ITS **Mississippi Department of Information Technology Services**

STRATEGIC MASTER PLAN FOR INFORMATION TECHNOLOGY

2023 | 2025

MISSISSIPPI

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PURPOSE AND CONTEXT

The *2023-2025 State of Mississippi Strategic Master Plan for Information Technology* is prepared to assist state government's technology and business leaders in making informed technology decisions that support state business goals. It establishes a common set of goals and strategies for the state's information technology (IT) enterprise over the next three years.

As part of the Statewide IT Planning Process, goals and strategies are developed to assist the Mississippi Department of Information Technology Services (ITS) in delivering the most effective services to the government entities in Mississippi. ITS endeavors to work closely with state agencies, boards, commissions, public education, institutions of higher learning, and other Mississippi public entities to focus on excellence through quality of service, responsiveness, innovation, professionalism, and teamwork. The *2023-2025 State of Mississippi Strategic Master Plan for Information Technology* should serve as a guide to government agencies for selecting technology that supports their existing business operations and fostering innovation into the digital transformation of government services.
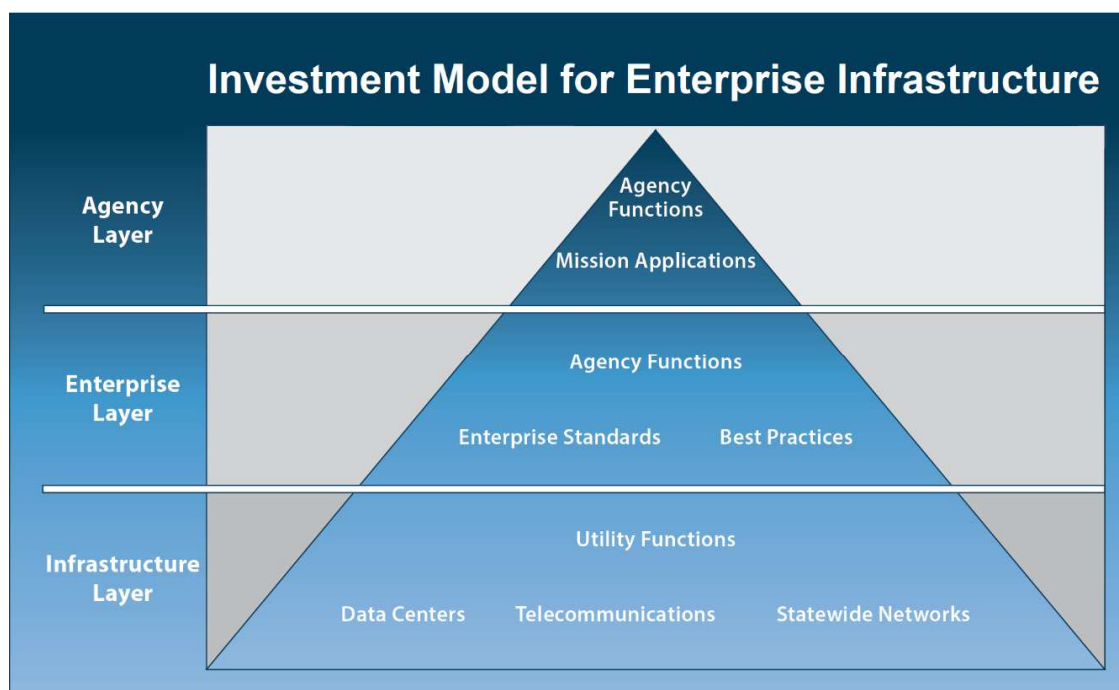
The development of Mississippi's 2023-2025 goals and strategies are guided by the following technology leadership values:

- Deliver state government business outcomes, goals, and objectives supported by technology strategies that have a sound business case before new investments are made

- Maintain flexibility with accountability in order to respond to new service needs

- View IT in Mississippi government from the perspective of the entire enterprise, aggregating resources where feasible, in order to reduce duplication, increase efficiency and effectiveness, and increase purchasing power

- Foster a culture that recognizes the need for investing in information security resources and implementing information security strategies

- Employ enterprise solutions capable of reducing the evolving threat and protecting Mississippi government's informational assets

- Recognize that IT is a statewide resource where technology investments should be aligned with strategic goals of the state

> *ITS endeavors to work collaboratively with state agencies, universities, public education, and other public entities in Mississippi to focus on* ***EXCELLENCE*** *through* ***QUALITY OF SERVICE***, ***RESPONSIVENESS***, ***INNOVATION***, ***PROFESSIONALISM***, *and* ***TEAMWORK***.

- Develop a process that fosters intergovernmental cooperation to share information easily within government organizations and with outside partners

- Employ technology that is flexible and interoperable so that changing business needs can be responded to quickly and efficiently

- Recognize that many agencies have substantial investments in existing technology and devise strategies that leverage those investments when practical

- Develop an IT workforce with the skills required to develop, manage, and fully utilize Mississippi's IT enterprise

INVESTMENT MODEL FOR STATEWIDE INFRASTRUCTURE

To ensure the effective and efficient use of public funds, ITS collaborates across state and local government agencies to effectively manage and deliver statewide IT services and technologies that are beneficial, secure, accessible, and that leverage the statewide shared infrastructure and architecture.

