OFFICE OF
**INFORMATION
TECHNOLOGY**
STATE OF ALABAMA

FY
20
22

ANNUAL REPORT

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OIT SECRETARY MARTY REDDEN'S LETTER TO GOVERNOR KAY IVEY

Dear Governor Ivey,

I am pleased to share with you, the Alabama Legislature, and the citizens of our great state the Office of Information Technology's (OIT) Annual Report for Fiscal Year 2022. This report features articles and information that highlight OIT's continuous commitment to supporting the Information Technology (IT) requirements of the State of Alabama and its many interconnected agencies by ensuring good IT governance across all levels of state government, providing carefully measured and professionally executed IT strategic planning, and by offering innovative services and technologies that reliably deliver highly available, secure, efficient, and cost-effective solutions for our IT stakeholders across the state.

In FY2022, OIT made significant progress toward its perpetual goal of becoming an increasingly trusted advisor and business partner to the state and its numerous agencies. When these agencies have access to more and better IT products and services – along with OIT's dedicated support and partnership – they are better equipped to successfully meet the needs of the citizens whom they serve.

One area in particular that remains a top priority and concern in today's rapidly evolving digital world is that of cybersecurity. Over the course of FY2022, OIT implemented numerous critical improvements to dramatically enhance the state's cybersecurity monitoring and defensive capabilities. Steps were also taken to ensure that our state is able to respond quickly and decisively in the event that a cyber incident does occur. As a result of this work, the State of Alabama's cybersecurity posture has been strengthened significantly.

Thank you for providing the opportunity to share updates about these and other important OIT initiatives which are detailed in this report. At OIT we are unwavering in our pursuit to deliver the highest quality service possible for Alabama and its state agencies. We truly believe that when we are successful in doing so, it is the people of Alabama who are the beneficiaries.

Respectfully,

Marty Redden
Secretary of Information Technology

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OUR PURPOSE

Without question, information technology (IT) has never been a more essential part of our everyday lives than it is in today's digital world. Almost everything that we encounter on a daily basis – our healthcare, education, work, shopping, travel, entertainment, and so much more – is impacted by IT systems and networks. Therefore, the need for these systems to function efficiently and safely is of the utmost importance.

This is especially true for state government. To effectively serve its citizens, Alabama must be a unified network of state agencies and partners on the cutting-edge of technology and communications.

The streamlining and consolidation of governmental functions is a crucial priority and of great significance to the economic well-being of the State of Alabama. In line with that goal, the Office of Information Technology (OIT) was formed in 2013 to streamline information technology in the state. Responsible for establishing all IT policy for the State of Alabama and developing its IT strategic plan, OIT is also charged with meeting the IT service demands of the numerous agencies statewide.

While effective IT utilization is paramount to reducing the cost of governmental operations, excellence in support of the IT needs of our state agencies – who directly serve the people of Alabama – is of equal importance.

IT GOVERNANCE

In addition to serving as an IT policy and service organization, OIT is also responsible for establishing and administering a structured system for the review and approval of new IT initiatives and projects. For capital investment projects, OIT requires a business case, cost benefit analysis and/or compatibility analysis to justify the state's expenditures. This is done to ensure solutions align with the strategic plan and are cost-effective. Additionally, OIT promulgates rules, regulations and policies, and establishes procedures and standards for the management and operation of IT by state agencies to guarantee a more consumer-oriented focus.

IT STRATEGIC PLANNING

OIT and its Secretary are responsible for developing a comprehensive four-year strategic plan for the state's IT that will be updated annually and submitted to the Governor. The strategic plan focuses on the acquisition, management, and use of IT by state agencies and coincides with the planning and budgeting processes for the individual agencies. The purpose of OIT's strategic plan is to help the state achieve its goals of reducing redundant expenditures and maximizing the return on IT investments.

IT RESOURCE UTILIZATION

Another key function of OIT is the planning and coordination of IT activities for state agencies in a manner that promotes the most economical and effective use of state IT resources. OIT accomplishes this by establishing and maintaining a continuously evolving inventory of IT resources (such as personnel, data and data systems, software, hardware, and services) to promote improved asset management, utilization, and data sharing among the numerous state agencies. This allows for the identification of underutilized or idle assets, thereby streamlining the state's IT resource utilization.

STATE OF ALABAMA
Office of Informa
Technology

MISSION

Through communication and collaboration, empower stakeholders with innovative services and technologies that reliably deliver highly available, secure, efficient, and cost-effective services for Alabama agencies, legislators, and citizens across all levels of state government.

VISION

Provide solutions and services that are standardized, implemented in a timely and high-quality manner, and designed to meet the operational needs of each agency, legislator, and the citizens that depend on their services.

GUIDING PRINCIPLES

- To mature into a trusted advisor and business partner to agencies as they serve the citizens of Alabama.
- Standardize the delivery of networks, security, and enterprise services to OIT customers.
- Provide OIT customers visibility into their environment by implementing multi-tenant enterprise tools that facilitate delegated administration, compliance reporting, and control monitoring.
- Deliver security monitoring and operational services to all agencies to protect state assets and services while mitigating risk.
- Work within and across the agencies to gather requirements, assist them with meeting their strategic goals and identify opportunities for shared innovation and improvement.
- Develop consistent cost models for services, streamline the billing process, and clearly define and communicate the value provided for all agency fee-driven services.

ATION

Secretary of Information Technology/ State Chief Information Officer

Marty Redden

Executive Support

Sec. Direct Reports

Executive Director Shared Services
Daniel Urquhart

- Network Engineering
- Infrastructure
- Brokered Services
- Service Strategy

Executive Director Support Services
Roger Bowman

- Support: Help Desk
- Support: Network Operations Center
- Change Management
- Project Management Office
- Application Development

Executive Director Information Security and Governance
Alan Cochran

- Security Governance, Risk Management and Compliance
- Security Threat Management and Security Engineering
- Service Delivery

Executive Director Finanace and Procurement
Brooke Covington

- Billing
- Procurement
- Asset Management
- Contracts
- Financial Reporting
- Accounts Payable

OIT Services
OVERVIEW

ACCESS
OIT's access services provide connectivity and access to essential state resources such as the state network, email, internet, VoIP, and much more; all in a secure and controlled environment.

BUSINESS PROCESS AUTOMATION
Our business process automation services are available to help agencies streamline methodologies, analyze and improve processes to meet metrics, and integrate workflows.

COMMUNICATION
A broad and complete set of communication tools are offered by OIT to efficiently and dependably connect users with one another and their customers.

CORE COMPUTING
Whether you are in need of datacenter services, primary storage, hosted web service, or virtual server hosting, OIT is able to provide the fundamental core computing services that are central to IT organizations within our state.

DATA ANALYTICS
OIT offers professional data services that influence and drive decision making by leveraging your data and data sources to provide efficient, scalable, and holistic services. And OIT will always prioritize data protection and privacy in that process.

OIT Services are organized into ten main categories, with multiple processes and products available within each individual service category.

SUPPORT

Customer support is one of the most important services OIT can provide. Whatever your specific IT help needs might be (from a single, localized issue to a widespread service disruption), our professional support services are operationally available – continuously and around-the-clock.

IT PROFESSIONAL SERVICES

With OIT's professional services, you have access to skilled, experienced, and trained specialists to meet your IT demands. We have the ability to fully meet all of your business analysis or project management needs.

GOVERNANCE

OIT establishes policies, standards, guidelines, and procedures for IT departments to abide by, while incorporating the state IT strategy and overall business objectives. OIT governance promotes best practices, lowers risk, aids in improving ROI, affects long-term change, and implements statutory requirements of IT projects.

