

Statewide Strategic Information Technology Plan 2021 – 2025

“Enabling Citizen Services through Digital Transformation”



November, 2021

Final - Version

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Message from the Governor



We have taken tremendous steps to expand digital technology in all aspects of our work. Having a more digitized government opens accessibility to the public and our customers. We pride ourselves on the excellent customer service that we provide to our citizens and visitors and that job is only made easier by these technological solutions.

By continuing to work on expanding data storage and backups, and enhancing data system security we can ensure that the vital data that the state is in care of can and remains safe and secure. We can all take steps to help ensure that our system network remains protected by keeping up to date with the latest trainings, while our IT professionals work diligently to ensure that our system remains reliable and free of system interruptions and safeguard it from malicious activity.

COVID-19 has moved many of our state operations online, creating ease and accessibility for members of the public and our visitors. Today those members can book appointments at state agencies online and we have expanded our online reservation system at our state parks, improving the user experience for those that utilize our services. By continuing to utilize social media platforms, we can continue to provide access and messaging to the public and provide a more efficient government. We look forward to the continued expansion of digital services and making government more accessible to all.

1. Executive Summary



“Digital Government Transformation succeeds when it focuses on enabling valued and sustainable citizen services.”

*Denis Goulet – Commissioner,
Department of Information
Technology*

The use of information technology (IT) is a critical factor in all aspects of Government. Businesses and citizens routinely interact with state agencies and expect systems to be compatible with current technologies, efficient, cost effective, convenient and easy to use. Information must be securely managed given today’s cybersecurity threats. States constantly strive to

improve citizen services, enhance security posture, and promote strategic efficiencies by adopting new methodologies, technologies, and creative means to meet the needs of citizens and business partners. There is a constant challenge to “do more with less”. IT organizations are expected to provide outstanding technical leadership on critical business initiatives, while maintaining existing operations.

States are using cloud based solutions that provide scalable and flexible services to accommodate rapidly changing environments where mobile devices and social media now make it possible to instantly communicate.

Data is created and stored at an exponential rate and the need to increase storage and backup capacity grows each year. IT organizations are exploring ways to address this explosion of data to assist business partners to utilize it effectively. Business intelligence (BI) is critical as organizations attempt to convert this data into usable information to improve decision making, enhance operational efficiencies and improve services.

State agencies serve the citizens of New Hampshire in a way that few single organizations can. They protect public health, serve our most vulnerable citizens, provide public safety protection, fix our bridges and repair our roads, mobilize to protect the public during critical events and times of crisis, monitor the financial and insurance landscape, provide citizens with employment security support services, protect and monitor the environment and natural resources, ensure proper licensing is in place for various professional services, monitor and protect our wildlife and provide retail services through the use of information technology services.

Technology is a transformative tool that has enabled NH state government to expand and adapt its services to meet the needs of its citizens and businesses. Never before has this been truer than through the Pandemic crisis of 2020 where a deadly disease caused the world to rely heavily on its technological capabilities to be productive while working collaboratively across different geographic locations. Technology allowed NH government to aid record numbers of unemployed, perform contact tracing, generate consistent

communication to the public through enhanced websites and interactive case and client management systems, and promoted collaboration through team based tools that helped the state perform its primary duty, which is to serve its citizens and businesses, especially during times of crisis.

NH has made incredible strides over the last four years to mature our past strategic theme of “Aligning the Enterprise”. NH was honored to receive national recognition in two award categories for our focus on “citizen centric services” and “sustainability” in the 2020 Center for Digital Government, Digital States Survey. We have fostered positive change over the past several years and especially during these unprecedented times through leadership, partnerships and collaboration. This strategic plan outlines how we will continue these efforts over the next four years as we embrace digital government and continue our focus on serving NH citizens as we move forward by **“Enabling Citizen Services through Digital Transformation”**.

2. Plan Overview

The purpose of this strategic plan is to describe how the state is addressing current technology challenges and plans to meet future needs through our strategic themes, objectives and initiatives over the next biennium.

The plan will provide a brief outline of the Department of Information Technology (DoIT) organization, provide information on accomplishments over the past biennium, current priorities and future strategic efforts.

Also included are the mission and vision statements for (DoIT) which emphasize a commitment to serve New Hampshire citizens, provide technology leadership, promote partnerships, be fiscally responsible and promote transparency while being a major contributor toward innovation and efficiency.

3. Department of Information Technology

3.1 Department of Information Technology Organization

The Department of Information Technology (DoIT) is a centralized organization that works with executive branch agencies to manage the state’s technology infrastructure, products, applications and IT procurement processes in a consistent, secure and cost-effective manner. DoIT also manages statewide telecommunications architecture and service functions.

DoIT and its full responsibilities are outlined in RSA 21-R. Its budget is defined on a biennial basis by working with individual agencies to address unique needs (via a direct chargeback method) as well as strategic needs and services that would benefit all agencies (via shared services chargeback

methods). In addition, a minimal amount of funds are allocated directly to support small agencies while the telecommunications infrastructure and associated support are maintained through the use of a revolving fund that allows this program to define fixed rates to fund ongoing operations and charge agencies for extra services when needed.

For a list of services provided by DoIT please see the Appendices. This list will be updated as services are adapted to meet New Hampshire needs.

3.2 Accomplishments

During the last biennium, the use of information technology has assisted state agencies to serve New Hampshire citizens. Innovative technology was critical due to the increased need to work collaboratively during the pandemic of 2020 to accommodate increased infrastructure and application usage demands, disseminate information to the public, increase processing volumes (i.e. unemployment system, etc.), perform contact tracing and transform many business processes and functions that were not originally planned. Technology deployments and flexible process adaptations aided the state to be “nimble”, “adaptive”, and “collaborative” in ways previously not possible.

