

CIO REPORT OF PROPOSED MAJOR IT PROJECTS FOR THE 2025-2027 BIENNIUM PUBLISHED SEPTEMBER 30, 2024



Information Technology

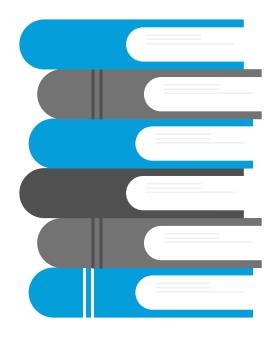
Report Background



- NDCC 54-35-15.2.
 - 13. Receive a report from the chief information officer before October first of each even-numbered year regarding proposed major information technology projects and other information technology issues for the next biennium.
- "Other technology issues for the next biennium" were presented and discussed during the Sept. 10, 2024, Information Technology Committee meeting, and are contained in the presentation material.
- This slide deck presents the remaining requirement, which is an overview of proposed major IT project information that is currently known from the statewide IT planning process.

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Listing of Proposed Major IT Projects

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Proposed Major IT Projects

Sponsoring Agency	Project Name	\$ Estimated
108-Secretary of State	Central Indexing System Upgrade	\$910,000
112-Information Technology Department	Statewide Data Strategy (Lighthouse Continuation)	\$16,086,762
112-Information Technology Department	Digital Experience (Business Gateway Continuation)	\$16,227,923
112-Information Technology Department	Vulnerability Remediation	\$4,771,963
112-Information Technology Department	IT Modernization and Innovation Fund	\$45,573,956
112-Information Technology Department	NDHIN Data Lake	\$1,716,105
112-Information Technology Department	Data Center Infrastructure Upgrade	\$1,719,061
125-Attorney General	Victim Notification System Replacement	TBD
180-Judicial Branch-State Court	Al for Clerks	\$1,250,000
180-Judicial Branch-State Court	Problem Solving Court Case Management System	\$780,000
180-Judicial Branch-State Court	Digital Evidence Management	\$980,000
180-Judicial Branch-State Court	Secure Access to Court Records	\$960,000

Proposed Major IT Projects

Sponsoring Agency	Project Name	\$ Estimated
303-Environmental Quality	Solid Waste Environmental Data System Upgrade	\$585,000
325-Health and Human Services	Vocational Rehabilitation System Replacement	TBD
325-Health and Human Services	Food and Lodging Management System	TBD
325-Health and Human Services	Health Facilities-EMS Licensure System	TBD
325-Health and Human Services	State Hospital Network Redundancy	TBD
325-Health and Human Services	EHR Pharmacy System Backup and Redundancy	TBD
325-Health and Human Services	Technical Debt Remediation	TBD
485-Workforce Safety and Insurance	Claims and Policy System (CAPS), Release 13	\$2,452,357
485-Workforce Safety and Insurance	Claims and Policy System (CAPS), Release 14	\$2,706,443
485-Workforce Safety and Insurance	myWSI, Release 9	\$675,740

Proposed Major IT Projects

Sponsoring Agency	Project Name	\$ Estimated
530-Corrections and Rehabilitation	Offender Management System	\$58,500,000
530-Corrections and Rehabilitation	Timekeeping System	\$2,599,600
530-Corrections and Rehabilitation	IT Data Management & Enhancements	\$1,549,552
530-Corrections and Rehabilitation	Facility Case Management System (Elite Upgrade)	\$2,961,000
530-Corrections and Rehabilitation	College Technology Solution	\$675,000
770-Water Resources	Migration of Big Data	\$2,171,284
801-Transportation	Modernized Appointment System	\$2,500,000
801-Transportation	Chatbot	\$750,000
801-Transportation	Al Search for DOT Manuals	\$1,000,000
801-Transportation	Spring Load Restriction Technology	\$1,700,000
801-Transportation	Grants Management System	\$1,000,000

