GTA
Georgia Technology Authority

ANNUAL STATE IT REPORT
FY 2016

CALVIN RHODES
CHIEF INFORMATION OFFICER
STATE OF GEORGIA

Annual State Information Technology Report

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From the State Chief Information Officer

Statement by Calvin Rhodes, Chief Information Officer, State of Georgia

On behalf of the Georgia Technology Authority (GTA), I am pleased to present the Annual State IT Report for FY 2016.

This report offers an insightful look at the progress state agencies have made in the past year and the milestones we have achieved together.

Our successes are substantial, and they are even bringing us national recognition.

- Georgia received a letter grade of A- in the 2016 Digital States Survey, which is conducted every two years by the Center for Digital Government. Only five states received grades higher than Georgia's.
- Georgia placed first in the nation in the Digital States Survey category of Enterprise Information Communications Technology as a result of the Department of Transportation's innovative use of communications technologies to monitor and manage traffic conditions throughout the state.
- A GTA-led initiative to ensure the accessibility of state websites to people with a range of disabilities was honored with a first place award from the National Association of State Chief Information Officers.

Leadership on many levels and work on many fronts led to this recognition, which acknowledges our success in meeting challenges that are common to state governments throughout the nation. In areas such as new service-delivery models and IT infrastructure modernization, other states are turning to Georgia for insights and guidance. GTA has hosted visits from several states eager to learn from us, including Alabama, Montana, Texas, and Virginia.

But we can't sit still. As we all know, technology evolves quickly, and as it does, so do the expectations of the constituents we ultimately serve.

Meeting those expectations while protecting the integrity of state systems and the privacy of citizen data is an overriding concern as threats from cyber criminals and hostile governments increase in number and sophistication. That's the reason Governor Deal created the State Government Systems Cybersecurity Review Board.

The review board is among several key elements that have either been added to the state's IT enterprise or strengthened in the past year to help ensure our continued success. You can learn more in this report, and the Executive Summary on page 11 summarizes the highlights.

I hope you find the report informative and useful. Please contact me if you have questions or would like to know more about our work.

Calvin Rhodes

Purpose

The Annual State IT Report conveys the current state of technology in Georgia state government as assessed by the State Chief Information Officer (State CIO). The report is also a requirement in the enabling legislation of the Georgia Technology Authority. It provides information to state leaders to help them make informed decisions about the state's investments in technology.

The report represents IT for the state's executive branch agencies only, i.e. those reporting to the Governor. It does not include information regarding IT matters in the legislative branch, judicial branch, statewide constitutionally elected officeholders, or the University System of Georgia. The data used to create the report come directly from executive branch agencies and enterprise systems of record. The data are compiled by GTA and reflect the efforts of the State CIO to improve the use of technology in supporting state government operations. The report contains the following major sections:

- Executive Summary
- IT Investment Management
- Cybersecurity
- Transformation
- Portal
- Stakeholder Value
- Strategic Planning
- Policies, Standards and Guidelines
- Appendix

Executive Summary

This report examines key pieces the state has put in place to meet constituent expectations.

The state of Georgia continued to make significant progress in FY 2016 in strengthening and expanding the technology services state agencies rely on to provide information and services to their constituents.

Among the major accomplishments was the **completion of the state's years-long technology transformation**. Old, unreliable IT equipment, tools, and processes were replaced – including personal computers, email systems, data networks, servers, and telephones. Georgia now has the technology foundation necessary to move forward with implementing innovative new technology services to benefit its residents. Transformation affected over 100,000 users of managed network services in 1,400 state and local government offices. In addition, it brought more reliable and secure IT infrastructure services to over 35,000 end-users and encompassed over 41,000 email accounts.

The state also expanded its **shared services delivery model** to make it easier for state agencies to access new technology services more quickly. The state contracted with a service integrator charged with seamlessly integrating services from multiple technology providers and standardizing processes and systems. The ultimate beneficiaries are Georgians, who expect dependable and secure access to information and services.

The Transformation section on page 27 looks at IT modernization and the state's new technology service delivery model.

The state spends large sums of money each year on technology, and **tracking IT expenditures** is one of GTA's statutory responsibilities. In FY 2016, 50 executive branch agencies, or 93 percent, reported spending $683 million on IT infrastructure services, network services, application development and support, and related activities. That's up about 9 percent from FY 2015, but the IT Investment Management section on page 13 explains why it's difficult to compare one year to another. The section also looks at the various ways in which the state manages its technology investments.

The state's **investments in innovative technologies** are resulting in real-life benefits to Georgians.

- The University System of Georgia is using in-depth data analysis to broaden student recruitment and ensure higher graduation rates.
- The Georgia Department of Transportation is setting a standard for the nation in its use of information communications technology to manage traffic throughout the state.
- The Georgia Public Safety Training Center is using technology to deliver needed training to the state's law enforcement officers and first responders in a convenient and cost-effective way.

The Stakeholder Value section on page 35 offers a glimpse into these efforts and others.

Cybercrime has emerged as a critical issue for our state and nation with many of the threats sponsored by hostile governments. To enhance Georgia's cybersecurity preparedness, Governor Deal issued an Executive Order creating the **State Government Systems Cybersecurity Review Board**. With the State CIO as permanent chair, the board conducts periodic reviews to assess the security posture of state agencies and to identify

risks. The Cybersecurity section on page 23 explores the state's latest efforts.

The 2016 Annual State IT Report includes overviews of other important activities and accomplishments.

- IT **strategic planning** strives to understand state agencies' business objectives and to help state agencies use appropriate technology to meet them. See the Strategic Planning section on page 45.
- GTA works with state agencies to establish **policies, standards, and guidelines for the IT enterprise**. They are based on federal information security requirements and IT industry best practices. See the Policies, Standards, and Guidelines section on page 50.
- The **state's official web portal and enterprise web-publishing platform** are making it easier for Georgians who want convenient, secure access to state services and information. See the Portal section on page 33.

As this report demonstrates, GTA is committed to working in partnership with state agencies to take full advantage of technology's potential and to respond to the challenges it presents.

IT Investment Management

The State Annual Report Register collects data about IT expenditures in five different categories.

The state of Georgia spends a large sum of money every year on information technology, including services, equipment, applications, personnel, software licensing, development, and maintenance. However, determining exactly how much is spent, where the money goes, and what taxpayers are getting in return can be difficult to report on in the aggregate. Coupled with this challenge is the need to better understand whether Georgia is receiving or could receive greater value for the dollars invested in information technology. This is likely to be a continuing challenge due to the rapid changes in technology each year.

The General Assembly has charged the Georgia Technology Authority (GTA) with compiling information from executive branch agencies about their IT expenditures and presenting a report to state leaders every year (O.C.G.A. 50-25-7.10). With comprehensive and accurate information, state leaders can make facts-based decisions about the allocation of limited state resources to support technology.

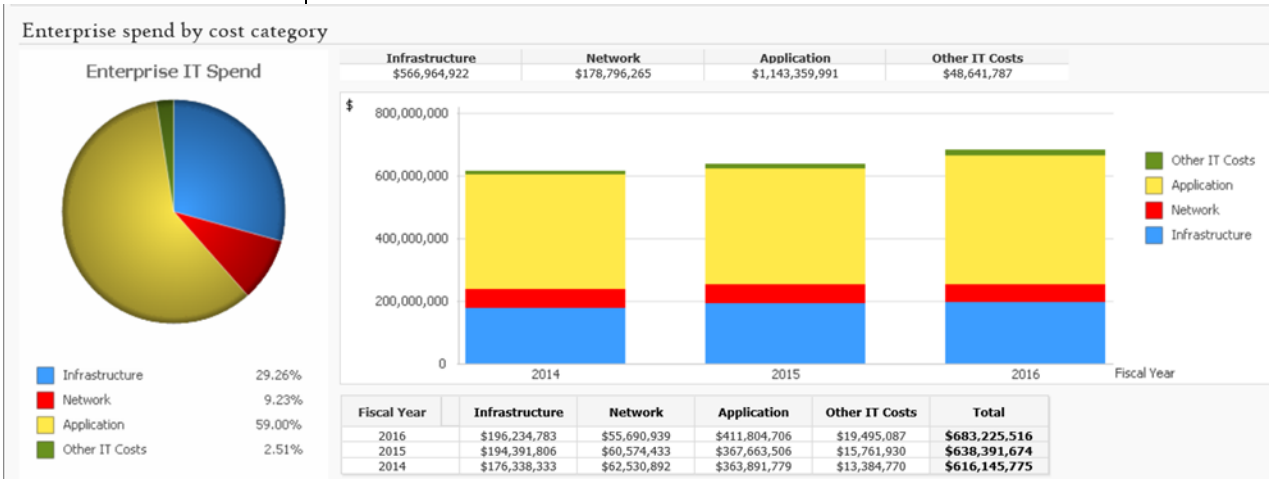
GTA uses the State Annual Report Register (STARR) to collect data about IT expenditures from executive branch agencies. Information is requested in the categories of application, infrastructure, network, IT management, and project management.

The GETS program ensures a clear understanding of infrastructure and network costs.

The state has a more comprehensive understanding of the cost of infrastructure and network services than it does for applications. Infrastructure and network services are provided through the Georgia Enterprise Technology Services (GETS) program. Under GETS, Georgia is able to measure consumption and value through detailed reporting for all agency users of infrastructure and network services.

Enterprise IT Spend

The following graph depicts the most comprehensive summary available of IT expenditures by infrastructure, network, application, and other IT costs in FY 2014, FY 2015, and FY 2016.



Fiscal Year	Infrastructure	Network	Application	Other IT Costs	Total
2016	$196,234,783	$55,690,939	$411,804,706	$19,495,087	**$683,225,516**
2015	$194,391,806	$60,574,433	$367,663,506	$15,761,930	**$638,391,674**
2014	$176,338,333	$62,530,892	$363,891,779	$13,384,770	**$616,145,775**

Agency Participation in IT Expenditure Reporting

Agency compliance with requirements for reporting IT expenditures increased from FY 2015 to FY 2016. A total of 50 out of 54 agencies submitted a report, or 93%, which compares to 88% in FY 2015.

A complete listing of the agencies reporting and the expenditures are in **Appendix A** and **Appendix B**. The agencies listed in Appendix A with NR in the "Reported 2016" column did not submit reports because:

- They no longer exist.
- Their expenditures were included in the report from an agency to which they are administratively attached.
- They are attached to one of the state's constitutional agencies, which are exempt from filing the report.

In addition to constitutional agencies, other state entities with large IT budgets are not required to report their IT expenditures, including the University System of Georgia.

Did IT expenditures actually increase in FY 2016?

Participating agencies spent over $683 million on technology in FY 2016, more than the $638 million reported in FY 2015. The difference is attributable to:

- More accurate application costs captured in the application inventory.
- More accurate reporting due to a change in requirements and use of the STARR tool.

GTA continues working with agencies to increase both the quantity and quality of data received.

IT Investment Tracking

Investment governance processes are maturing and expanding.

Georgia has continued to enhance its Investment Governance Support model by working with even more agencies during the initiation and planning phases of new information technology investments. The following activities have become a cornerstone of the state's proactive governance methodology.

Annual Investment Strategy Sessions: GTA continues to meet annually with technology and business leaders in state agencies to discuss their IT strategic plan and STARR reporting data. These discussions help identify opportunities for cross-agency collaboration and provide valuable insight into investment planning for the upcoming year. They also greatly enhance the accuracy of data in the state's technology inventory.

Procurement Reviews: This process has experienced tremendous growth since its introduction. Over the past year, more than 20 procurement documents have been reviewed across 13 agencies. GTA has increased the resources available to agencies in developing their documents and using standard language and industry-recommended terms and conditions covering a variety of investment scenarios. The collaboration of purchasing, technology, and agency business expertise helps ensure that Georgia receives the best value possible. The process continues to generate positive feedback from agencies for its efficiency and relevant contributions.

Collaboration with State Purchasing is providing guidance for agencies pursuing alternative strategies for the delivery of technology services. As agencies search for creative and cost-effective technology solutions, they are looking more and more to cloud services. This is an evolving industry with unique challenges. In response to requests from state agencies, enhanced policies, standards, and guidelines were developed to support business decisions around these services. GTA's Investment Governance team works closely with agencies to increase their awareness of the policies, standards, and guidelines, and to assist with interpreting them in a variety of investment scenarios.

