Statewide Information Technology Strategic Plan 2016 - 2019

Developed by the Department of Technology and Information under the authority and responsibility assigned by the State of Delaware code, Title 29, Chapter 90C.
Technology plays a critically important role in delivering the services and information that the citizens of Delaware use each and every day. In Delaware, we have unique opportunities to shape our future with the focused and direct use of state-of-the-art technology to address increasing citizen demand for services while making government more efficient.

During my administration, technology will continue to serve as a critical asset to help all Delawareans succeed, and help us save taxpayer dollars. It will be an engine to enable private sector job creation, build a stronger public education system, and a more responsive and cost-effective government. It is with this in mind, along with our continuous efforts to put the needs of each Delawarean at the center of every product and service, that we deliver this comprehensive technology plan.

In the following pages, you will find the State’s 2020 Statewide Information Technology Strategic Plan, which is rooted in our shared values of integrity, adaptability, teamwork, efficiency, and the goals of sustainability and excellence. This plan builds upon our previous initiatives and focuses on the goals and strategies for the future of information technology in Delaware.

Delaware’s overarching strategy is to provide a customer-centric approach to statewide information technology systems and the products and services that we deliver. This document outlines how we plan to leverage emerging new technology to streamline our IT operations. We envision a better IT enterprise system which could save millions of taxpayer dollars over the coming decades.

I look forward to putting our IT Strategic Plan to work for Delaware. I applaud our information technology professionals for their valuable contributions to these goals and our Strategic Plan. They have my support and thanks for their efforts to advance technology and improve the quality of life in our great State of Delaware.

John C. Carney
Governor John C. Carney
Technology is a tool that allows our government to perform more efficiently and fulfill citizen needs. As the State of Delaware Chief Information Officer (CIO), I am privileged to lead the Department of Technology and Information (DTI). The DTI is the central support organization that partners with all branches of Delaware state government. We provide the innovative technology solutions and services which enables state government to meet citizen and business needs.

Our State is facing many challenges that are exerting pressure on us all to find new ways to meet increased customer demand. For us to overcome these challenges, we must take full advantage of the opportunities to be transformational. The evolution from the “manila folder” to the “information” age necessitates an unprecedented paradigm shift in how the State manages and deploys technology. We must transition from a silo approach, where each government branch, agency, and division separately deploys technology; to enterprise thinking that enables delivery of services in a consistent and comprehensive manner. This change will permit us to leverage the vast amounts of information across the state to be more transparent, realize greater efficiency, prevent/identify fraud, and make better decisions.

In addition to building on past initiatives, this strategic plan sets a new direction for a more integrated, customer-centric, secure, and intuitive system that can support business in the digital age and beyond. Digital has unlocked new ways of engaging customers and empowering employees for improved efficiency, efficacy, and results.

This 2016-2019 Statewide IT Strategic Plan includes an overview of the DTI, references recent achievements, and identifies the five goals that the DTI will strive to accomplish in the coming years. There are more government services and information available to citizens than ever before in history. Continued investment in technology permits these improvements and enables more initiatives to continue that momentum.

I would also like to recognize the state’s dedicated IT employees for lending their deep technical skills in support of the vast scope of the technology services being delivered 24 hours a day, 365 days a year.
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The 2016-2019 Statewide Information Technology Strategic Plan outlines multi-year strategies and actions required for continued IT successes in state government, as well as K12, charter schools and higher education in Delaware. Some ongoing trends have been taken into consideration in the making of this plan:

- IT continues to change how we live, work, and learn. Technology is no longer just a digital or mobile environment; IT has evolved into an interactive, collaborative, and social platform.

- Technology is an integral part of everyday life. Anytime, anywhere access is the norm; a reliable and secure environment is essential for education, business, and daily living.

- Change is inevitable, and state government will be affected by increased demand for service and continued budgetary pressures which necessitate strategies that drive cost down but also fosters innovation.

