



# Annual State IT Report

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## FY 2012

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Chief Information Officer  
State of Georgia



# Annual State Information Technology Report

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# State Chief Information Officer Statement

*Statement on the State of IT for the State of Georgia*

*Connecting Georgians to their Government*

*Secure and Reliable Systems*

*Cyber-crime represents a growing threat*

*Georgia IT Transformation now over 50% complete*

*Fact-based decisions while managing costs*

*Largest IT modernization effort in nation today*

The state of Georgia continued in 2012 to make great strides in increasing maturity across our \$1 billion technology enterprise. The mission of "Connecting Georgians to their Government" has been GTA's primary focus. Although budgets remain tight, we have focused on leveraging technology to allow state employees to work more efficiently and enable citizens to access government services more easily. We are aligning IT with business processes and goals and providing technology innovation through leadership and collaboration with our strategic agency customers, vendor partners and key stakeholders.

Technology changes at lightning speed. In the public sector, embracing new technologies to improve efficiency of state government for its many and unique business units is vital, yet we must also ensure that data is secure, systems are reliable, and investments in technology are sustainable over the life of the investment.

GTA maintains a coordinated, enterprise-focused approach to IT security. Throughout the country, cyber-crime represents a growing threat to citizens and state systems. We have improved the state's security posture as well as our commitment to further securing state systems and data. Still, we have risks and exposures that must be addressed. Both nation-state sponsored cyber-terrorism and organized cyber-crime demand a concerted effort if we are to respond to and rebuff ever-changing attacks.

Along with improving security and reducing risk, increasing system reliability is a key part of GTA's ongoing effort to transform the state's IT infrastructure and network. Through the Georgia Enterprise Technology Services program, we have built a reliable and stable platform for new systems and technology-driven innovation that could not have been achieved with the old, fragmented approach to technology. We passed the halfway point in transformation this year, and we are on track for completion by the end of the third quarter of 2014. For the first time, we have detailed data about costs and consumption of technology services that will allow the state to make fact-based decisions while managing costs.

During the past year, Georgia has made new investments in technology across many state agencies; you will find several of those initiatives showcased in this report. The state has been able to leverage technology to deliver services to its citizens in new and sustainable ways.

While much has been accomplished this past year, much work is ahead of us. Few states have attempted the kind of large-scale IT transformation Georgia is achieving. Ours is the largest state IT modernization effort going on in the nation today. We remain committed to improving how IT services are delivered and consumed within state government. While citizen data is more secure and the reliability of systems has reached the highest levels in the state's history, we must focus on improving on the delivery of IT projects, sharing data more effectively and making government services more accessible to Georgians. The state must be able to take full advantage of the agility technology provides. GTA will continue leading this transformation effort, working in partnership with the state agencies and our strategic vendor partners, IBM and AT&T.

As you review this report, I believe you will recognize that Georgia is moving forward with commitment and purpose – and in the right direction.

## Purpose

### *Purpose of this report*

The State IT Annual Report conveys the current state of technology in Georgia as assessed by the State Chief Information Officer (CIO). The report is also a requirement listed within the enabling legislation of the Georgia Technology Authority (GTA). 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. The report does not include** information regarding IT matters in the legislative branch, judicial branch agencies, 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 towards improving technology use in support of the operation of state government. The Annual Report contains the following sections:

- CIO Statement
- Executive Summary
- Governor's Goals
- Current State
- Stakeholder Value
- IT Governance
- IT Strategy
- IT Financial Management
- Appendix

## Executive Summary

*Georgia spends close to \$1 billion on information technology each year*

*GETS is transforming the technology ecosystem.*

*Georgia is evolving its technology*

*Cybersecurity combats increasing threat to Georgia and its citizens*

Topics that dominate the state of Georgia's information technology landscape are:

- **Current state of IT.** The state of Georgia is spending close to \$1 billion each year on information technology infrastructure, applications and critical projects (*see IT Investment Tracking p. 11, IT Snap Shot p. 13, IT Portfolio p. 14*). Good stewardship of investments is a primary goal of the State CIO. Working with agencies to better align their IT needs to the Governor's goals (*see Governor's Goals, p. 8*) will allow the state to deliver services and operate more efficiently with the limited funding available. The current data indicates that there are other areas of the technology eco-system that need to be leveraged to obtain the best value for the investments made in technology (*see IT Governance p. 41*).
- **Cost and service quality of the GETS program.** The state has been transforming its technology eco-system through the Georgia Enterprise Technology Services (GETS) program for almost five years. While this change has been difficult at times, the state is reaping the benefits of the program. There have been significant improvements in the last year, (*see GETS p. 17, Service Provider for Infrastructure p. 66 and Service Provider for Network p. 69*) and the program continues to deliver valuable services to the state's IT enterprise that could not be achieved from the fragmented approach of five years ago. Despite these benefits, cultural change in any environment can be difficult. More effort will be focused on educating and training state personnel regarding the program in the coming year along with the planned service improvements that are already underway.
- **Evolving technology** in mobility and cloud computing. The technology landscape changes rapidly, and some opportunities that exist today were not known five years ago. While government is typically 5-10 years behind the private sector in adopting new technologies, our ability to take advantage of innovations in such areas as (*see Strategic Planning p. 41, Industry Trends p. 20, Technology Roadmap p. 62, Shareholder Value p. 24*) cloud computing, mobile devices, data governance and others is stronger than it has ever been because of the state's stabilized IT operating environment, strong relationships with industry-leading partners, and the evolving technology eco-system created through the program.
- **Cyber security** to combat a rising threat to the state of Georgia. Recent events in other states and federal institutions, along with incidents across the country and the world, indicate a need to focus more attention on prevention and risk-mitigation activities (*see Information Security p. 54*). Georgia has been very proactive in securing its assets and information, but the risk is still significant. We have focused on:
  - Compliance with the framework established by the Federal Information Security Management Act of 2002 (FISMA),
  - Operating a Cyber-FUSION Center to share information about IT security threats with state and local government agencies, and

*Collaboration will align efforts with Governor's Goals*

- Continuing to educate and train both agency security personnel and state employees on the importance of cyber security and the preventive measures required.
- **Collaboration** to more effectively leverage technology in a federated environment. Coordination, communication and compromise are how we will continue to manage this large technology eco-system in support of and in alignment with the state's business (*see Governor's Goals p. 8*). Building a stronger partnership with our state's strategic IT service delivery partners in support of the program, was a primary focus in FY2012. Enhancing and supporting partnerships with agency business and technology leaders will be the primary focus in the coming year (*see IT Strategy p. 62*). While there have been challenges to this collaboration, there have been many more successes (*see Shareholder Value p. 24*). For agencies to use technology as effectively as possible to support their business operations, GTA needs to continue improving its IT leadership, education and training so it can better assist agencies as they make decisions about technology (*see Collaboration p. 44, Enterprise Portfolio Management p. 52, IT Financial Management p. 60*).

# Governor's Goals

*Governor Deal's business goals for the state. Technology supports the agencies alignment to these goals.*

*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 positively impact 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 only 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 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 complete a college education
- 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 that 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 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 Goals 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 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

## Current State

The current state of Georgia's Information Technology (IT) is one that is in transformation. The state for many years had a non-integrated environment that is difficult to understand or use. The state is making improvements to IT while controlling costs and continuing to support the various functions performed by the state; in Georgia, almost all state functions performed use IT.

The five sections in the Current State portion of the Annual State IT annual report, IT Investment Management, IT Snapshot, IT Portfolio, Georgia Enterprise Technology Services, and Industry Trends give details on how Georgia and its agencies are managing the current IT environment.

## IT Investment Tracking

*New tools provide for the ability to do better capacity management of IT resources; costs are more transparent.*

*Georgia spends \$739 million on information technology in FY2012*

The state of Georgia expends a large sum of money every year on information technology, including services, equipment, application development and maintenance, and personnel. However, determining exactly how much is spent, where the money goes, and what taxpayers are getting in return is difficult. Coupled with this is the need to understand whether Georgia is receiving value for the dollars invested in information technology.

The General Assembly has charged the Georgia Technology Authority with compiling information from state agencies about their IT expenditures and presenting a report to state leaders every year (see 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.

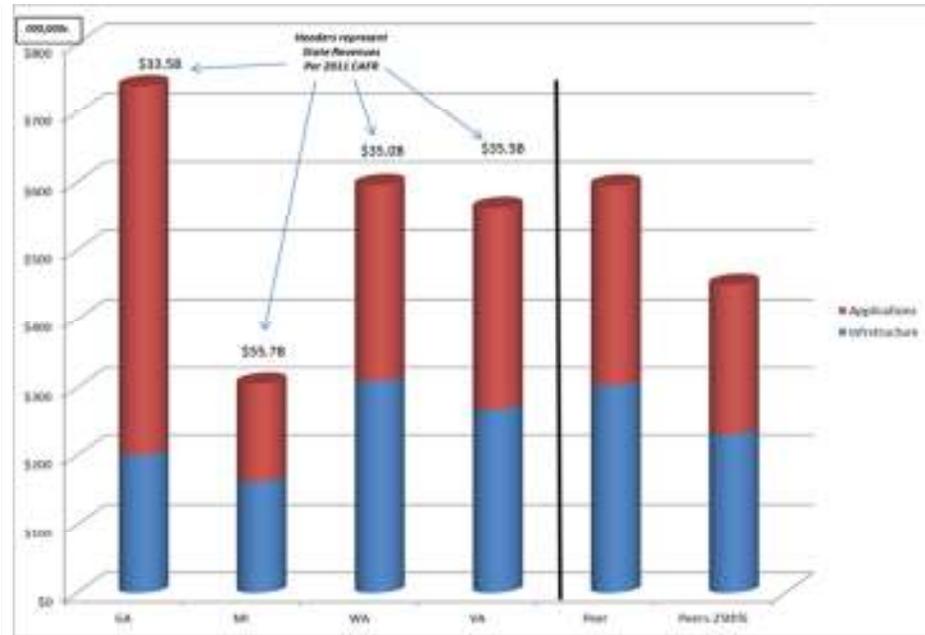
*Clear infrastructure and network spend*

The IT financial picture is certainly clearer this year than in any past year, but some areas are still opaque. The state has a clear understanding of the infrastructure and network costs. These are services provided through the program. Under the program we are able to measure usage and value with detailed reporting for all agency users and consumers of infrastructure and network services (see IT Financial Management). For areas strictly controlled by the agencies, the detail is not readily available. However, it is apparent that costs for these services grew significantly in comparison to other states of comparable size and complexity.

*Comparison to other states of similar size*

The graph on the next page shows the comparable state IT spend for infrastructure and applications for Georgia, Michigan, Washington and Virginia. The chart also provides comparisons in the industry that Gartner found for comparing Washington's costs, where one column compares all peers and the second column compares the top 25% of that peer group.

The graph shows that Georgia's costs for infrastructure spend compare favorably to the top 25% peer group and even compare favorably with a much larger state, such as Michigan, which is considered a leader in managing and controlling IT costs. The chart also illustrates that Georgia spends considerably more on applications than its peers.



Approximately \$730 million spent on in FY2012 on IT

In FY 2012, 59 of 74 agencies required to submit expenditures reported approximately \$730 million in IT expenditures. It is important to note that some state entities with expected large IT expenditures, such as the University System of Georgia, are not required to report. The level of agency compliance stayed level for FY 2012, with 80% of required agencies submitting data compared to 80% the previous year. However, only 55% (41 agencies) had their commissioner sign off on their submittal.

<b>Agency Participation Year to Year</b>			
	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>
<i>Agencies Required to Report</i>	<b>74</b>	<b>74</b>	<b>74</b>
<i>Agencies that Reported</i>	<b>45</b>	<b>59</b>	<b>59</b>
<i>Percentage</i>	<b>61%</b>	<b>80%</b>	<b>80%</b>
<i>Agencies Not Required to Report</i>	<b>15</b>	<b>15</b>	<b>15</b>
<i>Agencies that Reported Voluntarily</i>	<b>5</b>	<b>4</b>	<b>5</b>
<i>Percentage</i>	<b>33%</b>	<b>27%</b>	<b>33%</b>
<i>Agencies Receiving IT Services from Another Agency</i>	<b>30</b>	<b>30</b>	<b>30</b>

Agencies reported \$1.04 billion in IT expenditures in FY 2011, a significantly higher total than the approximately \$730 million reported in FY 2012. The primary reason for the decrease in the IT spending total is a change in reporting methodology. In previous years, project portfolio amounts were included. To ensure more consistency in reporting and to enable Georgia to better compare its IT spending with other states' spending, those amounts are no longer included.

Further, data for some categories were not provided consistently among all agencies, which impacted the totals being reported. GTA will continue

to work to increase both the quantity of agencies submitting data and the quality of data received.

The table below shows the dollars invested in the support of IT operations for the state as reported for FY 2012. It also provides related data to identify an increase or decrease from the preceding year.

*Application spend accounted for 70% of IT spend in FY2012*

<b>2012 State Overview</b>	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>Year over Year Increase /((Decrease)</b>
<b>Infrastructure</b>				
<i>Total:</i>	\$198,436,294	\$187,122,666	\$214,586,602	\$27,463,936
<b>Applications Support</b>				
<i>Total:</i>	\$896,695,742	\$860,543,420	\$519,027,892	(\$341,515,528)
<i>Aggregated Total:</i>	\$1,095,132,036	\$1,047,666,086	\$733,614,494	(\$314,051,592)

In previous years, GTA developed projections and extrapolations to fill the gaps resulting from the lack of agency submissions. However, beginning with FY 2011, GTA gave state agencies more control over their submissions and will no longer use projections, relying instead on data reported by agencies. In subsequent years, financial data will be extracted from the system of record, the state's enterprise financial system and other associated systems.

Georgia's leadership needs a clear, complete, and accurate accounting of how state agencies are spending taxpayers' dollars on IT.

## IT Snap Shot

*State is moving from a fragmented IT service model to an integrated yet federated shared service model based on consumption*

The current state of Georgia's Information Technology (IT) is one that is in transformation. The state for many years had a non-integrated environment that is difficult to understand or use. The state is making improvements to IT while controlling costs and continuing to support the various functions performed by the state; in Georgia, almost all state functions performed use IT.

As the state transforms IT, agencies begin to have a better grasp of what their IT infrastructure costs. New tools introduced as part of the transformation allow the agencies to drill down and better understand where they may have costs that are growing more rapidly than expected. Agencies are moving towards a capacity management model, monitored on a monthly basis and away from the traditional annual cost true up model.

However, there are still challenges ahead. The state operates many independent applications to support various agencies. If a citizen is receiving services from more than one agency, updating information like change of address requires an update for each system. He or she has to maintain two different user accounts with unique credentials. This is neither cost effective for the state nor convenient for the citizen.

The reasons for this poor level of integration are historical, and they have been costly. Until 10 years ago, few agencies shared applications, and their IT departments didn't use their combined requirements to develop purchasing power. Each agency's IT department procured, operated and

supported all of the systems required by the agency, and IT budgets were integrated with the services being provided. The ability to obtain quantity discounts or leverage resources was non-existent with minor exceptions. It was even impossible to know the cost to operate many of the systems.

## IT Portfolio

*IT Portfolio show the spend by Agency – Health Sector has largest spend*

GTA’s Enterprise Portfolio Management Office monitors IT projects to ensure that the state gains the greatest value on 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.

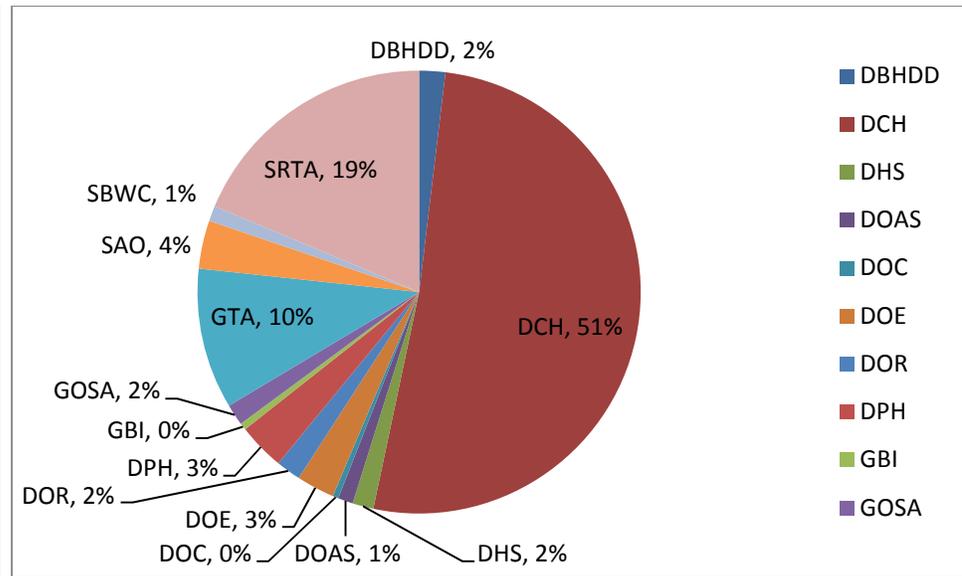
The Enterprise IT Project Portfolio includes agency projects that are in the planning phase as well as projects that are in the build phase. Tracking for the portfolio projects is by fiscal year (FY), which begins on July 1 and ends on June 30.

The FY12 project portfolio shows an increase of \$86 million, primarily due to the increased number of IT projects undertaken in the health-care sector. As indicated in the graph below, the FY12 portfolio is tracking over 30 projects, totaling over \$321 million and spanning multiple years and 14 agencies. Included in the total portfolio are projects in the planning phase, which total \$124 million.

## Percentage of Total Budget by Agency

*Largest Agency Spend*

*DCH 51%  
SRTA 19%  
GTA 10%  
SAO 4%  
DPH 3%  
DOE 3%*



## Project Delivery Effectiveness

*Fact-based decisions help agencies manage their projects better*

### Critical Project Review Panel

For more than eight years, GTA has facilitated the Critical Project Review Panel, providing a business context for large, critical technology investments. It also evaluates and addresses risks before they become issues, creates fact-based decisions rather than speculation, creates escalation to appropriate points in the state business, leverages enterprise influence to support agency outcomes, and encourages learning across agency domains on best practices.

The executive level of state government is 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 decisions, rather than speculating on the situation and making uninformed decisions.

*Mitigating Risk for large projects*

The panel limits its reviews to the most critical projects in the portfolio. For FY 2012, the Critical Project Portfolio was over \$290 million and covered 22 projects for 13 agencies. Over the past four years, the panel reviews, coupled with project assurance, have saved taxpayers an estimated \$280 million (based on industry standards) that would have been lost to failed or challenged technology projects. The chart below puts into perspective the value and benefits of portfolio management and oversight:

*Portfolio management yields results*

Applying industry statistical information \* to our current active and approved portfolio of critical projects yields the following projected results:

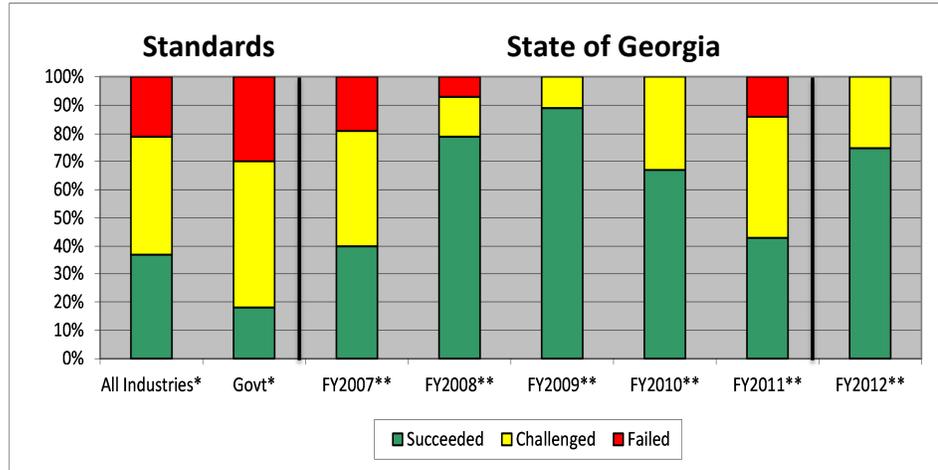
- 30% of projects would be cancelled = \$87.3 million
- 52% would cost 189% of the original estimate = \$286 million
- 18% would be successful with no cost increase = \$52.3 million

Without disciplined project, program and portfolio management, the current portfolio of \$291 million would deliver only 70% of the functionality originally planned.

\*Based on Standish Group CHAOS Report

The chart on the next page displays how the state of Georgia compares to government and industry metrics compiled for the Standish Group's 2010 Chaos Report.

### Project Delivery Effectiveness (by % of \$) FY12



The data from the chart above also indicates a decline in challenged and failed projects in FY12. Part of this decline results from projects that are multiyear and still active. Out of the 22 projects in the Critical Project Portfolio, only 8 were completed during FY12.

## GETS

*GETS is the program that is modernizing the state's IT infrastructure and allowing better management of IT resources*

The goal of the program is to move the state's IT operations out of their "horse and buggy days" and into the 21st century. The transformation to a modern, secure, reliable and cost-effective technology infrastructure is essential to enabling state government to meet its service obligations to Georgians.

A great deal of progress was achieved during 2012. Efforts to modernize the state's IT operations had produced mixed results. In particular, transformation of the state's IT infrastructure services, which encompasses the relocation of servers to the state's highly secure data center and the consolidation of 12 e-mail systems into a single system, had fallen far behind its original schedule. Decisive action was required to get back on track. GTA, representatives from the program's full-service agencies and the program's service providers came together to develop a new, comprehensive and better integrated transformation plan. The new plan incorporated lessons learned from our previous experiences and renewed our focus on getting the work done.