With the passage of the ***Accountability, Change Management and Process Improvement Act of 2015*** (HB 676), the state has placed even

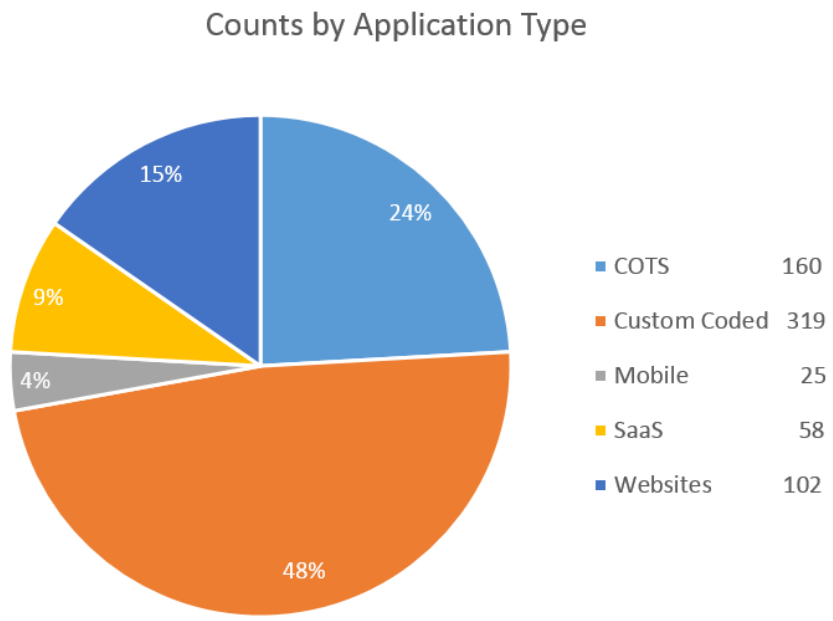
more emphasis on improving the quality of IT investments. This legislation is focused on two targeted areas of best practice and calls for collaboration between the Governor's Office of Planning and Budget (OPB) and GTA for oversight.

OPB and GTA have established procedural guides and processes to assist agencies with submitting business cases and/or organizational change management plans and strategies as mandated in the law. Beginning in FY 2017, budget submissions should include business cases from agencies requesting funding for IT initiatives with a total cost of ownership of $1 million or more. These business cases are to include an assessment of the impact of change resulting from the initiative on the agency's business operations and how the agency will allocate resources to manage that change.

IT Application Portfolio

GTA collects information about the applications that agencies use to support their business operations.

The state's IT Application Portfolio included 664 applications in FY 2016, an increase of 95 since FY 2013. The following graph shows the number and percentage of applications by type.

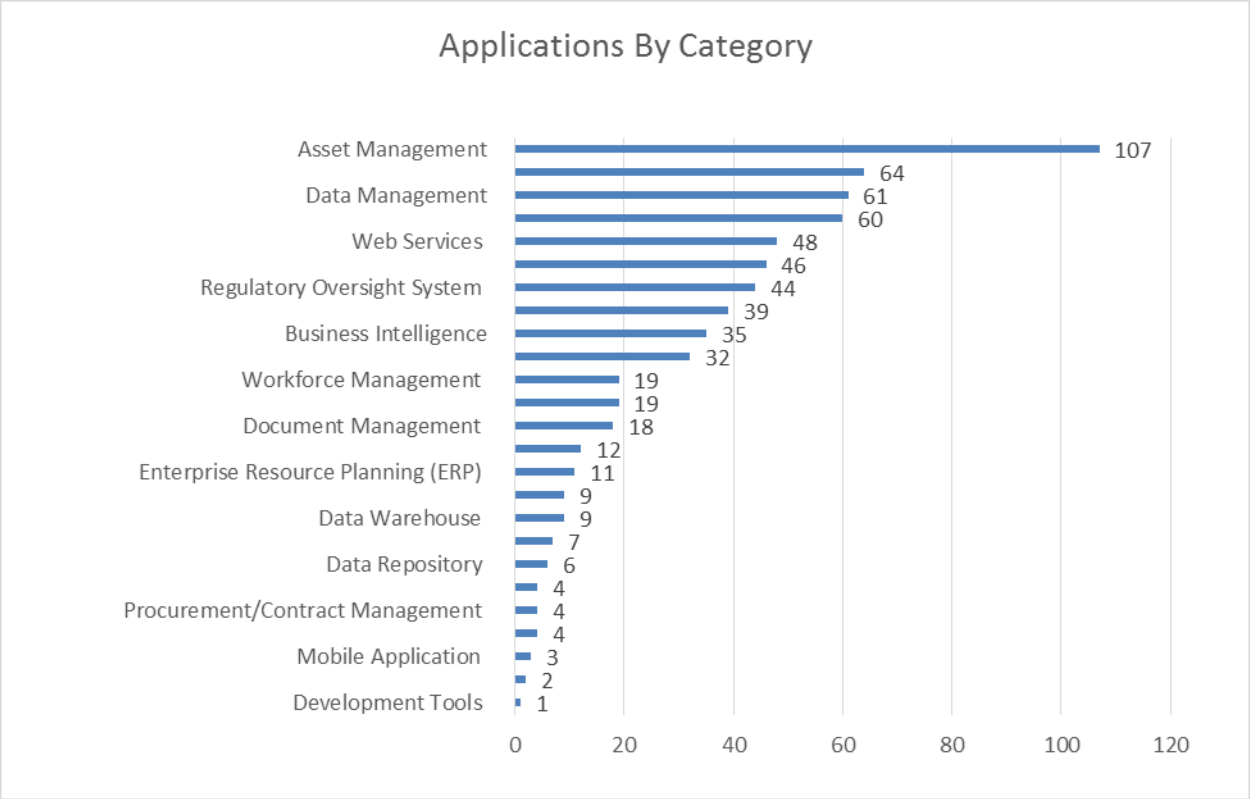


COTS – Commercial Off the Shelf (Software)
SaaS – Software as a Service (Online service)

* Note: 78 state websites use the cloud-based Drupal content management system. Although these websites could be categorized as SaaS, they are reported under Websites.

Applications by Category (664 Applications)

The following graph shows the number of applications by category.



* **Note:** These applications were categorized by the reporting agency based on definitions provided by GTA; those definitions are in Appendix C. Many applications are accessible on mobile devices, but they are not categorized as mobile-only applications.

IT Project Portfolio

The state's IT Project Portfolio shows expenditures by agency; the health sector has the largest spend.

GTA's Enterprise Portfolio Management Office monitors IT projects to ensure that the state gains the greatest value possible for the dollars invested. Enterprise Portfolio Management provides a framework for the governance process and allows decision-makers to view the full range of projects to ensure that the right projects are executed at the right time with the minimum amount of risk.

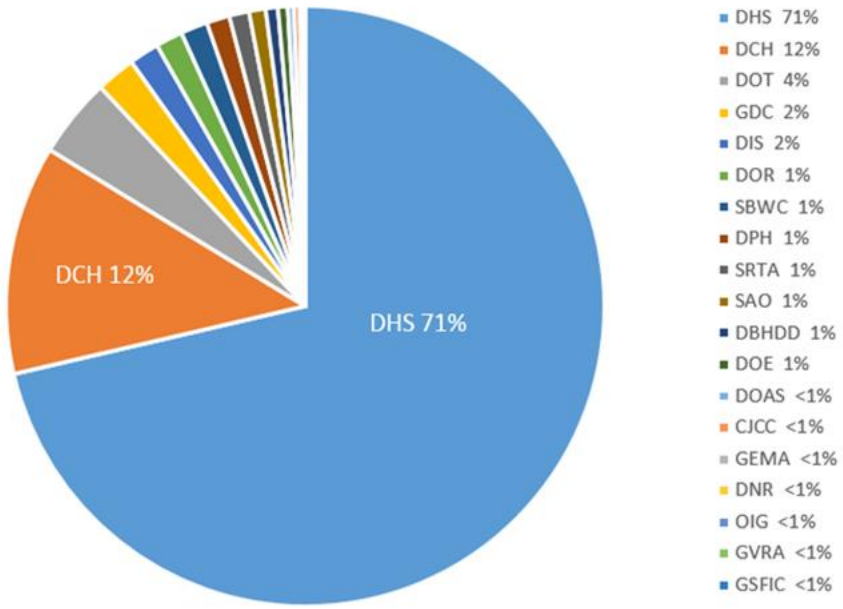
The Enterprise IT Project Portfolio includes agency projects in both the planning phase and the build phase. Portfolio projects are tracked by fiscal year, which begins July 1 and ends June 30.

The FY 2016 total project portfolio of $615 million shows a significant increase since FY 2015, primarily due to the growing number of IT projects undertaken in the healthcare sector. The FY 2016 portfolio is tracking over 63 active projects in 19 agencies. The projects total over $306 million and span

multiple years. In addition to the active projects, there are several large projects in the planning phase that total $309 million.

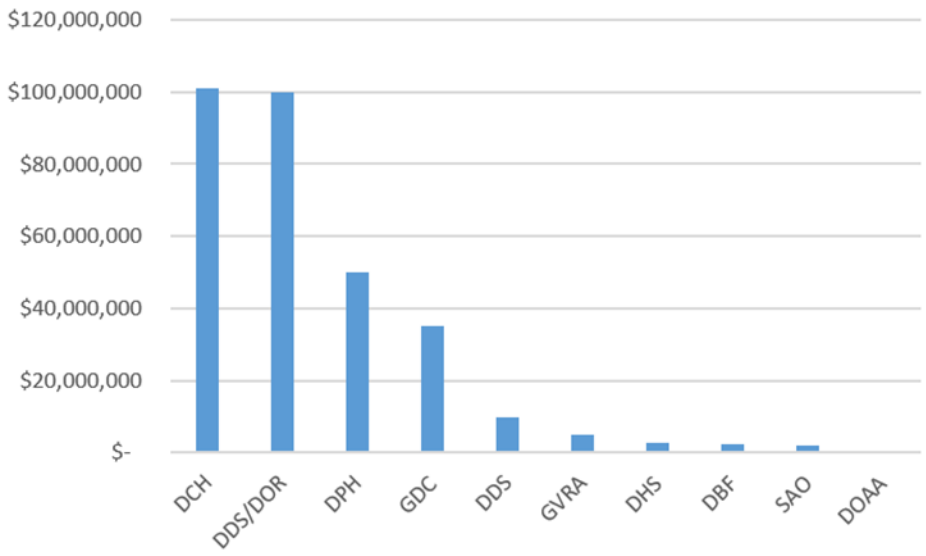
The following graph depicts each agency's percentage of the total budget for all active projects.

Percentage of IT Active Project Spend by Agency



Planned New Investments by Agency

The graph at right identifies agencies with significant new IT investments.



The following projects are represented in the graph above.

Investments that remain in the pipeline since the FY 2015 Annual State IT Report:

- DOR/DDS – Driver Record and Integrated Vehicle Enterprise System (DRIVES)
- DCH - Enterprise Data Solution
- DPH - Enterprise Systems Modernization

New planned investments:

- DBF – Infrastructure Upgrade and IT Modernization
- DCH – Planning Phase for MMIS Replacement
- DDS – Drivers License Card Production
- DHS – Learning Management and Contract Management Systems
- DOAA – Practice Management Solution
- GDC – Electronic Health Records
- GVRA – Client Case Management System
- SAO – Financial Upgrade

Project Delivery Effectiveness

Critical Project Review Panel

Fact-based decisions help agencies better manage their projects.

GTA facilitates the Critical Project Review Panel, which provides a business context for large, critical technology investments. The panel also evaluates and addresses risks before they become issues, makes fact-based decisions rather than relying on speculation, escalates to appropriate state business leaders, leverages enterprise influence to support agency outcomes, and encourages learning across agencies on best practices.

State government executives are able to see the performance of critical state technology projects and better understand the issues and risks that need management action before serious problems occur. If a serious problem does occur, the right people are getting correct information to make informed business decisions, rather than speculating on the situation and making uninformed decisions.