- Technology will continue to evolve, and that will require new IT skills and a workforce able to support the environment.

The Department of Technology and Information (DTI) provides core IT services to state government, enabling agencies to meet their missions and to serve Delaware citizens effectively and efficiently. Developing a statewide information technology strategic plan is a partnership and the strategies presented in this plan are built from a collaboration and consensus among IT professionals and agency leaders of state government. The strategic goals are purposely written at a level that allows for growth as technology and customer needs evolve.

The work within the Department is dynamic as needs change and priorities are adjusted. The information contained in this plan reflects the work underway at the time of its creation. This plan should be considered, and will be treated, as a living document with updates made as significant business priority changes occur.
James Collins, Chief Information Officer (CIO); Elayne Starkey, Chief Security Officer (CSO); Parthiban Jayaraman, Chief Operating Officer (COO); Michael Hojnicki, Chief of Policy and Communications (CPC); Bob Rhodes, Chief Technology Officer (CTO).
The Evolution of the DTI

Early in 2001, recognizing the increasing importance of technology development to the effective functioning of Delaware’s state government, Governor Ruth Minner established the Information Services Task Force, chaired by then State Treasurer and now Governor Jack Markell, to make statutory and organizational recommendations. The recommended reforms included a number of radical changes that needed the approval of the members of the General Assembly to deploy. The Department of Technology and Information (DTI) was created by Senate Bill #215, approved by the 141st General Assembly, and signed by Governor Minner on July 1, 2001. This legislation paved the way for sweeping reforms in the manner which Information Technology was managed. To plan and build a 21st-century agency while continuing the day-to-day operations of the state’s diverse technology system were the main objectives during the 2-year transition from Office of Information Services (OIS) to the DTI.

During the Department’s early years, much was accomplished:
- Creation of a non-merit compensation system to make the agency competitive with the private sector
- Protection of valuable state government information through overhauls of the state data centers
- Oversight of improvements to the 800-megahertz emergency radio system
- Consolidation of software licenses to gain better terms and prices with software suppliers
- Improvement of various e-government projects resulting in increased state websites and services

The Department continued to focus on the right structure, mix of resources and a sense of mission to capitalize on technology opportunities throughout state government. The organization’s mission; “to enable excellence in Delaware State Government by providing leadership in the selection, development and deployment of information technology (IT) resources and solutions throughout the State of Delaware”.

Successful technology leadership and efficiencies continued and in 2010 Governor Jack Markell set forth Executive Order 20 (EO20) calling for the centralization of IT services for executive branch agencies. EO20 would further streamline IT services and allow for continued cost savings and avoidance.

Today, the Department is an exempt state agency of approximately 290 employees delivering core IT services to all state organizations; including all school districts, charter schools, and higher education. The DTI has overcome many hurdles and changes since 2001 and is now the most interconnected organization in Delaware’s Government. Enterprise Desktop/LAN (EDL) resources are strategically located throughout the state so as to address and quickly accommodate IT issues/breaks/fixes. The Customer Engagement Team (CET) has resources assigned to, and in many cases, housed at the various organizations enabling a direct line of communications to help solve our customers business needs in serving the citizens of Delaware. Three of the largest IT centralized agencies, the Departments of State, Natural Resources & Environmental Control and Transportation have many other DTI staff located on-site too.

Over the past 12 years, the Department has reshaped the IT landscape for Delaware government. In 2014 – 15 new IT leadership transitions brought a fresh perspective; the Department structure and processes were reviewed and realigned to ensure continuance and improvements in meeting the needs of customers through fostering better communications and collaborative efforts both internally and externally. As a result, the following new DTI Mission, Vision, and Core Values were established...

The challenging but exciting part of Information Technology is that it is ever changing and we are tasked with looking into the future for opportunities to advance Delaware’s competitive advantage and improve citizen and business access services.