*Transformation is 55% complete*

Transformation is scheduled to be completed by 3<sup>rd</sup> Qtr 2014, and we are now well positioned to meet our goal. The transformation program is made up of 134 projects, and 56 projects were completed by December 2012. Another 51 projects were in progress, and work had yet to begin on 27 projects. The following sections discuss how transformation activities are improving IT services to agencies while removing risk from the state's IT enterprise. The work completed represents 55% of the planned tasks.

### **IT Infrastructure Services**

*The program begins to consolidate user accounts into one systems as well as provide better security.*

The most significant progress was made in Active Directory and e-mail migrations. These projects are consolidating directory services and more than 41,000 e-mail accounts onto a single, standardized platform based on Windows Active Directory and Microsoft Outlook. The migration to a single e-mail system is enabling agencies to communicate more easily with each other. At the same time, it is improving system stability and simplifying technical support. The Active Directory project is 96 percent complete and on target to close by April 2013; meanwhile, e-mail migrations are 73 percent complete and on target to close by 2<sup>nd</sup> Qtr 2013.

Another area of significant progress was the transformation of seven full-service agencies to new server malware and end-user computing anti-virus software. This project ensures that the latest malware and anti-virus updates are delivered to computing devices in the program environment. By standardizing on the same software, we are better able to support the operating environment and streamline updates to keep our environment more secure. With only four agencies left, this project is on target to be completed by 4<sup>th</sup> Qtr of 2013.

### **End User Refresh**

*State employees are*

The program requires our IT infrastructure services provider, to replace laptop and tablet computers every 3 years and desktop computers every 5

*being provided up to date machines at maximum value*

years. These refresh cycles match IT industry best practices. The total number of end-user computing (EUC) devices in scope is about 36,000.

Processes for replacing EUC devices were formalized in FY 2010 by Agencies, GTA, IBM and Dell, IBM's subcontractor. About 1,700 devices were refreshed in FY 2010. FY 2011 and FY 2012 saw continued refinement of those initial processes and a significant acceleration of refresh activity. About 8,800 devices were refreshed in FY 2011. **An additional 7,600 devices were refreshed in FY 2012**, making the total roughly 18,100 or 50 percent of the state's total EUC devices.

**All laptop and tablet computers, totaling about 5,800 devices, were refreshed before the end of 2012, the 3rd contract year.** This was a significant accomplishment that ensures the state realizes maximum value from the contract. The 2nd refresh cycle has begun for devices installed at the beginning of the 1st contract year. All desktop computers are on target to be refreshed before the end of the 5th contract year.

## **Managed Network Services**

*State network running more efficient and securely.*

The state's managed network services provider, AT&T, recently enhanced the security posture for all customers. The program provides managed network services to over 1,400 state and local government agencies across the state which includes approximately 100,000 end-users. This security enhancement included upgrades to the intrusion prevention systems and network analysis tools located in the state's two enterprise security nodes. The fully redundant and diversely located security nodes provide advanced security protection for all managed network services customers. Continuous improvement is extremely important in this area since the state's systems experience a large number of probes each day from those looking for security vulnerabilities.

AT&T has also made great strides in transforming the state's IT enterprise by completing three of its key projects. The first project was IP readdressing, which ensures that all workstations within the scope of the program have a unique IP address. Since all workstations that are part of the program will connect to the operating environment at the state data center, the IP readdressing project is a cornerstone on which may other projects rely.

The second project involved AT&T's establishment of a centralized IP address management system. The system stores and manages the IP address space for all devices in the operating environment.

Additionally, AT&T completed its RADIUS project, which provides state employees with secure, wireless access to the state's network.

Meanwhile, AT&T is in the process of upgrading all full-service network customers. AT&T is replacing all LAN-WAN hardware with new equipment and moving agencies to its state-of-the-art, Multi-Protocol Label Switching (MPLS) network. By December 2012, 924 out of 1,296 sites had been migrated to the MPLS network.

The refresh of voice technology is also underway. It involves replacing old Key and PBX telephone systems in state agencies and migrating phone lines to Centrex where it makes sense. The scope of the voice refresh includes 27 PBXs, 500 Key systems and 45,000 Centrex phones/lines. By December 2012, AT&T had refreshed 12 PBXs, 341 Key systems and 25,264 Centrex phones/lines.

Many additional benefits are being realized by agency customers. Another example for managed network services is the new, remote, enterprise virtual private network (VPN). This fully redundant service is based on next-generation secure socket layer (SSL) VPN technology, which allows agencies to remotely manage their own IT resources. It also offers secure application access to agency business partners and provides agency personnel with the ability to stay connected to internal resources when working remotely. Several state agencies have already begun using the new VPN service, including the departments of Driver Services, Revenue, Community Health and Human Services; the Office of Planning and Budget; and state and local law enforcement for access to the Georgia Crime Information Center (GCIC).

## Industry Trends

As Georgia continues to move ahead in modernizing the way it operates and delivers IT services, certain industry trends are worth studying. Gartner, an IT research and advisory firm, recently reported on changes that are affecting both business and technology. Meanwhile, the National Association of State Chief Information Officers (NASCIO) surveyed state CIOs to identify their top priorities for 2013. Gartner's and NASCIO's findings are summarized below.

### Business Drivers

*Business drivers affecting IT*

- *Budget*
- *Workforce*
- *Security*
- *Performance*

Tight budgets will continue in the near future. Hard decisions will need to be made to best utilize scarce resources. Gartner points out that the scarce resources will not just be monetary but will also be a scarcity of human resources. With the aging of the Baby Boomers, many seasoned IT professionals will be retiring. The need to replace retiring employees with these scarce IT skill sets with younger workers, who need training, will be a continuous challenge to the state.

There will continue to be threats from inside and outside of the state to the security of the state's IT systems. The risks involved in keeping systems safe and available will also continue to be of concern to the state.

### Technology Drivers

*Technology Drivers affecting IT*

- *Mobility*
- *Cloud*
- *Data*
- *Security*

#### **Gartner**

Gartner notes four areas of technology that are current and future challenges for technology leaders:

- **Mobility** – both citizens and state employees who need access for the explosion of portable devices that they now use on a daily basis
- **Information** – data that both citizens and state employees need to make decisions that affect their jobs and their standard of living
- **Cloud services** – the movement towards services hosted on the Internet and not at the citizens' or state employees' locations; many of these services are purchased on a monthly basis rather than permanently
- **Social media** – all of those technologies such as Twitter or Facebook that let users interact with people in their local, national or international communities.

These four technologies are called disruptive technologies because of their ability to disrupt people's lives, for good or bad, and bring about change. Gartner advises that there are areas where the state needs focus to handle disruptive technologies. First, the state needs a **skilled IT work force** that can adapt to the change. The state will need to **mature its governance structures and bodies** to be able to adapt to changes and make timely decisions. The state will need to develop **new polices** to help navigate the disruptions caused by technology. The state will need to look

*National Association  
of State CIOs note top  
10 priorities*

at the **correct investments** to take advantage of these new technologies. New ways of looking at the state's **data** will need to be developed to provide **information** for the state's decision makers. The state will need to develop an **architectural** framework to ensure that these disruptive technologies are used to obtain the state's **business goals**.

### **NASCIO**

Some of the state CIO priorities for 2013 that were identified and published by NASCIO are similar to the issues and trends identified by Gartner.

The **Top Ten** Priority Strategies, Management Processes and Solutions:

1. **Consolidation / Optimization:** centralizing, consolidating services, operations, resources, infrastructure, data centers, communications and marketing "enterprise" thinking, identifying and dealing with barriers
2. **Cloud Services:** scalable and elastic IT-enabled capabilities provided "as a service" using Internet technologies, governance, service management, service catalogs, platform, infrastructure, security, privacy, data ownership, vendor management, indemnification, service portfolio management
3. **Security:** risk assessment, governance, budget and resource requirements, security frameworks, data protection, training and awareness, insider threats, third-party security practices as outsourcing increases, determining what constitutes "due care" or "reasonable"
4. **Mobile Services / Mobility:** devices, applications, workforce, security, policy issues, support, ownership, communications, wireless infrastructure, Bring Your Own Device (BYOD)
5. **Budget and Cost Control:** managing budget reduction, strategies for savings, reducing or avoiding costs, dealing with inadequate funding and budget constraints
6. **Shared Services:** business models, sharing resources, services, infrastructure, independent of organizational structure, service portfolio management, service catalog, marketing and communications related to organizational transformation, transparent charge back rates, utility based service on demand
7. **Health Care:** the Affordable Care Act, health information and insurance exchanges, health enterprise architecture, assessment, partnering, implementation, technology solutions, Medicaid systems (planning, retiring, implementing, purchasing), eligibility determination
8. **Legacy Modernization:** enhancing, renovating, replacing, legacy platforms and applications, business process improvement
9. **Interoperable Nationwide Public Safety Broadband Network:** planning, governance, collaboration, defining roles, asset determination
10. **Disaster Recovery / Business Continuity:** improving disaster

recovery, business continuity planning and readiness, pandemic flu / epidemic and IT impact, testing

The same group of NASCIO CIOs identified a list of Technologies, Applications and Tools.

The **Top Ten** Priority Technologies, Applications and Tools:

1. **Cloud Computing:** software as a service, infrastructure, platform, storage
2. **Mobile Workforce Technologies**
3. **Virtualization:** servers, desktop, storage, applications, data center
4. **Legacy Application Modernization / Renovation**
5. **Identity and Access Management**
6. **Enterprise Resource Planning (ERP)**
7. **Security Enhancement Tools**
8. **Networking:** voice and data communications, unified messaging
9. **Business Intelligence (BI) and Business Analytics (BA) Applications, Big Data**
10. **Document/Content/Records/E-mail Management:** active, repository, archiving, digital preservation

## **Other States**

*Case study on what another state (Michigan) is doing in IT*

Other states, including Michigan, are facing some of the same problems as Georgia. Along with Georgia, Michigan was one of the first states to create a statewide Chief Information Officer (CIO) position and charge the CIO with moving the state towards enterprise-wide management of IT resources. Michigan has developed a position paper about IT management practices.

Gartner Research in January 2006 captured the changes that Michigan went through in a paper called *Michigan's Successful Experience With Centralizing Government IT*. A summary of that paper is below. A full copy of the report can be obtained from Gartner Research.

Michigan has seen both tangible and intangible results from the practices they have adopted:

- **Cost** — The number IT personnel employed by Michigan dropped from nearly approx. 4,000 to 1,700 in four years. IT expenditure for the state is lower compared to other state governments of equal size, while continuing to maintain capable infrastructure.
- **Improved Public Policy, Strategy and Planning Alignment** — Michigan's Department of Information Technology is engaged at planning at the highest levels. Engagement has led to a planning process that aligns IT with the governor's priorities and individual agency business plans.
- **Prioritization** — Priorities are set in the state's overall budget process. Agencies must provide a business case for use of IT
- **Customer Service** — Constituents support needs are addressed on an enterprise level

- **Data and Information Sharing** — Consolidation allows for greater emphasis on data, information and knowledge management. Improved information sharing across the multiple levels of government within Michigan
- **Enterprise Applications** — Improved the environment for introducing enterprise applications.
- **Economies of Scale** — The consolidation of IT saves money by eliminating resource duplication. In particular, fewer technicians are required to support that infrastructure, resulting in lower personnel costs.
- **Disaster Recovery** — savings allow Michigan to maintain a disaster recovery capability through a redundant data center, rather than each department maintaining its own infrastructure at a far greater expense.
- **Staff capability and training** — With smaller personnel needs, it is easier for a single organization to make certain it has the right skills to maintain its systems.

# Shareholder Value

*Information on how Georgia's agencies are using IT to improve business*

The Shareholder Value section of the report is organized according to Governor Deal's Goals. Each of the 7 goals areas has IT projects that highlighted supporting those goals. This is not a complete accounting of state projects that support the goals. This is merely a sample of the projects.

## Educated

### ***Intra-Georgia Registration Sharing System (INGRESS)***

*Solution to allow students to enroll in online classes.*

**Project:** Intra-Georgia Registration Sharing System (INGRESS)

**Agency:** University System of Georgia (USG)

**Problem:**

The University System of Georgia (USG) needed a scalable solution that would allow students to enroll in online courses across multiple institutions while leveraging existing Enterprise Resource Planning (ERP) resources. The solution had to comply with USG information security policies to ensure the privacy of confidential student information.

**Solution:**

As a service to students who are increasingly computer centric and who need to perform coursework across multiple institutions, the University of System of Georgia (USG) developed the scalable solution INGRESS to allow students to enroll online for courses across the University System. INGRESS had to comply with USG information security policies to ensure the privacy of confidential student information. The system also keeps track of available classroom space and allows for student attendance verification and grade information.

**How:**

INGRESS is the only application of its kind that integrates both Banner systems and a learning management system (LMS) to enable multi-institution registration. In addition, it leverages existing functionality within the institutions' Banner systems and takes advantage of current campus business processes to the greatest extent possible. By facilitating the sharing of seats in courses among multiple institutions, INGRESS enables USG institutions to build capacity while enhancing the delivery of services to students.

INGRESS is hosted by the USG Information Technology Services, and the application is written in PHP development language. The key to the multi-institution functionality of INGRESS is the centralized course seat management mechanism. As students register in Banner for collaborative online courses, INGRESS dynamically balances the available course seats across multiple institutions and allocates additional seats to each participating school based on a predefined formula. INGRESS automatically creates the online course section in the LMS and enrolls students and faculty in these sections based on registrations. As students register, drop and withdraw from the collaborative course sections, INGRESS processes these transactions to

update seat availability across multiple collaborating institutions. In addition to registration services, INGRESS security collects and distributes attendance verification, midterm and final grade data to each student's home institution.

More than 5,000 course enrollments were processed by INGRESS for fall 2011. The total number of USG institutions using INGRESS has increased from eight to 15 as of spring 2012; three additional institutions submitted requests to implement INGRESS in fall 2012. The number of online collaborative programs using INGRESS now stands at 15, including nursing, teacher education, business and information technology.

**Benefits:**

- Enables students to register, drop, withdraw and pay within their home institution Banner systems for classes offered at other USG institutions
- Facilitates centralized management of course seats in shared course sections
- Provides secure collection and distribution of attendance verification and final grade data
- Automatically creates enrollments in USG's learning management system for students registered in shared course sections and for faculty teaching these sections
- Resulted in an estimated annual cost savings of \$1.3 million to the state
- Increased satisfaction with multi-institution registration according to survey results from campus support staff
- Decreased workload associated with supporting students and faculty in INGRESS-processed courses

## Mobile

### ***I-85 Express Lanes Project***

*Using technology to reduce traffic congestion in Atlanta.*

**Project:** *I-85 Express Lanes Project*

**Agency:** *State Road and Tollway Authority (SRTA)*

**Problem:**

According to Forbes Magazine, Atlanta was the number one worst city for commuters in 2008. Traffic mobility in the metro-Atlanta area has been a challenge for the region for many years. The need for a new mobility choice was evident on the Interstate 85 (I-85) corridor, north of Atlanta. High Occupancy Vehicle (HOV) lanes were consistently over or under capacity, leading to unreliable travel times for motorists. In addition, the corridor had limited transit options. Shoulder width constraints made it unrealistic to add new capacity to the corridor.

**Solution:**

The State Road and Tollway Authority (SRTA) created an innovative way to help relieve traffic congestion on I-85 by adding a financial factor to commuters' lane selections.

**How:**

In November 2008, the United States Department of Transportation (USDOT) awarded a \$110 million Congestion Reduction Demonstration (CRD) Program grant to Atlanta. This grant allowed for implementation of an integrated mobility solution for congestion-priced High Occupancy Toll (HOT) lanes, enhanced transit service and innovative technology. The State Road and Tollway Authority (SRTA), Georgia Department of Transportation (GDOT) and the Georgia Regional Transportation Authority (GRTA) led the implementation of the CRD project.

The CRD I-85 Express Lanes project converted approximately 15.5 miles of existing HOV lanes to HOT lanes (north and south bound). GDOT managed the construction of the lanes and SRTA managed and installed the tolling technology and equipment.

The I-85 Express Lanes Project is the first in the country to simultaneously raise the occupancy requirement from 2+ persons to 3+ persons for toll-free passage, while introducing pricing to allow single-occupant vehicles to buy access.

The all-electronic toll lanes on I-85 include a host of innovative technology and equipment which work in tandem at highway speed.

**Benefits:**

- Helps improve traffic flow through HOT lanes priced according to congestion
- Reduces need to build extra lanes
- Employs technology-based solution instead of concrete-based solution
- Utilized a federal grant to make improvements providing motorist an additional option

**Transportation Project Information (TransPi)**

*Provide information to public on transportation projects.*

**Project:** *Transportation Project Information (TransPi)*

**Agency:** *Georgia Department of Transportation (GDOT)*

**Problem:**

Easily located information and documentation about the State of Georgia’s transportation projects for businesses, constituents, employees of GDOT, and local governments was limited or unavailable.

**Solution:**

Identifying a need to provide citizens with easily located information and documentation about the State of Georgia’s transportation projects, the Georgia Department of Transportation (GDOT) stood up the web-based portal called Transportation Project Information (TransPi). It is proving to be of value to businesses, constituents, employees of GDOT and local governments.

**How:**

TransPi, was developed so internal and external users alike may obtain information and documentation about transportation projects. It provides a user-friendly, intuitive interface that incorporates the ability to locate all pertinent documentation and financial information along with Geographical Information Systems (GIS) information and views.

It is a single location for finding a variety of documents and data pertaining to a transportation project or geographic region. Before TransPi, employees might spend hours searching for documentation in countless filing cabinets or on shared drives. Since many of the state's transportation projects span five to seven years or more, some of the documentation may become quite difficult to locate.

**Benefits:**

- Provides a single location where anyone can access the same information
- Offers real-time information on projects
- Improves the efficiency of GDOT
- Empowers all users to make informed decisions
- Retains data on project for multiple years

**URL:**

[www.dot.state.ga.us/informationcenter/transpi/Pages/ProjectSelection.aspx](http://www.dot.state.ga.us/informationcenter/transpi/Pages/ProjectSelection.aspx)

## Growing

### *Integrated Tax System*

*Tax Systems enhanced to improve customer service.*

**Project:** *Integrated Tax System*

**Agency:** *Department of Revenue (DOR)*

**Problem:**

With 23 separate taxing systems, DOR had no single view of a taxpayer, making it difficult to provide customer service and perform comprehensive collections activities.

**Solution:**

DOR implemented an Integrated Tax System (ITS). The solution includes the sales tax component and consolidates the 23 separate DOR tax systems into a single system. DOR employees are now able to provide improved customer service through an all-inclusive view of a single taxpayer in one screen, which includes more accurate tax balances (credit or liability) and account relationships or responsibilities across multiple tax accounts for each tax reporting entity.

**How:**

The ITS consolidates systems that had been separate before: motor fuel distributors, contractor bond and licensing, alcohol excise tax and licensing,

tobacco excise tax and licensing, coin operated amusement machines licensing, 911 fees, withholding, corporate and individual income, fiduciary, and international fuel. The integrated system now manages 11,385,300 accounts and is able to accommodate Georgia's growing population.

Using a secure customer-facing application, businesses and individual taxpayers can sign up to access the Georgia Tax Center (GTC) at <https://gtc.dor.ga.gov>. GTC allows users to submit payments, view account balances, appeal assessments, request waivers and view correspondence. Businesses can register new businesses and additional locations; submit sales and use, withholding, International Fuel Tax Agreement (IFTA) motor fuel returns; and amend electronically filed returns. Additionally, individuals may opt-in to receive the 1099G electronically, check the status of their return or refund, and take the identity quiz if notified for fraud prevention.

The project began in September 2008 and was completed on time and within budget on September 4, 2012.

**Benefits:**

- Improves accuracy of returns
- Automates payments of taxes and assessments
- Provides a free paperless way to do business with DOR
- Improves data security
- Reduces the number of servers from 57 for the old systems to 12, saving the state money
- Improves compliance with federal regulations regarding the disclosure and storage of tax information
- Improves the system for counties receiving their real-time share of state sales tax dollars
- Reduces the number of tax payments that are prorated, resulting in improved cash flow
- Improves customer service

## Healthy

### ***DHS Document Imaging System***

*Document Imaging System implemented to improve service to citizens.*

**Project:** *DHS Document Imaging System*

**Agency:** *Georgia Department of Human Services (DHS)*

**Problem:**

DHS resources are challenged by the growing number of people accessing services and the subsequent increasing volume of incoming customer documentation. As a result, a continuous processing backlog was the norm. At the same time, there was a dire need to reduce office traffic and allow workers to focus on delivering customer service rather than processing paperwork. The outlying county health service offices were also experiencing a growing shortage of facility physical storage space for their customer records.

In addition to facing the challenges associated with a growing demand for

services, DHS set an associated goal to ease the paperwork and administrative burden associated with child support, child welfare, Medicaid, Food Stamps and other human services programs.

**Solution:**

Create a process workflow to make the department more efficient by reducing paperwork and streamlining administrative functions.

**How:**

DHS created the Document Imaging System (DIS) as the single repository of data to meet their customer and organizational needs. Information can be submitted on forms online or from many kiosk-based scan stations. DIS provides DHS with enterprise content management architecture to store documents electronically. It also provides Georgians a self-service capability to scan and/or upload necessary documentation when applying for human services programs. There is a robust search function where case reviewers can find electronic documents.

**Benefits:**

- Allows citizens the flexibility and freedom to access services without duplicating efforts
- Offers multiple ways to enter information
- Enables health services programs to handle more caseloads with the same—or even reduced—staff
- Provides a financial benefit through a streamlined quality control and quality assurance process where reviewers are now able to quickly find documents electronically, and the county offices no longer need to spend hundreds of hours pulling files

## ***Document Management Application***

*Service by Office of Insurance improved by implementing Document System*

**Project:** *Document Management Application*

**Agency:** *Georgia Department of Insurance (GDI)*

**Problem:**

The process of managing consumer complaints about insurance companies involved lengthy manual processes of copying documents, indexing them in manila folders, storing them and retrieving them (sometimes from off-site storage), making additional copies and mailing them to the insurance company.

