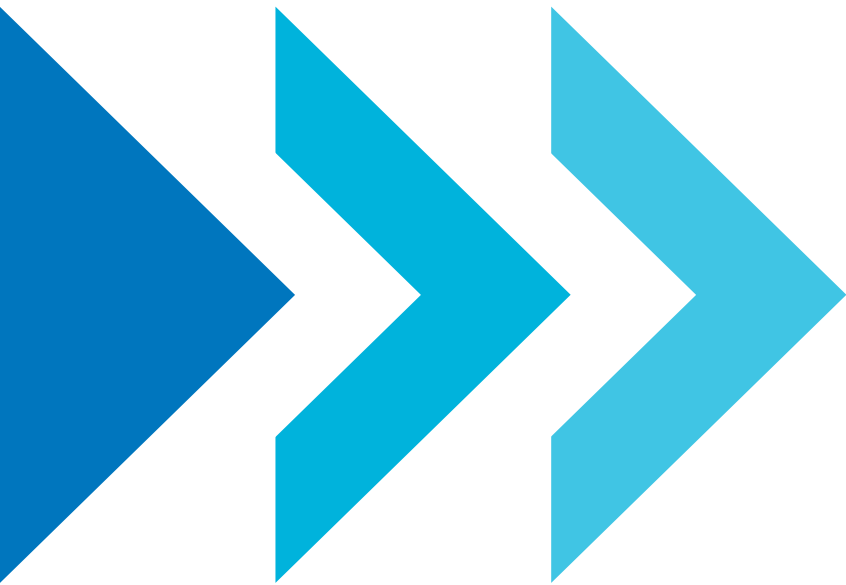# LEAD
COLLABORATE
INNOVATE

STATEWIDE STRATEGIC **INFORMATION TECHNOLOGY** PLAN

Publication Date: September 2022

admin

Technology plays an important role in almost every aspect of our state's ability to deliver effective and secure services to the citizens of South Carolina. The best way to utilize such services is through the adoption of a shared service model similar to what is frequently used by large, private-sector organizations.

The South Carolina Department of Administration (Admin), state government's central administrative agency, is uniquely positioned to lead state agencies in the ongoing adoption of shared services. Admin's continual advancement of shared services empowers front-line staff to focus more time, effort and resources on carrying out the unique missions of their agencies.

Since the 2015 publication of the first edition of the Statewide Strategic Information Technology Plan, the state has realized cost savings through the adoption of shared services, technology standardization and governance. One such example is the $14.25 million in annual savings achieved through brokering shared services contracts, such as renegotiating K-12 internet and wide area network contracts. Additionally, agencies have achieved up to $5 million in capital expenditure cost avoidance by migrating to the State Data Center.

Beyond savings, the IT shared services model enhances accessibility of government services, reliability, data protection and the state's security posture.

In January of this year, I signed an Executive Order which, among other things, affirms my confidence in our state's technology professionals and the value that shared services delivers to the people of South Carolina. I look forward to the further advancements and future success of this vital effort.

Yours very truly,

Henry McMaster

Message from South Carolina Department of Administration

For several years, the South Carolina Department of Administration (Admin) has actively engaged in the creation, deployment and refining of a comprehensive information technology strategic plan for state government. Early successes, lessons learned and partner feedback have helped Admin further advance these efforts, which are outlined in the 2022 update to the Statewide Strategic Information Technology plan.

Governor Henry McMaster signed Executive Order 2022-03 Wednesday, Jan. 12, 2022, to affirm the state's continual adoption and utilization of IT shared services and to supplement Proviso 117.112 of the 2021 Appropriations Act. We appreciate the support of Governor McMaster and state leaders for IT Shared Services through Executive Orders, legislation and budget appropriations.
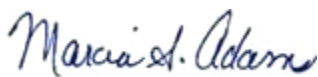
State agencies have unique and varying missions, but we are all connected through the common goal of efficiently and effectively serving the citizens of South Carolina. Enhanced security, reducing needless duplication, efficiencies gained through standardization, increased innovation and achieving cost savings through leveraging the state's buying power are some of the many benefits the IT Shared Services program provides.

Realizing these benefits takes collaboration and communication. Admin strives to foster the trust and relationships needed to continue to achieve far-reaching changes to state government's ability to serve the public.

The initiatives identified in this plan, when implemented together, will further improve the state's ability to ensure reliable, secure, cost efficient, and innovative IT services and infrastructure. We understand that some of the initiatives will lead to new and/or updated IT planning processes for agencies. Admin will support and work with agencies in this effort so that agencies will be empowered to deliver more responsive and cost-effective services to South Carolinians.

We look forward to continuing to collaborate with all agencies as we evolve our actions to advance state government.

Sincerely,

Marcia S. Adams

Marcia S. Adams

Marcia S. Adams
Executive Director

Our Vision

To deliver secure, innovative technology solutions that empower state agencies to enhance the lives of South Carolina residents.

- **Lead** by defining standards and processes that promote a statewide vision for technology and enable a culture of trust and compliance.
- **Collaborate** with state agencies to deliver central IT services that align with their strategic priorities and meet rapidly changing citizen needs.
- **Innovate** by expanding exposure and access to technologies, expertise, and resources for enhancing service delivery to all South Carolina residents and businesses.

STATEWIDE STRATEGIC **INFORMATION TECHNOLOGY** PLAN UPDATE

EXECUTIVE SUMMARY

The enclosed update to the State of South Carolina Statewide Strategic Information Technology Plan outlines the key accomplishments since the 2018–2020 update while providing an overview of the priority activities for the future.

About Us

The South Carolina Office of Technology and Information Services (OTIS) oversees the state's federated model for implementing, enhancing and protecting information technology resources and the utilization of IT shared services across agencies.

OTIS offerings are provided by the Division of Information Security (DIS), the Division of Technology Operations (DTO) and the Enterprise Privacy Office (EPO).