STORAGE

OIT provides logical storage of agency information in modern, state-of-the-art, regulatorily compliant facilities located within the State of Alabama. Access to your information is guaranteed, and it is regularly backed up and can be restored as required.

SECURITY

Our security services offer protections for the confidentiality, integrity, and availability of state technology assets, commensurate with risks to infrastructure, communications, information, and information systems.

Shared
Services

The primary focus of the Office of Information Technology's (OIT) Shared Services Division is to ensure the state's network and infrastructure are resilient and provide secure and reliable network and voice transport for state agencies. The Division is comprised of four main departments; Network Engineering, Systems Administration and Infrastructure, Brokered Services, and Service Strategy.

Collectively, these groups work with the technical staff of the agencies to deliver products and services provided by OIT or through enterprise contracts. Additionally, the Shared Services team works with vendors to combine licenses and technology products and services to reduce the overall technology cost for state agencies. The specific roles filled by each department within the Shared Services Division include:

Network Engineering - Ensures the delivery of internet connectivity, voice services, provisioning of private network and voice circuits, network monitoring and support

operations, and the installation and maintenance of various network equipment, physical connectivity, and monitoring devices throughout the Montgomery campus and WAN networks.

Systems Administration and Infrastructure - Supports the M365 email environment, Active Directory Services, Azure and AWS cloud applications and services, and a virtual server environment that hosts server and database instances for many state agencies.

Brokered Services - Facilitates a governance committee for changes to the M365 platform, provides assistance and training for Power Platform applications, supports and coordinates Laserfiche activities for the state, and negotiates with vendors to create bulk purchase contracts for services used by agencies in order to reduce overall cost.

Service Strategy - Works across all of OIT's technical teams to help architect and engineer new solutions, consolidate and eliminate duplicate functions, and develop an enterprise technology strategy that fulfills the business needs of state agencies.

DIVISION LEADERSHIP

Daniel Urquhart serves as the Deputy Secretary of OIT and leads the agency's Shared Services Division. Prior to joining OIT in 2020, Mr. Urquhart served as the CIO for the Alabama Law Enforcement Agency (ALEA). Mr. Urquhart worked for the Department of Public Safety from 2002 until the legislative consolidation of state level law enforcement agencies that created ALEA in 2015.

Prior to joining state government in 2002, Mr. Urquhart worked in the private sector from 1987 holding various technical and leadership positions. He began his career in banking and finance and also worked in the drug/medical wholesale, childcare services, restaurant concepts, and technical consulting industries to lead and implement a variety of technical enhancements for business and decision-making systems and platforms.

DECOMMISSIONING ALABAMA'S
Legacy Phone System

A mong its many important roles, one of the most essential functions of the Office of Information Technology's (OIT) Shared Services Division is to provide telephone services to state agencies. This includes meeting any hardware, software, and long-distance needs customers might have. It also means ensuring that the state's phone system is well-maintained and utilizing contemporary technologies.

In 2018, OIT initiated a project to decommission the state's outdated analog phone system in order to replace it with a modernized Voice over Internet Protocol (VoIP) system. The state's former system had been in use for more than thirty years and lacked the robust, dynamic features available with a more current VoIP system.

In order to successfully implement the phone system conversion, Shared Services developed a customer migration plan that required extensive coordination with state agencies. The plan also necessitated a rebuild of the functionality from the old platform to ensure there was no disruption to the daily operations of agency business. After converting the state phone system from analog to VoIP, a significantly more stable platform was established for current and future customers.

With the successful migration of all users to the new VoIP system and the initial phase of Shared Services'

decommission project complete, the division immediately began making plans for the next phase of the project. Phase two was initiated in early 2022 and involved identifying legacy phone technologies from the carrier and mapping those to their respective billing components in order to place disconnect requests.

Although time and labor-intensive, this effort proved to be of vital importance. With the disconnection of these legacy phone lines and device technologies, the State of Alabama will see annual net savings in excess of $600,000.

Another important piece of Shared Services' decommission project is the repurposing of floor space in the Gordon Persons Building that was previously occupied by the old state phone system. With the legacy system powered down and physically removed, OIT is now in the process of working with the Alabama Department of Finance's Real Property Management division to renovate the space for use as OIT's new shop location which will replace the current operation site on High Street.

BY THE NUMBERS

$600,000+
The annual net savings the State of Alabama will gain by disconnecting legacy phone lines and devices.

Responding to Agency Needs

Each year in October the Office of Information Technology (OIT) sends a customer satisfaction survey to its twenty-five largest agency clients, as well as to members of the Chief Information Officer (CIO) Advisory Council, in an effort to gain valuable insight into how OIT can better meet the IT demands of its stakeholders.

Last year's survey generated a tremendous amount of useful feedback, with numerous customers expressing a similar desire to have greater visibility into their agency's OIT-supported environments and expanded administrative rights for their agency and personnel within those environments. After receiving this feedback, OIT set out to implement several initiatives aimed at providing the visibility and administration the agencies need in order to meet their business demands more effectively.

OIT identified three initial areas of focus in which an immediate impact could be provided for customers. The first of these was to employ a product called CoreView that would give agencies enhanced visibility and administrative rights within their Microsoft Office 365 environment. With CoreView's reporting suite successfully deployed, agencies can now view usage reports of Microsoft Teams, OneDrive, SharePoint, and all associated licensing. The administration suite for CoreView is in the process of being deployed and with it, clients will be able to administer user accounts, licensing assignments, and password management and policy for their individual agencies.

The second initiative undertaken by OIT was to establish an endpoint management platform using Cisco AMP + Umbrella products. This toolset allows each agency to administer their own policies and to control deployment for their client-based computers and devices.

The third area of focus was the utilization of a WebEx Cloud calling solution that enables agencies to independently manage their VoIP telephone deployment. With this service, agencies can now run administrative and usage reports for their employees and perform routine moves, adds, and changes as needed without being required to contact OIT for assistance.

OIT is currently in the planning phases for deploying a multi-tenant tool called nGenius to allow agencies to view network traffic flow for their personnel. This toolset will allow OIT to streamline and consolidate several toolsets and allow for faster problem resolution when network latency issues are reported.

> **OIT identified three initial areas of focus in which an immediate impact could be provided for customers.**

Shared Services accomplishments FY2022

WIRELESS, NETWORK, VoIP

400+ Wireless Access Points (WAP) maintained across Montgomery campus

421 Network circuits managed

7,441 VoIP phones deployed

SERVER & ACTIVE DIRECTORY

331 VxRail VM server environment

38,782 Azure Active Directory (AD) users (Synced Users)

13,745 Azure Active Directory (AD) groups (Synced Groups)

59,268 Devices discovered

508 Apps

TRAINING & PROJECTS

Instructor led trainings provided **23**

New agency projects in FY2022 **7**

Services added **2**

APPLICATION LICENSING

Microsoft licensed users (email, etc.) **18,378**

EV Cloud users-journaling **2,611**

Adobe licenses **4,780**

Agencies provided with Adobe **63**

Laserfiche licenses **1,423**

Laserfiche agencies served **13**

Support
Services

The Support Services Division of the Office of Information Technology (OIT) is tasked with providing essential services such as technical solutions, teams, and systems to departments throughout OIT in order to support the overall mission of the agency. The individual sections within Support Services work across all levels of OIT to ensure that the organization is positioned to effectively meet the needs of its agency customers.