**Solution:**

To significantly reduce delays in resolving complaints from the public about their insurance companies, the Georgia Department of Insurance (GDI) is introducing electronic document management to capture document images. This solution reduces the time required to process documents manually.

**How:**

In response to these numerous concerns, the Department of Insurance deployed an electronic document management solution that is inexpensive,

flexible and secure, and it uses standard IT resources. DMA currently contains over 900,000 documents and files, and it is expected to reach one million in 2013. There is no practical limit to the number of files that can be stored.

Document Management Application (DMA) is a suite of applications developed in-house for the secure storage and retrieval of electronic documents. State agencies such as the Department of Insurance have a considerable amount of paper documents stored in filing cabinets. These filing cabinets take up expensive space. They are a fire hazard, it is time-consuming to retrieve documents and re-file them, and electronic copies must often be made for dissemination. Furthermore, security is marginal, especially since these documents are originals and cannot be replaced if they are lost or accidentally destroyed. Disposing of the documents is expensive and sometimes requires specialized contractors due to the sensitivity of the documents.

A web application containing a webpage that is minimally tailored for each division allows for searching, indexing and uploading electronic files. DMA can store any type of electronic document, including Microsoft Outlook messages containing attachments.

**Benefits:**

- Simplified the process
- Saved a considerable amount of time and money
- Takes a few days instead of weeks to resolve consumer complaints
- Offers search services on a website to enable consumers to access documents
- Eliminated dozens of filing cabinets
- Dramatically decreased paper and mailing costs
- Increased employee productivity because files can now be found quickly

## ***Electronic Filing Child Support Documents***

*Child Support processes improved by developing electronic filing system.*

**Project:** *Electronic Filing of Child Support Documents*

**Agency:** *Administrative Office of the Courts (AOC); Division of Child Support Services (DCSS) of the Department of Human Services (DHS); Georgia Superior Court Clerks' Cooperative Authority (GSCCCA)*

**Problem:**

The State needed to develop a method for sharing documents between Child Support Offices and the Superior Courts.

**Solution:**

To relieve delays due to document filing, thus speeding elapsed time to begin hearings and resolve child support cases, several agencies teamed up to share Child Support Office documents with Superior Courts electronically.

**How:**

The project sought to enable statewide submission and electronic filing of documents between Child Support offices and Superior Courts. The project

involved a dedicated team working across agency boundaries and included integration and collaboration between systems of the Division of Child Support Services of the Department of Human Services, the Administrative Office of the Courts, the Georgia Superior Court Clerks' Cooperative Authority and the court case management system vendors who provide services to the Superior Courts of Georgia's 159 counties.

Twenty-one offices are using the application to submit filings to 49 courts, with 8 additional courts in the development and deployment processes. The project is expected to be completed in approximately four years with adoption rates steady at 24-25 courts per year.

**Benefits:**

- Automates the current manual workflow process of DCSS civil proceedings, and supports system interoperability and secure data exchange among the agency and the superior courts of Georgia
- Enables internal process improvement and efficient resource allocation. Additionally, DCSS and the courts benefit from increased access to justice system data, improved document imaging and management capabilities, system interoperability, and an additional layer of data redundancy which strengthens business continuity/disaster recovery plans in place at each court.
- Reduces the costs of maintaining a manual process and paper-based file system as well as the amount of time required to initiate a child support petition through DCSS, docket the case at the Superior Court and complete the process of service. Specifically, there is a substantial reduction in paper usage, storage costs, travel costs, and person hours required to produce and file redundant instances of documentation in a paper-based file system. By shortening this time cycle, the state is able to further marginalize the per-case costs incurred by the courts and the DCSS.
- Allows for more efficient allocation of organizational resources at local offices of the DCSS and in the Superior Courts of Georgia.
- Improves time management and decreases the chances of committing errors. Monetary costs and storage space are drastically reduced as the number of required physical copies of documents across the workflow is mitigated.

**URL:**

<http://w2.georgiacourts.org/gaje/>

## **Medicaid Health Records**

*Multi-State effort to speed up Medicaid payments.*

**Project:** *Medicaid Electronic Health Records Incentive Program (MIP)*

**Agency:** *Department of Community Health (DCH)*

**Problem:**

Georgia needed a proven process and systems to manage the state's Medicaid funds

**Solution:**

The Department of Community Health (DCH) joined a multi-state collaborative to develop the Medicaid Electronic Health Records (EHR) Incentive Program (MIP). The multi-year effort is intended to speed Medicaid reimbursements to providers and enhance medical services to Medicaid clients.

**How:**

To enable the administration of MIP, DCH joined a multi-state collaborative on November 15, 2010, led by the Commonwealth of Pennsylvania's Office of Medical Assistance Programs and Hewlett Packard Enterprise Services (HP). Thirteen states with a HP Managed Medicaid Information System (MMIS) worked together as a collaborative with HP to develop a core application that interfaces with the National Level Repository (NLR) as well as each individual state's MMIS to support the provider application process and to generate Medicaid incentive payments. Georgia went live with its system in April 2012.

Payments issued thru April 2012 to 85 eligible hospitals amounted to \$51,023,800, and payments to 517 eligible professionals amounted to \$12,367,507, for a total of \$63,391,307. DCH projects that 3,000 - 4,000 eligible providers and nearly 80 eligible hospitals, who adopt, implement or upgrade certified EHR technology or demonstrate meaningful use of certified EHR will receive incentive payments totaling approximately \$480 million over the term of the incentive program.

The total cost for Georgia to develop and deliver this system is \$3.5 million.

**Benefits:**

- Achieved significant savings for each state through the sharing of core development costs
- Reduces development and customization costs as the collaborative shares and discusses technical requirements and improvements that benefit all states
- Conducts testing of the MIP application with the NLR prior to implementation by individual states
- Provides an outreach and education plan to enable eligible professionals and hospitals to make educated and informed decisions regarding the benefits and advantages of participating in the Georgia Medicaid EHR Incentive Program

## ***Mental Health Management***

*Implemented system to improve productivity and comply with standards*

**Project:** *Mental Health Management System*

**Agency:** *Georgia Department of Juvenile Justice (DJJ)*

**Problem:**

The Georgia Department of Juvenile Justice (DJJ) needed an efficient and accurate way to manage the personal information of the thousands of youth offenders in its charge.

Across 27 facilities and 92 court services offices, more than 4,000 employees work every day to ensure a secure workflow for DJJ. The department realized the need for a system to improve efficiency, accuracy and compliance with requirement for day-to-day work. It also needed to reduce paper records and to minimize the extra help needed to manage and organize paperwork.

**Solution:**

DJJ developed a fully automated web-based mental health record for youth in the juvenile justice system and integrated those records in the Juvenile Tracking System. The upgrade is expected to improve employees' work productivity and compliance with standards, as well as accuracy of documentation.

**How:**

Record automation was developed to improve work productivity management, statistical analysis, compliance with standards, accuracy of documentation and accountability.

**Benefits:**

- Automated mental health records
- Automated training documents
- Developed video presentations to more efficiently orient staff about mental health records Reduced travel and time away from DJJ facilitates in order to implement business processes

## Safe

### ***Electronic Citation Submission***

*Moved citation payment online to enhance court operations*

**Project:** *Electronic Citation Submission*

**Agency:** *Georgia Department of Public Safety - Georgia State Patrol (GSP); Clerk of Courts – Cherokee County; Administrative Office of the Courts (AOC)*

**Problem:**

Transferring GSP citations to local courts was cumbersome and slow.

**Solution:**

An electronic system was developed that prevents errors, reduces staffing requirements and greatly enhances court activities.

**How:**

Working with the GSP, the Clerk of Courts in Cherokee County and a private vendor, the AOC has deployed an electronic citations submission interface that is expected to transfer over 750,000 State Patrol citations to local courts over the next year. The interface allows citations transmitted nightly by the State Patrol to be imported to the Clerk's case management system overnight, speeding the filing of citations and greatly decreasing the staff resources required to process them. Crash data reporting to the Department of Transportation and violation reporting to the Department of Driver

Services are also provided by the agency's EXPRESS application. The AOC is working with court case management vendors to facilitate delivery of the interface to the remaining courts in the state.

**Benefits:**

- Facilitates the exchanges of citation data across multiple organizations in an accurate, timely, and efficient manner
- Speeds the submission of citations
- Prevents errors
- Decreases the need for staff resources

**URL:**

<http://www.georgiacourts.gov/index.php/component/content/article/129>

## **Georgia Beach Water Quality**

*Web-based application where public can view water quality at Georgia's beaches.*

**Project:** *Georgia Beach Water Quality*

**Agency:** *Department of Natural Resources (DNR)*

**Problem:**

The DNR's Coastal Resources Division (CRD) has a mission to test the water along Georgia's coast for the presence of potentially harmful bacteria and provide real-time notification and report information to the public about the quality of water at Georgia's beaches.

**Solution:**

Georgia's citizens now have a real-time method to know the quality of the water at Georgia's beaches and can make an informed decision about their water and beach use. Georgia Department of Natural Resources Coastal Resources Division offers a web-based application via smartphone for this purpose.

**How:**

DNR developed a web-based application that provides real-time notification and information on specific beaches. The application uses a geospatial display of Georgia's coastline and colored dots to indicate the most recent water-quality test results. The application provides a map or an aerial view with zoom and pan features and detailed information for each beach location. If a water-quality advisory is issued for a beach, a yellow dot is displayed. If the beach is closed, a red dot is displayed. Beach goers can quickly and easily know the water quality at beaches throughout the state and make informed decisions about which beaches to visit.

The application is the first of many proposed steps at DNR to ensure the availability of easily accessible, real-time information to the public, and it begins to build a platform that supports a more mobile citizenry.

**Benefits:**

- Provides beach goers with information about the water quality at beaches throughout the state

- Helps citizens make informed decisions about which beaches to visit
- Positively impacts public health by providing real-time information about water quality
- Reduces ongoing operational requirements for CRD staff
- Saves an estimated 150 staff hours per year
- Enables CRD to redirect scarce resources to other areas and provide better support to Georgians

**URL:**

<http://www.coastalgadnr.org/node/2130>

## **Secure Driver Licenses & Identification Cards**

*Implemented systems to meet standards and improve security of Driver License and Identification Cards*

**Project:** *Secure Driver Licenses & Identification Cards*

**Agency:** *Department of Driver Services (DDS)*

**Problem:**

The Federal Real-ID Act of 2005 is a nationwide effort to improve the integrity and security of state issued driver licenses (DL) and identification cards (ID). Only DL/ID cards meeting US Department of Homeland Security (DHS) standards will be accepted to access federal facilities, board federally regulated commercial aircraft, and enter nuclear power plants as of January 1, 2013. To prepare for the new law, the Georgia Department of Driver Services (DDS) needed to make internal programming changes and communicate with Georgians throughout the state.

**Solution:**

With the deadline for the Federal Real-ID Act rapidly approaching, DDS identified the internal programming changes required to implement these changes and the need to communicate the required changes to the citizens of Georgia. DDS developed a plan to implement in Georgia on July 1, 2012 to allow a full six months of implementation prior to the Real-ID deadline. DDS developed a new webpage to communicate the changes and provide a complete list of all the new documentation requirements. DDS made major modifications to its DL application so that driver examiners are able to meet the new requirements as they conduct business. The solution in Georgia was called "Secure DL and ID."

**How:**

DDS used a webpage model that had worked successfully in the State of Florida for their implementation of the Federal Real-ID Act in 2010. DDS took their model and added additional functionality to include teen and commercial drivers. A webpage wizard was developed that was links directly to the DDS Home Page and is clearly designed to capture the attention of anyone visiting the website. Once this link is selected, the customer is taken to the new page and provided the option to create a Personal Checklist of Documents or a full list of all documents. The Personal Checklist allows customers to select required documents they know they have ready access to and then use this list to collect those items to bring to a DDS Customer Service Center (CSC) at their time of renewal. The Full Checklist allows customers the option to print a list of all accepted documents and then use this list to locate the needed documents from a large variety of documents.

Since the new webpage was implemented, approximately 64,000 customers have created a Checklist to assist with the collection of required documentation (data from 11/15/12).

The new Secure DL and ID webpage also contains FAQs to assist the customer in understanding the new requirements. Additionally, average wait times were added to assist customers in determining which CSC to visit. The data was based on historical data for each CSC and not real-time.

The DDS Online Driver's License System (DLS) was extensively modified to comply with the Federal Real ID Act requirements. The software used in CSCs was altered to capture and track the newly required documents. The Online Services offerings were modified due to the Real ID changes. Customers who arrive unprepared to provide the proper documentation can be issued a 120-day temporary license while they obtain the needed documentation. Once a customer provides all needed documentation, a new license is printed with an indicator that the customer has complied with the requirements of the Federal Real ID Act.

**Benefits:**

- Provides a centralized location for dissemination of the new documentation requirements of Secure DL and ID
- Provides customer friendly means of creating a handy checklist for collection of documentation
- Provides customer friendly means of determining which CSC is best to use on a given day
- Reduces the number of calls to the Contact Center for documentation requirements
- Allows functionality for driver examiners to scan and track all newly required documentation

## ***Training Resource Information System (TRIS)***

*DJJ implements a better system to keep up with employee training.*

**Project:** *Training Resource Information System (TRIS)*

**Agency:** *Georgia Department of Juvenile Justice (DJJ)*

**Problem:**

DJJ employees, facility and office managers, regional training coordinators and the DJJ Training Academy located at the Georgia Public Safety Training Center lacked access to shared training records. The system was paper intensive, and time was lost in training course registration. Because scheduling class registrants depended on spreadsheets, information was difficult to obtain and not easy to share among those who needed to know. Employees had no self-serve mechanism to see their training records other than through PeopleSoft (which was often not complete), and facility directors and training coordinators could not easily access and review staff training records or scheduling information for their office or facility in a timely manner. Further, training records for employees were not updated timely or, in some cases, not updated at all.

**Solution:**

Develop a web-based, networked software and database system to allow employees, managers, training coordinators, registrars, instructors, and

Training Academy staff to easily and quickly share training records. The solution had to meet a variety of needs:

- Reduce paper intensive manual processes by automating workflows
- Offer online submission of training requests
- Have an online registrar function
- Provide Real-time notification to employee and manager of training acceptance into a class
- Have automatic updates to TRIS employee training records when staff complete online training successfully
- Have the capability for managers and training coordinators to run online reports showing who had been trained in a particular class, who lacked training and manage the scheduling of staff to attend training
- Provide management data on successful completions and failures and improve class management of cadets attending academy
- Provide a location to manage professional certification and licensing of employees, such as doctors, nurses, teachers, mental health psychiatrists and clinicians, etc.
- Provide an easily accessible employee self-serve where employees could ensure their training records were correct

**How:**

Developed a SharePoint Intranet site using .NET, SQL Server, and InfoPath to create a database and software web-based application to accommodate shared network access of training records for those who have a need to know.

**Benefits:**

- Enables staff to register for DJJ Basic Juvenile Correctional Officer and In Service Training online
- Facilitates centralized management of course seats in shared course sections
- Provides for easy employee self-serve access
- Automatically updates training records upon completion and passing or failing of online tests
- Provides online training for our Juvenile Parole Probation Specialists, Mental Health and Health Service Professionals in service training with automatic updates to their training records upon pass/fail
- Centralizes and shares records on staff's professional licenses and certifications with automated alerts of expirations and need for renewal of license or certifications. (teachers, clinicians, psychiatrists, doctors, nurses, behavioral health counselors, transportation officers, etc.)
- Provides management reports for local office/facility, district office, regional office, DJJ statewide, and Training Academy
- Captures non-DJJ Training such as accounting course work, technology certificates, staff policy training such as HIPAA training, etc.
- Saves data entry time and improves training record accuracy
- Automates instructors class registry

## Responsible

### ***Drupal Content Management System***

*State implements new content management system to manage websites.*

**Project:** *Drupal Content Management System*

**Agency:** *Georgia Technology Authority (GTA)*

**Problem:**

GTA's Enterprise Content Management Tool had become expensive to maintain and was at the stage of its lifecycle to upgrade infrastructure. Further, the state needed a more user-friendly tool for its vastly diverse user group.

**Solution:**

Increasingly, citizens expect online access to government services and information. As a result, more state services are being adapted to the web, and an increasing amount of information is being made available through state agency websites. In order to support the continued growth, the Georgia Technology Authority (GTA,) which supports over 70 state agency websites, modernized its tools by adopting the Drupal Content Management platform for web management. The tool is more widely supported, easier and less expensive to maintain, highly available and more robust.

**How:**

Georgia.gov provides Georgians with a single point of access to online government information and services. GTA maintains and hosts Georgia.gov, the main website for the State of Georgia. GTA also maintains 70+ websites for state agencies. GTA offers a variety of web-related services to state agencies, such as website development and design, training of agency content managers in using the enterprise content management system and Tier 1 support.

Drupal was chosen as the platform that Georgia would use moving forward. This content management system is among the top five most used content management systems according to [www.builtwith.com](http://www.builtwith.com). Drupal is an open-source content management system that has been in existence since 2001. Open source software licensing allows free use of the software. Drupal's many features and free modules allow its use for a variety of website needs. Also, Drupal is currently installed or under consideration for a number of government sites including [Whitehouse.gov](http://Whitehouse.gov). One version of Drupal called OpenPublic was built specifically for government. Drupal has an active user community, with user conferences and training offered throughout the country. Through free licensing, leveraging a large user community, and lowered hosting costs, using Drupal significantly lowered the cost of owning and maintaining a content management system

Georgia.gov is the first state portal to use Responsive Web Design, a technique that adapts the layout of the site based on the device accessing it. Responsive Web Design makes use of flexible layouts, flexible images and cascading style sheet media queries, with the goal of building pages that detect the visitor's screen size and orientation and change the layout accordingly. This means that mobile users, a rapidly growing demographic, have a site customized for their viewing.

**Benefits:**

- Ease of use but robust for the novice to expert user
- Improved performance and reliability
- Reduced costs of ongoing maintenance
- Provides more functionality, more options in the future; modular nature of the Drupal platform offers a choice of features and functions as requirements are refined or established
- Responsive design allows flexibility, particularly in support of mobile devices

URL: [www.georgia.gov](http://www.georgia.gov)

## ***Teamworks Travel***

*State implements new system to manage travel expenses.*

**Project:** *Teamworks Travel Project*

**Agency:** *Department of Administrative Services (DOAS) – Human Resources Administration (HRA)*

**Problem:**

Travel reimbursement throughout the State enterprise needed to be modernized. The process relied on phone calls to book reservations, and paper expense reports that were physically routed and signed by approvers. Audits had to be conducted to ensure compliance with policy and the manual process had very little reporting capability.

**Solution:**

Using an automated solution, state employees can now quickly set up travel arrangements electronically and similarly secure reimbursement for travel expenses. State managers also get better visibility into spending patterns with the new system which enhances audit capabilities and fiscal controls. The old process relied on phone calls to book reservations, and paper based expense reports, physically routed for signature approvals. Reports required additional manual work.

**How:**

Through competitive bidding, the State Accounting Office (SAO) awarded statewide contracts to Travel Inc. to serve as the state travel agency through which all agencies would make travel reservations and to Concur Solutions to host and implement web-based travel and expense software, branded as TeamWorks. It is integrated with the state's instance of PeopleSoft (TeamWorks Financials), the University System of Georgia's instance of PeopleSoft (Georgia First) and Travel Inc. The solution is configured so that master data, such as employee information and the Chart of Accounts, are fed automatically from TeamWorks Financials, TeamWorks Human Capital Management and/or Georgia First. In addition, TeamWorks Travel & Expense utilizes e-receipt functionality to store an image electronically, and electronic expense reports are routed to approvers by e-mail. Finally, users are able to utilize mobile application functionality to create, review and submit expense reports directly from any smartphone.

Eleven agencies had begun using the solution by June 30, 2012. In FY 2013,

SAO anticipates continuing the rollout in additional agencies.

**Benefits:**

- Reduces the amount of time for employee reimbursements
- Eliminates the need to collect, manage and store paper receipts
- Supports online approval of reimbursements through workflow
- Provides updated status of travel reimbursement by e-mail
- Eliminates re-entering of expense information into financial systems
- Strengthens compliance with state policies and procedures, reduces auditing time
- Provides better visibility into spending patterns
- Improves negotiations with vendors on price and service
- Provides information to shape the overall travel strategy for the state

# IT Governance

*State continues to improve IT Governance*

During FY2012, the state is making significant progress in the governance of its technology enterprise. There is still progress to be made in how the state makes decisions about technology investments. Many times decisions are reached without adequate information to understand the potential costs, risks, and impacts of new technology solutions. We have worked to ensure that investments are implemented efficiently, but we now need to focus on whether those investments deliver the services and benefits needed by the state.

GTA is working with business and technology leaders in state agencies to improve their collaboration. Our goal is to make sure these leaders are at the table together when making decisions about strategic directions for service delivery and new investments. We are eliminating barriers to their collaboration. We are shifting the thinking and focus from "how to keep the lights on" to enabling business services with technology. One recent example is where individual agencies invested in time-tracking software. After seeing the patterns emerge, agencies working together were able to find a collaborative, enterprise approach that will save all agencies dollars in future support costs, while providing an easier and less-costly path for other agencies that want to take advantage of the enterprise solution.

Going forward, the state needs to improve its management of the business applications supporting critical agency services. Agencies invest more on the development and support of their business applications than any other category of technology expenditures. However, the evidence points to a lack of adequate lifecycle management. We need to do a better job of system lifecycle planning upfront for new systems, upgrades to existing business applications, and even their eventual retirement or replacement.

A strong governance program for the state's IT enterprise will ensure the best decisions possible are being made about investments in both technology infrastructure and services in support of the business and Georgia's citizens.