CIO James Collins
“Increased agency collaboration and IT systems integration have presented a unique opportunity for Delaware government that did not exist in prior years. A united partnership among state agencies and education now guides IT initiatives resulting in a more open and integrated technology environment. These partnerships enable additional cost savings and avoidance, increase efficiency of IT resources, and provides the ability for Delaware government to deliver the technology that is expected in today’s society by Delawareans.”

CTO Bob Rhodes
Accomplishments:

The Department of Technology and Information (DTI) is a central support organization that serves all branches of Delaware state government, K12, charter schools, and higher education. The Department delivers innovative technology solutions and services that enable customers to meet Delaware citizen and business needs successfully. These accomplishments, outlined below, show how the Department has successfully met statewide IT strategic goals and utilized technology to improve the efficiency and reliability of the state’s IT resources and infrastructure. These advances have positioned the state to be able to meet the Delaware 2016 - 2019 strategic goals.

**Information Technology Centralization (ITC)**

ITC leverages existing state investments and resources to streamline services and create efficiencies, resulting in cost savings or avoidance, and equally as important, reduce risks. In 2010, Executive Order 20 (EO20) issued by Governor Markell charged the Department to initiate the centralization of IT services for executive branch agencies. Centralization efforts have recently expanded to include non-executive branch agencies as well. Delaware has demonstrated efficiencies and cost savings through the centralization of 75% of executive branch agencies. These efforts have mitigated risks by stabilizing technology infrastructures and platforms. Sixty-five percent of state desktop computers are now managed through a centralized service desk, and an enterprise desktop support team is strategically located across the state. Through ITC efforts, physical data centers have been reduced by 36% enabling agencies to re-purpose physical space and reduce operational costs for utilities.

Enterprise email has supported all branches of government for many years, in 2015 this service expanded to include unified messaging, instant messaging, video and audio conferencing, and collaborative online meetings. A centralized Voice over Internet Protocol (VoIP) service using Session Initiation Protocol (SIP) is used by more than 7,500 state employees. The use of Enterprise VoIP services and statewide call centers resulted in reduced telephony and voice call expenditures and expanded intrastate call routing, automatic call distribution, and centralized service support. The Department now manages 42% of all full-time technology staff in the state. A centrally managed workforce has allowed greater depth of knowledge and support and the sharing of resources across multiple agencies.

**Cloud Computing**

Delaware adopted a “Secure Cloud First” policy in 2011 and revised the contract Terms and Conditions (T&C) to incorporate language regarding the use of cloud computing. A proud moment for Delaware was when the Center for Digital Government endorsed the Delaware Cloud T&C’s as the starting point for their 2014 discussion on the study of Cloud Security. This Secure Cloud First policy resulted in a 700% growth in server virtualization with more than 1,600 virtual servers managed and hosted in the state’s central data center; resulting in significant cost avoidance. The statewide virtual private cloud environment includes Software as a Service, Platform as a Service, and Infrastructure as a Service. The DTI and the Delaware Office of Management and Budget’s Government Support Services section work together to establish enterprise contracts that enable the state to leverage and procure cloud computing services.
**Shared Services**

Enterprise Email, Voice Services, Server Virtualization, and Disaster Recovery/Continuity of Operations are examples of early shared services successes. Delaware is the only state in the nation with a single statewide Enterprise Resource Planning (ERP) system to support fiscal, payroll and human resources practices for all branches of government including k12 and higher education. ERP enhancements in 2014-15 included the roll out of Delaware Single Sign-On (DE-SSO); an authentication tool that supports statewide benefit enrollment, and an expanded self-service portal for employees to manage benefits and pay advices. DE-SSO enables users to access multiple applications with a single user name and appropriate credentials while releasing the individual applications from the burden of internally-developed user authentication. The rich features of DE-SSO will enable self-service password management and application access. Through efficient on-boarding, the DTI anticipates a rapid growth of applications beginning in 2016 with the initial focus on public-facing systems. Through centralization, collaboration, and provisioning technology across agencies; shared services expanded in 2013-2015 with the implementation of a project management/portfolio system, enterprise desktop/LAN support system, and enterprise licensing for Microsoft, Oracle, and ESRI software suites.

