

## INFORMATION TECHNOLOGY - BACKGROUND MEMORANDUM

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 four members of the House of Representatives and three members of the Senate. The Chief Information Officer of the state serves as an ex officio nonvoting member of the committee.

### COMMITTEE STATUTORY RESPONSIBILITIES

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. Address macro-level questions relating to the Information Technology Department.
5. Review the activities of the Information Technology Department.
6. Review statewide information technology standards.
7. Review the statewide information technology plan.
8. Conduct studies of information technology efficiency and security.
9. Make recommendations regarding established or proposed information technology programs and information technology acquisition by the executive and judicial branches.
10. Review the cost-benefit analysis of any major information technology project of an executive or judicial branch agency. A major project is a project with a cost of \$250,000 or more in one biennium or a total cost of \$500,000 or more.
11. Review the cost-benefit analysis of any major information technology project of the State Board of Higher Education or any institution under the control of the State Board of Higher Education if the project significantly impacts the statewide wide area network, impacts the statewide library system, or is an administrative project.
12. Perform periodic reviews to ensure that a major information technology project is on its projected schedule and within its cost projections.

North Dakota Century Code Section 54-35-15.3 authorizes the Information Technology Committee to review any information technology project or information technology plan. That 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 of moneys 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.

### Committee-Assigned Responsibilities

The Legislative Council assigned the committee the study of the technological capacity and needs of the state as provided for in House Concurrent Resolution No. 3057, a copy of which is attached as an appendix, and directed the committee to expand the study to include the delivery of library services by technology. The study is to include an analysis of the state, national, and global information technology trends, an examination of the future short-term and long-term information technology needs of the state, a review of the development capacity and needs in the various regions of the state, an analysis of changes in the role of communications, media, networks, and public utilities, and a review of the public policy with respect to the role of regulation and deregulation.

The Legislative Council also assigned the committee the responsibility for reviewing the activities of the Information Technology Department, the business plan of the department, statewide information technology standards, the statewide information technology plan, and major information technology projects as provided in NDCC Section 54-35-15.2, which was discussed earlier and for receiving:

- 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 (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 (NDCC Section 54-59-13).

- An annual report from the Information Technology Department regarding information technology projects, services, plans, and benefits (NDCC Section 54-59-19).
- A report from State Radio Communications on any recommended changes in 911 telephone system standards and guidelines (NDCC Section 57-40.6-11).
- A report from the Public Safety Answering Points Coordinating Committee by November 1 of each even-numbered year on city and county fees on telephone exchange access service and wireless service (NDCC Section 57-40.6-12).
- Information from the Information Technology Department regarding performance measures developed by the department to assist the Legislative Assembly in determining the effectiveness and efficiency of the department's operations (Section 9 of Senate Bill No. 2043).
- A report by the Superintendent of Public Instruction at least once every five months on the Superintendent's pursuit of grant funds during the 2001-03 biennium for projects relating to the use of technology in elementary and secondary education (Section 10 of Senate Bill No. 2251).

## **PRIOR LEGISLATIVE COUNCIL STUDIES**

### **1967-68 Study**

The 1967 Legislative Assembly passed Senate Bill No. 89, which directed a review of the state's data processing efforts. The study was assigned to the Subcommittee on Data Processing of the Legislative Research Committee, the predecessor to the Legislative Council.

At the time of the study, the data processing applications in state government were performed on three computers plus three relatively complete unit record installations. In addition, 14 state departments maintained their own keypunch and verification equipment.

The committee selected Arthur Andersen and Company, a national accounting firm, to prepare a plan for an integrated data processing system for the state. The major recommendation of the consultant was the establishment of a central office of data processing in lieu of small computer installations throughout state government. Based on the recommendations of the interim committee, the 1969 Legislative Assembly passed Senate Bill No. 33, which created the Central Data Processing Division within the Office of Management and Budget. The bill provided that the division was to establish an electronic data processing center to be used by all state agencies except the institutions of higher education, Job Service, and the office of the Adjutant General.

### **1969-70 Study**

Based on the recommendations of the 1967-68 Subcommittee on Data Processing, the 1969 Legislative Assembly passed Senate Bill No. 34, which directed the Legislative Council to review the state's data processing efforts in the institutions under the State Board of Higher Education. The study was assigned to the interim 1969-70 Data Processing Committee. The committee selected the national accounting firm of Peat, Marwick, Mitchell and Company and Dr. Gerard P. Weeg, Director of the Iowa Regional Computer Center, as consultants for the study. The committee recommended establishing an office of higher education computer services to provide data processing service to the institutions and colleges of the state.