The review panel mitigates risk for large projects.

The panel limits its reviews to the most critical projects in the state's portfolio. For FY 2016, the Critical Project Portfolio was valued at $268 million and encompassed 11 projects for 7 agencies.

The information below puts into perspective the value and benefits of portfolio management and oversight.

Disciplined portfolio and project management, coupled with oversight by the Critical Project Review Panel and project assurance, **saved the state up to $128 million** through cost avoidance in FY 2016.

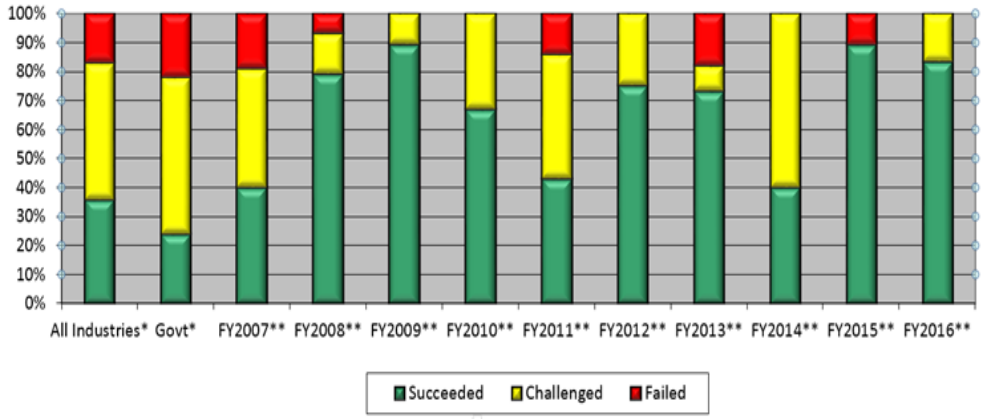
Applying industry statistical information (based on the Standish Group's 2016 CHAOS Report) to our current active and approved portfolio of critical projects yields the following projected results:

- 22% of projects would be cancelled = $59.0 million
- 54% would cost 189% of the original estimate = $273.5 million
- 24% would be successful with no cost increase = $64.3 million

Without disciplined project, program, and portfolio management, the current portfolio of $268 million would deliver only 78% of the functionality originally planned.

The chart below displays how the state of Georgia compares to government and industry metrics compiled for the Standish Group's 2016 CHAOS Report for technology projects. It measures only critical IT projects that were completed in each fiscal year**.**

Project Delivery Effectiveness (by % of $) FY 2016



The above chart indicates a decrease in failed projects from FY 2015 to FY 2016. Of the 15 projects in the Critical Project Portfolio, six were completed during FY 2016.

Cybersecurity

"The threats are growing, evolving and persistent…"

State of Georgia – Chief Information Security Officer (CISO) Stan Gatewood

Governor Deal strengthens Georgia's cybersecurity through the Cybersecurity Review Board.

The National Institute of Standards and Technology (NIST) defines cybersecurity as "the process of protecting information by preventing, detecting, and responding to attacks."

Strengthening the cybersecurity of Georgia's network, systems, and data is one of the most important challenges we face as a state. The Governor, through the Cybersecurity Review Board, is bringing significant resources to ensure cybersecurity remains a top priority. This includes:

- Strengthening statewide processes for developing, implementing, and institutionalizing best practices.
- Developing and retaining the cybersecurity workforce.
- Working with public- and private-sector research and development communities to leverage the best of existing, new, and emerging technology.

Physical, logical, and human-element security are all under attack on a constant basis, as evidenced by the daily news streams. Access control via username and password is no longer a sufficient and efficient means of defending our information and information systems.

In the past, what sufficed was cybersecurity by obscurity; that is, the secrecy of the design or implementation. Then security through "defense-in-depth" was fashionable. The principle of defense-in-depth is that layered security mechanisms increase security of the system as a whole. If an attack causes one security mechanism to fail, other mechanisms may still provide the necessary security to protect the system.

Today, cybersecurity professionals must rethink their defense strategies. Cybersecurity professionals must be more aware and prepared for the eventuality of cyberattacks and data loss and leakage.

Major Accomplishments

The state's cybersecurity program can report on several significant accomplishments in FY 2016.

Cybersecurity Review Board Annual Governor's Report

In December 2015, the Cybersecurity Review Board delivered its first annual report to the Governor. The report provided an assessment of the overall cybersecurity preparedness for the state and made a number of observations about the cybersecurity preparedness of state agencies. It also included a list of recommendations in the area of cybersecurity. Because the document is protected from disclosure by O.C.G.A. 50-18-72(a)(25)(A)(i) (2013) and should be kept confidential to protect the interests of the public, the observations and recommendations cannot be included in this report.

Cyber Storm V

To determine how our cybersecurity plan might hold up if it were put to the test, Georgia participated in Cyber Storm V, the latest in a series of national cybersecurity exercises coordinated by the U.S. Department of Homeland Security. The week-long exercise simulated a malware attack causing widespread system failures and network outages.

The event was designed to strengthen information-sharing partnerships among federal, state, local, international, and private-sector partners. More than 1,000 participants across 10 states took part in the week-long event, which centered around three days of a live exercise. Presenting a scenario in which a simulated malware attack caused widespread state system failures and network outages, Cyber Storm V provided a safe environment for exercising policies, processes, and procedures for identifying and responding to a multi-sector cyberattack targeting critical infrastructure.

Georgia had several state agencies, a local government, a private-sector healthcare provider, and several state IT vendors participate in the exercise. This participation allowed those involved to practice responding to a cyberattack, note the results of the response, and identify any gaps in cybersecurity capabilities that need addressing.

Cybersecurity Review Panel

State agencies rate their various information systems as having a high, medium, or low impact depending on the worse-case potential outcome of a security incident. One of the recommendations of the Cybersecurity Review Board was to create a Cybersecurity Review Panel. The Cybersecurity Review Panel began holding meetings every other month to provide oversight of information systems with a high-impact rating, which indicates loss of life could occur because of a security incident. A total of 17 agencies participated in the panel's inaugural meeting in May 2016.

The meetings are bringing about greater involvement in cybersecurity concerns by senior leadership in state agencies, and they are facilitating enhanced collaboration among state agencies in addressing cybersecurity threats. In addition, all agencies conducted an evaluation of the impact rating of their information systems during the year. Several agencies decided that they had their systems rated at too high a level and lowered their ratings. All participating agencies noted that they received value from going through a review of their cybersecurity program.

Enterprise Cybersecurity Risk Register

The Cybersecurity Risk Register is intended to provide a framework for categorizing and recording cybersecurity risks that impact Georgia. Because of the framework, state agencies have a common way of handling cybersecurity risk. This registry will continuously evolve and allow the state to develop a higher level of maturity in handling cybersecurity threats. A pilot of the register involving five state agencies was conducted in the third and fourth quarter of FY 2016, and statewide participation in the register is anticipated in FY 2017.

Security Risk Management Strategy

The year saw new efforts to educate agency leaders about cybersecurity issues and to involve them in contributing to the state's strategy for managing cybersecurity risks. Governor Deal's Chief Operating Officer

conducts regular briefings for agency heads, and the state's chief information security officer hosts bi-monthly meetings with agency information security officers and chief information officers. GTA's Office of Information Security began drafting a comprehensive Statewide Cybersecurity Strategic Plan.

Compliance with State Reporting Requirements

During the year, 69 state agencies were individually sent three different questionnaires; one requested information about the cybersecurity program for the specified agency, the second asked about the security of the agency's information systems, and the third requested information about the security of the agency's applications.

Senate Cyber and Privacy Meetings

The Georgia Senate Study Committee on Data Security and Privacy was created by Senate Resolution 360 during the 2016 session of the Georgia General Assembly. The committee held a series of meetings in the summer and fall of calendar year 2016 to hear expert testimony on the subject of cybersecurity in Georgia. A report on their findings is available from the Senate Research Office. From among 19 study committee recommendations, several have been identified as high-priority initiatives:

- Continue performing and developing a variety of cybersecurity training channels for state employees and entities that do business with the state.
- Continue funding for third-party cybersecurity assessments of state agencies.
- All agencies will develop a cybersecurity point-of-contact for their agency; this contact must be properly trained and must report any security incidents that impact their agency.
- Continue to support DOAS' and GTA's work in exploring the economical use of cybersecurity insurance.
- The state should contract with a Managed Security Services Provider (MSSP) to create a managed Security Operations Center (SOC) for continuous monitoring of critical systems and continuous environmental and vulnerability scanning.

A Look Ahead: Governor Deal Leads in Cyber

During 2016, Governor Deal provided leadership to establish the Statewide Cyber Review Board and to support its work with executive branch agencies. This work has been meaningful in advancing the security of state systems and has highlighted the need for greater effort to promote cyber preparedness among state agencies. Many entities have begun collaborating on improving skills to protect the state from increasing threats. Agency assessments were completed for many high-impact systems and that work will continue with more agencies during 2017.

Governor Deal further underscored the state's commitment to cybersecurity with his January 2017 announcement about the creation of the Georgia Cyber Innovation and Training Center. His vision positions Georgia to address global cybersecurity challenges in a truly transformational way, bringing together government (federal, state and local), academia, and industry. It will encourage interdisciplinary research while supporting innovation in the fast-paced cyber environment. The center will feature a world-class cyber range and training facility focused on developing the next generation cyber-workforce through real-world practice and education. Working with many partners, including Augusta University and other units of the University

System of Georgia, GTA will play an important role in bringing the initiative to life.
The Governor aims for the state to stay a step ahead of emerging threats by aligning training and technology. The Georgia Cyber Innovation and Training Center represents a tremendous investment in developing a cyber-workforce equipped with education and real-world practice. The center will offer a number of training focus areas to include hands-on exercises:

- Information Security Officer Training and Certification
- Cyber Analysis Training and Certification
- Information Technology and Information Systems (IT/IS) Risk Management Training
- Cyber Incident Training and Certification
- Continuity of Operations Planning (Disaster Recovery Planning and Business Continuity Planning)
- IT/IS Leadership Training
- Cloud Security Training
- IoTs (Internet of Things) Security Approaches, Training and Testing
- Mobile Device Security Training
- SCADA (Supervisory Control and Data Acquisition, an industrial automation control system at the core of many modern industries)

The Governor's vision for cybersecurity is expansive, with an emphasis on workforce development, a safe environment to train and exercise skills, and a setting that spurs innovation. The Georgia Cyber Innovation and Training Center and the public/private partnership supporting it will make a real difference in cybersecurity for Georgia and for the nation.

Transformation

Georgia Enterprise Technology Services – Initial Program Complete

Georgia's enterprise IT environment continues to evolve.

In FY 2016, the GETS transformation – a years-long effort to replace aging IT infrastructure – came to a close. Transformation spanned everything from personal computers used by state workers to email systems, data networks, servers, telephones, and more. Achieving success required collaboration among GTA, other state agencies, and technology service providers IBM, AT&T, and Dell, and the transformation and modernization effort was completed in calendar year 2015.

GETS Transformation replaced old and unreliable IT equipment, tools, processes, and practices, and it addressed the significant operational risk that the state had to shed. In fact, a commitment to risk reduction led to the GETS program in 2008.

Continued Transformation

Even though the initial transformation effort has been completed, Georgia's IT environment continues to evolve. The following describes the latest transformational activities.

Multisourcing Service Integration (MSI)

Service Integration Program

After an open and competitive bidding process, GTA awarded a contract to Capgemini in March 2015 to serve as the Multisourcing Service Integrator (MSI). Capgemini began providing services in August 2015, with responsibility for coordinating and overseeing the delivery of technology services to state agencies by multiple service providers. Many MSI functions are encompassed in an ITIL framework. By coordinating various providers into a seamless IT ecosystem that contains approximately 40,000 end-users, the MSI has increased availability of services for Georgia citizens.

The MSI is growing and building the next generation of IT services within the public sector. The MSI provides a greater level of diversity and IT experience to the state of Georgia. Utilizing a best-in-industry Service Integration model, the MSI leverages a new Center for Service Integration (CSI) for both Service Desk services and backend ITIL functions, such as Change Management, Problem Management, Incident Management, and Service Asset and Configuration Management.

