

## INFORMATION TECHNOLOGY UNIFICATION INITIATIVE - BACKGROUND MEMORANDUM

Section 7 of House Bill No. 1021 (2019) ([appendix](#)) provides for a study during the 2019-20 interim regarding the Information Technology Department's (ITD) transition to the run-grow-transform model and the information technology (IT) unification initiative. The study must include a review of changes in fees, services, operations, processes, and systems. The Legislative Management is required to report its findings and recommendations, together with any legislation necessary to implement the recommendations, to the 67<sup>th</sup> Legislative Assembly. The Legislative Management has assigned the responsibility for this study to the Information Technology Committee.

### DEPARTMENT HISTORY

In 1969 the Central Data Processing Division of the Office of Management and Budget (OMB) was established to create an electronic data processing center to be used by all state agencies except the institutions of higher education, Job Service North Dakota, and the Adjutant General. In 1981 the Director of the Central Data Processing Division was directed to supervise all executive branch agency data processing activities and to approve data processing equipment acquisitions. In 1989 the division was renamed the Information Services Division and was directed to prepare guidelines for agency IT plans; develop a statewide plan based on those plans; develop statewide IT policies, standards, and guidelines; coordinate services with political subdivisions and higher education; and report noncompliance to the Legislative Assembly.

In 1999 the Information Services Division of OMB was established as a separate cabinet-level agency called the Information Technology Department and the Chief Information Officer (CIO) position was created. The following is a summary of major department changes since ITD was established in 1999:

- 2001 - The Education Technology Council was created and moved to ITD for coordination of all K-12 education initiatives.
- 2001 - The Criminal Justice Information Sharing (CJIS) program was established for exchanging information among criminal justice-related entities.
- 2001 - The geographic information system was implemented to share geospatial information between state agencies.
- 2001 - ITD and the North Dakota University System launched ConnectND to replace all financial, human resources, and student information systems.
- 2003 - The State Information Technology Advisory Committee was given responsibility for the prioritization of state government strategic initiatives.
- 2004 - Server consolidation was launched, resulting in maintenance efficiencies and cost savings.
- 2004 - Consolidation of IT functions, including email, file and print server administration, database administration, storage, application server, hosting services, and related equipment.
- 2007 - The statewide longitudinal data system began providing data.
- 2009 - The Health Information Technology Office began implementing statewide interoperable health information infrastructure.
- 2014 - Centralized desktop support services were launched for 19 agencies.
- 2015 - The CJIS program was transferred to the Attorney General's office.
- 2015 - A feasibility study of the statewide interoperable radio network began.
- 2018 - Began transitioning state agency email servers to cloud-based Microsoft Exchange Online.
- 2018 - Established a new organizational structure, including the creation of Chief Operations Officer (COO), Chief Data Officer (CDO), Chief Technology Officer (CTO), Chief Reinvention Officer (CRO), and Chief Information Security Officer (CISO) positions. The CDE, CTO, and CRO were new positions while the COO and CISO were positions that existed in ITD, but titles and some job duties were changed. The department requested that these five positions be nonclassified, but the State Personnel Board did not grant this request, instead requiring the positions to remain in the classified employee system.
- 2019 - The 2019 Legislative Assembly authorized a shared services IT unification initiative, including a transfer of 96 full-time equivalent (FTE) positions from five agencies, as a pilot project to consolidate IT resources in state government.

