GTA
Georgia Technology Authority

ANNUAL STATE IT REPORT
FY 2015

CALVIN RHODES
CHIEF INFORMATION OFFICER
STATE OF GEORGIA

Annual State Information Technology Report

Table of Contents

State Chief Information Officer Statement

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 2015. The report provides an overview of the many ways in which GTA supports state agencies with the secure, reliable and responsive technology services they need as they serve Georgians.

Highlights from the year include:

- Approached completion of the Georgia Enterprise Technology Services (GETS) transforming and modernizing effort for the state's in-scope technology enterprise (effort completed in early FY 2016)
- Major changes to the IT service delivery model so agencies can more easily and quickly access a broader range of innovative services from the technology marketplace – resulting in better service delivery
- Strengthening the state's cybersecurity posture to further protect our information systems and citizen data
- Creation of the Cybersecurity Review Board and working teams in support of the Governor's June 2015 Executive Order

These accomplishments and many others are covered in the report. Also included in the report:

- Information on the state's portfolio of applications, broken out by category
- IT project spend data, broken out by agency
- Total IT expenditures, broken out by agency

All our efforts are guided by GTA's mission "to provide technology leadership to the state of Georgia for sound IT enterprise management."

I hope you find the report informative and useful. Feel free to contact us if you have any additional questions or would like to know more about our work.

Calvin Rhodes

Purpose

The State IT Annual 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 listed within the enabling legislation of the Georgia Technology Authority. The Annual Report is intended to provide information to state leaders to help them make informed decisions about investments in technology.

The report represents IT for the state's Executive Branch Agencies only; those reporting to the Governor. The report 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 is provided by Executive Branch Agencies and data feeds from enterprise systems of record. The data is compiled by GTA and reflects the efforts of the State CIO to improve technology use in support of the operation of state government. The Annual Report contains the following major sections:

- Executive Summary
- Governor’s Goals
- Georgia Enterprise IT Strategic Plan 2020
- IT Investment Management
- Georgia Enterprise Technology Services
- Portal
- Stakeholder Value
- Strategic Planning
- Policies, Standards and Guidelines
- Georgia Information Security Program
- Appendix

Executive Summary

This report describes the state's $638 million investment in information technology in FY 2015.

Significant progress was achieved in FY 2015 in strengthening and securing the technology services that enable Executive Branch Agencies to operate more efficiently and better serve Georgians.

Transformation, a multi-year effort to replace aging IT infrastructure, was rapidly approaching completion as the fiscal year ended and was fully completed during calender year 2015. The initiative spanned everything from personal computers used by state workers to email systems, data networks, servers, telephone systems and more. As a result, state agencies can depend on information systems to be up and running, the state's data network is more reliable than ever before and Georgians have more options available to them when accessing state services and information – whether online, by telephone or in person at customer service centers. Equally as important, transformation laid the groundwork for taking advantage of new and increasingly innovative technology services, including an emerging generation of cloud services. (*See Georgia Enterprise Technology Services, page 29.*)

In today's technology marketplace, getting the best mix of those innovative services means contracting with multiple providers of all sizes. So the state can fully benefit from the marketplace, the Georgia Technology Authority undertook the Services Integration Initiative, which is making major changes to the IT service delivery model. One of the initiative's first steps was the selection of a multisourcing service integrator to assume responsibilities for coordinating and integrating IT services from various providers. By sharpening our focus on enterprise services that can be more easily accessed by and shared among agencies, we can squeeze greater value from the state's technology dollars.

Just how much did the state spend on technology in FY 2015?

A total of 45 Executive Branch Agencies, or 88 percent, reported spending $638 million on IT infrastructure services, network services, and application development and support. A total of six Executive Branch Agencies did not report their IT expenditures to GTA, and the reporting requirement does not apply to agencies under the authority of constitutional officers or certain state entities with large IT budgets. Nevertheless, the data gathered from IT expenditure reports provide important and useful insights into one of state government's most critical categories of spending. (*See IT Investment Management, page 21.*)

The state also took additional steps in FY 2015 to address cybersecurity, which is increasingly critical to guarding against a new kind of criminal and better securing our state and our nation. The importance of cybersecurity is reflected in Governor Deal's decision to establish the Statewide Cybersecurity Board. (*See Exectutive Order, page 61.*) Since 2008, state agencies have been required to follow a framework for cybersecurity that's based on federal law, but many agencies have operated independently of the statewide policy. With the establishment of the Statewide Cybersecurity Board, the state is now developing a consolidated, enterprise-wide view of the cybersecurity risks we face in state government. This effort is intended to aid Executive Branch Agencies in identifying and mitigating risks. (*See Georgia's Information Security Program, page 47.*)

The 2015 Annual State IT Report provides an overview of many other important developments and accomplishments.

- The state attained stated goals and objectives from Georgia's Enterprise IT Strategic Plan, which establishes a six-year roadmap for the use of technology in state government. (*See Georgia Enterprise IT Strategic Plan 2020, page 15.*)
- Executive Branch Agencies continued to roll out new services enabled by new technologies. As a result, Georgians enjoy an enhanced level of responsiveness and transparency in government. Many of the new services directly support Governor Deal's strategic vision for the state. (*See Stakeholder Value, page 33.*)
- IT strategic planning is helping to successfully align technology with the business objectives of state agencies. (*See Strategic Planning, page 43.*)

The astonishing rate at which technology is changing influences almost every aspect of contemporary life, especially the way we communicate and do business. The framework developed by GTA in collaboration with other Executive Branch Agencies and presented in the 2015 Annual State IT Report ensures state government is well positioned to respond to the challenges and opportunities that lie ahead.

Governor's Goals

Technology supports state agency alignment to Governor Deal's strategic goals for the state.

Governor Nathan Deal's vision for the State of Georgia is "A lean and responsive state government that allows communities, individuals and businesses to prosper".

Georgia government supports economic prosperity through a structure of government goals intended to ensure Georgia's success through education, health, safety, business growth, transportation and sound government.

Goals:

- Educated
- Mobile
- Growing
- Healthy
- Safe
- Responsible and Efficient Government

Educated

Because strong schools are the proven route to tomorrow's good jobs, Georgia government is focusing on producing well-prepared students who are life, college and work-ready. The Educated Goal focuses on requirements to prepare students to compete nationally and internationally.

Governor's Strategic Goals for Educated:

- Increase the number of students reading at grade level by the completion of 3rd grade – a strategic benchmark for lifelong learning.
- Increase the percentage of students who hold a postsecondary credential.
- Improve and expand science, technology, engineering and mathematics (STEM) education.
- Identify and implement innovative strategies that increase teacher effectiveness and student achievement.
- Increase the percentage of high school graduates who are college and career-ready.
- Empower citizens with public school options and local flexibility for the purpose of improving student achievement.

Mobile

Economic development requires the continued ability to move people and goods efficiently. A transportation infrastructure is key to economic competitiveness, and Georgia's transportation network — including airports, highways, rail lines and ports — has always been a selling point. The Mobile Goal strives to prioritize transportation investments to ease congestion and improve population mobility.

Governor's Strategic Goals for Mobile:

- Improve the movement of people and goods across and within the state.
- Expand Georgia's role as a major logistics hub for global commerce.

- Leverage public-private partnerships and improve intergovernmental cooperation for successful infrastructure development.

Growing

The Growing Goal supports the creation of jobs and growing businesses. The state of Georgia believes that its economic development requires dependable water supplies as well as a competitive business environment with access to capital for start-ups and growing businesses.

Governor's Strategic Goals for Growing:

- Implement strategic tax and regulatory reforms that make Georgia more competitive.
- Promote small business growth and entrepreneurship.
- Maximize access to capital for startups and growing businesses.
- Conserve and enhance natural resources, with an emphasis on increasing state water supplies and security.

Healthy

Improving the health and wellness of Georgians is essential to promoting our state as a great place to live, work and play. Economic development requires a well-managed healthcare delivery system providing positive outcomes and contained costs. While Georgia is home to excellent healthcare institutions and practitioners who are pioneering new advances in medical research and clinical care, the Healthy Goal recognizes that it needs to address growing demand on the healthcare system, finding innovative ways to attract and retain highly qualified providers to our state.

Governor's Strategic Goals for Healthy:

- Reduce childhood obesity in Georgia.
- Increase access to health services throughout the state.
- Increase consumer choice and personal responsibility in health care.
- Improve access to treatment and community options for those with disabilities.

Safe

Georgia government is striving to identify and implement innovative strategies and solutions to better execute on the core mission of government to protect its citizens. In addition, Georgia's economic development requires healthy, safe communities. The Safe Goal drives toward common-sense laws, well-trained and well-equipped law enforcement agencies and an efficient judicial system. Georgia government is also concerned with delivering a comprehensive, statewide solution that addresses illegal immigration and the burden it is creating on our correctional, educational and healthcare assets.

Governor's Strategic Goals for Safe:

- Implement alternative sentencing options to improve offender rehabilitation.
- Promote successful offender re-entry and compliance.
- Reduce injury and loss of life on Georgia's roads.
- Promote safe communities and stable families where children thrive.

Responsible and Efficient Government

The Responsible and Efficient Goal recognizes that many state agencies do not have a direct role in providing state services, but rather have a support role for other agencies. The Responsible and Efficient Goal encompasses functions such as human resources, fiscal services and information technology.

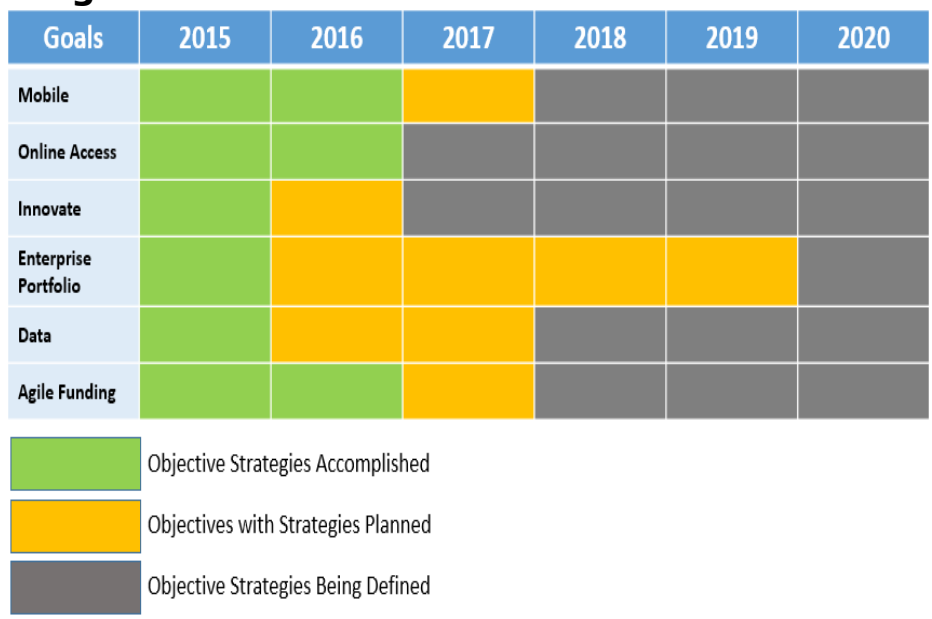
Governor's Strategic Goals for Responsible and Efficient Government:

- Maintain Georgia's AAA bond rating.
- Increase the availability of state services through innovative technology solutions.
- Build and maintain a quality state government workforce.
- Focus state resources on essential services and employ enterprise solutions.
- Enlist community support and public-private partnerships to leverage available resources.orgia Enterprise IT Strategic Plan 2020

Georgia Enterprise IT Strategic Plan 2020

The Georgia Enterprise IT Strategic Plan 2020, published in 2014, established a six-year roadmap for technology in state government. It set six enterprise goals along with objectives and strategies for achieving each one. In doing so, the plan guides agencies in aligning their use of technology with the direction established for the state's IT enterprise. This section of the Annual State IT Report summarizes the progress made so far in reaching these goals. The complete Enterprise IT Strategic Plan is available online at www.gta.georgia.gov under Quick Links.