The MSI and GTA are focused on a unified goal of continuing to evolve the technology service delivery model for the state of Georgia and its citizenry. Below are service delivery areas unique to Georgia that bring increased value to agencies participating in the GETS program.

Enterprise Governance

Enterprise Governance is an official meeting structure providing forums to discuss enterprise-level details. These forums make decisions on risks and issues that arise from day-to-day operational work that cannot be solved in working meetings. They ensure that the best possible decisions are made by the right people, at the right time, with the right information, and that serve the best interests of the enterprise.

The benefits of the Enterprise Governance program include:

- Identifying risks and issues impacting the delivery of services
- Tracking and managing all program dependencies, milestones, and obligations
- Providing a single tool for all program data management and reporting
- Providing a single repository for links to all tools, toolkits, and documentation required to execute governance forums
- Providing oversight and support to governance forums
- Developing and managing all governance-related processes and procedures

ITIL Framework

The MSI provides a robust ITIL framework for backend IT support and services, which include Major Incident Management, Change Management, Problem Management, Capacity and Availability Management, Service Asset and Configuration Management, and Service Desk. An ITIL-based IT management structure allows for an industry-leading, best-in-class delivery of services to program customers.

Major Incident Management

Major Incident Management (MIM) provides a 24x7 coverage process that restores IT service as quickly as possible with minimum disruption to the business, enabling the best achievable levels of availability and service quality for customers. The goal is to remediate critical service interruptions within defined Service Level Agreements (SLAs). This goal is achieved through accurate and timely engagement, communications, escalations, and expert incident leadership.

Change Management

Change Management ensures the use of standardized methods and procedures for efficient and prompt handling of all IT changes to minimize the impact of any related incidents upon service. Change Management manages IT changes in accordance with the Change Management process, which includes changes in Test, Development, User Acceptance Testing (UAT), Training, and Production IT environments. Change Management ensures a rigorous change approval process, implements change conflict assessment processes, and measures existing change types, timeframes, and success.

Problem Management

Problem Management proactively prevents the occurrence of incidents, errors, and other IT problems. Problem Management uses Problem Investigations (PBIs) to help the IT enterprise get to the underlying root cause of incidents and initiates actions to improve or eliminate issues through corrective actions, thereby preventing problems from recurring. The goal is to minimize the impact of incidents and problems on business operations caused by errors within the IT environment and to prevent recurrence of incidents related to those errors.

Availability Management

Availability Management ensures that the level of service availability delivered in all services matches or exceeds the current and future agreed-to needs of the environment in a cost-effective manner. Availability Management provides a point of focus and management for all IT availability issues relating to both services and resources, ensuring availability targets are established, measured, and achieved.

Capacity Management

Capacity Management provides a point of focus and management for all capacity- and performance-related issues for both services and infrastructure components. Capacity Management forecasts future requirements based on enterprise strategies and plans.

Service Asset and Configuration Management

Service Asset and Configuration Management (SACM) ensures the accuracy and completeness of the enterprise IT environment for managed assets and Configuration Items (CIs) by identifying, controlling, recording, reporting, auditing, and verifying assets and CIs. SACM provides a logical model of the IT environment's infrastructure through relationship management between assets and CIs, as well as other relationships such as change requests, incident tickets, and end-users.

The SACM process governs the renewal of IT contracts, certificates, and licenses for timely renewal, ensuring a healthy and stabilized IT environment. Through Software License Management (SLiM), governance of the enterprise software compliance position is managed through a Software Compliance Report, provided by publisher and product.

Security Management

Security Management details the process of planning and managing a defined level of security for information and IT services, including all aspects associated with reaction to security incidents. It also includes the assessment and management of risks and vulnerabilities, as well as the implementation of cost-justifiable countermeasures.

IT Service Continuity Management

IT Service Continuity Management is the process of assessing and managing risks to IT services by examining Configuration Item (CI) values, threats, and vulnerabilities; developing appropriate countermeasures; creating an IT Service Continuity Plan; and managing any disaster situations that occur.

Service Desk

The MSI's Service Desk is a scalable solution providing the enterprise with a single point of contact for all users of supported services. The Service Desk handles all end-user contacts and provides an interface to all other Service Management (ITIL) processes and activities. The mission of the Service Desk is to provide world-class service to the enterprise, foster ease of use, and provide a friendly approach to customer service that benefits the enterprise and customer business.

The Service Desk is staffed by onshore resources in Austin, Texas, with a unique blend of technical and customer service skills. Agents personally and directly meet enterprise IT needs, and each call to the Service Desk is answered by a real person. The Service Desk is highly dedicated to providing an outstanding customer experience, and the agents' personal interactions ensure quick response and timely service restoration.

Enterprise Architecture

The Enterprise Architecture program is a new service offered through the MSI. Enterprise Architecture oversees three key technology areas for the program:

- Technology Strategy
- Architecture Management
- Technology Planning

Enterprise Architecture improves the strategic benefit of IT infrastructure by:

- Delivering new service offerings quickly
- Expanding existing services to new customers
- Improving the operational efficiency of ongoing programs
- Enhancing Enterprise Architecture design patterns and repeatable processes
- Improving Architectural Governance across all service providers and program customers

Project Management

The Project Management Office (PMO) provides oversight for all programs, including but not limited to Request for Solution, Server and End-user Computing Refresh, and New Services. The goal is to ensure that every program meets its targets in terms of timeliness and quality. The PMO provides appropriate reporting and measurements for each program, identifies risks and issues, and communicates issues and concerns with program performance in order to meet all enterprise requirements.

Managed Network Services Transition and Transformation

The state's managed network services (MNS) were significantly strengthened in FY 2016.

The data network providing LAN/WAN connectivity, including internet access, across Capitol Hill in Atlanta was upgraded to increase capacity and speed

and to ensure greater redundancy. These upgrades mean the network is more reliable and secure and can handle more traffic than ever before.

New MNS services were also introduced in FY 2016, including:

- More robust security
- Options for greater network capacity in state agencies
- Faster internet connections in smaller locations
- Connectivity to cloud services
- New options for voice communications

Meanwhile, network services at the State Data Center were enhanced in such areas as security and day-to-day network management. The extensive upgrades to the data center's infrastructure affected 41 firewalls, 380 switches, 22 routers, 28 load balancers, nine intrusion-prevention devices, and six circuits.

Other enhancements bolstered SSL VPN services, which support 35,000 state workers and make it possible for them to securely connect to state networks when working in the field or from home. In addition, 11 upgraded security devices were installed in the state's network at strategic locations to guard against intrusions, and 28 other devices to better manage the state's IP addresses were upgraded at the State Data Center and the back-up facility in Boulder, Colorado.

All managed network services were fully incorporated into the state's new technology service delivery model, which uses a service integrator to seamlessly integrate services from multiple technology providers. The new model applies standardized processes across all service providers and all business functions to make it easy to add new technology services as they emerge in the marketplace and remove old ones. As a result, state agencies have greater options and flexibility in choosing services that best meet their evolving needs.

Managed Service Provider for Infrastructure

Under the Georgia Enterprise Technology Services (GETS) program, IBM serves as the state's Managed Service Provider for Infrastructure (MSPI). As the MSPI, IBM provides multiple services to the state.

Georgia completed the transformation of its IT enterprise in FY 2016. Transformation was the cornerstone of the GETS program and spanned everything from personal computers used by state workers to email systems, data networks, servers, telephones, and more. Transformation addressed the significant operational risk that the state faced by replacing old and unreliable IT equipment, tools, processes, and practices. Georgia now has the technology foundation to move forward with implementing innovative new technology services to benefit its residents.

Transformation brought more reliable and secure IT infrastructure services to over 35,000 end-users. One of the main services that the MSPI provided was the consolidation of most of the state's IT resources into Georgia's Tier IV, state-of-the-art data center known as the North Atlanta Data Center or NADC. Tier IV is the highest ranking possible for data centers from the Uptime Institute.

The NADC currently houses a total of 1.2 petabytes of storage on 2,500 servers. State agencies can depend on information systems to be up and running thanks to the consolidation of servers from state office buildings to a highly secure and reliable data center with multiple back-up systems, both on site and off site. Transformation led to the highest uptime in the state's history. As measured in monthly Service Level Agreement reports, there has been a very significant reduction of 80.3% in the average monthly outage minutes from 2012 to 2016. This has greatly improved the uptime of IT systems used to support the citizens of Georgia.

Standardization and Virtualization Strategy

As part of the consolidation, a Standardization and Virtualization Strategy was implemented in the NADC. Standardization offers opportunities to reduce cost and decrease time to assemble a solution by defining a prescribed, standard set of server, storage, and operating system base components. Standardization also enables effective automation by providing a common platform for automating IT operational tasks that previously required manual intervention. As the number of repetitive manual tasks climbs, the case for automation becomes more compelling and feeds into a cycle of increased standardization, on top of which additional automation can be layered.

Using virtualization, the ability to decouple applications (and their associated users) from the underlying physical infrastructure also creates an unprecedented freedom of choice, freeing applications from being tied to specific hardware platforms. Virtualization enables organizations to leverage existing infrastructures to mix and match technologies, such as varying models and vendors of storage and server hardware for optimal performance.

The GETS technology strategy uses virtualization where possible to streamline systems management by re-aggregating distributed systems into virtual systems, bringing new capabilities such as:

- Moving an operating system image to a new server rather than rebuilding it;
- Evacuating a server to be shut down, with minimal application outage;
- Cloning to reduce the number of system configurations to be maintained;
- Creating snapshots and backups of applications and data for high availability and Disaster Recovery;
- Simplifying redistribution of workloads to balance utilization and minimize power use;
- Provisioning new systems using pre-built configurations.

Portal

The GeorgiaGov Interactive team undertakes program to make state websites more accessible.

Accessible Platform Initiative

Government agencies are turning more and more to online self-service to provide a range of mission-critical services, including unemployment benefits, veterans' services, comprehensive benefits availability and eligibility determinations, justice programs, and revenue and tax collections.

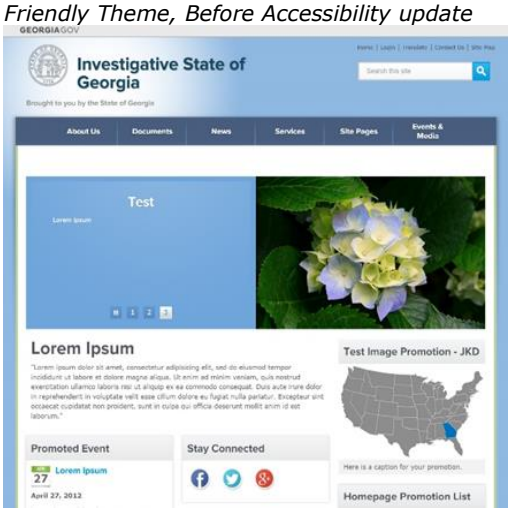
Online self-service benefits constituents by enabling them to transact business with government at whatever time or location is convenient for them, but if you have one or more disabilities, it might not be as easy, quick, and convenient as it sounds.

While it may take seconds for a sighted person to find the right link on a government website, it could take an agonizingly long time for someone with a visual impairment who's using a screen reader on a website that isn't designed for universal accessibility. Too often, people with disabilities are the constituency who needs online self-service more than anyone else.

Because the government has a special responsibility to make its services readily available to all, the GeorgiaGov Interactive team at the Georgia Technology Authority made universal accessibility one of its top priorities during FY 2016. The team oversees the state's web portal, Georgia.gov, and provides an enterprise publishing platform used by 78 state agency websites. The platform features 12 website design themes, each with its own color combinations and typefaces.

With its Accessible Platform Initiative, the team set out to make Georgia's web portal, all design themes, and all 78 websites on the enterprise publishing platform compliant with widely recognized standards for accessibility. The initiative required significant research, planning, testing, and countless hours of code development. For assistance in research, planning, and testing, the team worked with the AMAC Accessibility Solutions and Research Center at the Georgia Institute of Technology and the state of Georgia's ADA (Americans with Disabilities Act) Coordinator's Office. For code development, the team relied solely on its own internal resources. Beginning in July 2015, the team implemented 24 enhancements to the state's enterprise publishing platform and updated all 12 design themes to ensure greater color contrast and font legibility. In addition, improvements to functionality now make it easier to access online content using a range of assistive tools.