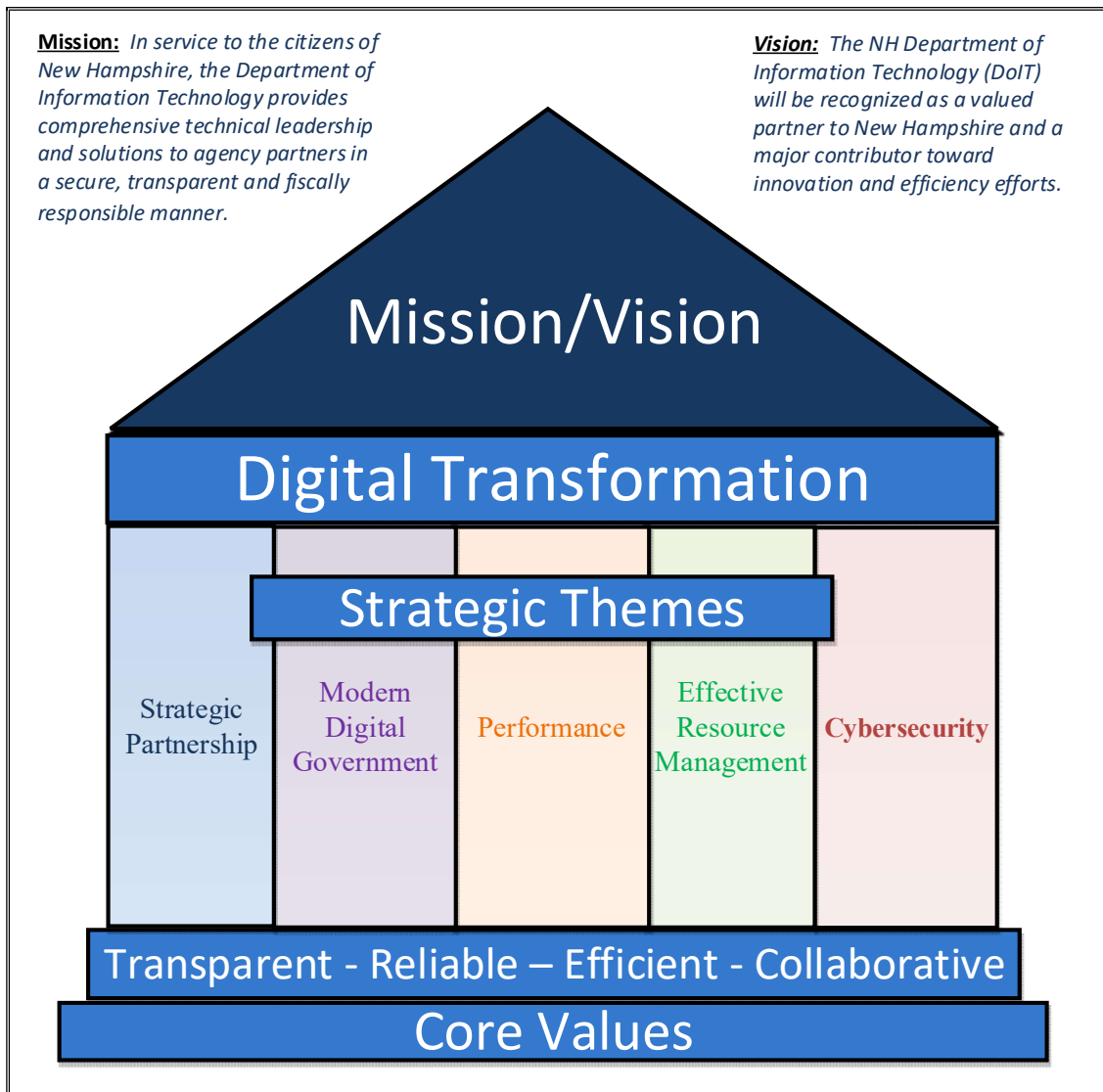
Efforts have progressed on technologies that have unified team communications, expanded application monitoring and volume processing, strengthened security, enabled and supported enterprise solutions, expanded VoIP services and network infrastructure and supported ongoing operations to maintain, enhance and extend the support of existing agency needs.

Priority efforts have expanded on previous accomplishments and promoted technology usage that have caused paradigm shifts in how New Hampshire does business to improve performance and transparency. Examples of this are the expanded use of cloud services, mobile and remote workforce tools, enterprise collaboration efforts, and implementation of workflow/document management solutions and the ongoing strengthening of the state’s cybersecurity posture.

Please see the Appendices for ongoing accomplishment updates.

3.3 State of NH High Level Strategic View

Digital Government is a term used to describe value added electronic services provided inside government and between government and its citizens. The NH strategy embraces modern information and communication technologies to enable citizen services through digital transformation that supports our strategic themes, promotes partnerships, satisfies our customers, improves our overall performance, effectively uses our resources and ensures that this is done in a secure and protected manner.



3.4 Mission

In service to the citizens of New Hampshire, the Department of Information Technology provides comprehensive technical leadership and solutions to agency partners in a secure, transparent and fiscally responsible manner.

3.5 Vision

The NH Department of Information Technology (DoIT) will be recognized as a valued partner to New Hampshire and a major contributor toward innovation and efficiency efforts.

3.6 Values

The NH Department of Information Technology will strive toward the ideals of being transparent in our efforts, providing the most reliable and efficient services possible and working as a collaborative partner to add value to initiatives that service NH citizens.

3.7 Strategic Themes

Strategic themes are the high-level business strategies pursued by an organization. They set the tone for what an organization deems important. Outlined in Figure 1 is the list of strategic themes DoIT is focusing on over the next biennium in order to achieve its mission and vision which are centered on value added service, embracing digital transformation to achieve service excellence and customer satisfaction for New Hampshire citizens, and providing leadership to achieve improved technology use that promotes innovation and efficiency.

All of the strategic themes are important and are not listed in any specific order because they are so closely aligned. However, if these themes need to be prioritized at a granular level, achieving modern digital government services would be priority #1 since it focuses on enhancing citizen centric services and customer satisfaction, which is critical to foster strategic partnerships, priority #2, and to collaboratively address cybersecurity, priority #3. Managing performance, priority #4 and effective resource management, priority #5, would closely follow.

Figure 1: Strategic Themes (Benefits and Anticipated Results)

Strategic Theme	Summary Explanation	Benefits
Strategic Partnership	Create and foster partnerships with agencies, vendors, and other third parties to promote strategic efforts.	<ul style="list-style-type: none">• Improve collaboration• Align common goals• Promote transparency• Improve funding/resource coordination• Improve project prioritization• Consolidate efforts• Promote a positive organizational culture

Modern Digital Government	Focus on efforts to enhance the customer experience through digital transformation and service oriented excellence.	<ul style="list-style-type: none"> • Enhance NH citizen experiences • Improve customer communications • Align customer expectations • Improve customer satisfaction
Performance	Focus on continually improving the quality of systems and existing processes using modern methodologies and SMART (Specific, <u>M</u> measurable, <u>A</u> chievable, <u>R</u> elevant and <u>T</u> ime-Bound) metrics.	<ul style="list-style-type: none"> • Improve productivity • Improve process tracking • Reduce/avoid costs • Improve system stability
Effective Resource Management	<p>Focus on managing financial resources, staffing and utilize existing systems resources as efficiently and effectively as possible.</p> <p>This includes providing agency and IT staff with augmented staffing support as needed to effectively deliver priority initiatives. Also included is the evaluation and usage of cloud solutions where appropriate.</p>	<ul style="list-style-type: none"> • Improve financial tracking • Improve the work environment • Improve efforts to hire and retain qualified staff • Improve system and infrastructure management (i.e. cloud utilization analysis)
Cybersecurity	Focus on critical security efforts to protect citizen data and prevent system interruptions or data loss due to malicious activity targeted at the state’s applications or infrastructure.	<ul style="list-style-type: none"> • Enhance protection of citizen data • Promote security awareness throughout state agencies • Reduce potential security risks that could impact critical programs and citizen services • Improve the state’s ability to leverage partnerships for response, recovery and resilience

Outlined below is a detailed description of each theme which highlights its importance to DoIT and all executive branch agencies.

3.7.1 Strategic Partnership

DoIT is a centralized organization that supports the needs of over thirty partner agencies. Competing priorities, requests for similar projects, and unanticipated project needs often arise.

To promote improved governance and to better utilize budgeted funds, it is important that state agencies work with DoIT as their centralized information technology partner to define solutions that can be utilized across the state. Strategic planning and partnerships allow financial and human resources to focus on initiatives that have a broad impact while expending less effort and optimizing funding. This theme is a major focus as agencies submit requests for new and improved systems as well as requests for major enhancements on existing systems. Every new effort is an opportunity to better position resources (people, funds, systems and processes) with enterprise strategies and objectives.

3.7.2 Modern Digital Government

The value information technology provides is largely related to the satisfaction of its business customers due to the improvements that well planned and executed technology delivery can provide. Good communication promotes positive results and ensures understanding of the services provided and their value. Satisfaction is achieved when consumer needs are met and services provided in a manner that exceeds expectations.

