



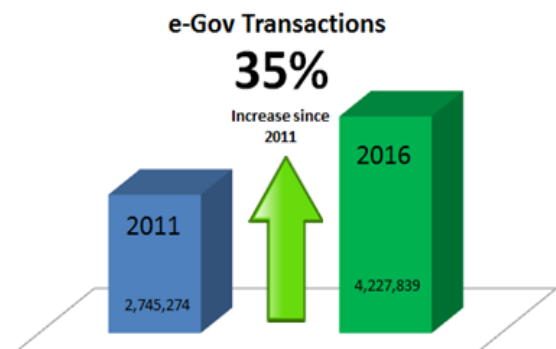
MEMORANDUM

The Legacy of the Department of Technology & Information During the Markell Administration

Delaware government has historically been divided into branches, agencies, and divisions and thus delivered services consistent with that structure. In today's information age, citizens view Delaware government as one entity and expect services to be delivered in an enterprise manner. This significant paradigm shift can only be enabled by a strategic and deliberate use of technology. To that end, DTI serves a critical role in enabling communications, collaboration, and digital government through the delivery of information technology (IT) services to all branches of Delaware government. DTI endeavors to deliver innovative technology solutions and services that help agencies, school districts, and charter schools to successfully meet their business and customer needs. The following are highlights of significant accomplishments:

- DTI has worked for years to *increase broadband across the State in regards to access and affordability*. DTI worked with the Department of State on legislation to establish the *Delaware Broadband Fund* for the expansion of broadband services in underserved areas of Delaware. The Broadband Fund has been used to create public/private partnerships with key vendors to install over 300 miles of new fiber-optic infrastructure in rural areas of our State. High-speed Internet is essential for strong economic development, education and quality of life for Delawareans. Delaware consistently ranks as one of the top three states for broadband access and speeds.
- DTI adopted and continues to expand, the *Cloud First* policy to reduce over 1500 physical servers and leverage our private cloud virtual environment. The expansion included not just virtual servers but also *Infrastructure as a Service*. Utilizing cloud infrastructure has allowed the State to be on the verge of exceeding data center capacity to eliminating four datacenters and having available capacity. Leveraging the State's private cloud and establishing contracts with third party cloud providers has positioned the State to meet the increased demand for services with the necessary compute power that is scalable, responsive and secure.
- The Delaware Cyber Security Advisory Council was established through Executive Order 55, signed in October 2015 to enable DTI to fulfill its commitment to safeguarding the State's information assets and critical infrastructure. The Council, comprised of representatives from both public and private sectors, is the central interface for coordinating cyber security information sharing between, and, among the public and private sectors. The Council also works to mitigate cyber risks through protection plans and cyber resiliency response strategies for high-value sensitive information and assets within the State.

- The Delaware Open Data Council was established through Executive Order 57 in January 2016 to foster greater transparency of government information to citizens and to enable the State to leverage the vast amounts of data it houses as a strategic asset through cross-agency data sharing. The Council has worked to establish the Open Data Portal to allow for existing public information to be published in a single user-friendly website improving citizen and business access and, in some instances, enable development of applications using public data. They have also developed the Delaware Open Data Strategic Plan for statewide integration of open data and strategies to improve data sharing between agencies. Increased data analytics will help government be more efficient, make better decisions and prevent/identify fraud.
- DTI has worked with agencies to modernize numerous critical software applications across the State to ensure citizens have a rich digital government experience through computers, tablets or mobile devices. The use of custom programming and industry leading software as a service (SaaS) platforms have been employed in applications like the Governor's Office Constituent Tracking System, DNREC's Mosquito Control application as well their Boater Registration application, Delaware Gaming Enforcement Licensing, the Department of State Customer Relationship Management, and the replacement of the Department of Safety and Homeland Security's Alcohol Beverage Control Commissioner's License and Enforcement System. DTI also provided project management, technical design, oversight and ongoing support for major projects like the Department of State's Delaware Corporate Information System (DCIS) and the State's new employee State Time & Attendance Reporting - eSTAR. The major projects quarterly review was established to provide project oversight and guidance. The projects include DSCYF- For Our Children's Ultimate Success (FOCUS); DHSS – Eligibility Modernization; DHSS – Medicaid Enterprise System; DSHS – migration of Forensics Science, statewide New World CAD, and Next Generation 911, 800 MHz Radio System Refresh; Legislature – Legislative Information System.
- DTI supports and enables the technology necessary for e-Government to meet increased citizen and business demand for digital services. Leveraging technology to bridge the gap between rising customer expectations and limited resources has enabled Delaware to realize an additional 1.5 million e-government transactions since 2011. This 35% increase demonstrates the importance of making strategic investments in innovative solutions for the future.



