NORTH DAKOTA INFORMATION TECHNOLOGY

Strategy Presentation
2021-2023 Biennium

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STRATEGIC PYRAMID

2021-2023

PURPOSE
Empower People
Improve Lives
Inspire Success

MISSION
Efficiently empower citizens with trusted information

VISION
How might we provide world class technology & services?

GOALS
Deploy a world class government experience
Secure all government held data in North Dakota
Deliver the most efficient government services in America

Significant NDIT Accomplishments, Previous Biennium (2019-2021):

- Whole of Government Cyber Launch
- K20W Education Initiative
- Agile Conversion, Phase 1
- Enterprise Service Management Launch
- Business Process Improvement Launch
- "Amazon Experience" Architecture Framework
- Unification of IT Services, Phase 1
- Low-code/No-Code Application Development Platform
- Enterprise Project Management System Launch
- Statewide Interoperability Radio Network, Phase 1
- Continued Enhancement/Expansion of the ND Health Information Network
- Continued Rollout/Expansion of a Unified State Web Site Platform
- Technology initiatives to support pandemic response, including: Contact Tracing and Test Registration applications, Tool Enhancements and Process Changes to Support Mass Telework, Expedited Digitization of Critical Government Services, Expanded/Enhanced Cyber Security Capability

KEY RISKS AND OPPORTUNITIES

2021-2023

$1.09B
Calculated software tech debt for replacement of current environments (528 apps identified)

45%
Percent of Government work that can be automated

56%
Percent Information Technology is under funded vs. average state and local government IT funding

2.2M+
Number of cyber security jobs open world-wide by 2022

52%
Percentage of Internet traffic accessed through mobile devices

17-31%
Percent ND IT salaries are under the national average

92%
Percent of Knowledge debt within the current NDIT team
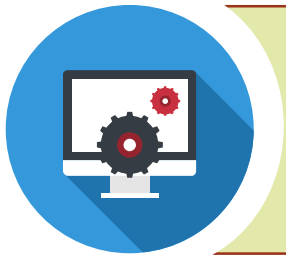
37
Number of agencies identified in 2018 across ND with IT staff

Negative Indicator
Positive Indicator
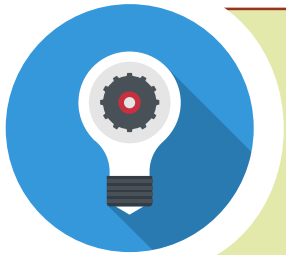
KEY OBJECTIVES

2021-2023

Automate 20% of
all work in Government

Decrease FTE requirement by 20%
for normal work volume
and reallocating salaries and
education to staff

Build new architectures that
secures data and allows for the
comprehensive transformation
of ND's tech debt

Move toward alternate funding
and operating models to make
NDIT less reliant on state funding

Reinvent people, processes
and experiences to deliver
world class outcomes

Unify all government IT services
to the extent possible

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STRATEGY MATRIX
2021-2023

Goal 1: Deploy a world class Government experience

Goal 2: Secure all government held data in North Dakota

Goal 3: Deliver the most efficient government services in America

PURPOSE	Empower People, Improve Lives, Inspire Success
VISION	How might we provide world class technology & Services?
MISSION	Efficiently empower with trusted information

IT Divisions:	Apps, Insights, & Data	Customer Success	Finance	People	Reinvention	Security	Technology
4 PROCESS	Create a frictionless Citizen-State experience that is enhanced with AI	Align enabling tech with state/agency needs	Design faster time to value methods of procurement with state Central Services	Market NDIT through recruitment to attract people via "heart" and culture	Prototype minimally viable products	Automate day to day security work	Promote and develop a comprehensive "connected anywhere" statewide broadband environment
3 CUSTOMER	Create Grand Data open data platform Deploy Grand Insights Innovation Platform	Empower agencies to deliver superior services with continuously increasing value	Demonstrate the value of IT without a doubt to stakeholders	Make Employees available from anywhere on anything	Build friendly, consistent, and intuitive digital experience for constituents	Insulate ND from future threats	Provide a world class experience delivering and supporting all technology
2 FINANCE	Design to Automate 20% of all North Dakota government processes	Create bundled pricing options and flexible/scalable staffing delivery	Manage finances so costs per unit of service can be continually decreased	Decrease comprehensive number of staff by 20% and reallocate dollars to salaries	Convene, publish, and promote best practices nationally	Increase accuracy and velocity of security response	Meet the need of the customer before they have the need
1 PEOPLE	Right-size staff thru platform sunsets, app modernization, operational efficiency and sourcing strategies	Educate and enable the business and business integrators with technology	Work to make creative sourcing options available	Empower IT Unification Recruit the best talent and cultural fit without exception	Catalyze process improvements and change in internal culture	Empower ND as the national leader in K-20W cybersecurity education	Reeducate staff continuously while leveraging additional sourcing options