**DEPARTMENT FULL-TIME EQUIVALENT POSITIONS**

The following is a history of ITD's authorized FTE positions:

<b>Biennium</b>	<b>Authorized FTE Positions</b>	<b>Increase (Decrease) From Prior Biennium</b>	<b>Percentage Increase (Decrease) From Prior Biennium</b>
2001-03	244.70	N/A	N/A
2003-05	248.20	3.50	1.4%
2005-07	265.20	17.00	6.8%
2007-09	306.20	41.00	15.5%
2009-11	328.20	22.00	7.2%
2011-13	336.30	8.10	2.5%
2013-15	340.30	4.00	1.2%
2015-17	350.30	10.00	2.9%
2017-19	344.30	(6.00)	(1.7%)
2019-21	402.00	57.70	16.8%

**RUN-GROW-TRANSFORM MODEL**

The Information Technology Department is considered a service agency, providing certain IT services to other state agencies in exchange for funding provided by the agency receiving services. During the 2017-18 interim, ITD began implementing a run-grow-transform model to reallocate how department resources are used to achieve efficiencies. The department reported allocating FTE positions and resources as follows:

- 91 percent to run operations;
- 9 percent for growth; and
- 0 percent to transformation.

The Information Technology Department reported the preferred allocation of FTE positions and resources would be 50 percent responsible for running operations, 30 percent dedicated to growth, and 20 percent committed to transformation. The department reported private sector organizations, such as Google, Microsoft, Mayo Clinic, and Cleveland Clinic have used similar run-grow-transform models. A transition to this model was started in an effort to align with the objectives of the IT unification initiative.

**INFORMATION TECHNOLOGY UNIFICATION INITIATIVE**

During the 2017-18 interim, ITD began the process of consolidating IT services, such as desktop support and help desk services, and to consolidate FTE IT positions in the Governor's cabinet of executive branch state agencies with existing ITD FTE positions and resources in a shared services IT unification initiative. The department reported the unification initiative would improve IT productivity by establishing common systems and processes for communication and collaboration among executive branch agencies. The department reported the unification initiative would focus on cost reduction and operational efficiencies and provide data hosting, storage, and archiving opportunities.

According to ITD, unification will eliminate IT redundancies in executive branch agencies, decrease enterprise risk, improve IT investment success, and maximize cyber defense by utilizing the same system, data protection, and IT training. The state has seven service management systems and four application development models. The department reported the unification initiative would reduce the state to one service management system and one application development model and would result in an estimated 15 to 22 percent increase in efficiency for FTE IT positions.

To start the unification initiative, ITD conducted an assessment of all executive branch IT employees, evaluating staff skills, needs, strategies, objectives, and costs. The major phases of the unification workforce transition process included data gathering, transitional grouping, deep data analysis, and reporting. During the 2017-18 interim, ITD identified all positions in Governor's cabinet agencies that include IT-related functions to evaluate whether these positions would be included in the unification plan. The department initially estimated over 700 FTE positions in ITD and the Governor's cabinet agencies perform IT-related job duties. Phase 1 of the department's workforce transition process evaluated 577 of these FTE positions and determined 513 FTE positions actually perform IT-related job functions, including 344 FTE positions in ITD.

The Governor's recommendation for ITD's 2019-21 biennium budget included a transfer of 145.5 FTE IT positions from 14 agencies in the Governor's cabinet, as well as the Department of Trust Lands, to ITD as follows:

Budget No. - Agency	FTE Increase (Decrease)
110 - Office of Management and Budget	4.00
226 - Department of Trust Lands	2.00
301 - State Department of Health	4.50
303 - Department of Environmental Quality	1.00
325 - Department of Human Services	48.00
380 - Job Service North Dakota	16.00
485 - Workforce Safety and Insurance	12.00
504 - Highway Patrol	2.00
530 - Department of Corrections and Rehabilitation	6.00
540 - Adjutant General, Department of Emergency Services	4.00
601 - Department of Commerce	1.00
720 - Game and Fish Department	3.00
750 - Parks and Recreation Department	1.00
801 - Department of Transportation	41.00
<b>Total</b>	<b>145.50</b>

The Governor's recommendation for the IT unification initiative included transfers of funding from the 14 agencies to ITD, as follows:

	ITD Operating Service Fund
Salaries for 145.50 FTE positions transferred to ITD from five agencies	\$27,991,396
Temporary salaries	544,896
Operating expenses for transferred FTE positions	15,920,000
<b>Total</b>	<b>\$44,456,292</b>

The 2019 Legislative Assembly approved a transfer of 96 FTE IT positions from five agencies for the 2019-21 biennium. The transfer includes a reduction of salaries and wages in each agency transferring FTE positions to ITD and a larger increase in operating expenses to allow the agency to pay ITD for the salaries and wages of the FTE positions, including compensation increases authorized by the Legislative Assembly. The department's salaries and wages line item was then increased to allow the department to bill and collect from each unification agency for the salaries and wages of the transferred FTE positions.