Proposed Major IT Project Details

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Secretary of State

Project Name	Central Indexing System Update
Business Need	The current Central Indexing System was implemented in March 2016 and will be almost ten years old by the time it could be replaced in the next biennium. The version that was implemented in March 2016 is Version 1.0. The current version offered by the vendor, Civix, is Version 4.0, so the system is three versions behind. This can lead to issues with system maintenance and enhancements that may be needed in the future as well as create risk related to future vendor support for the outdated version.
Proposed Solution	The agency intends to upgrade the existing system to the most recent version provided by the vendor or issue a request for proposal (RFP) for a commercial off-the-shelf (COTS) system.
Funding Request	\$910,000

Project Name	Statewide Data Strategy (Lighthouse Project continuation)
Business Need	State data is scattered, spread across different agencies in silos, locked in outdated systems, and often underutilized. Currently, most state agencies operate in silos, each with their own data systems, standards, and processes. This fragmentation not only hinders collaboration but also limits our ability to harness data for crossagency insights. Additionally, the lack of standardized data governance practices exposes us to risks related to data privacy, security, and data quality.
Proposed Solution	Implement a statewide data strategy (and related process-improvement and technology work) as was defined in the current biennium, which will establish a framework for how data is managed, governed, and used. The data strategy will support four key workstreams: implementation of a statewide data governance program; establishment of foundational technical capabilities and structures to support the current and future data needs of State Agencies; development of a data-literate workforce to address data skills requirements and gaps; and expansion of self-service analytic capabilities, interactive data visualization, data analytic/science services, and artificial intelligence (AI) capabilities.
Funding Request	\$16,086,762

Project Name	Digital Experience (Business Gateway continuation)
Business Need	Improving the digital experience for state citizens brings significant benefits, including greater convenience, efficiency, and engagement with government services. By creating more user-friendly and accessible digital platforms, citizens can easily access critical services, such as renewing licenses, paying taxes, or obtaining public records, without the need for physical visits or navigating complex processes. This enhances inclusivity, as digital services can be made available 24/7 and optimized for all devices, ensuring accessibility for people with different needs. Additionally, a better digital experience boosts trust and satisfaction in government by reducing wait times, improving transparency, and allowing for more personalized, streamlined interactions with state agencies, ultimately leading to more efficient public service delivery.
Proposed Solution	Continue to expand on the initial business gateway platform by building on additional service offerings, systems integrations, and a modernized and future-focused technology base.
Funding Request	\$16,227,923

Project Name	Vulnerability Remediation
Business Need	Cybersecurity will always be at the forefront of the work NDIT does. A core NDIT strategy is reducing the State's risk posture through dedicated remediation efforts as well as utilizing tool-based automation to help prevent future vulnerabilities from being introduced to the State's environment through code releases to software applications.
Proposed Solution	Continued improvement in Vulnerability Remediation will revolve around three areas: a. People – Add staffing to expedite remediation of vulnerabilities on hosted platforms, implementation of web application firewalls, and analysis of impacts of vulnerabilities across environments. b. Process – Process enhancements, using the data from our vendor's assessment to build out process enhancements, including risk acceptance. c. Technology – Procure technologies to aggregate risk data and prevent vulnerabilities from being exposed publicly across both our internal code development teams (SAST) as well mitigate web exposure of all hosted web platforms (WAF), safeguarding our citizen data.
Funding Request	\$4,771,963

Project Name	IT Modernization and Innovation Fund
Business Need	The State needs to start addressing the aging applications creating continuous tech debt. NDIT will be looking to create a sustainable fund for modernization and innovation efforts. Legacy systems and outdated technology not only drain financial resources through high maintenance costs, but they also hinder innovation and productivity, increase cybersecurity vulnerabilities, and create barriers to integrating modern solutions. By actively addressing tech debt, NDIT can improve service delivery, reduce operational risks, and position the State for future growth, all while saving costs in the long run.
Proposed Solution	Because technical debt will be a continual challenge over multiple biennium, NDIT seeks to create a sustainable fund for modernization and innovation efforts. Modernization will include all components from the evaluation of workflow process, identification of automation and AI opportunities, and evaluation to encourage re-use opportunities across government. Through this approach and by addressing technical debt with modern platforms (e.g., modernizing or replacing certain system), we will minimize long-term operational expense and risk, while also maximizing experience for all stakeholders interacting within applications.
Funding Request	\$45,573,956