APPLICATIONS, INSIGHTS & DATA

2021-2023

Goals

Enable the Digital Citizen across all application, analytic, data platforms to deliver a frictionless Citizen-State experience

Create the **Grand Data** open data platform generated from all state, and other open data sources

Deploy the **Grand Insights** Innovation Platform to drive an entrepreneurial culture that leverages the Grand Data open data platform

Infuse analytics, AI, location, and automation into ND platforms to give the state of ND a competitive advantage while vastly decreasing the operational costs of government

Automate 20% of all North Dakota government processes

"Mars"

Objectives

Create private and inter-agency partnerships for data sharing

Process automation training and delivery including RPA, low/no code (Dynamics), and Cognitive Services

Design Grand Data open data strategy

Design the Grand Insights capability (data science, AI, BI, Geospatial)

Re-badge a percentage of run work so state resources can focus on grow & transform

Near term goal

Key Results

Signed Enterprise data sharing MOU – all data that can be shared, should be shared

All development teams skilled and using DevSecOps/agile/Dynamics/RPA methods across all development

Deployed Grand Data open data platform

Deployed Grand Insights platform

DevSecOps is the delivery model across all development to eliminate technical debt accrual from all new deployments

2020+ Results

Strategies

Finalize data sharing agreement with AG/Gov

Train 60 IT/60 agency people on Robotic Process Automation (phase 2)

Complete the Agile transformation

Deploy Dynamics across cabinet and BND

Deploy at least 1 RPA or Cognitive Service bot across all cabinet agencies and BND

Begin Digital Citizen design and deployment

Engage Code for America to facilitate Open Data

Develop Grand Insights platform

How

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CUSTOMER SUCCESS

2021-2023

Goals

Empower agencies to deliver superior services with continuously increasing value

"Mars"

Objectives

Recruit a Chief Customer Success Officer

Determine customer needs and measurements that determine if those needs are being met

Develop a "Voice of the Customer" program

Create innovative methods to improve customer outputs

Near term goal

Key Results

Increase in technology value to the customer agency / citizen

Improved customer outputs in both quality and throughput

Onboarding of 4 directors of Key Customer Management

2020+ Results

Strategies

Launch a nationwide search and hire a Chief Customer Success Officer

Build on the Information Technology Infrastructure Library standard of Business Relationship Management and Key Customer Management to create a Customer Success Model

Take part in multiple "gown up" events in order to learn the customer business

Build customer dashboards reflecting needs, value, operations, and projects

How

FINANCE

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2021-2023

Goals

Demonstrate the value of IT without a doubt to stakeholders

Manage our finances so that costs per unit of service can be minimized

Objectives

Spend within 1% of budget appropriations within IT operations

Transparently demonstrate value across business units and apps

Manage to 60 days cash on hand Reimagine the Procurement process in order to expedite technology acquisition

Key Results

Visible and real time value reporting

Shorten the procurement process to an average 30 days

Reduce manual workload in accounts payable by 150 hours per month

Reduce the number of rates by 15%

Strategies

Review legislation and procurement code to determine how to increase flexibility without introducing excessive risk

Implement robotic process automation (RPA) in accounts payable

Utilize Technology Business Management (TBM) principles to show financially, the value of IT

"Mars"   Near term goal   2020+ Results   How

PEOPLE 2021-2023

2021-2023

Goals

Recruit the best talent and cultural fit without exception

Empower IT Unification

Marketing NDIT through recruitment to attract people via "heart" and culture

Empower employees to work from anywhere on anything while embracing our cultural values

Decrease comprehensive number of staff by 20% and reallocate dollars to salaries

Objectives

Attract talent that wants to change the world. Employees feel welcomed and are integrated quicker

Move completely paperless for the employee lifecycle while increasing efficiency

Create culture where constant learning and failure is acceptable/rewarded

Make continuing education a requirement of the job

Create environment where telecommuting is priority and has no experiential difference from on premises

Eliminate C-players and vastly reduce B-players

Key Results

All employee data documented and stored digitally while decreasing process time 20%

Continuous performance management environment established

Curate 15% more adaptable, innovative, driven environment

Work is accomplished anywhere; 20% less office space is needed

Outstanding recruitment & onboarding experience

Strategies

Implement key training for all employees. Continual evaluation of staff fitness through performance management