The Information Technology Department's operating expenses line item was also increased to allow ITD to purchase IT equipment, computers, software licenses, and other IT-related items for the unification agencies, rather than the unification agencies purchasing these items separately. This will allow for potential cost-savings by ITD ordering in bulk and negotiating one contract rather than multiple contracts by each agency and allow for efficiencies as ITD can now order similar products for multiple agencies instead of each unification agency ordering similar but potentially noncompatible products. Unification agencies will now pay ITD for these items rather than paying third-party vendors. Positions transferred to ITD are as follows:

Budget No. - Agency	FTE Increase (Decrease)
226 - Department of Trust Lands	2.00
325 - Department of Human Services	48.00
540 - Adjutant General, Department of Emergency Services	4.00
750 - Parks and Recreation Department	1.00
801 - Department of Transportation	41.00
<b>Total</b>	<b>96.00</b>

The 2019 Legislative Assembly approved transfers of funding from the five unification agencies to ITD for the IT unification initiative as follows:

	ITD Operating Service Fund
Salaries for 96 FTE positions transferred to ITD from five agencies	\$18,266,327
Temporary salaries	544,896
Operating expenses for transferred FTE positions	8,835,127
<b>Total</b>	<b>\$27,646,350</b>

Section 8 of House Bill No. 1021 (2019) provides legislative intent that ITD provide direction to the executive branch agencies in the Governor's cabinet not included in the IT unification initiative pilot project regarding IT strategic planning and operations. Further intent was provided that the 67<sup>th</sup> Legislative Assembly implement the findings and recommendations resulting from the IT unification initiative pilot project.

**MAJOR PREVIOUS INFORMATION TECHNOLOGY CONSOLIDATION INITIATIVES  
2003-04 Interim**

**FTE Unification, IT Organizational Study, and IT Management Study**

During the May 2003 special session, the Legislative Assembly approved House Bill No. 1505, which included various consolidation and unification initiatives for ITD. Section 10 of the bill included a requirement for 15 agencies to transfer a total of 24 FTE positions to ITD on November 1, 2003. The agencies were only allowed to consider IT-related positions that were most closely associated with services primarily performed by ITD when choosing which FTE positions to transfer. The agencies and FTE positions were as follows:

Agency	FTE Positions Transferred to ITD
110 - Office of Management and Budget	1.00
127 - Tax Commissioner	1.00
201 - Department of Public Instruction	1.00
301 - State Department of Health	1.00
325 - Department of Human Services	5.00
380 - Job Service North Dakota	3.00
405 - Industrial Commission	1.00
471 - Bank of North Dakota	1.00
473 - Housing Finance Agency	1.00
485 - Workers Compensation Bureau	2.00
504 - Highway Patrol	1.00
530 - Department of Corrections and Rehabilitation	2.00
720 - Game and Fish Department	1.00
770 - State Water Commission	1.00
801 - Department of Transportation	2.00
<b>Total</b>	<b>24.00</b>

Each of the 15 agencies were required to establish an IT services accounting code for funding related to the salaries and wages for the identified positions and related funding for equipment, training, office rent, travel, contracted services, or other related costs. Each agency was required to use the funding in their IT service account to purchase IT services from ITD. Each agency was entitled to receive services from ITD equivalent to services that would have been performed by the employees transferred from the agency to ITD at a cost not exceeding the amounts transferred to the agency's IT services account. The Supreme Court and Attorney General were required to continue collaborating with ITD regarding the implementation of the CJIS program.