Modern digital government initiatives are crucial to bridge the gap between government and its citizens to provide essential and desired services that provide value. This is a key strategic theme for NH over the next biennium.

3.7.3 Performance

Improving how quickly and effectively services are provided to customers is essential. There are many methodologies used to make processes more efficient by reviewing them systematically with appropriate subject matter experts to focus on eliminating wasted activity. “LEAN” thinking is embraced and promoted, but there are other performance improvement methods that have merit. Performance must be monitored in order to measure improvements via defined metrics. These metrics must be SMART (Specific, Measurable, Achievable, Relevant and Time-Bound) in order to accurately drive performance improvements.

Current methods for performing various activities may have been defined by outdated laws or policies. As federal or state laws or administrative policies change, it is often practical to evaluate existing methods to ensure they still function as intended.

In addition, technology advances quickly and products that once served the state well to manage processes and activities may no longer add any value over other, more modern tools. Employing newer and better tools provide improvements that validate the resources to replace older products.

Performance improvements also focus on paradigm shifts such as the use of cloud computing (both internal and external) when appropriate to improve productivity and flexibility from an infrastructure, platform, application and financial perspective.

3.7.4 Effective Resource Management

As a premier employer, the state is responsible for providing an environment where it's most valuable resource (its employees) can be productive and creative in a manner that best serves the citizens of New Hampshire and all state agencies. This includes maintaining and promoting a positive, constantly evolving and learning work environment and ensuring that new additions to staff are properly qualified to perform critical job duties. The technology landscape is constantly changing and every organization must adapt its workforce to ensure that critical technologies can be properly supported through the employment of well-trained knowledge workers via mentorships, targeted training and consulting partnerships.

Project transparency is important to evaluate avoidable expenses and perform up-front financial analysis to better plan for short and long-term expenditures before they are undertaken. For example, once a project is initiated it should be clear that funds have been allocated to not just launch the project, but also to manage it once it is operational for the estimated life of the system.

In addition, cloud computing has introduced varied ways that resources can be used and managed. Applications and architecture can be hosted onsite or remotely and each project will differ based on business, security, legal and compliance requirements to determine which model(s) best serve the needs of the state.

3.7.5 Cybersecurity

Security is a topic that is consistently in the top three (from a priority perspective) for every state organization. A dramatic increase in cyberattacks on both public and private organizations over the past several years and an unprecedented number of data breaches has elevated cybersecurity as a critical function. Because this is an effort which affects all aspects of the IT infrastructure, its impacts and costs are associated with all systems and infrastructure upgrades. Careful risk analysis of the type of data being protected and the level of protection required helps to keep costs manageable while still meeting the increasing needs of protecting critical citizen data and the missions of state organizations.

It is also important to note that cybersecurity is a "team sport" – one group cannot possibly do everything necessary to protect the data, systems and network all by itself. For this reason, every

Division within DoIT has some cybersecurity related responsibilities. DoIT also leverages external partnerships and collaborates with various public and private organizations in order to exchange critical cyber information and maintain continuous situational awareness.

3.8 Objectives

Objectives help an organization meet its mission and vision statements and are directly aligned with strategic themes. See Figure 2 for a summary of objectives that are aligned with New Hampshire’s strategic IT themes.

Figure 2: Strategic Themes and Objectives

Strategic Theme	Objective	Objective Description
Strategic Partnership	Increase Strategic Alignment	<p>Work with agency partners to align resources where possible to utilize staffing, technology and financial resources efficiently. This will assist to meet similar needs across agencies (for example: case management, workflow and document management, scheduling, disaster recovery, licensing renewals, forms utilization and service management).</p> <p>Strategic level efforts require excellent communication, coordination and collaboration among all involved. NH will focus on evolving government assets in a manner that enables enterprise collaboration and develops government assets in a digital manner.</p>
	Mature Governance	<p>Efforts will continue to work with agency partners to implement and manage governance processes across state agencies to improve the way the state does business.</p> <p>This will be done by defining governance, policies and procedures that are complemented with qualified staff to improve responsiveness and ownership of critical state practices.</p> <p>The state will continue to leverage partnerships to evolve governance maturity such as:</p> <ul style="list-style-type: none"> • The Project Management Advisory Committee (PMAC), which includes agency partners committed to sharing and improving project management practices.

Strategic Theme	Objective	Objective Description
		<ul style="list-style-type: none"> • The Portfolio Oversight Committee (POC), which was formed for DoIT to oversee the state’s technical project portfolio. • The Cybersecurity Advisory Committee (CAC), created to discuss and set direction on critical cybersecurity topics. • The Collaboration Tools Working Group, which was formed to review, approve and deploy standards and practices associated with the rollout of collaboration tools such as the Microsoft 365 platform. • Other technical groups or committees will be established as needed.
Modern Digital Government	Enhance Citizen Services	Work on projects that will provide modern digital services to New Hampshire citizens designed to make it easier for citizens to work with government, for example: automated form submission, renewal of licenses, performing standard registration activities, or updating websites to provide simple and transparent access to the public.
	Improve Customer Communications	<p>Promote activity and efforts that improve communications with agency partners by upscaling relationships and aligning agency strategy with DoIT strategy and budgeting processes.</p> <p>Participate in critical planning sessions and provide leadership and guidance on technology matters and future procurements. Also included are efforts to provide education to agencies on the value DoIT provides and the services available.</p>
Performance	Promote Continuous Improvement	Promote practices and projects that will improve existing processes and systems. This includes adding measurable performance expectations where appropriate and strengthening existing performance measures. Incremental methodologies (where applications are designed, developed and implemented in smaller achievable increments) will be leveraged to improve on the delivery of achievable and timely solutions that enable: a) modern service management; b) increased savings; c) improved business performance (such as reducing lines at the DMV, increasing Liquor revenue,

Strategic Theme	Objective	Objective Description
		etc.); and d) providing general oversight on the technical landscape.
Effective Resource Management	Employee Development	Manage training programs that develop employee skills and match those skills to specific projects or activities within agencies that will benefit the organization and best utilize staff expertise.
	Invest in talent Management	<p>Given the challenges the state is facing regarding current retirement statistics (i.e. estimated that 40+% of state employees could retire within the next 3-5 years), it is vital to plan for the following:</p> <ul style="list-style-type: none"> • Succession planning • Recruitment and performance management • Training • Other talent management programs <p>These activities must continue to recruit and retain skilled resources that can help the state meet its responsibilities to serve New Hampshire citizens. This will be accomplished by identifying future skills that will be needed to meet business needs and aligning them with staff recruitment efforts.</p>
	Promote Financial Transparency	<p>Support efforts to provide enhanced financial transparency on state IT projects to promote learning, improve project management, and better utilize financial resources.</p> <p>Prime targets are in the areas of budgeting, reporting and cost allocation.</p>
	Evolve the Cloud Computing Strategy and Support Model	<p>Cloud computing, under the right circumstances, can be a beneficial model for managing application, infrastructure and platform costs effectively, securely, and efficiently.</p> <p>Efforts will continue to evolve and mature the processes that will be used to gauge when applications, infrastructure, or platforms should be managed in a cloud environment, and under what management or contracting model using Simple, Measurable, Achievable, Relevant and Time-based (SMART) metrics.</p>

Strategic Theme	Objective	Objective Description
Cybersecurity	Enhance and Improve the State’s Cyber Ecosystem	Technical and process oriented efforts that will provide robust information security protections to the data and business functions of the state.
	Expand Strategic Partnerships and Outreach	Cultivate partnerships and expand cybersecurity outreach activities across state, local, federal and private sector organizations.
	Broker Cyber Risk Management	Cultivate cyber within state agencies from the ground up through collaboration with the Cybersecurity Advisory Committee.