## Strategic Planning

*Georgia has a strategic planning process where IT investments are aligned with state's business goals.*

The goal of IT strategic planning in Georgia is to identify opportunities and needs, and to provide a path for change in the way agencies provide services to citizens. The state does this by facilitating a better understanding of the role of IT in supporting change, and assuring that decision makers at all levels have the information necessary to make strategic decisions.

Knowledge of agency business is critical to understanding how IT investments link to business results, such as productivity gains, reduced costs, job performance and citizen services. IT strategic planning is essential for Georgia to become the best managed state, and it is even more important to sustain gains realized with previous investments.

### **Strategic Planning for Georgia**

*How Strategic Planning works in Georgia*

In Georgia, agencies are guided by the policy imperatives formally captured in the Governor's Strategic Plan for Georgia.

(See the Governor's Strategic Plan for Georgia here [http://opb.georgia.gov/sites/opb.georgia.gov/files/imported/vgn/images/portal/cit\\_1210/28/43/183929804State%20Goals%20April%202012%20FINAL.pdf](http://opb.georgia.gov/sites/opb.georgia.gov/files/imported/vgn/images/portal/cit_1210/28/43/183929804State%20Goals%20April%202012%20FINAL.pdf))

GTA recognizes that agency business objectives drive agency IT needs. GTA is responsible for providing policies, standards and guidelines that address the needs of individual agencies, but with a view across the state based on the greatest benefit to the enterprise. We strive to understand the business needs of agencies to ensure that our guidance helps leverage state IT resources effectively.

## Strategic Planning Results for FY 2012

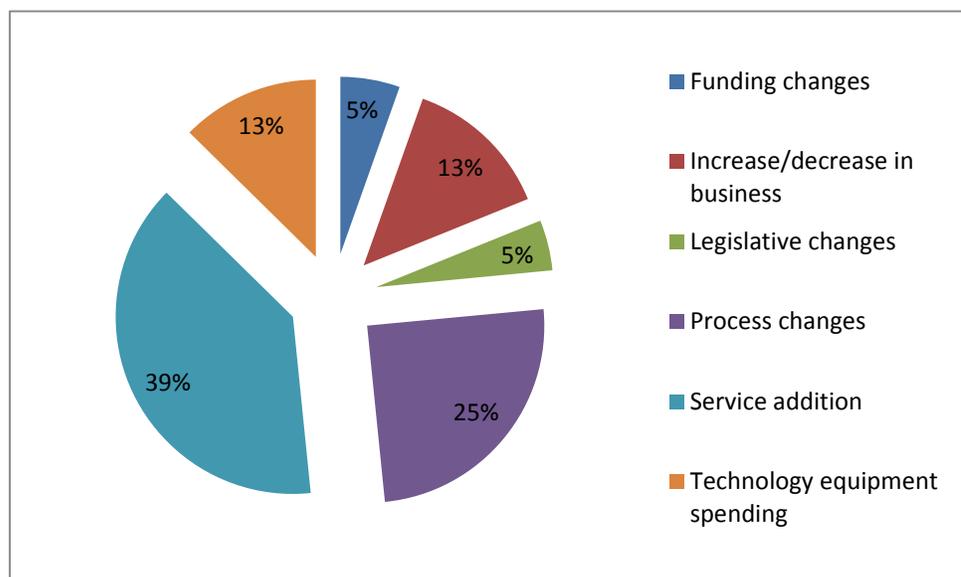
*Largest drivers are in agency process changes or new services*

During FY 2012, GTA reviewed strategic plans for Georgia agencies, with special attention to the business strategies that agencies identified as IT-dependent. The agency business drivers were then categorized for those strategies that had IT dependencies. Business strategy drivers were categorized as follows:

- Funding changes
- Increase/decrease in business
- Legislative changes
- Process changes
- Service addition
- Technology equipment spending

*Providing citizen more service*

An analysis of business drivers behind IT-dependent strategies revealed that over half of the strategies agencies identified as IT-dependent were driven by additional services provided by agencies to citizens, or process changes in the way agencies performed key business activities. Also important were increases and decreases in agency business activity and rollout of new technology equipment. The breakdown on business drivers behind IT-dependent strategies is provided below:



*Agency plan for the future*

To gain a better understanding of how agencies plan to use technology to meet their strategic objectives, GTA met with CIOs from about 30 agencies. These discussions provided an overview of emerging technologies and analyzed potential agency use for new and existing technologies. This information contributed to the Georgia IT Roadmap.

Key technology areas identified include:

- **Mobility:** Providing Georgia workforce with infrastructure, devices, and applications to perform duties in the field
- **Access:** Allowing citizens access to state services across multiple platforms (cell, Wi-Fi, tablets, smart phones, laptops, e-readers, etc.)
- **Business Process Improvement:** Using proven technology to improve business outcomes
- **Sourcing:** Enabling the rapid adoption of market leading/driven technologies to provide timely and cost effective solutions to business needs; allowing access to services to support business functions; identifying and acquiring the best service delivery model for any given requirement of challenge. (e.g., cloud computing strategies)
- **Data Management:** Developing a shared vision and direction to facilitate collaboration using a data management approach (data management comprises all the disciplines related to managing data as a valuable resource)

As planning for FY 2014 begins in the spring of 2013, these technology insights shall be used to craft a clearer picture of how technology is enabling agencies to meet their strategic objectives. This information, and the information that is gathered through future strategic planning activities, will be used to better leverage technology across agencies for more responsible and efficient government in Georgia.

## Collaboration

*State agencies continue to collaborate on IT*

The private sector continues to offer an increasing number of innovative, online services to its customers. These services benefit customers by providing greater convenience and speed of service delivery, and it's less expensive for businesses when customers take advantage of these self-service options.

That citizens increasingly expect this same level of customer service from state government is no surprise. Meanwhile, the historic pressures on agency budgets are leading to greater pressures on technology to support more cost-effective ways of doing business. Unfortunately, barriers in the state's IT enterprise must be overcome before these expectations can be met.

One of the first barriers – an out-of-date, insecure and unreliable IT infrastructure – is being addressed by the Georgia Enterprise Technology Services program.

Consolidation is leading to "IT as a utility" in state government. Freeing agency IT staffs from "keeping the lights on" will enable them to focus on greater integration and data sharing among state agencies – a second barrier to innovative service delivery.

Examples already exist, but far more remains to be done. Getting agency heads and agency IT staffs to work together as strategic partners is a third barrier to innovative service delivery.

*Improving collaboration between agencies*

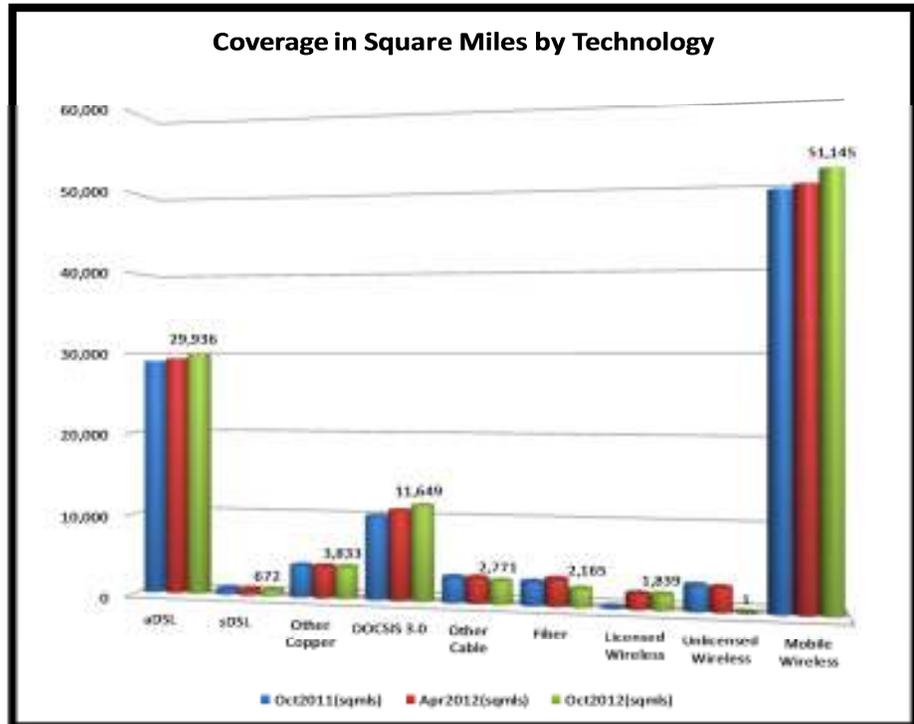
GTA launched an initiative in 2010 to improve the integration of agency business planning with agency technology planning. Two councils were formed – one for agency chief information officers and another for agency business leaders. GTA worked with the councils to identify gaps in how technology and business work together within their respective agencies. Business and technology leaders are following a set of activities to improve their collaboration while GTA is monitoring their progress and providing assistance as needed.

Our goal is to make sure business and technology leaders are at the table together when making decisions about strategic directions for service delivery. This level of integration and collaboration will go a long way toward providing Georgians with the fast, reliable and convenient services they expect and deserve while constraining the cost of delivering those services.

## Broadband

*GTA's broadband program*

The Georgia Technology Authority received a \$5.2 million grant from the U. S. Department of Commerce in 2009 to fund broadband infrastructure analysis, regional planning and capacity development projects statewide through 2014. The grant enables GTA to collect detailed broadband deployment information by private- and public-sector entities throughout Georgia every six months and to assist private and public entities with broadband-related technology planning and utilization. Information on the program is available at [www.georgiabroadband.net](http://www.georgiabroadband.net).



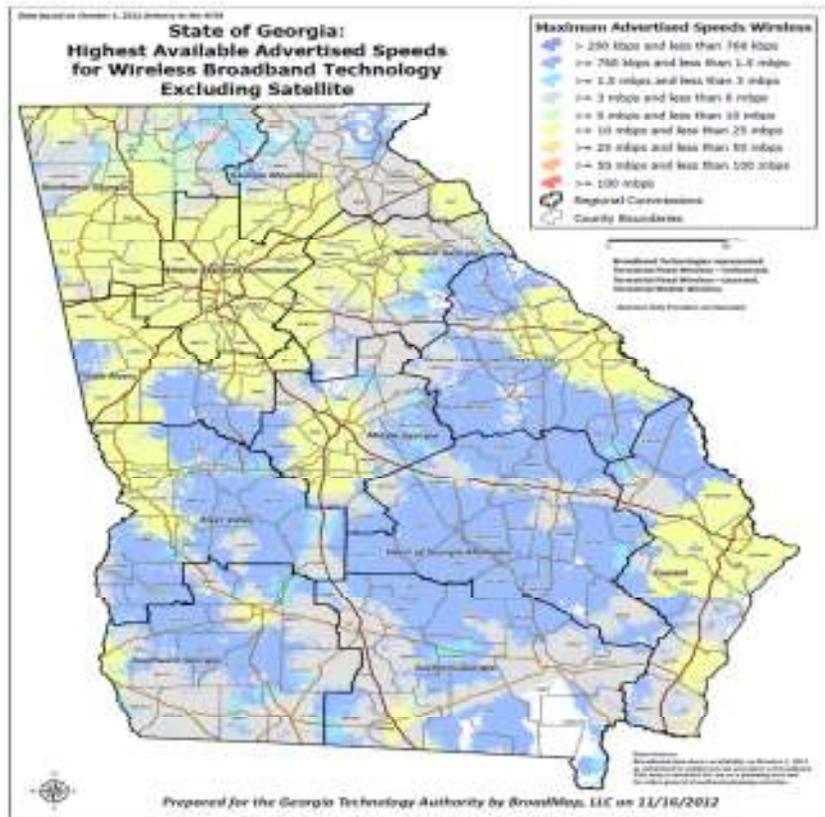
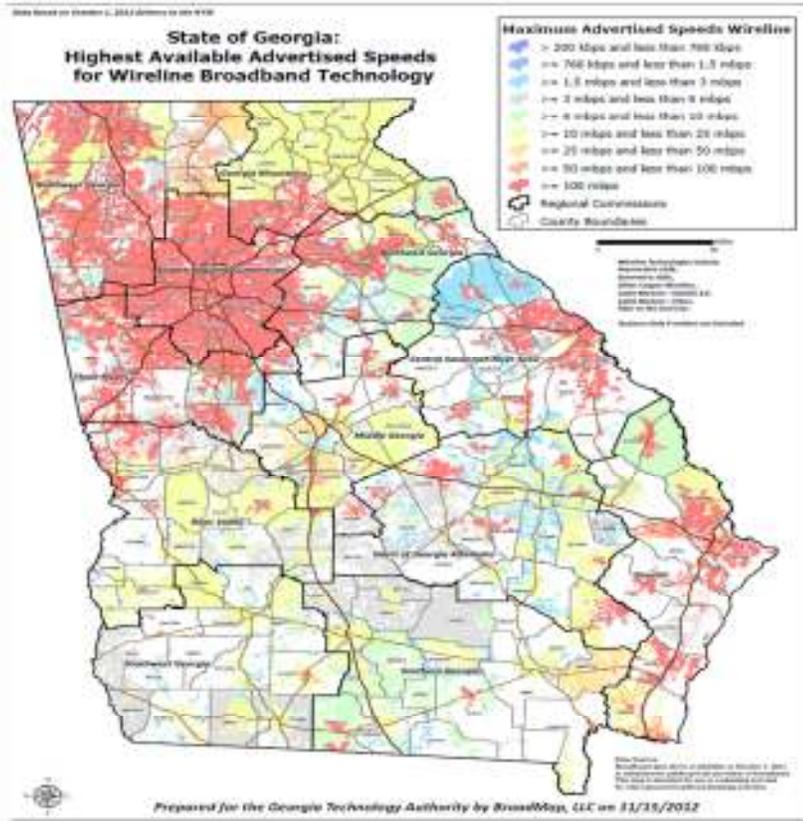
GTA's program has supported state operations by:

- Developing a tablet-based application with the Southern Company for the Department of Economic Development to show available broadband services to site selection specialists
- Identifying healthcare entities without access to broadband for Department of Community Health remediation as DCH moves services online
- Providing advisory services to the Department of Public Safety and the Georgia Emergency Management Agency as the state begins to plan for FirstNet, the upcoming national public safety broadband network
- Developing and initiating a regional broadband planning program in partnership with the state's 12 regional commissions to increase technology-based economic development

In addition, GTA has worked with broadband service providers, residents and small businesses throughout the state to identify and address coverage gaps. GTA is currently analyzing the FCC's Universal Service Reform program and meeting with industry representatives to understand what the state can do to help the primarily private telecommunications industry thrive throughout rural Georgia and deliver services that provide Georgia with a competitive economic development advantage.

Broadband service availability continues to increase primarily through investment in wireless expansion with the largest change consisting of wireless 4G rollouts. Georgia's unserved population for broadband service availability has decreased more than 50% since 2011.

Maps of Georgia's  
Broadband  
Technology – both  
Wireline and Wireless



Going forward, the GTA Broadband Program plan will focus funds and project resources to:

1. Integrate projects and outcomes with priorities, goals and strategies of the state
2. Develop information and capabilities to use project outcomes for economic development
3. Collaborate with, leverage and enhance existing public- and private-sector investments in programs for increasing broadband supply and demand
4. Identify and promote Georgia's innovative use of broadband services and applications

## ***Spectrum Management***

*Public Safety Radio Spectrum is a critical asset of the state*

Spectrum management involves planning, coordinating, and managing the joint use of the public safety radio frequency spectrum through operational, engineering and administrative procedures. The objective of spectrum management is to enable radio communication systems to perform their functions in the intended environment without causing or suffering unacceptable interference.

### **Value to the State**

The 9/11 and Hurricane Katrina Commission Reports unanimously agreed that additional spectrum and better management of the public safety spectrum would go a long way in solving the interoperability issues faced during these or any future disasters. The recent passage of the "Middle Class Tax Relief and Job Creation Act of 2012" addresses the additional spectrum requirement, but there continues to be a need to manage, especially at the state level, new and existing spectrum to ensure maximum utilization and to avoid any interference issues.

*Management of our 12,000 FCC licenses annually*

### **Georgia's Spectrum Management**

GTA oversees, manages and processes over 12,000 Federal Communications Commission (FCC) licenses, applications and queries annually.

GTA's spectrum management group focuses on supporting the radio frequency needs of both state and local public safety agencies, ensuring compliance with state plans and federal regulations, and processing and validating FCC license applications prior to their submittal to the FCC. GTA is an active member of and works closely with the Association of Public Safety Officers (APCO) and the Region 10 (Georgia), 700 and 800MHz Regional Planning Committee (RPC) to ensure adherence to their plans and requirements.

The following is a list of state and local agencies that utilize GTA's Spectrum Management services.

Georgia's Spectrum Management Customers		
Department of Public Safety	Department of Corrections	Department of Transportation
Georgia Bureau of Investigation	Department of Forestry	Department of Natural Resources
Department of Agriculture	Department of Juvenile Justice	Department of Human Services
Public Safety Agencies at University and Technical Schools		
County and City Public Safety Agencies throughout Georgia		

### **Federal Regulations**

FCC licenses authorize public safety agencies to operate their mission-critical radio communication systems on designated public safety frequencies. These radio communication systems are used by 911 and emergency dispatch centers to dispatch public safety, fire and emergency medical personnel to life-threatening incidents or assist public safety officers in car chases that involve multiple jurisdictions. Without a FCC license, public safety agencies cannot operate their mission critical systems and face heavy fines and/or penalties if they operate them without a license. The great danger occurs when an unlicensed public safety agency tries to operate a radio communication system that interferes with an adjacent or co-channel public safety user, which could make the adjacent or co-channel system completely inoperable.

## **Geographical Information Systems**

*Geographical Information Systems (GIS) enhances our ability to visualize spatial data and make better decisions*

A number of Georgia state agencies rely on Geographic Information Systems (GIS). These systems process, edit, query, analyze, and visualize spatial data and their attributes, and allow the state to manage geospatial resources. Managing geospatial resources is the practice of managing data with a spatial orientation or component to support better decision making.

The power of GIS is its ability to identify relationships among the state's features on different map layers based on where they are located in relationship to one another. GIS answers simple questions such as, "How many toxic release sites are within a mile of my home?" GIS also does more complex spatial analyses, such as determining environmental factors involved in the spread of disease or in using GIS models for predicting areas of the state at high risk for child abuse or other crimes.

There are a number of ways that the state receives value from GIS. At the most basic level, it allows for an understanding of where both natural resources and man-made resources are located. It allows the state to determine quantities of resources and the density of each one. For instance, what are the state's water resources, both natural and man-made? What bodies of water are available for drinking?

*GIS equals better decision making.*

GIS can also reflect proximity to the resource. What water resources are near the cities of Atlanta or Savannah? What resource can be shared by two entities? Can the cities of Marietta and Atlanta use the same water resource? Is there capacity for both cities?

The use of GIS can result in cost savings and increased efficiency. It can promote better decision making and facilitate improved communication. It

can also support better recordkeeping and be used to provide key geographically based information to better manage state resources.

A number of state agencies have GIS-based initiatives.

### **Department of Community Health (DCH)**

DCH operates OASIS, or Online Analytical Statistical Information System (<http://oasis.state.ga.us>), a public-facing web application that contains tools for analyzing public health and policy data from the Georgia Department of Public Health's data warehouse. One tool creates animated charts of county-level public health statistics and indicators. Using the tool, you can choose which county's population to display as an animated population pyramid over time.

### **Georgia Department of Transportation (GDOT)**

GDOT is a large user of GIS. The agency supports 360 internal desktop users and over 65,000 annual unique visitors accessing GIS applications. Internally, GIS is used to collect, process, and distribute geographic data to other agencies, business partners, local governments, and researchers. Additionally, GDOT staff uses GIS for mapping and data analysis for project planning, environmental reviews, construction materials, traffic operations, safety analysis, and asset management.

GDOT uses GIS to provide information on the state's transportation system through the online application GeoTRAQS (<http://www.dot.ga.gov/maps/geotraqs/Pages/default.aspx>). This application enables visitors to search for construction projects, permits, crashes, and bridge information in their community. Records link to documents, photos, and plans associated with GDOT activity. GeoTRAQS improves agency transparency and customer service with everyone accessing the same information. Implementing the application eliminated duplication and reproduction costs (about \$400,000 per year) previously expended in providing information to the public and project contractors. On average the site receives 3,000 unique visits per month.

GDOT developed the Emergency Operations Center GIS application to support tracking the impact of emergencies and disasters on the transportation system. GDOT maintenance staff mark roads as being passable, treated, or closed. Traffic and speed sensors provide indicators of congestion based on events. The application has eliminated the inefficient process of rolling up spreadsheets and word processing documents previously used in each of the GDOT districts to track activity. Data is also highly visible to all GDOT staff on the web. To facilitate the coordination of the state's response to emergencies, information from GDOT's GIS application is shared with workers at the State Operations Center through the Georgia Emergency Management Agency's GODAWGS application. In the upcoming release, GDOT will provide access to local governments and record the data to allow for post-event playback analysis to improve the state's future response.

Another GDOT application, Georgia STARS (<http://www.dot.ga.gov/statistics/stars/Pages/default.aspx>), provides citizens and business developers with traffic counts, which helps to communicate annual traffic trends at a specific location (<http://www.dot.ga.gov/statistics/stars/Lists/GASTARSTrafficCounters/DispForm.aspx?ID=20386P>). Providing data on the web instead of requiring the public to visit or call a GDOT office enabled GDOT to reduce staffing at its call center to one person while improving customer service. There are

approximately 2,400 unique visitors per month to the Georgia STARS website.