In pursuit of your vision for open and more efficient Delaware government, DTI continually works with agencies and strategic partners to enable innovative services to citizens, visitors, and businesses.

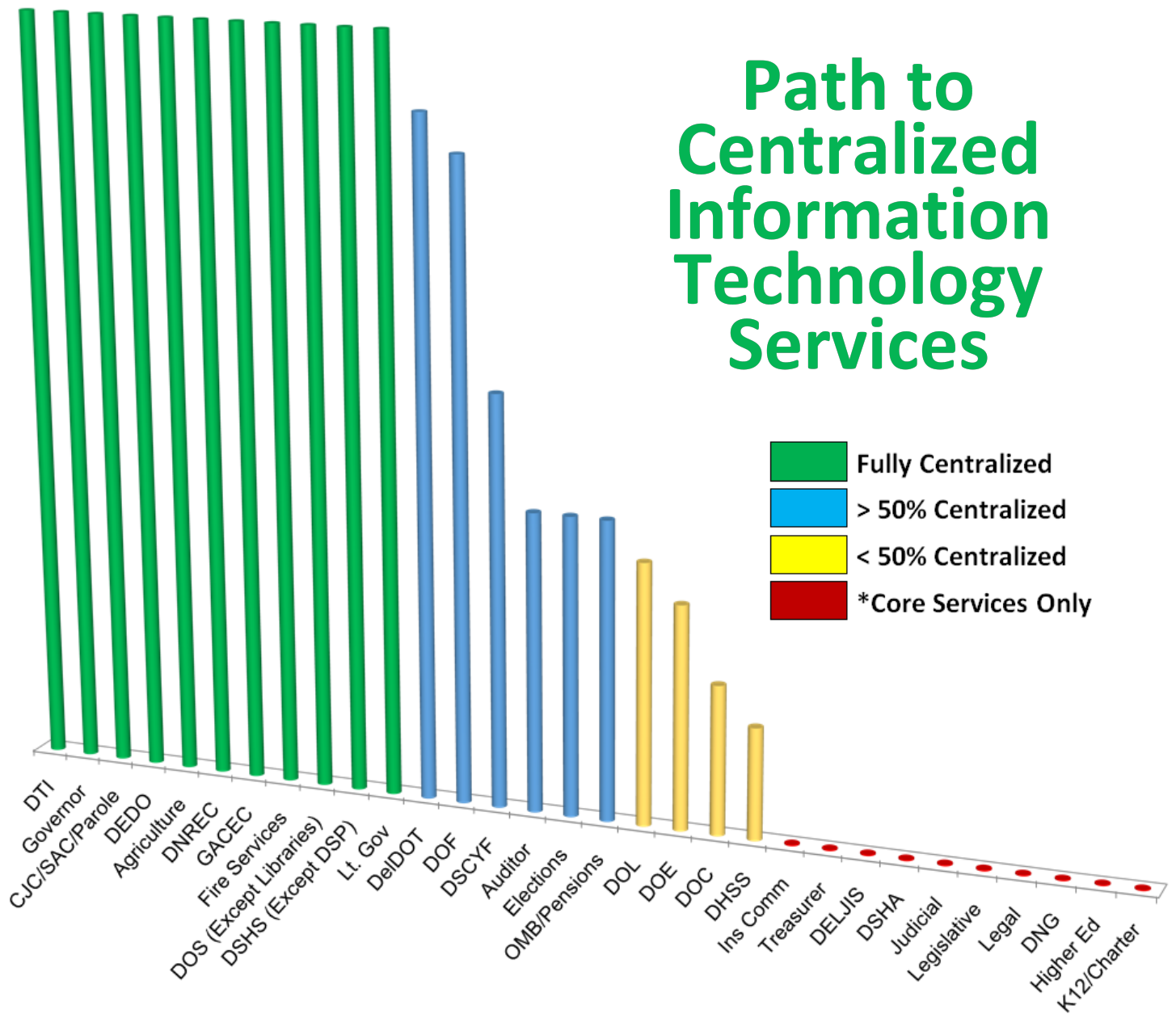
Responsible Government – In the spirit of improving services, fiscal responsibility, and government transparency, DTI has accomplished the following initiatives:

IT Centralization

Information Technology Centralization (ITC) is critical to the State's future success of evolving from a silo approach to delivering citizen-centric digital services, controlling costs and mitigating cyber and other risks. Since the issuance of Executive Order 20 (EO20) in August 2010, DTI has made good progress with ITC by centralizing much of the State's information technology operations, staffing and services in order to better leverage investments, use data as a strategic asset, adopting shared applications, renegotiating individual agency agreements into enterprise-wide software licensing contracts, and creating other efficiencies. Since fiscal year 2014, the saving/cost avoidance total is \$5.6 Million. The projected ongoing annual cost avoidance will be \$1.2 Million. There remain additional opportunities to expand ITC beyond the initial scope of EO20 to fully realize its goal of eliminating redundancy, reducing long-term IT costs, and providing enhanced and more cost-effective services to Delaware citizens. ITC efforts to-date have identified and mitigated significant system risks thus stabilizing technology infrastructures and platforms throughout the State. DTI now manages over 42% of the full-time information technology workforce. One of the greatest efficiencies of ITC is that 65% of the desktop computers are supported through an enterprise desktop team, which enables quick response to any agency issue reported. Before Executive Order 20, agencies maintained their own desktop technicians, often requiring a full-time employee for just a small building of only 75 computers. In today's centralized environment, DTI can cross-utilize and staff one desktop technician per 400 computers, a ratio that aligns with industry best practices. Additionally, through ITC, the number of physical data centers has been reduced from eleven to seven, with over 1600 servers hosted in DTI's private cloud. The reduction in data centers enabled agencies to repurpose the physical space and reduce their overall operational costs. DTI's overall goal of building strong partnerships with State agencies and becoming a resource they can rely on for technology solutions to adapt to ever-changing business needs is helping agencies accomplish their missions consistent with customer expectations. Feedback from long-time ITC partners indicates a growing recognition of the value of ITC. The chart below illustrates DTI's role as a strong business partner supporting all branches of State Government and expanding Centralized IT service.



Path to Centralized Information Technology Services



*Core Services may include: network, email, hosting, and mainframe.

ITC Benefits

- IT infrastructure resources (file servers, E-mail servers, Web servers, application servers, back-up systems, and databases) are consolidated and shared within the State.
- More efficient, reliable data back-up and recovery as well as application and database administration by managing these processes from a central point of control.
- Improved data protection as consolidated IT infrastructure ensures consistent security policies and practices reducing the risk of theft, loss, and misuse.
- Reduced the number of State-operated Data Centers from 11 to 7 which reduced facilities maintenance operational costs, energy utilization, and the need for additional space.
- Centralized Help Desk Support for over 10,000 workstations.
- Reduced nine (9) FTE IT positions through attrition - \$640,000 savings.
- Eliminated five (5) IT contractor positions and costs - \$262,000 savings.
- Statewide IT consulting services are now procured through a centralized contract resulting in cost avoidance and savings of \$540,000 annually.
- Through IT governance DTI identified opportunities to establish centralized contracts for software used by multiple agencies. Contracts include; Oracle, VMware, Microsoft, Salesforce, and Service Now.

Cloud Adoption

A “Cloud First” policy enabled optimization of technical resources and physical space. DTI established a private cloud for agency servers to be virtually hosted on a DTI managed platform. This enterprise private cloud service has enabled the decommissioning of over 900 physical servers and has resulted in a 700% growth in virtual server utilization. DTI manages over 1600 virtual servers within the State data centers and has eliminated many costs of maintaining equipment within the individual agencies.



The cloud first policy has been expanded to include, not just virtual servers, but *Infrastructure as a Service (IaaS)* and *Platform as a Service (PaaS)*. We have worked to put in place contracts with strategic partners in these fields such as Salesforce, Amazon Web Service, and Microsoft Azure. Our goal is to leverage these partners to develop easily scalable solutions that can add resources on demand when needed.

Benefits:

- A “Cloud First” Policy has reduced hardware and software needs, resulting in a cost avoidance of \$5M.
- Virtualized Cloud Services reduces the number of servers required to support computing needs.
- Reduced hardware support and disaster recovery costs.
- Improved reliability and availability for applications that support citizen services.
- Virtualization reduces the costs associated with downtimes including restoring services, lost employee productivity, and lost revenue.