The Investment Model is comprised of three layers:

- **The Infrastructure Layer** includes managed service delivery, which encompasses services, telecommunications and networking services, and shared computing resources in the State Data Centers.

- **The Enterprise Layer** represents the areas where ITS and agencies work together to leverage Mississippi's technology investment. Another aspect of the Enterprise Layer is to ensure that effective and innovative solutions are identified and broadly communicated as best practices across the enterprise. Partnerships are an essential element of the Enterprise Layer as Mississippi government seeks to fully leverage the shared services and technology infrastructure.

- **The Agency Layer** represents the business areas of agencies. It encourages creative approaches and supports an innovation-centered environment where individual agencies have the time and resources to focus on creative business solutions.

By utilizing the shared services depicted in the infrastructure layer of the model and by leveraging the statewide enterprise policies, best practices, standards, partnerships, and blueprints reflected in the enterprise layer, individual agencies are able to modernize with creative solutions that focus on fulfillment of their agency's core missions while taking advantage of the enterprise statewide technology architecture. Deployment of innovative technology solutions and expansion of cloud services will extend access to information and services, equip employees with the tools needed to accomplish their jobs, and improve decision making within organizations.

E-RATE

The Schools and Libraries Program (www.usac.org/sl) provides discounts on the costs of eligible telecommunications services, Internet access, and internal connections ranging from 20% to 90%. The highest discounts go to the schools and libraries serving the most disadvantaged populations based on the percentage of students within the district that are eligible for the National School Lunch Program. During the 25 years of the E-Rate Program, Mississippi has received on average approximately 1.4% annually of the national total with $810.9 million dollars in credits going to schools and libraries in Mississippi. The following table reflects the amount committed to Mississippi by year. Source information: https://tools.e-ratecentral.com/us/stateInformation.asp?state=MS.

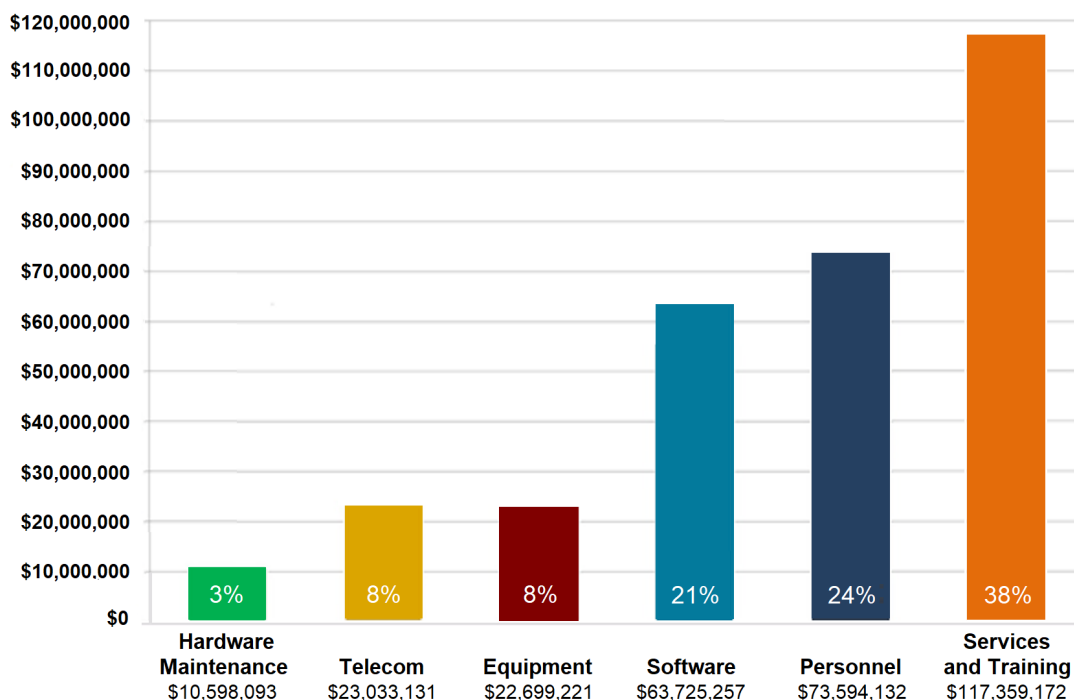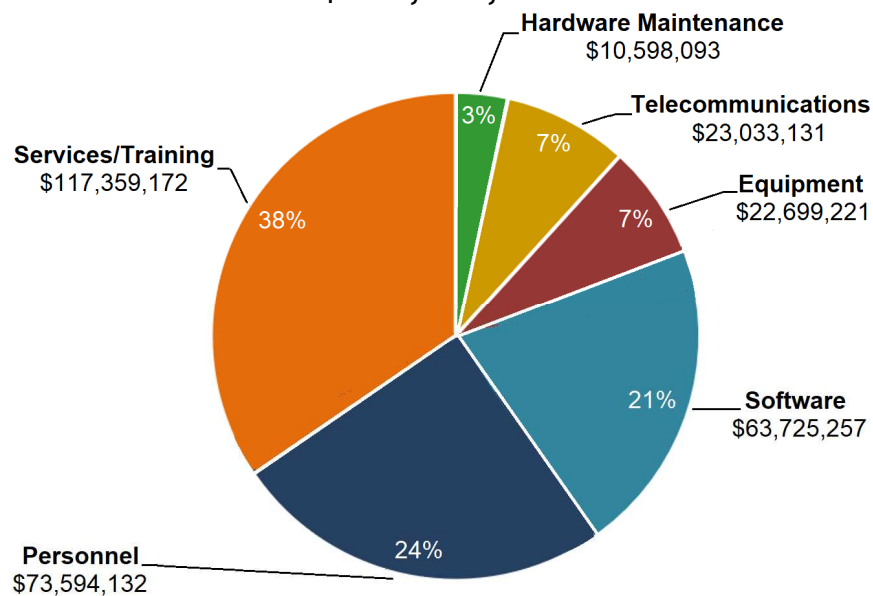| Mississippi's E-Rate Funding	
2022*	$21,780,130.39
2021^	$25,064,603.75
2020	$31,139,267.20
2019	$27,903,467.52
2018	$27,484,622.02
2017	$24,982,892.49
2016	$30,372,413.98
2015	$44,291,425.21
2014	$26,857,599.65
2013	$29,356,424.05
2012	$34,941,543.82
2011	$37,045,632.10
2010	$34,082,604.44
2009	$35,396,434.76
2008	$34,537,855.88
2007	$32,370,376.22
2006	$35,534,814.49
2005	$41,289,131.02
2004	$43,341,949.85
2003	$38,546,627.10
2002	$33,546,801.21
2001	$34,459,775.11
2000	$29,559,630.69
1999	$32,765,886.15
1998	$24,225,723.06