Subsequent to that study, a Higher Education Computer Network was funded at Valley City State College, Dickinson State College, and the University of North Dakota. The Higher Education Computer Network was later extended to all institutions of higher education under the State Board of Higher Education.

### **1979-80 Study**

The 1979 Legislative Assembly passed House Concurrent Resolution No. 3043, directing a study of the effectiveness of state central data processing services and the laws providing for those services. The committee selected Booz-Allen and Hamilton, Inc., to conduct the data processing review. The report of the consultants indicated that state government data processing was migrating from a highly centralized to a more distributed data processing environment. The committee recommended, and legislation was enacted by the 1981 Legislative Assembly, to define the responsibilities of the Central Data Processing Division and state agencies for the use of data processing resources, to provide that the director of the division was to supervise all executive branch agency data processing activities, and the director of the Central Data Processing Division was to approve data processing equipment acquisitions.

### **1985-86 Study**

The 1985 Legislative Assembly passed a resolution directing a study of the office of Central Data Processing and other state computer systems to determine the feasibility of maximizing usage and accessibility of state-owned computers for all state agencies and institutions. The consultant for the study was Booz-Allen and Hamilton, Inc., who was requested to update that firm's 1980 data processing study. The study focused on ways to maximize the economical and efficient use and accessibility of state-owned computers for all state agencies and institutions. The consultant found that half of the state agencies used the services of Central

Data Processing and three-fourths of the agencies had their own personal computers or word processors. In addition, over 300 different software packages had been procured by state agencies from 40 vendors and over 250 personal computers had been provided to those agencies by 13 vendors. The consultant made the following recommendations:

1. A more realistic threshold for central purchasing of software should be established.
2. Technical assistance provided by Central Data Processing on personal computers should be increased.
3. Statewide planning for computers and communication should be consolidated.
4. The State Auditor's office should be encouraged to accelerate plans to audit the use of personal computers by state agencies.
5. A disaster recovery plan should be prepared.
6. The Legislative Council should continue to use consultant services whenever major data processing procurements or changes are planned.

No legislation resulted from the study.

### 1995-96 Studies

The 1995 Legislative Assembly passed a resolution calling for a study of the Information Services Division (the successor to the Central Data Processing Division), the use and proliferation of personal computers throughout state government, and the feasibility and desirability of contracting for data processing services. The Legislative Council delegated the study to the interim Budget Committee on Agriculture and Information Services who selected Wolfe & Associates, Inc. (now known as Inteliant), to assist in its study. The consultant surveyed and interviewed state agencies regarding information technology activities and determined that agencies were generally satisfied with the services provided by the Information Services Division, agencies wanted the division to provide additional services, and agencies were increasing their use of external information technology providers.

The committee received information from the Information Services Division and the consultant on new and emerging computer technologies and current trends in information technology and on the development of information technology strategic plans for three pilot agencies. The strategic plans were intended to identify ongoing current information technology projects and proposed information technology projects, including estimated costs.

As a result of this study, the committee recommended House Bill No. 1034, which included the following recommendations:

- That agencies prepare information technology plans;

- That the Information Services Division establish statewide information technology policies, standards, and guidelines;
- That the division and the State Board of Higher Education meet to coordinate their information technology systems and services;
- That the State Auditor provide information systems audits of information technology systems; and
- That the division perform information technology management reviews of state agencies except higher education institutions.

Before final passage, House Bill No. 1034 was amended to involve the Legislative Council in the information technology planning and audit process and to remove the State Auditor from the information systems audit process.

Also during the 1995-96 interim, the Budget Committee on Government Services studied the library system in North Dakota, including the role and mission of the State Library, cooperative library ventures, and research and information systems. The committee heard testimony from North Dakota librarians and library users and from a Library Study Steering Committee that was organized by the Governor's Advisory Council on Libraries, the State Library, and the North Dakota Library Association to identify issues and propose recommendations to be considered in the library study. The proposed recommendations of the Library Study Steering Committee were included in a *Library Vision 2004* document prepared and approved by the Library Study Steering Committee, which also contained the planning priorities for statewide library services in North Dakota.