The intent is to work on state initiatives that help promote the objectives outlined above to focus resources on priority efforts that are in alignment with state strategy. There may be a need to work on projects that are not in alignment with state strategy due to unplanned changes such as laws and regulations. These projects will need to be evaluated as they arise to determine priority shifts and reorganization of work efforts in progress.

3.8.1 Increase Strategic Alignment



“Only by working together to understand citizen needs can we deliver outstanding strategic Digital Government Services.”

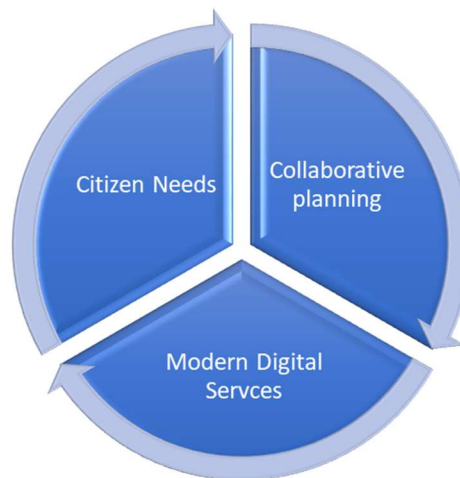
*Charles M. Arlinghaus –
Commissioner, Department
of Administrative Services*

To align with strategic planning it is necessary to evaluate digital government initiatives early during planning stages. All efforts require prioritization based on state strategic objectives to ensure the proper utilization of resources. The overall process determines agency alignments and partnerships. For example, if agencies have specific needs and strategic solutions currently exist,

an analysis of the needs compared to the existing solution is performed.

In cases where a strategic solution may not already exist, DoIT works with partner agencies to promote collaboration and support joint development and deployment efforts where appropriate. In some cases agencies may require unique solutions. The “one size fits all” solution is not always the best answer. However, the intent of strategic alignment of digital government services is to use consistent and standard solutions when possible to reduce administrative overhead, control costs, promote common branding and enhance the customer experience.

Figure 3: Alignment of Citizen Needs and Modern Digital Services



3.8.2 Mature Governance



“Strong IT governance is the key to effective delivery of citizen services.”

*Richard C. Bailey, Jr. –
Assistant Commissioner,
Department of Safety*

Gartner outlines IT Governance as “the processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals”. In order to mature governance, existing ways of doing work are reviewed and evaluated to determine where improvements can be incorporated into everyday tasks.

Figure 4: Governance Maturity – Aspects of success



The services that are performed and the processes associated with providing those services must be monitored consistently based on changing organizational structure, federal and state laws or regulations and environmental changes.

Governance is linked to the culture of an organization, the accountability and integrity of staff and ability to provide sustainable value. Maturing governance is a prime objective toward improving partnerships by adapting organizational culture and practices to better align with agency and citizen needs to deliver needed services.

3.8.3 Enhanced Citizen Services



“Digital Government is seeing through the eyes of the citizen to meet their needs and expectations.”

*Elizabeth Bielecki –
Director, Division of
Motor Vehicles*

New Hampshire citizens and business organizations use modern technology to access state websites and various applications to conduct their business. They expect applications to be easy to use and available through current forms of access, including standard websites, portals, or specially designed apps for mobile devices. Citizens expect the state to utilize current

forms of social media and provide access that is compatible with today’s modern devices.

Digital government transformation efforts play a major role in making this change happen through two major objectives: a) providing better citizen services; and b) making it easier to have a business friendly climate. Some of the initiatives to meet these objectives are; a) modernizing state web sites; b) enabling a way to provide single identity access to information; c) projecting the state’s assets digitally with easy accessibility; and d) clearly defining roadmaps to align services with citizen and business friendly approaches.

3.8.4 Improve Customer Communication



“Only when IT and the business work together can you truly maximize the value of any IT solution.”

*Victoria Sheehan –
Commissioner,
Department of
Transportation*

Informed customers know what they want, have high expectations and are actively involved in planning efforts, because they know their feedback, experience, participation and ownership are needed to ensure success. DoIT will continue to inform its customers of existing standards, technology trends, budget and resource availability, status of

major state and agency initiatives, and explanation of services provided as part of a regular communications program to promote customer satisfaction.

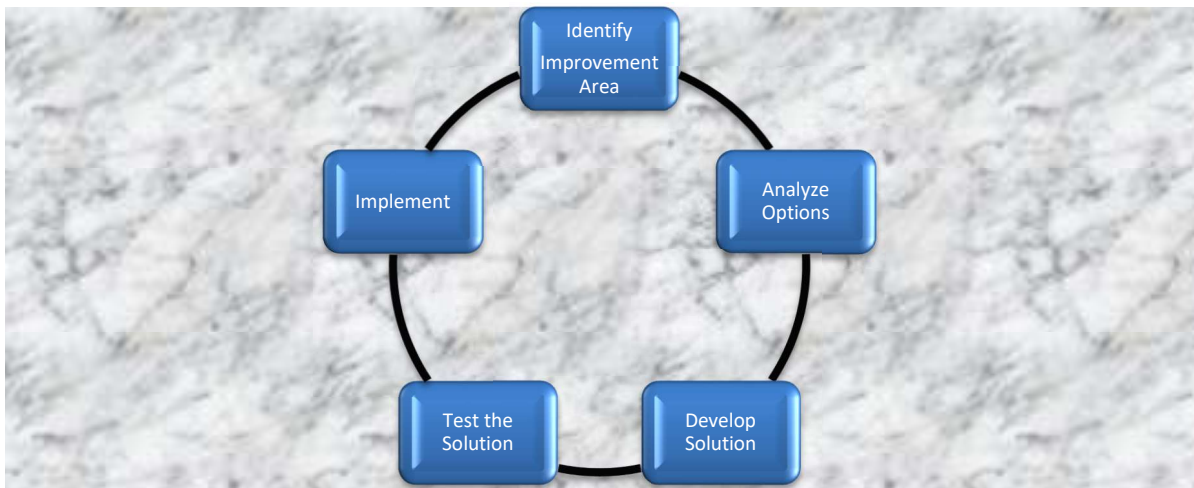
Understanding state direction on technology trends and products and knowing when and how to employ them is not an easy task. This is a challenge that cannot be undertaken alone by an IT organization or a business unit. By working together and doing up-front planning, IT can better

prepare to meet organizational needs and customers will understand options available to meet strategic goals. Environmental conditions may not always be ideal given constraints (i.e. lack of staff, funding, etc.), but positive and supportive communication on needs, risks, and options promotes improved decision-making and satisfied customers.

3.8.5 Promote Continuous Improvement

Striving for continuous improvement is part of an organization's culture. Teams at all levels must ask the questions "What do we do?", "Why do we do it?" and "How can we improve?" If you are not improving, then you are falling behind. This is a reality in today's fast-paced environment.

New Hampshire is evaluating new technologies, strategic programs and initiatives that advance efforts to improve performance. This entails identifying improvement areas, analyzing opportunities for change, and developing and testing logical solutions to implement continuous small changes that lead to big improvements over time. To quote Mark Twain, "Continuous improvement is better than delayed perfection."



