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Technology for the Future	1
Customer Support Services	1
Service Center	2
Technology Procurement Help Desk	2
Telecom Services Help Desk	2
Invoice Inquiries	2
Communicating	3
Securing	5
Hosting	6
Purchasing	9
Developing 1	0
Partnering1	0
Planning1	1
Educating1	2
ITS Contact Information1	3

















Technology for the Future

The mission of the Mississippi Department of Information Technology Services (ITS) is to provide trusted technology resources and services that offer proven value to all stakeholders in Mississippi government. The rapid evolution and expansive growth of data, voice, and video technologies provide a continuous challenge to seamless integration of customer-centric, scalable, secure, efficient, and effective technology resources and services.

The Mississippi Legislature has tasked ITS with providing statewide services that facilitate cost-effective technology and telecom solutions that can be shared by all state agencies. In addition, ITS, in collaboration with the state agencies, strives to identify opportunities to minimize duplication, reduce costs, and improve the efficiency of providing common technology services across state agency boundaries.

We strive to be

- Service Oriented Partnering with our customers to use technology to efficiently achieve their business goals
- Technology Leaders Working with agencies, institutions, and business leaders to explore emerging technologies and to set policies, standards, and guidelines
- Facilitators Communicating effectively with customers, on both an executive and technical level, to identify potential opportunities for technology in the state
- Resource Providers Providing the infrastructure resources to support information technology

We provide technology services for

Technology is the underlying force that supports the state's daily operations and ITS offers a full range of solutions designed to put technology to work for you.



















Customer Support Services

Our specialized teams of ITS customer service analysts are ready to respond and are committed to providing the highest level of support for your technology and service needs.

Service Center

The ITS Service Center is available 24x365 to assist with infrastructure and performance requests as well as incidents requiring resolution and escalation. Service requests and incidents submitted directly to the ITS Service Center are monitored for prompt and accurate resolution.

Phone: (601) 432-8080

Email: service.center@its.ms.gov

Online Service Desk: https://servicedesk.dc.ms.gov

Technology Procurement Help Desk

An ITS technology procurement analyst is available during normal business hours to assist you in legally, efficiently, and expeditiously procuring technology hardware, software, and services. Procurement requests may also be submitted through our Online Procurement System.

Email: isshelp@its.ms.gov Online Procurement System:

https://www.its.ms.gov/procurement/procurement-request-forms

Telecom Services Help Desk

Agency Telecom Coordinators are designated by state agencies to serve as the single point of contact on telecom orders and service requests. To submit a request for telecom products and services, please contact your agency's designated Telecom Coordinator or contact us for assistance in identifying your contact person.

Phone: (601) 432-8033

Email: telecomrequest@its.ms.gov

Invoice Inquiries

In accordance with SB2779, ITS provides verification of vendor charges and processing of pass-through billing to customers for shared services consumed under state master contracts. Agencies are encouraged to verify invoices for discrepancies in volumes or other specific consumption and to utilize the automatic draft process available through the Department of Finance and Administration's JV-AUTOPAY for ease of payment.

Inquiries concerning charges or payments should be directed to:

Phone: (601) 432-8210 Email: billing@its.ms.gov

















Communicating



Telecom & Network

ITS understands the importance of providing affordable, secure, high-performance communications solutions to Mississippi government and public educational entities. Through a combination of vendor contracts and directly managed services, data and voice communication solutions are provided to state entities and governing authorities within the downtown Jackson area (Capitol Complex) and across the state. The current contracts for voice and data communications leverage the state's aggregate buying power to ensure that the best possible rates and universal services are available. These long-term contracts include access to enhanced telephone services, long-distance services, Hosted Voice over IP (HVoIP), dedicated Internet, managed router, and broadband data network services, as well as audio, video, and web conferencing solutions.

We offer

- Voice Communications Based on the location of your facility, statewide voice communications are provided through various solutions.
 - Capitol Complex Solutions Services are provided to facilities located within the Capitol Complex and to some larger remote office locations via the Avaya enterprise PBX.

The following services are included in the Capitol Complex Solution:

- Digital and analog phone service
- Voicemail
- Call Center applications
- Voice over IP (VoIP), where applicable
- Remote Office Solutions For government offices located outside the Capitol Complex, ITS offers a variety of vendor provided solutions.