* Some funding requests remain under review
^ Cost reduction as a result of RFP 5000 beginning in 2021

CURRENT IT OUTLAY IN MISSISSIPPI

The IT spend reflected in this section is as categorized in Mississippi's Accountability System for Government Information and Collaboration (MAGIC) and is only as accurate as the information entered by agencies at the time the funds were expended. Payments to vendors by schools, libraries, community colleges, universities, and other governing authorities are not included in the noted expenditures. Additionally, the personnel category is an annualized projection of filled IT positions.

IT Expenditures by State Agencies – FY 2022
$311,009,007

Category	Amount	Percent
Hardware Maintenance	$10,598,093	3%
Telecommunications	$23,033,131	7%
Equipment	$22,699,221	7%
Software	$63,725,257	21%
Personnel	$73,594,132	24%
Services/Training	$117,359,172	38%

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MISSISSIPPI STRATEGIC MASTER PLAN FOR IT

EXECUTIVE SUMMARY

GOAL 1

Provide, Protect, and Support Enterprise Technology Infrastructure Components to Enable the Effective and Efficient Use of Information Technology

STRATEGIES
- Utilize fully the Primary and Ancillary Data Centers' Technology Infrastructure Services
- Provide, manage, and facilitate efficient and cost-effective usage of telecommunications services
- Provide, protect, and support enterprise technology infrastructure components to strengthen the security posture of the state

GOAL 2

Investigate, Develop, and Promote Enterprise Business and Technology Solutions to Maximize the Benefits of Shared Services

STRATEGIES
- Implement and promote digital government and mobile solutions to deliver public sector services
- Implement an effective and efficient messaging service for state government
- Investigate, propose, and implement an effective and efficient enterprise business resiliency solution
- Implement and promote an effective and efficient enterprise cloud ecosystem for state government

GOAL 3

Promote the Funding, Procurement, and Management of Information Technology as a Strategic Investment

STRATEGIES
- Initiate innovative and collaborative procurement strategies and practices
- Raise awareness and seek alignment of the IT investment process
- Enhance contract management strategies and practices
- Provide pathway for innovative information technology training to state employees

GOAL 4

Promote Statewide Sharing of Information Technology Between all State Agencies to Foster a Collaborative Approach to Innovative and Digital Transformation of Government

STRATEGIES
- Develop a technology blueprint that drives improved IT coordination and investment
- Facilitate and coordinate inclusive planning and outreach processes across state government
- Continue emerging technology research and strategic private sector relationships
- Provide effective communications with all partner agencies, advance ITS' mission and vision, and encourage public interaction

MISSISSIPPI IT GOALS & STRATEGIES

GOAL 1

PROVIDE, PROTECT, AND SUPPORT ENTERPRISE TECHNOLOGY INFRASTRUCTURE COMPONENTS TO ENABLE THE EFFECTIVE AND EFFICIENT USE OF INFORMATION TECHNOLOGY

Strategy 1.1

Utilize fully the Primary and Co-Processing Data Centers' Technology Infrastructure Services

Fully utilizing the investments already made in the state's Primary Data Center is a critical step toward helping government build a more secure, agile, and cost-effective infrastructure for the delivery of critical government services. Additionally, the availability and protection of the state's electronic information is a critical component for the delivery of government services to its citizens. The Primary Data Center offers security, resiliency and hosting options to meet an agency's business requirement. To compliment the attributes of the Primary Data Center, agencies have access to the state's Co-Processing Data Center with similar attributes for geographical diverse computing, backups, and business resiliency options.