Project Name	ND Health Information Network Data Lake
Business Need	Reporting and visualization of NDHIN data is limited, and it requires customized analysis.
Proposed Solution	Implementation of Orion Health's Lakehouse, which will allow NDHIN data to be contributed to the platform. The end goal of this effort would be the transformation of the data sets to allow authorized personnel to be able to query it and to create data visualizations and reports.
Funding Request	\$1,716,105

Project Name	Data Center Infrastructure Upgrade
Business Need	As a result of maintenance work conducted in the Judicial Wing during the 2023-2025 biennium, it was uncovered that the cooling loop for the primary State datacenter was susceptible to a single point of failure, posing a risk to all hosted platforms for the State.
Proposed Solution	To minimize risk of highly impacting downtime to the State, this project will assist NDIT with updating the cooling system in the primary data center to ensure redundancy for the cooling system, or alternatively assist with procuring alternative data center space with a vendor.
Funding Request	\$1,719,061

Attorney General

Project Name	Victim Notification System Replacement
Business Need	Victims have the right to receive notifications throughout the criminal justice process. Having an automated system provides those notices in a timely manner, as well as provides efficiencies within the agencies required to provide those notifications. The vendor that provides the current notification system is not sufficiently supporting the product appropriately, causing incorrect information and notifications to go out. This is causing a risk to victims and public safety.
Proposed Solution	Purchase and implement a new victim notification system.
Funding Request	TBD

Project Name	Al for Clerks
Business Need	Use of this software is anticipated to automate a manual process while increasing the timeliness of filings while allowing the clerks to handle the problem filings. To file documents with the North Dakota Court System, a user will file/submit via software for "File and Serve". This then sends the documents to the appropriate Clerk of Courts office for review and filing the document into the correct case in the CMS. The courts are attempting to use artificial intelligence to learn and automate the process to review, scan, and file documents into the corresponding case within the case management system. Use of this software is anticipated to automate a manual process while increasing the timeliness of filings while allowing the clerks to handle the problem filings.
Proposed Solution	Obtain AI software designed for the purpose of handling and streamlining electronic filing process within the Clerk of Courts Offices.
Funding Request	\$1,250,000

Project Name	Problem Solving Court Case Management System
Business Need	The North Dakota Courts System does not currently use a case management system for problem solving courts. Problem solving courts are non-traditional court processes that focus on specific types of offenses or groups like drug use, domestic violence, or veterans. Instead, records are held by probation or court coordinators and are stored in software such as Word or Excel, on paper, or within a general case management system.
Proposed Solution	Obtain and implement a single case management system for use by personnel involved with the problem-solving courts.
Funding Request	\$780,000

Project Name	Digital Evidence Management
Business Need	The North Dakota Court System does not currently use a digital evidence management system. Instead, the court receives digital evidence through various methods, including CDs, flash drives, external drives; and the digital images, videos, or documents are in a variety of formats, some of which are propriety. All this data and the devices need to be stored, managed, cataloged and eventually retrieved. The current storing, retrieval, publication, and sharing of the digital evidence is not efficient which the courts are looking to remedy. Also, as the courts have seen the increase of digital information over the years, the court is trying to prepare for an even greater influx of data in the future by implementing a system to handle the processes.
Proposed Solution	Obtain and implement a software system to satisfy the requirements documented in the RFI released earlier this year and summarized in above paragraph.
Funding Request	\$980,000

Project Name	Secure Access to Court Records
Business Need	The North Dakota Court System currently has software systems for public and restricted access to search Court records. The software also gives the ability to the public to pay fines and fees. This software can be defined as a legacy system and will be deprecated by the vendor soon. The court wants to continue to provide public access to court records so will need to obtain and implement replacement software systems.
Proposed Solution	Replace the current software by obtaining and implementing the latest functionality equivalent versions of the software from the vendor and allowing for functional growth options.
Funding Request	\$960,000