- Virtual servers require less physical space reducing the need to acquire new expensive data center capacity.
- Citizen's data is stored in a more secure and reliable computing environment.
 - The virtual servers are hosted within the secure State data center
 - The server environment is built for high availability and redundancy
- Leveraging Infrastructure as a Service (IaaS) allows savings on initial investment and prevents expensive 'over building.' Capacity can be added on an as-needed basis. The goal is to reduce the long-term operating costs to the State while maintaining a high level of reliability, availability, and security.
- Platform as a Service (PaaS) strategies use select partners to reduce time to market and create an agile and responsive service.

The DTI 'Cloud First' policy has been embraced by customers and has continually resulted in greater efficiencies and control costs.

Shared Services

DTI implemented and continues to expand shared services such as ServiceNow, our enterprise service desk; Delaware Single Sign-on (DE-SSO); and Voice over Internet Protocol (VoIP), a more functional telephone service which is deployed to over 7500 users.

Delaware Single Sign On (DE-SSO)

DE-SSO enables employees and citizens to efficiently and securely access various applications with a single authentication. This tool is designed to balance the need for stringent security while consolidating numerous usernames and passwords. DE-SSO provides a one-stop shop for employee information and will eventually provide a robust one-stop shop for citizen services. Prior to DE-SSO employees had to go to numerous resources to view their paycheck, their healthcare information, and to update personal address/email information. With DE-SSO, employees now log into one place and have access to view and print pay advices, w2 tax forms, open enrollment spousal coordination forms, and other personal data. The State no longer expends labor and postage to mail all the various notifications to the employees' home.



Citizens also have single sign-on capabilities for services such as motor carrier fuel tax payments, child support payments, State pension advices, and access or apply for a broad range of social service programs. Eventually, more citizen services will be available – like securing hunting and fishing licenses, boat registration, etc.

Benefits:

- Saving time and frustration with managing multiple usernames and passwords.
- Securing cost savings and sustainable efficiencies through economies of scale.
- Improving the scalability of State systems.

- Ensuring improved and more up-to-date systems.
- Improved cooperation with multiple State agencies enabling the development of cross-agency support services.

Voice System Shared Service saves money

Five years ago all State telephone calls were digital calls transmitted over regular copper telephone lines. Today 60% of State calls are processed over network connections using Voice-Over-IP (VOIP). The VOIP infrastructure has significantly reduced the number of leased telephone lines and the cost associated with the purchase and management of dedicated private branch exchange (PBX) systems. The estimated cost avoidance is now \$900,000 annually.

Enterprise Service Desk

The enterprise service desk utilizes ServiceNow to track and manage over 10,000 requests for service each month. This shared service has reduced our reliance on 3rd party vendors and multiple software tools resulting in an annual savings of \$100,000 since 2010. The DTI service desk has employed remote access tools enabling them to quickly connect with user machines to address issues reducing downtime, delay and travel expenses.

Open Data Portal

To leverage State data as a strategic asset, DTI worked with the Governor's Office and the Department of State's Government Information Center (GIC) to create Executive Order 57 – signed on January 27, 2016. Publicly available information is spread across multiple websites and databases. EO57 officially formalized a process for a new, more robust open data portal as well as establishing the Open Data Council. EO57 allows for existing public information to be published in a single user-friendly portal improving citizen and business access and, in some instances, facilitating the development of new applications using the data. By offering up-to-date and accurate open data, we achieve greater transparency while saving time and money. The Open Data Portal will also improve the efficiency of State government by facilitating data sharing between agencies and external partners.

The Open Data Portal has been designed with approximately 30 data sets. Data included in the initial launch of the portal covers areas such as air quality, environmental releases, State contracts, licensed child care providers, births and deaths, cancer incidence and mortality, restaurant inspections, school profiles, student demographics, student performance, student preparation, library usage, professional licensees and disciplinary actions, traffic counts, transportation infrastructure, and State expenditures. The portal launch is set for October 19, 2016, at 1313 Innovation with the help of the Open Data Delaware and Tech Forum. DTI and the GIC are the co-chairs for the Open Data Council which has been working to determine data sets that might be of the most interest to citizens. They have also developed the *Delaware Open Data Strategic Plan* for statewide integration of open data and strategies to improve data sharing between agencies. These new platforms and strategies will position Delaware government to be more efficient, make better decisions and prevent fraud through increased use of data analytics and business intelligence.