Section 11 of the bill required ITD and OMB to achieve efficiencies during the 2003-05 biennium related to the consolidation of IT functions, including email, file and print server administration, database administration, storage, application server, hosting services, and related equipment. The Information Technology Department and OMB were given full discretion to achieve efficiencies and cost-savings from consolidating IT services and allowed the two departments to make modifications as necessary. Both departments were required to achieve accumulated net savings of \$1.4 million for the 2003-05 biennium as a result of the IT consolidation. The director of OMB was required to transfer these accumulated savings to the general fund by June 30, 2005.

Section 13 of the bill appropriated \$350,000 from the general fund to the Legislative Council for the 2003-05 biennium for the purpose of contracting with consultants to conduct an IT organizational study and an IT management study and to provide assistance with the preparation of the request for proposals and consultant oversight. The studies were required to be completed by October 1, 2003, and periodic progress reports on the status of the studies were provided to the Information Technology Committee. The Information Technology Committee was allowed to extend the October 1, 2003, deadline as it deemed appropriate.

Pacific Technologies, Inc. was selected as the contractor to conduct the IT organizational study and IT management study. Major recommendations from the studies are as follows:

Major Recommendations	Primary Benefits
<p><b>Workstation support and help desk services consolidation</b> - Consolidate all workstation support and help desk services within ITD, including:</p> <ul style="list-style-type: none"> <li>• Initial problem reporting and resolution</li> <li>• Workstation environment maintenance and support</li> <li>• Adds, moves, and changes</li> <li>• Hardware replacement management</li> <li>• Associated performance measurement and management</li> </ul>	<p>Positions the state's IT environment for the long term, allows state agencies to focus on core business needs rather than technical infrastructure, and leads to long-term labor cost-savings.</p>

Major Recommendations	Primary Benefits
<p><b>Workstation standardization</b> - Move to a highly standardized workstation environment on a statewide basis with ITD managing a workstation replacement program</p> <p><b>Server consolidation</b> - Continue to consolidate all agency-managed servers into ITD</p> <p><b>IT governance</b> - Improve the existing IT governance processes by:</p> <ul style="list-style-type: none"> <li>• Improving the processes and tools for IT project evaluation</li> <li>• Improving mechanisms to support cost-containment</li> <li>• Developing meaningful statewide management and reporting views of IT initiatives</li> <li>• Implementing IT performance measures</li> <li>• Establishing an IT innovation fund</li> </ul>	<p>Improves the state's purchasing power and license management, enhances information sharing and staff productivity through common and current workstation tools, and promotes the provisioning of basic IT services as a "utility."</p> <p>Allows state agencies to focus on core business needs rather than technical infrastructure, promotes the provisioning of basic IT services as a "utility," and leads to long-term labor and hardware cost-savings.</p> <p>Leads to better-informed decisionmaking, provides a more equitable, business-based, and consistent evaluation of IT initiatives, and provides the best opportunity to manage application portfolio costs.</p>

A summary of estimated savings and costs of the recommendations are as follows:

Recommendations	Potential Annual Savings (Total Funds)	Recurring Annual Expenditures (Total Funds)	One-Time Costs (Total Costs)
Workstation support and help desk services consolidation	\$519,000	\$60,000 to \$260,000	\$160,000 to \$1,010,000
Workstation standardization	Unknown	\$2,950,000 to \$3,680,000	\$20,000 to \$430,000
Server consolidation	\$162,000		\$0 to \$20,000
IT governance	Unknown	\$200,000 to \$340,000	\$480,000 to \$1,010,000
Total	\$681,000	\$3,210,000 to \$4,280,000	\$660,000 to \$2,470,000

The full results of the studies can be viewed in the Legislative Council's 2005 Final Report.

