



THE PREMIER  
INFORMATION TECHNOLOGY PROVIDER  
FOR THE  
STATE OF ARKANSAS

2009 ANNUAL REPORT

## Ice storm 2009

In late January 2009, the State of Arkansas was hit hard by a winter ice storm. As ice accumulated on power lines and took down trees and power poles, more than 390,000 Arkansans were left without electricity. At least 19 deaths were attributed to the storm.

DIS Teams sprang into action to assist the Arkansas Department of Emergency Management (ADEM) to establish a call center for citizens. The call center was in operation 12 hours a day, seven days a week for several weeks. The call center provided a way for ADEM to receive information from citizens impacted by the storm. During the time it was in operation, the call center received more than 6,000 calls.

While emergency workers were performing their jobs, checking on citizens, working with road crews, along with regular duties, they found that in many areas of the state, the Arkansas Wireless Information Network (AWIN) was their only source of communication. In some areas, power was out to law enforcement, fire, and emergency facilities for days.

Thirty-five AWIN sites ran on generator power during the disaster, and the AWIN team and contract technicians worked around the clock to keep the generators fueled and serviced. The event lasted three weeks and during that time, system availability remained at 98%. The AWIN system's high reliability provided a dedicated source of communication for the first responders.

### Table of Contents

DIS in 2009.....	2
Leadership Team .....	3
Meeting our Vision .....	4
Legislation/Products & Services .....	5
On the Web.....	6
Strategic Goals.....	7
Operational Excellence .....	8
Financial Excellence .....	14
Technology Leadership .....	17
A future look.....	23

## 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.

## DIS in 2009



What a busy and exciting year at the Department of Information Systems! Throughout 2009, we have continued to work hard to satisfy our customers, assisting them in providing services to the citizens of the State of Arkansas, and meet our three strategic goals.

Our 2009 Annual Report will highlight our three strategic goals, which include operational excellence, financial excellence, and providing technology leadership. We are thrilled to highlight some significant items that we have accomplished throughout the year, and take a brief look at what we plan to do in the near future.

We are so proud of our dedicated staff of more than 250 IT professionals. Our teams work hard to help your agency with the delivery of public service, and we are proud to share all of our agency's accomplishments through this annual report.

We look forward to the exciting things to come in 2010. We want to continue to serve our state to the best of our ability over the next year.

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*

*"As state government and citizens rely more and more on technology, the professional and hard-working employees at DIS continually aim to provide the best products and services for our customers."*

*- Herschel Cleveland, DIS Deputy Director*

## Act 648

In 2009, the 87th Arkansas General Assembly passed Act 648 which revised the DIS legislation. The Act moved the state IT planning function from the Department of Finance and Administration (DFA) to DIS.

Act 648 also defines the Enterprise Architecture for the state, which DIS is now responsible for as well. Under Enterprise Architecture, there are procedures that are established for agency IT spending. DFA is responsible for the approval of funding for IT projects.

The Enterprise Architecture Team at DIS is working to increase efficiencies throughout state government IT, so that we can all work more effectively for the citizens of our state. DIS will work closely with customers in their IT planning and take a more enterprise-wide approach to ensure that we are using our IT dollars wisely and benefiting the state as a whole.

## DIS continues quality efforts

DIS is a three time award winner in the Governor's Quality Award Program for Performance Excellence. DIS received the Achievement Award in 2005, 2006, and 2008. The Quality Award Program includes four award levels, which are (in descending order of qualifications) the Governor's Quality Award, Achievement Award, Commitment Award, and Challenge Award. DIS will continue its efforts as an organization focused on quality management throughout the next year.



## Customer satisfaction every time

In July last year, the state began a race to establish a statewide lottery. In a matter of just three months, the Arkansas State Lottery was up and running, meeting the September 2009 deadline.

When Mary Van Leer began her position as IT Director for the Lottery Commission, she immediately began the process, working with her peers, to build an IT infrastructure for the lottery. She called DIS on her second day on the job. "That started the partnership that we have with DIS," said Van Leer.