Environmental Quality

Project Name	Solid Waste Environmental Data System Upgrade
Business Need	Improve the overall tracking and management of data from the solid waste program and streamline the business processes across the department by using a consistent system. This will also reduce the number of data system the department needs to manage and maintain, so staff can spend more time on environmental regulation and less on data entry and data tracking.
Proposed Solution	Add this capability to CERIS-ND, which is the Environmental Regulatory Data System developed by Windsor Solutions, named nVIRO, but rebranded in ND as CERIS-ND.
Funding Request	\$585,000

Project Name	Vocational Rehabilitation System Replacement
Business Need	The current vocational rehab technology system is reaching its end of life, and needs to be replaced.
Proposed Solution	Replace the existing system, AWARE.
Funding Request	TBD

Project Name	Food and Lodging Management System
Business Need	The current food and lodging management system is reaching its end of life, and needs to be replaced.
Proposed Solution	Initial configuration, software license fees, ongoing software maintenance and upgrades along with external system integration that would include National Food Safety Data Exchange (NFSDX), FDA, EPA, USDA, Payment Processors, Accounting/Finance, Lab, Information Concentrators (e.g. Alstar), Trade Organizations, Interstate Agencies (e.g. SOS), Intrastate Connectivity, Industry, Approved Data Sharing Org (e.g. researchers).
Funding Request	TBD

Project Name	Health Facilities / EMS Licensure Management Information System
Business Need	The EMS and Health Facilities Units share a licensure management system that includes the EMS personnel, the nurse aid registries, and the Health Licensing Registry along with the EMS agency and hospital databases. This system, despite its upgrades, has reached the end of its useful life and is no longer technologically capable of supporting or handling the size and complexity of the state's current needs.
Proposed Solution	Replace the exiting Albertsons system.
Funding Request	TBD

Project Name	State Hospital Network Redundancy
Business Need	A component of a May 2024 state and compliance consulting review included external evaluation of the Electronic Health Records system, and other IT components of operations. Findings indicated the State Hospital and Clinics lack network redundancy, which is of particular concern for the State Hospital.
Proposed Solution	Work with NDIT to have the required network redundancy systems implemented.
Funding Request	TBD

Project Name	Electronic Health Record (EHR) Pharmacy System Backup Redundancy
Business Need	Because our EHR data is hosted by a vendor, we do not currently have options for accessing that data in the event of vendor network failure or localized internet failure. This is of particular concern for State Hospital patient safety, as current medication plans and distribution information would be based on collective staff recollection. While we have been working to develop a minimal viable solution for the State Hospital only over the last two years, we have hit several barriers including lack of expertise (HHS and NDIT) in how healthcare system operationalize such protocols, particularly as it relates to HIPAA compliance standards.
Proposed Solution	Engage with a consultant to develop a system recovery and backup solution, with the hope that the solution would be able to be implemented with the requested funding.
Funding Request	TBD

Project Name	Technical Debt Remediation
Business Need	Legacy systems and outdated technology not only drain financial resources through high maintenance costs, but they also hinder innovation and productivity, increase cybersecurity vulnerabilities, and create barriers to integrating modern solutions.
Proposed Solution	Develop a project team, with NDIT and HHS resources, to move data off all legacy systems (not already accounted for in other projects), and eliminate the legacy systems, map all dependencies to the mainframe and create actions to remove all dependencies, and have an IT plan that addresses all technical debt.
Funding Request	TBD

Workforce Safety and Insurance

Project Name	Claims and Policy System (CAPS) R13 – Reserves, Settlements, Financial Summary, Internal Notepad Forms
Business Need	To improve customer service, enhance system maintainability, provide enhanced reporting and accessibility to information, and enable WSI to remain current with technology.
Proposed Solution	For Release 13, the planned scope is: Reserves, Settlements, Financial Summary, Internal Notepad Forms The CAPS Program is a large, multi-year program with several phases. Each phase includes multiple releases that gradually deliver functionality into a production environment, ready to be used. Each release is planned, baselined, and managed as a major project in adherence with State project management standards.
Funding Request	\$2,452,357