The committee recommended House Bill No. 1035, which was approved and included the following provisions:

- A North Dakota Library Coordinating Council was established to perform duties such as assist in planning, coordinating, and evaluating the services and programs of libraries in the state, advise the state librarian on the distribution of grants to libraries, and facilitate the development of a comprehensive statewide electronic data base and the coordination of statewide library services.
- The powers and duties relating to the State Library were changed by removing reference to specific materials collections of the State Library and adding duties such as assist libraries in developing local standards and guidelines, develop and maintain a computerized, comprehensive, statewide data base for storing library records, coordinate interlibrary loan activities, and distribute grants to libraries within the limits of legislative appropriations.

- North Dakota Century Code Chapter 54-24.3 was amended by replacing multitype library authorities with regional library cooperatives that include multitype library authorities and other organizations of one or more types of libraries.
- A general fund appropriation of \$125,000 was provided to the State Library for the 1997-99 biennium for Internet access grants for libraries (\$70,000) and interconnection of library data bases (\$55,000).
- Sections relating to the Statewide Library Planning Committee and printing costs of the State Library were repealed.
- Establish a group within the agency for improving personnel productivity and workflow processes for customers.
- Establish a technology development fund to establish the statewide network and to evaluate emerging technologies and implement common, shared components for users of the network.
- Require each entity that uses the statewide network or is a user of agency services to file a strategic information technology plan.
- Establish a project quality assurance process to provide an independent assessment of the status of major projects.
- Create a division within the agency to plan and administer access to state information primarily through the Internet.

### 1997-98 Study

During the 1997-98 interim, the Legislative Council established an interim Information Technology Committee and delegated to the committee the Council's authority to study emerging technology and evaluate its impact on the state's system of information technology (that authority was repealed by the 1999 Legislative Assembly). The committee was also delegated the Council's responsibility to receive reports regarding coordination of technology systems.

The committee reviewed the status of the statewide network, which was established in 1982. Because the committee determined that the current network resources needed to be analyzed before determining whether any change in the network should be made, the committee contracted with Inteliant for an inventory of all current networks used for voice, data, and video communications.

After receiving the report, the committee contracted with Inteliant to conduct a detailed research of five other states and develop a set of recommendations for North Dakota for implementing changes to its network. The plan presented the following recommendations:

- Establish a statewide communications infrastructure agency for all telecommunications planning, selection, implementation, and management for all state agencies, higher education, and public schools.
- Establish the director of the agency as the Chief Information Officer for the state as a cabinet-level position reporting directly to the Governor.
- Establish a state communications infrastructure board that includes representatives from the three branches of government, private enterprise, and local government with the overall responsibility to approve standards and policies related to network technologies in the state.
- Mandate that the agency develop a business plan defining rate plans, missions, goals, policies, transition plans, business objectives, measurements, and general procedures.

The committee received initial cost estimates assuming that it would take six years to convert to a new network. The estimates contained in the plan were \$6.1 million additional expense during the 1999-2001 biennium; \$2.6 million additional expense during the 2001-03 biennium; \$3.6 million savings during the 2003-05 biennium; and \$12.5 million savings during the 2005-07 biennium.

Inteliant also prepared a *Statewide Telecommunications Plan Financial Analysis & Fiscal Note*, which was completed in January 1999. That document suggested that between 1998 and 2005, the state will increase spending for wide area network services for state agencies from \$19.3 million to \$57.6 million.

In addition, the committee reviewed information regarding:

- Information technology plans in other states and guidelines developed by the Information Services Division for agencies to follow in preparing the information technology plans required as a result of 1997 House Bill No. 1034.
- Standards adopted by the Information Services Division for the acquisition of information technology services or equipment by executive branch agencies.
- The potential impact of the failure of computer hardware, software, and embedded chips due to not being year 2000 (Y2K) compliant.

The committee recommended 1999 Senate Bill No. 2043, which, as introduced, provided for the establishment of an Information Technology Department to replace the Information Services Division and be responsible for all telecommunications planning, selection, and implementation for all state agencies and institutions, counties, cities, and public elementary and secondary schools. The bill provided that the department would be administered by a chief information officer appointed by the Governor. In addition, the bill, as introduced, called for the creation of an Information Technology Board consisting of four legislators appointed by the Legislative Council, seven members

appointed by the Governor, the chief information officer, the commissioner of higher education, and the Supreme Court administrator. The board would have been responsible for approving the business plan of the department, reviewing and approving statewide information technology standards and the statewide information technology plan, assessing major projects to ensure quality assurance, and reporting to the Governor and the Legislative Council on matters concerning information technology. The bill substantially implemented the recommendations contained in the *Strategic Telecommunications Plan* prepared by Inteliant.