Established under Executive Order 2016-2017, the goal of the Strategic Statewide Information Technology Plan is to enhance the services agencies provide to citizens, through the adoption of more efficient, cost-effective, innovative and secure methods provided under a Shared Services Model.

As a division within the South Carolina Department of Administration (Admin), the Office of Technology and Information Services (OTIS) strives to be a valuable partner organization to state agencies in providing secure, responsive, and cost-effective technology solutions and a scalable infrastructure to support their delivery of essential services to the state's constituents.

The successful implementation of a Shared Services Model for statewide technology is not possible without deep and trusted working relationships between OTIS and the state agencies we service.

This document represents our collective efforts and technology achievements for the benefit of South Carolina.

Improved Resiliency through Rapid COVID Response & Enhanced Digital Capabilities/Security Protections

Few events have impacted South Carolina more than the operational, personal and economic disruptions caused by the COVD-19 pandemic. Beginning in March 2020, the state had to pivot to new ways of making government work within days. The need for remote access capabilities and digital versus in-person communication/coordination immediately changed the entire work culture for state agencies, with large, public-facing agencies among the hardest hit. Concurrently, the state workforce had to deal with a substantial increase in demand for services from the public. Call centers, agency websites, email systems, and internet portals saw exponentially large increases in traffic, such that systems and networks were unable to keep up with the initial demand. These shifts then greatly broadened the state's cybersecurity threat profile – requiring immediate response.

Working together, OTIS and state agencies weathered the initial impacts from the pandemic and are continuing their partnership to enable the state to emerge from its recovery efforts as a more resilient, connected and mobile organization.

Expanded Connectivity and Network Capacity

50%
increase in ISP capacity
125%
increase in bandwidth

Expanded internet capacity and bandwidth were urgently needed to support the newly remote workforce and increased activity on the state's public-facing sites. Working with new and existing partners, OTIS teams were able to increase the internet service provider (ISP) capacity by 50%. Combined with a revised infrastructure design, overall total bandwidth increased by 125%.

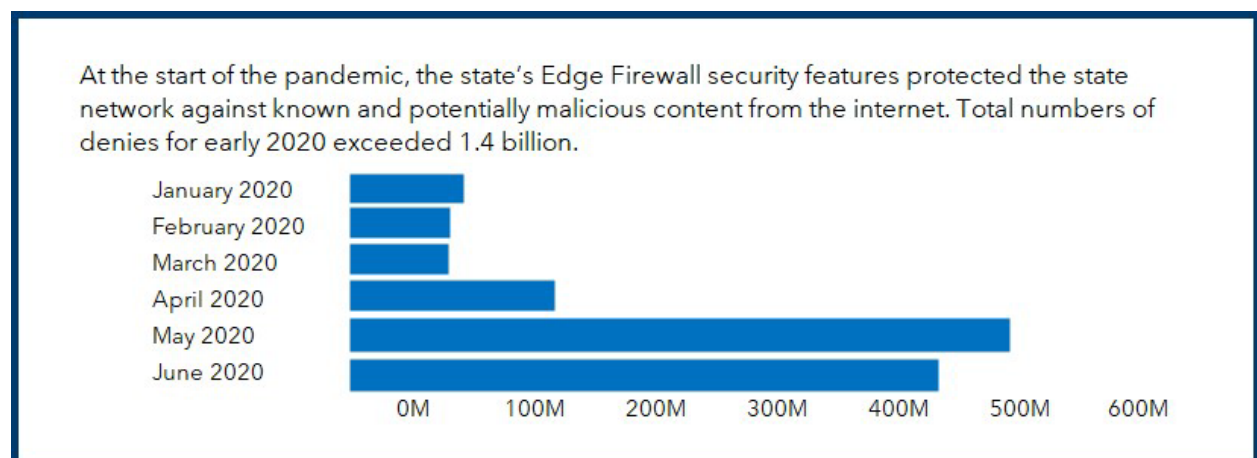**Enhanced Workforce Mobility and Productivity**

2,500
Chromebooks & digital collaboration hubs deployed

In tandem with the expansion of internet connectivity and bandwidth, OTIS worked with state agencies to equip their workforce for remote work and to deliver public services through digital channels. OTIS teams stood up 700 virtual desktops in less than one week. In collaboration with Procurement, 2,500 Chromebooks were acquired with over 1,800 devices deployed within the first two weeks of the pandemic outbreak. OTIS also deployed Microsoft Teams (an Office365 collaboration hub) statewide to improve productivity and coordination.

Scaled Up Firewall Protection and Cybersecurity

Given the greatly expanded government services and support conducted over the internet, OTIS teams worked 24/7 to install and configure equipment, procure end user licenses for security software, and develop/deliver cybersecurity training.

In all, OTIS teams implemented the necessary security features and capabilities to protect the state's network against known and potentially malicious content from the internet. **Over 1.4 billion "denies" were issued in the first six months of 2020**.

At the start of the pandemic, the state's Edge Firewall security features protected the state network against known and potentially malicious content from the internet. Total numbers of denies for early 2020 exceeded 1.4 billion.