Many of Support Services' sections also provide services externally, working directly with state agencies to support their unique IT business demands so they are able to successfully serve the citizens of Alabama. A comprehensive list of the Support Services sections which enable OIT to carry out its daily work includes the following:

Project Management Office (PMO) - Manages OIT's project portfolio and provides project management resources to the various divisions within OIT. The PMO supports the full project lifecycle for OIT's key initiatives.

Change and Configuration Management - Maintains and documents OIT's hardware and software inventory while providing documentation, tracking, and communication around changes to these items for which OIT is responsible.

Application Development - Develops and maintains the applications, websites, and databases which support the departments within OIT. Application Development also provides development and maintenance support to the various agencies, boards, and commissions throughout the state.

Client Services - Provides OIT's customer-facing Service Desk, Desktop Support, and Quality Assurance services to both OIT internal staff and customer agencies.

Network Operations Center (NOC) - Provides 24/7 monitoring support of OIT's network infrastructure while serving as OIT's point of contact to the network vendors.

Mainframe Support - Serves as the liaison between the customers, including OIT, who utilize the state's mainframe and the mainframe vendor. OIT's mainframe support team also provides mainframe print services for customer agencies as needed.

DIVISION LEADERSHIP

Roger Bowman serves as the Executive Director of the Office of Information Technology's (OIT) Support Services Division. Mr. Bowman has more than twenty-five years of experience in the field of information technology. He began his career in the private sector, working in various software development roles as well as on technical teams supporting software in the textile and apparel manufacturing space.

Over the past fifteen years, Mr. Bowman has served in multiple roles within Alabama state government including as a software architect, software development manager, and software development director. The experience Mr. Bowman has gained in each of these previous roles has well prepared him for his current position leading OIT's Support Services Division.

Supporting
Early Childhood Education
through
Application Development

I n both the private and public sectors, the demand for application development services has never been greater. Just like companies in the private sector which rely on these services to perform essential tasks and business functions, so too do agencies throughout Alabama state government depend on application development to effectively carry out the various missions of their organizations.

Fortunately for the State of Alabama, the Office of Information Technology's (OIT) Support Services division has a specialized department ready and able to provide this vital service. OIT's Application Development team is comprised of experienced information technology professionals who work with state agencies – large and small – to meet their specific application development needs.

In Fiscal Year 2022, Application Development assisted the Alabama Department of Early Childhood Education (ADECE) in its implementation of an updated version of the agency's highly successful ECEData application. ECEData is a custom application built and maintained by OIT and is used throughout the state by ADECE staff to maintain classroom records, student scores, and other associated information. The application also features dynamic departmental, regional, teacher, and program reporting capabilities. ECEData interfaces with other ADECE systems and serves as a centralized hub for classroom and related data.

OIT Application Development first began working with ADECE on the ECEData application in 2018. The work completed in 2022 represents the fifth phase of this comprehensive project. The most recent phase focused on expanding the system beyond the pre-kindergarten environment to include kindergarten through third grade. ADECE Education Systems Administrator Dr. Katrina Bowling, who oversees the ECEData project for the agency, had the following to say about working with OIT Application Development on this initiative:

"Since 2018, the Alabama Department of Early Childhood Education has worked closely with the Application Development team in the state's Office of Information Technology. Our users, both those in our department and those whom we serve in statewide preschool programs, are awed and unfailingly enthusiastic about this platform which replaced and has far surpassed the previously used program. In my discussions with colleagues in roles similar to mine across the country, they are always impressed by the custom-designed platform we have and all it is capable of. Development of this program would never have been possible without such a talented, knowledgeable, innovative, collaborative, and dedicated Application Development team."

BY THE NUMBERS

247 The number of ECE staff members with ECEData accounts.

480 The number of Pre-K Directors with ECEData accounts.

Enhanced Incident Response Process

When technical issues or problems arise, the principal aim of the Support Services division of the Office of Information Technology (OIT) is to provide state agencies with knowledgeable, dependable, and timely resolution support. Whether the issue is as simple as an expired or forgotten password, or a more complex scenario such as a network outage affecting multiple counties; if state agencies are hindered in their ability to meet the demands of the citizens they serve, then it is the goal of OIT to address any and all information technology (IT) problems as quickly as possible.

The OIT Service Desk, a department within the Support Services division, is continuously working to improve incident response times and satisfaction rates among OIT's numerous agency partners. Over the course of the past fiscal year, the Service Desk developed and implemented an updated priority matrix that has allowed OIT to more efficiently categorize incidents reported by agencies statewide. The new matrix adds additional details

> OIT will continue to track actual resolution times in order to determine whether adjustments or modifications to the new priority matrix and SLOs are needed.

around evaluating incident priority, allowing for more precise resource assignment across OIT's technical teams.

Along with the new matrix, OIT implemented updated Service Level Objectives (SLOs) which define the expected resolution times for incidents based on their assigned priority level. OIT's ServiceNow team worked closely with the Service Desk on this initiative and executed the new matrix in-line with agency-wide training. OIT will continue to track actual resolution times in order to determine whether adjustments or modifications to the new priority matrix and SLOs are needed.

The Support Services division and OIT Service Desk initiated this project with two primary objectives in mind. The first objective is to ensure that resources are accurately applied any time an agency is experiencing problems centered around their IT systems and processes. Secondly, but every bit as critical as the first, is to resolve issues swiftly so that agencies can get back to their daily work of serving Alabamians. When OIT is able to accomplish both of these goals, it is the citizens who are the true beneficiaries because our state is able to meet their needs in a much more capable and expeditious manner.

Support Services
accomplishments FY2022

SERVICE DESK

4,681 State operator calls

9,857 Total calls received

5,102 Total tickets closed

APPLICATION DEVELOPMENT

10 Number of new websites designed

119 Number of websites supported and maintained

54 Databases hosted and maintained for **32 unique agencies** excluding OIT

50+ Applications supported and maintained

MAINFRAME

99 Score achieved on multi-agency Mainframe Disaster Recovery Exercise in FY22

6 Key upgrades to state mainframe in FY22 (z15 mainframe processor, CICS Transaction Servers, and DB2 database subsystems upgrades)

NETWORK OPERATIONS CENTER

State network WAN circuits monitored **500**

PROJECT MANAGEMENT OFFICE

Network Engineering projects **19**

Application Development projects **12**

Infrastructure projects **9**

OSS Working Group projects **7**

Brokered Services projects **4**

ServiceNow Administrative project **1**

Security Operations project **1**

PMO project **1**

Information Security & Governance

The Office of Information Technology's (OIT) Information Security and Governance Division is comprised of a dedicated staff of trained cybersecurity professionals. The departments that make up this division within OIT are responsible for organization-wide security monitoring and response, vulnerability management, threat management, incident response, and management of the Information Security Program.

Managed by the Chief Information Security Officer for the State of Alabama, this division plans, designs, and executes the day-to-day function of the Information Security Program for OIT.

While the division is tasked with a number of high-priority roles and responsibilities, the primary objectives of Information Security and Governance are as follows:

- Ensure the security and confidentiality of the information of state agency customers
- Protect against any anticipated threats or hazards to the security or integrity of such information
- Protect against unauthorized access to or use of such information that could result in substantial harm or inconvenience to any state agency customer
- Ensure that OIT and external agency leadership are informed as to the status and findings related to the information security status of OIT and the enterprise as a whole
- Establish appropriate monitoring systems to detect any weaknesses in established internal security controls
- Train applicable state employees to properly administer the established internal controls and to respond effectively to any breach of information security
- Educate all agency employees on Security Awareness

DIVISION LEADERSHIP

Alan Cochran serves as the State of Alabama's Chief Information Security Officer and Executive Director of the Office of Information Technology's (OIT) Information Security and Governance Division. Mr. Cochran has more than forty years of experience working in information technology, information security, managed services, and consulting.