The committee also recommended Senate Bill No. 2044, which, as introduced, proposed creating a Legislative Council Information Technology Committee. The bill provided that the committee's duties would include establishing statewide goals and policy regarding information systems and technology, conducting studies of information technology efficiency and security, reviewing activities of the (newly created) Information Technology Department, and making recommendations regarding established or proposed information technology programs and information technology acquisitions.

### **1999-2000 Study**

The 1999 Legislative Assembly adopted 1999 Senate Bill Nos. 2043 and 2044 and as a result the Legislative Council Information Technology Committee was appointed for the 1999-2000 interim. The committee reviewed information regarding the implementation of a new statewide information technology network, major information technology projects, the financing of information technology projects, the statewide information technology plan, the Information Technology Department's business plan, and initiatives of the department, including e-government, enterprise resource planning, geographic information systems, electronic document management systems, and information technology purchasing.

The committee recommended 2001 Senate Bill No. 2043, which, as introduced, required the Information Technology Committee to review the cost-benefit analysis of any major project of the State Board of Higher Education or any institution under the control of the board if the project significantly impacts the statewide wide area network, impacts the statewide library system, or is an administrative project. The bill also authorized the Information Technology Department to purchase equipment and software through financing arrangements; specified additional requirements that must be included in the department's business plan; replaced the Statewide Wide Area Network Advisory Committee with a Statewide Information Technology Advisory Committee; changed the deadline for agencies submitting information technology plans from January 15 to March 15 of each even-numbered year;

and clarified that information collected by the Information Technology Department from agencies regarding information technology standards, compliance reviews, and plans is exempt from open records requirements.

## **2001 LEGISLATIVE ASSEMBLY - RELATED LEGISLATION**

The 2001 Legislative Assembly adopted Senate Bill Nos. 2043 and 2251 and House Bill No. 1015 relating to the duties of the legislative Information Technology Committee and the operations of the Information Technology Department.

Senate Bill No. 2043, which was recommended by the 1999-2000 interim Information Technology Committee, includes all the provisions as stated earlier and in addition requires the Information Technology Department to prepare an annual report regarding major information technology projects, rates, and benefits and to develop performance measures to assist the Legislative Assembly in determining the effectiveness and efficiency of the department's operations.

Senate Bill No. 2251 creates a new Educational Technology Council to replace the Educational Telecommunications Council and provides that funding appropriated by the 2001 Legislative Assembly for the Division of Independent Study, SENDIT Technology Services, and the Center for Innovation in Instruction be transferred to the Information Technology Department for use by the Educational Technology Council.

Section 28 of House Bill No. 1015 requires the Information Technology Department to provide the Office of Management and Budget an analysis of the technology costs and savings involved in proposed building construction projects.

## **RELATED STATUTORY PROVISIONS**

North Dakota Century Code Chapter 54-59 establishes an Information Technology Department. Section 54-59-02 provides that the Information Technology Department is responsible for all wide area network services planning, selection, and implementation for all state agencies, including institutions under the control of the State Board of Higher Education, counties, cities, and school districts. The wide area network services responsibility for state agencies and institutions became effective July 1, 2000, and the responsibility with respect to counties, cities, and school districts becomes effective August 1, 2001. With respect to a county, city, or school district, wide area network services are those services necessary to transmit voice, data, or video outside the county, city, or school district. The Information Technology Department is also responsible for computer support services, host software development, statewide communications services, standards for providing information to other state agencies and the public through the Internet,

technology planning, process redesign, and quality assurance.

North Dakota Century Code Section 54-59-03 requires the Governor to appoint the Chief Information Officer of the state on the basis of education, experience, and other qualifications in information technology and administration. The Chief Information Officer is required to administer the Information Technology Department.