A new Geographic Information Service (GIS) brought several agencies together to combine multiple GIS infrastructures into a centralized enterprise service. GIS is an enterprise information discipline used to manage, analyze, visualize, and disseminate geographic information. More GIS data is available, and government agencies can create products that are easier for Delaware residents and businesses to access. Aerial imagery and other data sets, including elevations, contours, and land-use covers are easily available.

The Department is proud of the enterprise GIS, "Firstmap". Firstmap posts several publicly accessible applications including trails and pathways, roadway information, and Senate, Representative, and school district maps. Delaware had been incurring over 3 million annually in GIS costs and with the launch of Firstmap’s shared infrastructure and resources a 25% cost avoidance has been realized.

In 2015 the Office of Management and Budget (OMB) formed the Delaware Learning Center (DLC), an enterprise learning management system that streamlined the training registration process, allowing access to training records and resources, assisting administrators in the management of training, and enhancing the reporting on various training initiatives. All functions can be achieved at the individual, divisional, department, and state levels. Employees can use the DLC to find and register for training, track their training, and manage their career training goals. Many classroom and online courses, materials, and videos are available 24/7. The success of the DLC required collaboration efforts within the state government and the use of a strategic partner for cloud hosting.

**Project Management Services**

The State CIO is the chair of the Delaware Technology Investment Council (TIC), a public-private partnership that reviews the status of major projects across the state. The TIC is tasked with making strategic decisions for IT investment direction and policies. A Major Projects Quarterly Review (MPQR) process provides oversight for projects identified for review as part of the business case process. The need for review is based on project size, budget, and/or complexity of change. Details of project health and overall status are captured in a dashboard format to the TIC. The DTI provides project management services to agencies through a Project Management Office (PMO). The PMO uses a project portfolio management system for agencies to submit ideas, designs, overview, risks, benefits, as well as requirements and projected costs for new systems. This automated cloud-based system provides detailed workflow that allows for the evaluation of submitted information for feasibility, costs, and project timelines.
Broadband Access
Governor Markell’s administration has made it a priority to expand broadband services to our rural under served areas of the state because of the positive impact it has on education, economic development, and the quality of life for the citizens of Delaware. In collaboration with other state agencies and private businesses, the DTI was successful in developing a public/private partnership to incentivize over 350 miles of new fiber optic infrastructure. The new broadband infrastructure spans from Wilmington to Georgetown, Lewes to Seaford, and throughout underserved areas in Sussex County. As a result, Delaware leads the nation in the top tiers of broadband speeds and throughput. The new fiber-optic infrastructure has enabled internet service providers to offer new services to the citizens and businesses located in rural communities. In 2014 Delaware had the largest increase in Internet speed of any state in the nation with a 42% jump over the previous year.

In response to the increased need to stay connected and consume online services, the Department created a Wi-Fi wireless service called GuestNet to provide public Wi-Fi access in state government building lobbies to enable citizen connectivity. StateNet, also known as Bring Your Own Device (BYOD), provides state secure access for state workers to access needed resources. Today over 85% of state buildings have Wi-Fi access.

Citizen Engagement
Technology has been used to improve citizen engagement in a number of ways. In 2015 the Delaware.gov portal saw 1.9 million sessions, 1.1 million users, and 3.2 million page views. There are now 47 resident services and 28 business services online that provide conveniences such as state park pass requests, the verification of licensed professionals, or the ability to renew a business license. Many other citizen engagement type services have been implemented, for example:

