

GEORGIA ENTERPRISE IT STRATEGIC PLAN



2020

ENTERPRISE SOLUTIONS FOR PUBLIC

The Georgia Enterprise IT Strategic Plan 2020 is intended to assist state government’s technology and business leaders in making informed technology decisions for their agencies. It establishes focus areas and goals for the state’s IT enterprise over the next six years.

The plan does not replace the business-oriented plans of individual state agencies. As a secondary planning document, it assists agencies in aligning their use of technology with the direction established for the state’s IT enterprise. Technologies highlighted in the plan can be used by all state agencies regardless of their mission or complexity.

Governor Nathan Deal has established policy goals to guide state agencies in their business planning (see Appendix I). In addition, the General Assembly provided for the Georgia Technology Authority to publish the Georgia Enterprise IT Strategic Plan 2020 to guide state agencies in selecting technology to support their business operations (O.C.G.A. 50-25-4.13). To ensure agency involvement in the plan’s development, GTA established the IT Strategy Cycle. The cycle includes environmental scanning, active planning, agency review and review by industry experts (see page 15).

Technology comes with risks, and sound planning and project execution are critical to mitigating those risks. Addressing Planning Risk Factors (see Appendix II) outlines a rigorous project management process designed to prevent technology projects from failing.



Message from the Chief Information Officer (CIO)

Message from Calvin Rhodes, Chief Information Officer of Georgia



Rapidly changing technology is transforming our world. It's disrupted the way major industries do business, and there's no doubt that it's also changing the way government does business. Citizens and private-sector companies alike expect greater online access to services and information. Mobile technologies are bringing state employees closer to the constituents they serve and making them more productive. Other technologies allow government agencies at all levels to share data more easily and empower them to approach old problems with new solutions.

What does the future look like, and how does state government prepare for it? The Georgia Enterprise IT Strategic Plan 2020 seeks to provide some direction and to provoke thought as many of us within state government business and technology look to answer those questions. In the process, it examines such compelling issues as:

- What investments should we make in improving business processes supported by new technology?
- How do we mitigate the risks associated with large technology initiatives and projects that significantly change business processes?
- How do we best keep citizens' private information safe and keep in perspective their privacy concerns?

State agencies must work as one to find answers to these and a host of other questions. Together we'll face the challenges of adapting our business and workforce processes—processes often developed a generation ago by technology standards—to the new world that's emerging around us.

The Georgia Enterprise IT Strategic Plan 2020 is intended to guide our work. With the involvement of state agencies, it will be updated on an annual basis; anything less means we risk falling behind as technology surges forward.

The Georgia Technology Authority is committed to ensuring that state government has a viable direction for its IT enterprise through ongoing collaboration with the numerous stakeholders involved, and I encourage you to consider the plan carefully.

A handwritten signature in black ink, appearing to read 'Calvin Rhodes', with a long, sweeping underline.

Calvin Rhodes
State Chief Information Officer
Executive Director, Georgia Technology Authority

Your feedback would be greatly appreciated and may be submitted by contacting:

Enterprise Governance and Planning
Georgia Technology Authority
47 Trinity Ave. S.W. Ste. 300
Atlanta GA 30334



Mobility in the year 2020

Mobility

Agency personnel will no longer be bound to their offices. They will be empowered to work closer to the customers with whom they conduct business. The case worker will spend more time in the field. The auditor will perform an audit at a remote location. The customer service representative will take calls at their home office.

Work groups will conduct video conferences from their home offices, thereby reducing expenditures for state office space, shortening commute times and helping relieve traffic congestion.

By using technology, the state can break away from traditional work practices, and work groups can be brought together from geographically diverse locations to solve problems. State agencies will need to adopt new tools for their mobile employees' use and for managing a more mobile workforce.



Citizen access to Georgia government in 2020

Citizen Access to Service

Citizens and companies will conduct a larger percentage of business online. As the state achieves the goals of the Georgia Enterprise IT Strategic Plan, citizens will experience greater access to government services during extended hours while using a more diverse mix of devices. A fisherman heading to his favorite fishing pond will be able to use his mobile device to renew his fishing license. The skier headed for the lake can renew his boat registration.