North Dakota Century Code Section 54-59-05 provides that the Information Technology Department:

1. Shall provide, supervise, and regulate information technology of all executive branch state entities, excluding the institutions under the control of the State Board of Higher Education.
2. Shall provide network services in a way that ensures the network requirements of a single entity do not adversely affect the functionality of the whole network, facilitates open communications with the citizens of the state, minimizes the state's investment in human resources, accommodates an ever-increasing amount of traffic, supports rapid detection and resolution of problems, protects the network infrastructure from damage and security breaches, provides for the aggregation of data, voice, video, and multimedia into a statewide transport mechanism or backbone, and provides for the network support for the entity to carry out its mission.
3. May review and approve additional network services that are not provided by the department.
4. May purchase, finance the purchase, or lease equipment or software or replace, including by trade or resale, equipment or software as may be necessary to carry out North Dakota Century Code Chapter 54-59. An agreement to finance the purchase of software, equipment, or implementation services may not exceed a period of three years. The department shall submit any intended financing proposal for the purchase of software, equipment, or implementation services in excess of \$1 million to the Budget Section for approval. The department may finance the purchase of software, equipment, or implementation services only to the extent the purchase amount does not exceed the amount appropriated to the department during that biennium for equipment. Each executive branch agency or institution, except the institutions under the control of the State Board of Higher Education, shall submit to the department, in accordance with guidelines established by the department, a written request for the lease,

purchase, or other contractual acquisition of information technology. The department shall review requests for conformance with the requesting entity's information technology plan and compliance with statewide policies and standards. If the request is not in conformance or compliance, the department may disapprove the request or require justification for the departure from the plan or statewide policy or standard.

5. Shall provide information technology, including assistance and advisory service, to the executive, legislative, and judicial branches. If the department is unable to fulfill a request for service from the legislative or judicial branch, the information technology may be procured by the legislative or judicial branch within the limits of legislative appropriations.
6. May request information on or review information technology, applications, system development projects, and application development projects of executive branch agencies.
7. Shall study emerging technology and evaluate its impact on the state's system of information technology.
8. Shall develop guidelines for reports to be provided by each executive branch agency, institution, or department, the institutions under the control of the State Board of Higher Education, and agencies of the judicial and legislative branches on information technology in those entities.
9. Shall review the information technology management of executive branch agencies or institutions, including institutions under the control of the State Board of Higher Education as provided in NDCC Section 54-59-13.
10. Shall perform all other duties necessary to carry out NDCC Chapter 54-59.

North Dakota Century Code Section 54-59-06 requires the Information Technology Department to develop and maintain a business plan that:

1. Defines the department's overall organization, mission, and delivery of services.
2. Defines the department's short-term and long-term goals and objectives based on customer needs.
3. Outlines the strategies and activities necessary to meet the goals and objectives of the department while improving the efficiency of the department and improving service to customers.
4. Defines rates and funding mechanisms necessary to finance the proposed activities of the department.
5. Defines a method for evaluating progress toward the goals outlined in the business plan.

6. Determines the specific strategies and processes to ensure that agencies share information, systems, and the statewide network.
7. Addresses the processes that will be put in place to ensure that the department exercises its powers and duties with minimal delay, cost, and procedural burden to an entity receiving services from the department; to ensure that the department provides prompt, high-quality services to an entity receiving services from the department; to ensure that an entity receiving services from the department is aware of the technology available and to ensure training on its use; and to foster information technology innovation by state entities.

North Dakota Century Code Section 54-59-07 establishes a State Information Technology Advisory Committee to advise the Information Technology Department regarding statewide information technology planning. The committee membership is composed of eight members appointed by the Governor and a representative of the Information Technology Department, the Department of Commerce Division of Economic Development, the North Dakota University System, the Information Technology Council, the North Dakota Workforce Development Council, and the Educational Technology Council.

North Dakota Century Code Section 54-59-08 requires each state agency and institution that desires access to wide area network services and each county, city, and school district that desires access to wide area network services to transmit voice, data, or video outside that county, city, or school district to obtain those services from the Information Technology Department. However, the Chief Information Officer may exempt from that requirement a county, city, or school district that demonstrates its current wide area network services are more cost-effective for or more appropriate for the specific needs of that county, city, or school district than wide area network services available from the department. Section 54-59-08 also requires the Chief Information Officer to exempt from the required use of wide area network services a county, city, or school district that is under contract to receive wide area network services from an entity other than the department, for the term of that contract, but a political subdivision may not extend or renew that contract beyond July 31, 2001.

North Dakota Century Code Section 54-59-09 requires the Information Technology Department to develop statewide information technology policies, standards, and guidelines based on information from state agencies and institutions. That section requires each executive branch state agency, unless an exemption is granted by the department, to comply with the policies and standards developed by the department.

That section exempts from its provisions institutions under the control of the State Board of Higher Education with respect to academic and research uses of information technology.