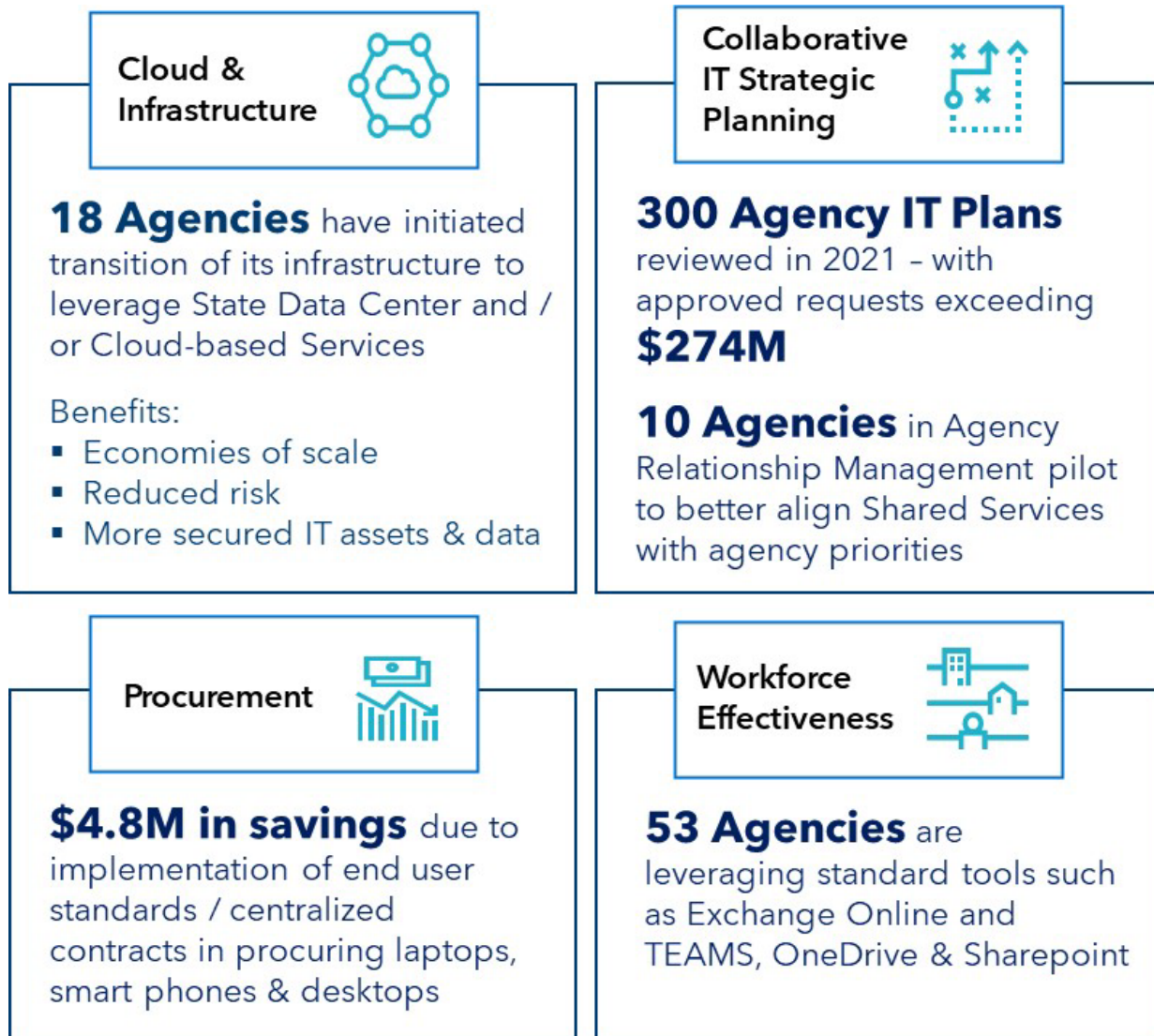| Month	Denies
January 2020	~50M
February 2020	~35M
March 2020	~35M
April 2020	~110M
May 2020	~500M
June 2020	~430M

Realizing the Benefits from Shared Services

The state's ability to quickly pivot to new modes of operation, leverage new/existing contracts and partners to enable rapid procurements, and scale up infrastructure safely and responsively strongly reinforces the value of our Shared Services Model. While the availability of Shared Services was crucial to the state in times of crisis, it is absolutely vital in sustaining innovation and continuous improvement of technology in South Carolina.

With continued adoption and support from state agencies, we are realizing the benefits envisioned when the Statewide Strategic Information Technology Plan was first developed in 2015. To date, **53 of the state's 74 agencies** are leveraging Shared Services by initiating the transition of its systems to the state's central data center, leveraging cloud services, participating in the Agency Relationship Management (ARM) program to promote more collaborative IT planning, and/or using standard tools to improve workforce productivity.

Shared Services in Action (Examples)

Cloud & Infrastructure

18 Agencies have initiated transition of its infrastructure to leverage State Data Center and / or Cloud-based Services

Benefits:
- Economies of scale
- Reduced risk
- More secured IT assets & data

Collaborative IT Strategic Planning

300 Agency IT Plans reviewed in 2021 – with approved requests exceeding **$274M**

10 Agencies in Agency Relationship Management pilot to better align Shared Services with agency priorities

Procurement

$4.8M in savings due to implementation of end user standards / centralized contracts in procuring laptops, smart phones & desktops

Workforce Effectiveness

53 Agencies are leveraging standard tools such as Exchange Online and TEAMS, OneDrive & Sharepoint

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Agency Relationship Management – Case Study
Department of Public Safety

"Over the last two years, we have increasingly leveraged shared services to improve security, operations and customer service…This process was a partnership from the beginning! Our Agency Relationship Manager (ARM) and assigned project manager shepherded the e-mail migration from beginning to end… The real measure of success was the human side. DPS had clear expectations regarding actions and timing. Admin staff worked to mitigate impacts…"

Regina Crolley, IT Director
Department of Public Safety

Progress on Statewide Strategic Information Technology Goals

The Statewide Strategic Information Technology Plan identified **five statewide IT goals** to represent the strategic direction for establishing a unified vision and infrastructure for government technology in the state of South Carolina. These goals continue to serve as the essential guidelines for maintaining progress toward realizing our envisioned shared service capabilities and related benefits.