The lottery was set up under incredible time frames. Vendors tried to tell Van Leer that she wouldn't get anything done through the state in that short amount of time, but DIS Teams hit every time line required. "Arkansas broke the mold by their promptness and sense of urgency. This was a record for the fastest lottery startup in the world, and DIS was with us every step of the way," said Van Leer.

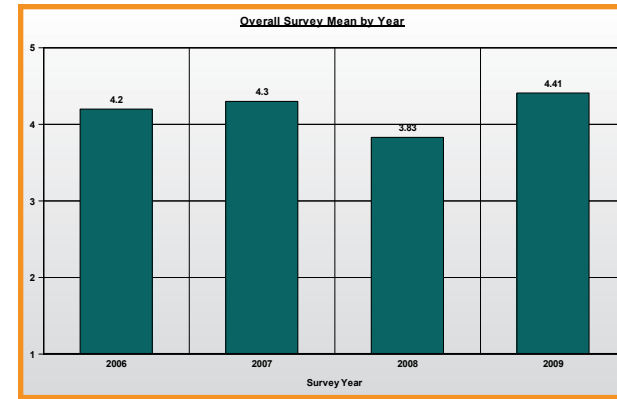
The Lottery Commission's internal IT infrastructure is housed on the State Data Center floor, which is operated and managed by DIS. "I have backup, disaster recovery, cyber security, and I have an organization of more than 200 behind me," said Van Leer. DIS only charges for provided services, and Van Leer appreciates the fact that she doesn't have to hire more employees to do the work that DIS manages, saving more money for college scholarships.

DIS works to anticipate issues with customers and is proactively working to make the lottery run smoother. "Every time I call DIS with a request, it's taken care of within hours. It's taken care of and supported," said Van Leer. The Lottery Commission plans to continue its partnership with DIS for critical IT needs, including applications and SharePoint. The commission plans to break new ground with SharePoint and its capabilities. "We want to be a showcase for DIS provided services," said Van Leer.



***"DIS is my total solutions provider."***

- Mary Van Leer, IT  
Director,  
Arkansas Lottery Commission



In 2009, DIS received the highest scores ever on the annual Customer Satisfaction Survey. We will continue to strive to meet our vision of customer satisfaction in 2010.

## Products & Services

As the premier technology service provider for Arkansas State Government, DIS offers and provides a wide range of quality IT products and services to state agencies, boards, and commissions that serve the citizens of our state. Our certified IT professionals are committed to excellence and offer products and services in the following categories:

- Data Center and Hosting
- Voice Services
- Network Services
- Professional Services
- Storage and Backup
- Operational Services



***The DIS website is your best resource for information about our products and services and related rates. Go to [www.dis.arkansas.gov](http://www.dis.arkansas.gov).***



## A fresh website

In December 2009, DIS launched a new and improved [dis.arkansas.gov](http://dis.arkansas.gov). The new website is on a SharePoint platform with the state's common look and feel for government websites. The new website not only has a new look, but has increased functionality such as a Smart Search, calendar of events, blog, RSS feeds, and more. DIS also has a presence on YouTube and Flickr, which will be used to post photos and videos from events.

Many items on the new site are prominently displayed on the home page, including products and services, technology policies and standards, support information, and more, which will minimize the amount of time searching our customers have to do. Billing rates are also accessible from each of the product category pages.

DIS Teams worked with the Information Network of Arkansas (INA) to redesign the site and increase the site's functionality to better meet customers' needs. We believe that customers will find the site to be more user-friendly, and we hope that customers find the site a useful resource for IT in Arkansas State Government and for everyday operations.



## Arkansas.gov Named One of Best State Web Sites in the Nation

The official web site of the State of Arkansas, developed and managed by the Information Network of Arkansas (INA), was named one of the best state government sites in the nation in 2009, as it received a third-place ranking by the Center for Digital Government in its annual national Best of the Web competition.

A featured service on the Arkansas.gov portal is Arkansas Works, a one-stop workforce portal designed to help Arkansans find jobs or education and training opportunities in the state. DIS employees contributed to the success of the Arkansas Works portal.