Action:
- Increase use of the state's enterprise on-premises private cloud computing environment

- Expand the state's Primary Data Center colocation area to encourage agencies to relocate stand-alone systems to a more robust and secure computing environment

- Implement and continue to improve backup and business resiliency solution for the enterprise services critical to the state's IT operations. Develop, maintain, and test business resiliency solutions and business continuity processes for critical enterprise state network infrastructure

- Expand service-based business resiliency solutions that can be agency specific to improve recovery times, reduce cost, and provide opportunities for an agency to directly utilize those services as deemed necessary in support of their program areas

- Continue to leverage the attributes of the Co-Processing Data Center for those applications and systems that necessitate off-site backups and business resiliency requirements

Strategy 1.2

Provide, Manage, and Facilitate Efficient and Cost-Effective Usage of Telecommunications Services

Statewide voice and data communications are provided for state entities and local governing authorities within the Capitol Complex, the Jackson Area, and across the state through a combination of vendor contracts and directly managed services. The current contracts for statewide voice and data communications leverage the state's aggregate buying power to ensure that the best possible rates and universal service offerings are available to government entities. These long-term contracts include access to enhanced telephone services, dedicated Internet, managed router

and broadband data network services, and audio/video/web conferencing. Telecommunications services provided directly to agencies within the Capitol Complex include access to the Capitol Complex fiber network, enterprise telephone system, voicemail, and high-speed network connectivity to the State Data Centers, Internet, and the Mississippi Optical Network (MissiON).

Action:
- Manage the statewide Multi-Protocol Label Switching (MPLS) data communications network and related contracts

- Manage and maintain the Primary Data Center network and Co-Processing Data Center network

- Manage and maintain the statewide enterprise telephone system

- Provide agencies and institutions with cost-effective telecommunications services (voice and data) that support the missions and objectives of state government

- Provide agencies and institutions with access to the Internet and computing resources through the state's shared data network infrastructure

- Enhance the communications infrastructure (voice and data) to expand services and provide reliable, secure communications access to state resources and mission critical applications

- Perform annual needs assessments and upgrades to state communications resources at the enterprise level

- Install and maintain the copper and fiber cabling infrastructure in and between all state government buildings in the Capitol Complex area

- Provide statewide contract for audio, web, and video teleconferencing

- Monitor, enhance, and modify all telecommunications networks to maximize utilization and decrease operational overhead

- Promote access and use of the state telecommunications contract for governing authorities to improve infrastructure and services and reduce telecommunications expense at the local level

- Manage the implementation of technically sound and cost-effective communications platforms at all newly constructed or renovated facilities through inter-agency policies and procedures

- Coordinate relocation of communications services for all agencies impacted by new building and renovation activities

- Provide value-added services to our partner agencies such as end-user training, vendor bill auditing, system administration, network monitoring, and on-going project management

- Examine security functions and services for core voice communications platforms

- Implement Voice over Internet Protocol (VoIP) and other real-time applications, where appropriate

- Coordinate the transition to approved enterprise technologies ensuring interoperability and effective cost management related to inventory, support, and maintenance of the statewide network

- Incorporate new and proven industry standards in telecommunications technologies to enhance the service and delivery needs of the state
- Perform reconciliations on agency invoices to ensure accurate billing by telecommunications vendors

Strategy

1.3

Provide, Protect, and Support Enterprise Technology Infrastructure Components to Strengthen the Security Posture of the State

ITS administers the Enterprise Security Program to execute the duties and responsibilities of Mississippi Code Annotated § 25-53-201. ITS provides coordinated oversight of the cybersecurity efforts across all state agencies, including cybersecurity systems, services, and development of policies, standards, and guidelines. The complexity of the enterprise and the challenges associated with securing an environment composed of decentralized agencies requires a coordinated effort to help the state better understand its aggregate security maturity level. ITS uses this understanding to refine the enterprise security effort.

Action:
- Align the Enterprise Security Policy and overall Enterprise Security Program with the National Institute of Standards and Technology (NIST) Cybersecurity Framework; the security controls defined in the 800 series of publications by NIST and the Center for Internet Security (CIS) Controls
- Evaluate and award a Request for Proposal (RFP) for the acquisition of managed security services to assist with identifying, measuring, and prioritizing the potential risks that exist on state IT assets
- Continue working with state agencies on centralizing termination of all VPNs in the enterprise remote access VPN solution. The VPN solution extends the private network across a public network to provide authorized users secure remote access to the state network
- Collect and analyze information regarding the use and associated costs of cybersecurity solutions and services within state government. The analysis of this information will assist the Enterprise Security Program in deciding the appropriate enterprise security solutions and services for reducing risk and cost
- Participate in the planning and implementation of an enterprise architecture joining public cloud infrastructure to the Enterprise State Network without introducing undue risk
- Develop an RFP for the acquisition and implementation of an enterprise perimeter defense solution to enhance the ability to protect state assets against attacks by detecting and filtering unwanted software, malicious code, and traffic to malicious sites from user-initiated Internet traffic
- Develop a strategy for analyzing the effectiveness of an agency's cybersecurity program and the controls that protect agency assets and assign a cybersecurity rating based on enterprise requirements and industry standards
- Develop a standardized reporting format for consistently communicating an enterprise view of the state government cybersecurity posture to stakeholders
- Research strategies for implementing a basic cyber hygiene course to be completed by state government employees. The course will be implemented using the existing enterprise security awareness training solution