Progress as of 2015:



Goal 1: Enable all state employees who need to work remotely, when appropriate.

Objective 1. Execute enterprise-wide contracts for appropriate mobile services by June 20, 2015.

Strategies:

a. **Work with current mobile services providers to improve existing contracts: Completed** – Enterprise contracts for wireless services and devices are in effect with four providers: AT&T, Sprint, T-Mobile and Verizon. Through these contracts, there are 80,000 subscribers and 119,000 mobile devices in state and local government entities as of Q3 2015. Quarterly updates ensure new technology is always available.

b. **Identify new mobile services needed to augment existing service provider offerings and establish new contracts:** Added broadband, machine to machine (M2M) and mobile device choices.

c. **Negotiate convenience contracts for mobile services: Completed** – Enterprise contracts for wireless services and devices

are in effect with four providers: AT&T, Sprint, T-Mobile and Verizon.

Objective 2. Integrate mobile services, infrastructure and policies by March 31, 2017.

Strategies:

a. **Define key infrastructure components and services needed to fully support workforce mobility: Completed** – An enterprise contract for Office 365 is in effect and provides 40,000 state workers with access to cloud-based email, SharePoint for document sharing, OneDrive for file storage and Skype web conferencing.

b. **Identify integration points for supporting infrastructure and services: Completed** – Implemented through contract services.

c. **Coordinate standards and develop processes and guidelines for smooth mobile workflow:** Georgia.gov, state government's web portal, has adopted a technology that automatically adjusts its display to fit whatever device a visitor is using, such as a desktop computer, a tablet or a smartphone. The technology, called responsive design, has been deployed to other state websites that use the same content management system as Georgia.gov. As a result, the development of apps specifically for mobile devices is not always needed, which saves the state both time and money.

Goal 2: Improve Georgia citizen access to state services.

Objective 1. Begin systematically shifting agency service delivery to an online self-service model by June 30, 2015.

Strategies:

a. **Establish guidelines to help agencies identify services currently provided primarily through direct interactions that can be provided better, faster or less expensively online:** Georgia.gov established standards, guidelines and best practices to assist state agencies in optimizing their delivery of information and services across websites, mobile devices and social media. These efforts include the adoption of Drupal, a cloud-based content management and publishing platform for online information and services. They also encompass the latest accessibility standards to ensure access to online information and services by people with a range of disabilities. Georgia.gov provides training, assistance and tools to track and measure Internet traffic to state agency websites. In 2014, there were 76 million page views and 17 million unique visitors across the Georgia.gov platform. In the first five months of 2015, there were 44 million page views, and mobile devices accounted for 43 percent of total traffic.

b. **Help agencies find partners among other Georgia agencies for shifting to new service models:** Georgia.gov assists state agencies in designing their websites and provides various templates from which agencies may chose. The templates help ensure a similar look and navigation cross state government while still providing agencies with the ability to customize their websites.

Georgia.gov also hosts a support group of social media managers from state agencies.

Objective 2. Begin shifting appropriate services to a fully enabled mobile model by June 30, 2016.

Strategies:

a. **Identify services with the greatest mobile demand:** Georgia.gov provides tools to track and measure Internet traffic to state agency websites, including traffic from mobile devices. For example, the Division of Child Support Services and Georgia.gov determined that 74 percent of online traffic to child-support information and services comes from mobile devices. As a result, DCSS decided to create a mobile app for child-support services in 2015.

b. **Create guidelines to allow agencies to determine when it is appropriate to shift to fully mobile services:** Georgia.gov provides tools to track and measure traffic to online services from mobile devices.

c. **Establish standards for mobilizing appropriate applications that allow agencies to shift service delivery to a mobile model as they deem appropriate:** Georgia.gov developed standards, guidelines and best practices for incorporating responsive design into state agency websites. Responsive design enables websites to automatically adjust their display to fit whatever device a visitor is using, such as a desktop computer, a tablet or a smartphone.

d. **Move to embrace social media as a way to communicate to our citizens and state workforce:** Most agencies have a presence on social media and social media managers to oversee their content. In addition, Georgia.gov manages the state's Facebook and Twitter accounts. The state has 4,300 Facebook likes and 20,000 followers on Twitter.

Goal 3: Innovate state government with effective, enterprise-wide integration of technology.

Objective 1. Establish a process for identifying, prioritizing and funding innovation opportunities by June 30, 2015.

Strategies:

a. **GTA leads a technology-oriented review of agency strategic plans and describes opportunities for technology-enabled innovation. Agencies and Georgia leaders will also identify opportunities:** Using information from agency strategic plan reviews, the Technology Innovation Showcase and the Strategy Summit, an Innovation Program was developed by GTA in 2015 with support from GTA's Enterprise Governance and Planning (EGAP) staff and state agencies. The Innovation Program includes project teams and processes. In development are seven innovation initiatives and three business cases, and a Learning Management System pilot is under way.

b. **Agency business leaders review potential innovations and nominate innovation opportunities they'd be willing to support:** The Innovation Program provides an executive-level review through the Innovation Committee.

c. **An innovation review leadership panel selects candidate projects based on their benefits to Georgia:** The Innovation Program provides an executive-level review through the Innovation Committee.

Goal 4: Create an enterprise portfolio of shared, technology-enabled services.

Objective 1. Baseline the use of shared services in the state by June 30, 2015.

Strategies:

Work with agencies to populate the State Annual Report Register (STARR) system with all of the data needed to baseline the state's shared services environment during FY 2014 and FY 2015 reporting cycles: Completed – 2014 and 2015 baselines.

Take the data from the STARR system and develop a baseline: Completed – A baseline was completed through the Strategic Enterprise Applications Council based on three years of STARR applications portfolio data (FY 2013-2015). Enterprise applications approved: Teamworks/PeopleSoft HR and Financial Management. Funnel for review and approval: Grants Management, Talent Acquisition, Travel and Expense, Enterprise Data Bus. Future review for a Learning Management System.

Objective 2. Facilitate the expansion of the portfolio of market-based enterprise shared services for state agencies by June 30, 2017.

Strategies:

a. **Determine marketplace offerings that agencies need; move to a model where agencies can try services before buying them and have access to in-place shared services rather than building the service from the ground up:** Select agencies are trying cloud-based solutions on an individual basis before the solutions are adopted for use by the enterprise; an example is learning management. Executive Branch Agencies pursue these individual efforts through the exemption process or the Innovation Program.

b. **Expand the availability of marketplace vendors offering secure shared services that can be consumed on an as-needed basis and billed monthly:** GTA expanded the state's portfolio of market services by adding such cloud-based solutions as Office 365 for email and Azure and Softlayer for cloud computing.

Goal 5: Improve the use of state data for decision making and information sharing.

Objective 1. Improve the ability to secure and protect state data by June 30, 2015.

Strategies:

a. **Establish Data Governance standards for Georgia and begin encouraging their use in data-intensive initiatives: Completed** – GTA published a Data Life Cycle Management Policy, Data Steward Standard and Data Sharing Standard.

b. **Create a security verification program for high-impact systems:** Governor Deal established the Statewide Cybersecurity Board and the Cybersecurity Review Program in 2015.

c. **Develop templates for agreements to allow for data sharing among the state agencies:** GTA published a Memorandum of Understanding template in support of the Data Sharing Standard.

d. **Develop streamlined processes for data sharing:** GTA developed data-sharing guidelines to facilitate agreements between agencies for sharing data. In addition, GTA offers a technology service that enables secure data sharing between agencies, which enables them to code once and then additional agencies can leverage this "connection".

Goal 6: Develop an agile approach to funding agency adoption of technology solutions.

Objective 1. Develop governance processes that allow for the adoption of enterprise technology solutions by June 30, 2016.

Strategies:

a. **Establish the Governance of Enterprise-wide Applications process (GEAP): Completed** – GTA established the Strategic Enterprise Applications Council to review candidates for enterprise applications.

Objective 2. Analyze and revise the state technology-acquisition business model for improvement opportunities by June 30, 2016.

Strategies:

a. **Identify additional opportunities for cost reductions, control levers that trigger billing, process improvements that affect agencies' abilities to manage their consumption, and education to help agencies manage their costs. Create an agile funding/cost/procurement model that rewards, encourages and promotes agency joint ventures in the acquisition of technology services:** GTA is revising the business model for acquiring technology services so that it includes services from a range of service providers. Through competitive bidding, GTA selected a Multisourcing Service Integrator to coordinate the delivery of technology services by multiple providers. The goal is to keep up with advances in the technology marketplace and ensure greater price competition. In addition, GTA established the Enterprise Managed Services Standard to facilitate the adoption of cloud-based services. GTA also provides training on how to better

manage data storage and reduce related costs. GTA introduced Office 365 for email, a cloud-based service that reduced per-mailbox costs and added new capabilities. GTA developed enterprise contracts with six vendors who offer Hosted Contact Center services for voice call centers.

b. Establish policies, standards and guidelines that enable and promote agencies' acquiring technology services together: To establish the concepts of a full-service agency business model and applications, GTA developed and published the Enterprise Managed Services (EMS) standard through the Policies, Standards and Guidelines (PSG) process. The full-service agency can use the business model to expand offerings into local government, using cloud services that bring in excess capacity to achieve volume and scale. Policies, standards and guidelines will be used to create cloud services for unique government market segments. Service access and use rules may vary based on the segments: full-service GETS, non-GETS, local, non-state customer. Cloud services could reduce overall rates/costs if greater scale is achieved.

IT Investment Management

New tools provide the ability to better manage IT capacity; costs are more transparent.

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 challege 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.

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

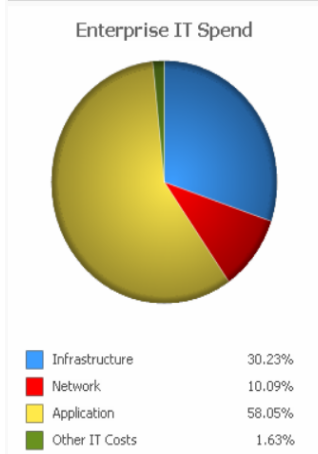
In FY 2013, GTA implemented a new tool called the State Annual Report Register (STARR) to collect data about IT expenditures from the Executive Branch Agencies. STARR changed the way information is requested. Data on IT expenditures were previously based on high-level accounts from the state's financial system. With STARR, information is requested by application, infrastructure and network. In FY 2014, we added other IT costs to our collection process to capture shared costs that were not being allocated to application, infrastructure and network. These new expenditure categories included IT management and project management offices. As a result, the state's IT financial picture is clearer this year than in past years.