Goal 1: Advance Information SECURITY and Accessibility

Goal 2: Improve RELIABILITY of State Systems

Goal 3: Evolve CITIZEN ACCESS to Government Services

Goal 4: Institute DATA-DRIVEN Decision-Making

Goal 5: Lead in TECHNOLOGY INNOVATION

Working together with state agencies, we are transforming the state's information technology infrastructure to better enable reliable, secure and cost-efficient public services for the residents and businesses of South Carolina.

In the remainder of this document, we provide an overview of the key highlights and accomplishments achieved for each goal since the 2018–2020 update, along with the areas of focus and activities planned for the future.

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Goal 1:
Advance Information SECURITY and Accessibility

Protecting citizen data and the state's information assets continues to be a top priority for all shared services. The vision for the state is to identify new potential security threats and take the necessary steps on a statewide basis to ensure such threats are mitigated and information assets remain secure.

To achieve this vision, the state will continue to focus on evolving statewide standards for information protection, identifying and deploying security solutions that can be leveraged across the state, and assisting agencies in maturing their information security capabilities.

Key Accomplishments:

- **Strengthened statewide security posture through continued advancement across high priority initiatives.** We continued strong progress on a broad range of programs being implemented in parallel, including advancement of Security Operations Center (SOC) capabilities, SOC and network security assessments, multiple encryption initiatives, statewide privileged access management (PAM) solution deployment, vulnerability management programs, statewide multifactor authentication capabilities, among other information security solutions.

- **Engaged state agencies in expanding security and privacy awareness and capabilities.** Developed the next generation statewide IT security assessment program by leveraging partnerships with external vendors and collaborating with pilot agencies to gather lessons learned for continual improvement and promote agency adoption. Conducted privacy and security training events and on-site/video/virtual programs for awareness and professional development related to data classification and other critical disciplines.

- **Launched Disaster Recovery as a Service (DRaaS) offering**. DRaaS is designed to provide agencies with assistance in developing cost-effective disaster recovery plans, colocation site services, backup services and private, cloud-based, multi-tenant services to help protect agency application data and infrastructure. The DRaaS program is being implemented by a wide variety of agencies throughout the state. Currently, agencies associated with 39 of the 47 state applications categorized as "urgent" are participating in the offering.

Statewide Implementation: DUO Security

The implementation of the state's new multi-factor authentication (MFA) solution, Duo Security, is designed to improve the overall security posture of the services Admin provides to agencies. Using this solution adds another layer of security to any agency's online assets and helps prevent unauthorized users from logging in to protected resources, even if they have been able to obtain an individual's account credentials.

OTIS provides Duo Security soft tokens and other Duo Security methods of authentication *at no cost to agencies.*

38,500 state employees are currently enrolled in Duo Security

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OTIS and State Agency Partnership (2021): Keeping Citizen Data, State Systems & Information Assets Safe and Secure

**100%** of State Agencies Completed InfoSec & Privacy Survey

27,698 training seats *filled by* **57 participating State Agencies** *during Annual Security Awareness Program*

93% of Data Encrypted leaving or entering State systems

- **96%** of State Agencies incorporated privacy into employee awareness training

- **95%** of State Agencies included privacy risk assessments into incident response
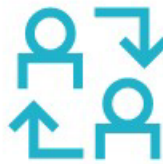
100% of State Agencies engaged in CISO meetings

Over 3 Billion denies by State Firewalls

Increased Agency Adoption Rate of Vulnerability Management Platform to 40%

License usage increased 83% in Q4 2021

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Goal 1 Focus Areas
(2022 – 2023)

1. Accelerate Agency Security and Privacy Assessments
2. Enhance Agency Risk Remediation Support
3. Transition to NIST CSF Security Framework

1. Accelerate Agency Security and Privacy Assessments

Having a comprehensive, statewide view of the agency security and privacy posture is key to understanding our threat landscape and prioritizing remediation of our greatest risks. To address this need, OTIS has created a risk assessment program to accelerate the performance of OTIS-administered agency security and privacy assessments. Some characteristics of this program include:

- Defines and publishes a recurring assessment schedule to ensure agency readiness and identify opportunities for ongoing program improvement.
- Leverages governance, risk and compliance tools to formalize and expedite agency assessments.
- Integrates Privacy Impact Assessments into the recurring assessment calendar.

2. Enhance Agency Risk Remediation Support

A complementary initiative to accelerating agency security and privacy assessments, the OTIS-supported risk remediation program provides tracking, guidance and resources for agencies to remediate their highest priority information security and privacy risks. Through this collaborative risk remediation initiative, the agency-specific and statewide security and privacy posture will exhibit continuous improvement in the areas of greatest need. Some characteristics of this program include:

- Leverages agency-specific and statewide risk roadmap to address most critical needs first.
- Bolsters remediation capabilities for agencies of greatest need with OTIS resources and guidance.
- Identifies opportunities to leverage Shared Services to address security and privacy challenges.

3. Transition to NIST CSF Security Framework

Since the inception of the Division of Information Security in 2015, statewide information security and privacy policies have been defined by the South Carolina Division of Information Security Information Security and Privacy Standards (SCDIS-200). In 2022, OTIS will be revising the SC-DIS 200 Information Security and Privacy Standards to align with the Nation Institute of Standards and Technology Cybersecurity Framework (NIST CSF) standards, guidelines and best practices.

- Leverages federal information security standards and best practices.
- Provides foundation for improving statewide security posture.
- Expands access to information security professionals and resources.

Goal 2:
Improve RELIABILITY of State Systems

Citizens expect reliable IT systems. To meet these expectations, OTIS is working with state agencies to evolve the state's current IT infrastructure by replacing outdated and unsupported technologies and remediating siloed and fragmented IT investments.

OTIS is sustaining efforts to establish common architectural standards and providing agencies options for replacing aging infrastructure with State Data Center or cloud-based infrastructure. Over 25 agencies use Admin's IT shared service infrastructure and other shared services. This provides agencies with a computing infrastructure foundation that is modern, sustainable and secure.

