



FOR YOUR INFORMATION

Fall 2010

Mississippi Broadband Report

By Vicki Helfrich

Mississippi Department of Information Technology

Over \$77 million in grant funding was awarded to the Office of the Governor through federal broadband stimulus programs. The funding will be used to expand broadband access and adoption in communities across Mississippi.

Broadband Technology Opportunities Program

In August, the Office of the Governor was awarded approximately \$70 million to provide broadband data service to first responders and public safety agencies in the state by implementing 700 MHz LTE data equipment on the Mississippi Wireless Information Network (MSWIN) infrastructure. In April 2009, Governor Haley Barbour charged the Mississippi Broadband Task Force to develop strategies to enhance the broadband infrastructure in Mississippi, resulting in the successful grant application. The National Telecommunications and Information Administration (NTIA) awarded the grant as part of the Broadband Technology Opportunities Program, a competitive grant program under the American Recovery and Reinvestment Act (ARRA).

Mississippi is eager to deploy the LTE broadband network to better serve and protect Mississippians. LTE, short for Long Term Evolution, is a next generation mobile broadband technology. To achieve this, Mississippi will leverage the existing MSWIN infrastructure, a statewide 700 MHz

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network that provides Land Mobile Radio communications for state and local police, firefighters and emergency service workers. The LTE enhancement to the MSWIN system will support data applications that are currently too bandwidth intensive for the existing technology.

This funding also provides for the expansion of Mississippi MED-COM, a joint initiative by the Mississippi Department of Health and the University of Mississippi Medical Center, which is a 24/7 medically-staffed communications center-based service to the emergency response agencies, hospitals and first responders of Mississippi. MED-COM utilizes MSWIN to enable emergency responders and hospital personnel to communicate information important for the transfer of critical patients; however, the limited broadband capabilities of the existing system prevent the transmission of more data-intensive information and applications, including video, that would better facilitate communication leading to improved patient outcomes. The upgrade to LTE will expand the types and speed of data that can be communicated between hospitals and emergency responders.

Mississippi Broadband Report

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According to the latest Centers for Disease Control and National Traffic Highway Safety Administration statistics, Mississippi continues to rank in the top three states in mortality rates for cardiovascular disease, stroke and traffic accidents. Mississippi MED-COM seeks to decrease these mortality rates by utilizing the LTE system to provide real-time clinical support to paramedics and rural hospitals while ensuring the patient is transported to the appropriate medical center.

State Broadband Data and Development Program

In September, the Office of the Governor received an additional award from NTIA of nearly \$5 million for broadband planning and mapping activities under the State Broadband Data and Development Program, a matching grant program that implements the joint purposes of the ARRA and the Broadband Data Improvement Act. This is a supplement to the original \$2 million award Mississippi received in January. This funding will allow the state to extend its current two year broadband data collection program for an additional three years and allow Mississippi to identify and implement best practices in broadband mapping. Mississippi will utilize a portion of the funding to support the creation of the Mississippi Broadband Connect Coalition, a non-profit, public-private partnership focused on producing a comprehensive statewide strategic plan for improving digital literacy, increasing access to broadband and enabling greater adoption of broadband in the state.

Through a partnership with Mississippi State University Extension Service which will begin in 2011, this strategy will be translated into activity in all parts of the state. Extension Service

personnel will be responsible for holding planning meetings at the regional and local level designed to identify barriers to adoption of broadband internet and local solutions. Over the life of this multi-year grant program, Mississippi hopes to improve broadband access and use for its citizens and maximize its benefits for the state.

National Cybersecurity Awareness Month

By Jimmy Webster

Director Information Security



October 2010 marks the seventh annual National Cybersecurity Awareness Month sponsored by the Department of Homeland Security. The cyber threat has become one of the most serious economic and national security challenges we face. America's competitiveness and economic prosperity in the 21st century will depend on effective cybersecurity. Every Internet user has a role to play in securing cyberspace and ensuring the safety of our workplace, ourselves, our families, and our communities. Agencies can follow a few simple steps to keep themselves safe online and by doing so, will help to keep our assets and information secure and will improve the overall security of cyberspace.

Be Prepared

There are many things agencies can do to practice cybersecurity during National Cybersecurity Awareness Month and beyond.

