

DIS . A R K A N S A S . G O V

ARKANSAS
A STATE OF TECHNOLOGY

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**THE PREMIER
INFORMATION TECHNOLOGY PROVIDER
FOR THE
STATE OF ARKANSAS**

2011 ANNUAL REPORT



VISION

Customer satisfaction every time.

MISSION

Provide technology leadership and solutions to assist our customers in their delivery of public services.

VALUES

Integrity, Customer Focus, Teamwork, Communication, Innovation, Credibility, Continuous Improvement.

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DIS in 2011



Customer satisfaction every time is the vision for the Arkansas Department of Information Systems (DIS). The journey toward realizing this vision is a continuous process. In pursuit of fulfilling our vision, the 250 information technology professionals at DIS are always committed and willing to embrace the next challenge in providing the latest technology-based products to the customers we serve which includes state agencies, board and commissions, K-12 public schools, colleges and universities, and city and county governments. The agency operates 24-hours a day, 365 days a year, no matter what kind of weather or conditions to ensure that the public services provided by our customers are constantly available. We take pride in knowing that we are there, even during times of crisis, when Arkansans need us the most.

Throughout 2011, DIS engaged in nearly 40 operational initiatives all designed to achieve our five strategic goals of Workforce Excellence, Customer Service Excellence, E-Leadership, Financial Excellence, and Operational Excellence and to deliver technology leadership and advancement for our customers. This annual report is a record to underscore the achievements and projects accomplished at DIS throughout the past year. My hope is that it also conveys the teamwork and sense of unity required at all levels to progress toward optimizing efficiency, cost-effectiveness, and state resources to improve the delivery of state public services.

Through our work, we strive to take down boundaries across state government and develop strong partnerships through collaboration with our customers and stakeholders to closely examine how we can work together so that all organizations across state government can realize the benefits of information technology. We have also committed to making quality systemic throughout DIS. It took seven years of hard work, but our commitment to quality was realized in 2011 when DIS earned the Governor's Award for Performance Excellence from the Arkansas Institute for Performance Excellence which runs the Governor's Quality Award program.

The skill and professional strength of the people at DIS who share a vision for technology in our state and a need to help our customers succeed and excel is what drives our organizational spirit of innovation and motivates our "refusal to quit" attitude toward achieving excellence.

Claire Bailey

Director
Chief Technology Officer

Get to Know the Executive Leadership Team



Claire Bailey
Director



Herschel Cleveland
Deputy Director



Nancy Jauernig
*Customer Relationship
Management Administrator*



Jeff Dean
Chief Operations Officer



Nancy Turner
Chief Financial Officer



Kym Patterson
Chief Security Officer



Anthony Black
General Counsel



Scott Utley
Chief Enterprise Architect



Penny Rubow
AWIN Program Director

"Technology demands on state agencies and employees continue to increase due to the mobile, always-on, culture we live in today. At DIS, we work hand-in-hand with technology staff from state agencies, boards and commissions to bring increased efficiencies through new technology and by fully leveraging existing technology to help state government meet these demands without requiring increased staff or budget." - Jeff Dean, Chief Operating Officer

About DIS: What We Do

DIS services include:

- Secure Data Center Hosting (Mainframe, Unix, Windows)
- Virtual Private Cloud for Public Sector
- Data Analytics
- Telephone
- Voice Mail
- Audio & Video Conferencing
- E-mail
- Tape, Data Storage and Backup Services
- Internet Connectivity
- Network Security
- Windows Desktop Support
- Website Development
- Business Continuity
- Disaster Planning and Recovery
- Programming/Systems Integration

Our certified IT professionals are committed to excellence and offer products and services in the following categories:



The Arkansas Department of Information Systems (DIS) is a cabinet level agency of Arkansas state government that provides information technology services to more than 300 customers within Arkansas's public sector. DIS works 24 hours per day, 365 days per year, to ensure that public services provided by the state's largest agencies such as the Department of Finance and Administration and the Department of Human Services, as well as the services of smaller state agencies, boards and commissions, K-12 public schools, institutions of higher education, and city and county governments, are always available to the citizens of Arkansas.

Another vital aspect of our job is to manage the interoperable, wireless, digital, public safety radio communications network, the Arkansas Wireless Information Network (AWIN). In the event of a disaster, DIS works in coordination with the Arkansas Department of Emergency Management (ADEM) to restore communications to over 14,000 first responders and other public safety organizations across the state.

DIS hosts the state's official web portal, Arkansas.gov, on behalf of the Information Network of Arkansas (INA). This website is the front door for citizens to access online public services. It is also an important catalyst for us to showcase the state's economic benefits and exceptional quality of life to visitors of our state and to prospective business and industry. Arkansas.gov recently received a Best of the Web award naming it the number one government website in the nation by the Center for Digital Government (Full story on page 7).

Customer Satisfaction Every Time

When two problematic audits left the Arkansas State Board of Licensure for Professional Engineers and Professional Surveyors faced with making some tough decisions about its information technology (IT), the organization turned to the Arkansas Department of Information Systems (DIS) for solutions.

Audits of the organization's computer applications revealed possible security issues, an inadequate paper trail, and an inability to identify which employee had entered information into a database or when. DIS helped to identify the specific issues and then built a customized system of applications to address them.

The end result was the design of web applications that provided engineers and surveyors with the ability to submit online applications for licensure and examinations, and provided board staff with the ability to enter demographic, contact, educational, training, professional, and other data directly into the system. Board staff previously processed approximately 10,000 license renewal payments per year from engineers and surveyors across the state. The new system interfaces with the Information Network of Arkansas's GovPay portal allowing online payment of application and examination fees and reducing the quantity of renewal payments processed by board staff to 1,500 or less.

The DIS designed system also addressed the initial concerns revealed by the audits. Web applications provided the ability to track information upon receipt into the office; approve applicants for examinations and licensing; resolved the security and paper trail issues; enhanced the ability to manage online services; reduced the amount of forms and paperwork formerly managed manually by the staff; created processes that saved time and increased organizational efficiency.