### **University System of Georgia (USG)**

USG operates the Georgia Statistics System GIS website, which customizes statistics, maps and graphs using the latest data sources from the Georgia County Guide and the Farmgate Value Report. The site's purpose is to facilitate economic development by improving the information available to decision makers in local governments, schools and businesses. The service is a cooperative effort involving the Center for Agribusiness and Economic Development, the Department of Agricultural and Applied Economics, and the Cooperative Extension Service at the University of Georgia.

Types of analysis include:

- County-by-county analysis that accesses a base of 1,420 variables
- Official 2010 census results for population, household and housing characteristics
- Year-by-year analysis for selected variables for up to 50 years for all counties and the state
- Unemployment statistics using the latest figures from the U. S. Bureau of Labor Statistics
- Shift-Share analysis that delivers an employment report for major economic sectors since 1990
- Land price analysis that accesses a base of over two million property transactions from 1997 to 2009

### **Future:**

Because GIS is a heavily technology-dependent program, the Georgia Technology Authority is now looking at how to enhance GIS as a strategic asset to the state. As described above, GIS operations across the state are currently decentralized with limited enterprise oversight and/or assistance. In 2013, GTA plans to partner with GIS program leaders and to begin working more closely with existing GIS. Through the creation of enterprise policies, standards and guidelines, GTA plans to establish foundational operating principles to help disparate GIS operations align as an enterprise operation.

## **Data Governance**

*Georgia is unique among states in that it has a mechanism for interchange of data between agencies.*

In 2002, GTA created a "web portal" environment for use by many state agencies. Part of that environment would provide an integration function to provide data feeds from one application to another, no matter which agency or platforms were hosting the applications. Using webMethods, this function was implemented with middleware to provide what is called the Enterprise Service Bus (ESB). The intention is gradually to replace direct application-to-application connections with connections through the ESB. ESB provides "any to any" connectivity regardless of the age, format or complexity of the systems or applications involved.

Information **technology benefits** offered by ESB include:

- Less agency development effort
- Information published in any format
- Decreased number of interfaces needed by each exchange partner

- Rapid response times to meet changes

**Business benefits** include:

- Increased automation of manual business processes
- Shared business processes across enterprise
- Faster access to data
- Reduced staff costs

**Organizational benefits** include:

- Reduced FTE resources
- Visibility into data (information) being produced or consumed
- Compliance with government and industry regulations
- Single point of contact when multiple exchange partners are involved
- Easier access to new opportunities

**Benefits to constituents** include:

- Faster processing of claims, requests, reports, and status
- Faster retrieval and assembly of data sources from multiple agencies to serve a single business function for a single agency
- Faster online experiences

**GTA Data Sharing as a Service** provides:

- Operational infrastructure
- Standards
- Architectures
- Policies
- Operational processes
- Licensing
- Publish and subscribe access to data
- Technical consultation

GTA manages directly the integrity of the operational environment and connection points. More than 800,000 transactions are handled daily by ESB, involving 20+ government and third-party business partners, spanning law enforcement, judicial, health and human services, educational, and financial business towers.

The **main benefits** of the Data Sharing Service include:

- Providing a non-complex means to connect agencies which leads to increased data sharing opportunities and improved efficiency of data exchange between agencies
- Decreasing state-wide system complexity by offering a central integration infrastructure rather than many separate systems connecting independently
- Improving system security by layering standards-based tools based on prevailing security needs and requirements
- Containing costs by allowing the ESB middleware to absorb common development tasks, tools and software needed to accomplish common agency business processes tied to data processing and data exchanges

# Enterprise Portfolio Management

*Enterprise Portfolio Management helps reduce risk and deliver outcomes*

## **Reducing Risk**

GTA's Enterprise Governance and Planning (EGAP) organization provides a staff of highly skilled and experienced professionals in various technology management areas. The primary objective of EGAP has been to promote industry-leading best practices in the form of policies, standards and guidelines and then to support compliance within the agencies. This is done in conjunction with pursuing the GTA objectives of improved maturity and practices in technology and portfolio management across the state enterprise. In this federated model, the challenge has been in collecting enough information and knowledge about the agencies' businesses in order to provide meaningful solutions and improvements. When there are opportunities for enterprise IT decisions, those decisions typically come from some combination of the Governor's Office, the State CIO, the Office of Planning Budget, the Legislature, and/or participating agencies.

In the absence of central IT decision-making, EGAP is changing its engagement model and 'value proposition' with agencies. EGAP is utilizing its experienced personnel to engage with agencies to solve problems while building its knowledge of the environment. This knowledge base will provide a common foundation for joint decision-making and will drive more analytical decisions within the state. The following services are currently offered.

## **Assessments (Project, Program, Application)**

Review agency projects, programs or applications to determine the effectiveness of processes and practices being used to determine the viability of meeting the business needs.

## **Governance Support (Project, Program, Application)**

Provide guidance for agencies in developing governance structures for projects, programs and applications.

## **Investment Management Support**

Assist agencies through the Initiate and Planning phase of a project to help identify any potential problems before the project moves to the Build phase. We will work with the agency business owners to understand their requirements, and identify and engage the appropriate GTA and/or infrastructure service provider resources to work with the agency throughout the procurement process.

## **Professional Development**

Help agencies build expertise in project management through the Professional Development Program. Courses are offered at no charge to state of Georgia employees through GTA's Enterprise Portfolio Management Office. Participants earn Professional Development Units (PDU) or Educational Contact Hours to satisfy PMP® certification requirements on all courses taken. Course descriptions and schedules can be found on the GTA web site at [www.gta.ga.gov](http://www.gta.ga.gov).

## **Project Assurance**

*Building Project Management Expertise*

Conduct an impartial assessment of a project to identify activities that are critical to the successful delivery of the project and to the necessary resolution of issues and risks that preclude successful delivery. Most project assurance is provided through the Information Technology Project Assurance (ITPAS) contract.

### **Project Management Support**

Assist agencies with the creation of project/program management offices. Guide agencies in managing projects or programs (tools, methodologies, etc.) and establishing and managing agency project portfolios.

### **Information Technology Project Assurance Services (ITPAS)**

Project Assurance provides guidance and counsel on the planning, execution and delivery of large, complex technology initiatives. With the introduction of the Enterprise Performance Life Cycle (EPLC) model and the need to broaden Project Assurance services, GTA established a contract with eight pre-qualified vendors to provide Independent Verification and Validation (IV&V) services for technology projects costing more than \$1 million; Project and Strategic Planning; Business Process Management and other project related services.

In addition to IV&V, the ITPAS contract provides other services such as Planning, Business Process Reengineering and Management, and Business Continuity/Disaster Recovery. The contract helps agencies to more quickly meet needs that may require a Request For Proposal, which may take months to complete. Using the ITPAS contract can significantly reduce the time to procure a qualified vendor to deliver these services. During FY12, the ITPAS contract had a total of \$2.5 million of services procured of which \$2.1 million were for IV&V.

### **Georgia Enterprise Management Suite (GEMS)**

GTA implemented a new Enterprise Project Portfolio Management (EPPM) tool in 2012. Called the **Georgia Enterprise Management Suite (GEMS)**, it tracks projects throughout their lifecycle and applies best practices and industry standards to aid in decisions about moving forward at various stages of a project. GEMS uses dashboard dials to depict various indicators of a project's health, including schedule, budget, risk, issues, community and quality. Data is gathered from questionnaires completed regularly by stakeholders, such as project team members, business owners and agency executives. The result is greater insight into the performance of projects, programs and portfolios within the state of Georgia.

EPPM is the practice of taking a more integrated and top-down approach to managing all project work across an enterprise. It involves a combination of tools, business practices and processes that enable organizations to manage projects as a strategic portfolio, thereby ensuring the alignment of programs and projects with organizational objectives.

*Project Assurance provides independent verification*

*Portfolio Management Software Introduced*

# Information Security

*Cybersecurity is a growing threat to the state*

Information security (from here forward shortened as security) is a very broad topic, but at the end of the day, Georgia's citizens have a simple requirement: Protect their personal information in state computers. They want the information to remain confidential, its integrity must be maintained, and it must be available when needed. The Confidentiality, Integrity, and Availability (CIAs) of our citizens' information are the goals of our security program.

The challenges for Georgia and GTA associated with security are numerous, and they align with the key findings of a recent study conducted by the National Association of State Chief Information Officers (NASCIO) and Deloitte. Their report analyzes findings in the areas of cybersecurity authority and governance, compliance – a lever for CISO leadership, the cybersecurity budget-strategy connection and preparedness for emerging threats.

## **Cybersecurity Authority and Governance**

Georgia's government operates on what is termed a federated model, with each agency responsible for the IT that supports its mission. State law confers on GTA the authority and responsibility to "establish technology security standards and services for use by all agencies". All of GTA's standards are created in consultation with the agencies, and once the standards are approved, they are published on GTA's website.

Security governance is required of the state's agencies, and they must use the risk management framework (RMF) created by the Federal Information Security Management Act of 2002 (FISMA). By selecting this framework, GTA hoped to better leverage agency security initiatives. Many initiatives are already required to follow FISMA by federal law. This framework also allows Georgia to leverage lessons learned at the federal level and solutions developed for federal agencies by the private sector.

To support the state's agencies with their security responsibilities, GTA offers many related services. The primary focus is to educate agency staff on their responsibilities starting with agency security officers (termed senior agency information security officers or SAISOs). The University System of Georgia and GTA have collaborated to offer classes covering the many duties of an SAISO and the required components of an operational security program. GTA also holds hands-on workshops for SAISOs where they are coached through key areas of the state's RMF.

Another aspect of security governance is the annual reports completed by the agencies regarding their security programs. These reports are required of the agencies by law and most comply. Thirty-three agencies do not have their own IT programs and instead leverage another organization.

For FY 2012, 49 agencies reported, down from 76 for FY 2008. Those 49 agencies reported operating 344 major systems in support of their agency missions.

## **Compliance – a Lever for CISO Leadership**

Most chief information security officers (CISOs) use compliance measures and reports as one way to determine where security improvements are needed. Unfortunately, even though Georgia's law requires agencies to report to GTA

once per year, there are no penalties for failure to do so. Here is a list of the agencies that have completed reports for FY 2012.

Criminal Justice Coordinating Council	Georgia Firefighter Standards and Training Council
Department of Administrative Services*	Georgia Forestry Commission
Department of Banking and Finance	Georgia Military College
Department of Behavioral Health and Developmental Disabilities*	Georgia Ports Authority
Department of Community Affairs	Georgia Public Safety Training Center
Department of Community Health*	Georgia Public Telecommunications Commission
Department of Corrections*	Georgia Regional Transportation Authority
Department of Defense	Georgia State Financing and Investment Commission
Department of Driver Services*	Georgia Student Finance Commission
Department of Early Care and Learning	Georgia Technology Authority*
Department of Economic Development	Governor's Office for Children and Families
Department of Education	Governor's Office of Consumer Protection
Department of Human Services*	Herty Advanced Materials Development Center
Department of Insurance	Office of Planning and Budget*
Department of Juvenile Justice*	Office of State Administrative Hearings
Department of Labor	State Accounting Office*
Department of Law	State Board of Pardons and Paroles
Department of Natural Resources*	State Board of Workers' Compensation
Department of Public Safety	State Personnel Administration
Department of Revenue*	State Road and Tollway Authority
Department of Transportation	State Soil and Water Conservation Commission
Employees' Retirement System	Subsequent Injury Trust Fund
Georgia Building Authority	Teachers' Retirement System
Georgia Bureau of Investigation*	Technical College System of Georgia
Georgia Emergency Management Agency	* Receive infrastructure services through the Georgia Enterprise Technology Services (GETS) program.

These reports allow GTA to develop internal measures of compliance and targeted services to address common issues. Some of those services include:

- Classes and workshops for SAISOs mentioned above
- Website vulnerability scanning services
- Program reviews for information security management assistance (PRISMA) resulting in program scorecards and roadmaps for improvements
- Security consultations

*Focusing on Security*

- Forensics and investigative services including computer emergency response team capabilities.
- Convenience contracts with security firms offering services to agencies

One other item that has become apparent is that the state needs a better method of cyber threat prediction and detection. GTA is working with the state's award-winning Fusion Center, more formally known as the Georgia Information Sharing and Analysis Center (GISAC), to develop this capability. Its goal is to create security warnings and alerts for agencies and private-sector owners of the state's critical infrastructure, including recommendations for pre-emptive defensive actions. For more information on the state's Fusion Center, see the section below on preparedness for emerging threats.

GTA also uses the compiled information to identify potential improvements that may be shared across agencies. Many agencies need similar improvements, and by leveraging their buying power on common solutions, the state is able to better protect its information and information systems. Many security products and services are expensive, so it is important to develop a sound security budgeting strategy.

### **The Cybersecurity Budget-Strategy Connection**

The FISMA RMF is a risk-based approach for security management. It is very flexible and takes into account an information system's potential for harm (should a security incident occur) and the owner's willingness to accept risk. Its primary focus is to ensure the business owner understands the risks before allowing the system to operate, and they maintain that knowledge over the life of the system.

One key aspect of the RMF is that the risks presented by the operation of a system are owned by the business program that requires the system to be operated. This ensures that the program's management considers all appropriate options for managing, reducing or eliminating the various risks associated with their system. The agency's SAISO and CIO are responsible for overseeing the functioning of the RMF and its processes, and they act as subject matter experts. They are not responsible for assuming the risks unless they are provided the necessary budget associated with the recommended management approach.

The net effect of this FISMA RMF approach is to tie each system's security budget to the business program requiring it to be operated and, in effect, integrating it with the system's operational budget. This connection is crucial as it ensures agency senior management is managing their security risks as part of the agency's overall portfolio of risks.

When an agency considers its portfolio of information risks, it is also important to note that not all risk-management steps increase costs. "Georgia's technology investments have not resulted in a reliable, recoverable and secure system that ensures data is protected and needs are being met." The goal of the creation of the Georgia Enterprise Technology Services program was to reduce IT risks, yet the business case is yielding \$181 million in savings over 10 years. So, while the state is better able to deal with security threats, it is also saving money.

### **Preparedness for Emerging Threats**

Georgia is no doubt a target. As other states have so painfully discovered, state systems are full of sensitive information that may be used by criminals

to harm its citizens. Some examples of this sensitive information are federal and state tax records, healthcare and educational records, and Social Security and driver's license numbers. Federal or state regulations require protection for some data, and other data, such as credit card information, are protected by private-sector security standards. The impact of a security incident for these systems is well understood and fairly static.

The impact rating of a system is only one of the three factors that make up risk. The other two are vulnerabilities and threats against those vulnerabilities. Without any vulnerabilities, or without any threats to exploit the vulnerabilities, there aren't any risks. This is one reason most IT departments restrict the types of devices they support and spend so much time on patching software. Each type of device introduces new vulnerabilities and threats. Each patch represents the removal of one or more vulnerabilities and the elimination of its associated risks.

Unfortunately, less than 50% of all known software vulnerabilities are ever patched. Some simply can't be patched for various reasons. Newer systems such as smartphones and tablets have the additional challenge that their software is new. New software usually has more vulnerabilities that have not yet been discovered. The zero-day attack is defined by its attempt to exploit a previously unknown vulnerability. Since it is an unknown vulnerability, no one is working on a patch.

However, the old days of denying the use of new technologies are over. Just like most businesses, states must progress and support the use of new technologies that make workers more efficient. There is also a trend to allow workers to provide their own new technology when the state cannot afford it. Rather than fight these changes, Georgia must adapt and improve its processes.

These facts call for a focus on the third factor: preparedness for emerging threats. Preparedness takes many forms and implementing the controls recommended by FISMA is a starting point. In fact, the managerial controls required by FISMA require an ongoing set of processes that attempt to manage a system's risks, and some of these include consideration of known and emerging threats.

Risk assessment, one important family of required controls, requires the agency to consider the risks presented by new and emerging technology and to plan for them. Risk assessment also requires that steps be taken to help identify new risks over the life of each system so they are also properly managed. This means not only tracking discovered vulnerabilities but also tracking emerging threats such as exploits of other organizations and patterns of crime or attack.

State agencies cannot keep up with all the emerging threats without developing intelligence sources. To support this function, GTA is working with the GISAC (Fusion Center), which is a cooperative effort between local, state and federal agencies to share information. The GISAC facilitates the collection of thousands of pieces of homeland security information and intelligence from diverse sources. It organizes and fits those pieces of information with existing intelligence to produce an actionable intelligence picture. One of GTA's functions is to support these activities in the cyber arena.

When the GISAC develops cyber intelligence, it uses that intelligence to appropriately protect government networks and systems by creating warnings and alerts that are issued to the agencies. The GISAC also shares this information in a controlled manner with private-sector owners of the

state's critical infrastructure. These companies may use this information to increase their protection against emerging threats as well.

### **The Results**

There are many ways to measure the results of the state's security efforts but most measures keep changing as the state's efforts mature. One that is consistent is the number of people notified because an unauthorized person has gained access to their personal information in a state system.

The number of citizens that the State needed to notify has decreased dramatically in recent years. GTA's Office of Information Security believes much of this improvement is attributable to two major factors. The first is increased awareness within state agencies of their responsibilities to protect personal information. The second is outsourcing the operations of many of the state's most sensitive systems.

In 2007, GTA surveyed the state's agencies to determine how they secured their systems. Most did not have an individual responsible for security, and few had training for their workers who handled personally identifiable information. Many Georgia agencies also stated they did not have basic security systems such as firewalls and intrusion detection systems.

This has changed significantly. There are now standard job descriptions for SAISOs, and these staff members have low-cost training provided to them that explains how to build and operate an information security program. This training is a joint effort by the University System of Georgia and GTA.

The outsourcing effort has also led to the deployment of many standard security controls on the various systems operated by IBM and AT&T, which provide IT infrastructure and managed network services respectively.

These controls include:

- State standards for proper security configuration of most systems
- Actively managed firewalls with strict access control
- Intrusion detection and prevention systems

The program has moved Georgia's computing environment in the right direction from a security perspective.

### **The Future**

The improvements in security have been impressive but they are not enough. As the program makes progress in modernizing and transforming the state's IT enterprise, common issues are being discovered. These issues must be addressed in a cost-effective manner. This means leveraging the state's buying power to deploy common solutions and continuing to improve the operating environment.

State agencies must also continue to improve the execution of their security responsibilities. Under FISMA, each moderate-impact system must have approximately 180 controls properly implemented for its protection. Even in an outsourced environment, the agency retains full responsibility for all of these controls. As an example, one simple control is to define the process for handling a security incident. While the service providers have a security incident response plan, by design, it does not include such important items as communications with the public or disciplinary action. Their plan calls for the agency to handle such tasks.

GTA's Office of Information Security will continue to review agency security programs for their completeness and effectiveness. It will continue to offer training and is stepping up its training efforts by providing a series of hands-on workshops for the SAISOs. It is also working with the service providers to prepare for an independent, third-party assessment of the service offerings to ensure the offerings are both appropriate and effective.

GTA has also joined the state's Fusion Center and is developing a cyber-threat intelligence capability. In this capacity, GTA staff will work with the federal Department of Homeland Security, the Georgia Bureau of Investigation, the Georgia Emergency Management Agency, the Department of Public Safety, and other state and local law enforcement agencies to analyze various sources of information with the goal of stopping cyber-terrorism and cyber-crime.

## Business Continuity

*Georgia has critical business functions that must continue to operate, even during an emergency event*

Business Continuity Management (BCM) plays an important role in an agency's ability to recover quickly from an event (manmade or natural). Business Continuity Management is the development of strategies, plans and actions that provide protection or alternate modes of operation for agency Mission Essential Functions (MEFs) and associated processes. If those functions and processes were affected by an interruption, this could cause serious harm or potentially fatal loss to the citizen-facing services that agencies provide.

Planning must include identifying agency essential functions, systems and applications that support those essential functions; critical resources; orders of succession; alternate work locations and emergency communication procedures. State agencies must continue to identify and address vulnerabilities.

How prepared are the agencies in the state of Georgia?

GTA asked agencies to respond to eight questions to determine the level of business continuity maturity for the agency. Appendix C contains the answers to those questions in Exhibits 1 and 2, along with several other files on Business Continuity:

- Exhibit 1 - Agency Summary Results Business Continuity Questions
- Exhibit 2 - Agency Detailed Responses - Business Continuity
- Exhibit 3 - Business Continuity Planning Program-Final
- Exhibit 4 - OCGA § 38-3-50 Orders of Succession
- Exhibit 5 - OCGA § 38-3-22-1 Safety Plan

# IT Financial Management

## Overview

*State using consumption management tools to better track IT costs.*

Traditionally it has been difficult proactively tracking Information Technology (IT) costs throughout the state. There was not enough visibility into the cost. The state did not have in place financial systems and processes that captured detailed IT costs on a timely basis. Costs only measured at a high level and on an annual basis after the fact. Many costs went unidentified, rolled into summary level GL accounting codes. Most agencies had limited sight into their IT costs.

Over the last four years, GTA, through the Georgia Enterprise Technology Services program, continues to lead and transform how the state receives IT services. GTA pioneered new reporting mechanisms to provide transparency into agency customer IT usage and associated IT cost information previously not available to state government entities. The program introduced a more consolidated and transparent view of IT **service consumption, asset inventory** and **agency spend detail**. Agency customers have a usage-based (consumption) cost structure for IT services and pay only for the services they consume. This new model incorporates many of the state policies and standards where services supporting a secure environment and disaster recovery are embedded in the resource unit cost. The costing mechanisms allow for economies of scale and leverage private industry standards for chargeback of IT services. These new consumption-based capabilities allow the state to better track over a **billion dollars** in IT expenditure for the state.

## Transparency of IT Spend

*GTA customers able to better view IT spend based on consumption.*

The state's ability to track IT costs continues to mature through the program consumption-based model. The state now has online invoice access with drill-down capabilities that provide customers with cost and usage detail previously not available. This capability enables customers to review and validate line item charges with ease, which assists state agencies with their fiduciary responsibility of being good stewards of tax payer dollars. Agencies continue to request even greater levels of detail and focus groups continue to work with the state's service providers in accessing even greater levels of consumption detail.