North Dakota Century Code Section 54-59-10 requires each agency or institution to appoint an information technology coordinator to maintain a liaison with the Information Technology Department and assist the department in areas related to making the most economical use of information technology.

North Dakota Century Code Section 54-59-11 requires each executive branch state agency or institution, including the institutions under the control of the State Board of Higher Education, to prepare an information technology plan, subject to approval by the Information Technology Department. That section provides that the plan must be submitted to the department by March 15 of each even-numbered year and must be prepared based on guidelines developed by the department. The plan must also provide the information technology goals, objectives, and activities of the entity for the current biennium and the next two bienniums and include information regarding the 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, and the department may require an entity to change its plan to comply with statewide policies or standards or to resolve conflicting directions among plans. Judicial and legislative branch agencies are also required to file information technology plans with the department by March 15 of each even-numbered year. The Information Technology Department is required to prepare a statewide information technology plan based upon the plans submitted to the department and to distribute copies of that plan to members of the Legislative Assembly. The statewide information technology plan must be developed with emphasis on long-term strategic goals and objectives. Section 54-59-11 also requires any other entity that uses a statewide network or that is a user of services of the Information Technology Department to file a plan that includes and identifies all requirements for voice, data, or video.

North Dakota Century Code Section 54-59-12 requires the Information Technology Department to cooperate with each state entity providing access to any computer data base or electronically filed or stored information to assist in providing economical, efficient, and compatible access. The Chief Information Officer is required to conduct conferences and meetings with political subdivisions to review and coordinate information technology. Section 54-59-12 also requires the Chief Information Officer and the commissioner of the State Board of Higher Education to meet at least twice each year to plan and coordinate their information technology and to consider areas in which joint or

coordinated information technology may result in more efficient and effective state government operations.

North Dakota Century Code Section 54-59-13 requires the Information Technology Department to review the information technology management of executive branch state agencies and institutions, including the institutions under the control of the State Board of Higher Education, to evaluate the entity's planning effectiveness, conformance to its information technology plan, compliance with statewide policies and standards, asset quality, and training methods. The department is also required to conduct an analysis of an entity's contract management system and contractor's compliance with contract provisions with respect to any entity that contracts for information technology services. If an agency or institution is found not to be in conformance to its plan or in compliance with statewide policies and standards and does not agree to come into conformance or compliance, the department is required to report the issue to the Legislative Council.

North Dakota Century Code Section 54-59-17 establishes an Educational Technology Council for coordinating educational technology initiatives for elementary and secondary education and provides for the membership of the council.

North Dakota Century Code Section 54-59-18 provides that the Educational Technology Council shall:

1. Coordinate the use of technology and the development of technology systems to enhance educational opportunities for elementary and secondary education.
2. Cooperate with state agencies and other organizations to develop statewide educational technology systems.
3. Adopt bylaws for the conduct of its affairs.
4. Publish the informational material it deems necessary.
5. Conduct a continuing study to assess the needs, resources, and facilities that are available or which may be required to establish educational technology systems throughout the state.
6. Solicit and receive moneys from public and private sources and expend the moneys for educational technology.
7. Appoint a technology director who shall serve at the will of the council.
8. Hire the director of the Division of Independent Study.

North Dakota Century Code Section 54-59-19 requires the Information Technology Department to prepare and present an annual report to the Information Technology Committee, the Budget Section, and the Legislative Audit and Fiscal Review Committee.

The report must contain:

1. A list of major projects started, ongoing, and completed during the year, including related budgeted and actual costs and the estimated implementation date for each project as well as the actual implementation date for completed projects.
2. A list of all projects for which financing agreements have been executed.
3. Information regarding evaluations of cost-benefit analyses for completed projects.
4. A comparison of the department's rates charged for services compared to rates charged for comparable services in other states and in the private sector.
5. Information regarding the information technology plans, including the department's plan review process, the number of plans reviewed, and the number of plans approved.
6. A description of the benefits to the state resulting from its investment in information technology.

## **STATEWIDE INFORMATION TECHNOLOGY NETWORK**

North Dakota Century Code Section 54-59-08, as stated earlier, requires each state agency and institution that desires access to wide area network services and each county, city, and school district to obtain those services from the Information Technology Department.

In 1984 the Higher Education Computer Network was integrated into the statewide network, which was initiated in 1982, and the North Dakota Information Network was created to jointly manage the network. North Dakota was the first state with combined state government and higher education networks. In 1985 the network was extended to all counties to provide connectivity between county social service boards and the Department of Human Services.