Prior to joining OIT in 2021, Mr. Cochran worked for several large organizations such as Bank of America and Kaiser Permanente, as well as smaller banks, electronic payment companies, and two startups. For greater than a decade he also managed his own security consulting company.

Mr. Cochran holds CISSP, CISA, CDPSE, and ITEL certifications, and is a CISSP Exam Writer. He is passionate about strategic planning, leadership skills development, and relationship building. These key areas have proven essential to his successful career in the technology field, and they continue to be of enormous benefit in his current role with OIT.

State of Alabama Security Council:
Leveraging the Power of Information Sharing

In today's fast-paced world, it is easy to be so focused on what is happening right in front of us that we fail to notice everything else taking place all around us. This occurs in state government just as it does in our personal lives. That was certainly the case when the Office of Information Technology's (OIT) Information Security and Governance Division recognized that many of the security issues that individual agencies were dealing with on a daily basis were also encountered by agencies statewide.

This realization made it apparent that improving communication and collaboration on information security related matters was of critical importance for our state. More specifically, it pointed to the need for a communication outlet that could more easily facilitate the cross-sharing of ideas, observations, experiences, functions, and capabilities among Alabama state agencies and their IT teams.

The Information Security and Governance Division began reaching out to its partners across state government to gauge interest in forming a multi-agency security council. The division expressed its goal for this council would be to bring together IT professionals from Alabama's numerous state agencies to discuss their respective agencies' priorities, problems, solutions, and concerns regarding information security. OIT's proposal was met with widespread interest and enthusiasm, and in the fall of 2021 the State of Alabama Security Council was formally established.

The Security Council, which started with ten members representing five Alabama state agencies, has rapidly expanded over the past year to include more than forty members from twenty-five agencies. Since its formation, the Council has operated as a collaborative and interconnected network of colleagues focused on sharing information security tools, technologies, techniques, and opportunities. Occurring on an alternating schedule of in-person and virtual monthly meetings, the Security Council has proven itself to be a helpful resource for security professionals and agencies large and small.

Without question, information sharing is the among the most powerful tools an organization can have in its information security protection arsenal. Rather than operating in a vacuum, agencies on the Security Council are able to learn from one another, gain valuable outside perspective, and share insight that other agencies can use in their own information security shops. This is not just beneficial for the individual agencies, but for the entire State of Alabama and the citizens it serves.

BY THE NUMBERS

25 The total number of Agencies in the Security Council, which has grown from the original ten members.

REAL-TIME SECURITY MONITORING AND THREAT IDENTIFICATION

The current information security landscape is often compared to a battlefield upon which bad actors and protectors (i.e., the "good guys") are pitted against one another. The former group is perpetually trying to gain access to critical assets for nefarious purposes, while the latter group works feverously to prevent all such attempts. Both sides use a combination of skill, technology, opportunity, and creativity to thwart the opposing side's activities. Information security professionals are always on guard, looking for new and emerging approaches toward protecting, detecting, and responding to cyber-attacks.

An exciting realm known as security information and event management, or SIEM, exists within the field of information technology. SIEM involves the gathering, synchronizing, correlating, and analysis of logs and threat data to determine if a security event is present. In recent years, major advancements to automate these functions have taken place and the State of Alabama has worked diligently to capitalize on the availability of these tools and processes.

In 2021, the Information Security and Governance Division of the Office of Information Technology (OIT) partnered with an industry-leading information security consulting and advisory firm to implement a SIEM system for the state via the establishment of an automated Security Operations Center (SOC). Over the past fiscal year, the SOC has enabled OIT to provide dramatically enhanced information security monitoring and response services to the numerous state agencies on its network. As a result, OIT is now able to more accurately identify legitimate security events while simultaneously reducing the number of false positives. Additionally, the response time in eradicating malware, unauthorized access times, and other potential security aberrations has been significantly improved.

OIT has also initiated continuous, 24/7/365 security monitoring which benefits the State of Alabama through real-time detection and notification of security events. The Information Security and Governance Division's operations and engineering teams have worked to strategically tune these new technologies to better serve the specific needs of state agencies and to streamline information and operations workflows.

There is tremendous potential in the coming years to partner with agencies to provide an advanced and increased scope of monitoring of networks and system resources currently managed by the agencies themselves. By working together with OIT, agencies can ensure that their data – and the data of the citizens they serve – is better protected. The Information Security and Governance Division's SIEM program will continue to play an increasingly important role in that critical mission.

> **By working together with OIT, agencies can ensure that their data is better protected.**

Information Security & Governance ACCOMPLISHMENTS FY2022

INFRASTRUCTURE IMPROVEMENT

6 Number of major (Enterprise, Statewide) projects completed

96 Number of log sources feeding SIEM

207 Number of Vulnerability Assessments performed

EFFECTIVENESS

5,367 Number of security notable events worked/closed

1,494 Number of security incidents investigated and resolved

60 Number of electronic discoveries performed

592 Number of boundary protection (firewall+) changes performed

SERVICE DELIVERY

8 Number of client agencies on-boarded to Continuous Monitoring & Response service (CMR)

26 Number of client agencies on-boarded to Security Awareness Training (SAT)

8 Number of information security professional Service engagements

SECURITY AWARENESS

Number of Security Awareness enrolled learners **17,672**

Number of Security Awareness courses **30**

INFORMATION SHARING

Number of significant threats addressed with threat clearinghouses **77**

Number of Cyber Threat Advisories published to State of Alabama (In State and External) **9**

Number of Security Council conferences held **11**

Average number of Security Council attendees **30**

Average number of Security Council agencies attending **22**

Number of incident response tabletop exercises (all forms) **8**

Number of agencies attending tabletops **17**

PROVIDE CLIENT VALUE

Number of agency client security dashboards developed **141**

Finance &
Procurement

The Finance and Procurement Division of the Office of Information Technology (OIT) oversees the financial reporting, accounts payable, billing, procurement, asset management, and contract management functions of the agency. These critical activities are coordinated across six departments within the division to streamline the daily business operations of OIT. Finance and Procurement's departments and their specific areas of responsibility are as follows:

Financial Reporting – Responsible for the continuous tracking, review, and reporting of OIT's financial data to drive better business performance and results. The work of the Financial Reporting department is essential to maintaining transparency and compliance as a state agency.

Accounts Payable – Ensures goods and services are received by OIT before submitting accurate and timely payment for vendor invoices in compliance with State of Alabama Fiscal Policies and Procedures.

Billing – Conducts a monthly audit of, and initiates payment for, the telecommunication invoices for the majority of Alabama's state agencies. The Billing department's activities support operational stability, collaborative telecom vendor relationships, and adherence to fiscally responsible processes.

Procurement – Ensures that access to IT products and services is available to meet the state's IT strategy and to provide competitive sourcing, lowest pricing, and favorable value and contract terms from awarded suppliers.

Asset Management – Supervises OIT's tangible assets to ensure they are accounted for, deployed, maintained, upgraded, and removed from use as needed.

Contract Management – Manages the writing of bid specifications, proposal evaluations, award recommendations, terms and conditions negotiation, workflow document process, compliance, and monitoring of IT contracts statewide.

DIVISION LEADERSHIP

Brooke Covington serves as the Executive Director of Finance and Procurement for the Office of Information Technology (OIT). Ms. Covington has more than two decades of experience in the field of accounting and has been a Certified Public Accountant (CPA) since 2009.