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.

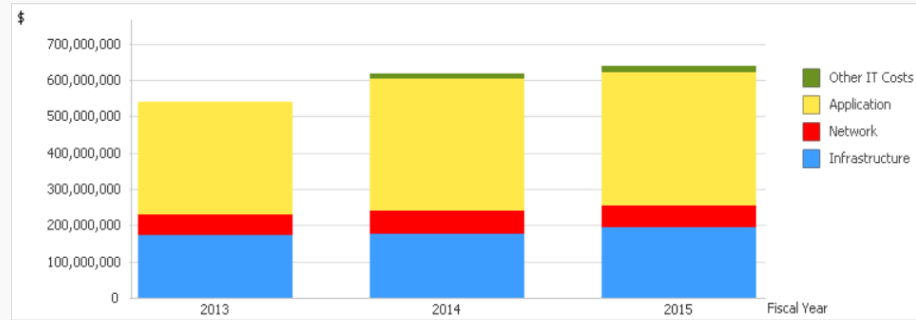
Enterprise IT Spend

The following graph depicts the most comprehensive summary available of IT expenditures by infrastructure, network, application and other IT costs in FY 2013, FY 2014 and FY 2015.

Enterprise spend by cost category



Infrastructure	Network	Application	Other IT Costs
$541,977,960	$180,932,181	$1,040,863,345	$29,146,700



Fiscal Year	Infrastructure	Network	Application	Other IT Costs	Total
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**
2013	$171,247,820	$57,826,855	$309,308,060	-	**$538,382,736**

Agency Participation in IT Expenditure Reporting

Agency compliance with requirements for reporting IT expenditures decreased from FY 2014 to FY 2015. A total of 45 out of 51 agencies submitted a report, or 88%, which compares to 96% in FY 2014.

The agencies listed in Appendix A with N/A in the "Reported 2015" 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 reports.

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.

Agency Participation Year to Year

	FY2012	FY2013	FY2014	FY2015
Agencies Required to Report	***74***	***50***	***51***	***51***
Agencies that Reported	***59***	***45***	***49***	***45***
Percentage	***80%***	***90%***	***96%***	***88%***
Agencies Not Required to Report	***15***	***14***	***14***	***14***
Agencies that Reported Voluntarily	***5***	***5***	***6***	***5***
Percentage	***33%***	***36%***	***43%***	***36%***

Did IT expenditures actually increase in FY 2015?

Participating agencies spent over $638 million on technology in FY 2015, more than the $616 million reported in FY 2014. 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 the agencies to increase both the quantity and quality of data received.

IT Investment Tracking

Investment governance processes are maturing and expanding.

Over the past few years, Georgia has piloted an Investment Tracking model designed to increase the quality and sustainability of technology investments. The model encompasses activities and strategies for initiation, planning and procurement support. Our initial focus was the support of individual agency investments through:

- Reviewing business cases,
- Conducting risk assessments, and
- Providing feedback on procurement documents.

This year the state has made strides to expand and standardize the Investment Tracking approach at the enterprise level through awareness and cross-agency collaboration. In this rollout, the enterprise process introduced a number of new activities.

Annual Investment Strategy Sessions were initiated. GTA meets with technology and business leaders of the agencies to discuss their IT strategic plan and STARR reporting data. These discussions have helped identify opportunities for cross-agency collaboration and potential candidates for the Innovation Program. The Innovation Program is discussed later in the Strategic Planning section of the Annual report. These discussions have greatly enhanced the accuracy of data in the state's technology inventory.

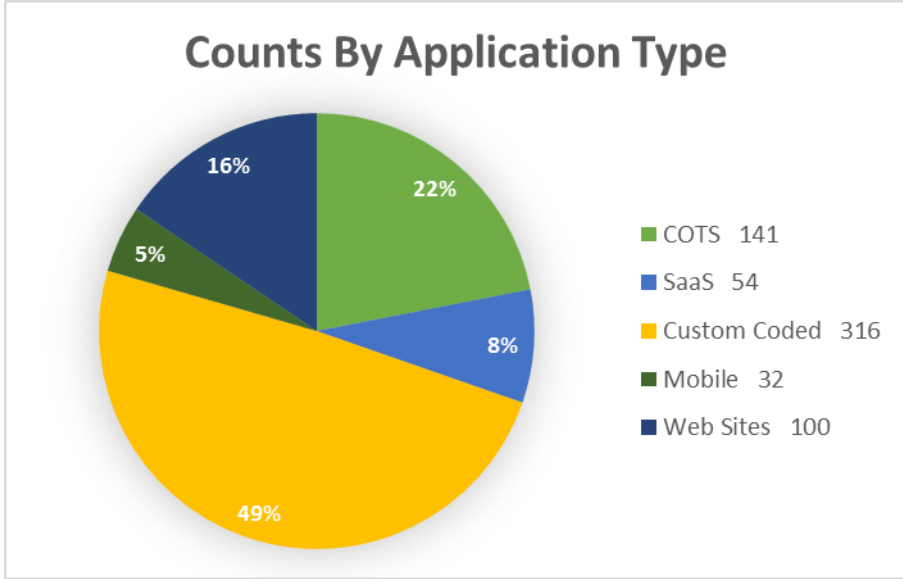
The Procurement Review was formalized through the introduction of a new state standard and guideline. The standard introduced a streamlined review process under the guidance of the state Chief Technology Officer. GTA works with agency IT and procurement staff as well as the State Purchasing Office to assist in identifying possible opportunities to leverage existing technology before making new investments. The procurements are also reviewed for consistent and appropriate language to protect the state's investments and citizens' data.

Enhanced collaboration with State Purchasing is providing guidance for agencies pursuing alternative strategies for technology services. As agencies are pursuing 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 the agencies, enhanced policies, standards and guidelines were developed to support business decisions around these services. The Investment Governance team works closely with agencies to increase awareness of the standards and assist with interpretation in a variety of investment scenarios.

IT Application Portfolio

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

In FY 2013, GTA started collecting more detail about the agencies' applications. The FY 2015 inventory includes 643 applications, an increase of 74 over FY 2013. The following graph shows the number and percentage of applications by type.

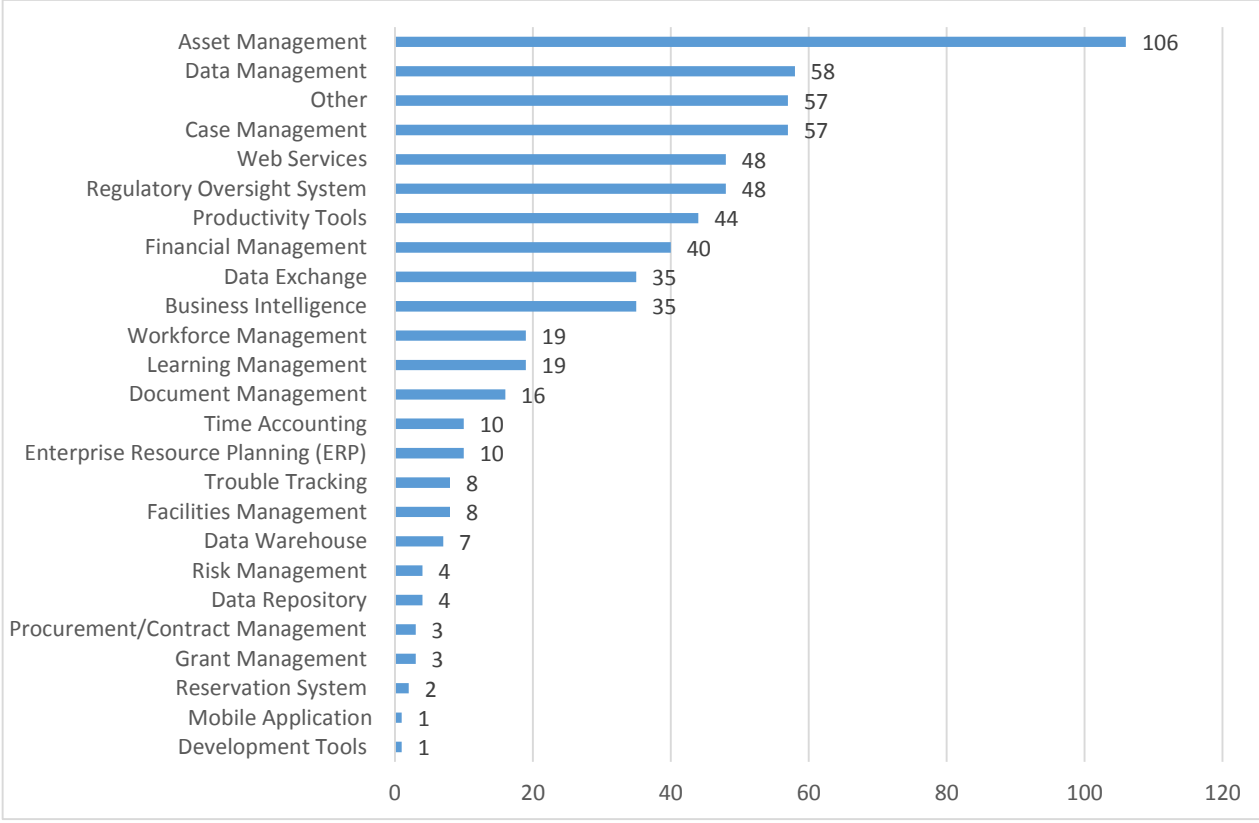


COTS – Commerical Off the Shelf (Software)
SAAS – Software as a Service (Online service)

* **Note:** There are 77 state web sites that use the Drupal content management system. Although these web sites could be categorized as SAAS, they are reported under Web Sites above.

Applications by Category (643 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 the GTA, which are in Appendix C. Many applications are accessible on mobile devices but are not categorized as mobile-only applications.

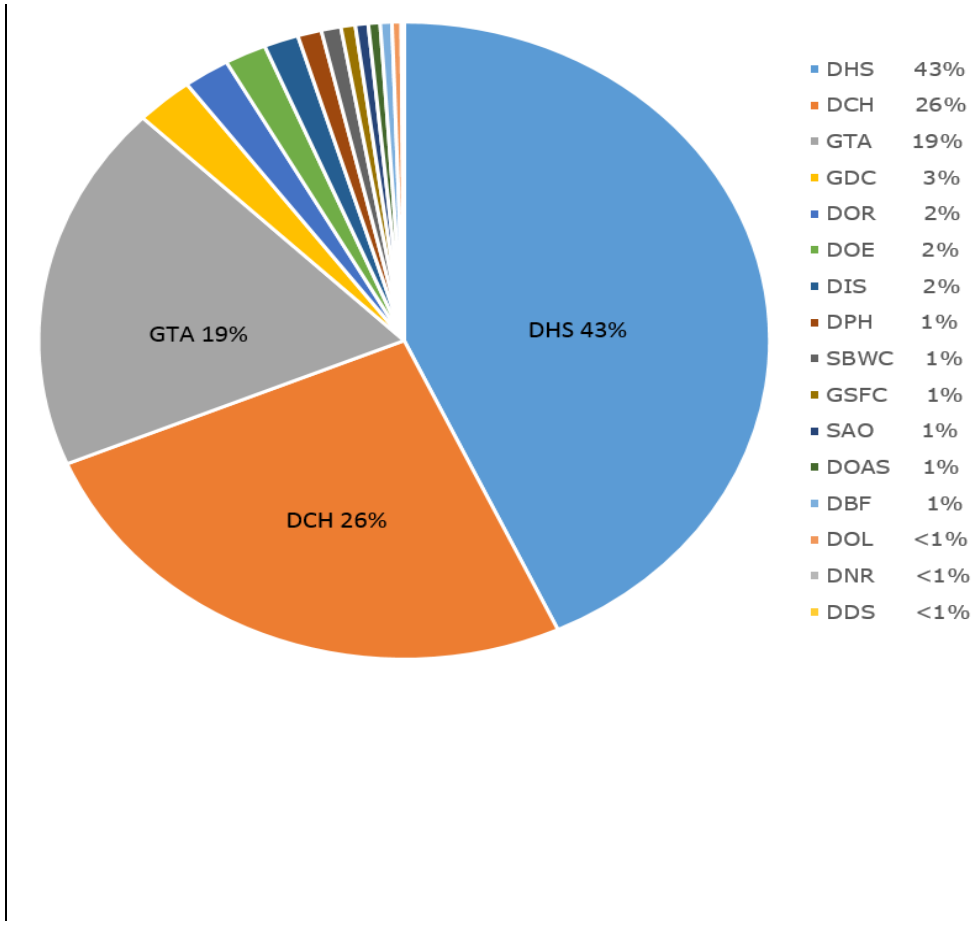
IT Project Portfolio

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 range of projects to ensure that the right projects are executed at the right time with the minimum amount of risk.