Also, the Governor's Recovery Office earned top honors in the Digital Government Achievement Awards in the government-to-citizen category for the new [www.Recovery.arkansas.gov](http://www.Recovery.arkansas.gov) portal, mobile and iPhone services. The recovery services include the free "Arkansas.gov Recovery Project Search" iPhone application, available through the Apple iTunes Store. Arkansas is the first state government in the nation to develop and release an iPhone application with the ability to search and track projects funded with the American Recovery and Reinvestment Act (ARRA) stimulus funds.



## Strategic Goals

DIS has established strategic goals for information technology across Arkansas state government. We are continually working toward these three objectives:

### 1. Operational Excellence

We want to set the standard for IT in Arkansas state government. To assist us in doing this we must:

- Deploy and integrate appropriate tools
- Put the right people with the right skills in the right positions
- Continuously improve the management of change
- Increase the availability of the State Data Center and supporting systems

### 2. Financial Excellence

DIS operates as a cost recovery agency. To achieve financial excellence we must:

- Maintain compliance
- Secure funding to accomplish our goals
- Increase our operating efficiency
- Provide accurate and timely invoices to our customers
- Accurately track our costs and usage for services

### 3. Technology Leadership

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

- Lead the green technology initiative
- Cultivate technology synergy across state government
- Promote disaster resistant services
- Advise decision makers on policy as it relates to technology
- Design solutions using technology innovations to meet our customers' needs.

## Strategic Goal One

### *Focusing on Operational Excellence*

As our first strategic goal, we focus 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.

### UPS Upgrade

In November 2009, the reliability of the State Data Center was dramatically increased as a project to replace an aging Uninterruptible Power Supply (UPS) and to install a secondary UPS was completed.

DIS Teams worked closely with the Arkansas Building Authority (ABA) to upgrade the electrical infrastructure and improve the availability of the State Data Center. Two new UPS systems were purchased and installed to replace the previous 22-year old single UPS solution. DIS Teams and vendor technicians installed the first of the new systems in June and the second in November. During a scheduled outage of the data center in November, ABA managed the replacement of faulty critical electrical components to the building and began preparations for the building chiller replacement project.

With the completion of the UPS upgrade project, the redundant UPS solution will allow for higher reliability and significantly reduce the number of routine maintenance data center shutdowns.

## Our IT Operations

### Data Center

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

### State Network

- 2,138 network edge points
- 2,700+ circuits
- 1585 Mbps Internet bandwidth

### Call Center

- 7 Call Center agents
- 115,000 customer trouble calls and emails yearly
- 67,000 service tickets yearly
- 11,000 service tickets created by automated systems

## Strategic Goal One: Operational Excellence



### State Network Enhancements

The next generation of the State of Arkansas Network, or StarNet, is the vision for the collaboration of current networks across the state. DIS is working to enhance the State Network, including voice and data, to meet customers' needs.

#### Unified Communications

DIS is continuing work to enhance Unified Communications (UC) services, including Voice over IP (VoIP) telephony. Agency teams recently completed a significant upgrade of the UC and VoIP infrastructure that will enable us to offer new services to our customers. With the upgraded infrastructure, DIS is offering more of what UC is all about. These enhancements include single number reach, which allows users to build remote locations and move seamlessly between calls on separate devices to provide enhanced mobility for users. Voice mail delivered through email is another offering that continues to be included in UC. DIS is also offering a UC solution for users to track the status and chat with those logged in to the solution, as well as voice communication through a personal computer, voice and video conferencing, and more. There are more than 2700 UC users at 65 locations across the state; a number that continues to grow with the need for enhanced mobility of our customers. Enterprise Network and Systems Teams will also continue to research other UC solutions and are planning a pilot project with another UC solution beginning in March 2010. We want to give our customers options for UC, and we will work to integrate UC solutions to work together across state government.

#### Satellite technology

Satellite connectivity to the Internet and State Network is now available. Because of its high availability and independence from the wired network, satellite services are now offered as a secondary connection for redundancy and disaster recovery. This service can also be used as a primary connection in locations where it is difficult or cost prohibitive to obtain connectivity to the network.