- Hunter and Trapper Registration - allows hunters and trappers to get HIP and LEN numbers. Register deer, and participate in the Snow Goose Conservation Order.
- eSchoolPLUS Family - Easy to download and easy to use, the eSchoolPLUS Family App provides information for student success available for the parent on the go. Parents simply log in and select a student and view vital information—right at their fingertips.
- DART First State Mobile Website - allows users to plan a trip, view routes and schedules, get rider alerts, and more with a site optimized for mobile devices.
- DelDOT Mobile Website - allows users to plan trips based on travel advisories, traffic cameras, and weather updates from around the state. Users can check toll rates and find the latest road-related news.
- Delaware State Parks - allows users to locate a park by name or by activities like camping and fishing or find the perfect spot with provided maps and shared photos.
- Delaware Fresh - Users can find the closest farm-fresh produce in Delaware through an interactive map that provides information on 80+ farm stands and markets in Delaware.
IT Planning
The DTI has provided guidance and support for centralized agencies in the development of their strategic plans that establish goals and key objectives regarding the use of information technology (IT) within the respective agencies. The Department engaged key agency decision makers and stakeholders to identify enterprise and business unit level goals. These planning efforts support the broader goals identified in the statewide DTI IT Strategic Plan. A comprehensive agency and statewide IT strategic plan will guide long-term investment decisions at the state level and is the foundation for the development of tactical plans to prioritize and guide shorter range decisions and resource allocation. This change represents a new approach to managing IT as a strategic asset instead of a cost center that is under-resourced due to other agency priorities.

Cyber Security
The DTI is the primary agency responsible for cyber security and enterprise business continuity and disaster recovery planning and continues to expand planning efforts with partner agencies. Delaware was among the 2015 National Association of CIO (NASCIO) finalists for the State IT Recognition Award in Disaster Recovery, Security, and Business Continuity.

Delaware is focused on continuous improvement of our security posture through the use of effective tools, education, and training opportunities. Through a collaborative effort, a formalized employee cyber security awareness training, “Securing the Human” was launched. This training is mandatory for all Executive branch agencies and voluntary for other branches of state government. In 2015 an impressive 18,000 employees completed the training. Additionally, Delaware commits to safeguarding information assets through education and outreach such as the periodic “Phishing Exercises” conducted statewide. Phishing exercises are performed by sending a spoof e-mail that appears to come from a trusted source and asks recipients to click on a fake link. The exercise is designed to test employees’ awareness. Over the past year, employees have proven their awareness, as evidenced by a 35% decrease of users falling prey to the phishing e-mail. These phishing exercises are an important part of our cyber security strategy to raise awareness and increase the cyber acumen of employees.

The State partners with consortium and national organizations such as the National Governor’s Association, Multi-State Information Sharing and Analysis Center, and the NASCIO, to combat cyber security threats.

In October 2015, Governor Markell signed Executive Order 55 to establish the Delaware Cyber Security Advisory Council. The DTI CIO serves as chair of the council, comprised of a public-private partnership of cyber security experts with representatives from business sectors, utilities, and governments across Delaware. Their mission is to develop best practices to mitigate cyber security risks to critical infrastructure and protected systems, to increase information sharing, and to improve overall cyber security posture across all sectors in Delaware. The Council meets regularly to develop plans, share communications, and help businesses of Delaware understand how to be prepared to defend against cyber threats and risks.
The DTI goes beyond the traditional cyber security role of supporting state organizations. Several programs have established Delaware as a national leader in cyber security preparedness, outreach and education. This includes:

- **Cyber Security Presentations:** Recognizing that today’s students are far more technologically savvy at earlier ages, the DTI staff and private sector volunteers bring a fun and interactive cyber safety presentation to the classrooms of over 5,000 fourth grade students each year.

- **DigiGirlz:** Through a partnership with Microsoft and the Department of Education, the DTI hosts an annual event to introduce girls to careers in technology. DigiGirlz is a fun, fast paced program for 8th and 9th grade girls designed to encourage them to consider a Science, Technology, Engineering, and Mathematics career. The program includes hands-on activities, such as touch screen application design, robotics, cyber security, and mobile forensics. Over the last 5 years, 750 Delaware girls have participated in the event. In 2015 a survey before the event revealed that only 24% of the girls were considering a technology career. After the event, that number jumped to 41%.