The following voice communication services are available statewide and are tailored specifically for your agency:

- Analog phone service
- Voicemail
- Primary Rate Interface (PRI) trunking
- Hosted Voice over IP
- Resell of legacy copper-based voice communications, where required
- Data Communications This service is available through state master contracts or ITS direct management, providing agencies and governing authorities with fiberbased Internet and Wide Area Networking (WAN) solutions within the Capitol Complex and across the state.
 - **Internet and Wide Area Data Networking Solutions**

The following services are available statewide:

Multi-tier circuit speed options ranging from 1.5 Mbps to 10 Gbps

















- Robust transport of IP network applications
- Diverse routing of Internet traffic for redundancy and resiliency
- Perimeter firewall and Intrusion Prevention System (IPS) protection
- Secure access between an agency's main office and remote locations
- Quality of Service (QoS) options for real-time applications

The network is made up of three foundational areas:

- Capitol Complex Fiber Network This network is designed for seamless connectivity within and between state agency buildings, the State Data Centers, commodity Internet, as well as providing connectivity to remote office locations within the state's Multiprotocol Label Switching (MPLS) cloud. The architecture is fully redundant and resilient, supporting high-speed data, voice, and video transport for all major state government buildings within the Capitol Complex.
- Data Center Network This network utilizes a spine and leaf architecture providing connectivity speeds up to 100 Gbps for equipment hosted at the ITS Primary Data Center in Jackson and the Co-Processing Data Center in Starkville. The two data centers are connected through multiple, dedicated, and diversely routed 10 Gbps circuits.
- Wide Area Network Solutions The architecture that supports data connectivity between remote office locations and the Capitol Complex is an MPLS fiber-based WAN, delivering access to business applications, Internet, and real-time media such as web-conferencing and HVoIP. A variety of WAN circuit speeds are available to meet your business needs. This hosted service is provided through a long-term telecom contract for government and educational use.
- Collaborative Services ITS provides a variety of collaborative services to support the state's telecom needs.

The collaborative services include:

- Domain Name Services (DNS)
- IP address management
- Audio, web, and video conferencing
- Infrastructure cabling and support within the Capitol Complex
- Project management for voice and data needs
- Capacity planning for improved network performance
- Enterprise Messaging ITS provides the email relay services and infrastructure to deliver secure electronic messages between state entities and across the Internet.

The e-mail relay services include:

- Virus scanning of all inbound, outbound, and intra-state email
- Spam filtering of all inbound email
- Secure Transport Layer Security (TLS) transport
- Maintenance of system software and patches
- ListServ mailing list service

















Securing



Information Security

Information security continues to be a major consideration today in the development of mission critical applications and systems for state government. ITS manages core and perimeter defense systems for the state network to maintain a shared and trusted environment. These solutions and services provide support to agencies through communications, core security infrastructure, contracts, and consulting services.

We offer

Core Security Services – ITS provides core security services in support of the State Data Centers and core network infrastructure which provides layered security and perimeter defense mechanisms.

These core services include management of:

- Multiple firewalls
- Multiple intrusion prevention systems (IPS)
- Advanced malware protection
- **DNS-based filtering**
- Network monitoring and analysis

Additional services include:

- Security management for event correlation and notification
- Authentication administration and support
- Security assessment coordination for core devices in the state network
- Virus protection and SPAM filter for email
- Customer Specific Security Services ITS manages of a variety of security services for our customers.

These customer specific services include:

- Guest wireless network providing internet access to third parties not permitted access to state network resources
- Secure Sockets Layer (SSL), cryptographic services, and digital signatures
- Virtual Private Network (VPN) connectivity for the implementation of IPSec VPNs and qualified SSL clients for secure connectivity of third parties. including remote access by state employees to state resources
- CIS SecureSuite membership that provides the staff of each state agency access to high-quality, cost-effective information and resources
- Web-based security and education awareness training solution
- Security risk assessment services contract

















Hosting



Mississippi's State Data Centers deliver highly available compute and storage solutions to state government entities. The Primary Data Center (PDC) located in Jackson, hosts many mission critical systems and applications for state government. The PDC has over 12,000 square feet of raised floor area, failsafe features, environmental controls, and robust technology to support these applications within a hardened, resilient, and secure environment. The Co-Processing Data Center (CPDC) located in Starkville, provides a protected environment for state agencies seeking an alternate or secondary backup solution for applications running within the PDC. Together these two facilities provide state government with a robust, flexible, secure, and cost-effective hosting cloud environment to meet the technology needs of the state.

We offer

Cloud Computing Ecosystem – Technology landscapes have changed dramatically over the past decade shifting from a customer-owned, on-premise computing environment to a tiered architecture providing state government with options for supporting and running unique applications. This change has allowed for the redistribution of funds from a Capital Expense Model to an Operational Expense Model, eliminating the need for large scale purchases and maintenance of technology equipment. Additionally, the move to an Operational Expense Model has improved business resiliency and the overall delivery of services through available cloud technologies. Adopting a "cloud-right" strategy consisting of cohesive platforms and services affords subscribers with an ecosystem suitable for selecting a cost-effective, secure, and resilient infrastructure that can seamlessly transition workloads from one environment to another.