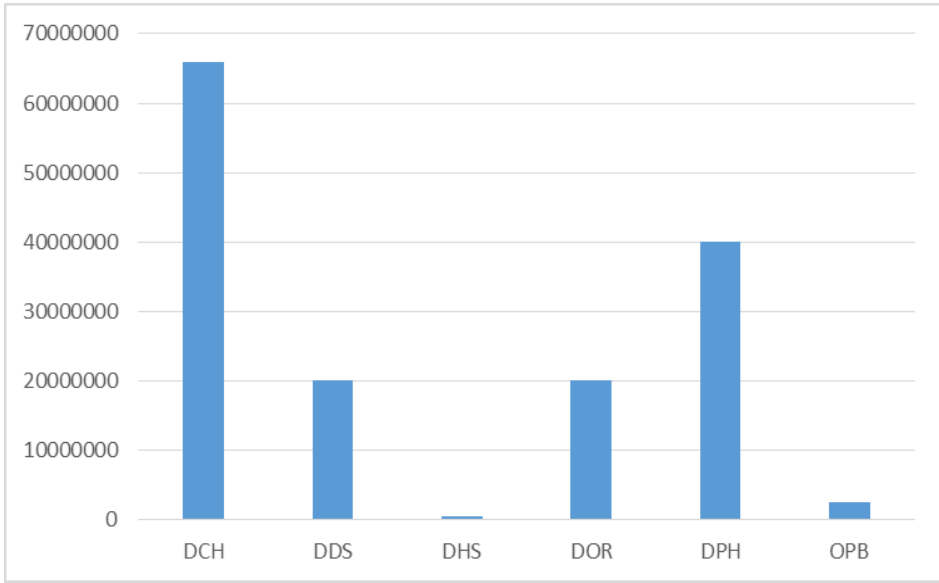
The Enterprise IT Project Portfolio includes agency projects that are in the planning phase as well as projects that are in the build phase. Portfolio projects are tracked by fiscal year, which begins on July 1 and ends on June 30.

Percentage of IT Project Spend by Agency



Planned New Investments by Agency

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



Projects that are represented by the graph above:

DCH expenditures cover two projects, the Enterprise Data Solution (EDS) and the Pharmacy Rebate projects. The EDS project is a Data Warehouse System with a Business Intelligence tool which provides Decision Support, Enhanced Clinical Data Analytics and population Health Management. The Pharmacy Rebate project is a rebid of existing services, to include point of sale system and transaction database DHS expenditure is for a Document Management System (DMS) project. The Drives project is a joint project between DOR and DDS to replace GRATIS and business support systems for DLS (drivers' license card production will be bid separately). The DPH project is a modernization of all clinical systems statewide; and implementation of a patient billing system for public health care. The OPB BudgetNet replacement project is a enhancement/replacement of the state's budget systems (Budget Net, Budget Tool, Allotments) .

Project Delivery Effectiveness

Fact-based decisions help agencies better manage their projects.

Critical Project Review Panel

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 portfolio. For FY 2015, the Critical Project Portfolio was valued at $282 million and covered 15 projects for 9 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 $150 million** through cost avoidance in FY 2015.

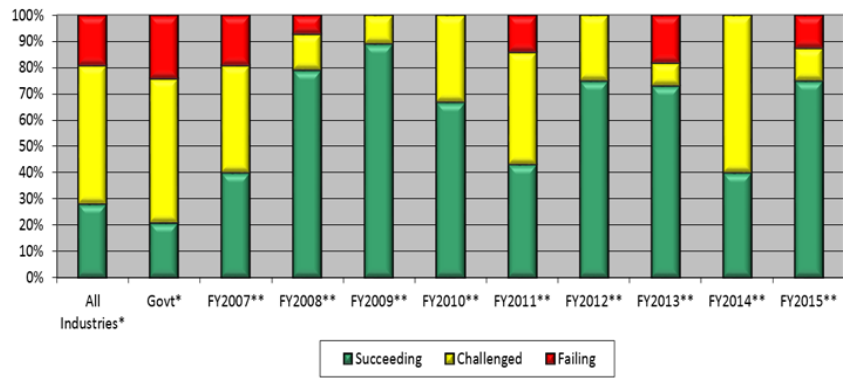
Applying industry statistical information (based on Standish Group CHAOS Report) to our current active and approved portfolio of critical projects yields the following projected results:

- 30% of projects would be cancelled = $84.6 million
- 52% would cost 189% of the original estimate = $272.1 million
- 18% would be successful with no cost increase = $50.8 million

Without disciplined project, program and portfolio management, the current portfolio of $282 million would deliver only 70% 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 2012 Chaos Report for technology projects. It measures only critical IT projects that were completed in each fiscal year**.**

Project Delivery Effectiveness (by % of $) FY 2015



The above chart indicates an increase in failed projects from FY 2014 to FY 2015; however, the single project in question was actually restarted and successfully completed in FY 2016. The chart also depicts an increase in successful projects in FY 2015. Of the 15 projects in the Critical Project Portfolio, six were completed during FY 2015

Georgia Enterprise Technology Services (GETS)

The Georgia Enterprise Technology Services (GETS) continue to evolve.

As FY 2015 came to a close, the GETS transformation – a years-long effort to replace aging IT infrastructure – was approaching completion. 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.

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.

Here is just a sampling of transformation's many accomplishments and the resulting benefits:

- 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.
- A regular schedule for refreshing desktop computers, servers, network gear (every five years);laptops (every three years); and phone systems per their defined lifecycle in the core group of GETS full-service agencies means their employees have the latest productivity software for doing their jobs and their work is protected by up-to-date security software.
- Upgrading the state's data network to standardize equipment means greater reliability and quicker response if service interruptions occur.
- In addition, the network is proactively managed to anticipate problems before they affect services to Georgians and to ensure the highest levels of security possible.

The ultimate beneficiaries are Georgians themselves, who expect dependable access to government services and information. Transformation has significantly strengthened our abilities to meet those expectations.

Capitalizing on IT Innovation to Meet Business Needs

Transformation also marks a readiness to capitalize on IT innovation. It laid the groundwork for taking advantage of new technology services, and one example is the adoption of Office 365 cloud-based email in 2015 for the core group of state agencies who receive all their IT services through the GETS program. Before GETS, state agencies were responsible for operating their own siloed email systems. Those agencies are no longer saddled with the day-to-day burden of running such systems. The conversion to cloud-based email for the core GETS agencies took just six months and involved about 40,000 email accounts. Also on display in the conversion was collaboration among agencies, GTA and service providers. Agencies reached consensus on what they needed from an email service, and they partnered with GTA to investigate what services were offered to meet those needs.

IT Service Delivery Evolves

In today's technology marketplace, getting the best mix of innovative services means contracting with multiple providers of all sizes. So the state can fully benefit from the marketplace, GTA undertook the Services Integration Initiative, which is making major changes to the IT service delivery model. One of the initiative's first steps was the selection of Capgemini America, Inc., as multisourcing service integrator for the GETS program. This change was made with no additional cost to the state by transferring services from an existing third-party service provider to Capgemini, which specializes in service integration. As FY 2015 came to a close, the company was making final preparations to assume responsibilities for coordinating and overseeing the integration of technology services from multiple providers. Capgemini was selected through an open, competitive bidding process and with input from the core GETS agencies.

As the service integrator, Capgemini will provide service integration processes and systems, including billing; service desk; service catalog; and request, risk and security management, among other services. These services were previously provided through existing contracts, which were adjusted to accommodate the addition of a service integrator without an increase in overall spending. While Capgemini will provide integration services for all GETS service providers, GTA is responsible for service provider oversight, management and governance.

Portal

The GeorgiaGov Interactive team provides value and leadership in the portal and website offerings to the state.

GTA's GeorgiaGov Interactive Team manages a web-publishing platform that hosts about 85 websites for state agencies and elected officials.

In 2012, Georgia became the first state to launch an enterprise-wide web platform that's cloud-based and relies on Drupal, an open-source software. To better accommodate rising traffic from mobile devices, the team implemented responsive design in 2015. As a result, state websites automatically adjust their display to fit whatever computing device – such as a desktop, tablet or smartphone – a visitor is using. Besides support for various types of computing devices and screen resolutions, responsive design also delivers touch-screen capabilities. In another first, Georgia is believed to be the leader among states in making its entire web platform responsive.

Average mobile traffic for the state's web platform hit 45 percent in 2015. When traffic from tablets is included, the total rises to 52 percent. With 15.3 million unique visitors to state websites every year, traffic from mobile devices and tablets clearly represents a significant and growing number of visitors.

In 2015, the team added the largest website to date to the enterprise platform with the launch of the new Department of Revenue website. The Environmental Protection Division's GEOS training website and the Department of Community Supervision's website were also added to the platform. A total of three new agency websites were added to the platform in 2015, and seven more are poised to be added by mid-2016.

The GeorgiaGov web platform is proving to be more than just a website solution. GTA's GeorgiaGov Interactive Team is invested in researching and implementing industry best practices and partnering with agencies to help them develop a stronger digital presence in the following ways.

GOVTalks workshops highlight important trends in web design and interaction. The 2015 series included two half-day sessions on accessibility and content. Post-event surveys showed that 100 percent of respondents would attend a future GOVTalk workshop, and 100 percent would recommend the workshops to other co-workers or agencies. For more information, visit www.portal.georgia.gov/GOVTalks.

Platform enhancements provide additional value and functionality to agencies. Along with responsive design, location listings and aggregation, agency alerts, search auto suggest, and bulk file imports were added to the platform. The Support and Maintenance Team continues to analyze and maintain the health of the platform, and rolls out regular performance and maintenance upgrades.

Basic and advanced training classes are provided quarterly to accommodate content managers who want to learn more about the platform. In 2015, 94 students across 30 agencies attended training classes.