Board officials cited the stability of working with an organization affiliated with state government and receiving local support rather than relying on out of state or possibly international support for resolving issues with functionality as benefits of partnering with DIS for its technology needs. Competitive pricing, hourly rates as opposed to a recurring charge levied by some private vendors, and prompt response time for changes were also referenced by the board as positives for working with DIS.

Through the collaborative nature of developing a customized system for the Board of Engineers, DIS learned that the foundation and structure of the applications could be adapted to similar organizations whose core operational components include managing online applications, forms, exams, payments, and fees.



"We were impressed with the partnership and support received from DIS and were pleased with the cooperative, personalized service. They made us feel like we were their only customer"—Steve Haralson, executive director

Quality First

DIS Receives Top Honor from Governor's Quality Award Program



DIS was one of two organizations to win the coveted Governor's Award for Performance Excellence at the 17th annual Governor's Quality Awards banquet held Monday, October 17, 2011, at the Peabody Hotel.

Several hundred business and civic leaders were on hand as DIS, representing the public sector, was presented with the top honor from the Arkansas Institute for Performance Excellence which runs the Governor's Quality Award program.

"Quality is a way of life," said DIS Director Claire Bailey upon accepting the award. "This means never giving up and constantly striving to do what is best not only for your own job, but for your employees, peers, constituents, entities and stakeholders you serve to affirm that you never want to accept anything less than excellence."

The Governor's Quality Award program aligns its award criteria with the Malcolm Baldrige National Quality Award program. These criteria cover seven areas of doing business: 1) Leadership; 2) Strategic Planning; 3) Customer and Market Focus; 4) Measurement, Analysis and Knowledge Management; 5) Human Resource Focus; 6) Process Management; and 7) Results.

DIS has previously been recognized by the Arkansas Institute for Performance Excellence with Achievement Awards in 2005, 2006, and 2008.

The Governor's Quality Award program is intended to create a system for measuring progress and growth. Its goal is to encourage Arkansas organizations to engage in continuous quality improvement. In all, 23 businesses, schools or state agencies received one of the four awards.



Arkansas.gov Named Nation's Best State Government Web Site

Arkansas.gov, the official web site of the State of Arkansas, developed and managed by the Information Network of Arkansas (INA), was named the best state web site in the country in the annual "Best of the Web" competition sponsored by the Center for Digital Government.

INA works in partnership with DIS and all state, city and county offices to provide a path through the Arkansas.gov portal to online government services within Arkansas. A joint effort was made between INA and DIS in setting the standards and guidelines along with the common look and feel for the portal. This has provided a consistency across the government web sites, which allows citizens to easily find and interact with government services online.



Specifically, Arkansas.gov was recognized for its innovative technology, ease of use, and suite of mobile payment services. The site was completely redesigned and relaunched in May 2011, complete with fully mobile-optimized content along with a growing number of mobile payment services. The new Arkansas.gov was the first state website in the country to provide "Text4Help," customer service via mobile text messaging. The new site also includes an eGov Services Geolocation Widget, pushing government services to local and community websites and using geolocation technology to find government services by the user's location.

Arkansas.gov provides more than 1,000 online services and 376 websites for state and local agencies. In 2010, the portal served more than 57 million visitors and processed 3.4 million eGovernment transactions. In 2010, Arkansas.gov received second place in the competition.

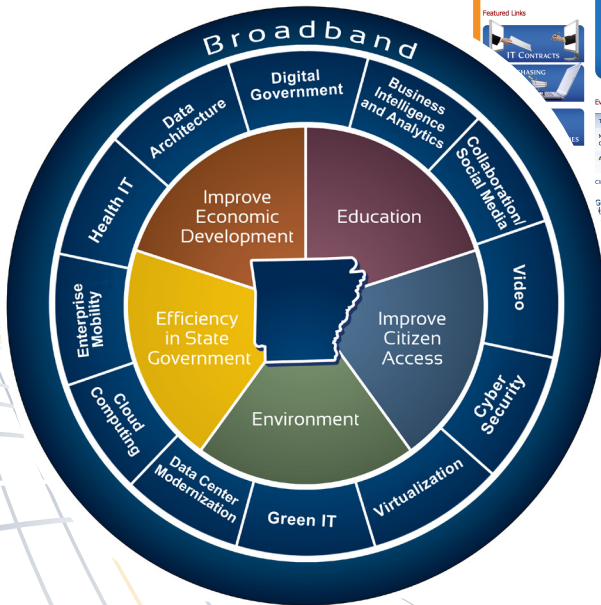
Arkansas Governor Mike Beebe is presented with the 'Best of the Web' award received by the state's official web site, Arkansas.gov. Also pictured (left to right): Ann Purvis, INA board member, Secretary of State Mark Martin, Cathilea Robinett, executive vice president of Center for Digital Government, DIS Director Claire Bailey, and Nancy Arn, INA board.



Arkansas Approach: State Technology Council Enterprise Architecture

Act 648, passed by the Arkansas General Assembly in 2009, defined Enterprise Architecture (EA) and placed it under the responsibility of DIS. As such, DIS led an effort to create a project charter outlining the scope of the project, deliverables, risks, training, and a communications plan, and also developed an EA team comprised of representatives from ten state agencies and organizations. Once formed, the team collaborated to identify and document goals, trends (environmental & technological), strategies, and requirements with an eye toward increasing efficiencies throughout state government. Security, Network, SharePoint, and Adobe working groups and domain teams were also formed. An early success credited to EA was that, during the IT planning process, 60 different versions of anti-virus software provided by 10 different vendors were identified. The solution: Creation of the security working group tasked with identifying requirements for anti-virus and endpoint protection tools and providing the findings to DFA Office of State Procurement to release the requirements for bid. The result: Received qualifying bids from three vendors with an average savings of 40 percent below what was paid in 2009. A similar success was realized with a bid process for encryption solutions.

TECHNOLOGY TRENDS



<http://stc.arkansas.gov>



Strategic Goals: The Five E's

DIS has established a set of Five E's that comprise the strategic goals for information technology across Arkansas state government. We are continually working toward these five objectives:

1. Workforce Excellence

We are aware that the strength of our people equals strength for our organization.