The Mississippi Cloud Ecosystem for state government consists of the following:

- An enterprise on-premise, private cloud solution housed in the state's PDC
- Mirrored infrastructure housed in the state's CPDC for tiered business resiliency options
- Secure public cloud access for improved or additional business resiliency, backup, and recovery capabilities
- Management software allowing seamless transitions of workloads between tiers within the Ecosystem
- Co-location Solution ITS offers co-location space with lockable racks for housing state-owned production equipment in the PDC. The space is environmentally controlled in the physically secure area. Additionally, lockable rack space is available at the CPDC for backup or secondary equipment. The CPDC is a secure, top-tier facility made available through a public/private partnership.

















The PDC and CPDC are both protected by generators, uninterruptible power supplies (UPSs), lightning protection, environmental monitoring, and physical security. Both facilities are staffed 24x365 with qualified and experienced data center personnel.

The co-location services include:

- Lockable rack space at both State Data Centers in a standard APC (42U) server rack
- Multiple AC power options with redundant failover connections
- Network port speed options (100M/1G/10G copper or fiber)
- Subnets of IP addresses for customer use
- Regularly scheduled security inspection and monitoring
- **Database Systems –** ITS Database Administration (DBA) employs state-of-the-art database technologies to provide secure, accurate and timely access. DBA support provides technical assistance for database implementation and usage and supports most of today's common database management systems including DB2, Microsoft SQL, and Adabas. Applications requiring other platforms will be considered as well.

The DBA services include:

- Installation, management, and upgrades of software
- Database administration tools
- Packaged application database products
- Backup and recovery procedures
- Monitoring, tuning, and troubleshooting
- **Business Resiliency** Every year state government becomes more dependent on digitized data and on the networks that allow data to be distributed across the state. It has become critical to recover quickly from all forms of disaster that could affect computer hardware, software, data, and networks. The sophistication and intricacies of today's technologies have increased the complexity of viable solutions for a timely business recovery. ITS recognizes the need for a strong business resiliency plan should a significant disaster strike. By leveraging the services made available through the state's Cloud Ecosystem or the attributes provided by the state's PDC and CPDC facilities and network architectures, agencies now have a highly redundant and resilient geo-diverse solution that can be tailored to meet your business recovery needs.

The business resiliency services are built on the following:

- Two top-tier, geo-diverse, and physically secure data center environments
- High speed, redundant, and resilient network connectivity between the State Data Centers for automatic failover and protection
- Fully managed private cloud environment with mirrored infrastructure and stretched clustering for seamless compute and storage capabilities
- Virtual compute and storage capacity to handle mission-critical UNIX and Windows applications including email services
- Access to public cloud services for additional flexibility

















- Assistance with production environment optimization, selection of application recovery options, and business impact planning for private cloud customers
- On demand and self-managed business resiliency testing, as required
- ❖ Active Directory Services ITS provides the Active Directory (AD) solution to agencies wanting to replace their current AD environment or for those without an environment. With this solution, the customer is delegated administrative control of an Organizational Unit (OU). OUs can provide hierarchy to a domain, ease its administration, and can resemble the organization's structure in an agency's container.
- ❖ Systems Performance Monitoring and Management A suite of software tools is utilized to define a set of acceptable system performance parameters and provide automatic updates based on those defined triggers.
- Certificate Authority Contract Services A Certificate Authority (CA) is a trusted third-party that issues Digital Certificates that will automatically be trusted by most web browsers. ITS facilitates and maintains a contract with a commercial CA to provide certificate services to state customers, where needed.
- Project Management ITS provides project management support for those agencies needing to define requirements, analyze assets, determine direction, and evaluate alternatives for infrastructure implementation of mission critical systems.

The project management services include:

- Hosted Solutions Design and Configuration ITS can assist you in reviewing your agency's current production and business resiliency environments and provide guidance in selecting the level of server hosting support that best meets your business objectives.
- Capacity Planning and Upgrade Support ITS can provide project support in analyzing and determining current system capacity or upgrade requirements utilizing existing tools, reporting capabilities, and trending analysis, and best practices to assist your agency in planning system upgrades and changes.

















Purchasing



IT Procurement

ITS coordinates the procurement of technology hardware, software, and services for Mississippi agencies and universities. Upon request, ITS also provides technology procurement assistance to other governing authorities such as community colleges, local governments, and public K-12 schools and school districts. It is our goal to promote and maximize competition in the purchasing of technology products and services for the state within Mississippi's technology architecture.

We offer

Published Procurement Instruments – ITS publishes Express Products Lists (EPLs) for customers to utilize when making routine technology purchases, many times without the need for additional approval from ITS. For more information about available EPLs, visit: https://www.its.ms.gov/procurement/express-products-lists-eplsand-cooperative-purchasing-agreements.