## Strategic Goal One: Operational Excellence

### State Network Enhancements *continued*

#### IFB solution

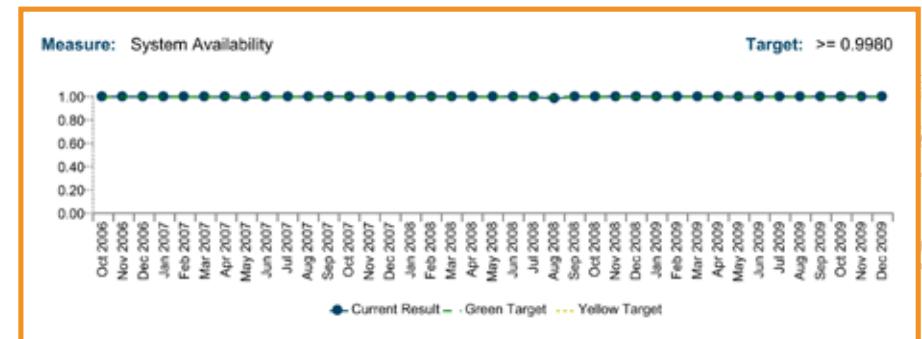
DIS provides connectivity to customers across the state, and many of these customers require higher connection speeds or advanced services. Currently, these services are limited mainly to metropolitan areas of the state, but DIS Teams are working with vendors to expand the reach of advanced and low-cost services. A comprehensive Invitation for Bid (IFB) solution will address connectivity issues, as well as assist in providing next generation network services such as Multi-Protocol Label Switching (MPLS) and Ethernet WAN services. MPLS will dramatically reduce the complexity of the core network and enable DIS to manage bandwidth more effectively. When the IFB solution is awarded, users in many areas should see reduced rates for connectivity services.

#### 3G Wireless

DIS is working with vendors to soon provide access to the state network over cellular devices. The 3G Wireless service will be offered as a backup to the wired network and as a primary connection for temporary or lower priority sites. Connection speeds will vary based on location. While the cellular network does not have the high availability of satellite services, 3G wireless does offer network redundancy at a reasonable cost.

#### Security enhancements

DIS Teams are also working to make the State Network more secure for customers. An Intrusion Prevention System (IPS) will be installed at all three DIS points of presence or connections to the Internet. Currently, DIS Teams are able to react to potential cyber security threats discovered by the Intrusion Detection System (IDS), but the IPS will allow us to proactively mitigate the ability of threats from entering past Internet gateways. DIS wants the State Network to be secure and cost effective and to work its best across every area of state government.





## Strategic Goal One: Operational Excellence

### Enterprise Systems Update

#### **ITIL Training**

In support of our efforts to continually improve the level of service to our customers, we have promoted and helped to spearhead an effort at DIS to use the Information Technology Infrastructure Library (ITIL) framework. All managers in the Enterprise Systems team were ITIL Foundation Level Certified over the past year, and we are using the information gained to drive quality in the delivery of IT Services to the State of Arkansas.

#### **Tape encryption and library upgrade**

The tape encryption and library upgrade was a two-fold effort. The DIS Enterprise Tape Library was upgraded to more recent version of equipment, and some benefits from this upgrade include hardware encryption capable drive, higher tape density, and faster performance. The second phase of this effort involved a project to encrypt all data that reaches the DIS Enterprise Tape System. This data is now encrypted and provides DIS, its customers, and the state with the peace of knowing that data is secure from loss or harm.

#### **Exchange upgrade**

DIS Teams worked in 2009 to upgrade the Exchange environment to support the Arkansas.gov state email system. The upgrade consisted of upgrading both the hardware and software. The software was upgraded from Microsoft Exchange 2003 to Microsoft Exchange 2007, and the hardware upgrade included all servers, storage area networks, and disk controllers in the environment. Enhancements were added to the service as a part of the effort, such as increased mailbox storage size and performance, as well as software and hardware to assist in keeping email operational in the event of a primary data center outage.