Friendly Theme, Before Accessibility update



Friendly Theme, After Accessibility update

The accessibility enhancements are making a difference for hundreds of thousands of Georgians. Independent, detailed evaluations by individuals with years of experience in IT and assistive technologies helped measure the effectiveness of the enhancements and identify where additional steps were needed. Through the Accessible Platform Initiative and a process of continuous review and improvement, the state of Georgia is ensuring that people with disabilities can benefit from online access to government services and information on the same level as anyone else.

Other Accomplishments

During FY 2016, the GeorgiaGov Interactive team launched a total of six websites, including a new site for the Georgia Department of Labor.

Another newly launched website was https://schoolgrades.georgia.gov, which lets citizens visualize data from schools all over the state. This website provides reports for all public elementary, middle, and high schools in Georgia. These reports include A-F letter grades based on school performance and other useful information, such as performance on statewide assessments, makeup of the school's student body, graduation rate, and additional academic information.

National Recognition

Meanwhile, the work of GTA's GeorgiaGov Interactive team has earned national recognition.

- The Accessible Platform Initiative received a first place award from the National Association of State Chief Information Officers.
- State Scoop honored the team for its efforts in responsive design, which automatically adjusts a website's display to accommodate whatever device a visitor is using.
- State Scoop also named Nikhil Deshpande, who leads the GeorgiaGov Interactive team, as a State Up and Comer, and the Atlanta Business Chronicle named him to its list of 40 Under 40.

Stakeholder Value

Overview

Georgia's agencies are using IT to improve business operations.

State and local government agencies in Georgia are using technology in innovative ways to improve the delivery of services to their constituents, make their operations more efficient, ensure transparency and accountability, and help stretch limited tax dollars. The Stakeholder Value section looks at how recent technology projects in several agencies contribute to these goals and support Governor Deal's priorities for Georgia.

Student Success Analytics Project

University System of Georgia (USG)

University system leaders recognized the need for new and innovative tools and techniques for gaining greater insights into their data and using those insights to inform decision making on policy and operational matters.

Increasing the percentage of students in Georgia with a postsecondary credential is one of Governor Deal's strategic goals. By 2020, over 60 percent of jobs in Georgia will require a certificate, associate's degree, or bachelor's degree. At present about 42 percent of the state's young adults are prepared to such a level. To remain economically competitive, Georgia must not only maintain current graduation levels but also produce an additional 250,000 graduates in upcoming years. This higher education goal is at the center of Complete College Georgia, an initiative sponsored by Governor Nathan Deal.

The University System of Georgia (USG) sought to support Complete College Georgia by strengthening its efforts to recruit undergraduate students from a broad range of high schools and to provide the support services necessary to ensure successful completion of their higher education.

University system leaders first turned to the vast amounts of data they already had. They recognized the need for new and innovative tools and techniques for gaining greater insights into their data and using those insights to inform decision making on policy and operational matters. They also recognized the need to merge their data with outside sources.

The resulting Student Success Analytics Project (SSAP) brought together experts from various disciplines and created groundbreaking analytics for data-driven decisions in all 30 of the university system's colleges and universities. The project addressed a series of defined challenges, and it transformed data to make longitudinal analysis possible. The use of data visualization represented another innovative approach for extending analytic capabilities beyond more conventional reporting techniques.

In one example of the innovative approaches made possible by the project, university system leaders are able to view the student pipeline from high schools to higher education as social networks and to identify state colleges and universities with similar recruitment and enrollment patterns. Being able to identify high schools that are only loosely affiliated with state colleges and universities leads to the development of strategies for engaging them and thereby helps expand student access to higher education. In another example, data visualization illustrates patterns in how students enter and

move through college. Campus leaders are able to identify students in need of support services that help prevent them from dropping out of school.

The project brought sophisticated analytic and business-intelligence capabilities to the USG's central office and its colleges and universities and is helping to equalize the ability to make data-driven decisions across the entire university system. It demonstrates the power of embedding data and analytics in decision making to understand and predict student behavior, drive more effective allocation of scarce financial and human resources, and ensure better educational outcomes.

The SSAP saves money by having created an analysis-ready data set with appended data from external sources. The USG estimates that it would take one FTE four months per school to recreate the data set for one institution, which totals 120 months of data preparation across the entire university system. The Carl Vinson Institute of Government at the University of Georgia developed the longitudinal database in nine months with one FTE. In addition, enterprise contracts for professional services, software, and hardware reduce costs even further. Consistency across all USG campuses simplifies and constrains costs for future technology updates.

Cobb Commute

Cobb County Department of Transportation and Information Services

Commuters in Cobb County have a new application that helps them handle traffic.

Cobb Commute, www.CobbCommute.org, is a GIS-based, mobile-first, web-mapping solution that makes it possible for drivers to view up-to-date traffic information about construction or other events that may disrupt normal daily traffic flow.

As a web-mapping tool, Cobb Commute displays road closures and restrictions, traffic speeds, changeable message signs, and traffic camera photos. Selecting a closure or incident icon on the GIS map provides such details as a brief description, a time frame, and the specific impact (right lane closed, etc.). During inclement weather, it indicates when roads were last treated for snow or ice. Mobile users can see their geographic location along a road in real time. Cobb Commute thereby allows users to better plan their commutes or adapt their commute to changing road conditions. Planned enhancements include alternate routes around construction sites and coordination with local events, including baseball games at the new Braves stadium and football games at Kennesaw State University, in order to provide traffic-routing and parking information. The tool is device and browser agnostic and designed to be intuitive to the user.

It integrates real-time data from a variety of sources. Information about road construction and other events comes from Cobb County's Traffic Management Center while speed data, changeable message sign information, and camera photos come from the Georgia Department of Transportation (GDOT). Base map data is streamed from MapQuest. When working at a desktop computer, a link to the GDOT's 511 website is also available. Because it incorporates information from GDOT, Cobb Commute can be used anywhere in the state.

Cobb Commute was built in Leaflet, a light-weight, open-source development platform that optimizes the display of graphic data. It incorporates responsive programming, which means its display is

automatically optimized to accommodate whatever type of computing device is being used.

Cobb Commute was a collaborative development effort between the Cobb County Department of Transportation and the county's Information Services Department.

Information Communications Technology (ICT) Innovations

Georgia Department of Transportation

The Department of Transportation made major improvements in the technology that supports transportation in Georgia.

The state of Georgia is "the gateway to the Southeast," thanks to its transportation system, which includes the world's busiest airport, the country's second busiest container terminal, and an outstanding network of interstate highways and state roads.

Substantial investments in the state's transportation infrastructure are among Governor Deal's top priorities, and the support of the Georgia Department of Transportation (GDOT) is reflected in its vision of "Enhancing Georgia's competitiveness through leadership in transportation."

The innovative use of leading-edge technologies is the foundation of GDOT's transportation leadership. GDOT relies on a range of technology tools and solutions to keep traffic of all kinds moving throughout the state, especially in its densely populated urban areas.

GDOT's WebEOC (Emergency Operations Center) app provides real-time data to support daily operations and emergency management, and along with transportation telematics, it's become GDOT's cornerstone during inclement weather. During an ice or snow storm, GDOT's Road Weather Information System provides critically important data about the temperature of road surfaces that guides decisions about deploying resources such as brine trucks. GDOT shares the information with news media. A tracking device and a sensor on each brine truck connects to WebEOC and its GIS map, and each truck can be viewed in real time on a GIS map on any web-enabled device. The truck is represented by an icon that starts green but turns yellow when the truck is dispensing brine. By following the icon, GDOT managers know the truck's exact location, and by clicking on the icon, they know the rate at which brine is being dispensed and the amount of brine remaining on the truck. Other sensors let managers know the height of the blade.

Anyone in Georgia can dial 511 on a mobile phone to report a serious accident, road closure, or other incident to GDOT's Traffic Management Center. GDOT dispatches a responder to the scene, and the WebEOC app on the responder's smartphone begins automatically populating geolocation information so it's instantly available to the Traffic Management Center, GDOT's District Office EOCs, any GDOT personnel with WebEOC access, the Georgia Emergency Management and Homeland Security Agency, and others. The geolocation information is taken from the smartphone's GPS app and GDOT's data warehouse and includes the name and number of the road or the number of the interstate highway and more precise measures of the incident's location based on highway mileposts. A responder is not distracted by having to manually enter information. The location of an incident is identified by a

small icon on a GIS map of the state, which can be viewed on a smartphone, tablet, or desktop computer. A responder updates the status of the incident as the situation changes. By clicking on the incident icon, GDOT managers can view a responder's updated status reports.

GDOT's 511 Navigator website, www.511ga.org, also features a GIS map of the state that links to hundreds of traffic cameras and message signs on interstate highways and major roads. Users can click on camera icons to see live video feeds from specific locations and on message sign icons to learn about travel times, road closures, congestion, and other traffic issues. Website users can create personal accounts and designate favorite cameras for quick access. Color-coding of roads on the website's GIS map indicates traffic speeds.

GDOT's Integrated Digital Enhanced Network radio system adds statewide voice capabilities between multiple state agencies and federal and local agencies. The result is coordinated responses across teams and agencies.

Taken together, GDOT's technology tools and solutions ensure situational awareness, and they connect with and complement other state information systems, thereby strengthening communications, information sharing, and response coordination across all involved state, local, and federal agencies. They are indispensable to a coordinated and comprehensive response to any situation affecting Georgians' mobility.

Student Registration Online Learning Management System

Georgia Public Safety Training Center

The Georgia Public Safety Training Center has enhanced the delivery of public-safety training for the state.

The Georgia Public Safety Training Center (GPSTC) partnered with other state agencies to enhance the delivery of public-safety training online. GPSTC developed its learning management solution (LMS) so other state agencies could also use it to host their unique online training, manage enrollment, and create additional course offerings.

Ever-changing threats require an educated public safety community, and public safety personnel are required to attend training on an annual basis. Traditional classroom-based training puts stress on an agency's budget and personnel. As agency budgets and personnel shrink, many are turning to online training as a viable alternative. However, most online learning management solutions are designed for semester-long classes. Public safety agencies needed an LMS that allows them to receive condensed blocks of instruction about relevant topics from anywhere and anytime. Personnel needed an LMS that's easy to access and navigate. With less of a need to cover administrative classroom information, more time can be spent on actual training. GPSTC sought to provide its students with an LMS designed to meet these requirements.

However, GPSTC was not the only state agency facing such challenges. Many other public safety agencies are met with some of the same requirements, and enabling these agencies to offer their training online became the purpose of this collaborative system.

GPSTC developed a customized, online content development and delivery module. Short blocks of instruction and independent online training are delivered to students from a fully responsive and HTML5-compliant LMS. The solution was developed internally with Java Servlet, various frameworks, application program interfaces for other systems, and an industry standard database. The LMS guides students through their courses and ensures they complete each step along the way. For more interactive blocks of instruction, GPSTC integrated its LMS with a popular open-source LMS product, which allows for student discussion, submission of assignments, quizzes, and detailed student-activity reporting.

Students access training through a secure portal, and they can log in and attend any number of online training sessions. Agency administrators can track the progress of their students and manage their own online course content and offerings. After a student completes a required block of instruction, it's uploaded to other state agency systems for purposes of regulatory reporting, and public-safety personnel are not required to provide additional proof of training to meet annual requirements. The LMS' various integration points ensure that support staff are not burdened with maintaining data between various systems. Since authentication and grade reporting are linked to the GPSTC Student Registration System, user data are automatically synchronized between various systems during student enrollment and course completion.

GPSTC opened its system to host online training for other public safety agencies in Georgia. The hosting model allows for easy configuration and deployment of customized online instruction for those agencies.

In calendar year 2015, GPSTC trained 16,562 students from 1,357 agencies, which includes many local police and fire departments. Those students successfully completed 78,536 online courses.