Energy Efficiency/Cost Avoidance

In support of Executive Order 18- *Leading By Example towards a Clean Energy Economy & Sustainable Natural Environment*, DTI initiated a “Go Green” committee and challenged State Agencies to support EO18. DTI purchased 29% less paper in FY11 than in FY09, a savings of \$17,907. Consolidation of printers, copiers, and faxes saved approximately \$1,100/month which is a 30% reduction in leasing costs. Our continued partnership with DHSS Vocational Services (reuse of empty boxes and pallets), single-stream recycling programs, and monitoring of building temperature controls saves money and supports EO18’s ‘Waste Diversion’ goals.



DTI also partnered with DNREC to leverage a US Department of Energy grant to implement power management on all Executive Branch computers. This initiative systematically powers off computers when not in use for extended periods of time; thus reducing the State’s overall energy consumption by desktop computers.

Benefits:

- ENERGY STAR® states utilizing power management on desktop computers will save an estimated \$30 per computer each year on electricity bills. This initiative began in 2012, and today there are over 10,000 computers using power management efficiency tools. The total estimated cost avoidance is \$900,000 from 2012, with an ongoing annual savings of \$300,000.

DTI and OMB worked to consolidate separate printing operations into an Enterprise Output Management Team. The team has focused on promoting the use of self-service functionality for State employees to view and print pay advices, W2 tax forms, open enrollment spousal coordination forms, and personal data updates to reduce the cost of print operations. Prior to using self-service functionality, the State printed an average of 40,000 pay advices every two weeks and 40,000 plus W-2 forms annually. The transition to online functionality has resulted in the reduction of operational costs for printing and mailing, as well as significant cost savings on depreciated printing equipment. This effort has saved the State a minimum of \$100,000 annually since 2009, in addition soft dollar savings of staff time to process and courier payroll information.

Benefits:

- Reduced the number of print operations centers from 3 to 1.
- Security: more effectively protecting confidential W-2 information.
- Efficiency: avoiding the delays and errors that can occur with traditional postal delivery.
- Convenience: access to view and print copies of W-2’s as soon and often as needed.
- Cost Savings: reduced printing and mailing costs.

In collaboration with OMB, DTI implemented a purchase order review process. All State technology purchases are reviewed and evaluated by DTI. The results identified opportunities to establish centralized enterprise contracts and systems. Working with OMB’s Government Support Services division, several enterprise contracts were created, and now all agencies can benefit from these

contracts. The implementation of these enterprise contracts realized a savings of \$4.5 million over the past five years as follows:

- ✓ Computer Aid Incorporated as a managed service provider - \$2M
- ✓ Microsoft Enterprise license agreement - \$100,000
- ✓ Oracle revised site licensing cost – \$1.5M
- ✓ VMWare enterprise licensing agreement - \$900,000

Education & Quality of Life - Providing services which improve people's awareness and expand their knowledge of opportunities to use technology for an improved quality of life.

Data Sharing & Usage

DTI recognizes the imperative for the State to manage data as a strategic enterprise asset that can be leveraged for greater operational efficiency. As a result of efforts by the Open Data Council, Statewide standards and policies have been put into place. Several new data sharing initiatives among State agencies have been realized, and a statewide data model repository is being built so that the State has an inventory of all data that is collected. A Criminal Justice Subcommittee has been actively identifying opportunities to share data among the criminal justice agencies and has implemented solutions.



Benefits:

Sharing of data leads to:

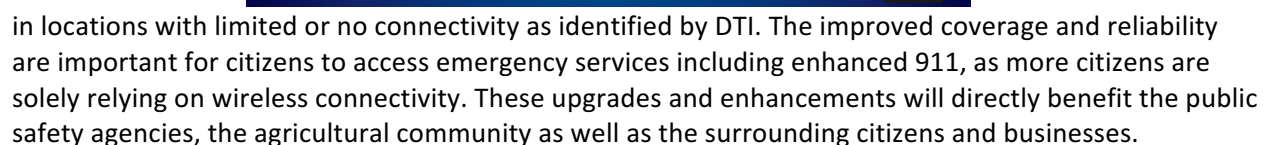
- Higher quality services
- Better decision-making
- Fraud prevention