Effective governance of the state's web platform is achieved in part through policies, standards and guidelines. To guide state agencies in providing common user elements on their websites and to ensure those websites are accessible to the widest number of constituents, GTA approved two web design and development standards: Website Accessibility, SA-14-001, and Website Branding, SA-14-002. Both are aimed at allowing agencies the flexibility to design and manage their websites to their desired specifications, while laying out a framework of common elements that each state website needs so that visitors have simple expectations met when they visit any state website.

The web is always changing, and website analytics provide a constant stream of data regarding what works and what doesn't. With the agility and flexibility of the GeorgiaGov web platform, GTA's team is able to respond quickly to analytics data. **GeorgiaGov's**

blog, "This Week in GeorgiaGov," highlights different government services, informs the public of events and trends that may affect them, and offers solutions to common problems that Georgians may face. These posts are published three times a week and also distributed through GeorgiaGov's Facebook and Twitter accounts. A total of 101 blogs, including 23 guest blogs from 12 agencies, were published in 2015.

GeorgiaGov Recognized Nationwide

- The GeorgiaGov platform won the Innovation of the Year award from State Scoop 50.
- GeorgiaGov Director Nikhil Deshpande won the State Up and Comer Award from State Scoop 50.
- Featured on Drupal.org:

  Resource Guide: Launching a Government Website:
  https://www.drupal.org/resource-guides/launching-government-website

  5 Powerful Government Drupal Websites in Action:
  https://www.drupal.org/resource-guides/launching-government-website

  How Georgia's Portal Embraces Responsive Design:
  http://www.statetechmagazine.com/article/2014/01/how-georgias-portal-embraces-responsive-design

In addition, members of the GeorgiaGov Interactive Team represented Georgia nationally during 2015 and shared their expertise on such topics as the use of social media and implementing an enterprise web-publishing platform.

Focus for 2016: Accessibility and Data Visualization

The priorities for 2016 include:

- Continuing efforts to make state web sites accessible to consistuents with a variety of disabilities
- Auditing software code to improve efficiency and performance
- Preparing for the next version of Drupal
- Assisting agencies in visualizing and mapping data for online usage
- Assisting agencies in making their data interactive

Stakeholder Value

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

Overview

Georgia state agencies 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 strategic vision for state government.

Educated

Because strong schools are the proven route to tomorrow's good jobs, Georgia government is focusing on producing well-prepared students who are life, college and work-ready. The Educated Goal focuses on requirements to prepare students to compete nationally and internationally.

DNR deploys a virtual reality application to teach students Civil War history.

Camp Lawton Augmented Reality

Agency: Georgia Department of Natural Resources (DNR)

Problem:

An aging constituency is one of the critical challenges facing historical sites and museums in Georgia. Younger visitors expect an interactive experience, as opposed to a passive experience. Officials at the DNR faced an intriguing question: How do we engage and encourage younger, more technology savvy citizens to visit historical sites? The answer, it turns out, lies in the innovative use of technology.

Solution:

DNR is deploying Augmented Reality in order to provide an enhanced, and ultimately, more compelling connection to the state's cultural and historical heritage. It's the kind of experience that can excite people of all ages, but it's especially appealing to younger visitors.

During the American Civil War, Camp Lawton, a Confederate military prison, was constructed in east Georgia, between Savannah and Augusta. From October to November 1864, Camp Lawton housed more than 10,000 Union prisoners. In 2010, archaeologists from Georgia Southern University discovered artifacts at the site of Camp Lawton.

Today, visitors to the Camp Lawton History Center, located in Magnolia Springs State Park, can view an exhibit of Civil War artifacts using Quick Response (QR) codes to access information beyond the scope of the displays, including media, interactive tables and links to primary and secondary codes. The QR codes are posted at 25 points of interest. With smartphones and tablet computers, visitors can also take advantage of Augmented Reality to view a three-dimensional reconstruction of the prison stockade. Through Augmented Reality, DNR is able to layer historical

drawings, archival photographs, sound, video, graphics and GPS data onto Camp Lawton's physical, real-world environment.

Benefits:

As a result, visitors achieve greater insight into what Camp Lawton was actually like during the Civil War, and DNR believes the experience encourages younger citizens to discover more of the history existing around them.

Mobile

Economic development requires the continued ability to move people and goods efficiently. A transportation infrastructure is key to economic competitiveness and Georgia's transportation network, including airports, highways, rail lines and ports, has always been a selling point. The Mobile Goal strives to prioritize transportation investments to ease congestion and improve population mobility.

DDS depoys multiple applications to improve service to citizens.

Pre-apply Online

Self-service Check-in and Lobby Management

Mobile Emergency Licensing

Fort Benning Customer Service Center

Agency: Department of Drivers Services

Problem:

Standing in line at a state office to obtain a driver's license is often cited as one of life's most frustrating experiences. When the Real ID documentation requirements from the U.S. Department of Homeland Security began in July 2012, the Georgia Department of Driver Services (DDS) started experiencing a significant increase in wait times at its customer service centers. The department's leadership set out to deploy technology in strategic ways to reduce wait times.

Solution:

DDS undertook a series of coordinated efforts, designed to show that government can indeed work in an efficient, customer-focused way.

- Pre-apply Online enables customers to complete a driver's license or identification card application on a computer or any mobile device, before visiting a customer service center.
- DDS installed kiosks in the lobbies of select customer service centers, so customers can check-in and print their own service number ticket. The kiosks include color, touch-screen monitors that display high-resolution photographs, graphics and video.
- As part of its Mobile Emergency Licensing project, DDS implemented a handicapped-accessible, comprehensive customer service center on wheels. This technology provides services in areas where a customer service center cannot operate for an extended

period due to flooding, storm damage or other emergency situations.

- In partnership with the Department of the Army, DDS established the first driver testing and licensing facility on a military installation in Georgia. In its first year, the customer service center at Fort Benning served more than 1,400 customers.

Benefits:

These related projects have had a significant impact on DDS customers throughout Georgia.

- More than 44,000 customers have taken advantage of Pre-apply Online to complete their driver's license or identification card application, thereby reducing their wait time when visiting a customer service center to complete the application process.
- Self-service kiosks at a DDS customer service center in Conyers reduced average wait times by 39 minutes, while the time to complete a transaction decreased from 20 minutes to three minutes.
- Through its mobile emergency licensing capability, DDS examiners issued and renewed licenses inside a C-130 Hercules aircraft hangar for airmen of the Georgia Air National Guard; more than 300 transactions were completed in a four-hour period.
- The average wait time for active-duty military, dependents, reserve soldiers, retirees and civilian employees at the Fort Benning customer service center is less than one minute.

Growing

The Growing Goal supports creation of jobs and growing businesses. The State of Georgia believes that its economic development requires a competitive business environment with access to capital for start-ups and growing businesses.

Department of Labor enhances an application to allow business to submit documentation electronically.

Georgia Work Opportunity Tax Credit Online System Implementation

Agency: Georgia Department of Labor (DOL)

Problem:

The Work Opportunity Tax Credit (WOTC) is a federal tax credit incentive provided to private-sector businesses for hiring individuals from 12 target groups who have consistently faced significant barriers to employment. WOTC applications were previously entered manually by a team of permanent and temporary data entry staff. With more than 5,000 paper applications received monthly, a backlog could extend for months and delay an employer's tax credit. The previous WOTC application was written 15 years ago and supported a paper-based process. Few changes were made

over time, and the ability to receive data and process applications electronically meant a new system was necessary.

Solution:

The main objective of the project was to enable the targeted groups to move gradually from economic dependency to self-sufficiency as they earn a steady income and become contributing taxpayers. Participating employers are able to reduce their federal income tax liability. In times of economic slow-down, such tax credits are a significant boost to an employer's ability to expand his/her workforce and Georgia's labor force. GDOL modified an existing application in conjunction with the state of Kentucky. To ensure success, the agency evaluated and modified its business processes as needed at every step.

Benefits:

The new web-based system enables businesses to submit electronically the documentation required to process WOTC applications. It reduces the time and paperwork required and the need for GDOL to hire additional staff.

Department of Labor makes it easier to recover overpayments for unemployment insurance.

Automatic Clearinghouse for UI Overpayments

Agency: Georgia Department of Labor (DOL)

Problem:

Repaying an overpayment for unemployment insurance can be a time-consuming, manual process for both claimants and Georgia Department of Labor (GDOL) staff. For years, repayment by check or money order was the only option available to claimants. GDOL sought a way to provide a more convenient method for claimants to satisfy their overpayment debts while developing a more automated process for posting payments to overpayment accounts.

Claimants were previously required to send payments to GDOL by mail or to bring a check or money order to a nearby career center, and staff forwarded payments to the central office for processing. The use of postal and interoffice mail caused delays in processing and posting payments. To enter and process manual payments, staff were required to review each payment to identify the claimant, determine if an overpayment existed, enter the payment in the system, and submit payments to the Finance Unit for review and deposit. Payments also had to be documented and verified for reconciliation purposes. At times, payments were not posted because they could not be linked to a particular claimant or matched to an overpayment.

Solution:

The solution is GDOL's Automatic Clearinghouse (ACH), an electronic funds transfer process that allows claimants to transfer funds directly to GDOL at no cost.

Benefits:

Thanks to ACH, claimants can now repay overpayments online through a bank draft from a checking or savings account. A payment can be made from anywhere the claimant can access the Internet. Payments can be made for all or a portion of an overpayment 24 hours a day, 7 days a week. Since

payments are directly tied to the claimant's account, there's no chance of a payment getting lost in the mail or not being matched to the correct account. In addition, claimants with no overpayment balance cannot make a payment, thereby eliminating erroneous payments that result in a refund being owed to the claimants. Payments are posted quickly, and overpayment balances are updated within 24 hours.

ACH has increased the recovery of overpayments. At the same time, inquiries from claimants about the status of their payments have been significantly reduced due to faster processing times. A reduction in manual payments has resulted in fewer phone calls to overpayment staff and less traffic at career centers. Staff have more time to focus attention on customers requiring other services and on other ways to improve the unemployment insurance program. Meanwhile, GDOL is working on the next phase of the project: accepting payments by credit and debit cards.

Healthy

Improving the health and wellness of Georgians is essential to promoting our state as a great place to live, work and play Economic development requires a well-managed healthcare delivery system providing positive outcomes and contained costs. While Georgia is home to world-class healthcare institutions and practitioners who are pioneering new advances in medical research and clinical care, the Healthy Goal recognizes that it needs to address growing demand on the healthcare system, finding innovative ways to attract and retain highly qualified providers to our state.

Environmental Protect Division improves service while maintaining security.

Georgia EPD Online System (GEOS) for Permitting, Compliance & Facility Information

Agency: Georgia Environmental Protection Division (GEPD); Department of Natural Resources (DNR)

Problem:

GEPD previously used a variety of technologies to track and analyze environmental information, including Microsoft Access, Oracle, FoxPro and MySQL. However, none of those technologies allowed information to be shared throughout the division. In addition, the regulated community was required to manually fill out and submit applications for permits through a complex process requiring that a form be printed out, completed and then mailed in.

GEPD wanted a single system that would enable the division's staff and the public to access and submit regulatory information electronically. The new system should also be easy-to-access and use. Among other additional enhancements, it should provide role-based, single sign-on web access that's browser and device independent for all users.