The committee recommended Senate Bill No. 2037 (2005) related to the State Board of Higher Education's responsibility for managing and regulating IT planning and services for institutions under its control and Senate Bill No. 2038 (2005), related to the establishment of a statewide IT improvements revolving fund. These bills were not approved by the 2005 Legislative Assembly.

**2005-06 Interim**

The 2005-06 interim Information Technology Committee reviewed the study recommendations of the 2003-04 interim Information Technology Committee and received the following status update from ITD regarding the recommendations:

Major Recommendations	Status
<p><b>Workstation support and help desk services consolidation</b> - Consolidate all workstation support and help desk services within ITD, including:</p> <ul style="list-style-type: none"> <li>• Initial problem reporting and resolution</li> <li>• Workstation environment maintenance and support</li> <li>• Adds, moves, and changes</li> <li>• Hardware replacement management</li> <li>• Associated performance measurement and management</li> </ul>	<p>ITD is requesting funding for the 2007-09 biennium for workstation support to agencies as requested.</p>
<p><b>Workstation standardization</b> - Move to a highly standardized workstation environment on a statewide basis with ITD managing a workstation replacement program</p>	<p>Standard configurations for a single brand of workstations for all state agencies were developed through the enterprise architecture process and ITD awarded a contract for desktop and laptop acquisition to Hewlett Packard.</p>
<p><b>Server consolidation</b> - Continue to consolidate all agency-managed servers into ITD</p>	<p>ITD completed the functional consolidation process during the 2003-04 interim and eliminated a number of servers. The department continues to reduce the number of servers as outdated applications and servers are replaced.</p>

Major Recommendations	Status
<p><b>IT governance</b> - Improve the existing IT governance processes by:</p> <ul style="list-style-type: none"> <li>• Improving the processes and tools for IT project evaluation</li> <li>• Improving mechanisms to support cost-containment</li> <li>• Developing meaningful statewide management and reporting views of IT initiatives</li> <li>• Implementing IT performance measures</li> <li>• Establishing an IT innovation fund</li> </ul>	<p>ITD has implemented an IT project prioritization process. The department's enterprise architecture process is maturing and procurement and asset management have been strengthened.</p>

**2013-14 Interim**

**Hardware Relocation and Consolidation Study**

In Section 8 of Senate Bill No. 2021 (2013), the Legislative Assembly appropriated \$200,000 to OMB for the purpose of contracting with a private consultant to conduct an IT relocation and consolidation study of IT equipment operated by the Attorney General and by agencies that have been exempted by OMB under North Dakota Century Code Section 54-59-22, for the 2013-15 biennium. The section required if the findings of the study indicate that a partial or full consolidation of IT services or relocation of IT hardware, are feasible and desirable, OMB and ITD must assist any affected agency in developing an implementation plan as a part of the agency's 2015-17 biennium budget request.

The 2013-14 interim Information Technology Committee learned OMB contracted with UmmelGroup International, Inc., to conduct the study. Based on the results of the study, consolidation of IT equipment is unlikely to provide significant cost-savings, but relocating the hardware to the ITD data centers would increase physical and network security. The recommendations of the study included consolidating and relocating IT hardware from the Public Service Commission, the Department of Mineral Resources, and the State Water Commission to ITD.

The study results recommended not consolidating and relocating the hardware from the Attorney General's office because of the federal security requirements related to the CJIS program. The recommendation was to consolidate only the hardware and not IT staff. Benefits of consolidation include enhanced security, improved backup and redundancy measures, and the potential for up to 15 percent time saving for the agencies' IT staff. The results identified that the risks of consolidation include personality conflicts, loss of key agency personnel, and additional time required to learn a new system. The Office of Management and Budget did not propose any legislative changes related to IT hardware consolidation and relocation and did not provide consolidation recommendations in the executive budget.