Increasing Broadband Access

Expanding and improving broadband access in the State has been a priority for DTI because of the positive impact on education, economic development, and the quality of life for the citizens of Delaware. DTI worked with the Department of State, Governor's Office and the 147th General Assembly to pass House Bill 96 to establish the *Delaware Broadband Fund*. DTI developed a plan to utilize the 2.5 million dollars to incentivize providers to expand broadband access to underserved rural areas. In addition, DTI partnered with the Delaware Economic Development Office to leverage the strategic fund to help support the expansion of broadband. These efforts resulted in a successful public/private partnership with LightTower, which has installed over 100 miles of new fiber optic infrastructure from Wilmington to Georgetown and from Lewes to Seaford. Additionally, LightTower has added 200 miles of

Phase two of the broadband grant will focus on implementing fixed wireless solutions that provide cost-effective broadband access with unlimited data usage for rural communities in Sussex and Kent Counties. A pilot project is set to test the latest technology in each county as well as developing a municipal Wi-Fi solution that will enable a town to provide public Wi-Fi access.

In addition to fiber initiatives, DTI worked with cellular providers to expand and upgrade 4G/LTE services



Benefits:

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In response to the public's increased need to stay connected and consume services online, DTI created Wi-Fi wireless services called Guest-Net & State-Net. These networks provide public Wi-Fi access in over 200 State government building lobbies enabling citizen connectivity.

Benefits:

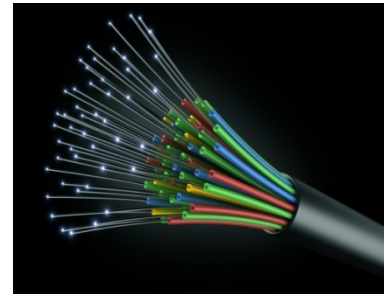
- Over 220 State buildings have Wi-Fi access.
- On an average day, over 2500 citizens and staff connect to these wireless networks.

Education Networks

DTI has put in place several strategic contracts for dark fiber infrastructure. These contracts allow the State to leverage the E-Rate funding to develop a plan to transition schools from the traditional dedicated fixed bandwidth connection to a fiber optic connection with greater bandwidth. This transition to a dedicated fiber network across the State will significantly increase the bandwidth capacity at the schools while reducing the long-term operational costs for the State. Each year DTI will continue to expand our fiber infrastructure as funding is made available to all State agencies

Benefits:

- Significantly increase bandwidth capacity
- Lowers total cost of ownership.



Citizen Engagement

Blackboard Connect

In 2010, DTI implemented *Blackboard Connect*, (<https://denotificationservices.bbcportal.com/>) an enterprise notification service portal. The original notification system was an email only list service utilized by 6000 users limited to receiving school closing information and sending only 50,000 emails a year. The new system simplifies the process for citizens by allowing them to manage all their subscriptions from one website; such as legislative updates, school/state closings and delays, sex offender notifications, a day in Delaware History, State contract information, and much more.

Blackboard Connect allows agencies to communicate with citizens through voice messaging, text messages and emails improving citizen access to real-time updates.

Benefits:

- The portal offers over 450 unique items for public subscription.
- 33,000 citizens and businesses registered to receive notifications.
- Last year the notification service sent:
 - 115,000 voice messages
 - 190,000 text messages
 - 8.5 million emails



Delaware Sex Offender Registry

In 2014, DTI designed and implemented a new sex offender registry (<https://sexoffender.dsp.delaware.gov/?/Search/SearchType/neighborhood>) application to improve citizen's access to that data as well as improving system reliability and performance. The website now includes the ability for citizens to utilize an online map to conduct a search within a specified geographic boundary or neighborhood. Using the Blackboard Connect notification portal, citizens can identify when a registered sex offender moves into their neighborhood.

Benefits:

- Increases citizen safety awareness because of the improved system reliability and ease of use.

DE-SSO

DTI continues to expand the use of DE-SSO that makes it easier for employees, citizens and businesses to interact with State agencies online. The application today currently supports ease of access for 14 applications servicing over 50,000 citizens and employees.

Benefits:

- Improves the ease of use for citizens and employees who use new online services by centralizing those services into one citizen portal.

Delaware DisABILITY

Working with the Governor's Advisory Council for Exceptional Citizens (GACEC), DTI designed and implemented the *Delaware DisABILITY Hub* website – www.deldhub.com. This website provides resources for youth and young adults with special needs and disabilities during transition years to help them reach their full potential. It's also designed to assist the professionals and families who support Delaware's exceptional citizens. It offers a vast variety of information, all in one place that was not available previously.



Benefits:

- A National leader in providing a centralized reference and information library to persons with disabilities, their families, and educators.
- Since the launch of the website in 2014, an average of 550 users utilize the website each month

Wendy Strauss – Director of GACEC, is working on writing summaries of success stories for the following individuals:

- Emmanuel Jenkins, he just started working for the Developmental Disability Council, he is in his 30's.