3.8.6 Employee Development

Priority initiatives require the allocation of trained and skilled staff. The state cares about its employees and wants them to be productive and dedicated to providing value added services for New Hampshire.

Having a strong workforce that is strategically in-line with business needs and driven to excellence requires development, mentoring, and the support of a culture that promotes foundational values of positive communication, honesty, integrity, and critical thinking. New Hampshire focuses on employee development as an objective to elevate its employees by providing the skills they need to succeed and effectively support projects and New Hampshire

citizens. NH is currently using online training tools and videos as well as mentoring via consulting partnerships to promote educational opportunities.

3.8.7 Invest in Talent Management

The state is facing a retirement crisis. As long-term state employees retire, they are taking decades of experience and institutional knowledge of the state environment with them. It is an objective of the state to invest in talent management approaches, to perform succession planning and to recruit skilled staff. Failing to plan for this occurrence will impact future operations and new projects that will be unable to progress due to staffing and knowledge gaps. The state will continue to document existing processes and procedures, and to train and hire skilled resources based on the business needs of the state.

3.8.8 Promote Financial Transparency



“Transparency allows leaders to set and achieve realistic goals.”

*Lindsey Stepp –
Commissioner,
Department of Revenue*

As projects are initiated, prudent financial planning and management is needed. Ensuring that funding is agreed upon in the early stages of an effort helps to enforce transparency so the initial outlay of funds will be clearly defined and any funding required to maintain ongoing operations is accurately and properly outlined. Failure to think strategically during planning on the many efforts

being undertaken by the state could result in failure due to inadequate all-inclusive upfront transparency on the financial roadmap.

A good example of this is the usage and allocation of grants. Grant money is often allocated for a short-term project for a specific purpose and with limitations on use and the duration in which it can be spent. Failure to plan: (1) how funding would continue without grant monies; (2) what the impact would be if funds can only be used on a small scope; and (3) what could have been done to impact the entire organization or enterprise instead of focusing on a very limited scope project can have negative impacts. Poor planning could lead to efforts that yield minimal, localized results, as opposed to using grant resources to support broader initiatives.

Financial transparency is an objective to enhance the management of resources and inform organizational stakeholders on the true costs of projects by looking at them holistically across the organization.

3.8.9 Evolve our Cloud Computing Strategy and Support Model

There are benefits to utilizing cloud technologies from a scalability, risk management and efficiency perspective. However, there are different variations and complexities associated with the many types of services that are available. Determining what cloud services can and/or should be used on given projects requires sound strategy and consistent policy and procedures supported by a comprehensive governance model. The state of New Hampshire currently has a number of applications and services that are cloud based (both internal and external) that use various management models. The concept is not new for New Hampshire, but given the rapidly changing environment and expansion of these services, combined with an increased need for strong security, expanded data management, user access and vendor offerings, the appropriate type of sourcing model must be evaluated and selected.

3.8.10 Enhance and Improve the State’s Cyber Ecosystem



“Cyber threats against state resources are persistent – so our strategy must be tailored to counter that threat with advanced security measures, personnel training and strengthening our response capabilities.”

*Jenn Harper – Director,
Homeland Security and
Emergency Management*

New Hampshire is focusing on cyber projects that will expand or improve the technical measures that protect citizen and agency data, secure access mechanisms, and a continuous security monitoring and vulnerability management program. Non-technical measures to improve the state cyber ecosystem include annual security awareness

training, timely cyber awareness advisories, and a continuing program of cyber incident response exercises.

3.8.11 Expand Strategic Partnerships and Outreach

Cybersecurity events rarely take place in a vacuum, so it is essential for the state to leverage external partnerships at the local, state and federal level in order to detect, respond and recover from significant cyber incidents. No single organization possesses all of the resources necessary to deal with every possible cyber threat, so a team approach that can adapt and flex in response to the individual threat is necessary. Additionally, the state is expanding its outreach to underserved communities within the state, such as local governments and K-12 schools to offer cybersecurity expertise and assistance as resources allow.

4. Key Initiatives

A number of critical initiatives will affect the state over the next biennium - outlined below is a summary of some of those initiatives currently planned or in progress.

Strategic Themes	Objective	Key Initiatives
Strategic Partnership	Increase Strategic Alignment	<ul style="list-style-type: none"> Geographic Information System (GIS) standardization (tools, methods, platform usage) Document and Workflow management Contract Lifecycle Management
	Mature Governance	<ul style="list-style-type: none"> PMO and Governance Framework
Modern Digital Government	Enhance Citizen Services	<ul style="list-style-type: none"> DMV Single Citizen View Collaboration Platforms - Microsoft 365, Salesforce, others... Identity and access management Program Modernization (across agencies)
	Improve Customer Communications	<ul style="list-style-type: none"> Cloud based email
Performance	Promote Continuous Improvement	<ul style="list-style-type: none"> Tools Evaluation and Consolidation Data Governance Framework Strategic Enterprise Applications Infrastructure Updates
Effective Resource Management	Employee Development	<ul style="list-style-type: none"> Statewide e-learning Platform Workforce Program Development Targeted Skillset Training Succession Planning
	Invest in Talent Management	<ul style="list-style-type: none"> Job classification/organizational need analysis Outreach (market the value of state service) Recruiting modernization
	Promote Financial Transparency	<ul style="list-style-type: none"> IT budget transparency
	Evolve Cloud Computing Strategy and Support Model	<ul style="list-style-type: none"> Cloud Services Support Disaster Recovery/Continuity of Operations
Cybersecurity	Enhance and Improve the State's Cyber Ecosystem	<ul style="list-style-type: none"> Cloud Security IT Asset Management / Network Access Control Next Generation Security Information and Event Management (SIEM) Cyber Exercise/Resilience Program Statewide Cyber Awareness Training and Advisory Program

		<ul style="list-style-type: none"> • Continuous Monitoring and Vulnerability Management
	Expand Strategic Partnerships and Outreach	<ul style="list-style-type: none"> • Cyber Yankee (National Guard Regional Exercises) • Cyber Storm (National Level Exercise) • Information Sharing/Collaboration with DHS and MS-ISAC • Outreach to the University of New Hampshire and other institutions of higher learning • Outreach to Local Government and Schools (K-12)

Appendices will be updated and made available based on changing State of New Hampshire needs.

Note: Initiatives that are requested during the standard budget process cannot move forward until budgeted funds are approved.

References:

Gartner Information Technology Glossary – IT Governance. Retrieved April 3, 2021, from <https://www.gartner.com/en/information-technology/glossary/it-governance>

Appendix I: Examples of New Hampshire IT Accomplishments – (FY 2019-2021).

Please note that the list below is a sample of IT achievements during the last biennium. The intent is to outline the types of projects occurring within NH to show their impacts on the state’s strategic IT vision. This list is not intended to be a full listing of the NH project portfolio during this time period.

