1, 2008, through September 30, 2010, and the department has the option to expand the contract to September 30, 2011. The following is a summary of vendor pool contract awards:

Vendor	City	Number of Categories
22nd Century Technologies	Olympia, Washington	8
Agency MABU	Bismarck, North Dakota	1
Applied Data Consultants, Inc.	Eau Claire, Wisconsin	4
Applied Engineering, Inc.	Bismarck, North Dakota	3
Bahwan CyberTek, Inc.	Natick, Massachusetts	8
Bartlett and West, Inc.	Bismarck, North Dakota	2
BITS Corporation	Bismarck, North Dakota	1
Boden, Inc.	Somerset, New Jersey	18
CedarCrestone	Alpharetta, Georgia	2
CIBER, Inc.	Sacramento, California	4
Compuware Corporation	Eden Prairie, Minnesota	13
Data Transfer Solutions	Denver, Colorado	4
Eide Bailly LLP	Fargo, North Dakota	9
Enterprise Solutions, Inc.	Bismarck, North Dakota	4
Everest Consultants, Inc.	Beaverton, Oregon	2
Federal Engineering, Inc.	Fairfax, Virginia	4
GeoComm, Inc.	St. Cloud, Minnesota	2
GeoDecisions	Camp Hill, Pennsylvania	5
GeoNorth, LLC	Portland, Oregon	4
HCL America, Inc.	Vienna, Virginia	26
Houston Engineering, Inc.	Maple Grove, Minnesota	2
IMC	Reston, Virginia	1
iNet Technologies	Bismarck, North Dakota	1
Infotech Enterprises	Pittsburgh, Pennsylvania	3
Knowledge-IT, Inc.	South St. Paul, Minnesota	3
ManTech International Corporation	Falls Church, Virginia	1
MAXIMUS, Inc.	Rancho Cordova, California	2
McCain and Associates, Inc.	Bismarck, North Dakota	1
NDACo Resources Group	Bismarck, North Dakota	1
Nexus Innovations	Bismarck, North Dakota	6

Vendor	City	Number of Categories
Programming Solutions, Inc.	Brooklyn Park, Minnesota	1
Pro-West & Associates, Inc.	Walker, Minnesota	3
QA Technologies, Inc.	Omaha, Nebraska	3
Quintegra Solutions Company	San Jose, California	12
Softech & Associates, Inc.	Costa Mesa, California	1
SysTest Labs	Denver, Colorado	2
Vision Technology, Inc.	Bismarck, North Dakota	4

The committee learned a state agency using the vendor pool will issue a work order to the applicable vendors, including a description of work, skill-sets required, and project schedule and deliverables. The vendors in the contract pool will respond with a project offer. Agencies are responsible for selecting a vendor and reviewing and accepting the vendor's deliverables.

Information Technology Department Vulnerability Assessment and Penetration Testing

The committee learned the State Auditor's office conducts a Statement on Auditing Standards (SAS) No. 70 audit of the Information Technology Department each biennium. As part of the most recent audit, ManTech Security and Mission Assurance performed a vulnerability assessment and penetration test consisting of the following four phases:

Phase	Description
Phase 1 - External vulnerability assessment	An external vulnerability assessment is intended to provide an organization a snapshot of the overall security and risk picture of the network from an external point of view. External assessment procedures focus on performing Internet research, discovering systems connected to the Internet, and probing the system to discover misconfigurations and vulnerabilities.
Phase 2 - Internal vulnerability assessment	An internal vulnerability assessment is intended to provide an organization with a snapshot of the overall security and risk picture of the systems and network from an internal point of view. Internal assessment procedures focus on examining systems for vulnerabilities, misconfigurations, and implementation flaws that may expose the system to additional risk.
Phase 3 - Penetration testing	A penetration test is intended to provide an organization a snapshot of the overall security and risk picture of its network from an external point of view. Penetration testing focuses on gaining access to systems under an organization's control.
Phase 4 - Application security assessment	The test team performed an application security assessment of the ConnectND financial system.

The committee learned vulnerabilities discovered were assigned a risk identifier that was relative to the network or system under test. The three risk levels used are defined as follows:

- High risk - A high likelihood of compromise of system-level access exists. If exploited, this vulnerability may allow total control of the system.

- Medium risk - A vulnerability exists that may provide access to critical data or user-level access to a system. This vulnerability may lead to further exploitation.

- Low risk - A vulnerability exists that may disclose information but does not directly lead to the exploitation of a system.