GTA has created a sustainable service delivery model for the future use of IT, and the enhanced reporting allows GTA to track actual consumption and costs for all services against original business case assumptions to measure the financial benefits of privatization. GTA can see usage and spend detail for each type of contracted service, such as End User Computing, storage, Mainframe and Voice Services. As more state entities purchase IT services GTA will be able to provide more enterprise and statewide IT financial data than ever before. This type of analysis was previously not possible.

## Financial Benefits and Value

*State begins to see value in consumption*

Improving IT financial management resulted in a consolidated enterprise view of IT allowing the identification of duplicative spending across agencies. The

*based cost model.*

benefits of these improvements are more effective IT spending and, ultimately, more efficient government for Georgia. Some other benefits of improved financial management are:

- Agencies now have a clear view of their costs for IT infrastructure services and can make more informed decisions about how much IT service they actually consume.
  - Better understanding of the factors driving IT consumption
  - Better ability to map expenses to budgets
  - Better decision making
  - Less duplicated spending
  - Ability to view IT resource consumption in a standardized, enterprise approach
- GTA can provide market-based delivery of managed network and infrastructure services

The Office of Planning and Budget (OPB) has increased visibility into services, allowing for validation of expenses, oversight and a clearer understanding of agency usage of IT

## Financial and Agency Challenges

*Agencies still see challenge in area of asset management and great consumption of resources.*

The challenge areas of such a large scale move to transform the state's IT support model is maturing. The move to an operational model has made the need to develop, implement and maintain a solid asset management process of significant importance as compared to a model that was more capital expenditure focused. As the transformation and consolidation project progresses towards a completion in 3<sup>rd</sup> Qtr 2014, the need for strong communication and maintaining agency partnership continues to be an ongoing process. Greater agency involvement in decision-making, communication focus with key business leaders within agencies is important as GTA seeks ways to provide even greater transparency through information sharing.

A greater reliance on information technology is being driven by agency needs to find greater efficiencies. Increasing IT need is resulting in greater consumption and increased cost referred to as "organic growth". This organic growth is an area of GTA focus and an area where agencies are working to find reduced consumption opportunities.

- Asset management process continues to improve but is an area of focus
- Changing the culture from a capital expenditure model to more of an operational expense model has been challenging
- Increased agency needs is driving greater consumption of IT services and increased cost for these services

## Future - Consumption Management

*Better understanding and reporting on the use of IT resources.*

While the state has gained significant advantages from a service-oriented approach to financial management, opportunities exist for further improvement. GTA will pursue additional benefits as follows:

- With more uniform use of enterprise-wide, financial systems among all agencies, regardless of their use of the program or other IT providers, state decision makers would have better understanding of IT spending across state government.
- GTA currently has a limited view of financial information about services that are not provided through the program.
- Better reporting of all IT usage (in addition to the detailed information collected from agencies) will allow for better statewide decision-making
- Expanding agency compliance with requirements of the IT Governance Report would increase the accuracy and dependability of this report
- Better processes for associating planned budgets and actual expense are needed
- Better understanding of application spending across agencies will enable better decision-making at the state level

## IT Strategy

The IT Strategy section of the Annual State IT report has three sections. The first section details the direction or road map that the state is pursuing in the next 3 to 5 years. The second section called The Service Provider for Infrastructure is a status for the infrastructure vendor for GETS. The third section called The Service Provider for Network is a status for the network vendor for GETS.

## Technology Road Map

Future IT directions that are important to the state

The Georgia IT Road Map is a collaborative document developed by state agency CIOs to outline priorities for improving and stabilizing technology across state government. The road map is refreshed annually, and it sets the course for IT for the next three to five years.

The five focus areas are **business process, workforce mobility, access, cloud-based sourcing, and data management.**

To address the five focus areas, the state is continuing to work with our current IT infrastructure services provider (IBM) and managed network services provider (AT&T) to develop implementation strategies. Both providers are currently evaluating several technology strategies, including handheld computing devices, cloud computing, cloud-based applications, unified communications and mobile devices management.

### Overview

The state CIO's responsibilities include not only assisting with the day-to-day IT

operations of the state, but also establishing a strategic IT vision and mission for the state. Georgia's IT vision is "To create a transparent, integrated enterprise where technology decisions are made with the citizen in mind". In support of this vision, the Georgia Technology Authority's mission is "To connect Georgians to their government." To accomplish these outcomes, the Georgia IT Road Map was established to set the course for IT for the next three to five years. In partnership with state executive agencies, the state CIO continues to work collaboratively with agency business and technology leaders to develop this strategic document. While GTA is coordinating work on the IT road map, agencies from across state government are working together to identify future technologies that support the business operations of all state agencies and the services that communities and citizens need from state government. Moving forward, Georgia agency CIOs will work in tandem with GTA strategists to craft an effective plan for evolving Georgia's use of new technologies.

**Georgia IT Road Map Focus Areas**

Five focus areas have been identified for the initial Georgia IT Road Map. Agency CIOs from diverse agencies will help to improve the state's performance in these areas. Over time, new areas will be identified and added to the road map.



**Business Process**

Outcome: Improved agency operational and business efficiency

Ongoing Work:

As budgets continue to shrink, state agencies now more than ever are looking at ways to increase efficiencies and reduce cost. By focusing on innovation and rethinking current business processes, agencies are exploring and challenging CIO's to enable business processes through existing and new technologies. The ways in which citizens want to connect to government services are also challenging Georgia to be creative and more agile in service delivery. As a leader in technology, GTA will continue to advocate and champion initiatives that enable agency business through the use of proven technology. Outlined in the road map are focus areas where resources are currently allocated, while other phases are in the planning stages.

## Workforce Mobility

Outcome: Providing the state government workforce with infrastructure, devices and applications to perform duties where they are as opposed to where the office is located.

### Ongoing Work:

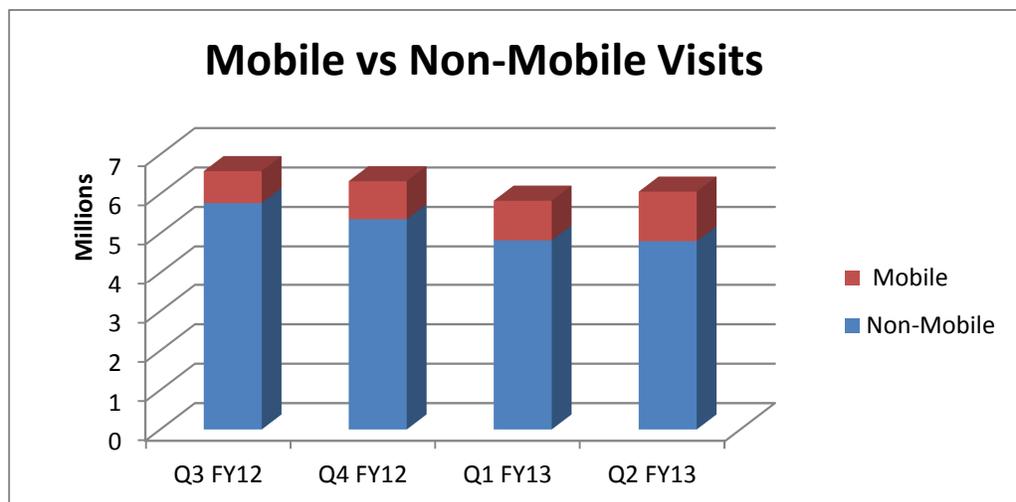
The traditional workplace environment is being forced to evolve everyday by the pressures of change. Advances in mobile technology have open doors of opportunity like no other time in workplace history. The state of Georgia is aware of these new opportunities and their associated challenges and is preparing for the next generation workforce. As one of its strategic initiatives, the state is establishing a Bring Your Own Device (BYOD) policy to help set guidelines, standards and controls on the use of employee-owned devices in the workplace. The policy effort is being coupled with work in network security, mobile device management and, where it supports business, the provisioning of smart devices and tablets to specific segments of the state workforce. Throughout 2013, GTA will continue to work with the state's IT service providers to ensure the best possible business solutions are implemented.

## Access

Outcome: Allowing citizens access to state services across multiple platforms (cell, Wi-Fi, tablets, smartphones, laptops, e-readers).

### Ongoing Work:

The consumerization of IT is a new industry term which basically means customers today are desiring and demanding services in a different way. For Georgia, this means that state services where appropriate will need to be modified to meet these new demands for more convenient citizen access. To address these demands, the state has charter workgroups to explore the different services across state government that could be candidates for delivery through mobile applications. From an application development standpoint, the state portal, Georgia.gov, has adopted a "mobile first" strategy to ensure the next generation of applications can scale and run on tablets and hand-held smart devices. Access will continue to be a strategic topic through 2015. As you can see from the graph below, the "mobile" visits to the Georgia state portal (Georgia.gov) are increasing.



### **Cloud-based Sourcing**

Outcome: To expand our current IT service delivery model to include rapid provisioning of timely and cost-effective cloud solutions to meet agency business needs.

#### Ongoing Work:

The state of Georgia is in the early stages of assessing and adopting cloud-based sourcing of additional IT products and services. As transformation continues across the state's IT enterprise, opportunities are being identified to use current state IT assets to provide additional business value. GTA is in discussions with our current IT service providers to better understand their capacity to provide cloud services to the state. In 2012, Gartner listed cloud computing as one of the disruptive technologies facing IT leaders. Gartner's findings suggest cloud services will become a significant provisioning model in the marketplace in the near future. The state of Georgia is preparing to move forward with cloud computing. Though many questions are still on the table, the state is looking at private, public and hybrid cloud models to determine which model will work best for the state. Early candidates for cloud services are e-mail, application development and testing environments, and data storage.

### **Data Management**

Outcome: To improve the efficiency of how state data is used, managed, protected and positioned as a strategic asset.

#### Ongoing Work:

The state of Georgia is in the early stages of developing a shared vision and direction to facilitate a common data management approach across the enterprise. There are state policies on data management, but additional work is needed to refresh and create standards and guidelines to ensure policy compliance and outcomes are achieved. Data governance is a new component being established in support of the statewide data management initiative. Formalizing a data governance structure will greatly enhance the state's ability to leverage state data.

Industry experts Gartner and Forrester identify "Big Data" as one of the next disruptive technologies that will require a strategy from business and technology leaders. Declining technology budgets and increasing demand for data storage suggest that possible modifications in business processes and data management approaches are now needed. Moving forward, GTA, in partnership with agency stakeholders, will continue to introduce, promote and advocate sound data management principles. The state CIO is planning now for the additional investments that will be necessary to mature the state enterprise in this important business area.

### **Innovation**

Outcome: Increase the efficiency of government service delivery to Georgia citizens through the deployment of innovative technology solutions.

#### Ongoing Work:

In support of the Governor's strategic goal to focus on innovation, GTA is continuing to increase the state's ability to align the right technology to its business

needs. Innovation is about value to our workforce, our customers and our citizens. To revitalize the state's focus on innovation, efforts are underway to reinstitute an Enterprise Innovation Center. As plans continue to develop, this new center will be led by a collaborative council made up of agency business and IT leaders and enterprise support agencies, and it will be chaired by the state CIO.

There is still much work to accomplish the Enterprise Innovation Center vision. As the framework continues to develop, IT guiding principles are being proposed to formalize the approach and provide operating definitions. The acronym L.E.A.N. outlines the four basic tenants of the guiding principles being positioned as foundational for the Enterprise Innovation Center concept.

- **Leverage** existing technology and solutions toward shared services to enable the greatest value for the investments in technology
- **Enable** technology resources, skills and staffing in support of business needs
- **Align** business needs with technology solutions
- **iNnovate** emerging capabilities with current and long-term business needs

With continuing declines in operating budgets, the state's investment in innovation is a prudent course of action. GTA will continue to provide technology leadership and oversight to ensure the best IT investment decisions.

## Service Provider for Infrastructure

*Transformation continues to make progress in FY2012 and operations provides stability and reliability*

Agencies, GTA and the service providers were heavily engaged in IT transformation activities in 2012. The enterprise transformation represents significant benefits for the state, including reduced risk, reduced costs and greater financial transparency. A clearer understanding of IT consumption will allow agencies to make informed decisions regarding their future needs. The end-to-end plan is comprehensive and includes more than 134 individual projects involving large scale infrastructure upgrades ranging from e-mail transformation to file server and application server consolidation. Other upgrades, such as malware and laptop encryption, directly benefit end users. At the time of writing, 56 Agency Transformation Projects have completed with 51 in progress and 27 yet to begin.

The following programs completed in 2012:

- Active Directory transformation for DOR, GBI and the Governor's Office
- E-mail transformation for DOR, GBI, DDS and the Governor's Office
- Public Key Infrastructure rollout for DDS, DJJ, the Governor's Office and OPB
- Malware for DJJ, DOAS, DOR, and GTA
- Antivirus for DNR, DOAS, GBI, GDC, the Governor's Office and GTA
- Laptop encryption for DDS and OPB
- Print services for DBHDD and DPH

Programs in progress include:

- File services transformation for DNR, DJJ and GDC
- Server consolidation for DNR, GBI, DBHDD, DCH, DPH, DHS, DDS, and GDC
- Active Directory for DCH, DOAS, GTA and SAO.
- E-mail transformation for DPH, DHS, DNR and GDC

- Public Key Infrastructure for DBHDD, DCH, DPH, DHS, DNR, DOAS, GBI, GDC and GTA
- Malware for DBHDD, DCH, DPH, DHS, DNR, GBI, and GDC
- Antivirus for DHS
- Laptop encryption for DOAS, DOR, GDC, GTA and SAO
- Print services for DHS, DJJ and GTA

Transformation Services										
	AD Migration	eMail Migration	PKI Migration	Malware Server	Desktop Antivirus	Laptop Encryption	Novell AD / Email	App Server Consolidation (SCON)	File Services Consolidation	Print Services Migration
DBHDD	N/A	N/A	12/27/11 - 03/27/14	07/19/11 - 10/15/13	03/15/13 - 07/12/13	07/25/14 - 10/22/14	06/03/13 - 10/17/14	03/27/12 - 08/15/13	07/08/13 - 10/25/13	C
DCH	07/12/10 - 12/24/12	04/01/11 - 01/18/13	08/15/11 - 01/21/13	07/19/11 - 05/31/13	11/12/12 - 02/3/13	N/A	N/A	02/20/12 - 07/09/13	07/15/13 - 10/18/13	09/08/12 - 10/12/13
DPH	N/A	N/A	08/15/11 - 04/17/14	07/19/11 - 10/16/13	03/23/13 - 07/12/13	07/10/14 - 09/03/14	07/31/12 - 08/14/14	04/02/12 - 09/13/13	07/08/13 - 10/18/13	C
DDS	C	C	C	C	C	C	C	C	C	C
4/29/2011	3/30/2012	5/8/2012	9/7/2011	8/22/2011	11/26/12	N/A	N/A	9/3/2010	08/05/13 - 11/15/13	10/15/12 - 10/16/13
DHS	N/A	N/A	02/09/12 - 03/06/14	07/10/11 - 04/16/13	10/19/12 - 02/13/13	02/07/14 - 12/31/14	07/31/12 - 9/29/14	05/07/12 - 12/13/13	01/07/13 - 11/01/13	07/19/12 - 09/20/13
DJJ	C	C	C	C	C	C	C	C	C	C
4/29/2011	9/30/2011	4/25/2012	3/1/2012	12/31/2011	6/13/2011	N/A	N/A	8/27/2010	09/09/12 - 01/31/13	08/06/12 - 11/02/13
DNR	N/A	N/A	06/15/11 - 13/19/12	11/13/12	08/12/12	N/A	01/27/12 - 03/28/13	08/06/12 - 02/08/14	06/09/12 - 10/24/12	C
DOAS	06/21/10 - 01/23/13	07/18/12 - 02/13/13	12/01/10 - 01/31/13	06/07/12	6/1/2012	06/30/11 - 03/15/13	N/A	11/05/12 - 05/03/14	08/05/13 - 11/15/13	10/23/12 - 10/15/13
DOR	C	C	C	C	C	C	C	C	C	C
6/04/2012	07/27/2012	4/13/2012	1/17/2012	8/1/2011	11/20/12	N/A	N/A	02/04/13 - 09/12/14	08/12/13 - 11/22/13	10/16/12 - 10/18/13
GBI	C	C	C	C	C	C	C	C	C	C
09/24/12	10/05/12	03/31/11 - 01/21/13	07/19/11 - 01/08/13	10/30/12	N/A	N/A	N/A	03/06/12 - 02/12/13	07/22/13 - 11/15/13	11/02/12 - 12/05/13
GDC	N/A	N/A	12/30/10 - 05/09/13	11/26/12	09/18/12	08/22/11 - 11/13/13	07/31/12 - 09/25/13	09/03/12 - 03/07/14	04/23/12 - 04/26/13	C
GOV	C	C	C	C	C	C	C	C	C	C
5/29/2012	05/31/2012	06/28/2012	8/12/11	07/27/12	N/A	N/A	N/A	12/31/2010	N/A	N/A
GTA (incl. OST, GAA)	06/15/09 - 03/29/13	03/11/10 - 04/16/13	08/15/11 - 03/04/13	2/27/2012	1/4/2012	03/21/11 - 05/15/13	N/A	12/03/12 - 06/20/14	07/02/12 - 10/5/12	09/05/12 - 10/12/13
OPB	C	C	C	C	C	C	C	C	C	C
9/6/2010	4/28/2011	4/18/2012	7/8/2011	7/8/2011	3/15/2012	N/A	N/A	9/10/2010	11/15/12 - 01/01/13	11/15/12 - 03/01/13
SAO	02/03/10 - 03/27/13	09/07/12 - 04/16/13	N/A	C	C	C	C	N/A	02/11/13 - 05/24/13	10/08/12 - 10/19/13
11/07/11 - 05/15/13			12/16/2011	12/16/2011	11/07/11 - 05/15/13					
TOTAL COMPLETE	6	6	5	10	11	6		4		4

C = Complete    Not Started Yet    In Progress    Change since last presentation    Print - Re-Solution Plan

Graphical representation of progress of transformation above:

### Server Consolidation

A key success factor in completing the IT transformation is completion of the enterprise server consolidation – also known as SCON. In addition to saving money and reducing risk, server consolidation acts as a catalyst for other technology optimization initiatives across the enterprise. When Georgia's enterprise server consolidation project is complete, 1,300 servers will have been replaced by about 700 servers, most of which will operate in the North Atlanta Data Center, the state's primary data center. This data center is designed to comply with the requirements of the Uptime Institute's Tier 4 Standard, the gold standard of uptime resiliency. These requirements are designed to meet the needs of an enterprise the size of the state of Georgia and with the criticality of its life-impacting services

The SCON project involves a full project implementation methodology, including defining the specific requirements for each agency to ensure agency business applications will be able to properly function in the consolidated Hosting Environment (HE). Agency teams are directly involved to provide remediation of affected applications by conducting a full test methodology, including user acceptance testing.

### Infrastructure Currency

In parallel with infrastructure transformation, the transformation program is executing on two extensive infrastructure currency programs: end user computing (EUC) refresh and server currency.

### End User Computing Refresh

The program requires our service provider to refresh (replace with new)

laptop computers every three years and desktop computers every five years. These refresh cycles match IT industry best practices. The total number of state EUC devices in scope is roughly 36,000.

We formalized end user computing refresh program processes to effectively engage all full-service agencies. Notable progress was made in 2012 with the program meeting its commitment to replace all laptops in the first three years of the program. The program is also on target to refresh all desktops within the first five years. More than 18,000 EUC devices have been refreshed. Feedback from end user has been very positive.

### **Server Currency**

In parallel with server consolidation, we are refreshing aged and chronically failing servers in the field that cannot wait for the transformation schedule. The program refreshed 357 servers, including 115 in 2012 alone. This activity is helping us achieve committed service levels and bringing stability in advance of the server consolidation efforts.

### **Disaster Recovery**

Offsite disaster recovery is key to ensuring the state can continue to operate in the event of a wide-reaching and catastrophic event. In September, nine agencies participated in the third annual offsite disaster recovery test. This test was the largest and most comprehensive to date and included all T0 and T1 applications, plus additional secondary testing. The outcome of the exercise was very positive with agencies acknowledging the test was successful.

### **IT Infrastructure Service Provider Long-range IT Planning**

The state's IT infrastructure service provider is assessing a number of technology strategies to help GTA advance support and services for state agencies. Technology moves quickly, and to assure we are able to support agencies with current technologies, we must remain flexible and adaptive. New generation handheld computing devices such as iPhones, iPads and Android-based phones and tablets are rapidly replacing or augmenting more established PC, laptop and BlackBerry devices. These new personal devices are capturing the market by providing portability and application capabilities that have not been available with the more established infrastructures. To ensure state agencies are able to benefit from these newer technologies, we are working with our contractors to provide secure and fully compliant support for these new capabilities.

### **Cloud Computing**

Cloud computing seeks to provide services and technologies to customers in secure and predictable ways without additional capital expenses and infrastructure support costs for customers. In this way, services can be ramped up or down quickly to meet changing requirements. The infrastructure service provider is positioned to help GTA and state agencies benefit from cloud computing by providing a broad range of secure and reliable capabilities, such as software as a service (SaaS), platform as a service (PaaS) and infrastructure as a service (IaaS) across a broad range of technologies. The primary obstacle to enabling full benefits from cloud computing is regulatory in nature. Public clouds may not provide the necessary controls, in many cases, to enable full regulatory compliance. At the North Atlanta Data Center a computing infrastructure that is highly virtualized is being established. This strategy will make it much easier for the

state to establish a private cloud that can be leveraged by all state agencies to facilitate the delivery of servers, storage and services within a fully compliant and secure environment. By providing infrastructure and services from a private cloud, GTA would be able to support state agencies much more quickly and cost effectively as new requirements surface. By sharing infrastructure and support costs to the maximum extent possible within a private cloud, GTA would offer more predictable pricing and faster service deployment. State agencies would be able to "fine tune" their use of required resources and services, making their overall costs lower and more predictable.