The driver headed out on vacation who notices that her vehicle tag has expired can renew her tag online and have the receipt on her phone in case she is stopped by a traffic authority. Schools and universities will continue to accelerate the amount of educational content available to students online.



Innovation

Agencies will use proven technologies in new ways to address business needs. Multiple agencies with similar needs will work together in a collaborative environment to identify, analyze and apply tactics other states or similar organizations are using to solve problems.

GTA will provide technology expertise, working closely with groups of agencies to adopt solutions. Agencies will better leverage existing technology in changing their business models and processes. The end result will be more effective agency business practices and sharing of appropriate technology to solve issues at an enterprise level.



What innovation will do for Georgia by 2020

Technology as a Service

By 2020 most of the technologies the state uses will be provisioned as a service on an “as needed” basis and used only as long as they are viable. The cost of services will be reasonable, and payments will be timed to consumption. The state will be able to quickly pivot from one service to another.

The state will also be able to practice “try before buying” since a large capital investment up front will no longer be needed. As these services are vetted and deployed, more agencies can take advantage of Georgia’s knowledge base of tried and true IT solutions. By using a shared services model, the state identifies where agencies are successful in the use of a technology solution. That “tried and true” solution can then be propagated throughout the state enterprise. The state can also ask other states about successful services they have implemented and then leverage the same solutions, thereby reducing both cost and risk. Solutions adopted by state agencies may also be extended for use by city and county government agencies. Cities and counties may leverage service contracts established by the state to solve their business problems.

How technology is acquired and managed by 2020

The vision for data use in 2020

Managing Data as an Asset

The state's technology model calls for collecting data once and using it many times while ensuring a high level of security for citizens' private data. The state will ensure that a citizen's data will not be abused. Agencies will have data sharing and privacy agreements allowing for better utilization of common data that's needed by multiple agencies. By 2020 data will only be shared among agencies by secure electronic means in accordance with the state's Enterprise Bus Standard.

Because data is entered only once, errors are reduced. Since redundant data is eliminated, storage needs and associated costs are also reduced along with the risk of a data breach.

Strong governance is needed to effectively manage data as an asset, and a diverse group of stakeholders must be involved in decision-making processes.



Evaluate Funding/Business Model

The state continuously refines the funding/business model for procuring technology solutions to support its business needs. Where enterprise solutions prove most efficient, they will be developed for use by all agencies with similar business needs. Improvements will drive much waste and duplication out of the state enterprise.

A rich portfolio of economically efficient solutions is available to state agencies. As new technology solutions come to market, they are quickly evaluated and added to the portfolio if they prove pertinent to the business needs of the state.

Moving forward the state will continue to refine its investment management practices. Agencies will be able to take advantage of enterprise-level solutions to meet their business needs. No longer will they have to develop solutions on their own and fully fund an entire system. The state will look at all systems as investments in a single enterprise portfolio of solutions.

How the business model is implemented by 2020



Current State of IT in Georgia

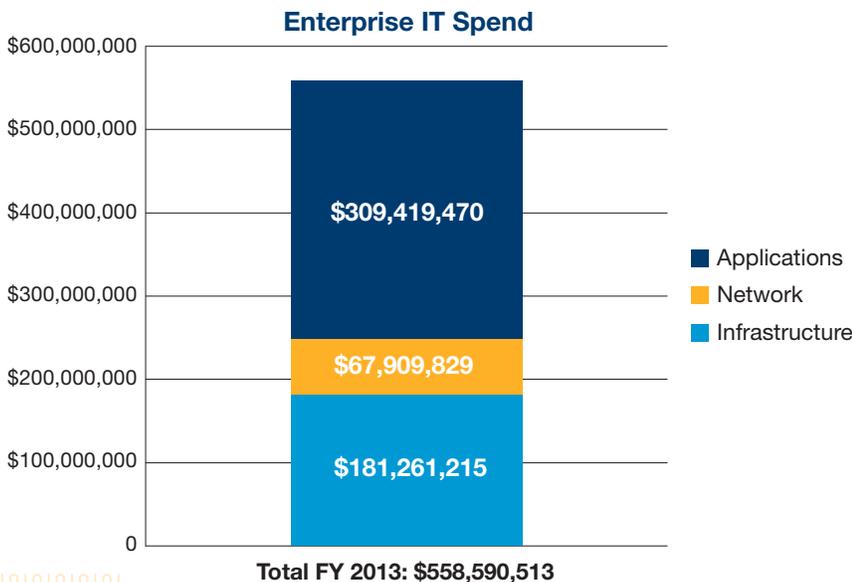
For many years, the state had a non-integrated environment that was difficult to understand, use and maintain. The state operates many independent applications to support various agencies. If a citizen is receiving services from more than one agency, updating information like a change of address requires 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.