#### **Monitoring solutions**

To meet our mission of customer satisfaction, it is very important that we know about problems before our customers. We are working to meet that mission through the implementation of three systems and application monitoring technologies.

1. Nagios - an open source monitoring solution to monitor our UNIX, Linux, and Open Source service offerings.
2. Microsoft System Center Operations Manager - to monitor our Microsoft Windows Servers and Applications.
3. Wily Introscope - to monitor our Java and .NET applications.

## Strategic Goal One: Operational Excellence

### Enterprise Systems Update *continued*

#### **Optimization studies**

The DIS Enterprise Systems Team worked with leading vendors to analyze the current server and desktop infrastructure over the last year to see how we could more efficiently utilize resources to do more with less. The results from the study were compiled and several projects related to the studies are underway, including server virtualization, group policy management, power management, self service password reset, and others.

#### **New Call Center tool**

Planning began more than a year ago to find a new tool for the DIS Call Center. The Call Center needed a system that could do more than simply track trouble calls. DIS selected a product in early spring of this year and began project planning. An architect with the product vendor conducted interviews with key stakeholders to determine customer needs and design the system. DIS will use the product with extensions and customizations; some elements were added to meet our customers' needs.

There are several advantages that come with the new Call Center tool, including the ability for customers to enter trouble information through a web browser without going through a Call Center agent. The customer receives a confirmation email once the information is submitted and can check the status of the ticket as much as needed. The system is web-based, so there is no need for software to be loaded on customer computers. The new system also has a "knowledge tool" which allows customers to search and receive answers to frequently asked questions or find other incidents that have been entered into the tool and how the incident was resolved.

Data that is stored in the current trouble tracking system will not be converted into the new tool, as it was determined that this would be cost prohibitive. The new Call Center system is in the testing phase and will be launched in 2010. Training will be provided for interested customers.



## Strategic Goal Two

### 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. If we over-recover costs, we provide refunds to customers based on utilization.

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, 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

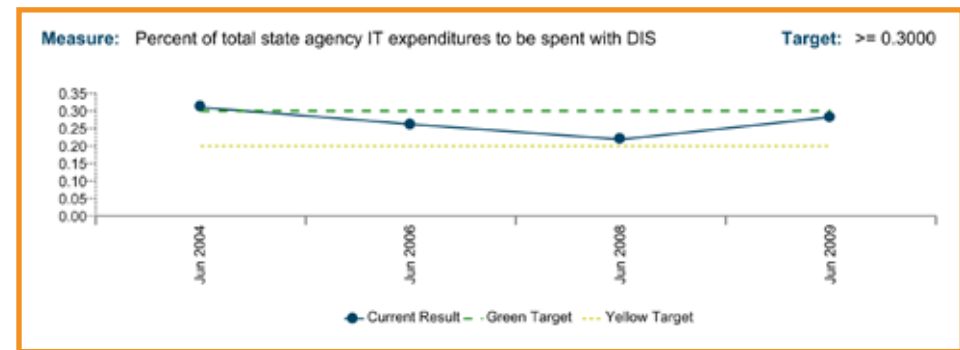
#### IT Asset Management (ITAM)