Accomplishments		
Project(s)	Accomplishment Description	Impacts
Salesforce platform deployment and management	Implemented a cloud-based platform for enterprise-wide use for customer and citizen case management. This platform has been heavily used to provide NH citizens with access to critical information and to support agencies in their mission to provide critical support services.	<ul style="list-style-type: none"> • Improve productivity • Promote Enterprise applications • Promote standardization
Microsoft 365 Collaboration platform deployment and operationalization	Implemented a cloud-based collaboration and productivity tool platform to support flexible cross agency and citizen communication, improved project planning and modern tools needed to support remote work efforts.	<ul style="list-style-type: none"> • Improve productivity • Promote Enterprise applications • Promote standardization
Windows maintenance and patching	Provided standard operating system updates and patches.	<ul style="list-style-type: none"> • Improve productivity • Strengthen security
Centralized licensing system	Provided ongoing support for all agencies utilizing the centralized licensing solution.	<ul style="list-style-type: none"> • Promote continuous improvement • Promote Enterprise applications
Desktop and laptop replacement (where needed)	Upgraded aging machines across agencies (where needed/planned). Also upgraded and/or deployed large volumes of equipment (laptops, monitors, headsets, etc.) to accommodate remote workforce needs.	<ul style="list-style-type: none"> • Improve the state’s cybersecurity posture • Improve productivity • Improve remote access capabilities
Telephone system upgrades and centralization	Provided ongoing management and upgraded phones and infrastructure within agencies. Deployed many call centers to support NH citizens during crisis events.	<ul style="list-style-type: none"> • Increase Enterprise alignment • Promote standardization • Cost avoidance • Strengthen NH citizen safety
Enhanced and expanded secure & remote access	Upgraded agency software and private network infrastructure and mobile device management via enhancements to promote flexible but secure access.	<ul style="list-style-type: none"> • Improve service to citizens • Strengthen security • Improved remote access functionality

Accomplishments

Project(s)	Accomplishment Description	Impacts
		<ul style="list-style-type: none"> • Improved compatibility
Web application and Website upgrades and management.	<p>Upgraded and maintained agency web applications and backend servers across multiple state agencies to modernize digital government capabilities.</p> <p>This includes hosting services and assisting agencies with 3rd party hosting vendors.</p>	<ul style="list-style-type: none"> • Improve service to citizens • Strengthen security
File sharing/transmission projects	Created and/or improved methods for sharing confidential and sensitive data for use by approved partners and authorities. This includes strengthening secure FTP and other file transmission/sharing mechanisms.	<ul style="list-style-type: none"> • Improve service to citizens • Strengthen security
Network upgrades and network consolidation	Worked with select agencies to increase network bandwidth and centralize where possible. This has been essential given the increased need for remote workforce access and increased volume usage of critical applications.	<ul style="list-style-type: none"> • Improve service to citizens • Improve network performance • Increase Enterprise alignment • Continuous Improvement • Improve the state's security posture • Cost avoidance/savings
Various software tool rollouts	Worked with many agencies to rollout standard and agency specific tools.	<ul style="list-style-type: none"> • Improve service to citizens • Improve productivity
Audit, compliance and certification support and management	Worked with multiple agencies to accommodate audit needs and requests and assisted agencies to maintain compliance and obtain certifications with various federal and state standards and programs (i.e. Plastic Card Industry (PCI), IRS (Pub1075) and many others, Medicaid systems certification, etc.).	<ul style="list-style-type: none"> • Improve service to citizens • Strengthen security posture • Continuous improvement • Support compliance and standardization • Comply with federal regulations
Strengthen security (file access and management)	Worked with many agencies to enhance security mechanisms on various file access capabilities across select agency file servers.	<ul style="list-style-type: none"> • Improve service to citizens • Strengthen security posture

Accomplishments

Project(s)	Accomplishment Description	Impacts
<p>Application upgrades/system replacements/major/minor enhancements</p> <p>This also includes assisting agencies with cloud solutions</p>	<p>Upgraded many application environments across agencies to improve application performance, functionality, efficiency and productivity. This has been critical as certain agency application volumes have dramatically increased in recent years (i.e. unemployment increases, increased mobile/web application needs, etc.)</p> <p>Worked with agencies to assist/facilitate with cloud solutions (as needed).</p>	<ul style="list-style-type: none"> • Improve service to citizens • Improve productivity • Improve project management • Promote continuous improvement
<p>Document management and imaging system setup/support</p>	<p>Assisted agencies with document management and imaging system mechanisms and environmental setups. This will be an ongoing need as information moves to cloud solutions.</p>	<ul style="list-style-type: none"> • Improve service to citizens • Promote continuous improvement • Cost avoidance
<p>Virtual and physical server setups, management and consolidations</p>	<p>Worked with agencies to move physical servers to virtual server environments.</p> <p>Also, worked with agencies to setup physical servers where needed and consolidate and eliminate redundant servers.</p>	<ul style="list-style-type: none"> • Continuous improvement • Improve the state's security posture • Improve customer communications
<p>Audio/video conferencing</p> <p>Also assisted with video monitoring capabilities (i.e. traffic videos, etc.)</p>	<p>Worked with select agencies to install/coordinate/maintain Audio/Video capabilities.</p>	<ul style="list-style-type: none"> • Continuous improvement • Effective resource management • Cost avoidance/savings (travel reduction) • Increased manageability of security video, which increased safety for NH citizens.
<p>Forms integration project</p>	<p>Have worked with multiple state agencies to implement electronic forms (using the nForms product) to move toward the goal of reducing paper forms</p>	<ul style="list-style-type: none"> • Enhance citizen services • Continuous improvement • Elimination of paper forms, informed tracking for applications using workflow processes
<p>Wireless networking</p>	<p>Worked with multiple agencies to implement wireless setup/access to reduce costs on wired setups and allow flexible and secure access to data</p>	<ul style="list-style-type: none"> • Enhance citizen services • improved functionality for conference room presentations, outside vendors and contractors

Accomplishments

Project(s)	Accomplishment Description	Impacts
Fax server replacement/upgrades	Worked with select agencies to implement and/or provide direction on Fax Server technology replacements where needed	<ul style="list-style-type: none"> ● Strengthen security posture ● Upgraded infrastructure
Database management and migrations	Have worked with agencies to migrate/manage databases. This is an ongoing operational responsibility across many agencies.	<ul style="list-style-type: none"> ● Increased productivity ● Potential cost savings
Management and updates of cell phone software and other mobile devices	Ongoing management of supported cell phones across State agencies as well as other mobile device management (installation of encryption software, etc.). This activity has increased dramatically given remote workforce needs.	<ul style="list-style-type: none"> ● Continuous improvement ● Improve customer communications ● Statewide Safety Initiative (hands free) ● Strengthen security posture
Data center management	Ongoing management and modernization of the 33 Hazen basement data center.	<ul style="list-style-type: none"> ● Continuous improvement
Disaster recovery	Worked with select agencies on disaster recovery site setup and planning. These efforts will expand over the next biennium as cloud solutions evaluations evolve.	<ul style="list-style-type: none"> ● Enhance citizen services ● Continuous improvement
Office relocations and consolidations	Worked with various agencies as field or other offices were relocated and/or consolidated. Assisted with coordination and performed setups of needed applications and/or infrastructure as needed.	<ul style="list-style-type: none"> ● Enhance citizen services ● Continuous improvement ● Cost avoidance/savings
Inventory management	Assisted agencies with inventory management on technical equipment.	<ul style="list-style-type: none"> ● Continuous improvement
Security training program	Coordinated and worked in partnership with HSEM (Homeland Security and Emergency Management) to promote a better understanding of Cybersecurity. Also, supported initiatives to address increased remote access, and cloud solution use needs.	<ul style="list-style-type: none"> ● Strengthen security posture ● Employee development
Lean process evaluation	Worked with agencies to support “Lean” efforts to improve processes.	<ul style="list-style-type: none"> ● Increased productivity ● Potential cost savings ● Continuous improvement
Email Consolidation	Consolidated the last executive branch agency onto the centralized email standard for the State.	<ul style="list-style-type: none"> ● Enterprise alignment ● Promote standards ● Cost avoidance