Solution:

GEPD used a Software as a Service (SaaS) approach to develop a comprehensive enterprise software solution that allows GEPA staff, the regulated community and the public to access environmental information

and provides the ability to securely submit an online application and track the status of the application.

Benefits:

The new system replaced the manual processing of paper forms with the automatic processing of electronic submissions. As a result, GEPD increased the agency's operating efficiency and made it easier for the regulated community to comply with reporting requirements.

Georgia CAPUS Care Portal

Agency: Georgia Department of Public Health (DPH)

Problem:

There are more than 50,000 people living in Georgia who are HIV positive, 45 percent of those people are not in care. Even more concerning is one out of five HIV positive people in Georgia don't know they are HIV positive. Finding sustainable HIV treatment and care is the single, most important connection HIV positive individuals can make. But for many, navigating through different systems can become so frustrating, that a connection to care is never made.

Solution:

The Georgia DPH launched the Georgia CAPUS Care Portal, a clearinghouse for all information related to HIV/AIDS in the state. The portal is administered by DPH's HIV prevention program and is the result of two years of planning. CAPUS, which stands for Care and Prevention in the United States, is a cross-agency project led by the Centers for Disease Control and Prevention (CDC) that aims to create more efficient and more effective systems to improve HIV testing, linkage to and retention in care, specifically targeting highest risk minority populations. Georgia was one of only eight states in the U.S. to be awarded a portion of a $44.2 million dollar grant from the CDC. Georgia DPH received $7.5 million to be used in part for the design and implementation of the CAPUS Care Portal.

Benefits:

By answering five simple questions in the easy-to-use Eligibility Portal, users will learn immediately whether they may be eligible for Ryan White services. The Ryan White Program is federally funded and works with cities, states, and local community-based organizations to provide HIV-related services to people who do not have sufficient health care coverage or financial resources for coping with HIV disease.

Continuing toward care is even simpler. Users indicated as eligible for Ryan White services in the portal can request that a provider in the nearest Ryan White clinic contact them directly and discreetly to arrange for a clinic appointment. At the clinic, a Ryan White caseworker will help determine individual care, often at no cost.

The Mapping and Testing Tool provides important data everyone can use to connect more Georgians with quality HIV treatment and care. The public component features a testing map, which lists testing event dates and locations across the state of Georgia, along with a graphic display of

HIV/AIDS incidence in our state. Community-based organizations and health care providers can use the HIV Continuum Visualizer, a specialized map for health care professionals to make better decisions on testing, outreach, and linkage-to-care by using current surveillance, or incidence data.

Normal web searches can't match the portal's Resource Directory, an online tool to help locate local services for people living with HIV and AIDS. By selecting an area of our state, users are connected with essential services in the most important categories: HIV testing, medication assistance, oral health, food assistance, case management, treatment, housing assistance, mental health, substance abuse, primary care, family planning, shelters, funeral services, legal services, spiritual resources, LGBTQ friendliness, and transportation.

The Medical Information Pages cut through confusing or conflicting information and provide relevant, fact-based information for people living with HIV or AIDS, for service providers, and for anyone wanting to know more.

To explore the features of the CAPUS Care Portal, go to www.gaCapus.com.

Safe

Georgia government is striving to identify and implement innovative strategies and solutions to better execute on the core mission of government to protect its citizens. In addition, Georgia's economic development requires healthy, safe communities. The Safe Goal drives toward common-sense laws, well-trained and well-equipped law enforcement agencies and an efficient judicial system. Georgia government is also concerned with delivering a comprehensive, statewide solution that addresses illegal immigration and the burden it is creating on our correctional, educational and healthcare assets.

DeKalb County deploys an integrated case management system to improve the operation of its courts.

Benchmark Case Management System

Agency: DeKalb County Recorder's Court

Problem:

DeKalb County Recorder's Court handles 150,000 to 200,000 citations annually, but the lack of integration between its case management system and its adjudication tool created significant operational problems. Systems access was an issue for judges, prosecutors, public defenders and private attorneys, and processes involving duplication of work created opportunities for human error. The volume of citations created a large backlog in warrants, arraignments and trial reporting. The accurate reporting of fine collections was questionable. The court could not provide any form of reply for a defendant to address issues before the court, nor could it comprehensively deal with the volume of defendants entering the court on a daily basis.

Solution:

The Benchmark Case Management System project provided a fully integrated case management system for the court and an adjudication tool for judges while ensuring access and functionality for judges, prosecutors, public

defenders, private attorneys and even the general public through a web-based environment.

In conjunction with the DeKalb County Police Department, the court implemented an e-citation solution in all police vehicles that sends data directly to Benchmark, the new court case management system. The citations are automatically placed on the court calendar in real time. Defendants can check the status of a citation, plead not guilty or pay a citation using a mobile device or any computer. As citations are paid online, the system automatically updates citation records in real time and submits information to the state.

DeKalb County's court IT department and the police department worked closely to ensure systems and protocols were carefully set in place so the database would transfer accurately to the new system. Business processes were modified to provide end-users with a friendly interface.

Benefits:

Since implementing Benchmark, the court is seeing increased employee productivity. The error rate in court reports has dropped drastically, and the case closure rate has increased due to the availability of advanced methods for paying citations.

Responsible

The Responsible goal recognizes that many state agencies do not have a direct role in providing state services, but rather have a support role for other agencies. The Responsible goals encompass functions such as human resources, procurement, risk management, fiscal services and information technology.

Department of Revenue undertakes project to integrate tax systems.

Exadata Project

Agency: Department of Revenue (DOR)

Problem:

DOR processes about 8 million tax returns annually, which requires a high degree of reliability from its information technology systems. Unfortunately, database servers were frequently experiencing stability issues for which a root cause could never be identified. Database auditing and reporting were also cited as needing improvement to meet IRS standards.

Solution:

DOR initiated its Exadata Project to meet the strategic goal of providing an integrated database environment with improved reliability, performance, support, scalability and security.

Exadata is an end-to-end data-management solution in which software and hardware are engineered together to provide a high-performance, high-availability platform. DOR initially implemented Exadata for its Integrated Tax Solution databases. Partnering with DOR were IBM, Oracle, Mythics and the Georgia Technology Authority. The new Exadata system:

- Boasts zero data loss during transmission and reduces the amount of processing power needed to transfer data across the network.
- Uses flash cards to store frequently used data, which improves database speed by an order of magnitude over spinning disks.
- Features an integrated backup solution that reduced backup time by 90 percent and recovery time by 80 percent.
- Provides real-time monitoring and automatically creates trouble tickets when hardware and software issues are detected; it also emails notifications if malicious activities are detected in the database or operating system.

Benefits:

Georgia now rates in the top 5 percent in performance when compared with other states using the GenTax application.

The amount of time it takes to perform nightly batch jobs has improved by more than 50 percent, which has reduced work hours for DOR staff who previously monitored nightly batch jobs into the morning hours during tax season.

The architecture makes it easy for DOR operational teams to add more Exadata machines, database nodes, storage and storage racks. As a result, DOR has improved its ability to implement new databases when required by applications. The agency has also increased its ability to keep databases from different functional areas in one appliance.

No issues have occurred that affect the stability of the database, and DOR is experiencing excellent reliability. With Audit Vault, DOR can comply with IRS-mandated security auditing and reporting requirements.

Integrated Tax Solution (ITS) Version 9 Upgrade

DOR upgrades their integrated tax system to prevent fraud and increase efficiency.

Agency: Georgia Department of Revenue (DOR)

Problem:

The objective of this project was to upgrade the ITS from version 8 to version 9, a fully web-enabled system that provides more functionality, improved appearance, and ease of navigation and accessibility. To further enhance customer service, DOR sought to integrate 23 disparate tax systems into a consolidated platform so agents could quickly access a taxpayer's total tax picture. The intended result is to provide a more economical and comprehensive service to taxpayers when interacting with the DOR.

Solution:

The ITS Version 9 Upgrade was the first application within DOR to use the Oracle Exadata platform. It previously required five to six screens to complete a process; now it only takes three or four screens to complete the same process. Improvements were also made in the online presentation of tax returns and other documents to they now closely resemble the paper forms in appearance. The online help allows authorized users to modify tips directly within the system.

Benefits:

- With improved fraud detection, DOR is better able to identify people who are not filing tax returns.
- The new Integrated Tax System supports improved mobility for field agents and eliminates many of the tedious manual processes previously required.
- The ability to quickly access detailed information when needed while working in a summary view has increased staff productivity. This feature also makes it faster and easier to respond to inquiries from taxpayers who contact DOR's call center.
- The system includes additional security features.
- The time it takes to run routine nightly jobs has been reduced from eight hours to no more than three.

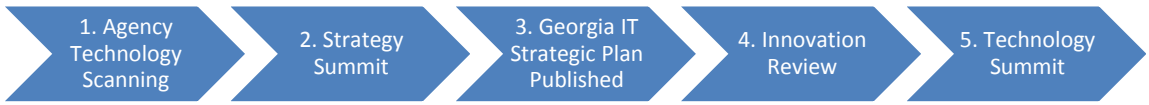
Strategic Planning

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 forth specific goals in the areas of education, health, public safety, transportation and mobility, and economic growth. (*For more about the Governor's goals, see page 13.*)

Georgia's IT Strategy Cycle

The IT Strategy Cycle is a framework for ensuring that Georgia agencies use available technology in the most effective and efficient way possible to achieve the Governor's vision for Georgia. A key to its 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

Agency Technology Scanning is a continuous process of gathering information about how technology is helping businesses 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, the 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

GTA sponsors a 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. It includes keynote addresses from experts in such fields as demographics, finance and technology. In addition, facilitated sessions focus on topics suggested by state agencies themselves or derived from their strategic plans. These sessions often lead to cross-agency teams to work on pilot projects addressing shared business and technology needs. More information is available online at www.gta.georgia.gov/gta-events.

3. Georgia Enterprise Information Technology Strategic Plan 2020

The Georgia Enterprise IT Strategic Plan 2020 establishes focus areas and goals for the state's IT enterprise through 2020. 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 under Quick Links.

4. Strategy Summit Innovation Review

The Georgia Innovation Program solicits ideas from state agencies for innovative projects designed to test new solutions to challenges faced by multiple agencies. Projects selected for the program are staffed primarily by agency representatives, and decisions are guided by a cross-agency committee. *Funding for implementing cross-agency projects* is overseen by the Governor's Office of Planning and Budget and GTA.

For FY 2015, one project was close to completion, four innovation initiatives were under consideration, and one popular initiative was on hold. The GTA Learning Center, nearing completion at the end of 2015, is part of an enterprise learning management system (LMS) led by Human Resources Administration at the Department of Administrative Services. This proof of concept is intended to provide critical information for an enterprise business case and an LMS capability for GTA.

Initiatives under active review in FY 2015 were Statewide Data Directory, Simplified User Authentication, Collaboration through Data Sharing, and How-To Georgia for providing better citizen access to Georgia information and services.

The Grants Management Innovation initiative was on hold at the end of FY 2015 pending agency demand for action.

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. More information is available online at www.gta.georgia.gov/gta-events.

Georgia's Strategic Planning Principles and Process

LEAN
*-**L**eaverage*
*-**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 guided 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.