Use Dynamics, BPI & RPA for automation & improved process flow

Evolve recruitment & onboarding based on culture

Increase telecommuting; create collaborations spaces rather than assigned cubicles

Leverage IT embedded education teams to help train

"Mars" | Near term goal | 2020+ Results | How

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REINVENTION

2021-2023

Goals

Workforce Culture: Be the catalyst for accelerating process improvements and change in internal culture by championing better government efforts and building strategic partnerships across the organization

Digital Service: Build a friendly, consistent, and intuitive digital experience for constituents

Experimentation: Rapidly prototype MVPs with a minimal risk to taxpayer dollars

Leadership: A Center for Government Reinvention to convene, publish, and promote best practices nationally and internationally

"Mars"

Objectives

Build innovation labs and makerspace environments that promote creativity, non-traditional approaches and collaboration

Design digital experiences around the needs of our constituents that are reliable, highly useful, attractive, inviting and streamlined

Create a mechanism to accept private dollars for the purpose of catalyzing and accelerating internal innovation

Create an avenue to share success stories for efforts that are hard to quantify

Establish the Reinvention Fellowship Program

Near term goal

Key Results

Creation of a functional mechanism to accept private, philanthropic funding for innovation initiatives

Onboard 30 new agencies (increasing from 50 to 80 websites in 2020). Increase mobile-accessibility of the websites from 40% to 80% on our online platforms using a suite of enterprise digital service tools

Host 3 government makerspace events and the Government Reinvention Summit in 2020

20% of State employees attend business process improvement training

2020+ Results

Strategies

Evangelize better government through communities of practice, space to convene, and build a network of co-innovators

Establish a consistent branding experience, improve digital design, navigation, and content , ensuring an online visual identity for ND

Champion digital equity though connectivity with constituents through mobile channels.

Engage Leadership Everywhere to facilitate organization-wide learning and training

Partner with the Governor's Office to kickoff Government Reinvention Summit

How

SECURITY 2023

2021-2023

Goals

Present
Increase accuracy and velocity of security response

- Faster risk ID, protection, and response
- Automate day to day security work
- More bodies on big problems
- Become the national leader in K-12 cybersecurity education

Future
Insulate ND from future threats

Objectives

Improve Accuracy of Security – Preparations and responses are oriented on the largest threats we have in the environment

Increase Velocity of Response – Security uses state of the art processes and automation to promote risk identification, protection, response, and recovery

Increase Education: Expand the K-20 cyber education initiative

Multi-State SOC: Build capabilities for real-time swarming of day-to-day security operations

Increase Reliability: Increase reliability of NDIT information systems and services by reducing cyber risks

Key Results

Reduction of Work – The total hours of unplanned work associated with security events are reduced 10% year over year

Surge Support: Increased Capability to Bring in Outside Resources for Surge Support

Cyber Risk if Understood in Budgeting: Cyber and privacy risk is presented and understood in a manner similar to financial risks

Strategies

Greater Focus on Threat Intel – Make sure we are focused on the current threat ecosystem

Agile Process – Replace old processes with agile methodologies to improve throughput of work

Quantified Cyber Risk: Risk register communicates cyber risk in $

Automation: Build Orchestration and Automation Capabilities into Security Operations

| "Mars" | Near term goal | 2020+ Results | How |

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TECHNOLOGY

2021-2023

Goals
Objectives
Key Results
Strategies

Goals

Provide architectures, platforms and services that meet the need of the customer before they have the need

Provide a world class experience delivering and supporting all technology

Promote and develop a comprehensive "connected anywhere" statewide broadband environment

Objectives

Provide a service management program with a maturity level of 3.1

Provide an enterprise architecture program that anticipates and enables business objectives

Provide cloud technologies services that will empower people

Provide an IoT platform that will enable a sensor driven government

Wired and wireless connectivity for every inch of ND

Key Results

Reduce cost per unit of service by 15% biennium over biennium

Improve customer satisfaction by 10%

Automate 20% of commodity, redundant processes

Provide 40% of all requests through self service

80% of all new business objectives can be solved within EA framework

Fiber to every structure and primary wireless coverage for 95% of state

Strategies

Ensure all processes providing alignment to ITIL incorporate agile and DevSecOps capabilities

Deploy EA program providing for real principles, policies and standards

Training for depth and breath of cloud technologies

Provide an automation strategy and platforms

Deploy Infrastructure as code

"Mars"
Near term goal
2020+ Results
How