Appendix II: Department of Information Technology Services

DoIT Technology Services		
Major category of Service	Minor category of Service	Description of Service
Administration	Audits	Participate in all audits related to IT to support agency partners.
Administration	Budget	Recommend hardware/software replacement cycles.
Administration	Incident Response	Provide support for agencies to manage critical incidents where technology and data are involved (storm, cybersecurity, or other incidents of this nature).
Administration	Litigation, Right-to-Know (RTK), Human Resource (HR) Requests	Central and cohesive response to Litigation Holds and Right To Know requests and general eDiscovery assistance.
Administration	Policies, Procedures and Standards	Develop, implement and maintain policies, procedures and standards to support executive branch agencies.
Advisory/Consultation	Agency Planning Support/Consulting	Assist with strategic planning related to technology and assist agencies to build the Agency Information technology Plan (AITP).
Advisory/Consultation	Agency Planning Support/Consulting	Provide consultation and advice to agencies for related IT initiatives.
Advisory/Consultation	Agency Planning Support/Consulting	Provide IT support on Agency committees such as Continuity of Operations Planning (COOP).
Advisory/Consultation	Agency Planning Support/Consulting	Participate in and advise in Agency logistical efforts: relocation or addition planning: providing DoIT resources (sub stations and DO's interior renovations and moves).
Advisory/Consultation	Budgeting and Procurement/Inventory	Support Software and hardware inventory management for DoIT managed equipment.
Advisory/Consultation	Budgeting and Procurement/Inventory	Monitor and provide guidance on agency IT related procurements.
Application Support	Ad-hoc reporting and Data requests/interfaces	Provide reports for data requests from citizens and agencies.
Application Support	Application development and Software Development Life-Cycle Support (SDLC) oversight	Application development (provide leadership throughout the entire SDLC process)
Application Support	Code review and management	Safeguard state assets through source code repository management and ensuring vendors comply with state standards (where applicable).
Application Support	Legacy systems Maintenance and Development	Application Legacy application support and maintenance; enhancements

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Awareness & Coordination	Integrate & cultivate cybersecurity awareness	Provide guidance, communication and coordination assistance on cybersecurity awareness by integrating security into operations and increasing awareness for current and emerging technologies.
Configuration Management	General content configuration management	Provide configuration management services through the use of various tools (web and other application related servers).
Configuration Management	File Integrity Monitoring	Provide Implementation, configuration and management of tools used to ensure changes made to supported applications have been authorized/approved.
Configuration Management	Reverse Proxy Server	Support the implementation, configuration and management of reverse proxy to retrieve resources for web-based applications.
Configuration Management	SSL Certificates	Support the implementation, configuration and management of HTTPS encryption technologies.
Configuration Management	Web Server configuration	Support the Implementation, configuration and management of web servers.
Database Services	Oracle Database Hosting and Administration	Centrally manage Oracle databases associated with legacy and vendor applications. Services include Database design, security, system configuration, optimization tuning, implementation, maintenance, support, monitoring, troubleshooting, backup and recovery.
End-point Support	Enterprise Desktop Productivity Tools	Installation and configuration of enterprise PC software.
End-point Support	Onsite Maintenance and Support	Provide support by onsite technicians to resolve issues that cannot be resolved remotely (i.e. hardware issue, connectivity issue, preventative hardware maintenance, office moves).
End-point Support	PC/Peripheral Equipment Setup	Installation and configuration of PC equipment, mobile phones, printers, etc.
End-point Support	Remote Maintenance and Support	Provide support for issues that can be resolved remotely such as installation of software, troubleshooting and general customer assistance with IT questions.
End-point Support	Software Distribution	Manage tools and the process used to update agency PCs with critical patch updates to enhance software functionality, improve performance and strengthen security.
Enterprise Messaging	Email	Hosting and Management of Microsoft Exchange email services. Management of associated hardware purchases, physical setup, Operating System and application software installation and configuration, performance tuning and monitoring, patch management, service pack installations, integration with antivirus (McAfee).

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Enterprise Messaging	Email Backup and Recovery	Secure backup and recovery services for mission critical data based on customer specified frequency and retention periods.
Enterprise Messaging	Mobile Messaging	Central management and encryption of mobile devices. This includes coordination of hardware purchase(s), physical setup, operating system and software installation and configuration, performance tuning and monitoring, patch management and service pack installations.
Enterprise Security and Monitoring	Antispam	Cloud-based protection against inbound malicious and junk email; internal appliances for same protection against outbound email.
Enterprise Security and Monitoring	Antivirus	Centrally managed/distributed endpoint protection for Windows servers and workstations.
Enterprise Security and Monitoring	Endpoint Encryption	Centrally managed drive encryption for State laptops.
Enterprise Security and Monitoring	Patch Management	Centrally administered/distributed patching, software distribution and analysis, system reporting and inventory.
Enterprise Security and Monitoring	Web Security	Protection against malicious sites, malware, sandboxing of unknowns and Data Loss Protection.
Enterprise Services	Active Directory	Administration and security of State domain resources (user accounts, computers, files, groups, and printers) and group policies.
Enterprise Services	Domain Name System	Implementation, configuration, and Administration of DNS.
Enterprise Services	Dynamic Host Configuration Protocol (DHCP)	Implementation, configuration, and Administration of DHCP, which allows devices to communicate on the state network.
Enterprise Services	File Storage	Hosting and Management of file storage on both virtual and physical servers located at both central data center and remote locations.
Enterprise Services	Network Printing	Implementation, configuration, and administration of Windows Network Printing including redundancy and printer backup and recovery.
Enterprise Solutions	Automated forms management	Implementation, configuration and management of a centralized forms management product (nForms), used as a method to automate the submission of data.
Enterprise Solutions	Identity Management	Implementation, configuration and management of central software used for authentication of users to state resources.
Enterprise Solutions	Learning Management Solution	Implementation, configuration and management of a centralized learning management environment, used as the statewide Learning Management System (LMS) solution.
Enterprise Solutions	Payment processing	Implementation and management of e-commerce solutions including hosted solutions and on premise middleware.

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Enterprise Solutions	Professional licensing	Implementation, configuration and management of centralized software used for the licensure and certification of regulated professions and businesses.
Extended Support	Extended support services	Provide limited 7x24x365 support for critical infrastructure and systems
Financial Services	Account Receivable	Work with DoIT and agency personnel to track, identify and collect all outstanding accounts receivables.
Financial Services	Accounts Payable	Work with outside vendors and other state agencies to process payments in a timely and efficient manner while adhering to best practices.
Financial Services	Budgeting	Work with DoIT and agency personnel to identify the staff and financial resources required to support DoIT's mission throughout each biennium.
Financial Services	Cost Allocation-Budgeting	Manage allocation of DoIT's goods and services to a particular agency or agencies through the budgeting process.
Financial Services	Cost Allocation-Monthly Invoices	Manage the allocation of DoIT's goods and services to a particular agency or agencies through the invoicing process. Provide the detail necessary to support agency draw down on their fair share of grant, highway, and federal revenues.
Financial Services	Reporting and Analysis	Reporting and analysis of financial activities.
Help Desk	Agency Detail Reporting	Manage and deliver centralized reporting of Work Requests.
Help Desk	Centralized Contact Center	Management of Contact Center Ticket tracking solution.
Help Desk	Customer Satisfaction	Manage and deliver centralized reporting of customer satisfaction.
Help Desk	Disaster Recovery Plan	Maintenance and execution of DR plan for the enterprise helpdesk to validate downtime.
Hosting	Load Balancing Services	Hosting and Management of Load balancing servers/platform to manage application centric load balancing throughout the enterprise.
Hosting	Physical Servers	Hosting and Management of Unix, Linux, and Windows servers. This includes but is not limited to Hardware purchase(s), physical setup, operating system (OS) and application software setup/installation and configuration, performance tuning and monitoring, patch management, service pack installation and Anti-Virus management.
Hosting	Secure File Transfer	Management and Administration of software which allows for secure file transfer protocol (SFTP) connections to provide secure transmission of data.