Georgia's Information Security Program

The Stuxnet worm demonstrated that there are no absolutely secure computing systems. First identified in 2010, Stuxnet targets industrial systems used to monitor and control large-scale facilities like power plants, dams, waste-processing systems and similar operations. Rather than simply hijacking targeted computers or stealing information from them, it can wreak physical destruction on equipment controlled by the computers. Even computers not connected to the Internet can be attacked and subverted by well-resourced adversaries. Consequently, modern cybersecurity practices, also referred to as information security, are risk management practices. Risks and their remediation must be prioritized based on their likelihood, their possible impact and available resources. To standardize how agencies approach security, GTA has selected to follow the risk management framework created by the Federal Information Security Management Act (FISMA).

To further complicate the state's challenge, there are federal cybersecurity mandates that must be followed. Many agencies use federally regulated information, and each regulating agency requires different security measures to protect its information. Agencies are required to follow these mandates regardless of cost, including their reporting requirements. Fortunately, many federal agencies are adopting the controls created for FISMA, but this is a very complicated set of requirements.

Georgia's Risk Management Strategy

Governor Deal issued an executive order in June 2015 to create the Statewide Cybersecurity Board. (*See Executive Order on page 63.*) Since 2008, each state agency has been required to follow the risk management framework created by FISMA. However, they have operated independently without a statewide consolidated view of the state's cybersecurity risks. With the Statewide Cybersecurity Board's creation, this lack of a consolidated view will end.

Each agency's cybersecurity program is responsible for identifying all risks created by agency operations and information technology. This includes risks to our country, our citizens, the state, the agency, and to the agency's various business functions. This assessment allows agency management to make appropriate risk decisions from a position of knowledge.

For the first time, agency security views are also to be consolidated, which will allow the Statewide Cybersecurity Board to become educated and make recommendations for risk prioritization. It will also allow the Statewide Cybersecurity Board to develop recommendations regarding security practices and reporting.

As the Statewide Cybersecurity Board progresses, it will also brief the Govornor and his staff regarding the state of the state's cybersecurity program. It may also make recommendations for effective management of the state's cybersecurity risks.

Here are security program highlights for FY 2015:

- Governor Deal created the Statewide Cybersecurity Board to review the cybersecurity preparedness of agencies and make

recommendations for proper management of the state's cybersecurity risks.

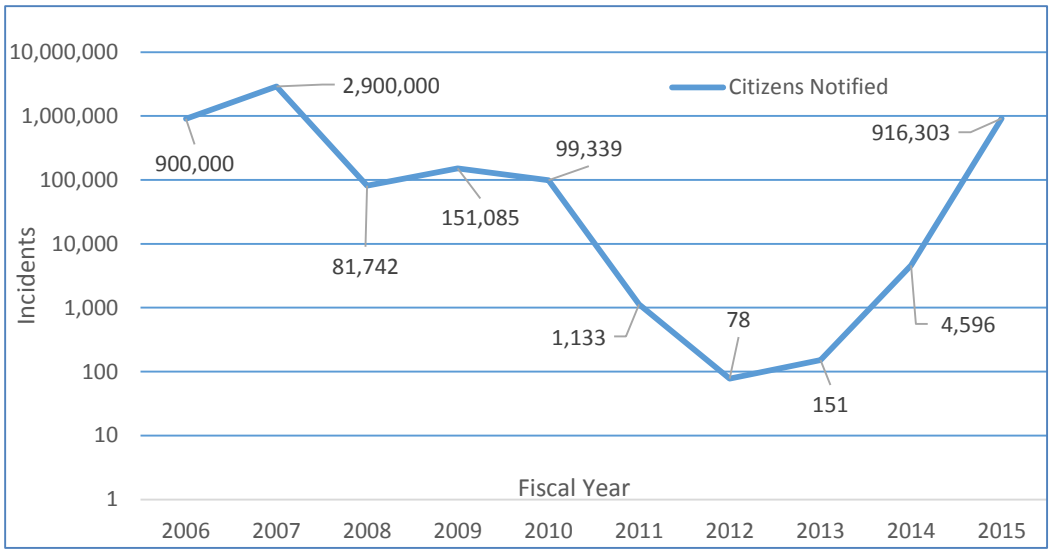
- Completition of the GETS transformation and modernization effort has significantly improved the security of the full-service Executive Branch Agencies.
- Georgia held a statewide cybersecurity preparedness exercise with support from the U.S. Department of Homeland Security.
- The state's cybersecurity threat detection capability and emergency preparedness have been greatly enhanced through a new partnership among the Georgia Department of Homeland Security/GEMA, the Georgia National Guard and GTA.
- Several state systems operated within the Georgia Enterprise Technology Services (GETS) program successfully completed audits conducted by or on behalf of federal oversight agencies.
- GTA has created a computer-based training course on information security fundamentals to educate agency security staff.
- The cybersecurity component of the state's Fusion Center has developed strong working relationships with its federal, state and local partners. This function targets the development of cyber threat intelligence and support for law enforcement.
- The state departments of Driver Services and Revenue along with Morphotrust Inc. won a federal grant from the National Strategy for Trusted Identities in Cyberspace to develop antifraud technology to protect against fraudulent tax return filings.

Security Program Effectiveness

Since 2006, GTA has tracked one lagging indicator of the information security program's effectiveness: the number of constituents notified as the result of a security event believed to involve the exposure of sensitive information, commonly referred to as a breach. This number has been shrinking year to year, but last year, a new issue occurred: a major breach at a service provider.

In January 2015, Anthem Inc. suffered a breach from a hacking incident that exposed the personal information of nearly 80 million Americans. Anthem is a service provider to the Georgia Department of Community Health (DCH), and the breached information included nearly 900,000 Georgians. DCH and Anthem took immediate steps to notify and protect these victims, but the incident pointed out that while state agencies may use private-sector vendors to support their missions, the state still retains the associated risk.

To be clear, Anthem had a security program with a great reputation, but no program is perfect in either the public or private sector. As agencies make sourcing decisions, including the use of cloud service providers, they must remember that they retain responsibility for the security of their information. Each provider's security program must be evaluated by the agency. Those results must be considered before placing state information in the hands of a third party, and they must be re-evaluated on a regular basis.



Citizens Notified

Incident Preparedness

Each agency is required to prepare its staff for cybersecurity incidents, from the small to the large. Incidents are often avoided by proper training of the staff. For this reason, all agencies are required to provide appropriate training to all staff members. In addition, each agency is required to develop a cybersecurity incident response plan for how to handle all possible incidents.

In addition to participating in a national cyber preparedness drill in 2015, GTA joined with the Georgia National Guard and the U.S. Department of Homeland Security to develop and execute a state cyber preparedness drill for agencies. This drill included over 120 agency participants, and the drill was designed to include scenarios that were out of the scope of the agencies' plans, causing them to consider what to do next, when a scenario was not covered by their current plans.

In FY 2016, GTA is planning a new drill to allow further testing of plan improvements. Georgia will also participate in a national drill as one of 10 states fully participating along with the federal government.

Appendix

Appendix

Appendix A – Participation by Agencies

Exhibit 1 – Agencies Reporting IT Expenditures

		Reported			
	Agency Name	2012	2013	2014	2015
1	Administrative Office of Georgia Courts		N/A	N/A	N/A
2	Brain & Spinal Injury Trust Fund Authority	✓	✓	✓	✓
3	Composite State Board of Medical Examiners		N/A	N/A	N/A
4	Criminal Justice Coordinating Council	✓	✓	✓	✓
5	Department of Administrative Services	✓	✓	✓	✓
6	Department of Audits				*
7	Department of Banking and Finance	✓	✓	✓	✓
8	Department of Behavioral Health and Developmental Disabilities	✓	✓	✓	✓
9	Department of Community Affairs	✓	✓	✓	✓
10	Department of Community Health	✓	✓	✓	✓
11	Department of Corrections	✓	✓	✓	✓
12	Department of Defense	✓	✓	✓	✓
13	Department of Driver Services	✓	✓	✓	✓
14	Department of Early Care and Learning	✓	✓	✓	✓
15	Department of Economic Development	✓	✓	✓	✓
16	Department of Human Services	✓	✓	✓	✓
17	Department of Juvenile Justice	✓	✓	✓	✓
18	Department of Natural Resources	✓	✓	✓	✓
19	Department of Public Health	✓	✓	✓	✓
20	Department of Public Safety	✓	✓	✓	✓
21	Department of Revenue	✓	✓	✓	✓
22	Department of Transportation	✓	✓	✓	✓
23	Department of Veterans Services		N/A	N/A	N/A
24	Employees' Retirement System	✓	✓	✓	✓
25	Georgia Agricultural Exposition Authority		N/A	N/A	N/A
26	Georgia Agrirama Development Authority		N/A	N/A	N/A
27	Georgia Board for Physician Workforce		N/A	N/A	N/A
28	Georgia Building Authority	✓	✓	✓	✓
29	Georgia Bureau of Investigation	✓	✓	✓	✓
30	Georgia Commission on Equal Opportunity		N/A	N/A	N/A
31	Georgia Commission on the Holocaust		N/A	N/A	N/A
32	Georgia Council for the Arts	✓			
33	Georgia Development Authority		N/A	N/A	N/A
34	Georgia Drugs and Narcotics Agency	✓	N/A	N/A	N/A

35	Georgia Emergency Management Agency	✓	✓	✓	✓
36	Georgia Environmental Facilities Authority		N/A	N/A	N/A
37	Georgia Firefighter Standards and Training Council	✓	✓	✓	✓
38	Georgia Forestry Commission	✓	✓	✓	✓
39	Georgia Housing and Finance Authority		N/A	N/A	N/A
40	Georgia Ports Authority	✓		✓	✓
41	Georgia Professional Standards Commission		N/A	N/A	N/A
42	Georgia Public Broadcasting		N/A	N/A	✓
43	Georgia Public Safety Training Center	✓	✓	✓	✓
44	Georgia Public Telecommunications Commission	✓	✓	✓	N/A
45	Georgia Real Estate Commission & Appraisers Board		N/A	N/A	N/A
46	Georgia Regional Transportation Authority	✓	✓	✓	✓
47	Georgia Seed Development Commission		N/A	N/A	N/A
48	Georgia State Financing and Investment Commission	✓	✓	✓	✓
49	Georgia Student Finance Commission	✓	✓	✓	✓
50	Georgia Technology Authority	✓	✓	✓	✓
51	Georgia Vocational Rehabilitation Agency		N/A	N/A	N/A
52	Georgia World Congress Center Authority	✓	✓	✓	✓
53	Governor's Office of the Child Advocate		N/A	N/A	N/A
54	Governor's Office for Children and Families	✓	✓	✓	*
55	Governor's Office of Consumer Protection	✓		✓	*
56	Governor's Office of Highway Safety				*
57	Governor's Office of Student Achievement		N/A	N/A	*
58	Lake Lanier Islands Development Authority	✓			
59	Nonpublic Postsecondary Education Commission		N/A	N/A	N/A
60	Office of Highway Safety	✓	N/A	✓	
61	Office of Inspector General	✓		✓	*
62	Office of Planning and Budget	✓	✓	✓	✓
63	Office of State Administrative Hearings	✓	✓	✓	✓
64	Office of State Treasurer	✓	✓	✓	✓
65	OneGeorgia Authority		N/A	N/A	N/A
66	State Accounting Office	✓	✓	✓	✓
67	State Board of Pardons and Paroles	✓	✓	✓	✓
68	State Board of Workers' Compensation	✓	✓	✓	✓
69	State Housing Trust Fund for the Homeless Commission		N/A	N/A	N/A
70	State Properties Commission	✓	✓	✓	✓
71	State Road and Tollway Authority	✓	✓	✓	✓
72	State Soil and Water Conservation Commission	✓	✓	✓	✓
73	Subsequent Injury Trust Fund	✓	✓	✓	✓
74	Teachers' Retirement System	✓	✓	✓	✓
75	Technical College System of Georgia	✓	✓	✓	✓