Prior to joining OIT in 2018, Ms. Covington worked in banking for fifteen years and served as an Executive VP/Chief Operating Officer where she oversaw branch and financial operations. Before being promoted to Chief Operating Officer, Ms. Covington served as Chief Financial Officer.

Ms. Covington earned her bachelor's degree in accounting from Troy University, followed by a master's degree in business administration from Auburn University at Montgomery.

MULTI-AGENCY TRAINING:

NASPO VALUEPOINT

Early in 2022, the Office of Information Technology (OIT) received a request from the Chief Information Officer (CIO) Advisory Council – a collaborative board of senior IT directors and managers representing numerous Alabama state agencies – for an in-depth tutorial regarding the state's access to and participation in cooperative, multi-state IT contracts through the National Association of State Procurement Officials (NASPO).

As a non-profit organization comprised of the Chief Procurement Officials of all fifty states, Washington D.C., and the U.S. Territories, NASPO's stated purpose is to promote public procurement throughout the country. Accordingly, NASPO ValuePoint is the organization's cooperative purchasing program which facilitates public procurement solicitations and agreements using a lead-state model.

Upon receiving the CIO Advisory Council's request, OIT's Finance and Procurement Division set out to develop a training course that afforded common ground insight on the use, practice, and reference material about NASPO and the contacts available to State of Alabama agencies. The division conducted an in-person informational briefing with a small group of outside agencies in early spring in order to offer a preliminary overview of the training material and to receive feedback and suggestions. Using the insight gained from this meeting, an extensive training video was created to provide a comprehensive analysis of NASPO ValuePoint.

The training video explains that NASPO cooperative contracts are competitively awarded procurements to contractors which begin with a master agreement between the contractor and a lead state. Other states then have the ability to become a participating entity on these contracts through a Participating Addendum (PA) with the contractor. Once a PA has successfully been executed, the goods or services associated with a particular contract are available for statewide procurement and use by authorized agencies according to certain terms and conditions. Among the many benefits of utilizing NASPO ValuePoint, there is no involvement required for bid preparation, evaluation, administration, or award processing and volume pricing and blanket master terms are value added and flow through with each purchase.

Finance and Procurement's NASPO video briefing does an excellent job explaining a rather complex topic like NASPO while also allowing individuals to view and share the material with other state colleagues at their own convenience and discretion. In addition to the video, OIT has a standing offer to schedule and conduct in-person training sessions for any CIO Advisory Council member or state agency that has an interest in learning more about NASPO and the IT associated contracts available to them.

OIT VENDOR
MANAGEMENT PROGRAM

I n Fiscal Year 2022, the Office of Information Technology (OIT) identified the need for a formal Vendor Management Program to enhance visibility across functions, mitigate risks, streamline the purchasing process, and gain increased value from its vendors. OIT staff attended a five-day workshop with a subject matter expert team from an information technology research and advisory company to facilitate the development of the Vendor Management Program.

This team identified and scoped roles and responsibilities, and ultimately classified vendors into one of four quadrant categories based on value, spend, switching cost, and impact to operations. Each vendor was identified as being either strategic, tactical, operational, or commodity and the significance and management level of attention to these vendors generally fall in priority for the State IT systems in that order. OIT's Vendor Management Team consists of key personnel from the agency's Finance, Contracts, Security, Compliance and Legal divisions.

The policies and procedures of the Vendor Management Program now provide a proactive framework for identifying and addressing improvement plans, decision-making, problem escalations, and issue resolution. The Vendor Management Team has fifteen vendors that are actively managed in the program and conducts internal meetings to complete vendor scorecards on a repeatable cadence.

Each vendor scorecard covers assessment areas for alignment, performance, risk, and relationship and is shared and discussed during Quarterly Business Reviews (QBRs). The scorecards are primarily used for vendors OIT has identified as strategic vendors and having a significant volume of spend. The QBRs provide an avenue for a continuous feedback loop and communication with strategic partners and governance.

Vendors have responded positively and embraced the new program. OIT has already seen improvement in multiple areas (innovation, issue resolution, information sharing portals, understanding of compliance measures and expectations, business process changes, etc.) as a direct result of the new engagement level and intensity of purpose to improve vendor relationships. Each QBR is recorded for OIT use and its ability to onboard new or changing team members to the past and current status.

As more QBRs are completed and trends develop, the team will continue to mature and expand the program to include benchmarking, vendor peer analysis, and incorporating feedback loops from agencies.

OIT HAS ALREADY SEEN **IMPROVEMENT** IN VENDOR RELATIONSHIPS AS A DIRECT RESULT OF THE NEW ENGAGEMENT LEVEL

BY THE NUMBERS

Vendors are actively managed by the Vendor Management Team **15**

Finance & Procurement ACCOMPLISHMENTS FY2022

83 Statewide IT Master Agreements renewed

10 New Statewide IT Master Agreements

52 Business Reviews conducted under new Vendor Management Program

OIT implemented improved cost control procedures and monitoring for FY2022, which helped substantially to keep expenditures down. As a result, only **1** agency rate increase occurred in FY2022 (due to a vendor pass-through price increase)

Updated 3-Year
Strategic Plan

An effective strategic plan provides the roadmap for an organization to establish and achieve its operational objectives. However, before the correct course for this roadmap can be set, you must know where the organization stands at present.

OIT initiated an extensive survey campaign in which we asked the 150+ state agencies we serve to tell us how we were performing across numerous key metric areas.

73%
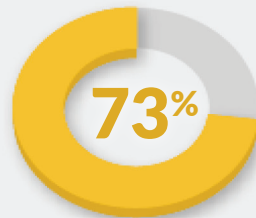
IT Satisfaction
Satisfaction with the IT departments and its ability to support your needs.
Down 1%
from last year

67%
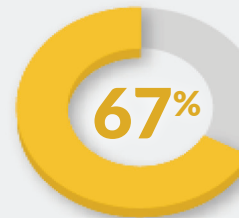
IT Value
Satisfaction with the IT provides high value relative to your perception of cost and staffing.
Down 1%
from last year

Relationship

76% **Understands Needs**
Satisfaction with IT's understanding of your needs.
Up 5% from last year

75% **Executes Requests**
Satisfaction with the way IT executes your requests and meets your needs.
Up 4% from last year

71% **Communicates Effectively**
Satisfaction with IT communication.
Up 4% from last year

67% **Communicates Effectively**
Satisfaction with IT communication.
Down 3% from last year