- Procurement Training ITS procurement staff are available to conduct classes for customers on the state's technology procurement process.
- Procurement Project Facilitation ITS facilitates the procurement of technology hardware, software, and services for state agency and public university customers as required by statute and can provide these services as requested for community colleges and local government entities. To learn more about procurement, visit: https://www.its.ms.gov/procurement/technology-purchases.
- Requirements Definition and Business Analysis ITS has staff available to assist customers with the analysis and documentation of functional and technical requirements to be used in procurement documents, such as request for proposals (RFPs).
- Contract Administration and Management By statute, the ITS Executive Director is the signature authority for technology contracts for state agencies and public universities in Mississippi. ITS has staff that provides contract management and remediation services as well as legal resources from the Office of the Attorney General to assist in negotiating contracts on behalf of ITS procurement customers.

















Developing



Digital Services

ITS offers custom design and development of applications for customer specific mission-based systems and services. The ITS development staff have a broad range of expertise and understanding of the technology solutions needed to run the business of Mississippi government.

We offer

Web-based Application Development and Support – ITS development resources work in concert with the state's eGovernment partner, NIC Mississippi (formerly Mississippi Interactive, LLC), to deliver innovative eGovernment applications. These applications are developed on Microsoft platforms and are hosted in the State Data Centers.

Client-side Application Development and Support – ITS uses software development best practices to protect customer data and optimize code. This includes the re-use of a library of licensing modules and registration software for state agencies that are responsible for the oversight of professions regulated by state government. Applications are developed on Microsoft platforms and are hosted in the State Data Centers.

ITS development resources work with both functional and technical customer resources to:

- Develop requirements and process flows
- Design, develop, test, and document software modules
- Train end-users
- Provide support for the enhancement and maintenance of these software applications

Partnering



Contracting Services

ITS actively pursues opportunities to partner with agencies and private sector entities in providing economical, efficient, and effective technology solutions to our citizens. ITS seeks to form these partnerships where Mississippi government benefits and the skills and expertise required are very specialized.

We offer

Digital Government Services – Mississippi has established a self-funded eGovernment program with NIC Mississippi to provide digital government services for Mississippi, innovative design for the state's official website, ms.gov, and dramatic acceleration of online services to Mississippi residents and businesses.

















NIC Mississippi works with ITS development resources to deliver eGovernment solutions hosted in the State Data Centers including:

- eGovernment website development and hosting
- eGovernment application development and hosting
- Mobile application development
- Social media integration
- eGovernment secure payment processing
- Consulting Services and Staff Augmentation Mississippi has established a contract with Knowledge Services for a Managed Service Provider (MSP) program to assist in acquiring consulting services and staff augmentation for skilled technical resources. Knowledge Services works with customer agencies to develop the requirements for candidate selection through contract finalization for milestone, deliverable, or service-based agreements.

The staff at Knowledge Services works with ITS to provide ease in procurement and contract management of these services through:

- Resume screening
- Compliance checks
- Billing
- Reporting

Planning





As technology choices increase and become more complex, it is ever more important that we develop sound strategies around our lines of business to strengthen our technology base and offer more solution-driven services to government, citizens, and business.

We offer

- Agency Technology Planning Support Planning is a prerequisite to the budgeting and procurement of technology hardware, software, and services. Legislation requires agencies, boards, and commissions to submit a technology plan each year and ITS staff are available to work with your agency planner to develop your technology Plan. To learn more about technology planning and requirements, visit: https://www.its.ms.gov/services/planning-agency-it-plans.
- Emerging Technology Coordination ITS utilizes partnerships with the leading technology research and advisory firms, national government technology organizations, as well as through vendor relationships to identify, analyze, and track new technologies or products that could benefit state government. ITS staff, in conjunction with these partners, develops emerging technology awareness programs to provide exposure and current information to our customers.

















Educating



Technical Training

The future of Mississippi government depends on efficient execution of the services it provides. Fiscal constraints make it imperative that agencies use technology as efficiently and effectively as possible. ITS offers an ongoing educational program designed to enhance and improve the technical and communication skills of personnel within state government. Continuing education and training are essential for the effective planning, implementation, support, and use of technological solutions. ITS coordinates cost-effective education and awareness opportunities with technology training partners through self-paced online training to Mississippi public entities. The technical educational curriculum is expanded as the demand for technology skills increases. There are currently over 5,100 courses in technical, end-user, and professional development topics, with new courses added throughout the year.

We offer

Online Training – ITS currently offers online training opportunities through our Skillsoft training partner. This contract provides access to technology and businessrelated courses developed by industry-leading experts to create and develop a more knowledgeable, productive, and valuable workforce. Skillsoft provides standard courses as well as custom program development. For more information, visit: https://www.its.ms.gov/services/technical-training.

















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