Sales Ratio Study Application

Department of Audits and Accounts

The Department of Audits and Accounts developed a new solution for the state's property tax digest.

The DAA is responsible for creating an equalized adjusted property tax digest for each county in Georgia and for the state as a whole. These tax digests are used in the Quality Basic Education (QBE) funding formula to determine state allocations to local school districts, which total about $2.2 billion annually.

The data necessary to create equalized adjusted property tax digests come from many sources, including property tax digests for each of the state's 159 counties, public utility and railroad tax digests, about 400,000 real estate transfer forms, about 3,900 real estate appraisals, and varying numbers of county property tax assessment records. To create equalized adjusted property tax digests, the DAA uses the collected data to perform sales ratio studies, which compare assessed values and market values.

A recent change in state law reduced the amount of time allowed for creating the equalized adjusted property tax digests by six months. In response to the change, the DAA's IT Division built the Sales Ratio system to replace time-consuming, manual work with more efficient, automated analytics and data management. Preliminary digests can now be produced

in 12 months instead of 18, and final digests can be produced in 16 months instead of 22.

The system is comprised of a central system and a Java desktop application. The central system was built with GRAILS, a web-based framework, and an Oracle RAC cluster as the backend for high availability. The GRAILS framework uses the latest web-based Java technologies like Hibernate, Spring, and Groovy.

The desktop application works with the central system to download and upload hundreds of thousands of records. DAA staff no longer have to manually review reach record; instead, the system uses a business-rules engine to process information and eliminate transactions that provide invalid indicators of market value. The central system matches data across sources, thereby reducing processing time while increasing accuracy. In addition to automated data reporting and processing, the central system supports GIS features using Google's mapping service, trending, graphing, and data analytics. Numerous complex reports are built into the system and can be exported to Excel for further research and analysis. The desktop extension allows field staff to work in remote locations across Georgia while accessing services from the central system.

Another benefit of the system is the ability to easily calculate the financial impact of proposed legislative changes on QBE funding. As a result, unintended consequences that could prove detrimental to funding for education can be avoided.

The automation made possible by the system means that four office staffers can now each spend the equivalent of three months annually assisting field appraisers. Assistance from office staffers coupled with improved data and file management mean field staff can now each spend the equivalent of two months annually on other appraisal-related activities, such as analyzing trends in the real estate market. Labor-related savings are estimated at $350,000 annually, and office staffers are seeing opportunities for promotions.

Public Dashboard

Department of Revenue

The Georgia Department of Revenue developed a new, transparent solution for citizens to view tax data.

The Department of Revenue (DOR) implemented dashboards for sharing data with Georgia taxpayers at www.dor.georgia.gov. The dashboards, named DOR Pulse, are a visual display of interactive data about DOR's operations and performance measures. They reflect DOR's commitment to transparency and accountability.

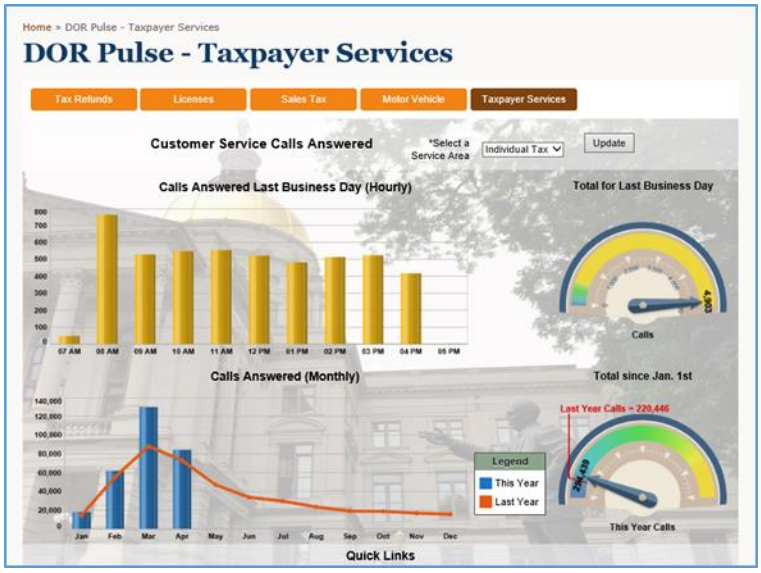
DOR transformed complex data into compelling visuals using iDashboards, a specialized software program. The dashboards provide information in five areas: Tax refunds, alcohol and tobacco licensing, sales taxes, motor vehicles, and taxpayer services.

Taxpayers can interactively view information related to some of the most common questions DOR receives:

- How long does it take to process a tax return?
- How long does it take to obtain an alcohol license?
- What are the peak times for calls to DOR's call center?

Each time a dashboard, chart, or graph is selected, it pulls fully automated data. In most cases, they display statistical information from the prior business day. Each dashboard also includes hyperlinks for more detailed information about a particular topic, which can make it quicker and easier for taxpayers to find the information they need and reduce the number of calls to DOR's call center.

Visualizing current data also helps DOR staff identify outliers and errors. For example, an unusual spike in an operation or process could indicate an error, and action can be taken immediately to correct the error.



DOR Pulse presents current data in compelling and easy-to-understand visuals.

TOPICS Quick Free Form

Department of Labor

The Department of Labor streamlined a number of its unemployment systems by deploying imaging capabilities.

The Department of Labor's (DOL) Unemployment Insurance (UI) division identified an opportunity to streamline its processes by incorporating image recognition into the existing system.

When an employer submits a payment for state unemployment taxes without a corresponding tax report or payment voucher, DOL's system prints a payment voucher, which acts as an invoice to ensure the accurate posting of the payment to the correct employer's account.

But a new module, Check Free Form, automates the process by using image recognition to read the employer's account number on the check and capture the amount of the check.

As a result, the module eliminates the need to print payment vouchers to process payments from employers and especially from service providers and certified public accountants, who usually submit machine-printed checks. It also eliminates the need to manually match vouchers with

payments and to manually correct the amount on the payment voucher if it doesn't match the check.

In addition, DOL's Quarterly Tax Report, which should accompany an employer's payment, is often recreated by employers and doesn't always align with the template in the existing system. Quick Free Form's image-recognition capabilities allow for improved identification of fields in recreated tax forms.

Quick Free Form has dramatically reduced the workload of the UI division. During one quarter in 2015, 150,000 checks were received, and about 33 percent did not include a tax form or voucher. Before Quick Free Form, DOL staff would create vouchers for unaccompanied checks, match vouchers to checks, and manually correct vouchers whenever discrepancies occurred between vouchers and checks. It could take up to six days to fully process unaccompanied checks. Quick Free Form reduced the time to a day and a half.

In addition, DOL staff could spend up to six days processing tax reports that were kicked out of the system as unrecognizable. Quick Free Form's image-recognition capabilities have shortened the time to two days.

Quick Free Form boasts an image-recognition accuracy rate of 98 percent.

For-Hire Endorsement Online

Department of Driver Services

The Department of Driver Services developed a solution that improves the efficiency of the process for licensing taxi services and ride share providers.

Legislation passed during the 2015 session of the Georgia General Assembly brought taxi services, ride share providers, and their drivers under the regulatory oversight of the state, and the Department of Driver Services (DDS) is responsible for issuing For-Hire Endorsements to ride share, taxi, and chauffeur applicants. For-Hire Endorsement Online is an extension of DDS' existing web-based services aimed at:

- Improving the efficiency of the licensing process.
- Reducing customer wait times.
- Eliminating unnecessary visits to customer service centers.

For-Hire Endorsement Online enables applicants to complete the endorsement process online before visiting a nearby customer service center. They simply submit their C Endorsement application, supporting documents, and fees on DDS' secure website. If their documents are in order, applicants receive an approval letter by email. To complete the process of obtaining their specialized license, they then present the approval letter to agents at a customer service center.

Information submitted by applicants automatically populates directly to their records, thereby reducing data-entry errors while also expediting the process of issuing licenses.

For-Hire Endorsement Online has reduced the time to process C Endorsement applications from 14 days to less than four. By emailing approved applications, DDS saved $18,579 in postage from July 1, 2015, through December 31, 2015.

DDS is also receiving positive feedback from customers and its own employees.

- "We had have nothing but great experiences since going to the online chauffeur endorsement. It has expedited the process and freed up the time of my managers," said the president of a transportation company.
- For-Hire Endorsement Online "has increased efficiency in the customer service centers because drivers are prepared with everything they need for license issuance," said a DDS district manager.

Strategic Planning

The goal of IT strategic planning in Georgia is to understand agencies' business objectives and help them use appropriate technology to meet those objectives. Agencies are guided in their business objectives by the Governor's Strategic Plan for Georgia, which sets specific goals in the areas of education, health, public safety, transportation and mobility, and economic growth.

Georgia's IT Strategy Cycle

The IT Strategy Cycle is a framework for ensuring that Georgia agencies use available technology effectively and efficiently to achieve the Governor's vision for Georgia. A key to success is a collaborative environment where agencies recognize shared objectives and work together to achieve greater benefits for the enterprise. GTA serves as facilitator in identifying common needs, as technology guide in identifying strategies that have proven successful in other organizations, and as advocate for agency solutions that show promise for the enterprise.

The Strategy Cycle is comprised of the following five components:

1. Agency Technology Scanning

Technology Scanning is a continuous process of gathering information about how technology is helping organizations like Georgia state government achieve their objectives. It identifies what is relevant for state agencies and shares appropriate findings through periodic reports and presentations. When targeted to business needs, this information helps agencies make more effective use of proven technology.

GTA relies on numerous sources for information about new business uses of technology. A sampling of those sources includes Gartner, a leading technology research and advisory firm; the National Association of State Chief Information Officers; the Center for Digital Government; and the bi-annual Digital States Survey.

In addition, we monitor a broad range of publications, such as Government Technology, CIO, and Public CIO magazines.

2. *Strategy Summit*

Over the past five years, GTA has sponsored an annual Strategy Summit each fall to provide agency decision-makers with a current view of the state's overall business environment and to promote an understanding of agencies' shared objectives. As we have matured our strategic planning process, the focus of the strategy summit has shifted. Beginning in the spring of 2016, the strategy summit was combined with the technology summit for a more comprehensive Technology + Strategy event.

GTA continues to place high value on understanding agency business needs and will continue to review agency strategic plans, conduct agency surveys, and hold regular meetings with agencies to ensure that we have a clear picture of the business objectives that drive agency technology needs.

3. *Georgia Enterprise Information Technology Strategic Plan 2020*

The Georgia Enterprise IT Strategic Plan establishes focus areas and goals for the state's IT enterprise in a multi-year look ahead. In doing so, it guides executive branch agencies in aligning their technology solutions with the direction established for the state's IT enterprise. The plan was first published in 2014, and it is refreshed annually. The plan is available online at www.gta.georgia.gov.

4. *Strategy Summit Innovation Review*

The Georgia Innovation Program works closely with OPB and the Governor's Office to identify priority needs. The program also solicits ideas from state agencies for innovative projects addressing challenges faced by multiple agencies. Projects selected for the program are staffed primarily by agencies that benefit from them. Decisions are guided by a cross-agency committee. Funding for implementing cross-agency projects is overseen by OPB and GTA.

5. *Technology Summit*

The Technology Summit, which GTA sponsors each spring, looks at how agencies can better collaborate to improve operations and meet new business needs. A key area of collaboration is seeking new ways of sharing information to improve government services.