In 2008, the state began a major overhaul of how it manages information technology. The modernization initiative, called the Georgia Enterprise Technology Services (GETS) program, has moved the state from a business model in which technology was managed in-house to privatization in partnership with world-class technology vendors. GETS improves the state's operating infrastructure and consolidates the technology needed to support its business needs.

Through modernization, Georgia is progressively integrating the state's IT environment and providing a more robust and economical foundation upon which the agencies can operate their businesses. As part of this transformation, agencies are better able to measure and manage their consumption of IT resources. Georgia's risk management, already on sound footing, continues to mature as part of the GETS modernization activities. These activities are driving Georgia towards a solid, sustainable approach to technology and greater alignment with the business needs of state agencies. This modernization is the base that the six focus areas will build on to achieve maturity in 2020.

A challenging
IT environment
in transformation

Enterprise Spend by Cost Category



IT spend in
Georgia for
FY 2013

Planning Assumptions

In planning for the year 2020, several assumptions about the environment of Georgia state government should be taken into consideration. These assumptions require monitoring each year as agencies develop their strategic plans. Here are those assumptions:

Citizen Demand: Citizens have come to expect a certain level of technology-supported services from the private sector. Citizens now expect this same level of service from government.

Political: State government is affected by election cycles. Between now and 2020, there will be a number of elections at the federal, state and local levels that may affect planning and could lead to a change in priority for the state goals.

Financial: State government will continue to operate under financial constraints, challenging the state to develop innovative approaches to fund technology.

Policy Areas: Policy areas for the state will remain stable over the next six years.

Market Solutions: The technology market in the United States will remain dynamic and continue to produce new and improved technology solutions.

Workforce: There will be constant churn in the workforce, and the skills that state workers need will be affected by the increased use of technology in the workplace. Technology will advance more quickly than the state's ability to adapt to those changes. A large number of state employees will retire over the next decade.

Security: Security will be a constant concern to the state as attacks on its information systems increase in number and sophistication. As the need to provide citizens with greater access grows, so will the challenges of keeping their private information safe and secure.



GOAL 2

Meeting demand from citizens

Goal 2: Improve Georgia citizen access to state services.

More than at any other time in our state's history, citizens today are demanding more effective and efficient ways to interact with their state government. Social media, smart phones, tablets and other devices are opening up additional communication channels for engaging citizens. Our charge as state business and technology leaders is to make citizen access to government easier.

The population of Georgia is becoming increasingly mobile. Citizens already want to interact with the state on a variety of devices and contact channels. Broadband development will allow for better access to government services across the state. Moving to online services has proven instrumental in reducing the cost of service delivery.

Objectives:

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

- a. **Strategy:** Establish guidelines to help agencies identify services currently provided primarily through direct interactions that can be provided better, faster or less expensively online.
- b. **Strategy:** Help agencies find partners among other Georgia agencies for shifting to new service models.

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

- a. **Strategy:** Identify services with the greatest mobile demand.
- b. **Strategy:** Create guidelines to allow agencies to determine when it is appropriate to shift to fully mobile services.
- c. **Strategy:** Establish standards for mobilizing appropriate applications that allow agencies to shift service delivery to a mobile model as they deem appropriate.
- d. **Strategy:** Move to embrace social media as a way to communicate to our citizens and state workforce.



GOAL 4

Innovative ways to deploy IT services



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

State agency business leaders are making decisions regarding the best way to provide services to citizens. As they focus on their core business, technology is rapidly changing around them, enabling better solutions. To leverage these opportunities, the state is exploring the ability to deploy innovative business solutions to meet agency needs and better serve citizens.

The information technology marketplace is rapidly moving towards a service model. These business practices allow the state to purchase components of a service without having to fund and build the entire service. The state will pay for the service on an “as needed” basis. The best practice being established allows customers to pay for the service by the month rather than signing a multi-year contract.