- Make sure that anti-virus software is installed and configured properly and up-to-date.
- Make sure that security systems are installed and configured properly and up-to-date.

National Cybersecurity Awareness Month

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- Update and patch operating systems and critical program software.
- Use complex passwords and protect your ID and password.
- Use good back-up processes/procedures and keep information stored in secure locations.
- Wireless networks and laptops are very popular for their ease of use and portability. It is with the same ease of connecting that malicious individuals connect to unprotected networks. Secure wireless networks.
- Social Engineering is the conscious manipulation of people to obtain information without their realizing that a security breach is occurring. Always verify the authorization of the source before providing information or access.

Educate and Support

Demonstrate your commitment to cybersecurity.

- Create a section for cybersecurity on your agency's Web site.
- Utilize awareness presentations, materials, and other resources available online at http://www.its.ms.gov/services_security.shtml or via the Information Technology Services, Information Security Office.
- Print and post cybersecurity tips near user computers and network printers.
- Use regular communications such as *newsletters, email alerts, websites, etc.* to increase awareness on security issues.

Be Proactive

Be pro-active in the reporting or responding to suspicious behavior or activities.

- Report suspicious cyber activity to the ITS Service Desk (601-359-5959 or service.center@its.ms.gov).

- Use the ITS Information Security website http://www.its.ms.gov/services_security.shtml for information about cybersecurity awareness, policy, planning, incident reporting, etc. to better prepare for incidents/events.

State Data Center Technology Updates

By Mike Hatch

Mississippi Department of Information Technology



Hardware and Software Upgrades

The Data Services staff of the Mississippi Department of Information Technology Services (ITS) has been focusing on many aspects of moving the state's primary data center operations from its current location to the newly constructed Data Center. Topping the priority list is reducing the potential of any production system outages as systems and applications are relocated.

Operating system software upgrades that utilize virtualization and the update of power system hardware will provide the capability for certain applications to be moved to the new data center across the network. This approach requires various upgrades to microcode, software and hardware, switches, fiber connectivity, etc.

State Data Center Technology Updates *Continued from page two*

Many of these upgrades are being completed in conjunction with normal update cycles each month, however, there will be additional updates over the next several weeks as ITS begins moving into the new building. Notification of these events will be posted via ms.gov alerts and the "Announcement page" of the ITS Service Desk (<https://support.its.ms.gov/CAisd/pdmweb.exe>).

Using Technology: Network and SAN/NAS extension between two Data Centers

The ITS Data Network staff has been working diligently completing fiber connections allowing the Networks and the Mainframe Storage to be interconnected between the two data centers and other agencies on the Capital Fiber Ring.

Implementing this technology allows the two data centers to essentially function as one. Since the fiber ring and associated switches allows connectivity at speeds of 4-8-10 Gbps, it will appear as if the data centers were approximately in the same building.

The new building is built to withstand an F4 Tornado

The new data center will provide functionality exceeding that of the present data center. As seen in the pictures below, the new hardened data center facility is designed and built to protect the state's critical data and telecommunication systems from severe weather and other disruptive events.



ServiceDesk Solution

*By Steve Patterson
Mississippi Department of Information Technology*

In January 2008, ITS launched the new ITS Service Center, which combined the various technical customer support channels into a single point of contact staffed around the clock. ITS quickly saw positive changes in customer support through the implementation of CA ServiceDesk helpdesk software. Response time decreased, documentation of issues was more complete, and communication with customers was vastly improved.

ITS now offers the same CA ServiceDesk platform as a hosted helpdesk ticketing application for agencies looking for a turnkey helpdesk application, or looking to upgrade their existing solution. The CA

ServiceDesk Solution

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ServiceDesk platform is ITIL compliant and focuses on increasing customer service levels and improving response to customer requests and issues. The architecture of the hosted ServiceDesk software gives each customer their own tenant space in the application to modify as their business process dictates, while preserving ticket lifecycle for issues that need to be escalated to ITS or other ServiceDesk tenants. It's an ideal solution for agencies that want to use a mature help desk application without the infrastructure or implementation costs of building their own.