Key Accomplishments:

- **Defined Statewide Cloud Strategy and initiated execution.** We have developed and published an enterprise Cloud Strategy to set a statewide vision and direction for cloud capabilities. The statewide cloud platform brokerage service, built on Amazon Web Services (AWS) and Microsoft Azure, is currently in place, providing a wide variety of benefits for participating agencies and the state as a whole. Such benefits include reduced IT costs, operational excellence, emphasis on innovation and enhanced accessibility. As of Q4 2021, five state agencies are utilizing the new cloud platforms with another five agencies preparing to transition.

- **Advanced progress toward a unified IT vision and strategic direction.** Leveraged the cross-agency architecture governance board to develop and ratify our first set of **statewide architecture standards** in the areas of email, end user computing devices and hyperconverged infrastructure within the State Data Center. We are formulating the next waves of standards for cloud computing and other priority areas while also **expanding our internal capabilities as a Shared Services** provider.

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E-Mail ✉	End User Computing Devices ⬆	Hyper Converged Infrastructure
Standardized use of **Microsoft Exchange Online** to improve security, eliminate redundant infrastructure and optimize system efficiency.	Provides guidance on such devices as **desktops, laptops, tablets and smartphones**.	Provides framework for combining **storage, computing and networking** into a single virtual system.
31 agencies are now opting to leverage the email services provided through DTO in accordance with this standard.	This standard reduced tech acquisition complexity and increased cost savings.	This reduces total cost of ownership through decreased maintenance and operational costs.
	To date, the State has **saved approximately $4.8 million** from previous contract pricing, including $3 million during the last fiscal year	As of 2021, agencies have invested **$8.1 million** in hyper converged infrastructure system plans.

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Improving Agency Systems and Services Reliability - Department of Employment and Workforce (DEW)

The impact of COVID-19 created an unprecedented load on DEW's IT resources and personnel. Its systems and network struggled to manage the increased demands, and the agency was overwhelmed by citizen communication requests.

Facing system reliability issues and a severely overworked IT staff, DTO's staff worked closely with DEW resources to:

✓ Stabilize its environment by implementing a **new hyperconverged computing infrastructure**. This new IT architecture significantly **improved system availability, responsiveness and reliability.**

✓ **Increased bandwidth to DEW's headquarters and data facility tenfold** in order to improve response time to citizen requests

✓ Helped secure contractors and in-house support to **ramp up call center staffing 500%** (from 70 – 80 personnel to over 500 agents). The expanded overall call center capacity immediately **decreased the number of abandoned calls and the call wait time.**

**Goal 2 Focus Areas
(2022 – 2023)**

1. Expand Shared Service Adoption
2. Enhance Shared Service Offerings
3. Implement IT Planning Process with Agencies

1. Expand Shared Service Adoption

Proviso 117.112 of the 2019-20 General Appropriations Act, along with Executive Order 2022-03, requires state agencies to use shared services. The utilization of technology shared services greatly improves the state's ability to provide reliable, secure, cost-efficient and innovative information technology services and infrastructure. However, to realize these benefits, shared services must be broadly adopted by all agencies. To address this need OTIS has formed an initiative to expand shared service adoption. Some key characteristics of this initiative include:

- Creates a statewide shared services adoption roadmap, sequencing adoption of shared services across all state agencies.
- Aligns statewide risk remediation and technology modernization initiatives with shared service adoption.
- Integrates agency-specific technology strategy with shared service adoption.

2. Enhance Shared Service Offering

OTIS currently offers a robust catalog of IT shared services. These include services such as data center and infrastructure, networking and telecom, desktop and email, cloud infrastructure, disaster recovery and enterprise content management. Although the current catalog of IT shared services is broad, there is an equally broad need for enhancement of those services and support for additional services. To address this need, OTIS will build and execute on a shared service enhancement roadmap based on the highest priority needs of state agencies. This initiative will be based on the following key attributes:

- Focused on delivering the most value and highest ROI to agencies and the state as a whole.
- Will deliver new and existing services with state employed technical resources as well as through vendor-managed services.
- Will implement continuous improvement processes for all services delivered.

3. Implement IT Planning Process with Agencies

In support of Executive Order 2022-03 and Proviso 117.112, Admin will collaborate with state agencies on the implementation of new IT planning processes. These processes will help promote adoption of common technology and architecture standards, IT budgeting and financial planning, IT strategic planning, and consistent technology competence across all cabinet agencies. Some characteristics of this program include:

- New IT planning process between OTIS and agency IT departments will be introduced incrementally to minimize disruption and allow time for process optimization.
- IT planning processes will be focused on continuously improving agency IT outcomes and statewide IT outcomes.
- Partnership, collaboration and objective evaluation will be emphasized throughout the IT planning process.

Goal 3:
Evolve CITIZEN ACCESS to Government Services

Citizens and businesses have growing expectations when it comes to the accessibility of government services. More and more, people expect access on a 24/7 basis and through a variety of channels, whether it be through a customer portal, automated voice systems, or mobile applications accessed via a smartphone.

To achieve this vision, OTIS must work closely with state agencies to understand and enhance their ability to support citizen needs and requirements. Our primary focus for Goal 3 is to continually evolve and improve our Agency Relationship Management (ARM) program, improve/expand self-service options, and enhance our capabilities for delivering digital government services. These efforts will improve the satisfaction of the agencies we serve today while helping to facilitate the transition to Shared Services statewide.

Key Accomplishments:

- **Deployed a one-stop-shop, ombudsman-style website to house COVID-19 information.**
  During the onset of the COVID pandemic, Admin developed the site map for and quickly deployed the accelerate.sc.gov website for citizens to easily access COVID-19 related information and details about the state's revitalization efforts. Admin collaborated with multiple agencies to ensure the site contained access points to vital information. The website featured a latest developments section where the Governor's press releases and latest data from the South Carolina Department of Health and Environmental Control (DHEC) and other agencies were shared. One of the early enhancements included the addition of a chatbot feature for citizens to have COVID-19 related questions answered 24/7. Following the end of the accelerateSC Committee meetings, Admin deployed a redesigned accelerate.sc.gov, which delivered a top-level navigation menu that offers a more citizen-centric focus, a Spanish translation feature, and a dashboard, which displays DHEC's COVID-19 data.