The following is a summary of the findings, recommendations, and the current status of the recommendations:

Phase	Findings	Recommendations	Current Status
Phase 1 - External vulnerability assessment	Overall, 313 systems at state agencies or organizations were found to have at least one vulnerability that would provide an external attacker with a possible attack vector that could lead to the compromise of the state's network from the Internet. Numerous other vulnerable systems were also found on kindergarten through grade 12 and other education networks; however, a detailed analysis of these vulnerabilities was outside the scope of the assessment. For systems found on the state-controlled networks, there were 10 unique high-risk vulnerabilities found on multiple systems, 2 unique medium-risk vulnerabilities found on multiple systems, and 4 unique low-risk vulnerabilities found on multiple systems.	Review content available on publicly accessible servers	The department reviews server content on a regular basis and is comfortable with the information that is currently published.
		Filter inbound access to all state systems	The department only allows external access to servers where there is a business need. This recommendation is primarily an issue for higher education and kindergarten through grade 12.
		Ensure segregation between kindergarten through grade 12 and other education networks and the state network	The department has separated access between the state, higher education, and kindergarten through grade 12 networks.

Phase	Findings	Recommendations	Current Status
Phase 2 - Internal vulnerability assessment	Overall, 427 systems were found to have at least one vulnerability that would provide an attacker with a possible attack vector that could lead to the compromise of the state's network and sensitive information. There were 29 unique high-risk vulnerabilities found on multiple systems, 8 unique medium-risk vulnerabilities found on multiple systems, and 4 unique low-risk vulnerabilities found on multiple systems.	Segregate public servers from internal network	To the extent possible, the department architects its servers and the network according to this recommendation.
		Internal segregation of critical servers and development systems	The department maintains current patch levels and security configurations on all servers in the data center.
		Include applications in formal patch management program	To the extent possible, the department applies current patches for operating systems and application software on a regular basis. The department's monthly server scan assists in identifying high-risk security vulnerabilities if patches are not applied.
		Implement outbound access control	The department does not intend to implement the recommendation beyond the passive monitoring currently in place. The department does restrict certain outbound traffic in response to identified security risks.
		Require the use of encrypted protocols for remote management	The department is using encrypted protocols for remote management of most systems. The department is evaluating solutions for the remaining systems that will address the recommendation without causing significant business impact to users.
Phase 3 - Penetration testing	The test team targeted a total of nine systems for exploitation and successfully exploited one system. Although the test team could not fully access the system, given time the issues could have corrected and the system fully exploited. In addition, using social engineering techniques, the test team was successful in its attempts to gain account credential and showed the susceptibility of users to access malicious content on the Internet.	Educate users on social engineering techniques	The department and the State Auditor's office coordinated information technology coordinator briefings to raise awareness levels. The department provides online security awareness training on its website.
		Ensure servers and desktops are kept current on all operating system and application patches	The one system successfully compromised has been patched.
Phase 4 - Application security assessment	Overall there were two vulnerability findings with the application and its associated components, including one high-risk vulnerability relating to the operating system installed on the application host and one low-risk vulnerability relating to a design flaw.	Ensure systems hosting applications are kept up to date	The department has addressed the recommendation.
		Prevent simultaneous logins	The ConnectND team is evaluating the security risk versus the loss of business functionality. The department considers the recommendation a low-risk recommendation.

Independent Verification and Validation

The committee received information from a representative of SysTest Labs regarding independent verification and validation. The committee learned approximately 34 percent of all information technology projects are considered successful, 15 percent of all information technology projects fail, and 51 percent experience budget and schedule overruns or lack critical features and requirements that make for a less than satisfactory outcome. Independent verification and validation is a systems development discipline that helps organizations build quality into the software during the software life cycle. Verification is concerned with checking that the system is well-engineered, and validation is concerned with checking that the software developed meets the user's needs. The key focus areas for independent verification and validation are:

- Requirements verification - Confirm the software and interface requirement specifications are consistent with the state requirements in a way that is unambiguous, complete, consistent, testable, and traceable.
- Design verification - Verify that design specifications documents are consistent and reflect the requirements and needs of the project.
- Software test plan and software test verification - Review for effective test coverage.
- Implementation verification - Verify that approved standards and practices are followed for coding, documentation, naming, data dictionary terms, etc.
- Application verification - Provide for the verification of adherence to software test plans. Replication of some tests through the independent verification and validation process helps ensure correctness and perceived weaknesses in design, and previously undetected errors are documented.
- Process validation - Ensure that client standards and industry best practices are being employed to develop the product or execute the project.

The committee learned independent verification and validation typically cost between 5 percent and 15 percent of development costs. Independent verification and validation make software developers and project teams more aware of quality issues and may assist in making decisions relating to project schedule, cost, and scope.

Statewide Longitudinal Data System

The committee received information from representatives of the Information Technology Department regarding the Statewide Longitudinal Data System Initiative. The committee learned Section 7 of House Bill No. 1021 (2007), codified as NDCC Section 15.1-02-18, establishes a Statewide Longitudinal Data System Committee consisting of the chancellor of the North Dakota University System, the Superintendent of Public Instruction, the Chief Information Officer, the director of the Department of Career and Technical Education, the executive director of Job Service North Dakota, the commissioner of the Department of Commerce, the executive director of the Department of Human Services, and one person appointed by the Governor. The committee is to:

- Develop a proposal and budget for a statewide longitudinal data system.
- Recommend policies, procedures, and guidelines to protect privacy and security of personal information.
- Provide recommendations to the Information Technology Committee and the Workforce Committee on the proposed system and the long-term role of the FINDET system.