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

## Strategic Goal Two: Financial Excellence

### Fiscal Year 2009 Budget

	ACT 794 - FY 2009	Executive Recommendation - Budget Manual (Vol 5) / Governor's Letter # 39		FY2009 DIS Budget
Description	Authorized	DIS - Operations	Security & Compliance	Recommendations
Regular Salaries	\$15,221,678.00	\$14,576,300.00	\$285,950.00	\$15,207,900.00
Extra Help	\$170,000.00	\$164,000.00	\$-	\$170,000.00
Personal Services Matching	\$4,258,599.00	\$3,696,922.00	\$61,100.00	\$3,843,979.00
Overtime	\$66,000.00	\$66,000.00	\$-	\$66,000.00
<b>Labor Related</b>	<b>\$19,716,277.00</b>	<b>\$18,503,222.00</b>	<b>\$347,050.00</b>	<b>\$19,287,879.00</b>
Operating Expenses	\$10,545,696.00	\$10,519,905.00	\$-	\$10,553,472.73
Conference & Travel Expenses	\$234,521.00	\$214,321.00	\$-	\$234,521.00
Professional Fees	\$631,500.00	\$631,500.00	\$-	\$631,500.00
Data Processing	\$8,623,866.00	\$8,406,866.00	\$-	\$8,645,061.26
Capital Outlay	\$3,626,000.00	\$3,500,000.00	\$-	\$3,626,000.00
Telecom Tech Delivery	\$35,950,929.00	\$38,006,569.03	\$-	\$38,006,569.03
Geostor & Framework	\$250,000.00	\$-	\$-	\$420,000.00
<b>Non-Labor / Operating</b>	<b>\$59,862,512.00</b>	<b>\$61,279,161.03</b>	<b>\$-</b>	<b>\$62,117,124.02</b>
<b>Total DIS</b>	<b>\$79,578,789.00</b>	<b>\$79,782,383.03</b>	<b>\$347,050.00</b>	<b>\$81,405,003.02</b>



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

### Fiscal Year 2010 Budget

Description	Act 87 - FY 2009	Budgeted	Innovation &	Total Budget for
	Authorized	DIS - Operations	Product Development	DIS FY2010
Regular Salaries	\$15,420,783.00	\$15,420,783.00	\$-	\$15,420,783.00
Extra Help	\$164,000.00	\$164,000.00	\$-	\$164,000.00
Personal Services Matching	\$4,220,024.00	\$3,926,263.00	\$-	\$3,926,263.00
Overtime	\$66,000.00	\$66,000.00	\$-	\$66,000.00
<b>Labor Related</b>	<b>\$19,870,807.00</b>	<b>\$19,577,046.00</b>	<b>\$-</b>	<b>\$19,577,046.00</b>
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	\$58,450,929.00	\$58,450,929.00	\$-	\$58,450,929.00
Innovation and Project Development	\$-	\$-	\$450,000.00	\$450,000.00
<b>Non-Labor / Operating</b>	<b>\$81,723,521.00</b>	<b>\$81,723,521.00</b>	<b>\$450,000.00</b>	<b>\$81,723,521.00</b>
<b>Total DIS</b>	<b>\$101,594,328.00</b>	<b>\$101,300,567.00</b>	<b>\$450,000.00</b>	<b>\$101,300,567.00</b>
<b>Funding Source</b>		<b>Cost Recovery</b>	<b>Central Service Fund</b>	

## Strategic Goal Three

### Providing Technology 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.



### Customer Events

In 2009, DIS took the lead in assisting the State Chief Technology Officer and DIS Director Claire Bailey in hosting quarterly meetings for state technology leaders. During those meetings, Chief Information Officers (CIO) and IT Managers heard from IT professionals from around the country and participated in discussions regarding important state technology matters.

DIS also continued customer events related to services. Last year customer events regarding state network enhancements and satellite services were conducted. DIS will continue to conduct customer meetings, as the meetings have been a great way to enhance the relationship with our customers.



### Strategic Goal Three: Providing Technology Leadership



The AWIN program continued to grow through the addition of users and capacity over the past year. Several new projects were continued and initiated during 2009, including the expansion of the Arkansas Interoperable Communications Committee (AICC), development of standard operation procedures, the implementation of a satellite phone system, and rebanding.

As part of the governance of the state's interoperability efforts, the AICC was expanded and working groups were established to develop policies for statewide interoperability and AWIN users. The group worked toward efforts to update and further the implementation of the Statewide Interoperable Communications Plan. By the end of 2009, the state created a standard operating procedure template for interoperability in an emergency and provided the template to counties to document those procedures. In 2010, those procedures will be completed, reviewed with users, and used in exercises.

In November 2009, the Invitation for Bid (IFB) was open for the use of satellite phones in the instance of an emergency. In 2010, each county in the state will have access to a minimum of two satellite phones with paid service to use in an event as needed.