TARGET

NOW

INNOVATOR:
Transforms

BUSINESS PARTNER:
Expands

TRUSTED OPERATOR:
Optimizes

FIREFIGHTER:
Supports

UNSTABLE:
Struggles to Support
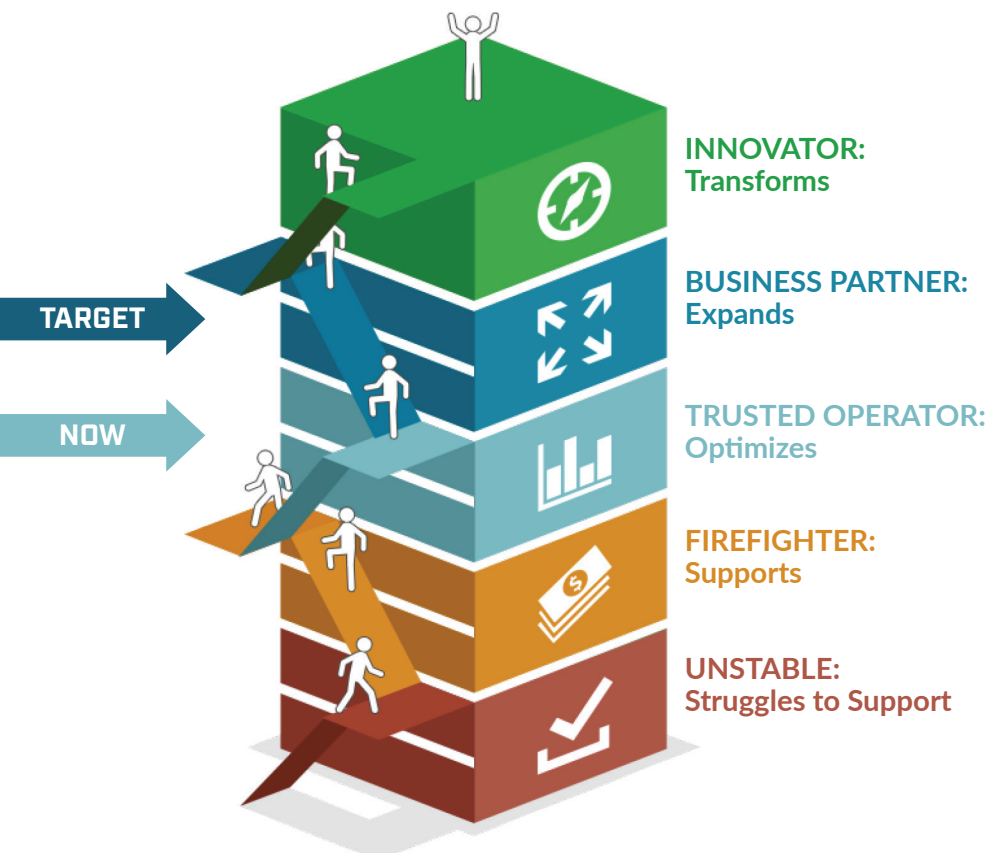
MATURITY OF AN ORGANIZATION

By measuring our customers' satisfaction with OIT's services and performance as an agency, we were able to use these insights to better understand our key business stakeholders, find out what is important to them, and define ways to improve our interactions with them.

This process also provided the opportunity to determine where OIT is currently positioned from an organizational maturity standpoint - and where we want to be within the next three years.

2023-2025

Processes Evaluated
- Strategy & Governance
- Information Security & Risk
- Release Management
- Portfolio Management

Key Priorities Identified
- Improve Communications
- Stakeholder Engagement
- Improve Value OIT Provides
- Improve Visibility of Core Services

Strategic Goals Set
- Become a Trusted Partner
- Increase IT Excellence & Innovation
- Establish Learning & Development

Assessing our technical capabilities enabled OIT to pinpoint low-maturity processes on which to focus. As a result of that evaluation, key priority areas were identified which helped to establish OIT's strategic goals.

OIT's top Goals and Key Initiatives collectively support and improve the delivery of our products and services. In summary, the successful execution of this updated 3-Year Strategic Plan will enable OIT to become an even more effective and trusted business partner to the state agencies serving the citizens of Alabama.

BUSINESS GOALS
- Consolidated Catalog with price transparency
- Streamline the billing process
- Agency user fee definition and consolidation
- Manage divisions as OIT businesses

- Design, build, and implement live chat for Service Desk
- Customer outreach (Roadshow)
- Expand Tier 2 functionality (1st call resolution)
- Everyday security for agencies, employees, citizens, businesses

- Security Governance roles, policies, and standards for agencies
- Deliver HA, standardized network services
- Mature and expand Threat Management Center
- Security monitoring and response participation growth

- Organize user groups for agency stakeholders
- National organization participation
- OIT calendar of events
- Security Awareness campaigns

BUSINESS INITIATIVES
- Define pricing model for cloud calling
- Customer Billing-Invoice System: Define requirements, build vs buy comparison, develop roadmap
- Define Security, Planning & Oversight, subscription service user fees
- Develop the OIT managed services provider model (MSSP, MSP)

- Develop format and KPI's to discuss with customer
- Identify areas to target for first call resolution
- Create State of Alabama Security and Risk Fusion Center

- Create security monitoring and response roadmap for deployment within Executive Branch and...
- Establish g... management... agencies
- Establish C... application...

- Security us...
- Establish s... training fo...
- Establish s... overall sta...

IT KEY INITIATIVES
- Hire Communication Director to create agency outreach program
- Define minimum security requirements for all agencies to follow
- Support all agencies to proactively monitor their critical applications, systems, networks, IP Sec tunnels, etc.
- Develop Annual Report and associated metrics

- Complete and communicate IT strategy
- Develop cloud calling deployment strategy
- Improve Service Desk first call resolution
- Ransomware readiness assessment

IT GOALS
- Trusted Partner
- IT Excellence and Innovation

	Stakeholder Facing Metrics	Target
1 — OIT Goal: Trusted Partner	• Overall IT Satisfaction (Source: ITRG Business Vision "IT Satisfaction") • Satisfaction Understanding Stakeholder Needs (Source: ITRG Business Vision "Understands Needs")	From 73% to 80% From 76% to 79%
2 — OIT Goal: IT Excellence & Innovation	• Request Execution Satisfaction (Source: ITRG Business Vision "Executes Requests") • Stakeholder Satisfaction with Innovation Opportunities Source: ITRG Business Vision "IT Innovation Leadership")	From 75% to 78% From 73% to 74%
3 — OIT Goal: Establish Learning & Development	• Stakeholder Satisfaction with Communication (Source: ITRG Business Vision "Communicates Effectively") • Stakeholder Satisfaction with Training (Source: ITRG Business Vision "Trains Effectively")	From 71% to 75% From 67% to 74%

State of Alabama
FY2022 IT Spend

These statistics are based on information obtained through STAARS and Personnel.

ALABAMA STATE BUDGET
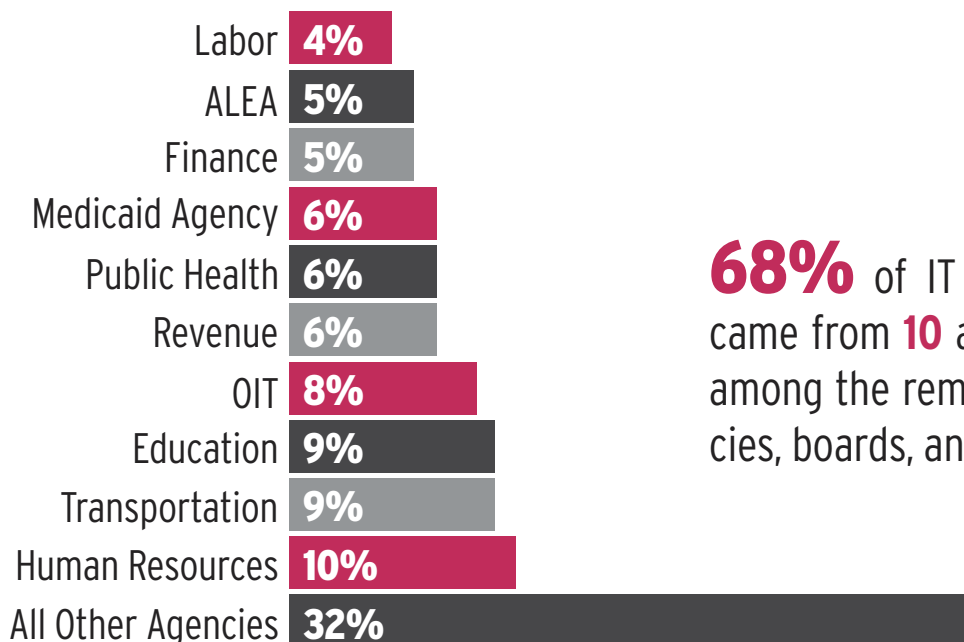## VS. STATE IT SPEND