- **Enhanced customer relationship capabilities**. Implemented Salesforce as a customer relationship management (CRM) system for agency-facing staff to improve interactions and responsiveness through a 360-degree view of customer data.

- **Deployed the accelerateSC Call Center.**
  Admin acquired the necessary equipment, hired and trained temporary employees, and stood up the accelerateSC Call Center to field and answer citizen inquiries regarding COVID-19 issues. The effort included deploying the Salesforce case management system so that every call, email, or inquiry sent via social media is tracked, responded to or escalated to appropriate agencies. During FY 21, the accelerateSC Call Center responded to 27,981 calls/voicemails and 6,077 citizen inquiry emails pertaining to unemployment and reopening guidelines.

- **Improved accountability through the creation of the Inside SC Transparency Dashboards:**
  Admin's Division of State Human Resources (DSHR) and Executive Budget Office (EBO) created dashboards focused on making commonly requested information and data readily

available to employees, the media and the public. HR dashboards include information about average salaries, service and other employee demographics. The financial dashboards provide statewide and agency specific budgetary data. These tools allow decision makers and the public to monitor agency financial performance and obtain information about the state's budget process.

Agency Relationship Management - Case Study
Department of Social Services

Child Support

"Here at the South Carolina Department of Social Services, our Division of Technology Services have had a long partnership with the Department of Administration's Division of Technology Operations providing technical support and assistance and hosting our critical applications that serve thousands of clients for the State of South Carolina.

We would not have been able to implement our IT initiatives without the support (past and current) of DTO's leadership, Agency Relationship Managers, and all the support personnel which we interact and collaborate every day."

Jose Encarnacion, IT Director
Department of Social Services

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Goal 3 Focus Areas
(2022 – 2023)

1. Enhance Digital Government Services Program
2. Modernize Agency Applications
3. Support Enhanced Call Centers Capabilities for Agencies

1. **Enhance Digital Government Services Program**

   To keep pace with citizens' expectations, our next generation SC.gov website will provide a secure digital platform that enables state agencies to offer citizens a seamless one-stop shop for engaging with South Carolina state government. Some expected benefits of this initiative include:

   - Provides citizens with secure, intuitive and convenient services through a personalized user experience, accessible from any device and with expanded payment capabilities.
   - Improved transparency and alignment of fees with services and centralized help desk support for state agencies.
   - More robust vendor SLAs and program governance to support consistent delivery of services.

2. **Modernize Agency Applications**

   Software applications have become a necessity for the state to operate reliably, effectively and efficiently. However, these software applications are often highly specialized, making them expensive to develop and to support, and, even more so, to modernize or replace. The result is that agencies continue to operate software and systems long after they would prefer because they cannot function without them and they cannot afford to replace them. To address this need, OTIS will be providing services to assist agencies in creating and delivering on a roadmap of application modernization. Some key components of this program include:

   - Development of an application modernization roadmap focused on mitigating technical and operational risks, enabling agency strategic initiatives, and alignment with statewide technology standards.
   - Vendor-supported services to assist in development of implementation strategy, architecture and development.
   - Supported by OTIS-led IT planning processes.

3. **Support Enhanced Call Centers Capabilities for Agencies**

   A key enabler of providing government services and customer service for citizens is telecommunications and call center solutions. Integrated call center solutions have evolved over the past several years and advanced, cloud-based call center capabilities leveraging AI and machine learning have emerged. To provide agencies with access to these new capabilities, OTIS is soliciting vendors to participate in a new telecommunications and call center contract. Some notable attributes of this initiative include:

   - A telecommunications and call center solutions contract that better supports cloud-based offerings and advanced call center features.
   - Capacity for more vendors to participate as compared to prior telecommunications contracts.
   - More robust vendor SLAs and program governance to support consistent delivery of service.

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Goal 4:
Institute DATA-DRIVEN Decision Making

Given the state's currently decentralized IT footprint, optimizing IT investments statewide requires the development and adoption of policies, standards and strategic planning tools to achieve greater transparency, decision accountability and continuous improvement.

The development of uniform standards and guidelines for data entry into the South Carolina Enterprise Information System (SCEIS) has helped significantly to increase transparency of state finances. This data also helps identify savings and better optimizes IT investment statewide.

Key Accomplishments:

- **Implemented a new IT planning tool for efficient capture of IT-related spend requests.** Collected IT-related spend data across agencies for review and budget approval including IT-related personnel, assets and major projects, and created dashboards for agencies to view their year-over-year metrics.

- **Enhanced cost transparency and IT planning capabilities.** Integrated IT planning data, budgeting and procurement processes to enable alignment with standards and improve cost transparency. Combined with increased collaboration and sharing of agency strategic plans, these tools will provide more capabilities to support joint IT strategic planning and optimization of shared services offered.

- **Established benchmarking processes to promote transparency and accountability.** Completed multiple IT Infrastructure and service rate benchmarks compared to governments and commercial sector peers to examine rate and cost competitiveness. These efforts provided insights and best practices for enhancing our rate setting methodologies and approaches.

- **Administered targeted agency surveys to gauge satisfaction.** Created and distributed surveys to the five pilot agencies in the ARM Occupancy Program, IT Self-Service Portal participants, and other agencies to obtain feedback on COVID-19 response, shared services delivered, opportunities for enhancement and additional service offerings. We are determining options for improving outreach and communications in the future.