A Frequency Reconfiguration Agreement was signed with Sprint Nextel in April 2009 to begin the rebanding process of AWIN frequencies. More than 400 radio templates were created and approved and technicians began the process to reprogram the more than 15,000 radios on the system. The rebanding project is scheduled to be complete in 2012.

#### *In 2009*

- *AWIN System Reliability 99.98%*
- *Total AWIN users increased to more than 15,000*
- *State of Arkansas chosen as one of six states to participate in the National Governors Association (NGA) Center for Best practices Public Safety Interoperability Communications Policy Academy: Focus on Governance*
- *AWIN Program Director Penny Rubow named a Public Safety at Large member of the SAFECOM Emergency Response Council (ERC) based on her leadership and commitment to improving communications and interoperability*

### Strategic Goal Three: Providing Technology Leadership



#### Arkansas Interoperability Vision

The State of Arkansas will lead the nation 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. Arkansas will achieve this vision by 2017.



#### Arkansas ARRA Efforts

After President Obama signed the American Recovery and Reinvestment Act (ARRA) in 2009, DIS went to work, collaborating with other state agencies to assist in the state's ARRA efforts. DIS worked closely with the Department of Finance and Administration (DFA) to develop a system to meet federal reporting requirements and track recovery dollars received and spent on state projects.

DIS developed an application for state agencies to enter information and report on ongoing projects using recovery dollars. Arkansas was one of the few states that developed its own application, doing so at a very reasonable cost. The application tracks 157 prime projects and more than 1,000 subprime projects. Through December 2009, the system tracked more than \$160 Million recovery dollars expended for projects within the state. The ARRA Team at DIS is currently developing an interactive map search for the application that uses geospatial information to pull up projects according to location. The interactive map search will allow a user to search for projects according to an area of interest.



### Strategic Goal Three: Providing Technology Leadership



#### Intrusion prevention and detection

The State Cyber Security Office continually works to manage and protect the State Network. In 2009, the office procured software to increase the protection of the state network, as well as users on the network. The Intrusion Prevention and Detection Software sits on the state network and works to filter out known “bugs”. The software protects users on the network by preventing these bugs from entering the network and detecting those that make it through the gateway. This will not only increase protection of our state network, but will reduce the amount of traffic traversing the network. Agencies can also fine-tune the software at an agency level as needed.

#### PCI compliance

The State Cyber Security Office is working to meet requirements to be Payment Card Industry (PCI) compliant. The deadline for the completion of all requirements is June 2010. In 2009, the office began efforts to become compliant with security enhancements to the State Data Center. Further restrictions were placed on personnel entering and exiting the facility, as well as the way personnel must badge in and out for accurate records. The office is working to become PCI compliant because state online payable services are on the state network.

#### Remote forensic tools

The State Cyber Security Office now has software in place which provides capability for cyber security experts to analyze computers outside the agency. If a customer needs assistance identifying problems with an infected machine, our team members don't have to leave the office to do their work. This software will save the office valuable time and resources.

#### Web-based training

Cyber security experts in the State Cyber Security Office and other DIS employees are participating in web based cyber security training. The office is working through the security working group to encourage other agencies and their IT personnel to take the courses offered.

### Strategic Goal Three: Providing Technology Leadership



ACCOOP operates under the State Cyber Security Office and DIS 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. 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 (ACCOOP) was extremely busy in 2009. The program doubled the number of business continuity planners across the state over the last year. As of January 1, 2010 more than 1500 planners from agencies, boards, commissions, school districts, counties, and cities are maintaining plans for over 300 entities at more than 600 locations in the state. ACCOOP also continued and increased its pandemic flu training and planning.

ACCOOP has identified a valuable resource at Arkansas Technical University (ATU). ATU has the only emergency management program, including a Master's program, in the state. ACCOOP continues to use and hire interns in the ATU Emergency Management program.

#### Disaster Recovery

DIS has a contract with SunGard to provide physical space and computer hardware for the recovery of mainframe, UNIX, and Windows systems in case a serious event disrupts operations at the State Data Center. In April and September 2009, 40-hour recovery tests were conducted at the cold-site facility in Carlstadt, New Jersey, in coordination with closed-system laboratories established at DIS and a Department of Finance and Administration (DFA) office in Sherwood.