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Hosting	Server Virtualization	Hosting and Management of virtual Linux and Windows based servers. Application software setup/installation and configuration, performance tuning and monitoring, patch management, service pack installations and Anti-Virus.
Incident Response	Oversee security incident response(s)	Lead security incident response investigation, remediation and reporting; strengthen response capabilities through training and exercises.
Mainframe Services	Mainframe Services and Management	Manage z10, z13 and zLinux mainframe services for agencies requiring the use of these platforms. Services include consulting, application support, systems programming, transaction processing, storage, CICS, DB2, IDMS, performance management and tuning, security, and tape management.
Middleware Support	Citrix	Citrix Management for customers who have deployed Citrix and who have published applications in their Citrix environment (for remote access).
Middleware Support	WebSphere	Implementation, configuration, and Administration of the WebSphere set of tools to support agencies that require its use.
Network Communication	LAN (Local Area Network) Connectivity	Design, deployment, and management of LAN services enabling data communications among local resources, network switches, firewalls, routers, virtual local area networks (VLANs), and access control lists (ACLs).
Network Communication	MAN (Metropolitan Area Network) Connectivity	Management of state owned fiber and leased fiber infrastructure. Design, deployment and administration of connectivity between state offices in Concord and the state's data center(s).
Network Communication	Network Access Control (NAC)	Design, deployment and administration of controlled access to the State's network with policies that NAC uses to grant access.
Network Communication	Network Hardware and Device Replacement and Repair	Network Hardware requirements, installation, configuration, monitoring, and repair/replacement.
Network Communication	Remote Access (VPN)	Design and Administration of remote access for state agencies and their business partners via a virtual private network (VPN) client installed endpoint using customer's Internet access.
Network Communication	WAN (Wide Area Network) Connectivity	Management of vendor circuits (Carrier Ethernet, Multiprotocol label Switching (MPLS), Internet, Site-to-Site virtual private network (VPN) Tunnels) and other remote access methods for agency employees, vendors, and business partners.

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Network Communication	Wireless	Design, deployment, and administration of wireless connectivity services for Guests and/or Staff of state agencies.
Other Support	Selected Technical Support	Oversee network infrastructure in smaller agencies.
Other Support	Small Agency/Board Infrastructure Supports	Serve as first response for break/fix in certain agencies where teams are embedded (some leads are developing applications, racking switches, and providing desktop level assistance wherever possible.
Policies, Procedures & Standards	Develop & maintain security standards	Develop and maintain policies, procedures and configuration standards; evaluation and selection of standard products and platforms; and manage exception requests.
Procurement	Budgeting and Procurement/Inventory	Oversee and manage the Class 027 budget: plan, implement procurements, receive and report.
Procurement	Inventory	Perform asset tracking in support of centrally managed functions (for all agencies).
Procurement	IT Contracting-Procurement of goods and/or services obtained through the Governor and Council (G&C) process	Work with DOIT and agency personnel to identify and procure needed IT goods or services processed through the Governor and Council process.
Procurement	IT Purchasing-Procurement of goods and/or services procured through Purchase and Property (P&P)	Work with DOIT and Agency personnel to identify and procure needed IT goods or services processed through the Department of Administrative Services (DAS) Purchase and Property (P&P) group.
Project Management	Agency Project Oversight	Oversee agency IT project management efforts: assist with analysis of feasibility, practicality, cost/benefit and implementation.
Project Management	Contract and RFP Management	Manage agency contract and request for proposal (RFP) processes.
Project Management	Vendor Management	Vendor Management: provide support on first bids and contract clarification and negotiations to production support and renewals.
Risk Assessment & Management	Review cyber advisories & threats	Review threats and vulnerabilities, taking appropriate actions for response and information sharing based on risk.
Security	Web application firewall management	Implementation, configuration and management of tools used to support web application firewall activities.
Security	Web application security	Provide and/or coordinate Code reviews, application security testing and performance testing of state applications to protect the state's information assets.

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Security Monitoring, Analysis & Response	Manage core security platforms	Manage the core Intrusion Prevention System (IPS), Security Information and Event Management (SIEM), and Vulnerability Management (VM) platforms in support of policy enforcement and operational assurance.
Security Strategies & Planning	Develop cybersecurity strategies	Develop short and long-term cybersecurity strategies to guide standards, procurements, resource prioritization, and budgets.
Security/Compliance	Awareness and Training	Support and partner with agencies to promote efforts for cybersecurity awareness and training.
Security/Compliance	PCI audit assistance	Assist with PCI awareness, training and audit preparation.
Security/Compliance	Regulatory Oversight/Audits	Provide agency support for audits: assist in documentation; broker DoIT resources for reports and on-site visits. This includes promotion of awareness, training and audit preparation, for example: Payment Card Industry (PCI compliance).
Storage/Backup	Backup	Backup services to disk and tape for mission critical data provided at customer specified (frequency and retentions periods). Data is encrypted and sent offsite (once backed up).
Storage/Backup	Data restoration	Restoration of data/information that supports the business function.
Storage/Backup	Data storage	Purchase and Management of performance balanced tiers of secure and scalable storage. SAN fiber attached block storage, solid-state flash storage, Isilon NAS (Network attached storage).
Telecommunications	Agency detail reporting	Centralized consolidation of Telephony Reporting.
Telecommunications	Cable provisioning and repair	Management and monitoring of pass through service to State Vendors.
Telecommunications	Centralized billing, accounts receivable and accounts payable	Centralized consolidation of telephone contractor billing, bill payment and agency billing.
Telecommunications	Data circuits	Centralized provisioning of data network circuits including point-to-point and switching services.
Telecommunications	Fiber cable provisioning and repair	Management and monitoring of pass through service to State Vendors.
Telecommunications	Help desk operations	Telephony related trouble tickets and service requests.
Telecommunications	Telephone service - Centrex and POTS (Plain old telephone service)	Provisioning of POTS in the form of legacy business lines and Central Exchange central office based full featured telephone service.
Telecommunications	Telephony Needs Planning and Assessment	Centralized consultation services for planning of future requirements and operations.

DoIT Technology Services

Major category of Service	Minor category of Service	Description of Service
Telecommunications	VoIP (voice over internet protocol)	Design, deployment and support of centralized VoIP services. Core telephony, voice mail, audio, contact center and auto attendant functions.
Web Development	Web application development	Establishment of web application coding standards and development of enterprise and agency specific web applications.
Web Development	web content management	Administration, development and management of agency websites, blogs, and opt-in communications such as Listserves, mailing lists and newsletter releases. Includes implementation of content management solution, template development, staff training and daily operational support.
Web Development	web hosting services	Implementation, configuration and management of web hosting solutions to minimize the number of unique servers required to support state applications and web sites. This includes shared web hosting and a centrally managed SQL database.