Workforce Safety and Insurance

Project Name	Claims and Policy System (CAPS) R14 – Payments Part 1
Business Need	To improve customer service, enhance system maintainability, provide enhanced reporting and accessibility to information, and enable WSI to remain current with technology.
Proposed Solution	For Release 14, the planned scope is: Deliver the refaced CMS Payments Part 1 functionality into production. The CAPS Program is a large, multi-year program with several phases. Each phase includes multiple releases that gradually deliver functionality into a production environment, ready to be used. Each release is planned, baselined, and managed as a major project in adherence with State project management standards.
Funding Request	\$2,706,443

Workforce Safety and Insurance

Project Name	myWSI Release 9 – General Vendor Access & Enhancements
Business Need	Workforce Safety and Insurance identified a need for a secure portal for injured workers, employers, and medical providers to access, submit, and view user specific information related to ND Workforce Safety and Insurance. The business needs as identified in the Project Charter are as follows: 1. Improve internal and external communication. 2. Increase online interactivity for WSI's stakeholders and partners. 3. Streamline processes related to information from/to external audiences.
Proposed Solution	For Release 9, the planned scope is: General Vendor Access and General Enhancements. The myWSI Program is a large, multi-year program with several releases. Each release is baselined and managed as a major project.
Funding Request	\$675,740

Project Name	Client Management System (CMS) Modernization a.k.a.: Offender Management System (OMS)
Business Need	This project will replace the ELITE and DocStars systems with a single system, which, among other things, will allow DOCR to have a single file on all clients entering the corrections and rehabilitation system. In addition, it will allow DOCR to drive decision-making using data-informed metrics more easily. With client information in one place, our business processes outcomes can be more easily measured, our data more accurate, and our processes more streamlined. Consolidation of systems offers the chance for additional standardization of IT M&O, App Management, and Data Management practices.
Proposed Solution	We will likely be pursuing a COTS or Low Code system that will streamline our business processes and accommodate any unique functionality we may need in the future through configurations. Our goal is to limit software customizations as much as possible and offer configuration of system needs so DOCR staff can make adjustments to screens, fields, workflows, and data inputs with little to no code implications and no need for vendor support to execute.
Funding Request	\$58,500,000

Project Name	HR Time Keeping System
Business Need	Department of Corrections and Rehabilitations (DOCR) currently uses PeopleSoft Time & Labor as their payroll and timekeeping system. The DOCR staff is currently spread across five facilities; there are currently 22 different workgroups or various work/pay schedules with different requirements and regulations pertaining to the types of regular, overtime, salaried, hourly, exempt and nonexempt pay status. In addition, there is an extensive list of rules built into PeopleSoft based on regulations and requirements of specific jobs or employee classifications.
Proposed Solution	We envision needing to do an RFP for a new system to ensure our unique needs are met.
Funding Request	\$2,599,600

Project Name	IT Data Management and Enhancements
Business Need	Currently, the Recidiviz data system receives daily data transfers of key data elements from the Elite and DOCSTARS software systems to power tools for facilities case managers and Parole & Probation officers. Without continued funding we will not be able to support existing tools and data analysis/scientist efforts that help staff do their work and leadership make data driven-decisions. Recidiviz works with many correctional agencies across the nation and has helped them improve their data literacy.
Proposed Solution	Some tools are built from scratch to meet our needs and others are consortium-based.
Funding Request	\$1,549,552

Project Name	Facility Case Management System Upgrade
Business Need	Within the next three years our facility case management system, Elite, will reach an unsupported version of Oracle. An update will be crucial to sustain business for the facility operations and case management. The upgraded version will be supported, improve functionality and allow staff continued access to a supported version.
Proposed Solution	Upgrade to current system, Elite.
Funding Request	\$2,961,000