The committee recommended Senate Bill No. 2051 (2015) related to the implementation of the results of the hardware relocation and consolidation study. The bill would have exempted IT hardware operated by the Attorney General's office from consolidation and relocation and removed the ability of OMB to grant exemptions from the required use of hosting services and other IT-related services. As a result, the IT hardware operated by the Department of Mineral Resources, Public Service Commission, and State Water Commission would be relocated and consolidated to ITD. The bill was not approved by the 2015 Legislative Assembly.

**2013-14 Interim**

**Desktop Support Study**

In Section 9 of Senate Bill No. 2021 (2013), the Legislative Assembly required ITD, prior to January 1, 2014, to conduct a study of all state agencies' IT desktop support to determine the feasibility and desirability of centralization of desktop support services through ITD for all state agencies. The study must include a review of the support staff, associated costs to the respective agency, use of third-party IT contractors, and a cost-benefit comparison of current state agencies' desktop support self-services and desktop support services provided by ITD.

The 2013-14 interim Information Technology Committee learned ITD contracted with Eide Bailly LLP to conduct the study. The study included interviewing employees from over 50 agencies and comparing agency practices to industry benchmarks. The results of the study included the recommendation for a hybrid model in which ITD would provide desktop support to 32 smaller agencies, while 16 larger agencies would provide their own desktop support.

The committee recommended House Bill No. 1053 (2015) related to the implementation of the results of a desktop support study. The bill would have created a new section in Chapter 54-59 and amended Section 54-59-05. The bill required approximately 35 state agencies to obtain centralized desktop support services from ITD and required the department to make available five major desktop support services for all state agencies. The five major desktop support services include procurement services, IT hardware inventory management services, a standardized system to track user issues, antivirus software, and mobile device management services.

House Bill No. 1053 (2015) was not approved by the 2015 Legislative Assembly. The desktop support initiative was included in Sections 7, 8, and 9 of House Bill No. 1021 (2015), the ITD budget, requiring 19 state agencies to obtain centralized desktop support services from ITD.

### STUDY PLAN

The following is a proposed study plan for the committee's consideration in its study of the ITD run-grow-transform model and the IT unification initiative:

1. Receive and review information from representatives of ITD regarding:
  - a. The advantages and disadvantages of IT unification approved for the 2019-21 biennium;
  - b. How the IT unification initiative approved for the 2019-21 biennium will affect changes in fees, services, operations, processes, and systems;
  - c. How the new 96 FTE positions transferred to ITD for the 2019-21 biennium will be integrated in the department and the effect the FTE positions will have on ITD operations;
  - d. The new ITD organizational chart after integrating the new 96 FTE positions;
  - e. How the 402 FTE positions authorized for the 2019-21 biennium will be reallocated to better align with the department's run-grow-transform model goals;
  - f. Other efforts the department intends to take to implement the run-grow-transform model;
  - g. How ITD's transition to cloud computing affects IT unification;
  - h. The effects of the IT unification initiative on state cybersecurity initiatives; and
  - i. The department's plans for IT unification for the 2021-23 biennium and future bienniums, including how those plans will affect fees, services, operations, processes, and systems.
2. Receive and review information from representatives of the following:
  - a. Agencies selected for IT unification for the 2019-21 biennium regarding any benefits or concerns of IT unification;
  - b. Agencies in the Governor's cabinet not selected for IT unification for the 2019-21 biennium regarding any benefits or concerns of IT unification, including whether the agency would willingly participate in future IT unification initiatives; and
  - c. Other executive branch agencies not selected for IT unification for the 2019-21 biennium regarding any benefits or concerns of IT unification, including whether the agency would willingly participate in future IT unification initiatives.
3. Review information regarding IT unification initiatives of other state governments.
4. Receive and review information from interested persons regarding the committee's study of ITD's run-grow-transform model and the IT unification initiative.
5. Develop recommendations and any bill drafts necessary to implement the recommendations.
6. Prepare a final report for submission to the Legislative Management.

ATTACH:1