- **Delaware United States Cyber Challenge (USCC) Camp:** The DTI has co-hosted this event and has had 257 graduates since 2010. Cyber Camps provide crucial skills development and help identify those with a passion for security and a desire to put their skills to good use in addressing cyber security challenges. The overall goal is to reduce the shortage in the cyber workforce by identifying, attracting and recruiting the next generation of cyber security professionals. The camp is run in collaboration with University of Delaware, Wilmington University, Delaware Technical Community College, Delaware State University, and the SANS Institute. Delaware is the only state in the nation to run camps every year since the inception of USCC.

- **DigiKnow:** The DTI is honored that the state’s cyber security website, digiknow.delaware.gov, is consistently voted as the best state government site for promoting cyber security awareness, education, and information. The site offers the latest information on cyber security news, events, videos, and tools. The Parent’s Page offers resources for keeping children safe on the internet. A special section for kids provides links to games, puzzles, and videos designed to protect them from cyber bullying and online predators. As part of our notification service, citizens can sign up for e-mail security alerts and advisories. The BEST OF THE WEB Contest is sponsored by the Multi-State Information Sharing and Analysis Center, a nationwide consortium of Chief Information Security Officers. In the last six years, Delaware has won first place in 2010, 2012, 2014, and 2015.

**Conclusions**
Many accomplishments have been realized since the inception of the DTI and in order to keep pace the Department must:

- Maintain a strategy of continual upgrade and expansion of core services and offerings;
- Collaborate and partner with customers and businesses;
- Be at the forefront of emerging technologies;
- Enhance citizen engagement into Delaware government; and
- Develop a strong IT workforce.

In many cases, our prior accomplishments set the foundation to move forward with new technologies and initiatives. Success builds upon success and provides the framework to continue the expansion of IT services within the new 2016 – 2019 statewide IT strategic goals.
Strategic Goal 1
Accessible, Responsive, and Mobile Government for Citizen Engagement

A key focus of delivering accessible, responsive, and mobile government for citizen engagement is the creation of an open and transparent government that allows citizens to access government services quickly, efficiently, securely and on the electronic platform and device of their choice. It is estimated that more than 250 million mobile applications will be downloaded worldwide in 2017 indicating that the demand from citizens for access to information “anywhere and anytime” will also continue to grow. Citizen engagement is at the forefront of providing services in the coming years.

Electronic mailings, telephone calls, in-person meetings, and print media are examples of citizen engagement methods of the past. While these methods are still valid and required, today government must find new ways to use, collect, and distribute public data and information.

Data is obtained daily by government agencies as part of their day-to-day activities. The ability to have the public data readily available, transparent, and open for consumption by other government agencies, technology developers, and citizens is the overall strategic goal. **It is paramount that Delaware agencies strategically share and combine datasets to prevent fraud, make better decisions, and increase efficiency.** This goal will be obtained through various initiatives already in play and new initiatives as herein outlined.

January 2016, Governor Markell signs Executive Order 57

Pictured from left to right: Bob Rhodes, CTO; Elayne Starkey, CSO; Parthiban Jayaraman, COO; Mike Hojnicki, CPC; Dana Rohrbough, GIC Acting Director; Ryan Harrington, co-founder of Open Data Delaware and the education and nonprofit coordinator at 1313 Innovation; Rick Geisenberger, Department of State Deputy Secretary; Rhonda Lehman, DTI Strategic Enterprise Services Team Leader; and James Collins, CIO; Center: Governor Jack Markell
FOCUS 1.1 - Implement Executive Order 57, Establishment of the Delaware Open Data Council to Promote a More Open, Accountable And Effective Government