- Nick White, a senior in high school
- Nafeesa Clemmons, a young lady that graduated last year.

Quote from emails sent to GACEC:

- *This is from a school district in DE:* “Fantastic website! The work our district was doing during statewide transition cadre meetings led to the goal of creating a webpage for our teachers, students, and parents. While we will still do that, this website substantially reduces the effort we will have to put into it. Thanks so much!”
- *From a national organization:* “The resources you provide to those with disabilities and the caregivers are outstanding.”
- *From another national viewer...* “Anyway, just dropping you a line to let you know I found your site to be a useful source of information, so thanks for putting it together!”

Cyber Security

DTI is committed to safeguarding the State’s information assets against unauthorized use, damage, and loss. We continue to be vigilant about protecting data, defending against cyber incidents, and achieving a high level of cyber resiliency. To protect State data residing in the cloud, the Center for Digital Government (CDG) convened State CIOs and Chief Security Officers (CSO) to identify the most critical components of cloud computing contracts. Subject matter experts from Amazon, Dell, Deloitte, Salesforce, Unisys, and Verizon contributed to the study. After months of research, CDG published a Best Practice Guide that was modeled after Delaware’s *Cloud Security Policy* and *Terms and Conditions* and recommends its use for all states and government entities. DTI has collaborated with OMB to formalize an employee cyber security awareness training - *Securing the Human* - that is mandatory for all Executive branch agencies and voluntary for all other branches of State government. In the 2015 training campaign, 100% of the mandated employees completed this training.



Benefits:

- Holds the vendors accountable for protecting the State data they host.
- Implemented data loss protection system that scans all email for SSN’s and credit card numbers to protect against accidental release of confidential data.
 - In 2009 the average number of emails sent was 900,000
 - In 2015 4 million email are processed by the State email system
- The *Securing the Human* training is a vital component of reducing vulnerabilities to the State’s infrastructure that houses multiple components of citizen data.

DTI is working with the University of Delaware to begin a collaborative research and learning network to expand cyber security training in Delaware. This effort will be targeted to train future cyber sleuths to

battle the on-going efforts of cyber hackers. These future workers will help fill the void of competent cyber security professionals for local businesses and open up new employment opportunities in this critical field. That pipeline for our workforce represents not only part of the solution for our cyber challenges but also an economic opportunity for the State.

Benefits:

- Create new employment opportunities to the State
- Provide more resources in the battle against cyber crime
- Provide more educational opportunities for small businesses to help strengthen Delaware's economy.

DE-ISAC

DTI has partnered with State organizations and businesses to form the Delaware Cyber Security Information Sharing and Analysis Center (DE-ISAC), a statewide, cross-sector, multi-disciplinary group focused on limiting the impact of cyber disruptions in the State. A steering committee comprised of DSP, DSHS, the Delaware National Guard, and DTI is working with key stakeholders, such as JP Morgan Chase, DuPont, ILC Dover, Artesian, Public Health, Delaware Emergency Management Agency, and all four Delaware higher education institutions.

One of the first priorities of the DE-ISAC was focused on assistance to small and medium sized business. The University of Delaware Small Business Development Center had a kick off on Cyber Security Support Service in January 2016.

DTI is proud that we have established several programs that have made Delaware a national leader in cyber security preparedness, outreach and education. This includes:

Secure Delaware 2016

Delaware's 7th annual cyber security workshop provided cyber security training for Delaware's citizens, business employees, students, and government employees. Those in attendance learned how to improve their cyber security resiliency and how to defend themselves, their families, their employers, their businesses and the citizens of Delaware against cyber-attacks. The event provided the opportunity to share information and collaborate across all lines of government, business, and citizens to strengthen our readiness and response posture. It also featured on-site vendors demonstrating relevant services and products. The workshop was sponsored by DTI, the Greater Wilmington Cyber Security Group, Delaware League of Local Government and the Small Business Development Center. It provided three keynote speakers and 12 breakout session applicable to various audiences. For the past two years, the event has quickly reached its maximum capacity of 400 attendees.

DigiGirlz

Annually, DTI partners with Microsoft and the Department of Education to host the DigiGirlz event. It is a fun, fast-paced program for 8th and 9th grade girls designed to encourage them to consider a Science, Technology, Engineering, and Mathematics (STEM) career. The program includes hands-on activities, such as touch screen app design, robotics, cyber security, and mobile forensics.