The committee learned the Statewide Longitudinal Data System Committee awarded a contract to Claraview for assistance with a plan for a statewide longitudinal data system. Claraview identified the following themes regarding a proposed statewide longitudinal data system:

- There is strong support across state agencies to share key information and leverage the benefits of longitudinal data analysis that a statewide longitudinal data system can provide.
- There are data quality challenges surrounding the implementation of a statewide longitudinal data system that must be solved to achieve a successful project.
- Opportunities exist for each state agency to enhance its data warehousing and data analysis capabilities.

Claraview identified the following policy challenges to be considered in designing and selecting an approach to a statewide longitudinal data system:

- A process needs to be developed for maintaining the state ID in a student's postsecondary records for a former North Dakota kindergarten through grade 12 student transitioning to higher education.
- The University System needs to adopt a process for enrolling or registering workforce training program students in the ConnectND system upon their participation in University System workforce training programs.

- The statewide longitudinal data system needs to be compliant with federal privacy laws and should meet the Data Quality Campaign's 10 essential elements and fundamentals for P-12 longitudinal data systems.

Claraview identified the following recommendations:

Data warehousing capabilities	Implement a statewide longitudinal data warehouse
	Implement a kindergarten through grade 12 data warehouse
	Implement agency-specific data warehouses
	Allow continued Viewpoint--kindergarten through grade 12 data warehousing system--rollout among school districts
	Define a data integration strategy
Reporting	Relocate and reconfigure FINDET
	Select a business intelligence reporting tool
Business process reengineering	Implement an education and workforce council
	Implement formal data quality processes
Operational support	Make the PowerSchool application available to all kindergarten through grade 12 schools
	Educate users to develop data analysts
Data governance	Align student identifiers
	Implement agency-based data governance councils
	Establish and enforce longitudinal data systemwide data standards
	Mitigate interagency data sharing issues
	Implement a master client index solution
Roadmap implementation	Develop an action memorandum

The committee learned the Statewide Longitudinal Data System Committee has approved the recommendations and is working on developing an implementation plan and budget for the project. The Information Technology Department plans to request $6 million from the general fund for the 2009-11 biennium for beginning implementation of a statewide longitudinal data system.

North Dakota Health Information Technology Steering Committee

The committee received information from representatives of the North Dakota Health Information Technology Steering Committee regarding the implementation of health information technology in North Dakota. The committee learned the North Dakota Health Information Technology Steering Committee was established in 2006 and formalized in the North Dakota Century Code by the 2007 Legislative Assembly. The mission of the committee is to facilitate the adoption and use of health information technology and exchange to improve health care quality, patient safety, and overall efficiency of health care and public health services in North Dakota.

The committee learned the North Dakota Health Information Technology Steering Committee with assistance from the University of North Dakota School of

Medicine and Health Sciences Center for Rural Health completed a survey of hospitals and long-term care facilities regarding health information technology planning and implementation, barriers to electronic medical record adoption, and health information technology staff support. The survey results indicate North Dakota's rural facilities have shortages of technical staff to support and implement health information technology, face financial challenges obtaining the capital to acquire electronic medical records and other health information technology tools, and have limited access to technical assistance resources to guide their efforts. A consultant hired to review the survey results provided the following recommendations for the state to proceed with adopting health information technology:

- Create a formal organization within the state charged with coordinating health information technology efforts and potentially governing a health information exchange initiative.
- Develop a North Dakota strategic plan for implementing and sustaining a statewide electronic health information exchange.
- Create a state-funded grant or loan program to support rural and public health entities in the implementation of health information technology-driven quality improvement programs.
- Develop health information technology training programs for current staff at health care facilities as well as for the future.
- Implement a peer-to-peer health information technology support program for rural health care provider organizations.

- Sponsor rotating rural health information technology technical support teams to assist organizations that do not have the necessary staff for the implementation of these types of projects.

The committee learned the North Dakota Health Information Technology Steering Committee and stakeholder workgroups are utilizing the survey findings and consultant recommendations to continue developing a plan for facilitating the adoption of technology in rural and urban entities.

COMMITTEE RECOMMENDATION

The committee recommends Senate Bill No. 2041 to amend NDCC Section 54-59-21 relating to the Criminal Justice Information Sharing Board to expand the board's membership to include the existing three members--the Chief Justice of the Supreme Court, the Attorney General, and the Chief Information Officer--and nine additional members, including the director of the Department of Emergency Services Division of State Radio, the director of the Department of Corrections and Rehabilitation, the Superintendent of the Highway Patrol, the chief of the Bureau of Criminal Investigation, the director of the Department of Transportation, a representative of a city police department, a representative of a county sheriff's office, a state's attorney, and one at-large member appointed by the Governor. The bill also provides that board members who are not state employees are entitled to compensation of $75 per day and mileage and expenses as provided by law for state employees to be paid by the Information Technology Department.