Strategic Planning and STARR

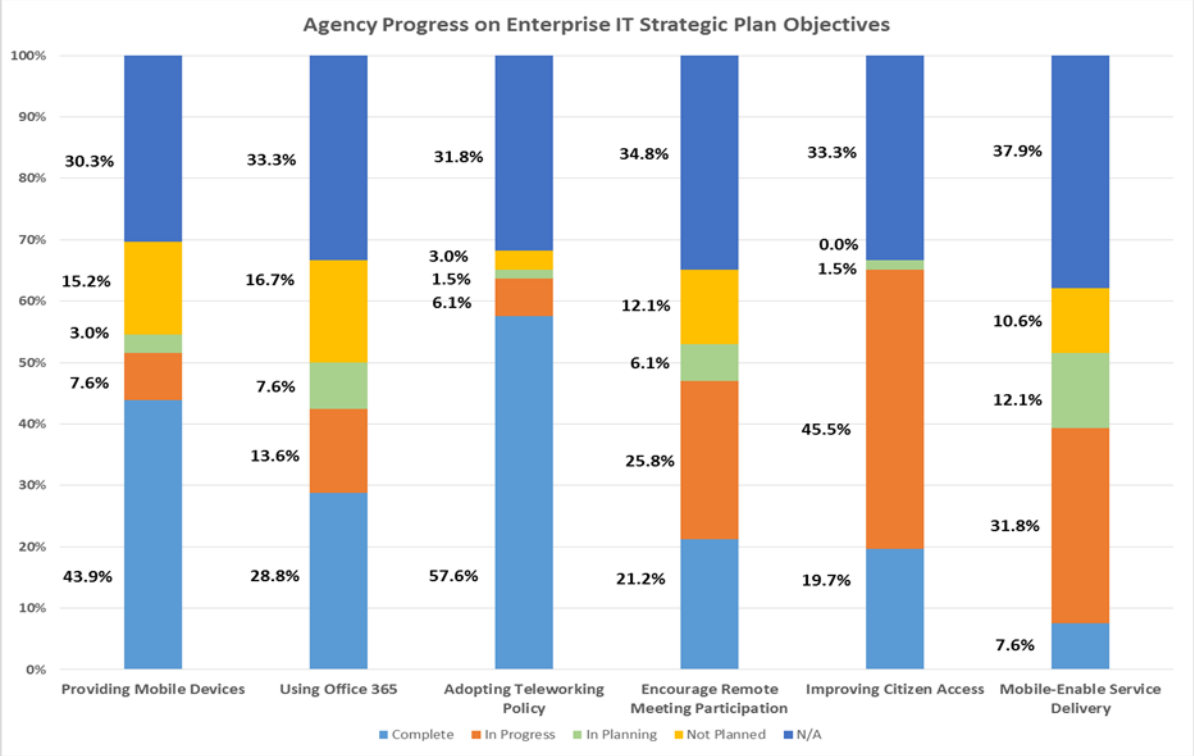
GTA adds strategic planning section to STARR report to gather IT planning information.

In 2015 for the first time, a strategic planning section was added to the State Technology Annual Report Register (STARR) report, which collects IT-related data from state agencies. The data are analyzed to help provide a comprehensive view of the IT environment supporting state agencies. The STARR report employs separate questionnaires to collect data on various topics, and a two-part questionnaire was used to ask agencies about their strategic planning. The information agencies provided will be used to update the Georgia Enterprise IT Strategic Plan.

The first part of the strategic planning questionnaire focused on the following areas related to enterprise IT objectives:

- Providing mobile devices
- Using Office 365
- Adopting an agency teleworking policy
- Encouraging remote meeting participation
- Improving citizen access to services
- Using mobile-enabled service delivery

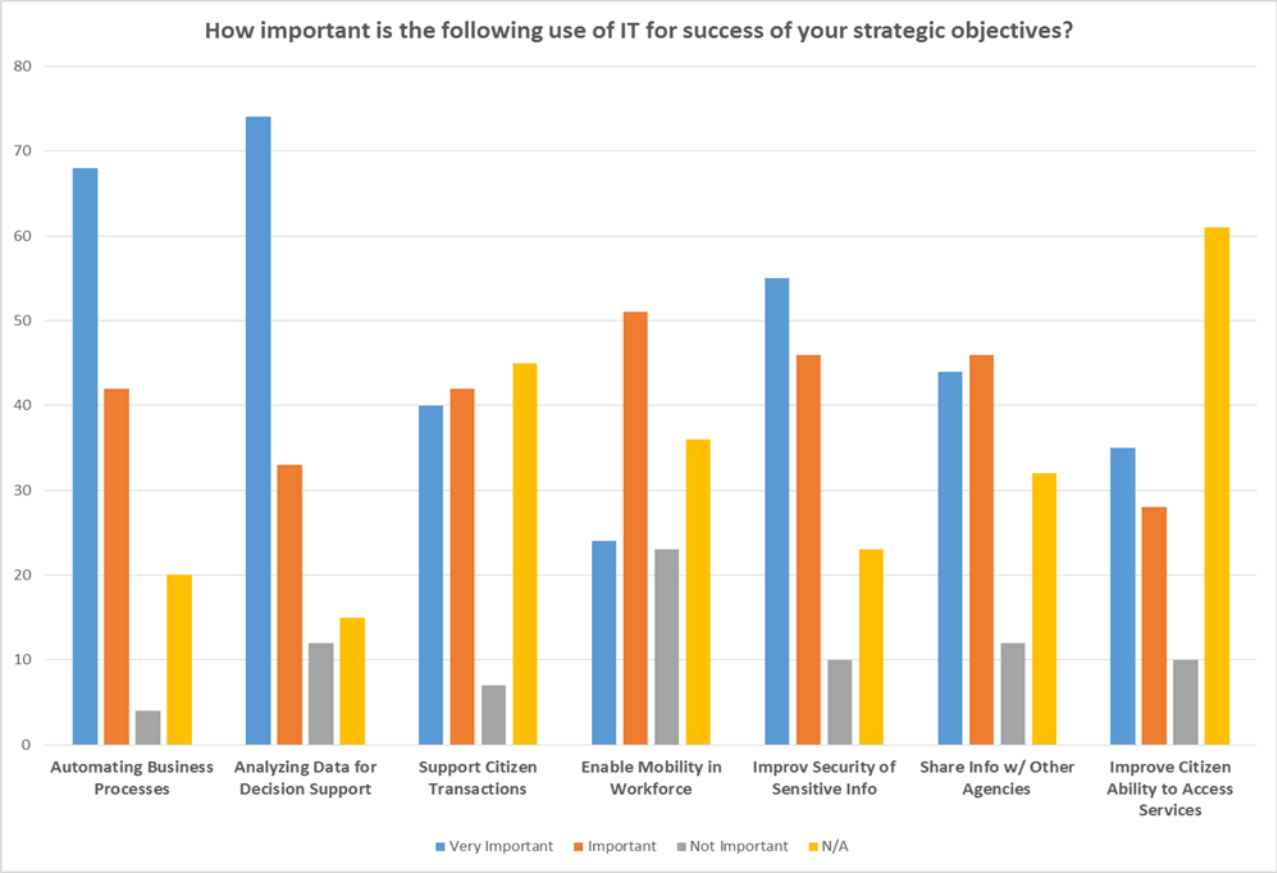
A total of 66 agencies responded to the first part, and their responses are summarized in the following bar graph.



The second part of the questionnaire focused on individual agencies' strategic objectives. It asked agencies to rate IT's importance in supporting their activities in the following areas:

- Automating business processes
- Analyzing data for decision support
- Supporting citizen transactions
- Enabling mobility in the workforce
- Improving the security of sensitive information
- Sharing information with other agencies
- Improving citizen access to services

A total of 30 agencies responded to the second part, and their responses are summarized in the following bar graph.



GTA plans to gather this information each year through the STARR report.

Georgia's Strategic Planning Principles and Process

LEAN
*-**L**everage*
*-**E**nable*
*-**A**lign*
*-i**N**novate*

The development of the Georgia Enterprise IT Strategic Plan 2020 was guided by the LEAN Planning Principles and the IT Strategy Cycle. Taken together, they ensure the plan is up-to-date and in constant alignment with the state's business goals and the technology used to support those goals.

GTA's LEAN Planning for IT Strategies

Leverage existing technology and solutions toward shared services to enable the greatest value for the investments in technology:

1. Utilize common state portal for citizen access
2. Utilize enterprise data bus for data sharing

Enable business processes with technology solutions, resources, skills, and staffing to support business needs:

1. Match need and skills to job and pay
2. Identify and mitigate risks to the business
3. Enable business through technology

Align business needs with technology solutions:

1. Coordinate business strategies and integrated technology solutions and services
2. Create sourcing strategies to provide timely acquisition and provisioning of solutions

Innovate emerging capabilities with long-term business needs:

1. Create responsive and flexible approaches to working with agencies and citizens in order to foster collaboration and facilitate new approaches to solving business problems
2. Use industry best practices

Policies, Standards, and Guidelines

State PSGs are based on industry best practices and federal statutes.

GTA has a legislative responsibility to provide information technology policies and standards for executive branch agencies. As our sources for policies and standards, GTA generally uses industry and federal government best practices, such as the Federal Information Security and Management Act (FISMA) for security, the Information Technology Infrastructure Library (ITIL) for technology infrastructure, and the Project Management Book of Knowledge (PMBOK) for project management. In some cases, materials are used as guidelines, with attribution, where more detailed explanations may facilitate agency understanding.

Agency IT departments are expected to be knowledgeable and compliant with all state policies and standards as a means for providing good stewardship of their IT assets. Guidelines are provided when greater detail in guidance may be warranted. Agency compliance is not required for guidelines.

GTA's statutory authority to establish policies and standards can be found in the Official Code of Georgia Annotated:

- The authority to establish technology policies and standards is in O.C.G.A. 50-25-4(a)(10) and is explained in GTA policy "Information Technology Policies, Standards and Guidelines" PM-04-001.
- The authority to establish security policies and standards is in O.C.G.A. 50-25-4(a)(21) and is explained in GTA policy "Enterprise Information Security Charter" PS-08-005.

The state's Enterprise IT Policies, Standards, and Guidelines are online at www.gta.georgia.gov/psg.

Appendix

Appendix A – Participation by Agencies

Exhibit 1 – Agencies Reporting IT Expenditures

	Agency Name	Reported 2014	Reported 2015	Reported 2016
1	Administrative Office of Georgia Courts	NR	NR	NR
2	Composite State Board of Medical Examiners	NR	NR	NR
3	Criminal Justice Coordinating Council	✓	✓	✓
4	Department of Administrative Services	✓	✓	✓
5	Department of Banking and Finance	✓	✓	✓
6	Department of Behavioral Health and Developmental Disabilities	✓	✓	✓
7	Department of Community Affairs	✓	✓	✓
8	Department of Community Health	✓	✓	✓
9	Dept of Community Supervision	NR	NR	✓
10	Department of Corrections	✓	✓	✓
11	Department of Defense	✓	✓	✓
12	Department of Driver Services	✓	✓	✓
13	Department of Early Care and Learning	✓	✓	✓
14	Department of Economic Development	✓	✓	✓
15	Department of Human Services	✓	✓	✓
16	Department of Juvenile Justice	✓	✓	✓
17	Department of Natural Resources	✓	✓	✓
18	Department of Public Health	✓	✓	✓
19	Department of Public Safety	✓	✓	✓
20	Department of Revenue	✓	✓	✓
21	Department of Transportation	✓	✓	✓
22	Department of Veterans Services	NR	NR	NR
23	Employees' Retirement System	✓	✓	✓
24	Georgia Board for Physician Workforce	NR	NR	NR
25	Georgia Bureau of Investigation	✓	✓	✓
26	Georgia Commission on Equal Opportunity	NR	NR	NR
27	Georgia Commission on the Holocaust	NR	NR	NR
28	Georgia Council for the Arts	NR	NR	NR
29	Georgia Drugs and Narcotics Agency	NR	NR	NR
30	Georgia Emergency Management Agency	✓	✓	✓
31	Georgia Firefighter Standards and Training Council	✓	✓	✓
32	Georgia Forestry Commission	✓	✓	✓
33	Georgia Professional Standards Commission	NR	NR	NR
34	Georgia Public Broadcasting	NR	✓	✓
35	Georgia Public Safety Training Center	✓	✓	✓
36	Georgia Public Telecommunications Commission	✓	NR	NR
37	Georgia Real Estate Commission & Appraisers Board	NR	NR	NR