To ensure that strength, we will:

- Put the right people with the right skills in the right positions
- Improve employee engagement and morale

2. Customer Service Excellence

Our agency vision is customer satisfaction every time. To fulfill our vision, we must:

- Involve customers in billing improvements
- Improve communication with customers and stakeholders

3. E-Leadership

We want to provide leadership in all technology initiatives across Arkansas state government. As part of this effort we will:

- Finalize and maintain the State Technology Plan
- Establish an enterprise architecture (EA) program
- Coordinate and plan state technology efforts
- Cultivate technology synergy

4. Financial Excellence

We operate as a cost recovery agency. To achieve financial excellence we must:

- Ensure effective rate management
- Improve the billing system
- Ensure contract compliance
- Secure funding to accomplish our goals

5. Operational Excellence

We want to set the standard for IT in Arkansas state government.

To assist us in doing this we must:

- Improve management of change utilizing the Information Technology Infrastructure Library (ITIL) framework
- Improve problem management utilizing the ITIL framework
- Improve incident management utilizing the ITIL framework
- Increase operating efficiency
- Promote disaster-resistant services
- Improve data security
- Improve process management
- Increase project management efficiency
- Lead the green technology initiative
- Plan the implementation of the Shared Data Center

Strategic Goal One: Workforce Excellence

Our first strategic goal is achieving excellence in the DIS workforce. We work to implement and integrate appropriate policies and strategies for putting the right people, with the right skills, in the right positions, and continually search for ways to improve employee engagement and morale.

Five strategic initiatives and supporting projects were developed in 2011 to encompass the five Es including Workforce Excellence. The table below showcases each strategic initiative 1) Support public sector customers 2) Reduce costs by maximizing resource allocation 3) Reduce costs by upgrading facilities and infrastructure 4) Reduce costs by improving processes and implementing best practices 5) Develop correct product mix to maximize revenue and the supporting projects that enhance excellence in the workforce.

2011-2012 Strategic Initiatives to Achieve Workforce Excellence

Support public sector customers	IPERS* Training *Intergovernmental Preparedness for Essential Records
Reduce costs by maximizing resource allocation	Resource Allocation Management Implementation
	Bench Strength Development
	Differential Pay Plan
	Employee Recognition Enhancement
Reduce costs by upgrading facilities and infrastructure	Enterprise COMPASS* Development Phase 2 *Centralized Operational Monitoring and Performance Analysis Support System
Reduce costs by improving processes and implementing best practices	Change Management Process Implementation
	Employee Performance Evaluation Process Enhancement
	Knowledge Database System Implementation
	DIS Desktop/Laptop Backup
	Governor's Quality Award Application Submission
Develop correct product mix to maximize revenue	Single Sign On

Strategic Goal Two: Customer Service Excellence

We are constantly working to deliver the best service to our customers. There are more than 2,500 locations on the information technology network that serves the State of Arkansas. State agencies, and ultimately the citizens they serve, depend on those locations to have services ready the moment the services are needed. We work everyday, 24-hours a day, to ensure that we address our customers' needs and that our customers are satisfied with the service they receive.

Customer Events

Arkansas Digital Government Summit

In October 2011, DIS was co-host to the second Arkansas Digital Government Summit. The one-day summit covered a wide range of topics related to the public sector including Mobile Applications and Securing Your Organization's Sensitive Data with Data Loss Prevention Technologies. Several hundred professionals including state and local government leaders, agency directors, and agency IT staff attended the event in which the overall goal was to foster discussion and dialogue and educate participants about the use of IT as a strategic tool for managers, executives, and policy makers. Through building partnerships and working together with industry leaders, the summit served to help build upon Arkansas's technology talent.



Images from the
2011
Arkansas Digital Government Summit

2011 State IT Leadership Meetings

DIS hosted its State IT Leader meetings throughout 2011 which brought together technology professionals from across the state to network and share best practices. Meetings featured regular updates on the contract and bidding process for a new state data network, the planning process for the Arkansas Health Benefits Exchange, updates on the Office of Health Information Technology, and the future of video technology product and service offerings at DIS.



AUTIS Annual Conference

In 2011, DIS continued its partnership with the Arkansas Users of Telecommunications and Information Technology (AUTIS) in hosting an annual conference in Hot Springs. The conference showcased initiatives that exemplified technologies in various sectors. The 2011 conference also featured a service project in which dozens of backpacks filled with basic school supplies were presented to Pastor Hezekiah Stewart (pictured right) to benefit the Watershed project.



Social Media

DIS made establishing a social media presence on Facebook, Twitter, and YouTube a priority in 2011. Facebook provides opportunities for DIS to post agency news, announcements, and accomplishments, as well as to relay technology innovations in state government to its customers and the public. Twitter was utilized throughout the Arkansas Digital Government Summit to provide event updates and interesting tidbits of information conveyed in the breakout sessions. YouTube provides a venue to communicate important information impacting employees directly from the director's office. The videos are distributed via e-mail which allows employees regardless of work shift to log on as his or her schedule allows and view the video message from the director. YouTube is also where many training or other informational videos are housed for employees to view at their discretion.