- Develop and implement an enterprise incident response plan that provides requirements and recommendations on how state agencies should be prepared to respond to and report cybersecurity incidents

- Develop and enhance the online reporting tool giving government entities a more effective and efficient mechanism for reporting cybersecurity incidents

- Implement a process for collaborating with key stakeholders on identifying technologies that should be prohibited for use on state government-operated networks that introduce an undue cybersecurity risk

GOAL 2

INVESTIGATE, DEVELOP, AND PROMOTE ENTERPRISE BUSINESS AND TECHNOLOGY SOLUTIONS TO MAXIMIZE THE BENEFITS OF SHARED SERVICES

Strategy 2.1

Implement and Promote Digital Government and Mobile Solutions to Deliver Public Sector Services

The public-private partnership between the state of Mississippi and its eGovernment partner is focused on the timely and leading-edge delivery of web-based and mobile services in an efficient and cost-effective manner. Citizens, businesses, government employees, and local entities benefit from the solutions of this program. Effective governance provided by the Electronic Government Oversight Committee (EOC) has given clear direction to efficiently prioritize, develop, and launch over 20 interactive services each year. The goal of the partnership is to enable government entities to create program efficiencies, meet legislative service deadlines, establish a citizen-centric website, and an effective social media presence.

Action:
- Provide administration and support for the effective functioning of the EOC, including the use of a methodology for prioritizing the deployment of digital government applications across state government

- Establish Mississippi as an innovative leader in mobile technology and eGovernment applications

- Expand the use of the eGovernment payment engine, in conjunction with the EOC and Department of Finance and Administration (DFA)

- Continually improve Mississippi's portal, ms.gov, to provide additional information to online visitors and to encourage the use of digital government services

- Promote the use of the eGovernment partner's services for agency websites, digital government services, and mobile applications

- Leverage the eGovernment shared services environment to give all state agencies, boards, and commissions, as well as local governing entities equal access to advanced web-based and mobile technologies

- Continue to promote a "security-first" environment

Strategy

2.2

Investigate, Propose, and Implement an Effective and Efficient Enterprise Business Resiliency Solution

The modernization of many government applications coupled with web-enabled access makes it necessary for the state to rethink and significantly improve its existing disaster recovery strategy. Today's citizens expect conducting business with the government to be as instantaneous and reliable as doing business across the Internet. To sustain accessibility to government resources in the event of a disaster, a robust business resiliency plan and enterprise backup solution are vital for agencies to meet recovery time and recovery point objectives. Rather than a single approach, a new solution is required that offers agencies options to meet their specific and often unique requirements. The new solution offers a portfolio of services that can be tailored to match the criticality of the supported application.

Action:

- Create an improved comprehensive business resiliency strategy with options tailored to meet the agency's requirements for recovery time and recovery point objectives

- Leverage the attributes of the State Data Centers and the private cloud hosting solutions to support mission critical applications

- Develop an enterprise solutions portfolio through strategic partnerships

- Evaluate private cloud and hybrid cloud backup solutions to safeguard state government data

- Ensure off-site data is secure with approved encryption and security measures

Strategy

2.3

Implement and Promote an Effective and Efficient Enterprise Cloud Ecosystem for State Government

Cloud computing, both private cloud environments and the commercial public cloud markets, has moved to the forefront of IT with the promise of innovation, speed-to-market, efficiencies, and possible cost savings. Cloud computing has simplified the cyclic Capital Expenditure (CAPEX) model of individual agencies procuring, implementing, and running individual server infrastructure, to a more obtainable Operating Expense (OPEX) model of pay-as-you-go shared services. Maximizing the economies of scale in the cloud is a potent driver helping agencies avoid upfront infrastructure costs, while offering rapid deployment of virtual infrastructure and improved manageability. The on-going development of an intelligent enterprise cloud policy for compute infrastructure aims to offer the state the very best cloud option for each type of IT workload.

Action:

- Build a state-of-the-art private cloud environment within the State Data Centers. Built on modern server technology, this service provides a low-cost, general-purpose compute and storage environment, creating the foundation of virtual server infrastructure for the state

- Leverage the State Data Centers' physical and mechanical resources to provide multiple options for agencies' needs for service availability, business continuity, data protection, and recovery

- Work closely with state agencies to evaluate applications for cloud readiness to ensure performance expectations are met and right sized for performance and budgets
- Establish strategic partnerships with major public cloud vendors
- Build an enterprise cloud environment within each partner's public cloud. These environments will provide the innovative benefits afforded by each of the public cloud vendors, while providing enterprise security and governance without agencies having to individually procure those services
- Develop a delivery model that provides government agencies with the ability to rapidly provision compute and storage needs
- Develop a statewide cloud computing strategy and policy based on best practices and industry standards

GOAL 3

PROMOTE THE FUNDING, PROCUREMENT, AND MANAGEMENT OF INFORMATION TECHNOLOGY AS A STRATEGIC INVESTMENT

Strategy

3.1

Initiate Innovative and Collaborative Procurement Strategies and Practices

ITS assists state agencies, universities, and local governing authorities with the acquisition of IT hardware, software, and services. An ongoing initiative is the re-engineering and continuous improvement of procurement processes and procedures through both strategic and incremental changes. In addition, focus is placed on the identification of collaborative opportunities. With this, procurements are conducted to provide and facilitate the use of the state's technology infrastructure which allows multiple agencies to benefit from a single procurement. Improvements in the procurement process focus on the following initiatives with the goal of providing better service to our partner agencies, universities, and local governing authorities while delivering cost savings to the state.