Project Name	ND DOCR College Tech Solution
Business Need	The impact of college in prisons related to recidivism is startling. Now that Pell Grants are available to the carceral population, it is imperative that we have college programs in ND prisons. The best value for our population will be to offer online classes or a hybrid version of classes. To do that, we need a safe, monitored network.
Proposed Solution	The project will open up training and degrees to assist in re-entry for our populations. By upskilling the population, we decrease the likelihood of recidivism. The project will require networking and security considerations across the network.
Funding Request	\$675,000

Water Resources

Project Name	Migration of Big Data
Business Need	The services are all currently operational and a valuable resource to the many different stakeholders. Users include public and private entities throughout North Dakota and across the United States who have daily interactions with their business interests within the state.
Proposed Solution	The proposal is to maintain the current system architecture as it has proven to provide a very efficient management and delivery solution. The proposed change is to migrate this to the enterprise infrastructure currently maintained by NDIT in compliance with the unification mandate.
Funding Request	\$2,171,284

Project Name	Modernized Appointment System
Business Need	To improve the customer experience, the new system will provide customers with a seamless way to make appointments and wait from any location until they are ready to be assisted. This approach is designed to enhance convenience, reduce wait times, and ensure a smoother, more efficient service experience.
Proposed Solution	The Driver License and Motor Vehicle departments will be evaluating a COTS product for integration with our state record system. This approach aims to leverage existing technology solutions to enhance functionality and streamline operations while ensuring compatibility with our established systems.
Funding Request	\$2,500,000

Project Name	Chatbot
Business Need	The new system aims to significantly improve the customer experience by providing a platform where citizens can easily obtain answers and assistance 24/7. This continuous availability is designed to enhance convenience and ensure that support is always accessible, regardless of time or location.
Proposed Solution	The Driver License and Motor Vehicle departments will be evaluating a COTS product for integration with our state resources. This approach aims to leverage existing technology solutions to enhance functionality and streamline operations while ensuring compatibility with our established systems.
Funding Request	\$750,000

Project Name	Al Search for DOT Manuals
Business Need	The manual search process is laborious, time-consuming and inefficient, often leading to frustration and potential misinterpretation of critical information. This project seeks to enhances search efficiency by enabling users to find information quickly and accurately within engineering manuals through natural language queries.
Proposed Solution	Establish a project using NDIT professional services to develop an AI search engine that will contain all NDDOT manuals, policies, Motor Vehicle and Drivers License Special License database, etc., to create a new and enhanced user search/review process.
Funding Request	\$1,000,000

Project Name	Spring Load Restriction Technology
Business Need	This project is aimed at introducing a more efficient way to protect our roads with groundbreaking technology solution designed to optimize Spring Load Restrictions (SLR) with precision and innovation while keeping freight operations running smoothly.
Proposed Solution	With Spring Load Restriction Technology, it provides a cutting-edge solution consisting of data-driven, real-time monitoring that optimizes when and where load restrictions should be implemented. By using advanced sensors, real-time environmental data, and predictive analytics, we can prevent road damage before it happens, while still allowing optimized traffic flow.
Funding Request	\$1,700,000

Project Name	Grants Management System
Business Need	NDDOT has experienced tremendous growth in discretionary grant acquisition and a surge in subgrant activities with local governments throughout the state of North Dakota. This project is aimed at providing a common platform where grant applications can be submitted and reviewed by stakeholders efficiently.
Proposed Solution	An end-to-end comprehensive grant management and tracking system consisting of Pre-Award Phase (the Notice of Funding Opportunity & Application Review), Award Phase (Award Decisions and Notifications) and Post-Award Phase (grant implementation, Reporting and closeout especially addressing subrecipients monitoring), from both the grantee and grantor perspective seems to be a solution.
Funding Request	\$1,00,000

Report Summary

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Summary

October 2024

- Major IT Projects Submitted: 33
- Funding Request Total (not including AG and DHHS): \$167,642,946
- Funding Request Total (AG and DHHS only): TBD

Looking back at October 2022

- Major IT Projects Submitted: 24
- Funding Request Total (all agencies): \$206,413,369