Strategic Goal Two: Customer Service Excellence *continued*

Improve Communications with Customers & Stakeholders

COMPASS

C MPASS

2011 saw the launch of the DIS Centralized Operational Monitoring and Performance

Analysis Support System (COMPASS). This DIS enterprise dashboard for employees and customers was designed to:

- Provide a visual display of information for ease of use
- Consolidate information from multiple DIS systems for easy access
- Enable at-a-glance monitoring of key metrics and DIS-hosted systems
- Provide customers with the ability to see the operational status of services hosted by DIS in the areas of:
 - Financials
 - Service Desk (Open call center incidents)
 - Performance Measures (DIS performance measures, scorecard and trends)
 - Operations
 - Executive Overview (Consolidated view of financial, operational, and service desk metrics)
 - Time Reporting

DIS worked in collaboration with the following agencies in the initial design and testing of the new COMPASS:

- Arkansas Department of Health
- Arkansas Department of Finance and Administration
- Arkansas Department of Human Services
- Arkansas Department of Community Correction
- Arkansas Department of Workforce Services
- Arkansas Department of Parks and Tourism

Working Groups

DIS continually strives to integrate its customers into the process of increasing efficiencies in state government by inviting them to become an active participant in a working group. We offer

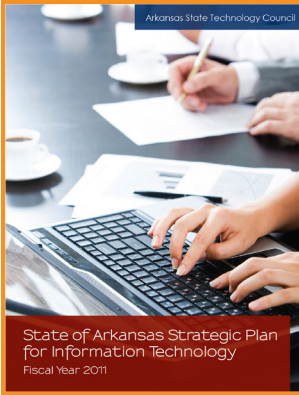


An opportunity for involvement in a host of working groups including working groups in the areas of the state network, SharePoint, Adobe, and security, and enterprise architecture. A working group is also being formed for social media. The groups provide the ability for peers from around the state to collaborate, share ideas and learn how other agencies utilize the technology and learn from each other's experiences.

State Technology Plan

Each biennium, state agencies, boards, and commissions participate in statewide technology planning. A technology plan is then prepared detailing projects and plans for future technology investments. Plans are analyzed to identify opportunities to support the State of Arkansas Strategic Plan for Information Technology's five major strategic goals:

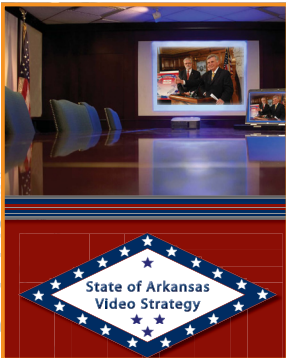
1. Improve Education for Arkansans
2. Improve Economic Development
3. Increase Efficiency in State Government
4. Improve Citizen Access to State Services
5. Protect the Environment



In 2007, the Arkansas Legislature amended Ark. Code Ann. § 25-33-101 (Supp. 2009) and established the State Technology Council, defined the council's chair and membership, and identified the council's responsibilities for developing 1) information technology standards and specifications for state agencies; 2) a state information technology plan that establishes state-level mission, goals, and objectives for the use of information technology; and 3) technical standards and specifications to support the state's shared enterprise architecture.

State Video Technology Strategy

The state is looking to embrace and harness the power of video technology through the creation of a state video network that will tear down geographical barriers to educational, employment, economic development, and entrepreneurial possibilities for Arkansans. Video technology also carries the capacity to deliver state government services with greater cost effectiveness, mobility, accessibility, and efficiency, through an environmentally responsible approach.



The State of Arkansas video strategy offers:

- Comprehensive overview of the strategies and objectives for the network
- Itemization of current video technology trends
- Requirements that video solutions must fulfill
- Summary of strategic objectives and initiatives
- Itemization of stakeholder needs
- Estimated time line for completion

The plan encompasses the work of a state network focus group representing a cross section of state government entities, including K-12 and higher education, which would access the service at different levels of connectivity and from different types of end-user equipment. Several steps toward the creation of a state video network have already been completed. Training and educating existing users on some aspects of the system occurred in late 2011.

Strategic Goal Three: E-Leadership

Several key strategies are included in our goal to continually provide technology leadership for the State of Arkansas. We want to work across state government to promote disaster-resistant technology services, implement green IT practices, cultivate technology synergy among state entities, and design solutions using technology innovations to meet our customers' needs.



AWIN Bolsters Capabilities of New Statewide Trauma System

Arkansas ranked 50th in the United States for timely trauma center accessibility for its citizens, according to the Journal of the American Medical Association. The low score was directly linked to the lack of a statewide trauma system to coordinate care among emergency responders and hospitals. The number of Arkansans dying from injuries sustained in motor vehicle crashes was 60 percent higher than the national average. In March, 2009, legislation provided \$28 million a year from an increase in the cigarette tax which led to the creation a statewide trauma system for Arkansas. The installation of Arkansas Wireless Information Network (AWIN) radios in the state's approximately 560 ambulances was a top priority as the equipment would provide a vital component to the effective emergency communication required to achieve a coordinated response. AWIN radios enabled ambulances, regardless of location within the state, to establish immediate communication and relay medical information regarding the severity of the patient's injuries to the trauma call center. The AWIN system was instrumental in aiding the transport of the patient to the right hospital in the shortest amount of time.

AWIN, ADEM, Other State Agencies Collaborate on Earthquake Simulation Exercise

The emergency communications strategy for the AWIN was put to the test during the 2011 National Level Exercise (NLE), a federally mandated exercise led by the Federal Emergency Management Agency simulating the catastrophic nature of a major earthquake in the New Madrid Seismic Zone.

The purpose of the NLE was to test the ability of multiple emergency response agencies such as AWIN, the Arkansas Highway and Transportation Department, the Arkansas Department of Human Services and others to prepare, coordinate, and carry out multiple-jurisdictional response and recovery efforts and to test the effectiveness and capabilities of emergency communications. AWIN's primary role in the exercise was the restoration of radio and cellular communication. AWIN simulated the deployment of two sites on wheels and satellite telephones in response to a communications signal outage in the earthquake stricken region. It also coordinated with several telecommunications providers with solutions for a widespread outage, and worked with amateur radio operators in delivering messages into the affected areas.