Action:
- Facilitate the technology procurement process through the utilization of MAGIC, Mississippi's statewide Enterprise Resource Planning solution
- Continue to enhance the procurement process to provide accessibility and transparency to both vendors and procurement entities utilizing web-enabled applications, including:
  ‣ Web publication of RFPs and Notice of Intent to Certify Sole Source procurements and advertisements
  ‣ Dynamic presentation of procurement status information
  ‣ Publication of agendas and minutes from ITS Board meetings
  ‣ Publication of procurement outcomes and award information
- Continue to enhance and standardize best practices for RFP and sole source procurements, content, and proposal evaluation methodologies
- Work with manufacturers and resellers on the Express Products Lists (EPL) to provide agencies, public universities, and local governing authorities with purchase choices of current technologies in a timely and cost-effective manner

- Enhance internal ITS procurement processes, emphasizing consistent, appropriate, and timely processing of all requests

- Provide expedited approval of commodity-level procurements for agencies that have submitted comprehensive technology plans

- Provide proactive training to vendors and partner agencies, universities, and local governing authorities regarding procurement law and procedures, timelines, and best practices

- Facilitate dialog between the ITS Board and partner agencies and universities on technology strategies and initiatives

- Coordinate the procurement process with the IT Planning Process to address partner agency requests and technology direction

- Identify and promote opportunities for utilization of existing technical resources in lieu of procuring redundant equipment and products

- Coordinate the requirements of multiple partner agencies in developing procurement instruments that leverage the state's combined purchasing power to achieve the best possible discounts for technology products and services

- Facilitate the acquisition and adoption of enterprise solutions to provide standard products across state government for common functions

Strategy

3.2 *Raise Awareness and Seek Alignment of the IT Investment Process*

The National Association of State Chief Information Officers (NASCIO), the National Association of State Technology Directors (NASTD), and the National Governors Association (NGA) strongly emphasize the need for a strategic IT investment process to ensure that states utilize innovative, smart-buying, investment techniques. With IT being a critical component of state government infrastructure, many states have focused on using IT to solve workforce and service delivery problems in government operations. However, choosing an appropriate IT solution requires planning, thorough analysis, and a strong business case to better meet citizens' needs, facilitate business/government interactions, and improve internal government processes at a reasonable cost and with ease of implementation. Currently, the budgeting and funding of IT within Mississippi state government continues to be federated and is accomplished on an agency-by-agency basis. On behalf of the state, ITS maintains multiple master enterprise contracts that achieve cost efficiencies through volume purchasing, while passing through actual charges to partner agencies to fully leverage available federal dollars. Many additional opportunities exist that can be leveraged to accomplish an increasingly strategic investment of IT resources across the statewide enterprise, including strategically planning for upgrades, transferring cost savings to fund applications, and implementing return-on-investment programs.

Action:
- Seek opportunities to develop and implement IT services that are common to multiple agencies and governmental programs in order to minimize duplication of efforts among organizations

- Utilize economies of scale by spreading fixed costs over larger volumes to reduce overall unit costs, and efficiently leveraging scarce and expensive IT staff resources

- Focus on enhancing input and direction from the state's executive and legislative leadership with aims to achieve economies of scale, increase accountability, and implement enterprise-focused solutions

- Seek interagency dialogue to address the enterprise of state government across all functions to enable the use of common software, hardware, communication systems, data applications, and professional service contracts

- Focus on enabling strategic technology projects to be critiqued and prioritized by the state's executive and legislative leadership, with funding appropriated via a separate budgeting process and management monitored and reported through a project management office

- Improve current, traditional IT funding approaches by expanding adoption of innovative and alternative funding models focused on enabling the state to deliver savings and improve services to citizens

- Investigate the transfer of savings from shared service IT initiatives to fund applications and upgrades

Strategy 3.3 *Enhance Contract Management Strategies and Practices*

ITS contracts on behalf of state agencies, universities, and other local procurement clients for the acquisition of IT hardware, government software, and services. An ongoing initiative is the continuous improvement of the development and management of contracts and negotiation strategies with the goal of strengthening the state's contractual position with technology vendors. This would be mutually beneficial and provide efficient delivery of technology products and services to government.

Action:
- Continue to enhance the development of vendor contracts

- Incorporate contractual terms and conditions to support the evolution of technology and its implementation in state government, including measures to strengthen the state's security posture

- Administer and manage the state's software escrow services contract for use by state government agencies

- Administer and manage the state's Cellular Master Agreement for the delivery of cellular devices and services to state and local government

- Administer and manage the state's e-Government Agreement for the delivery of electronic government services to state and local government

- Administer and manage the state's Managed Service Provider Agreement for the delivery of technology resources as independent contractors to state government

Strategy 3.4 *Provide Pathway for Information Technology Training to State Employees*

Continuing education is essential for information technology professionals. ITS provides research and procurement support for information technology training for state agencies as needed. Additionally, ITS provides enterprise training and support related to information technology procurement, telecommunications, and security education and awareness.