Agencies NOT required to report

	Agency Name	Reported 2012	2013	2014	2015
1	Board of Regents of the University System of Georgia				
2	Council of Juvenile Court Judges				
3	Court of Appeals				
4	Department of Agriculture		✓	✓	✓
5	Department of Audits and Accounts				
6	Department of Education	✓	✓	✓	✓
7	Department of Insurance	✓	✓	✓	✓
8	Department of Labor	✓	✓	✓	✓
9	Department of Law	✓		✓	*
10	Georgia Military College	✓			
11	Public Service Commission				
12	Secretary of State			✓	✓
13	State Ethics Commission				
14	Superior Court				

*** Cost data through GETS**

* Note: N/A means not applicable; agency attached to and reporting under another entity or no longer exis

Appendix B – Spending by Agencies

Exhibit 1 – Agency IT Expenditures

	Agency Name	Total IT Spend for FY2015
1	Brain and Spinal Injury Trust Fund Commission	$31,383
2	Criminal Justice Coordinating Council	$706,928
3	Dept of Administrative Services	$10,130,397
4	Dept of Audits	$17,855
5	Dept of Banking and Finance	$1,197,622
6	Dept of Behavioral Health	$26,207,547
7	Dept of Community Affairs	$4,125,870
8	Dept of Community Health	$138,717,039
9	Dept of Corrections	$34,789,414
10	Dept of Defense	$5,022,582
11	Dept of Driver Services	$20,895,924
12	Dept of Early Care and Learning	$3,882,982
13	Dept of Economic Development	$414,362
14	Dept of Human Services	$83,523,691
15	Dept of Juvenile Justice	$16,624,277
16	Dept of Natural Resources	$12,137,748
17	Dept of Public Health	$14,896,455
18	Dept of Public Safety	$7,358,364
19	Dept of Revenue	$46,118,359
20	Dept of Transportation	$33,789,621
21	Employees' Retirement System	$2,794,421
22	GA Building Authority	$2,352,564
23	GA Bureau of Investigation	$10,972,922
24	GA Emergency Management Agency	$1,377,942
25	GA Firefighter Standards and Training Council	$27,500
26	GA Forestry Commission	$368,079
27	GA Ports Authority	$259,682
28	GA Public Broadcasting	$1,733,505
29	GA Public Safety Training Center	$1,046,807
30	GA Regional Transportation Authority	$496,348
31	GA State Financing and Investment Commission	$1,984,732
32	GA Student Finance Commission	$3,973,170
33	GA Technology Authority	$31,475,990
34	GA World Congress Center Authority	$2,305,854
35	Gov Office for Children and Families	$180,308

36	**Gov Office of Consumer Protection**	**$78,199**
37	Gov Office of Highway Safety	$2,068,869
38	Gov Office of Student Achievement	$1,304,733
39	Office of Inspector General	$377,908
40	Office of Planning and Budget	$1,889,897
41	Office of State Administrative Hearings	$521,317
42	Office of the State Treasurer	$633,061
43	State Accounting Office	$17,653,396
44	State Board of Pardons and Paroles	$5,446,905
45	State Board of Workers' Compensation	$1,107,772
46	State Properties Commission	$41,607
47	State Road and Tollway Authority	$1,024,965
48	State Soil and Water Conservation Commission	$152,190
49	Subsequent Injury Trust Fund	$94,677
50	Teachers' Retirement System	$221,780
51	Technical College System of Georgia	$29,797,880

	Agencies NOT required to report	
	Agency Name	**Total IT Spend for FY2015**
52	Dept of Agriculture	$2,072,891
53	Dept of Education	$20,005,860
54	Dept of Insurance	$1,590,129
55	Dept of Labor	$17,617,707
56	Dept of Law	$146,978
57	Secretary of State	$12,604,709
	Total Spend	**$638,391,674**

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 – Cybersecurity Executive Order

THE STATE OF GEORGIA

EXECUTIVE ORDER

BY THE GOVERNOR:

WHEREAS: The continuous and efficient operation of state government data systems is both vital and necessary to the mission of providing governmental services in Georgia; and

WHEREAS: The Georgia Technology Authority and the various state agencies have the responsibility for providing critically important, coordinated, robust and effective information technology security in order to protect the state's data, to protect the citizens and to ensure the efficient operation of state government; and

WHEREAS: Information technology security risks continue to evolve and. grow, with currently over a million cybersecurity events on state government systems each day, which present a danger of disruption, costly financial damage and even bodily harm if not adequately managed; and

WHEREAS: Effective information technology security risk management requires inter- agency coordination, reporting, training, sharing of data and information about systems, and a consolidated view of the state's risks, readiness, constraints, priorities, and responsiveness to risk remediation; and

WHEREAS: It is in the best interest of the state to encourage coordination through the engagement of the highest level of management at those state agencies which are most directly involved in information technology risk reduction, and to provide for a coordinated and structured review to ensure that state government's cybersecurity risks are being managed appropriately.

Now, THEREFORE, PURSUANT TO THE AUTHORITY VESTED IN ME AS GOVERNOR OF THE STATE OF GEORGIA, IT IS HEREBY

ORDERED: That, there is created a State Government Systems Cybersecurity Review Board (herein referred to as the Cybersecurity Board) to focus internally on the protection and privacy of state data.

IT IS FURTHER

ORDERED: The State CIO is the Cybersecurity Board's permanent chair and will provide administrative support. Three other agency heads are appointed by the Governor: the Director of the Georgia Emergency Management Agency/Homeland Security, the Adjutant General of Georgia, and the Commissioner of the Department of Administrative Services or designee responsible for risk management.

IT IS FURTHER

ORDERED: That the Cybersecurity Board will establish its own charter and rules of operations. It shall meet quarterly or more frequently if it decides that is necessary.

IT IS FURTHER

ORDERED: That the Cybersecurity Board will review the cybersecurity preparedness of the executive branch state agencies and the resulting risks to the state's citizens and government including critical state operations. The Cybersecurity Board shall conduct periodic reviews of agency security programs, plans, actions and results. It will develop recommendations to state agencies for the proper management of cybersecurity risks. The Cybersecurity Board shall provide an annual briefing to the Governor.

IT IS FURTHER

ORDERED: That the Cybersecurity Board will identify common security measures for all state agencies to implement while leveraging the state's purchasing power.

IT IS FURTHER

ORDERED: That, in the execution of its duties, the Cybersecurity Board will take the necessary steps to protect sensitive security plans of state agencies m accordance with existing federal and state laws and regulations.

IT IS FURTHER

ORDERED: That the Cybersecurity Board will provide a report as to its findings within six months to the Governor.

IT IS FURTHER

ORDERED: That the Cybersecurity Board shall consider the risks created by operations of state agencies, not inclusive of the judicial and legislative branches, nor the Board of Regents, nor agencies headed by statewide elected officials other than the Governor. However, state entities not included may opt to participate.

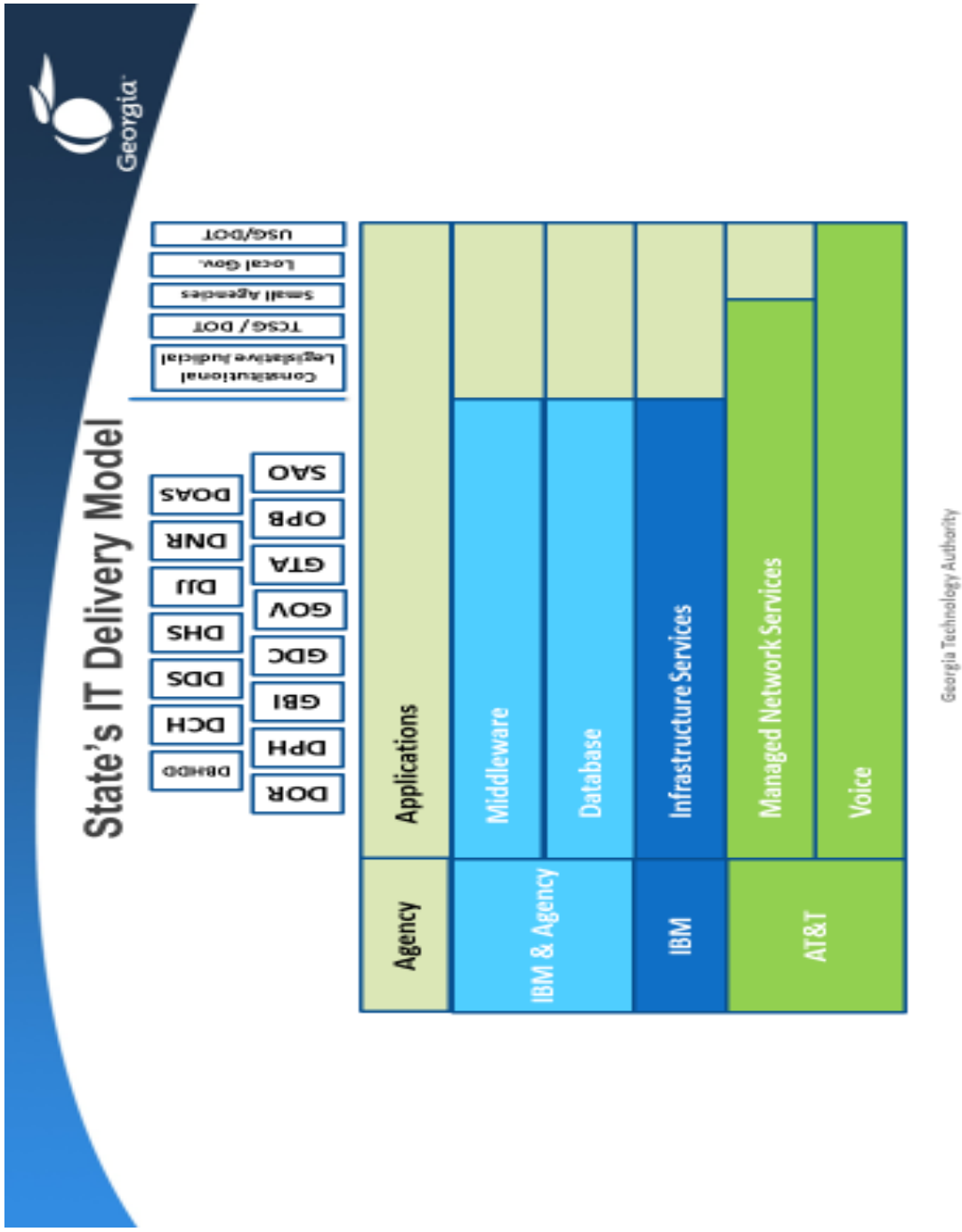
This 25th day of June, 2015.

Nathan Deal

GOVERNOR

Appendix E – State Executive Branch IT Delivery Model

GETS Full Service Agencies



Georgia Technology Authority

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