Georgia has already made critical strategic investments in moving to a service model. An example of this type of service currently in use in Georgia is call center services. 1-800-Georgia pays for call center services on a monthly basis according to the number of users of the system. In the past, Georgia purchased its own computer equipment, which was often underutilized, to support state call centers. Modernizing services and the way they are delivered and paid for will enable agencies to maximize value.

These new services can be adopted while still maintaining our longer-term agreements. Once a critical mass is achieved in the adoption of services, the state can begin to retire some older services.

Objectives:

- 1. Baseline the use of shared services in the state by June 30, 2015.**
 - a. Strategy:** Work with agencies to populate the State Annual Report Register (STARR) system with all of the data needed to baseline the state’s shared services environment during FY 2014 and FY 2015 reporting cycles.
 - b. Strategy:** Take the data from the STARR system and develop a baseline.
- 2. Facilitate the expansion of the portfolio of market-based enterprise shared services for state agencies by June 30, 2017.**
 - a. Strategy:** Determine marketplace offerings agencies need; move to a model where agencies can try services before buying, and have access to in-place shared services rather than building the service from the ground up.
 - b. Strategy:** Expand the availability of marketplace vendors offering secure shared services that can be consumed on an as-needed basis and billed monthly.
- 3. Offer a mature enterprise portfolio of shared services by June 30, 2019.**
 - a. Strategy:** Develop a mature business model providing the most economical delivery of all services.



GOAL 6

New ways for agencies to acquire services



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

Continuing budget constraints heighten the need for agencies to have a clear understanding of their technology expenditures. GTA is working with the Office of Planning and Budget (OPB) and agencies to look at new ways for agencies to consume and pay for services.

Objectives:

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

a. Strategy: Establish Governance of Enterprise-wide Applications process (GEAP).

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

a. Strategy: Identify additional opportunities for cost reductions, control levers that trigger billing, process improvements that affect agencies' ability to manage their consumption, and education to help agencies manage their costs. Create an agile funding/cost/procurement model that rewards, encourages and promotes agency joint ventures in the acquisition of technology services.

b. Strategy: Within our current business model, create new funding capabilities to use as seed capital for new technology ventures to cover startup costs and lower barriers for agencies to implement new technology.

c. Strategy: Establish policies, standards and guidelines that enable and promote agencies' acquiring technology services together.



3. Develop a more diverse portfolio of technology product and service offerings for our customers by June 30, 2017.

a. Strategy: Working with the Department of Administrative Services (DOAS) and OPB, identify ways to improve how agencies can minimize capital outlay and still access and acquire new and innovative services.



The Georgia IT Strategy Cycle

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

The Strategy Cycle has five key components: Agency Technology Scanning, Fall IT Strategy Summit, Georgia Enterprise IT Strategic Plan, Innovation Review and Spring Technology Summit. Each component is linked to the others, and they are executed in series with significant overlap. The key components of the Georgia IT Strategy Cycle are outlined below. All have been created or substantially revised over the last three years. GTA plans for these activities to evolve over time to best meet agency business needs.

Key components of the Georgia IT Strategy Cycle

1. Agency
Technology
Scanning (Q1)

2. Fall Strategy
Summit (Q2)

3. Georgia
IT Strategy
Published (Q3)

4. Innovation
Review (Q3)

5. Spring
Technology
Summit (Q4)

This process works because it brings together agencies with similar problems, identifies proven technologies appropriate for those problems, and facilitates agency collaboration in planning for financially sustainable solutions. Three driving factors are critical to having an executable IT Strategy Cycle that provides value to agencies and improves Georgia's ability to select appropriate technology across the enterprise:



1. Clear understanding of agency business objectives
2. Knowledge of how technology is successfully used to achieve similar objectives in other organizations
3. Ability of agencies and Georgia as an enterprise to use existing and emerging technology to achieve specific objectives



3. Georgia IT Strategy Published – January

The Georgia Enterprise IT Strategic Plan 2020 is a key deliverable of the Georgia IT Strategy Cycle. It relies on an understanding of agency needs, a view of successfully adopted technologies and an understanding of how agencies use technology.