Joint IT Strategic Planning and Collaboration – Workers' Compensation Commission (WCC)

In addition to participating in the ARM Occupancy Program participant, WCC leveraged the IT planning tools to optimize spend and expand its IT planning capabilities.

Areas for Shared Services Support:
- Connectivity
- Computing
- Electronic Document Management System
- Hosting
- Decommissioning Legacy Applications

Benefits Realized from Shared Services:
- Improved risk mitigation and infrastructure reliability (as WCC is undergoing implementation of a claims system)
- Optimized infrastructure spend
- Enabled more innovative solutions (cloud)
- Expanded capabilities for IT strategic planning through use of Admin tools and processes

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Agency Relationship Management – Case Study
Board of Financial Institutions

"One of the major challenges small state agencies face is the ability to have a robust information technology strategy and infrastructure… DTO has aided the South Carolina State Board of Financial Institutions in completing our regulatory mission as we have utilized their large enterprise technology infrastructure. The invaluable services offered include: local area networking, internet access, information security, security operations, managed workstations, remote access and much more.

The staff and management at DTO have always been available to assist our agency with any new technology needs or guidance to leverage the services provided and maximize our productivity. Thanks to the continued support from DTO, **we are a small state agency with a large information technology system**."

Gary Trammell, Information Technology Manager
South Carolina State Board of Financial Institutions

**Goal 4 Focus Areas
(2022 – 2023)**

1. Improve Shared Service KPIs
2. Institute statewide IT statistics and reporting
3. Mature Shared Service Rate Setting Process

1. Improve Shared Service KPIs

Core to South Carolina's centralized IT strategy is the successful implementation of IT shared services. OTIS, as the IT shared services provider, understands the need to measure effectiveness in the delivery of its services to enable continuous improvement. To that end, OTIS has instituted a key performance indicator (KPI)-based continuous improvement program for the services it delivers. Some characteristics of this program include:

- Establishment of KPIs for all services provided.
- Consistent KPI measurements and corresponding review and oversight processes.
- A continuous improvement governance process to prioritize opportunities for improvement and drive execution and evaluation of those improvements.

2. Institute Statewide IT Statistics and Reporting

OTIS leads the statewide IT data collection and IT planning processes. In this capacity OTIS collects IT information from all agencies regarding numerous related including assets, budget, purchases, projects and staff. Leveraging this collection of data, OTIS can provide reporting, analysis and trends on a variety of statewide IT topics. To bring this opportunity forward, OTIS will be initiating a program to provide statewide IT statistics and reporting. Some attributes of this program include:

- Agency-specific and statewide reports and dashboards to view current and historical IT data.
- Statewide IT data analysis to identify new opportunities for improving statewide technology outcomes and return on investment.
- Enabled by high quality data provided by state agencies.

3. Mature Shared Service Rate Setting Process

Integral to OTIS delivering effective IT shared services is the service rate review and rate setting process. OTIS has reviewed its rate setting process, solicited expert vendor feedback and benchmarked its rates with peer agencies and private industry providers. OTIS has instituted a program for annual rate reviews of all service rates and a process for annual rate setting changes that considers annual agency budgeting processes. Some characteristics of this program include:

- Rate review process that considers OTIS cost to deliver services, future capital investments needed to sustain services, and agency-specific impacts of rate adjustments.
- Leverages peer-agency and private industry benchmarking of rates to identify opportunities to improve statewide return on investment.
- Rate setting cycle that supports agencies' annual budgeting cycle.

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Goal 5:
Lead in TECHNOLOGY INNOVATION

As communicated in the first Statewide Strategic IT Plan, OTIS strives to evolve into a technology enablement partner, focusing on the modernization and creation of innovative technology services to support state agencies' missions and the citizens of South Carolina.

While innovation occurs every day through the hard work and efforts of Admin and state agency staff, our objective for Goal 5 is to establish a program that enables a more intentional, measurable and sustainable approach to innovation. Providing this program as a Shared Services offering will facilitate more statewide collaboration and allow agencies with similar needs to take advantage of emerging technologies and deploy new government services faster with less effort and risk.

Key Accomplishments:

- **Established IT professional development training through the state's learning management system**. An IT Professional Development program has been established with a goal of providing training to state agencies and OTIS IT staff on emerging technologies and ongoing updates on enterprise-level technical standards and frameworks. As a starting point, the initial content has focused on enterprise security, privacy, and cloud services onboarding and have been well-attended by state agency staff. A coordinated planning process across OTIS, Training and HR is being considered to establish a broader plan that could best meet the state's long-term objectives for the upskilling of the state's IT workforce.

- **Compiled an initial set of innovation use cases and potential approaches**. Prior to the operational disruptions caused by the state's response and recovery efforts related to COVID-19, the OTIS team had initiated an exploration of potential innovation program approaches. Additionally, through the ARM program, state agencies have been providing feedback on potential areas for innovation, such as: data and analytics, AI, automation, sandbox for testing digital technologies, transition to a "paperless" organization, human-centered design, public-private partner engagement, etc. Admin is reviewing these inputs to better define the vision, processes and value proposition for the innovation program and will begin collaborating with state agency partners on potential approaches.

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Goal 5 Focus Areas
(2022 – 2023)

1. Enhance Statewide Technology Professional Services
2. Expand Technology Training Offerings
3. Implement Agency-Centric Innovation Program

1. Enhance Statewide Technology Professional Services

State agencies spent over $325 M on IT professional services and IT contractors in FY2021. Improving ROI in this area of IT spend can have a significant impact on statewide IT outcomes. To capitalize on this opportunity, OTIS is working on an initiative to enhance IT professional services across all IT professional services needs such as enterprise architecture, software development, infrastructure, information security, privacy, data analytics, and artificial intelligence to name a few. The IT professional services improvement initiative will seek to:

- Make the IT professional services procurement process more efficient for agencies.
- Identify and align best fit IT professional services vendors to specific IT categories.
- Set standards of performance and performance evaluation for all vendor engagement.