AWIN in 2011

- System Availability 99.82%
- Total call duration: 49,688 hrs
- Average call: 12 seconds

Arkansas Interoperability Vision

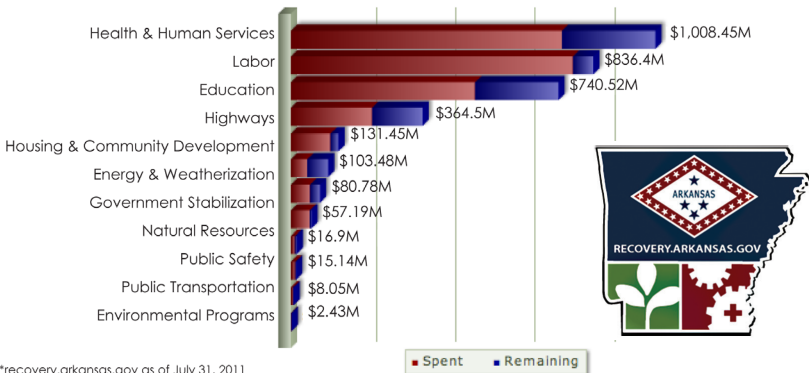


The State of Arkansas strives to be a leader in providing the ability for stakeholders to seamlessly exchange information on demand, in real time, and when needed in order to protect lives and property. To help advance this vision, AICC and AWIN hosted an annual Interoperability Conference that brought together a statewide audience of law enforcement, firefighters, emergency managers, and other public safety departments to identify major challenges that need to be addressed in order to advance interoperable communications in Arkansas. A primary focus of the conference was enhancing multi-agency cooperation, peer- to-peer networking, and making the latest information on public safety communications available. Rarely do large scale emergencies such as flooding, tornadoes, wild fires, multi-vehicle or airline accidents, or Amber Alerts involve a single agency. The conference gave emergency responders a forum to share lessons learned and identify best practices. This multi-agency cooperation helps promote the effectiveness and efficiency of emergency responders as they coordinate emergency response activities.

Arkansas ARRA Efforts

The Department of Finance and Administration (DFA) requested DIS to assist in development services and technical assistance for an application for state agencies to enter information and report on ongoing projects using dollars appropriated from the 2009 American Recovery and Reinvestment Act (ARRA). As of July 31, 2011, the system tracked more than \$2.5 billion recovery dollars spent for projects within the state. An interactive map search application was also developed using geospatial information to review projects according to location. The interactive map search allows users to search for projects according to area of interest.

Total Awarded: \$3,365,304,196, Total Spent: \$2,555,515,967



*recovery.arkansas.gov as of July 31, 2011

Strategic Goal Three: E-Leadership *continued*



The State Cyber Security Office (SCSO) of DIS oversees the Arkansas Continuity of Operations Program (ACCOOP) to ensure that state government is prepared for any potential disaster, whether natural or man-made. DIS is also the lead agency for the state Emergency Support Function (ESF2) related to the

restoration of communications for first responders, local governments, and hurricane evacuee support. SCSO provides services to assist customers in developing business continuity and disaster recovery plans. Plans are designed to keep resources free from interruption in the event of unforeseen catastrophes. In 2011, the office deployed a new continuity planning tool to improve the planning process. The tool incorporates video and calendaring and is more intuitive. SCSO also provides network security services to ensure the protection of a customer's network. SCSO monitors and manages router and server security, monitors networks for server and router vulnerabilities, and assists customers with router and server-based security tools based on the state security architecture.

Network and Organizational Cyber Security

SCSO serves as the focal point for all state cyber security issues and also monitors organizations on the state network for the presence of malicious software (malware) and infected computers. The SCSO maintains more than 1,100 firewalls for public organizations on the state network in order to protect sensitive state information. Other protective mechanisms are provided on the state network to keep Arkansas's public organizations protected and available to provide governmental services and education.


Security Event and Incident Management (SEIM)

DIS utilizes a SEIM system to monitor the state network for malicious activity due to worms, viruses and other malware. The system facilitates the security process by identifying threats on the state network by "learning" the topology, configuration, and behavior of the environment. Organizations are notified of suspicious network activity emanating from their networks in order for them to identify and address the problem. The SEIM system also reports when external entities are attempting to penetrate state networks.

Intrusion Prevention System (IPS)

The SCSO implemented an Intrusion Prevention System (IPS) to protect customers on the network. The IPS software sits on the network and works to block known malware from entering the network at the Internet gateway. This not only increases the protection of our state network, but reduces the amount of traffic traversing the network. The IPS allows agencies to fine tune and block more actions, such as peer-to-peer or instant messaging, at the local level if they so choose.

DIS manages 1,100 firewalls for organizations on the state network. On any given day, these firewalls typically block 17 million unauthorized network attempts.



ACOOOP operates to provide methodology, hardware, software, training, and user assistance for the development, maintenance and testing of business continuity plans for Arkansas agencies, boards and commissions, institutions

of higher education, K-12 public schools, and city and county governments. These plans are intended to ensure that essential services will continue to be provided after any disruptive event.



As more entities realize the need for business continuity and disaster recovery planning, the Arkansas Continuity of Operations Program (ACOOOP) doubled the number of business continuity planners across the state. In 2011, ACOOP's 2,200 planners from agencies, boards, commissions, school districts, counties, and cities maintained plans for over 450 entities at more than 600 locations in the state. ACOOP also continued its focus on increasing pandemic flu training and planning.

Continuity Planning Tool Replacement

A re-evaluation of the state's existing continuity of operations planning tool by the ACOOP Technology Working Group determined that the system no longer meets the needs of the state's planners and public entities it serves. The process for putting a new custom solution into place began in April 2010 and was completed in November 2011. The new tool cut planning time in half by implementing a more user friendly interface with a wizard driven planning process. Expectations are that the new system will be intuitive enough to allow ACOOP staff to focus more on continuity as opposed to the software tool.

Disaster Recovery

DIS has established a disaster recovery hot site for email and other critical state systems. A disaster recovery hot site is a site which has duplicate systems and backups of user data that runs in real time with systems in the State Data Center. In the event of a disaster or network failure, systems will roll over to the hot site minimizing the amount of down time. We are currently using the site at the University of Arkansas at Fayetteville to house equipment for redundant email services. The project began with email services followed by other critical state systems added to the hot site for redundancy. Some customers are already considering the site for installing redundant systems for their critical applications. We are also working to provide rates for hot site services outside of the central Arkansas geographical area.