Action: • Provide procurement related training in conjunction with the Department of Finance and Administration and the Certified Mississippi Purchasing Agent (CMPA) Training

• Provide training as needed and requested on telecommunications services and products provided to state agencies in the Capitol Complex

• Continue to provide an enterprise computer-based security awareness training solution at no additional cost to individual agencies that can be tailored by individual state agencies as needed

GOAL 4:

PROMOTE STATEWIDE SHARING OF INFORMATION TECHNOLOGY BETWEEN ALL STATE AGENCIES TO FOSTER A COLLABORATIVE APPROACH TO INNOVATION AND DIGITAL TRANSFORMATION OF GOVERNMENT

Strategy 4.1 *Develop a Technology Blueprint that Drives Improved IT Coordination and Investment*

Many states are investigating the link between a technology blueprint, often referred to as an Enterprise Architecture, and IT enterprise investments. A technology blueprint depicts the key technology components to create an IT ecosystem. It is a holistic, comprehensive planning approach for a government enterprise that integrates information and services across government agency boundaries. A technology blueprint supports the coordination of various IT support functions. It also can create and enforce statewide standards and policies for data, security, purchasing, management, and operational procedures for all technology investments.

Action: • Implement a standards-based blueprint for the state's use of technology, which addresses the whole enterprise of state government and enables data sharing across all government functions to enable the use of common software, hardware, communication systems, and data applications

• Optimize shared technology components, including data centers, cloud services, computing environments, vendor platforms, storage, enterprise applications, and networks. These shared services can reduce initial purchase and ongoing maintenance costs, ensure better use of existing IT assets, and promote interoperability across government

• Implement new and review existing policies, standards, guidelines, and purchasing instruments for consistency and alignment to the state's strategic direction

• Identify and review business processes that are common across multiple agencies

• Develop business cases that consider alternatives and recommend actions related to future shared services that will provide value and cost savings

• Coordinate statewide enterprise architecture and planning initiatives

Strategy

4.2

Facilitate and Coordinate Inclusive Planning and Outreach Processes across State Government

ITS desires to make the greatest impact possible through the consistent delivery of services and the efficient use of IT resources. We make every effort to work with our partner agencies to find the best and most economical solution to their technology needs. Planning for technology allows our partner agencies to invest scarce public resources in strategically planned projects in order to improve productivity of government workers and improve service delivery to the citizens and businesses of Mississippi. ITS has staff that consults with partner agencies on the services available through the State Data Centers, as well as the acquisition of technology products and services, telecommunication solutions, and security. We will continue to provide outreach to state government entities, to improve communication with our partner agencies, and to provide resources to assist with technology products and services.

Action:
- Facilitate partner agency outreach meetings to review technology-based services provided by ITS, review services currently provided, help ensure partner agency satisfaction, and review agency project lists for potential opportunities to efficiently utilize IT resources and provide capacity planning

- Develop ongoing interactive statewide IT advisory groups to help set direction and establish priorities for state technology initiatives

- Provide support and online tools to agencies, boards, and commissions to assist in the budgeting and planning of technology projects

- Expand statewide technology outreach with partner agencies

- Review partner agency technology plans for statewide infrastructure impact and needs, opportunities for agency collaboration, potential volume purchases, technology training and education opportunities, and other focus areas

- Develop a formalized governing process for agency technology plan review and approval

- Facilitate regular change management calls with partner agencies to promote communications

- Develop surveys to capture information from agencies regarding services, performance, and various other topics

- Host interactive forums to inform stakeholders of changes in services, policies or procedures, standards, or costs for specific areas of service

- Facilitate statewide conferences with a technology agenda based on agency feedback

- Cultivate and strengthen existing partner agency relationships by developing mechanisms to facilitate outreach and information sharing with stakeholders

Strategy

4.3

Continue Emerging Technology Research and Strategic Private Sector Relationships

The state utilizes IT research resources and vendor relationships to stay informed of industry changes that may affect the enterprise. State IT leaders monitor changes and future technology trends in the IT ecosystem and embrace new technologies

and methodologies to service the needs of the state. The continued research is used in conjunction with agency technology plans, emerging technology initiatives, participation in national and local organizations, and vendor relationships to build strategic technology roadmaps for the future.

Action:
- Fully leverage partnerships with leading IT research and advisory firms
- Continue involvement in national technology organizations with a focus on state government
- Continue research in new innovative technologies to stay abreast of the latest advances in technology
- Cultivate and strengthen partnerships with other government entities to understand the benefits and challenges of implementing new technologies
- Drive digital transformation of state government by presenting new innovative technologies

Strategy

4.4

Provide Effective Communications with all Partner Agencies, Advance ITS' Mission and Vision, and Encourage Public Interaction

ITS strives to provide effective outreach to state government entities, improve communication, and provide resources to assist with technology decisions for needed products and services. Communications channels range from one-on-one meetings, seminars, summits, and councils established for enterprise initiatives.