2. Expand Technology Training Offerings

Professional training in the field of information technology is critical to recruiting, maintaining and retaining a high performing team of technology professionals. OTIS provides training on several technology topics such as information security and data privacy and the South Carolina Department of Administration has made learning tools available such as LinkedIn Learning and Success Factors. To further enhance this existing training program, OTIS has formed an initiative to expand the learning opportunities made available to employees of the state. Some characteristics of this program include:

- Additional training opportunities for state employees on technologies that support the statewide strategic plan, such as cloud technologies.
- Building a training roadmap based on input from agency IT leadership.
- Leverages industry leaders for training material on new and emerging technologies.

3. Implement Agency-Centric Innovation Program

Innovation is vital to continuously improving statewide technology capabilities and outcomes. Innovation can be enabled and fostered by leveraging talent and opportunities within each agency, through agency collaboration, and by leveraging private industry's leading technology providers. To enable and foster technology innovation statewide, OTIS is forming an agency-centric innovation program. Characteristics of this program include:

- Partnering with state agencies to identify opportunities for innovation and development of new statewide technology standards.
- Supporting state agencies with executing proofs of concept, identifying lessons learned and publicizing outcomes.
- Leveraging successful proofs of concept for statewide benefit.

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Focus Area Highlight:
Implement Agency-Centric Innovation Program

Initial guiding principles identified for the Innovation Program:

- Drive processes and outcomes by agency needs, use cases, and priorities
- Include an innovation forum to enable collaboration with leading technology providers
- Enable OTIS team to serve as a shared resource for identifying and guiding adoption of emerging technologies

State Agencies

OTIS

Technology Providers

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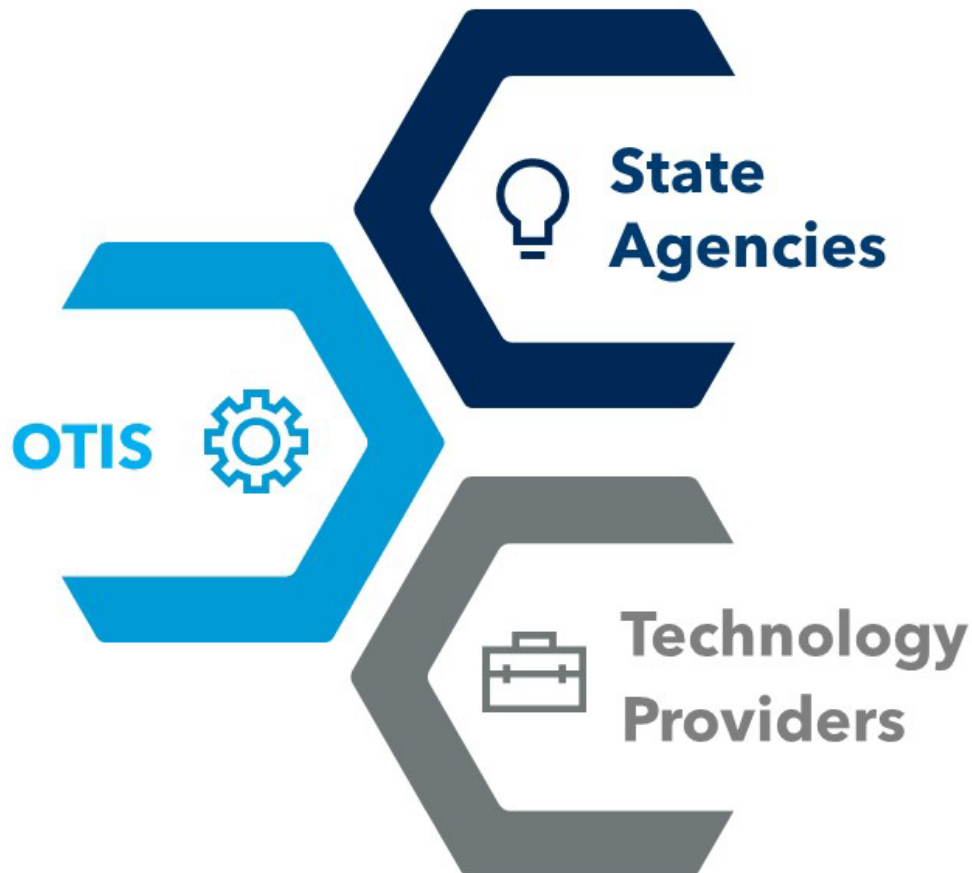
What's Next

At its core, statewide information technology is about serving South Carolina's citizens effectively and efficiently with valuable and necessary services that lend to safety, security, and an improved quality of life. As originally defined in 2015, the Statewide Strategic Information Technology Plan includes a set of goals and strategic initiatives designed to set the direction for the state's information technology community to better serve our citizens.

The plan included input from a variety of stakeholders solicited through a collaborative process. This update enables us to take stock in the progress that has been made in transforming IT through Shared Services and realizing improved economies of scale.

However, there is still much to be done.

We must continue efforts to improve statewide technology outcomes for our citizens through efficient and effective use of their tax contributions. We must continue to develop a statewide view of technology risks and issues and drive a collaborative effort to manage those risks and resolve those issues. We must improve our ability to build technology solutions that enable and improve agency operations and remove technology barriers for agencies to better work together. We must enhance and expand digital government capabilities to improve citizen experience and access to government services. In short, we must work together to improve statewide technology return on investment.

Admin looks forward to working closely together with agencies and other partners in achieving our respective missions and strategic goals through the priorities and associated actions defined in this plan. Together, we will continue to move South Carolina's information technology forward in a positive direction and endeavor to further realize the reliable, secure, cost efficient and innovative technology support our citizens require and deserve.

Jay Meyer

Chief Information Officer
Department of Administration