In 1991 the network's backbone was converted to digital facilities, and the Interactive Video Network was implemented on these new digital facilities. In 1992 the North Dakota Information Network selected AT&T's Software Defined Network (SDN) long-distance voice services, and North Dakota became an earlier adopter of virtual private network technology. In 1994 the North Dakota Information Network committed as the anchor tenant for U S West Communications (now known as Qwest) to establish a statewide frame-relay network. Also, in 1994 the North Dakota Information Network provided Internet access from the state network, and Northwest Network was selected as the Internet provider.

In 1996 all buildings on the Capitol grounds with the exception of the Governor's residence were connected with fiber optics cable; and in 1997 state government



entered a partnership with Montana-Dakota Utilities Company for fiber optics cable connection of 10 state government buildings in Bismarck to the Capitol. In 1998 the state moved its cross-LATA connections to Dakota Carrier Network.

On March 27, 2000, the Information Technology Department issued a request for proposals for a new ATM T-1 statewide information technology network. The contract proposal was divided into four components, and the department received 12 responses to the four components. The bid awards were as follows:

Contract Proposal Component	Bid Awards
Internet access component	Sprint
Video-bridging component	Qwest
Customer premises equipment component	Corporate Technologies
Transport component	Dakota Carrier Network

The implementation of the statewide information technology network involves connecting 194 cities and 552 physical locations across the state. The first phase of the implementation, which was completed in December 2000, involved connecting 64 cities and 218 physical locations. The second phase of the implementation, which connects kindergarten through grade 12 schools and public libraries, will be completed during the 2001-03 biennium.

## INFORMATION TECHNOLOGY INITIATIVES

In implementing the goals of the Information Technology Department's business plan and the statewide information technology plan, the Information Technology Department has identified the following information technology initiatives.

### Enterprise Resource Planning System

An enterprise resource planning (ERP) system is a multimodule software system that includes a relational data base and applications for managing purchasing, inventory, personnel, financial planning, and other management aspects. The ERP system initiative of the Information Technology Department for the state of North Dakota will integrate the core financial and administrative applications of state government, higher education, and public education, including financial management, purchasing, budgeting, human resources, payroll, asset management, and student information functions, into one multisuite software

system which would enable all entities to share and use data.

### Geographic Information Systems

A geographic information systems (GIS) is a system capable of capturing, storing, updating, manipulating, analyzing, and displaying all forms of geographical information. The GIS initiative of the Information Technology Department will create a centralized hub for storing of GIS information to enable sharing of information among state agencies, political subdivisions, and citizens.

### E-Government

E-commerce is the use of internetworked computers to create and transform business relationships. E-commerce applications are designed to provide business solutions to improve the quality of goods and services, increase the speed of service delivery, and reduce the cost of business operations. Under the department's e-government initiative, the department will continue to maintain the state portal and develop new statewide on-line applications.

### Electronic Document Management System

Electronic document management systems are a collection of technologies, including document management, imaging, and electronic forms whose purpose is to provide a common interface for storing and accessing information, to increase the efficiency of information creation, capture, storage, and retrieval, and to provide increased information security. Under the electronic document management initiative, the department will develop and support a centralized electronic document management system infrastructure for state agencies.

### 2001-03 FUNDING

The 2001 Legislative Assembly provided funding of \$94,840,190, of which \$19,648,060 is from the general fund and \$75,192,130 is from special funds, to the Information Technology Department for the 2001-03 biennium. This includes funding of \$5,221,466, of which \$868,216 is from the general fund, appropriated for the Division of Independent Study and transferred to the Information Technology Department pursuant to 2001 Senate Bill No. 2251. The 2001-03 appropriation includes funding for the following information technology initiatives:

	General Fund	Special Funds	Total
1. Statewide information technology network			
Phase 1 - State agencies, higher education institutions, cities, and counties (64 cities and 218 physical locations)			
Support for state agencies (2 FTE positions)		\$321,785	\$321,785
Equipment loan payments	\$450,275	1,026,295	1,476,570
Subtotal - Phase 1	\$450,275	\$1,348,080	\$1,798,355
Phase 2 - Elementary and secondary schools and public libraries			
Infrastructure (including 2 FTE positions for management of the network)	\$4,222,550	\$3,700,000	\$7,922,550
Association of Counties (network support)	248,000		248,000
Subtotal - Phase 2	\$4,470,550	\$3,700,000	\$8,170,550
Total - Statewide information technology network	\$4,920,825	\$5,048,080	\$9,968,905
2. ERP system	\$7,500,000		\$7,500,000
3. GIS	\$750,000		\$750,000
4. E-government	\$167,088		\$167,088
5. Electronic document management system		\$1,321,785	\$1,321,785
6. Other			
Educational Technology Council funding <sup>1</sup>	\$1,200,000		\$1,200,000
Center for Innovation and Instruction funding <sup>2</sup>	800,334		800,334
SENDIT Technology Services funding <sup>1</sup>	1,673,669		1,673,669
Prairie Public Broadcasting <sup>2</sup>	1,407,513		1,407,513
Division of Independent Study <sup>1</sup>	868,216		868,216
Security and privacy	143,327	\$143,327	286,654
Research and planning	217,088		217,088
Subtotal - Other	\$6,310,147	\$143,327	\$6,453,474
Total	\$19,648,060	\$6,513,192	\$26,161,252
<sup>1</sup> Funding for these entities in prior bienniums was appropriated to the Department of Public Instruction. Pursuant to 2001 Senate Bill No. 2251, any funding appropriated by the 2001 Legislative Assembly for the Division of Independent Study, SENDIT Technology Services, and the Center for Innovation in Instruction must be transferred to the Information Technology Department for use by the Educational Technology Council.			
<sup>2</sup> Funding for these entities in the prior biennium was appropriated to the North Dakota University System. Pursuant to 2001 Senate Bill No. 2251, any funding appropriated by the 2001 Legislative Assembly for the Division of Independent Study, SENDIT Technology Services, and the Center for Innovation in Instruction must be transferred to the Information Technology Department for use by the Educational Technology Council.			

The Legislative Assembly authorized a total of 244.7 FTE positions for the 2001-03 biennium, 76.7 FTE positions more than the 1999-2001 authorized level. The additional FTE positions include four new positions for the implementation of the statewide information technology network, 26 new positions for software development projects, 37.7 positions related to the Division of Independent Study, and nine new positions for other initiatives.

### STUDY PLAN

The following is a proposed study outline for the committee's consideration relating to its statutory responsibilities and its assigned study responsibilities:

1. Review the activities of the Information Technology Department, the business plan of the department, statewide information technology standards, the statewide information technology plan, and major information technology projects (NDCC Section 54-35-15.2).
2. Receive information from representatives of the Information Technology Department regarding the technological capacity and needs of the state including:
  - a. Status of the statewide information technology network implementation and the department's information technology initiatives.
  - b. State, national, and global information technology trends.
  - c. Future short-term and long-term information technology needs of the state.
  - d. Development capacity and needs in the various regions of the state.
3. Receive information from representatives of the State Library and other entities regarding the delivery of library services by technology, including the location of each library in the state, a review of the use of technology by libraries, and the opportunity for improving library services through the use of technology.
4. Receive reports from the Chief Information Officer of the state regarding the coordination of services with political subdivisions, and 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 (NDCC Section 54-59-12).
5. Receive the following information from the Information Technology Department:
  - a. A report 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 (NDCC Section 54-59-13).
  - b. An annual report regarding information technology projects, services, plans, and benefits (NDCC Section 54-59-19).
  - c. Information regarding performance measures developed by the department to assist the Legislative Assembly in determining the effectiveness and efficiency of
    - e. Changes in the role of communications, media, networks, and public utilities.
    - f. Public policy with respect to the role of regulation and deregulation.

- the department's operations (Section 9 of Senate Bill No. 2043).
6. Receive a report from State Radio Communications on the operation of any recommended changes in 911 telephone system standards and guidelines (NDCC Section 57-40.6-11).
  7. Receive a report from the Public Safety Answering Points Coordinating Committee on city and county fees on telephone exchange access service and wireless service (NDCC Section 57-40.6-12).
  8. Receive periodic reports (at least once every five months) from the Superintendent of Public Instruction on the Superintendent's pursuit of grant funds during the 2001-03 biennium for projects relating to the use of technology in elementary and secondary education (Section 10 of Senate Bill No. 2251).
  9. Receive testimony from interested persons and organizations regarding the committee's study of the technological capacity and needs of the state, including the delivery of library services by technology.
  10. Develop recommendations and any necessary legislation to implement the committee's recommendations.
  11. Prepare a final report for submission to the Legislative Council.

ATTACH:1