Action:
- Identify communication challenges and customize how and what is communicated to internal and external audiences
- Analyze communication platforms and methods to align different forms and channels of communication to best fit the audience and message
- Develop and ensure social media and the ITS website maintain content strategically focused on the planning, creation, delivery, and governance of content
- Manage production of strategic publications such as the *State of Mississippi Strategic Master Plan for Information Technology, Mississippi Department of Information Technology Services Annual Report, Five-Year Strategic Plan,* and *ITS Services Catalog* along with additional brochures, manuals, surveys, etc.
- Seek out potential opportunities for award recognition on the national level in highlighting the great work done by state entities for providing our citizens with exceptional information technology services
- Provide consultative services to coordinate the development, effectiveness, and use of electronic and printed materials for public and professional meetings, seminars, and conferences

MISSISSIPPI IT PLANNING CYCLE

The primary goal of the IT Planning Cycle is to improve the overall efficiency and effectiveness of information technology in state government. Investing scarce public resources in carefully selected IT projects offers significant benefits including improved service delivery to the citizens and business of Mississippi. While planning is a prerequisite to the budget process and necessary for the procurement of information technology and services, an information technology plan (IT plan) is the single most important ingredient to the effective use of technology in an agency.

The IT Planning Cycle has four components: **Strategic Planning**, **Legislative and Budget**, **Technology Events**, and **Strategic Publications**. These components are not necessarily sequential in all aspects, but they are designed to overlap to assist state government in making wise technology investments.

MISSISSIPPI IT PLANNING CYCLE

	Q1 Jan-Mar	Q2 Apr-Jun	Q3 Jul-Sept	Q4 Oct-Dec
Strategic Planning	Agency Budget Hearings	Review Trigger Focus Areas	Agency IT Plans Due	IT Expenditures Analysis / Review Agency IT Plans
Legislative Budget	Regular Session of the MS Legislature Convenes / Appropriation Hearings / Sub-Committee Hearings	Regular Session of the MS Legislature SINE DIE / Agency Budgets Approved	Agency Budgets Due / JLBO Hearings	
Technology Events	Security Council Meeting / NASTD Southern Conference	Security Council Meeting / ITS Operations Customer Forum / NASCIO Mid-Year Conference	Security Council Meeting / Digital Government Summit	Cybersecurity Summit / NASCIO Annual Conference / MS-ISAC Conference
Strategic Publications	Master Plan	Services Catalog	5-Year Strategic Plan	Annual Report / State Telephone Directory

Strategic Planning provides a method for determining how well technology is currently meeting the business needs of an agency and helps identify technology gaps that could improve agency performance and service. As stated in § 25-53-5(a) Mississippi legislation requires all agencies of state government to submit an IT plan to the Mississippi Department of Information Technology Services (ITS) each year. The September 1 due date for submitting agency IT plans directly correlates to the agency budget submission in order to assist agencies in determining the resources needed for their technology initiatives. ITS provides planning methodology information to guide agencies through the planning process as well as staff to assist with their IT plan development.

ITS formally reviews each agency IT plan, provides an analysis of the data, and generates reports that are evaluated for possible statewide infrastructure impact and needs, opportunities for agency collaboration, potential volume purchases, IT training and education opportunities, and other technology focus areas. The information is also used to prepare the *State of Mississippi Strategic Master Plan for Information Technology*. This report is presented annually to the Governor and Legislature to advise them of the allocation of fiscal resources to best achieve statewide information resource management goals.

Funding for technology initiatives makes the **Legislative and Budget** component essential in the IT Planning Cycle. The Joint Legislative Budget Committee meets in September of each year to consider agency budget requests and state revenue estimates then budgets are approved the following April. Agencies are also required to submit a *Five-Year Strategic Plan* in the first quarter of each fiscal year. Legislative leadership have tasked its members to develop ways to better integrate agency planning and performance information into the appropriations process. Agencies must align the *Five-Year Strategic Plan* submitted with their budget request to the statewide strategic planning elements as close as possible to create a unified statewide strategic plan.

The **Technology Events** component includes research, communication, and collaboration that make it the vital link to all other components in the IT Planning Cycle. ITS utilizes partnerships with leading IT research and advisory firms, government technology organizations, and vendor relationships to identify, analyze, and track new technologies or products that could benefit state government. On a national level, ITS participates in technology organizations such as the National Association of Chief Information Officers (NASCIO), the National Association of State Technology Directors (NASTD), the Multi-State Information Sharing and Analysis Center (MS-ISAC,) and subscribes to a leading knowledge broker, Gartner, Inc., to stay abreast of the latest advances in technology and to understand how other government entities are implementing them. In Mississippi, ITS serves with other state agency representatives on the Advisory Board for the Mississippi Digital Government Summit, hosts strategic technology councils, and hosts several Security Council meetings throughout the year to share knowledge with other state government agencies, boards, and commissions.

The key deliverable of the IT Planning Cycle is the **Strategic Publications** component. Information gathered from agency IT plans is used to assist ITS in developing the goals and strategies reflected in the *State of Mississippi Strategic Master Plan for Information Technology*, and the *Five-Year Strategic Plan*. The technologies, architecture, and services that are developed and implemented from ITS' goals and strategies are described in the *ITS Services Catalog*.

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