- Establish a statewide data strategy
- Recommend standards and policies
- Identify and publish data sets
- Collaborate with all branches of state government

FOCUS 1.2 - Improve citizen communications, “Your device, your message, your way, at your time”

- Develop and deploy Mobile Applications
- Encourage and promote “responsible” use of Social Media
- Deliver mass notification and communication on demand
- Modernize notification tools and provide single sign on access

“I would say more now than ever before there is more government information and services available to citizens than ever before in history”

CIO James Collins
Responsible stewardship has to do with the resources that the Department of Technology and Information (DTI) is entrusted with, the ability to negotiate best pricing and leverage state buying power for efficient use of every dollar. While the Department understands the technology tools available, our other state agencies are the experts in their businesses. Through collaboration with our agency partners we will refine what the model IT solution looks like and bring value to them and to their customers and will assist in providing more services while working to keep costs down.

“The role of the state’s IT Organization has transformed along with the changing landscape of technology and providers from a strictly operational entity to partnering with state organizations and strategic partners to drive and enable shared solutions, collaboration, and innovation.”

COO Parithaban Jayaraman
FOCUS 2.1 - Be a strong business partner and resource to customers

• Identify and baseline centralization opportunities that support customer’s business needs
• Manage IT as a strategic asset within state organizations
• Become experts in the business needs of customers
• Align staff to meet customer needs
• Work with centralized agencies to develop long term IT road-maps to complement strategic and fiscal plans

FOCUS 2.2 - Establish and maintain strategic public-private partnerships

• Leverage enterprise contracts
• Modernize IT procurement policies
• Formalize vendor management process

Technology advances such as ubiquitous high-speed internet connectivity, virtualization, and inexpensive mass storage have made cloud services a viable option for replacing the traditional computing paradigm.

NASCIO.org

FOCUS 2.3 - Provide responsible stewardship

• Through policy ensure proper resourcing and oversight of major projects
• Utilize shared technologies
• Eliminate duplication - i.e. document imaging
• Encourage innovation through early involvement with projects
STRATEGIC GOAL 3
Reliable, Secure, and Resilient Services

When people think of security, they often think of software or hardware approaches but in the interconnected world of today security requires an approach that encompasses the technical and human interaction side to providing reliable, secure, and resilient services. Everyone in state government is responsible for protecting citizen and government information from security threats, including loss of confidentiality, integrity, or availability, through either malicious or accidental activity. The Department of Technology and Information is responsible for providing reliable, secure, and resilient services and does this through governance, education and training, and applying the technologies and tools required to meet this strategic goal.

“Reaching out beyond state government... creating cyber awareness for all Delawareans”

digiknow.dti.delaware

“State government databases are attractive targets for hackers because they are filled with personally identifiable data about our residents. Protection of this data is our core responsibility.”

CSO Elayne Starkey
FOCUS 3.1 - Implement Executive Order 55, Establishment of the Delaware Cyber Security Advisory Council

- Develop best practices to mitigate cyber security risks
- Improve overall security posture across all sectors in Delaware
- Increase information sharing between all sectors in Delaware

FOCUS 3.2 - Implement Executive Order 49, Promulgation of the Delaware Emergency Operations Plan

- Establish DR plans for all agencies supported through centralization
- Conduct drills to test, evaluate and modify plans annually

FOCUS 3.3 - Improve the overall security posture

- Provide backup and recovery of critical system
- Provide fail over services for mission critical services
- Provide planning, testing, and readiness assessments
- Provide enterprise network security monitoring and vulnerability scanning

FOCUS 3.4 - Deliver Education and Awareness

- Improve existing and develop new internal and external programs

Governor Markell at the 6th Annual DigiGirlz Day
Centralization efforts have created a need to change specific IT business practices that were managed independently in the past by agencies and divisions. Today we are required to view common business practices holistically and form processes and solutions that are enterprise wide. This is a significant paradigm shift from the fiscal, logistical and Organizational Change Management perspective. Application modernization requires development methods that can evolve through collaboration between cross-functional teams within and across state organizations. Solutions that are incremental, iterative, adaptive, and evolutionary encourage rapid and flexible response to change.
FOCUS 4.1 - Performance Benchmark Reporting
- Measure and compare cost structure based on improvements
- Establish benchmarks and implement performance improvements
- Incorporate data-driven decision making