Only **1.28%** of Alabama's state budget was spent on IT

$501
Million
spent on IT

Of the **$501** million spent on IT across Alabama state government in FY2022, OIT accounts for **8%** of that total amount

Every dollar spent by OIT must be recovered through the revenue it generates by providing IT products and services to other state agencies

$39 Billion
FY2022 State Budget

| Agency	Percent
Labor	4%
ALEA	5%
Finance	5%
Medicaid Agency	6%
Public Health	6%
Revenue	6%
OIT	8%
Education	9%
Transportation	9%
Human Resources	10%
All Other Agencies	32%

68% of IT spend in Fiscal Year 2022 came from **10** agencies, with **32%** divided among the remaining Alabama state agencies, boards, and commissions

STATE IT SPEND: 4-YEAR SNAPSHOT
Expenditures by Fiscal Year (in Millions $)

FY2019	FY2020	FY2021	FY2022

STATE BUDGET

$32,723 — $34,216 — $36,319 — $39,867

STATE IT SPEND

$472 — $506 — $534 — $501
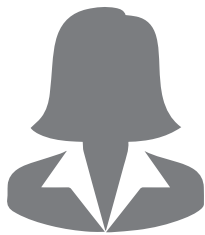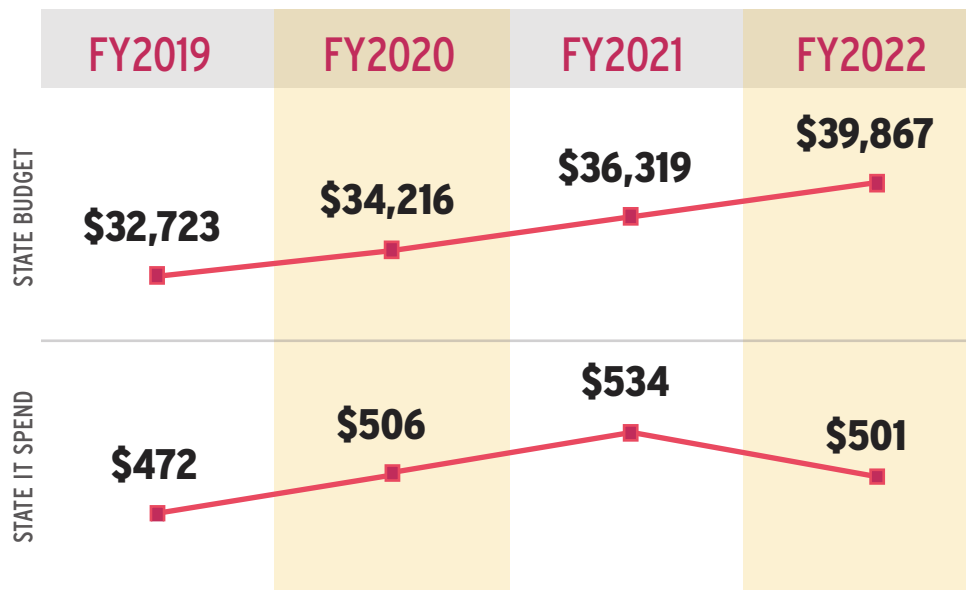
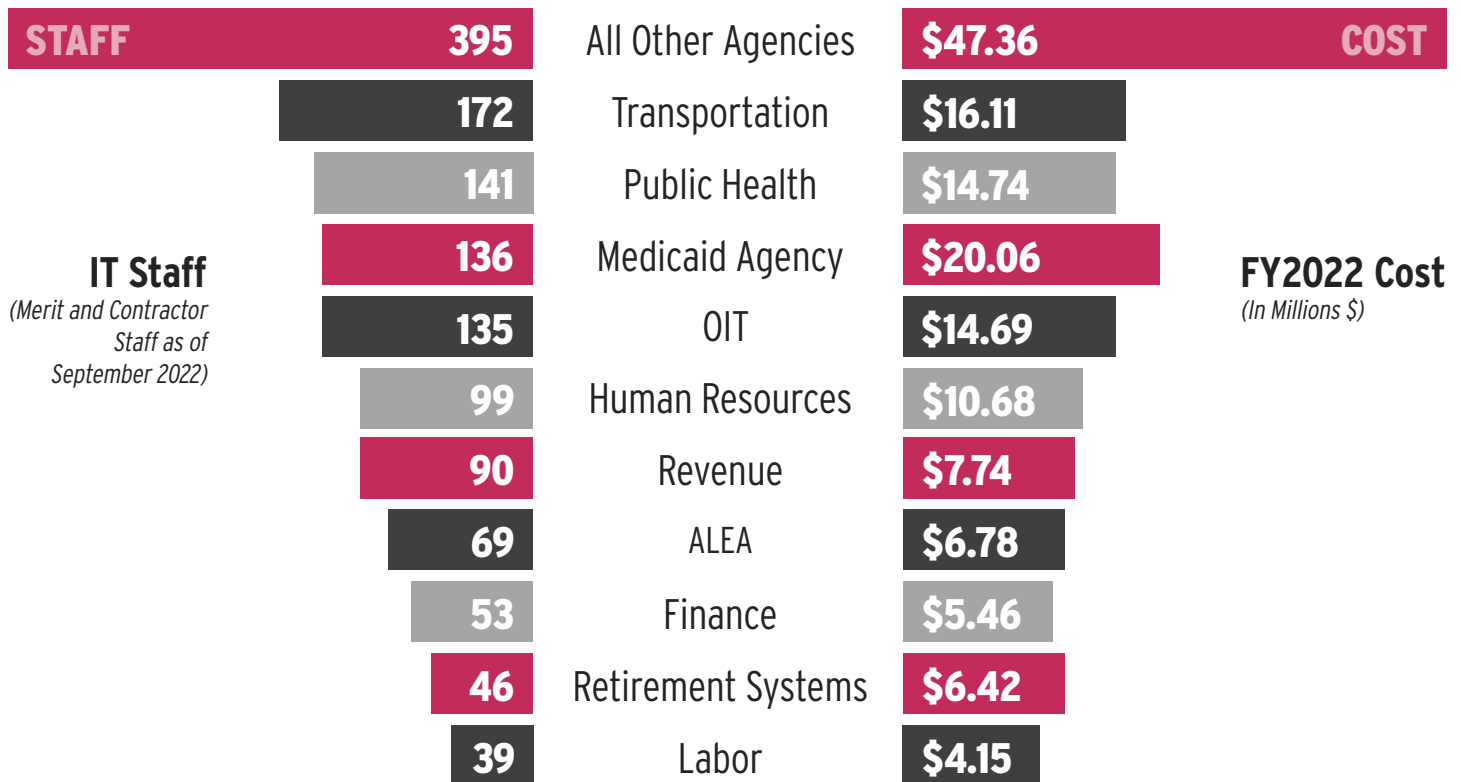Over **30%** of the State of Alabama IT spend was on IT staff

State agencies' hardware and software expenditures accounted for **24%** of Alabama's FY2022 IT spend

Alabama spent **less** on IT in FY2022 than in previous **2** fiscal years

State IT Staff
Quick Facts

THE COST OF ALABAMA'S IT WORKFORCE

STAFF		COST
395 All Other Agencies	**$47.36**	
172 Transportation	**$16.11**	
141 Public Health	**$14.74**	
136 Medicaid Agency	**$20.06**	
135 OIT	**$14.69**	
99 Human Resources	**$10.68**	
90 Revenue	**$7.74**	
69 ALEA	**$6.78**	
53 Finance	**$5.46**	
46 Retirement Systems	**$6.42**	
39 Labor	**$4.15**	