Strategic Goal Three: E-Leadership *continued*

Green IT



As a result of our determination to be a leader within state government in the responsible use of technology to minimize the impact of energy and natural resources, DIS became the first Arkansas state government agency to become an Environmental Protection Agency (EPA) **ENERGY STAR partner**. As part of the partnership requirements, we must measure, track, and benchmark energy performance. FY 2011 saw improvement in our continuing efforts to reduce the agency's energy consumption.

Data Center electric consumption: The average reduction in kWh consumption for FY11 (12 months) compared to FY08 is 17.11 percent. This is a 1.40 percent increase in the REDUCTION from FY10 which was 15.71 percent of the FY08 usage.

DIS Warehouse gas consumption: The average reduction in CCF consumption for FY11 (12 months) compared to FY08 is 28.14 percent. This is a 8.65 percent increase in the REDUCTION from FY10 which was 19.49 percent of the FY08 usage.

Energy Team



The DIS Energy Team is comprised of 18 representatives from various divisions and functions within the organization. The Energy Team meets quarterly to discuss strategies and policies that can help carry out the agency's Strategic Energy Plan (StEP). For FY 2012, the team plans to set forth documented practices for recycling toner cartridges, rechargeable batteries, and paper, cardboard, plastic bottles, and aluminum cans.

Strategic Energy Plan Goals

1. Reduce the agency's annual maintenance and operating budget devoted to energy consumption (usage) in accordance with Executive Order 09-07 and Act 1494 of 2009.
2. Promote agency operations and practices that will reduce, to the extent practicable, the environmental impact of the agency's overall operation.
3. Integrate energy use considerations into maintenance plans.
4. Integrate energy use considerations into capital improvement plans.
5. Promote StEP time line.

Statement of Policy

It is the policy of the Arkansas Department of Information Systems to purchase products that minimize environmental impacts, toxins, pollution, and hazards to worker and community safety to the greatest extent practical, and purchase products that include recycled content, are durable and long-lasting, conserve energy and water, reduce greenhouse gas emissions, are mercury-free, and lead-free, use agricultural fibers and residues, and use wood from sustainably harvested forests.



Strategic Goal Four: Financial Excellence

DIS operates as an Internal Service Fund, or cost recovery agency, to provide telecommunications and data processing services to customers. Through the budget process, our agency receives appropriation only and bills customers for provided services. State and federal rules and regulations mandate that we only recover our costs. Over-recovery of cost are managed by reducing user rates/charges based on customer utilization and agency costs.

Our goal of financial excellence includes maintaining compliance with all federal, state, and internal guidelines, securing funding to accomplish our goals, increasing operational efficiencies, and providing accurate and timely financial information to customers.

The Fiscal Division is responsible for the overall financial health of the agency, including budgeting, compliance, cost recovery management, asset management, accounts receivable, accounts payable and planning.

Financial Compliance

- Execute and ensure compliance of financial reporting deadlines
- Manage and monitor internal and external financial deadlines
- A87 compliance and cost recovery review
- Perform and produce risk assessment every biennium in support of the Comprehensive Annual Financial Report (CAFR), which provides a report of the state's financial status as well as a method for the national credit markets to determine the state's credit worthiness

Cost Allocation and Cost Recovery

- Track cost vs. revenue for all services
- Annual reporting to federal Division of Cost Allocation (DCA)
- Comprehensive Annual Financial Report (CAFR)
- Produce financial statements
- Perform time reporting for billing and cost allocation

IT Asset Management (ITAM)

- Manage warehouse and inventory
- Maintain inventory records
- Track assets
- Perform annual audit of agency assets



Strategic Goal Four: Financial Excellence *continued*

DIS has two key measures of financial performance: Over/Under Recovery and Revenue. Over/Under Recovery is critical to remain compliant with state and federal regulations. Revenue is also important because our customers could choose to spend IT dollars with other technology suppliers.

Fiscal Year 2011 Budget

Description	ACT 15	Budgeted		Total FY2011
	of FY2010 Authorized	DIS - Operations	Innovation & Product Development	
Regular Salaries	\$ 15,671,052.00	\$ 15,671,052.00	D F A B U D G E T	\$ 15,671,052.00
Extra Help	\$ 164,000.00	\$ 164,000.00		\$ 164,000.00
Personal Services Matching	\$ 4,267,122.00	\$ 4,139,321.00		\$ 4,139,321.00
Overtime	\$ 66,000.00	\$ 66,000.00		\$ 66,000.00
Labor Related	\$ 20,168,174.00	\$ 20,040,373.00		\$ 20,040,373.00
Operating Expenses	\$ 9,519,905.00	\$ 9,519,905.00		\$ 9,519,905.00
Conference & Travel Expenses	\$ 214,321.00	\$ 214,321.00		\$ 214,321.00
Professional Fees	\$ 631,500.00	\$ 631,500.00		\$ 631,500.00
Data Processing	\$ 8,406,866.00	\$ 8,406,866.00		\$ 8,406,866.00
Capital Outlay	\$ 4,500,000.00	\$ 4,500,000.00		\$ 4,500,000.00
Telecom Tech Delivery	\$ 42,450,929.00	\$ 42,450,929.00	\$ 42,450,929.00	
E-Rate Allotment	\$ 16,000,000.00	\$ 16,000,000.00	\$ 16,000,000.00	
Innovation & Development	\$ -	\$ -	\$ 429,200.00	\$ 429,200.00
Non-Labor / Operating	\$ 81,723,521.00	\$ 81,723,521.00	\$ 429,200.00	\$ 82,152,721.00
Total DIS	\$ 101,891,695.00	\$ 101,763,894.00	\$ 429,200.00	\$ 102,193,094.00
Funding Source		Cost Recovery	Misc Fund Account	
	Authorized			
Equipment Acquisitions	\$ 3,500,000.00			
Unanticipated Services	\$ 20,000,000.00			
Total DIS Misc.	\$ 23,500,000.00			