The Mississippi Supreme Court has been test piloting the ServiceDesk for use as a helpdesk solution to support their Electronic Courts initiative. They are expected to go into live production in October 2010. Please contact the ITS Service Center at 601-359-5959 if you are interested in learning more about ITS's hosted ServiceDesk solution for your agency.

Advances in Virtualization

By Debra Brown

Mississippi Department of Information Technology

Like many organizations managing IT, the Mississippi Department of Information Technology Services (ITS) recognizes that the key strategic initiatives for information technology energy management focus primarily on two approaches; implementing server and storage virtualization technologies as well as optimizing the physical IT server facilities and data centers. By definition, these approaches will require more time, effort, and up-front expenditures, but also have the greatest potential for long-term and substantial energy savings across state government.

Virtualization is a technology that will allow consolidated devices to be partitioned so that one machine or storage device can run applications or store data for many agencies. Each agency would have its own discrete "virtual machine" while sharing a single physical device. Since server utilization in a typical IT shop averages 15% of its capacity, virtualization allows one physical server to replace multiple devices and run many applications, regardless of the agency's operating system and development platform. Even when operating at only 5% of capacity, a server uses 90% of the allocated power. On average, a typical server uses 23.8 kilowatts per day. With cooling and power demands remaining constant, even as servers are idle, nearly half of all operational costs for servers are expended on power and cooling needs. Thus, by consolidating the number of physical servers, floor space, cooling costs, and capital costs are reduced which leads to lower energy consumption while server utilization increases. For every ten servers virtualized, the expected savings in energy costs is roughly \$14,300 annually.

Virtualization technology advances in server hardware, software, storage systems, and networks have provided significant opportunities to optimize IT systems. To that end, on June 29, 2010 Governor Haley Barbour requested ITS to employ the services of industry experts to perform an analysis of savings that can be achieved through server virtualization and storage consolidation in Executive Branch agencies. The Infinite Group, Inc. was selected as a partner vendor to help ITS to perform the assessment. Once the assessment is complete, a Design and Architecture plan will be created for each of the ten agencies involved. The reports and results will be presented to David Litchliter, Executive Director of ITS, and then to the Governor.



Statewide Health Information Exchange

By Kevin Gray

Mississippi Department of Information Technology

Through the American Recovery and Reinvestment Act of 2009 (ARRA), Mississippi has been designated to receive funding through the State Health Information Exchange Cooperative Agreement Program. The funding covers planning and implementation projects to advance the appropriate and secure exchange of health information through a statewide Health Information Exchange (HIE). This will be accomplished by establishing the infrastructure needed to connect providers of healthcare, public health organizations, and local and regional HIEs, as well as providing connectivity to the developing National Health Information Network (NHIN).

At the request of Governor Haley Barbour, the Mississippi Department of Information Technology Services (ITS) is the State Designated Entity for the State Health Information Exchange Cooperative Agreement Program. In close collaboration with the Office of the Governor, ITS is responsible for key day-to-day tasks such as overall project management and monitoring of the statewide HIE's ongoing progress, preparation of reports, and communications with the Office of the National Coordinator of Health Information Technology (ONC), and other partners. The Governor also appointed a State Health Information Technology

(HIT) Coordinator assigned for overseeing and managing the required Strategic and Operational Plan (SOP) process for the statewide HIE.

The 2010 legislative session saw the passage of House Bill 941 providing the initial structure and leadership rules for the statewide HIE called the Mississippi Health Information Network (MS-HIN). Following the example set forth in the ONC Cooperative Agreement, five Domain Teams were formed to help develop the SOP; Governance, Finance, Technical Infrastructure, Business and Technical Operations, and Legal and Policy. Each team consist of 7 - 10 representatives, including legislators, physicians, public and private healthcare administrators, public interest liaisons, and payers, chosen across the state for their knowledge of information technology and expertise related to a particular Domain Team.

The Domain Teams began the SOP process by meeting in joint session in June 2010, then continued to meet frequently over the next four months to provide insight and direction for the MS-HIN's SOP. The Domain Teams reached a consensus on the content contained within the SOP and it was submitted to the ONC on September 27, 2010. It is expected that the state will receive direction or approval from the ONC regarding the SOP and know when implementation funding for the MS-HIN will be made available by the end of October 2010.

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