38	Georgia Seed Development Commission	NR	NR	NR
39	Georgia State Financing and Investment Commission	✓	✓	✓
40	Georgia Student Finance Commission	✓	✓	✓
41	Georgia Technology Authority	✓	✓	✓
42	Georgia Vocational Rehabilitation Agency	NR	NR	✓
43	Governor's Office of the Child Advocate	NR	NR	NR
44	Governor's Office for Children and Families	✓	*	*
45	Governor's Office of Consumer Protection	✓	*	*
46	Governor's Office of Highway Safety	NR	*	✓
47	Governor's Office of Student Achievement	NR	*	✓
48	Nonpublic Postsecondary Education Commission	NR	NR	NR
49	Office of Inspector General	✓	*	*
50	Office of Planning and Budget	✓	✓	✓
51	Office of State Administrative Hearings	✓	✓	✓
52	Office of State Treasurer	✓	✓	✓
53	State Accounting Office	✓	✓	✓
54	State Board of Pardons and Paroles	✓	✓	✓
55	State Board of Workers' Compensation	✓	✓	✓
56	State Housing Trust Fund for the Homeless Commission	NR	NR	NR
57	State Properties Commission	✓	✓	✓
58	State Soil and Water Conservation Commission	✓	✓	✓
59	Subsequent Injury Trust Fund	✓	✓	✓
60	Teachers' Retirement System	✓	✓	✓
61	Technical College System of Georgia	✓	✓	✓

NR = No Report

*** = Cost Data Throught GETS**

Agencies NOT required to report

	Agency Name	Reported 2014	Reported 2015	Reported 2016
1	Board of Regents of the University System of Georgia	NR	NR	NR
2	Brain & Spinal Injury Trust Fund Authority	✓	✓	✓
3	Council of Juvenile Court Judges	NR	NR	NR
4	Court of Appeals	NR	NR	NR
5	Department of Agriculture	✓	✓	✓
6	Department of Audits and Accounts	NR	*	*
7	Department of Education	✓	✓	✓
8	Department of Insurance	✓	✓	✓
9	Department of Labor	✓	✓	*
10	Department of Law	✓	*	*
11	Georgia Agricultural Exposition Authority	NR	NR	NR
12	Georgia Agrirama Development Authority	NR	NR	NR
13	Georgia Building Authority	✓	✓	✓
14	Georgia Development Authority	NR	NR	NR
15	Georgia Environmental Facilities Authority	NR	NR	NR
16	Georgia Housing and Finance Authority	NR	NR	NR
17	Georgia Ports Authority	✓	✓	✓
18	Georgia Regional Transportation Authority	✓	✓	✓
19	Georgia World Congress Center Authority	✓	✓	✓
20	Lake Lanier Islands Development Authority	NR	NR	NR
21	OneGeorgia Authority	NR	NR	NR
22	Georgia Military College	NR	NR	NR
23	Public Service Commission	NR	NR	NR
24	Secretary of State	✓	✓	✓
25	State Ethics Commission	NR	NR	NR
26	State Road and Tollway Authority	✓	✓	✓
27	Superior Court	NR	NR	NR

NR = No Report

*** = Cost Data Throught GETS**

Appendix B – Spending by Agencies

Exhibit 1 – Agency IT Expenditures

	Agencies Required to report by Law	Total IT Spend FY2016
1	Brain and Spinal Injury Trust Fund Commission	$22,260
2	Criminal Justice Coordinating Council	$910,400
3	Dept of Administrative Services	$9,600,646
4	Dept of Banking and Finance	$1,666,183
5	Dept of Behavioral Health	$31,608,040
6	Dept of Community Affairs	$4,035,827
7	Dept of Community Health	$139,400,723
8	Dept of Community Supervision	$7,434,569
9	Dept of Corrections	$29,844,986
10	Dept of Defense	$3,826,493
11	Dept of Driver Services	$22,251,852
12	Dept of Early Care and Learning	$5,308,979
13	Dept of Economic Development	$804,895
14	Dept of Human Services	$97,780,239
15	Dept of Juvenile Justice	$18,054,773
16	Dept of Natural Resources	$11,651,372
17	Dept of Public Health	$16,797,992
18	Dept of Public Safety	$17,525,549
19	Dept of Revenue	$44,157,690
20	Dept of Transportation	$39,222,098
21	Employees' Retirement System	$2,410,400
22	GA Bureau of Investigation	$11,309,058
23	GA Emergency Management Agency	$1,079,700
24	GA Firefighter Standards and Training Council	$81,300
25	GA Forestry Commission	$684,793
26	GA Public Broadcasting	$2,482,015
27	GA Public Safety Training Center	$971,581
28	GA State Financing and Investment Commission	$1,726,330
29	GA Student Finance Commission	$4,053,898
30	GA Technology Authority	$36,055,086
31	GA Vocational Rehabilitation Agency	$1,855,000
32	Gov Office for Children and Families	$6,931
33	Gov Office of Consumer Protection	$51,280
34	Gov Office of Highway Safety	$39,577
35	Gov Office of Student Achievement	$1,485,515
36	Office of Inspector General	$11,669
37	Office of Planning and Budget	$2,031,593
38	Office of State Administrative Hearings	$550,957
39	Office of the State Treasurer	$675,701
40	State Accounting Office	$19,974,351
41	State Board of Pardons and Paroles	$4,371,375
42	State Board of Workers' Compensation	$3,277,478
43	State Properties Commission	$40,218
44	State Soil and Water Conservation Commission	$192,128
45	Subsequent Injury Trust Fund	$72,964
46	Teachers' Retirement System	$104,024
47	Technical College System of Georgia	$30,872,175

	Agencies Voluntarily Reporting	Total IT Spend FY2016
48	Dept of Agriculture	$2,322,789
49	Dept of Audits	$22,958
50	Dept of Education	$17,258,739
51	Dept of Insurance	$1,425,596
52	Dept of Labor	$19,510,688
53	Dept of Law	$162,877
54	GA Building Authority	$1,715,746
55	GA Ports Authority	$228,460
56	GA Regional Transportation Authority	$499,795
57	GA World Congress Center Authority	$1,867,035
58	Secretary of State	$8,790,766
59	State Road and Tollway Authority	$1,047,403
	Total Spend	**$682,178,112**

Appendix C – STARR Application Categories

Exhibit 1 – Application Categories Definitions

Application Categories Definitions

Function	Definition
Asset Management	Used by agency to keep track of state property that are physcial assets
Business Intelligence	Used to mine and format data to be used as information by agency's leadership to make decisions. Information usually delivered in report or dashboard.
Case Management	Used to keep information on constituents where the agency is rendering a service to the constituent. Also covers what would be known in the private sector as customer relationship management. Records contain detailed information on constituents and the constituents interaction with the agency.
Data Exchange	Used to exchange or verify data held by another agency. Could be a data transfer or lookup. The partner agency can be at the local, state, or federal
Data Management	Used to manage the agency data. Most of these systems are single applications managing data for a single application. Simple lookup/search and reporting
Data Repository	A repository can be a place where multiple databases or files are located for distribution over a network, or a repository can be a location that is directly accessible to the user without having to travel across a network.
Data Warehouse	Used to manage all of the agency's data or the data of a major program of the agency. Data may be fed from multiple applications and aggregated at the ware house. Business intelligenence tool used to mine the data
Development Tools	Used by agency to manage software development to produce solutions for agency's business
Document Management	Used to process and archive documents at the agency. Can be a workflow tool for the agency. Also include Digital Imaging which is moving a paper system to a digital image/file.
Enterprise Resource Planning (ERP)	All encompassing system that runs all major programs for an agency.
Facilities Management	Used to manage facilities that are used by the agencies or used to manage facilites that are part of the agency's mission.
Financial Management	Used to track financial information for the agency
Grant Management	Used to manage grants either given by the agency or grants accepted by the agency.
Learning Management	Used to provide and track training for employees or constituents
Mobile Application	Application software designed to run on smartphones, tablet computers and other mobile devices.
Other	Any Software that is not defined by the above categories
Procurement/Contract Management	Used to manage agency's procurements. May also be extended to manage contracts resulting from procurements.
Productivity Tools	System put in place to enhance the productivity, opeartional or project management within the agency
Regulatory Oversight System	Used to fulfill a regulatory function of the agency such as Licensing \ Permitting \ Citations \ Registrations. Information held is not as detailed as a case management system. Information is used to issue some type of regulatory document.
Reservation System	Used to manage events. Allows agency to have attendees sign in a register for an event.
Risk Management	Any type of system that would mitigate risk to the agency or state. This type of system can span from a system to assist with managing insurance to a security system
Time Accounting	Used to track employees time. Could be a sub category of human resources.
Trouble Tracking	System used to track troubles/problems/incidents that agency is tasked with solving. Little customer information is retained. System specifically use to solve problems
Web Services	Systems that provides services throught the Internet. This includes websites, customer portals, and authenticaiton systems for these portals. This includes both informational and transactions based websites.
Workforce Management	Used to help manage the human resources of the agency. Could also be called workforce management

Appendix D – House Bill 676

H

. B. 676

House Bill 676 (AS PASSED HOUSE AND SENATE)

By: Representative Brockway of the 102nd

A BILL TO BE ENTITLED
AN ACT

To amend Chapter 29 of Title 50 of the Official Code of Georgia Annotated, relating to information technology, so as to provide for the submission of business cases in certain circumstances; to provide for change management requirements for certain projects; to provide for legislative intent and findings; to provide a short title; to provide for related matters; to repeal conflicting laws; and for other purposes.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF GEORGIA:

SECTION 1.

This Act shall be known and may be cited as the "Accountability, Change Management, and Process Improvement Act of 2016."

SECTION 2.

Chapter 29 of Title 50 of the Official Code of Georgia Annotated, relating to information technology, is amended by revising Code Section 50-29-3, which was previously reserved, as follows:

"50-29-3.

(a) The General Assembly finds that:

(1) As Georgia's state government seeks to provide improved service at a lower cost to its citizens and technology continues to play an increased role in service delivery, the pace of change for state agencies, boards, authorities, and commissions will continue to increase;

(2) Programs that involve significant expenditures or major changes for large numbers of Georgia residents should each be backed by a strong business case at its launch;

(3) Research has consistently shown that projects with effective change management programs are significantly more likely to be successful than projects with little or no change management programs and are significantly more likely to come in on time and on or under budget; and

(4) Leading private businesses have grown and regularly utilize change management services to ensure that technological, organizational, and other changes are effectively implemented.

(b)(1) All state agencies, boards, authorities, and commissions of the executive branch of state government shall provide a written business case for every information technology project that exceeds $1 million in value. Such business case shall include at a minimum:

(A) A description of the business need for the project;

(B) A budget for the project;

(C) An estimate of its operational impacts;

(D) A scan of available options to meet the business need;

(E) An outline of the benefits of a successful implementation to the citizens of Georgia and an outline with time frames of anticipated benefits;

(F) An analysis of the risks of not acting and how the proposed solutions will mitigate those risks; and

(G) An assessment of business process improvement, the need for process improvement, and corresponding change management.

(2) Written business cases for covered projects shall be provided to the Georgia Technology Authority at least 30 days prior to the request of any state funds or the issuance of any procurement documents for the project. The Georgia Technology Authority shall consult with the Department of Administrative Services and report to the Governor's Office of Planning and Budget on findings and

recommendations.

(c)(1) All state agencies, boards, authorities, and commissions of the executive branch of state government shall provide for a change management plan and resources necessary for plan execution for projects that exceed $1 million in value, projects that directly involve two or more state agencies, or service delivery changes in existing programs that significantly change existing business processes.

(2) A change management plan and execution shall, at a minimum, incorporate:

(A) A stakeholder analysis covering all impacted parties, including impacted groups, number of stakeholders impacted, type and degree of impact, and like areas and degree of resistance;

(B) A change risk assessment;

(C) Primary sponsors for the change program;

(D) A change management program approach; and

(E) A change management work plan for communication, coaching, training, sponsorship, and resistance management.

(3) It is the intent of the General Assembly that agencies shall seek best practices with private or public sector experts when appropriate to develop and implement change management plans. Change management consulting may be independent of project implementation.

(4) Written change management plans for covered projects shall be delivered to the Governor's Office of Planning and Budget and the Georgia Technology Authority.

Reserved."

SECTION 3.

All laws and parts of laws in conflict with this Act are repealed.

Georgia Technology Authority

gta.georgia.gov

Georgia Technology Authority
47 Trinity Avenue S.W.
Atlanta, Georgia 30334