## **Service Provider for Network**

### **Managed Network Service Provider**

AT&T made significant progress in the completion of its primary Managed Network Services projects in support of asset refresh, service transformation, and consolidation of network platforms. The main programs during 2012 within the service provider for network's current scope of services are as follows:

#### **Local and Wide Area Network (LAN/WAN) Refresh Program**

This program includes data circuit replacements to newer technologies, router/switch refresh, wireless LAN deployment, Remote Access Dial-In User Service (RADIUS) authentication, Domain Name System/Dynamic Host Configuration Protocol (DNS/DHCP) migration, intrusion detection tool implementation, firewall rule remediation, and logical data network standardization. AT&T replaced approximately 1,900 network assets at 570 customer locations. This program is nearing 75 percent completion for the 14 full-service agencies. The next phase will include the refresh of agency headquarters and circuit/router refresh for partial service agencies.

#### **Network Infrastructure Consolidation Program**

This program includes a variety of projects to consolidate services at the North Atlanta Data Center, the Boulder disaster recovery facility, and the points of presence (POPs) supporting the state of Georgia network. One major project was the Secure Socket Layer/Virtual Private Network (SSL/VPN) project, where remote user services was successfully implemented for six state agencies and approximately 3,000 users. The solution is built upon a standards-based architecture that will support the remaining 15,000 users to be migrated in 2013 and can also be leveraged for supported mobile devices. Other consolidation projects that were completed in 2012 include:

- IP address management for all public and private IP addressing,
- IP address overlap remediation between all agencies, external DNS Infoblox implementation,
- Cisco ACS RADIUS project for wired and wireless LAN authentication, wireless LAN management server implementation,
- Doubling of the State of Georgia Internet connection from 1 Gigabit per second (Gbps) to 2 Gbps.

Additional projects that have progressed throughout 2012 include the internal DNS/DHCP consolidation, site-to-site encryption upgrades and

enhancements, and support of broadband Internet access to the state of Georgia network.

### **Voice Service Refresh and Call Center Migration Programs**

The Voice Refresh program includes the replacement of aging voice equipment with new IP-enabled PBX and key systems along with supporting handsets, voice mail, automated attendant, and call center services. The refresh program for sites with Centrex services provides new handsets and an update of user features. The project also includes a large amount of inventory and billing reconciliation during the refresh process. In 2012, seven PBX systems were refreshed, 201 key systems, and 16,457 Centrex lines throughout the state of Georgia. Additionally, a cloud-based Hosted Unified Communications platform was successfully implemented to support softphone, instant messaging, presence, and web conferencing capabilities. The hosted contact center program includes the migration of call centers to a new hosted integrated contact services platform that will replace the expiring contact center service and a variety of legacy, premise-based call center solutions previously deployed at agency locations.

### **Security Program**

A new intrusion prevention system was deployed that is based upon best-in-class security software to detect and proactively block attacks from the Internet directed at state agency networks. Additional tools have been deployed on the refreshed routers at each location to detect attacks, viruses and traffic anomalies that could indicate a security vulnerability has been exploited. Network service provider has enhanced procedures to review and remediate events quickly. Network service provider assumed management of more than 250 legacy firewalls in the operating environment, providing agencies with world-class firewall management while also reducing costs. Additionally, AT&T has put a premise-based firewall solution on contract and is in the process of deploying the solution at a number of remote data center locations.

### **Product & Services Portfolio**

The program continued to evolve its portfolio in 2012 to meet the needs of state government business by revising several services and adding new services. Here are highlights:

#### **Wireless Access Point (WAP) Redesign and Re-pricing**

Working with several customers, it was recognized that technology had changed significantly in wireless networking since the commencement of the program. The WAP offering was redesigned and re-priced allowing several agencies to accelerate deployment of the service in their network.

#### **Growth of Integrated Voice Response (IVR) service results in Significant Price Reduction**

One of the advantages of the contract is that increased consumption results in lower prices for all customers, which was certainly the case with the IVR service in 2012. Usage of this service increased 139%, which resulted in a 14% price decrease for all customers, demonstrating the significant value provided by the contract.

#### **Additional Data Speeds Offered**

Virtual Private Network (AVPN) service was enhanced. Ten new high-speed options were added to the contract, providing customers with more bandwidth choices to meet increasing data networking needs.

**Voice over IP (VoIP) Options Added to Voice Services**

Two new VoIP options were developed in the contract. The first option uses the Premium Voice Resource Unit and is available for customers whose LAN and WAN infrastructure can support VoIP service. The second option, IPT Connect, provides customers with the option of buying VoIP equipment while still receiving network services and maintenance through the contract. Both of these options are available today, and several customers have already taken advantage of the new offers.

## **Appendix**

**Appendix A – Participation by Agencies**

Exhibit 1 – Agencies Reporting IT Expenditures

**Appendix A - Exhibit 1 – Agencies Reporting IT Expenditures**

**Agencies required by law to report**

	<b>Agency Name</b>	<b>Reported 2010</b>	<b>Reported 2011</b>	<b>Reported 2012</b>
<b>1</b>	<b>Administrative Office of Georgia Courts</b>	<b>X</b>		
<b>2</b>	<b>Aviation Hall of Fame Authority</b>			
<b>3</b>	<b>Brain &amp; Spinal Injury Trust Fund Authority</b>			<b>X</b>
<b>4</b>	<b>Cancer Advisory Committee/Cancer Coalition</b>	<b>X</b>		<b>X</b>
<b>5</b>	<b>Civil War Commission</b>			
<b>6</b>	<b>Composite State Board of Medical Examiners</b>			
<b>7</b>	<b>Council on American Indian Concerns</b>			
<b>8</b>	<b>Criminal Justice Coordinating Council</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>9</b>	<b>Department of Administrative Services</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>10</b>	<b>Department of Banking and Finance</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>11</b>	<b>Department of Behavioral Health and Developmental Disabilities</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>12</b>	<b>Department of Community Affairs</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>13</b>	<b>Department of Community Health</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>14</b>	<b>Department of Corrections</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>15</b>	<b>Department of Defense</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>16</b>	<b>Department of Driver Services</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>17</b>	<b>Department of Early Care and Learning</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>18</b>	<b>Department of Economic Development</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>19</b>	<b>Department of Human Services</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>20</b>	<b>Department of Juvenile Justice</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>21</b>	<b>Department of Natural Resources</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>22</b>	<b>Department of Public Health</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>23</b>	<b>Department of Public Safety</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>24</b>	<b>Department of Revenue</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>25</b>	<b>Department of Transportation</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>26</b>	<b>Department of Veterans Services</b>			
<b>27</b>	<b>Employees' Retirement System</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>28</b>	<b>Georgia Agricultural Exposition Authority</b>			
<b>29</b>	<b>Georgia Agrirama Development Authority</b>			
<b>30</b>	<b>Georgia Aviation Authority</b>			
<b>31</b>	<b>Georgia Board for Physician Workforce</b>			
<b>32</b>	<b>Georgia Building Authority</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>33</b>	<b>Georgia Bureau of Investigation</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>34</b>	<b>Georgia Commission on Equal Opportunity</b>			
<b>35</b>	<b>Georgia Commission on the Holocaust</b>			

	<b>Agency Name</b>	<b>Reported 2010</b>	<b>Reported 2011</b>	<b>Reported 2012</b>
36	Georgia Council for the Arts		X	X
37	Georgia Council on Developmental Disabilities			
38	Georgia Development Authority			
39	Georgia Drugs and Narcotics Agency		X	X
40	Georgia Emergency Management Agency	X		X
41	Georgia Environmental Facilities Authority			
42	Georgia Fire Academy	X	X	
43	Georgia Firefighter Standards and Training Council	X		X
44	Georgia Firefighters Pension Fund			
45	Georgia Forestry Commission		X	X
46	Georgia Housing and Finance Authority	X	X	
47	Georgia Lottery Corporation			
48	Georgia Medical Center Authority			
49	Georgia Music Hall of Fame Authority		X	
50	Georgia Peace Officer Standards and Training Council			
51	Georgia Police Academy	X	X	
52	Georgia Ports Authority	X	X	X
53	Georgia Professional Standards Commission			
54	Georgia Public Defender Standards Council			
55	Georgia Public Safety Training Center	X	X	X
56	Georgia Public Telecommunications Commission		X	X
57	Georgia Real Estate Commission & Appraisers Board			
58	Georgia Regional Transportation Authority	X	X	X
59	Georgia Seed Development Commission			
60	Georgia Sports Hall of Fame Authority			
61	Georgia State Financing and Investment Commission	X	X	X
62	Georgia Student Finance Commission	X	X	X
63	Georgia Technology Authority	X	X	X
64	Georgia World Congress Center Authority	X	X	X
65	Governor's Office of the Child Advocate			
66	Governor's Office for Children and Families	X	X	X
67	Governor's Office of Consumer Protection		X	X
68	Governor's Office of Student Achievement			
69	Health Planning Review Board			
70	Herty Advanced Materials Development Center	X		
71	Jekyll Island State Park Authority			

	Agency Name	Reported 2010	Reported 2011	Reported 2012
72	Lake Lanier Islands Development Authority	X		X
73	Military Affairs Coordinating Committee			
74	Nonpublic Postsecondary Education Commission		X	
75	North Georgia Mountains Authority			
76	Oconee River Greenway Authority			
77	Office of Highway Safety	X	X	X
78	Office of Inspector General			X
79	Office of Planning and Budget	X	X	X
80	Office of State Administrative Hearings	X	X	X
81	Office of Treasury and Fiscal Services	X	X	X
82	OneGeorgia Authority		X	
83	Prosecuting Attorneys' Council			
84	Southwest Georgia Railroad Excursion Authority			
85	State Accounting Office	X	X	X
86	State Board of Pardons and Paroles	X	X	X
87	State Board of Workers' Compensation	X	X	X
88	State Housing Trust Fund for the Homeless Commission	X	X	
89	State Personnel Administration	X	X	X
90	State Properties Commission	X	X	X
91	State Road and Tollway Authority	X	X	X
92	State Soil and Water Conservation Commission	X	X	X
93	Stone Mountain Memorial Association			
94	Subsequent Injury Trust Fund	X	X	X
95	Teachers' Retirement System	X	X	X
96	Technical College System of Georgia	X	X	X

**Agencies NOT required to report**

	Agency Name	Reported 2010	Reported 2011	Reported 2012
1	Board of Regents of the University System of Georgia			
2	Council of Juvenile Court Judges			
3	Court of Appeals			
4	Department of Audits and Accounts			
5	Department of Education	X	X	X
6	Department of Insurance	X	X	X

	<b>Agency Name</b>	<b>Reported 2010</b>	<b>Reported 2011</b>	<b>Reported 2012</b>
<b>7</b>	<b>Department of Labor</b>		<b>X</b>	<b>X</b>
<b>8</b>	<b>Department of Law</b>	<b>X</b>	<b>X</b>	<b>X-</b>
<b>9</b>	<b>Georgia Military College</b>	<b>X</b>		<b>X</b>
<b>10</b>	<b>Public Service Commission</b>			
<b>11</b>	<b>Secretary of State</b>			
<b>12</b>	<b>State Ethics Commission</b>			
<b>13</b>	<b>Superior Court</b>	<b>X</b>		
<b>14</b>	<b>Supreme Court</b>			

## **Appendix B – Spending by Agencies**

Exhibit 1 – Agency IT Expenditures

Exhibit 2- Agency Cost Per FTE

Exhibit 3 – Agency % of IT to Total FTEs

## Appendix B - Exhibit 1 - Agency IT Expenditures

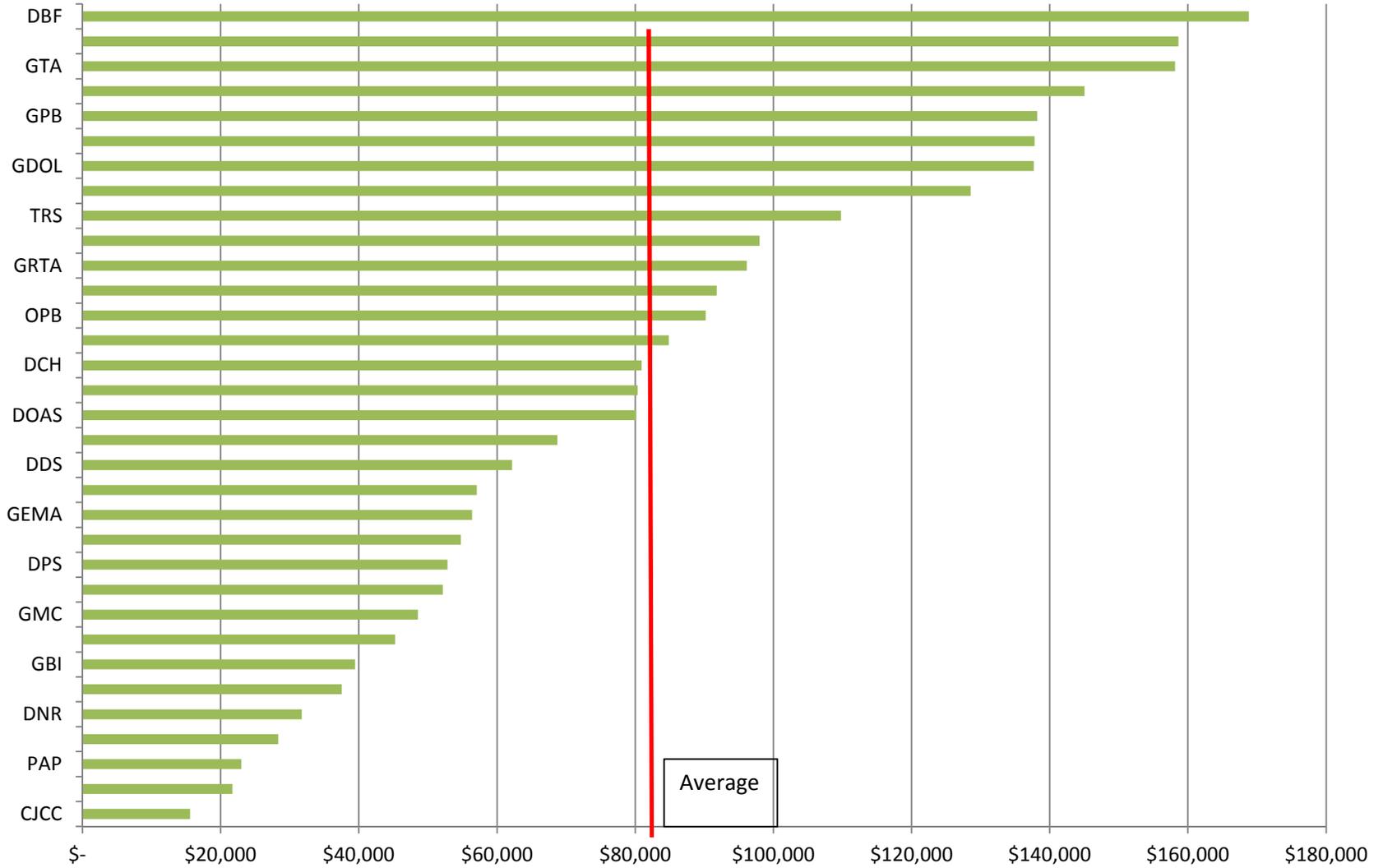
	Agency Name	IT Total Spend FY 2012
	* Agencies Required to report by Law	
1	Brain & Spinal Injury Trust Fund Authority	\$2,882
2	Cancer Advisory Committee/Cancer Coalition	\$13,193
3	Criminal Justice Coordinating Council	\$827,242
4	Department of Administrative Services	\$6,754,152
5	Department of Banking and Finance	\$727,521
6	Department of Behavioral Health and Developmental Disabilities	\$38,027,353
7	Department of Community Affairs	\$1,748,425
8	Department of Community Health	\$131,200,554
9	Department of Corrections	\$29,143,351
10	Department of Defense	\$1,694,597
11	Department of Driver Services	\$13,546,068
12	Department of Early Care and Learning	\$4,968,667
13	Department of Economic Development	\$30,726,239
14	Department of Human Services	\$83,321,139
15	Department of Juvenile Justice	\$14,312,448
16	Department of Natural Resources	\$9,559,344
17	Department of Public Health	\$19,228,888
18	Department of Public Safety	\$10,459,121
19	Department of Revenue	\$51,270,605
20	Department of Transportation	\$32,530,699
21	Employees' Retirement System	\$993,762
22	Georgia Building Authority	\$429,145
23	Georgia Bureau of Investigation	\$17,668,735
24	Georgia Council for the Arts	\$29,000
25	Georgia Drugs and Narcotics Agency	\$1,458,753
26	Georgia Emergency Management Agency	\$2,361,272
27	Georgia Firefighter Standards and Training Council	\$54,482
28	Georgia Forestry Commission	\$3,296,071
29	Georgia Ports Authority	\$1,473,345
30	Georgia Public Safety Training Center	\$919,092
31	Georgia Public Telecommunications Commission	\$3,247,596
32	Georgia Regional Transportation Authority	\$376,115
33	Georgia State Financing and Investment Commission	\$1,627,771
34	Georgia Student Finance Commission	\$3,190,583
35	Georgia Technology Authority	\$37,543,001
36	Georgia World Congress Center Authority	\$2,038,064
37	Governor's Office for Children and Families	\$18,342

	<b>Agency Name</b>	<b>IT Total Spend</b>
38	Governor's Office of Consumer Protection	\$476,194
39	Governor's Office of Highway Safety	\$116,528
40	Lake Lanier Islands Development Authority	\$1,773,733
41	Office of Inspector General	\$15,455
42	Office of Planning and Budget	\$1,771,176
43	Office of State Administrative Hearings	\$313,258
44	Office of Treasury and Fiscal Services	\$544,868
45	State Accounting Office	\$15,689,746
46	State Board of Pardons and Paroles	\$2,826,338
47	State Board of Workers' Compensation	\$3,056,816
48	State Properties Commission	\$0
49	State Personnel Administration	\$1,227,524
50	State Road and Tollway Authority	\$1,276,975
51	State Soil and Water Conservation Commission	\$231,270
52	Subsequent Injury Trust Fund	\$108,879
53	Teachers' Retirement System	\$5,103,375
54	Technical College System of Georgia	\$30,650,961

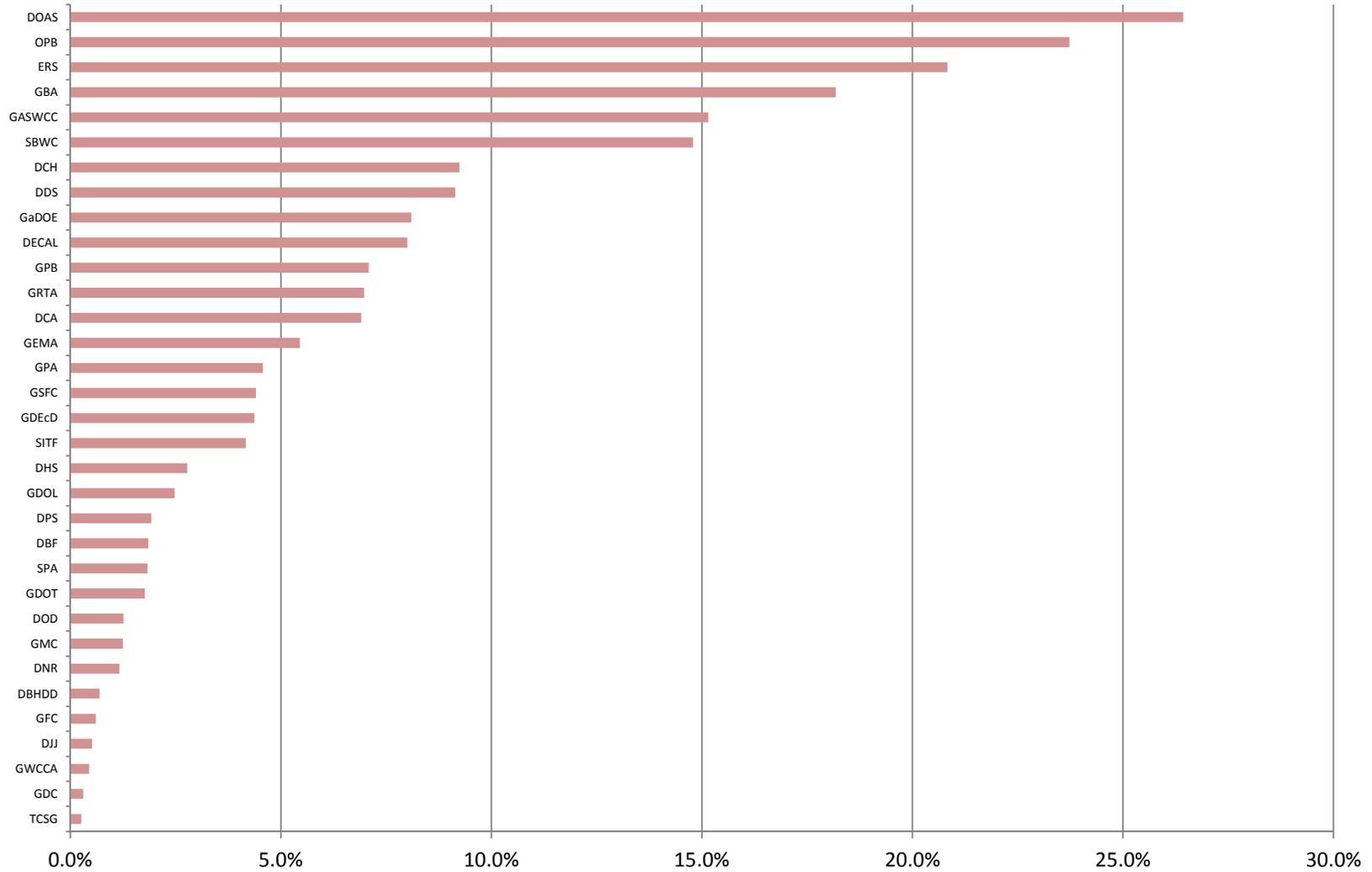
**Appendix B - Exhibit 1 - Agency IT Expenditures**

	<b>Agency Name</b>	<b>IT Total Spend</b>
	* Agencies Voluntarily Reporting	
55	Department of Education	\$11,633,568
56	Georgia Military College	\$1,667,481
57	Department of Insurance	\$1,549,958
58	Department of Labor	\$35,414,980
59	Department of Law	\$61,377,794
	<b>Total Spend</b>	<b>\$733,615,979</b>

# Cost per IT FTE



## % of IT to Total FTEs



## **Appendix C – Business Continuity**

Exhibit 1 - Agency Summary Results Business Continuity Questions

Exhibit 2 – Agency Detailed Responses – Business Continuity

Exhibit 3 – Business Continuity Program Final

Exhibit 4 – OCGA § 38-3-50 Orders of Succession

Exhibit 5 – OCGA § 38-33-22-1 Safety Plan

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## Exhibit 1 – Agency Summary Results Business Continuity

Below is the recap of the agency responses to those 8 questions located in the Business Continuity section of the 2012 ITGR.