IT Staff
(Merit and Contractor Staff as of September 2022)

FY2022 Cost
(In Millions $)

IT MERIT STAFF

As of **September 2022**, Alabama's IT workforce was comprised of **1,160** merit employees

From FY2021 to FY2022, Alabama's IT merit staff total **increased** by just **16** employees – or **1.4%**

Over the past fiscal year, **103** IT merit staff **left state service** and **119** new merit employees **were hired**
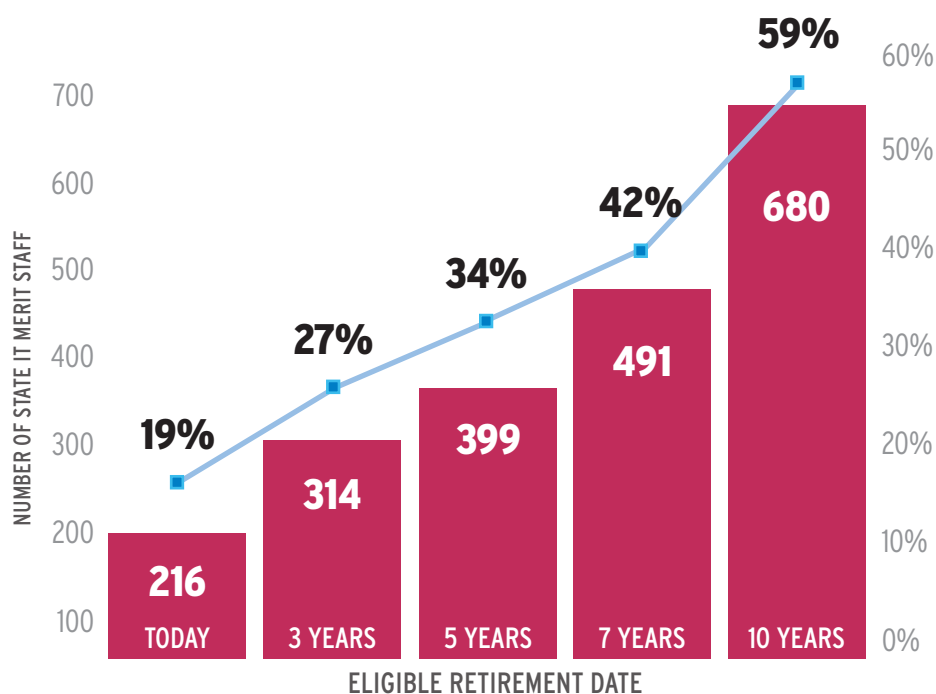
IT CONTRACTOR STAFF

215 IT contractors were employed by Alabama state agencies **at 2022 fiscal year-end** (September 30, 2022)

In FY2022, more than **$31 Million** was **spent on IT contractor** staff, compared to **$123 million** for merit staff

6% of the State of Alabama's **total IT spend** for FY2022 was used on contractor staff

ALMOST **20%** OF THE STATE OF ALABAMA'S IT MERIT STAFF COULD RETIRE **TODAY**.

This poses a serious issue for succession planning and compromises the long-term stability of Alabama's Information Technology workforce. IT is constantly evolving, and new advancements in the field often require different levels of education, experience, and skills. To avoid the risk of losing valuable institutional knowledge and productivity due to Alabama's IT merit staff leaving, the state must prioritize filling these vital roles with qualified and capable professionals. As Alabama's reliance on technology grows in today's digital world, this is an issue that will become increasingly urgent and crucial for the well-being of our state.

NUMBER OF STATE IT MERIT STAFF

ELIGIBLE RETIREMENT DATE				
216	314	399	491	680
TODAY	3 YEARS	5 YEARS	7 YEARS	10 YEARS
19%	27%	34%	42%	59%

Who will fill their shoes?

More than **200 IT merit staff** eligible for retirement today

Over **20%** of **OIT merit staff** eligible for retirement today

27% of the state's **IT Managers** could retire today

The **10 largest** state agencies account for **69%** of Alabama's total IT merit staff - of those employees, **20%** could retire today
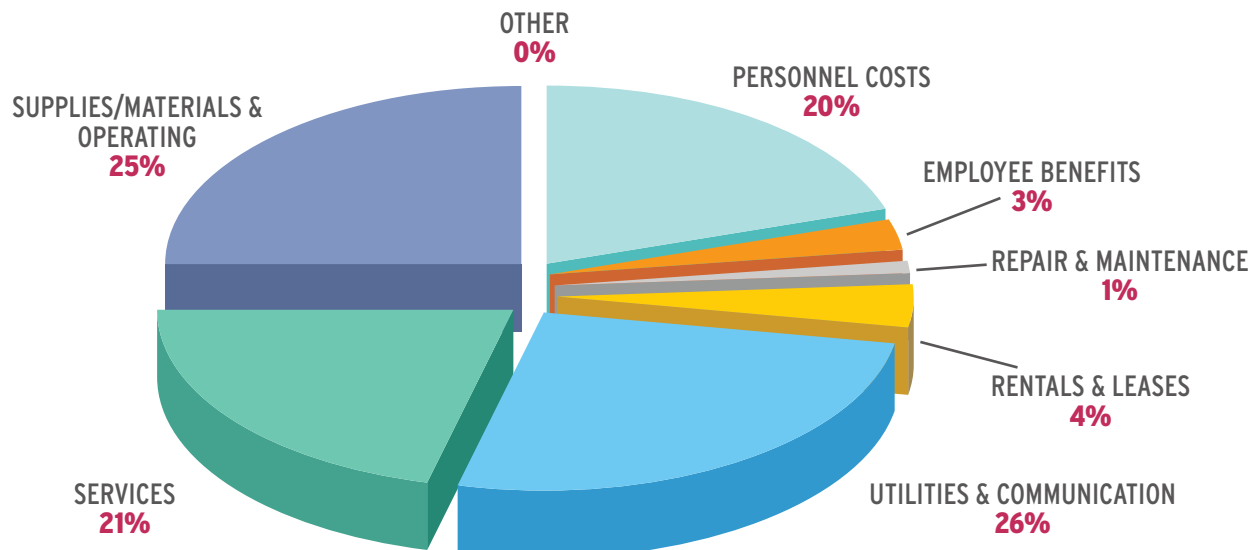
Office of Information Technology
Fiscal Year 2022
Financial Report

FY2022 OIT EXPENDITURES

EXPENDITURES	AMOUNT
Personnel Costs	$ 9,299,352.08
Employee Benefits	$ 1,373,287.13
Travel, In-State	$ 667.14
Travel, Out-Of-State	$ 2,063.11
Repair and Maintenance	$ 648,337.91
Rentals and Leases	$ 1,527,941.66
Utilities and Communication	$ 12,188,673.08
Services	$ 9,980,385.91
Supplies/Materials & Operating	$ 11,648,511.35
Transportation Equip Operation	$ 12,218.49
Grants And Benefits	$ 20.00
Other Equipment Purchases	$ 24,757.97
	$ 46,706,215.83

Unaudited. Does not include depreciation expense.

OTHER
0%

PERSONNEL COSTS
20%

EMPLOYEE BENEFITS
3%

SUPPLIES/MATERIALS &
OPERATING
25%

REPAIR & MAINTENANCE
1%

RENTALS & LEASES
4%

SERVICES
21%

UTILITIES & COMMUNICATION
26%

CONTACT

GET IN TOUCH,
OIT IS HERE TO HELP!

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