4. Innovation Review

GTA is now launching an innovation program aimed at helping agencies work together to solve common problems. The effort will combine proven uses of technology to solve similar problems in other organizations with an understanding of which strategies are shared by more than one agency. The program will be staffed primarily by representatives of agencies that stand to gain from the effort. GTA helps identify the needs that span agencies and the technology that can be applied efficiently at the state enterprise level. The results of this effort will be reviewed thoroughly before making a significant investment of state funds.

The innovation review will also capture additional business information that will help refine the Agency Technology Scanning on specific topics of interest.

5. Spring Technology Session

In 2011, GTA began sponsoring an annual Spring Technology Summit where industry-leading experts from a specific technology area are invited to present detailed information to Georgia agency business and technology leaders. The topics for the Spring Technology Summit are based on the needs of Georgia agencies. GTA works closely with business and technology leaders to identify strategies from agency strategic plans that will benefit from novel applications of technology that can be shared by many agencies.



APPENDIX I – GOVERNOR’S GOALS FOR

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

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



Governor’s Goal – 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 following goals focus on requirements to prepare students to compete nationally and internationally.

Governor’s Strategic Goals for an Educated Georgia:

- 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 hold a postsecondary credential
- Improve and expand science, technology, engineering and mathematics (STEM) education
- Identify and implement innovative strategies that increase teacher effectiveness and student achievement
- Increase the percentage of high school graduates who are college and career ready
- Empower citizens with public school options and local flexibility for the purpose of improving student achievement



Governor's Goals – Healthy

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

Governor's Strategic Goals for a Healthy Georgia:

- 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



Governor's Goals – 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. Also, Georgia's economic development requires healthy, safe communities. The following goals drive 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 a Safe Georgia:

- 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



Business practices play a key role in addressing risk and ensuring ROI

The components of the Georgia Enterprise Plan 2020 are multi-faceted by design, enabling it to support the diverse business needs of the state. It is not designed to be a one-size-fits-all document, but instead, a comprehensive plan that technology leaders and planners can use to align their business objectives to a defined technology direction.

Planning is just the first step; execution is where results happen. Execution of the plan occurs primarily through the execution of project activities. It is important this plan not only outline future technology direction, but also identify some of the risk factors that many times cause projects not to achieve their optimal outcomes. Industry standards and best practices consider several tenets critical to obtaining the desired outcomes of mature strategic planning processes:



Project Management

Project management is where the war is lost or won. As GTA continues to mature this competency across the enterprise, it is important for an agency to ensure sound project management capability for internal and external projects. If this is an area in which an agency is still building a competency, GTA can assist with the creation of a project plan, charters, PM development and establishing internal program management offices. GTA can also assist agencies in managing their project/program portfolios through the use of proven tools, methodologies and PM processes. As many agencies have discovered, it is much more cost effective to do project management right the first time.



Portfolio Management

Portfolio management provides agencies with the means to identify, evaluate and set priorities for technology initiatives to ensure they are achieving the greatest value for the dollars invested. This activity is a must for an agency, and the bigger the agency, the more important portfolio management is. In today's economic conditions, every agency is asked to do more with less. Agencies with a good handle on their portfolio are equipped to absorb reductions more easily. They can prioritize better, reallocate resources better, and make better investment decisions, because they can answer these three important business questions: Are we doing the right thing? Are we doing things the right way? Are we obtaining prescribed outcomes? Portfolio management takes work, but the benefits and value to an agency cannot be overstated.