FOCUS 4.2 - Collaborative Enterprise Systems
- Enhance data warehouse and reporting capability
- Continue hardware/software consolidations
- Continue to reduce complexity
- Expand Single Sign-On

FOCUS 4.3 - Shared Services
- Continue the move from asset to service based models provided by cloud computing; e.g. software, platform, and infrastructure as a service (SaaS, PaaS, IaaS)
- Expand data center capabilities
- Refresh infrastructure

FOCUS 4.4 - Application Modernization
- Identify and mitigate risk
- Ensure modernization alignment with policies and standards
- Identify performance factors
- Employ rapid and progressive application develop strategy

Innovation is simply a means of generating ideas and solutions that positively impact the business.

Info~Tech Research Group
Strategic Goal 5
Skilled IT Workforce for Today and Tomorrow

Workforce planning is generally part of a Human Resource Strategic Plan, not IT. However, one of IT’s greatest challenges is retaining and recruiting a qualified IT workforce. Skilled professionals are needed to plan, develop, and manage IT solutions. IT staff play a vital role in mission-critical decisions and effective service delivery. IT professionals have a direct impact on our operations and a strategic focus on building a skilled and efficient IT workforce is essential for today’s and tomorrow’s successes.

Strategic workforce planning is the practice of determining the future skill sets needed, the skills of the current workforce, and how the gap between the two will be closed. IT workforce planning becomes more complex because the rapidly changing nature of technology adds another dimension to consider. The planning process includes determining whether to hire or to contract for needed skills. State agencies may look to a short-term employment strategy for IT workers or to sources for training existing staff in new technologies.

Keeping current with new and emerging technology will help attract and retain technology workers.

Training, development opportunities, and incentives to obtain professional certifications are powerful tools in recruitment and retention.

Multidisciplinary job training can keep employees engaged, as well as develop a holistic understanding of the organization’s functions.

Flexible workplace arrangements such as telework, flextime, or compressed work weeks are particularly attractive to a younger generation of workers.
FOCUS 5.1 - Provide active and strategic IT Management

- Assess customer needs and internal demands
- Develop and enhance succession planning strategies
- Align central performance objectives to strategic goals
- Migrate employee skill sets to support a service broker approach
- Leverage statewide resources to support commoditized and specialty IT services

FOCUS 5.2 - Retention and Recruitment

- Restore incentives instituted when DTI was created
- Continue outreach opportunities to develop the upcoming workforce
- Continue recruitment of IT qualified veterans, retired private and public sector IT workers, contractors, and student interns
- Create a diversified and inclusive workplace
- Provide training and development opportunities

FOCUS 5.3 - Develop a Flexible Workforce

- Right people
- Right time
- Right place
- Doing the right things

“DTI’s success is dependent upon recruiting and retaining a skilled IT workforce. In today’s IT world, it is important to have an environment that supports career growth and enables employees to maintain technical certification.”

CPC Michael Hojnicki
In the coming years, Delaware will advance the technology needed to drive business solutions. Ongoing collaboration and partnerships, responsive solutions, and increased citizen engagement will be facilitated through the innovative use of technology. Delaware has made significant progress with IT Centralization and will continue to identify redundant functions and resources within various agencies and integrate them into leaner and more efficient entities.

The Delaware Department of Technology and Information will take a leadership role across the state to deliver programs and services by advancing new ideas and pursuing collaborative partnerships. Building on the direction established in previous strategic plans, this document refines the technology vision, goals, and strategies that will deliver exceptional technology to all of Delaware.