1. Does your agency have a policy requiring an actionable plan for continuing agency mission essential functions during an emergency?

**Responses:**

Yes: 27      No: 11      Unknown: 2

2. Has your agency documented the processes that achieve its core Mission Essential Functions?

**Responses:**

Yes: 33      No: 5      Unknown: 2

3. Has your agency ranked and prioritized the criticality of those Mission Essential Functions?

**Responses:**

Yes: 30      No: 8      Unknown: 2

4. Has your agency identified the key personnel that are essential support to each of the critical business processes?

**Responses:**

Yes: 35      No: 4      Unknown: 1

5. Has your agency identified an alternate worksite or location to conduct business in the event your primary site is inaccessible?

**Responses:**

Yes: 30      No: 9      Unknown: 1

6. Is your agency documenting BC information using the enterprise BC and DR planning tool (LDRPS) offered by GTA:

**Responses:**

Yes: 15      No: 23      Unknown: 2

7. If you are NOT using the State's Enterprise BCP tool please identify where your BC and DR plans and procedures are located:

- 5 Commercial tool (provide name)
- 2 Custom developed tool (provide name)
- 15 MS Office or other productivity suite document (Word, Lotus, Excel, etc)
- 3 Hardcopy file (copy must be available upon request)
- 5 Ad-hoc or scramble plans

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## Exhibit 1 – Agency Summary Results Business Continuity

8. Select one from the options below that best describes the state of your agency's emergency preparedness:

- 6 Fully documented and tested BC procedures
- 8 Fully documented but NOT tested BC procedures
- 1 5BCP in development using GTA BCP services and support
- 6 BCP in development, independent of GTA BCP services and support
- 4 Ad-hoc or scramble-plans or No formal BC procedures
- 1 No Response

### Business Continuity Management ITGR Agency Responses

AGENCY NAME	Q1: Does your agency have a policy requiring an actionable plan for continuing agency mission essential functions during an emergency?	Q2: Has your agency documented the process that achieve it's core Mission Essential Functions?	Q3: Has your agency ranked and prioritized the criticality of those Mission Essential Functions?	Q4: Has your agency identified the key personnel that are essential support to each of the critical business processes?	Q5: Has your agency identified an alternate worksite or location to conduct business in the event your primary site is inaccessible?	Q6: Is your agency documenting BC information using the enterprise BC and DR planning tool (LDRPS) offered by GTA?	Q7: If you are not using the State's Enterprise BCP tool (LDRPS) please identify where your BC and DR plans and procedures are located:	Q8: Select one from the options below that best describes the state of your agency's emergency preparedness:
Criminal Justice Coordinating Council	No	Yes	Yes	Yes	No	Yes		BCP in development using GTA BCP services and support
Department of Administrative Services	Yes	Yes	Yes	Yes	No	Yes	Commercial Tool (provide name)	BCP in development using GTA BCP services and support
Department of Banking and Finance	Yes	Yes	Yes	Yes	Yes	Yes		BCP in development using GTA BCP services and support
Department of Behavioral Health and Developmental Disabilities	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented but NOT tested BC procedures
Department of Community Affairs	Yes	Yes	Yes	Yes	Yes	Yes		BCP in development using GTA BCP services and support
Department of Community Health	Yes	Yes	Yes	Yes	Yes	Yes		Fully documented but NOT tested BC procedures
Department of Defense	Yes	Yes	Yes	Yes	Yes	No	Custom developed tool	Fully documented and tested BC procedures
Department of Driver Services	No	Yes	Yes	Yes	Yes	Yes		BCP in development using GTA BCP services and support
Department of Early Care and Learning	Yes	Yes	Yes	Yes	No	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented but NOT tested BC procedures
Department of Human Services	Yes	Yes	Yes	Yes	Yes	No	Commercial Tool (provide name)	Fully documented and tested BC procedures
Department of Insurance	Unknown	Unknown	Unknown	Unknown	Yes	Yes		BCP in development using GTA BCP services and support
Department of Juvenile Justice	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented and tested BC procedures
Department of Labor	Yes	Yes	Yes	Yes	Yes	No	Commercial Tool (provide name)	BCP in development, independent of GTA BCP services and support
Department of Law	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	
Department of Natural Resources	No	No	Yes	Yes	Yes	No	Ad-hoc or scramble plans	Ad-hoc or scramble-plans or No formal BC procedures
Department of Revenue	No	Yes	Yes	Yes	Yes	Yes	Commercial Tool (provide name)	BCP in development using GTA BCP services and support

### Business Continuity Management ITGR Agency Responses

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Department of Transportation	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented and tested BC procedures
Georgia Building Authority	Yes	Yes	Yes	Yes	Yes	No	Custom developed tool (provide name)	Fully documented but NOT tested BC procedures
Georgia Bureau of Investigation	No	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	BCP in development using GTA BCP services and support
Georgia Forestry Commission	Yes	Yes	Yes	Yes	Yes	Unknown	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented but NOT tested BC procedures
Georgia Ports Authority	Unknown	Unknown	Unknown	Yes	Unknown	Unknown	Ad-hoc or scramble plans	Ad-hoc or scramble-plans or No formal BC procedures
Georgia Public Safety Training Center	Yes	Yes	No	No	No	Yes		BCP in development using GTA BCP services and support
Georgia Public Telecommunications Commission	Yes	Yes	Yes	Yes	No	No	Hardcopy file(s) (Copy must be available upon request)	BCP in development, independent of GTA BCP services and support
Georgia Regional Transportation Authority	Yes	Yes	No	Yes	No	No	Hardcopy file(s) (Copy must be available upon request)	Fully documented but NOT tested BC procedures
Georgia State Financing and Investment Commission	Yes	Yes	Yes	Yes	Yes	No	Commercial Tool (provide name)	BCP in development, independent of GTA BCP services and support
Georgia Student Finance Commission	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented and tested BC procedures
Georgia Technology Authority	No	No	No	No	No	Yes		BCP in development using GTA BCP services and support
Georgia World Congress Center Authority	Yes	Yes	Yes	Yes	Yes	Yes	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	BCP in development, independent of GTA BCP services and support
Governor's Office for Children and Families	No	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Ad-hoc or scramble-plans or No formal BC procedures
Governor's Office of Consumer Protection	Yes	No	No	Yes	Yes	No	Hardcopy file(s) (Copy must be available upon request)	BCP in development, independent of GTA BCP services and support
Office of Inspector General	No	Yes	No	Yes	No	No	Ad-hoc or scramble plans	Ad-hoc or scramble-plans or No formal BC procedures

### Business Continuity Management ITGR Agency Responses

AGENCY NAME	Q1: Does your agency have a policy requiring an actionable plan for continuing agency mission essential functions during an emergency?	Q2: Has your agency documented the process that achieve it's core Mission Essential Functions?	Q3: Has your agency ranked and prioritized the criticality of those Mission Essential Functions?	Q4: Has your agency identified the key personnel that are essential support to each of the critical business processes?	Q5: Has your agency identified an alternate worksite or location to conduct business in the event your primary site is inaccessible?	Q6: Is your agency documenting BC information using the enterprise BC and DR planning tool (LDRPS) offered by GTA?	Q7: If you are not using the State's Enterprise BCP tool (LDRPS) please identify where your BC and DR plans and procedures are located:	Q8: Select one from the options below that best describes the state of your agency's emergency preparedness:
Office of Planning and Budget	No	Yes	No	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented but NOT tested BC procedures
Office of State Administrative Hearings	No	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	BCP in development, independent of GTA BCP services and support
Office of Treasury and Fiscal Services	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented but NOT tested BC procedures
State Accounting Office	Yes	Yes	Yes	Yes	Yes	Yes		BCP in development using GTA BCP services and support
State Board of Workers' Compensation	No	No	No	No	No	No	Ad-hoc or scramble plans	BCP in development using GTA BCP services and support
State Road and Tollway Authority	Yes	Yes	Yes	Yes	Yes	Yes	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	BCP in development using GTA BCP services and support
State Soil and Water Conservation Commission	Yes	No	No	No	Yes	Yes	Ad-hoc or scramble plans	BCP in development using GTA BCP services and support
Teachers' Retirement System	Yes	Yes	Yes	Yes	Yes	No	MS Office or other productivity suite document (Word, Lotus, Excel, etc)	Fully documented and tested BC procedures
Technical College System of Georgia	Yes	Yes	Yes	Yes	Yes	Yes		BCP in development using GTA BCP services and support

# How prepared are you.....really?

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## Business Continuity and Disaster Recovery

Disruptions such as tornadoes and other natural disasters, violence in the workplace, pandemic, terrorist acts, cyber-attacks and many other threats to "business as usual" are becoming more commonplace. If not anticipated prudently, these disruptions can and will be much more costly than necessary. Preplanning for the continuity and recovery of your business is critically necessary and requires the involvement of "all staff at all levels." The key to successful adoption and execution in these two areas of discipline are executive sponsorship and buy-in. These two executive practices should permeate throughout the entire organization.

There is a general misunderstanding in the State today behind what the real difference is between Business Continuity and Disaster Recovery. We have a tendency to lump both of these disciplines into the same bucket. By doing so this creates the assumption that if Disaster Recovery planning is satisfied this satisfies the need for Business Continuity; not the case. Disaster Recovery focuses on the "IT" piece (Networks, Systems, Applications) of the business, whereas Business Continuity focuses on the "Business" side (People, Processes, Property, Vital Records, Perception). Mission Essential Functions (MEF's) of an agency is the core behind why an agency exists. It's great to be able to stand up systems and applications, but if those systems\applications aren't in alignment to those prioritized mission critical essential functions that they support, standing up those systems\applications accomplish very little. The paradigm shift in State government needs to occur where the business drives IT and both entities are at the table together "planning."

Given the human tendency to look on the bright side, many executives are prone to ignoring "disaster recovery" because disaster seems an unlikely event. "Business continuity planning" suggests a more comprehensive approach to making sure you can keep providing services, not only during a natural calamity but also after as well with smaller disruptions including; illness or departure of key staffers, supply chain and vendor partner problems or other challenges that agencies face from time to time.

### What would you do if. . .

- your facility's roof is damaged or destroyed during a storm?
- 50% of your staff fails to show up for work due to the flu?
- a water pipe bursts and floods your facility?
- a domestic or international cyber-attack attacks your network?
- an armed individual enters your facility and threatens your staff?
- a vendor who supplies goods and services on your behalf is unable to perform?
- mission critical IT systems and applications fail?

During emergency situations, each agency must first recover its own business operations before it can respond effectively to a wider disaster in the city, county, state, or region. The successful and timely recovery of agency operations is greatly enhanced by business continuity planning.

## How prepared are you.....really?

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### What is at stake?

**People:** Above all else, remember that safety of life is paramount. Following this, the recovery of the agency and the services it provides to its customers becomes a priority. Your people are your greatest asset; protect them.

**Property:** Proper planning and remediation can reduce the damage caused by potential sources of business disruptions. However, if your primary facility is damaged or destroyed do you have an alternate work site?

**Functions / Processes:** What are the costs and liabilities if your critical business functions / processes and/or systems that support those processes go down – e.g. how will invoices be paid? How will citizen services be performed? How will eligibility be verified for social services? Do you have documented “manual workarounds” in place? Have you tested those manual workarounds?

**Public Perception:** What are the impacts if agencies cannot perform their main functions? Beyond the issues of budget, how will your agency’s image to the citizens be damaged by an inability to act?

### How ready are the agencies?

Can each employee of your agency answer the following questions?

1. What do I do during a disaster situation?
2. Why do I do it?
3. When do I do it?
4. Where do I do it?
5. How do I do it?
6. Who does it if I’m unavailable?

### The Role of Agency Level Planning...

Agency level policy and procedures establish a <sup>2</sup>‘chain of command and action’:

- What are the agency’s business processes?
- What systems/applications support these processes?
- Who ‘owns’ these processes?
- Who is responsible to act (not react)?
- What actions must be taken to recover?
- Is there a business continuity plan in place? Disaster Recovery plan?

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<sup>1</sup> P-08-225.01 – “Requires agencies to develop a plan to maintain continuity (recovery and restoration) of essential state government operations and services during or following an emergency.”

<sup>2</sup> O.C.G.A. 38-3-50 – Orders of Succession

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## How prepared are you.....really?

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A plan is not enough. There must be a business continuity program with strong executive sponsorship in place to ensure that staff training, disaster simulations, evacuation and recovery exercises, and communications are in place. The time to discover and address issues is before a disruption occurs. Timeliness is critical in the aftermath of an event. Business Continuity planning and program development may seem to be added costs at the moment, but during the 72 hours after the disaster, on who will you rely?

## So . . . **How ready are we as a State?**

Business Continuity (BC) is about many things but boils down to our ability to recover from a disaster. Business Continuity planning is everybody's business....and is just good plain business practice! Focusing on Business Continuity without the proper Disaster Recovery planning and vice versa is not a recipe for success should a disruptive event take place...so how prepared are we....really?

In summary:

*"Continuity planning is simply the good business practice of ensuring the execution of essential functions through all circumstances, and it is a fundamental responsibility of public and private entities responsible to their stakeholders."*

**Exhibit 4 – OCGA § 38-3-50 Orders of Succession**

O.C.G.A. § 38-3-50

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TITLE 38. MILITARY, EMERGENCY MANAGEMENT, AND VETERANS

AFFAIRS CHAPTER 3. EMERGENCY MANAGEMENT

ARTICLE 3. EMERGENCY

POWERS PART 1. GOVERNOR

O.C.G.A. § 38-3-50  
(2011)

§ 38-3-50. Emergency interim successors to various officials; necessity of declared emergency

(a) As used in this Code section, the term:

(1) "Disaster" means any happening that causes great harm or damage.

(2) "Emergency" means a sudden generally unexpected occurrence or set of circumstances demanding immediate action.

(3) "Emergency interim successor" means a person designated pursuant to this Code section, in the event an officer is unavailable to exercise the powers and discharge the duties of an office, until a successor is appointed or elected and qualified as may be prescribed by the Constitution, statutes, laws, charters, and ordinances of this state and its political subdivisions, or until the lawful incumbent or his successor is able to resume the exercise of the powers and the discharge of the duties of the office.

(4) "Local offices and local officers" means positions in the political subdivisions of the state.

(5) "Office" means the position of head of any and all departments, agencies, boards, or

commissions of the state or any of its political subdivisions; all constitutional General Assembly offices; all constitutional and other county offices; all of the judgeships of the state and its political subdivisions; and all of the positions in the legislative departments of the state or its political subdivisions.

(6) "Officer" means the individual who shall hold an office.

(7) "Political subdivisions" means cities, counties, towns, villages, authorities, and any other bodies created by the state and exercising any of the governmental powers of the state.

(8) "State office" and "state officer" mean positions in the government of this state.

(9) "Unavailable" means either that a vacancy in an office exists as the result of any emergency as defined in paragraph (2) of this subsection and there is no deputy or other successor authorized to exercise all of the powers and discharge all of the duties of the office, or that the lawful incumbent of the office, including any deputy exercising the powers and discharging the duties of an office because of a vacancy, and his duly authorized deputy are absent or unable to exercise the powers and discharge the duties of the office.

(b) All state officers shall within 30 days after taking office, in addition to any deputy authorized pursuant to law to exercise all of the powers and discharge the duties of office, designate by title individuals as emergency interim successors and specify their order of succession. The officer shall review and revise, as necessary, designations made pursuant to this Code section to ensure their current status. The officer will designate a sufficient number of such emergency interim successors so that there will be not less than three nor more than seven deputies or emergency interim successors or any combination thereof at any time. In the event that any state officer is unavailable following an emergency or disaster and in the event his deputy, if any, is also unavailable, the powers of his office shall be exercised and the duties of his office shall be discharged by his designated emergency interim successors in the order specified. The emergency successors shall exercise the powers and discharge the duties only until such time as the Governor under the Constitution or authority other than this Code section, or other official authorized under the Constitution or this Code section to exercise the powers and discharge the duties of the office of Governor, may, where a vacancy exists, appoint a successor to fill the vacancy or until a successor is otherwise appointed or elected and qualified as provided by law, or until an officer or his deputy or a preceding named emergency interim successor becomes available to exercise or resume the exercise of the powers and discharge the duties of his office.

(c) All emergency interim successors designated under this Code section shall have the same qualifications as are prescribed by law for the officer by whom they are designated.

(d) Designations of emergency interim successors to state officers shall become official upon the officer filing a list of the successors with the Secretary of State, who shall inform the Governor, the Georgia Emergency Management Agency, all emergency interim successors to the officer involved, and the judge of the probate court of the county of legal residence of the successors of all such designations and any changes therein. Any designation of an emergency interim successor may be changed or altered by the officer concerned filing a notice of the change or alteration with the Secretary of State.

e) All constitutional county officers shall within 30 days after taking office, in addition to any

deputy authorized pursuant to law to exercise all the powers and discharge the duties of the office, designate by title individuals as emergency interim successors and specify their **order of succession**. The successors shall have the same powers, duties, and qualifications as specified by subsections (b) and (c) of this Code section for successors to state officers. Designations of the successors shall be made in the same manner as prescribed for successors to state officers in subsection (d) of this Code section.

(f) The legislative bodies of all political subdivisions of the state are authorized and directed to provide by ordinance or resolution for emergency interim successors for the officers of the political subdivisions. The resolutions and ordinances shall not be inconsistent with this Code section.

(g) At the time of their designation, emergency interim successors shall take such oath as may be required for them to exercise the powers and discharge the duties of the office to which they may succeed. Notwithstanding any other provision of law, no person, as a prerequisite to the exercise of the powers or discharge of the duties of an office to which he succeeds, shall be required to comply with any other provision of law relative to taking office.

(h) Emergency interim successors shall receive the same compensation as is paid the officer by whom they are appointed. The compensation shall be paid only during such time as a successor shall exercise the powers of the officer by whom he has been designated.

(i) Governmental powers shall be exercised by emergency interim successors appointed under this Code section only during a period of emergency or disaster, as defined by this Code section.

HISTORY: Ga. L. 1958, p. 628, § 1; Ga. L. 1962, p. 469, § 1; Ga. L. 1973, p. 74, § 9; Ga. L. 1992, p. 1258, § 7.

**Exhibit 5 – OCGA § 38-33-22-1 Safety Plan**

**O.C.G.A. § 38-3-22.1**

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\*\*\* TITLE 38. MILITARY, EMERGENCY MANAGEMENT, AND VETERANS

AFFAIRS CHAPTER 3. EMERGENCY MANAGEMENT

ARTICLE 2. ORGANIZATION AND ADMINISTRATION

O.C.G.A. § 38-3-22.1 (2011)

§ 38-3-22.1. Safety plan addressing threat of terrorism required of state agencies or authorities; exemptions; training and technical assistance; confidentiality of plans and related documentation

(a) Every state agency or authority, except those exempted in subsection (b) of this Code section, shall prepare an agency safety plan to address the threat of terrorism, to respond effectively to such incidents, and to provide a safe environment for state personnel and for those citizens conducting business with state agencies. In addition to acts of terrorism, such plan shall also address preparedness

for natural disasters, hazardous materials or radiological accidents, and acts of violence. The safety plans of agencies and authorities shall be prepared with input from the appropriate supervisors and rank-and-file employees and local law enforcement, fire service, public safety, and emergency management agencies. Such plans shall be reviewed internally and, if necessary, updated annually. Such plans shall be submitted to the local emergency management agency.

(b) The Department of Public Safety, the Department of Corrections, and any other state agency which operates secured facilities shall be exempt from the requirements of subsection (a) of this Code section.

(c) Subject to the availability of funds for such purpose, the Georgia Emergency Management Agency shall provide training and technical assistance to agencies and authorities and may provide such training and technical assistance to local units of government and to critical facilities operated by the private sector. Such training and technical assistance shall include, but not be limited to, crisis response team development, site surveys and safety audits, crisis management planning, exercise design, safe school planning, emergency operations planning, search and seizure, bomb threat management, and model safety plans.

(d) The following records shall not be subject to public inspection or disclosure under Article 4 of Chapter 18 of Title 50:

(1) Site surveys, safety audits, and vulnerability assessments performed pursuant to subsection (a) of this Code section; and

(2) Any other record produced pursuant to this Code section the disclosure of which would, in the determination of the director of the Georgia Emergency Management Agency, endanger the life or physical safety of any person or persons or the physical safety of any public property.

HISTORY: Code 1981, § 38-3-22.1, enacted by Ga. L. 2004, p. 743, § 1.