Fiscal Year 2012 Budget

Description	ACT 327	Budgeted		Total FY2012
	of FY2011 Authorized	DIS - Operations	Innovation & Product Development	
Regular Salaries	\$ 16,161,849.00	\$ 16,161,849.00	D F A B U D G E T	\$ 16,161,849.00
Extra Help	\$ 164,000.00	\$ 164,000.00		\$ 164,000.00
Personal Services Matching	\$ 4,459,553.00	\$ 4,459,553.00		\$ 4,459,553.00
Overtime	\$ 66,000.00	\$ 66,000.00		\$ 66,000.00
Labor Related	\$ 20,851,402.00	\$ 20,851,402.00		\$ 20,851,402.00
Operating Expenses	\$ 9,519,905.00	\$ 9,519,905.00		\$ 9,519,905.00
Conference & Travel Expenses	\$ 214,321.00	\$ 214,321.00		\$ 214,321.00
Professional Fees	\$ 631,500.00	\$ 631,500.00		\$ 631,500.00
Data Processing Services	\$ 8,406,866.00	\$ -		\$ -
Capital Outlay	\$ 4,500,000.00	\$ 4,500,000.00		\$ 4,500,000.00
Telecom Tech Delivery	\$ 42,450,929.00	\$ 42,450,929.00	\$ 42,450,929.00	
E-Rate Allotment	\$ 16,000,000.00	\$ 16,000,000.00	\$ 16,000,000.00	
	\$ -	\$ 8,406,866.00	\$ 8,406,866.00	
Innovation & Development	\$ -	\$ -	\$ 215,062.00	\$ 215,062.00
Non-Labor / Operating	\$ 81,723,521.00	\$ 81,723,521.00	\$ 215,062.00	\$ 81,938,583.00
Total DIS	\$ 102,574,923.00	\$ 102,574,923.00	\$ 215,062.00	\$ 102,789,985.00
Funding Source		Cost Recovery	Misc Fund Account	

Strategic Goal Five: Operational Excellence

Strategic goal five focuses on the factors in achieving operational excellence throughout the agency. We want to work to implement and integrate appropriate tools for technology services, continually improve change management, provide consistent availability of the state data center and hosted systems, and put the right people with the right skills in the right positions.

Incident Management

As DIS continued to embrace Information Technology Infrastructure Library (ITIL), the lack of a formal process for how the agency performed incident management became more obvious. In previous years, DIS support analysts used the HEAT ticketing system and now Service Desk to capture information about customer incidents. Each team used a different method to deal with incidents. Terminology was not standardized and reports were not uniformed. Customer needs were met, however, there were systemic deficiencies toward having consistent standards, governance, and processes.

In early 2011, a team was formed to address the need for a unified incident management process. The team was to develop and document an agency wide process with “Customer satisfaction EVERY time” as its vision. The team completed and published Incident Management version 1.0 in September 2011. Internal teams reviewed and commented on the process and agency wide training began in October followed by the launch of the process in December. The new process provides governance for all DIS support teams. It unifies terms used in incident management throughout the agency and provides the foundation for future process improvements.

In addition to the new incident management process, enterprise operations led the effort to upgrade Service Desk to the latest version. This new version delivers a new end user interface and lays the foundation for future process development including a new change management process, and request fulfillment process slated for 2012.

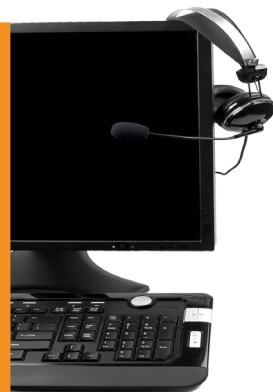
Our IT Operations

Call Center

- 8 Call Center agents
- 115,000 customer trouble calls and e-mails yearly
- 50,000 service tickets yearly
- 11,000 service tickets created by automated systems

Data Center

- 12,800 square feet secure area
- Available 24 X 7 X 365



Strategic Goal Five: Operational Excellence *continued*



Next Generation State Network

State Network Enhancements

Multiprotocol Label Switching (MPLS)

Bids for the much anticipated Multiprotocol Label Switching (MPLS) were awarded in 2011 for the creation of a next generation state network. Bids for providing access service connections to the network were awarded to four vendors according to location.

A rate structure for connectivity to the new network is in development as is a strategy and timeline for implementing the project. As steps are completed, bandwidth options on the state network will be shared and discussed with DIS customers.

The goals of the network project include:

- Significant reduction in the complexity of the core network
- Increased reliability
- Improved performance
- More bandwidth options
- Lower cost points

Ethernet still may not be available in some remote areas of the state, meaning that not all customer locations will benefit from the cost savings of Ethernet service. DIS will continue to work with vendors to provide Ethernet access to as many customers as possible.

Bandwidth for Educational Enhancement (B.E.E.)

DIS launched a new service to benefit K-12 public schools in 2011 known as Bandwidth for Educational Enhancement (B.E.E.). This technology, offered affordable, secure bandwidth to help school districts meet the continually growing needs. The advantage of B.E.E. is its ability to distinguish between business critical applications, such as APSCN and records relating to grades and attendance, versus non-business critical Internet activity such as general Web browsing. Utilizing a bandwidth aggregator for multiple points of connection, local user requests are routed to either a "business class" or "consumer class" connection based on the appropriate level of priority. B.E.E. installations have been completed at 95 school districts with hardware scheduled for installation at eight additional districts. There are still over a dozen districts in the process of obtaining B.E.E.



**Bandwidth for
Educational
Enhancement Initiative**

Enterprise Systems & Services Updates

Arkansas Legislative Tracking

Each year more and more state agencies are discovering the benefits of the Arkansas Legislative Tracking Tool implemented in 2008 by DIS that enables agency personnel to identify, track, and respond to the impact of any legislation affecting their organization and the constituent services the agency provides.

When the tool was first introduced, four major state agencies and Governor Beebe's office participated in the use of the new system. The governor's office continues to actively encourage more to take advantage of the benefits of this low cost solution for the legislative session.

As agencies came to realize the benefit of significantly reducing the manual efforts of reviewing and tracking the hundreds, if not thousands, of legislative activities that occur during a legislative session, the number participating agencies, boards and commissions has grown.