Benefits:

- Over the last six years, we have reached 800 Delaware girls.
- Before this year's event, 24% of the girls were considering a technology career; after the event, that number jumped to 41%.

United States Cyber Camp (USCC)

Each year, DTI hosts the Delaware United States Cyber Challenge Camp. 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 workforce 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 (www.sans.org). Delaware is the only state in the nation to run camps every year since the USCC camp inception in 2010.

Benefits:

- Since 2010, there have been 327 students who have graduated from the USCC Delaware Camp.

DigiKNOW

The State's Cyber Security website, (digiknow.delaware.gov) promoting cyber security awareness, education, and information was voted THE BEST OF THE WEB for 2015. This is the 5th year of the contest and Delaware has also won first place in 2010, 2012 and 2014. 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.



Recognizing the need to strengthen online safety and security in a world that relies heavily on the internet, the Governor signed Executive Order 55, on October 28, 2015, establishing the Delaware Cyber Security Council. The Council brings together key members of State agencies, small and large businesses, and education to support and make recommendations on key cyber security issues. The council's work will support efforts by DTI in preventing, detecting, preparing for and responding to cyber-attacks. The Council will be the central interface for coordinating cyber security initiatives among the public and private sectors, as well as for promoting further safety and security of critical cyber infrastructure.

Benefits:

- Security risks to critical infrastructure will be mitigated and further protected by developing and sharing best practices.
- Delaware's overall cyber security posture will improve across all sectors.
- Threat information sharing will increase between all sectors in Delaware.

DTI has implanted innovative analytical tools to detect unusual network activity and proactively identify security threats which reduces investigation from days to minutes; allowing DTI to make informed decisions quickly.

Geographical Mapping

DTI is especially proud of the State's enterprise Geographic Information System (GIS) called "FirstMap." This is a result of a cooperative effort between the Office of State Planning, DNREC, DELDOT and various municipalities throughout the State.

FirstMap provides a centralized location for authoritative GIS data and services. It reduces the amount of licensing and hardware required to support GIS applications in the State. Delaware State government incurred over 3 million annually in GIS costs, including hardware and personnel; with the launch of FirstMap, shared infrastructure, and resources, these costs have been reduced by 25%.



The FirstMap Team was awarded the 2016 Delmarva Geographic Community Service Award at the 2016 Delmarva GIS Conference: GIS Going Viral

several public accessible applications including Trails and Pathways; Roadway Information; Senate Districts; Representative Districts, and School District maps. The FirstMap team was recognized at a national conference and received a special achievement award acknowledging their collaborative effort and innovative solution.

Benefits:

- Improved transparency for citizen's accessing State mapping data.
- Businesses can download and build applications based on State GIS data.
- Multiple GIS maps in a centralized location.
- Reduced hardware and licensing costs for the State.

Next Generation Business One-Stop

DTI, in coordination with the Department of State's Government Information Center, has developed detailed business requirements and are in the process of designing a new business one-stop portal. The *Next Generation Business One-Stop* will provide a foundation for agencies to continue to expand, build and add new features and functions to the business portal. The intent is that businesses of the future will utilize this central portal as their single interaction with our State government. The initial phases include the Department of Labor Unemployment Insurance and Worker's Compensation, the Department of Finance's Division of Revenue from business licensing to renewal, as part of the State Division of Corporations to allow companies to form their entities.



Benefits:

- Provide new businesses a central location to find information and in some cases entry points to form their business in the State of Delaware

Conclusion

As the Markell administration nears completion, we continue to work on projects that will leave a legacy and position Delaware to thrive in the digital age. In addition to the many initiatives covered in this memo, the DTI team works around the clock to ensure critical systems and networks are secure, responsive and available to deliver services. A few examples are the Delaware Corporate Information System (DCIS), the statewide law enforcement system (DELJIS), the State email system that processes over one billion messages annually, the State elections system and much more.

The DTI staff works to deliver services 24 hours a day, 365 days a year. This dedication makes it possible for us to maintain and improve solutions for State organizations and the citizens of Delaware. We will continue to enhance shared services and explore all options to expand the use of e-government and the best model for funding its ongoing development, maintenance, and operations.

As we move forward, it will become increasingly more important for the State to strategically invest in an enterprise technology approach to enable continued delivery of innovative technology solutions to create a better quality of life for the citizens of Delaware.