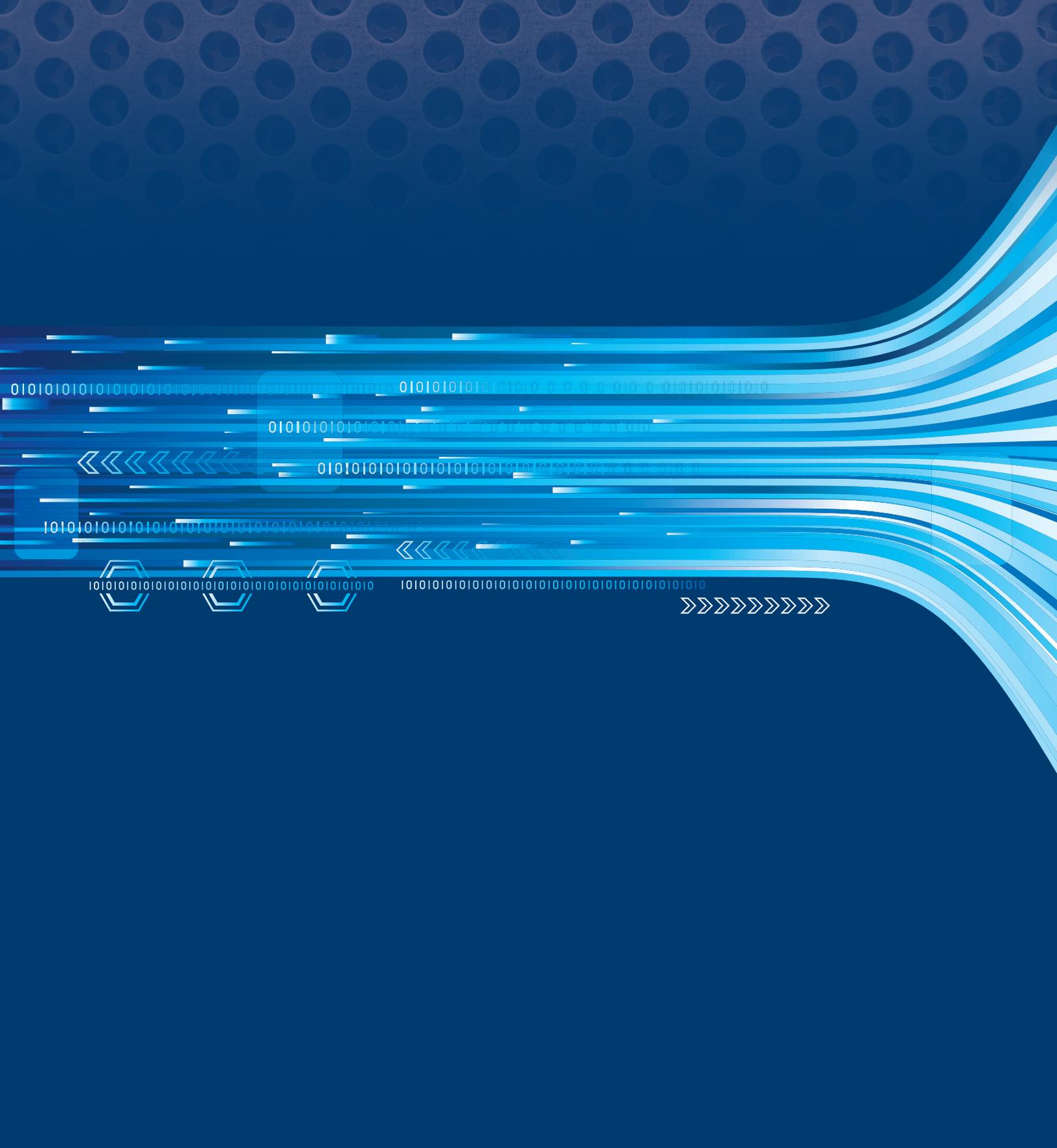


Security

When people think of security, they often think of antivirus software or firewalls, but strong security programs start with strong governance. Information security controls and the people who support them can be expensive resources, so it is important to plan for their efficient and effective use. Otherwise, money may be wasted and information may be exposed. Any business owner operating a high-impact system should document the risks presented by that system, and plan for either the acceptance of those risks or for their mitigation.

At their heart, most security frameworks consist of the Deming Cycle—Plan, Do, Check, Act—and iteration is required. The idea is to first plan what security controls are to be used. Secondly, do or execute the plan. The next step is to check to see if the plan yielded the desired results. Finally, act to determine the root causes of meaningful variances between the planned and actual results.

Another area of concern is the state of the state's major applications. Many of these applications are old and one-time customizations. The companies that developed them may no longer be in business. Others are standard applications supported by existing vendors, but they have uncorrectable flaws that hackers attempt to exploit to penetrate the system.



Georgia Technology Authority

gta.georgia.gov

Georgia Technology Authority

47 Trinity Avenue S.W.

Atlanta, Georgia 30334