"I think that those who have used SharePoint from our office and agencies have found it helpful and convenient for messaging back and forth about bills and the bill's status. The information about the bill's placement, sponsors, voting--all is really valuable. I love it."

*Sarah Agee-Arkansas
Governor's Office*

Strategic Goal Five: Operational Excellence *continued*

Virtual Hosting in the State of Arkansas Private Cloud



For the second year, DIS continued to leverage emerging technologies by offering an Arkansas private cloud. This virtual hosting service is an infrastructure as a service (IaaS) provided by the DIS Enterprise Systems Division to state agencies, boards and commissions. This technology platform responds to rapidly changing business needs with flexible, dynamic, highly-available and on-demand computing power for business applications. Pricing is based on usage and is available on a monthly basis.

Mainframe Subsystems Upgrades

The mainframe operating system (OS) was upgraded in 2011. The new OS has greater functionality in allowing the mainframe to interact more efficiently with the growing number of open systems, which are systems that continuously interact with information, energy, and/or material transfers both coming into and leaving the system boundary. Some of the new features include:

- Improvements to the Health Checker which automates the identification of potential configuration problems before they impact system availability
- Simplification of administration of the platform
- IEFBR14 (a mainframe utility program) improvements and many other functions such as:
 - Data Facility Storage Management System (DFSMS) support for solid state drives
 - Extension of predictive failure analysis
 - New spreadsheet application for resource management facility (RMF) data
 - Common Information Model (CIM) server processing on the processor engine

DIS remains committed to providing mainframe services for as long as its customer base relies on this long trusted, reliable computing environment.



Enterprise E-mail – Exchange

In 2011, DIS started the process of upgrading its Exchange email solution. Included in this upgrade are new archiving capabilities, better support for federation certificates, better administration for Active Sync, Outlook web application improvements, high availability and site resilience improvements, messaging policy and compliance functionality, unified messaging server role improvements, audit logging improvements and more. As DIS works with the vendors to complete this migration, new services such as archiving and unified messaging will be available for state agencies, boards and commissions in 2012.

Enterprise Storage and Backup

2011 brought some exciting updates in the storage and backup space at DIS. An upgrade of one of the aging storage controllers provided the enterprise storage environment with one of the most advanced models of storage controllers in the market with new hardware and software that offers faster performance, greater storage density and significant reduction in floor space and energy requirements. Also implemented this year is a Deduplication Gateway that improves backup and recovery and simplifies disaster recovery operations. This device also provides faster backup and recovery times with the addition of virtual tape drives for applications needing to use multiple threads to be able to backup their growing amount of data in their nightly windows. DIS continues to improve on the ability to provide in state disaster recovery solutions with the start of an effort to replicate data between DIS' primary and secondary data center.

2,130 Sites served

3,067 Data circuits

2,069 Network devices monitored

Internet peak usage 1,410 Mbps

Backbone peak usage 3,538 Mbps

***State video network 550 room systems with
approximately 32,000 conference hrs/mo.***

A Future Look

State Data Center Modernization

A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup power supplies, redundant data communications connections, environmental controls (e.g., air conditioning, humidity control, fire suppression) and security devices. Data center modernization involves customizing data center strategies according to business plans, regulatory requirements, skills availability and changing technology issues. This can include but is not limited to activities such as building internal clouds, implementing virtualization and automation, managing storage and the information life cycle, enhancing data center networking and computing devices, increasing high availability, providing energy efficiency, and improving business continuity and disaster planning. It is important to evaluate the technology and vendors to capitalize on opportunities to improve operational and energy efficiency.

Modernization of the state's data center is comprised of upgrading the existing data center, the creation of a backup and recovery site at the University of Arkansas-Fayetteville, and seeking and examining potential opportunities to fund a new facility. These approaches will facilitate moving the state forward in supporting state



government and educational technology solutions for the 21st Century. Modernization will reduce the downtime of essential services and benefit all state agencies, boards, commissions, K-12, higher education, and Arkansas citizens utilizing state technology services. Mutually supporting data centers provide a secondary/failover site for state agencies and schools currently housing mission critical information technology assets. A primary goal is to integrate a sustainable design and operation to ensure the most efficient use of energy and resources. In addition to enhanced energy efficiency, modern data centers are more cost effective and more secure. Other benefits include the continued housing of the state's critical data in Arkansas, greater reliability and availability of critical state systems, reduced costs, a physically hardened and secure facility, the creation and retention of technology jobs in Arkansas.

Health IT

The Office of Health Information Technology was established through an executive order by Governor Beebe in 2010 to provide leadership to guide the implementation of a statewide interoperable health information exchange called SHARE (State Health Alliance for Records Exchange). The Arkansas Health Information Exchange (HIE) project is the collaborative effort of public and private stakeholders to plan a technology-based, secure HIE that will improve the health care experience for patients, providers and insurers. A consortium of stakeholders within the state are involved in developing, implementing, and supporting goals of SHARE, the Arkansas statewide HIE system. The update and replacement of Arkansas State Medicaid Management Information System (MMIS) environment is also occurring. The vision is a new modern system that will meet or exceed all requirements and regulations while committed to provide quality services within available resources.



Cloud Computing is Here to Stay

The industry and current research from DIS consulting partners shows that cloud computing is here to stay. DIS has embraced a cloud-based approach when applicable such as building the private cloud for Arkansas's public sector. DIS envisions a future where private clouds, such as the one at DIS, will be interoperable with public clouds to provide the maximum level of flexibility and cost savings to consumers and stakeholders.

There are many issues to work out as agencies, boards and commissions look at cloud-based options to traditional services such as data protection, data-sharing, and privacy concerns. There are other things to consider such as economical impact, loss of control and lock-in when moving away from traditional approaches. Audits and certifications also bring uncertainty when in the cloud environment as these conventions and standards are still being developed.

Even with these issues, cloud-based offerings have great appeal as they promise to let agencies, boards and commissions have a provider handle the "plumbing" inside the day-to-day information technology operations. The year 2012 should bring more assurances and abilities from DIS and other public and private cloud providers.