In April, 18 applications were tested and recovered with an overall grade of 85% (B), and in September, 20 applications were tested with an overall grade of 86% (B). Each application that is tested is scored in seven different areas that are weighted according to importance. Each tested application is given an individual score, and the overall test grade is calculated. We will always strive for an “A”, although the evolving nature of IT will continually require changes in how we restore applications.



## Strategic Goal Three: Providing Technology Leadership

### SharePoint Services Launched

DIS identified the Microsoft Enterprise SharePoint solution as a critical technology for collaboration in state government. The solution is a user-friendly product with many different functions, including records and document management, workflows, and team sites, among other essential business functions.

DIS purchased hardware and software for SharePoint in 2009 with core improvement infrastructure funds to invest in future technology for the state. A cost analysis was performed to weigh the benefits of providing SharePoint services as an enterprise solution, which showed that the state would save more than \$1.6 Million to implement SharePoint enterprise wide compared to individual agencies each purchasing its own SharePoint solution. Last year, several state agencies took advantage of the legislative tracking application, and benefited from cost sharing on the effort.

There are three different options to the SharePoint service offering, including agency internal, which provides a SharePoint hosting environment for multiple sites for an agency to use internally, agency internal plus external sites, which provides a SharePoint hosting environment for multiple sites for an agency to use for public facing web sites, and interagency, which provides a SharePoint hosting environment for multiple sites for interagency collaboration.

The long-term vision for the use of SharePoint is the continued deployment of additional solutions for customers' use. Ideally, customers would be able to choose from a library of web-solutions according to the agency's needs.

**Agencies purchasing and operating own SharePoint system =**  
Approximately \$2.6M State IT dollars

**Agencies operating on a centralized SharePoint system =**  
Approximately \$955,000 State IT dollars

**Enterprise-wide SharePoint savings =**  
Approximately \$1.7M State IT dollars

## Strategic Goal Three: Providing Technology Leadership

### Green IT

On May 28, 2009 Governor Mike Beebe issued an Executive Order to encourage the reduction of energy consumption by state agencies and the environmental impact of state agency operations. DIS is committed to the greening of information technology in our agency and across the State of Arkansas, as well as assisting our customers with their green IT efforts.

DIS worked closely with the Governor's Office, Arkansas Energy Office, Arkansas Department of Environmental Quality (ADEQ), Department of Finance and Administration (DFA), and the Arkansas Building Authority (ABA) to develop a template for agencies with the requirement to complete a Strategic Energy Plan (StEP) by October 31, 2009. DIS also assisted those customers as needed through the StEP process.

DIS developed an Energy Team comprised of representatives from each area of the agency to develop strategies and complete the agency StEP. We included several strategies within the StEP to address the greening of IT in the State Data Center. The DIS StEP was approved in November 2009, and the DIS Energy Team will work across the agency throughout the next year to complete the remaining required information and to implement the outlined strategies. The approved DIS StEP is available at [dis.arkansas.gov](http://dis.arkansas.gov).



### Electronic billing

In an effort to support the state's green initiatives, DIS worked in 2009 to encourage customers to migrate to electronic billing. When electronic billing was first launched in late 2008, DIS printed an estimated 88,000 pages of bills each month. Over the last year, the billing team reduced that number by nearly half, now printing approximately 45,000 pages of bills per month. The DIS billing team will continue to migrate customers to electronic billing, reducing costs of paper, postage, and other costs throughout 2010.

## A Future Look

### State Data Center update

In 2009, DIS Teams continued efforts across state government to research ways to provide a mission critical data center facility to benefit all agencies, boards, commissions and Arkansas citizens utilizing state technology services. DIS made significant progress toward the realization of a new State Data Center. The need for higher reliability and availability of all critical state data and systems and disaster recovery of state government IT services, creates the need to take a future look at the state's technology facility needs and requirements.

Over the last year, a feasibility study was performed, and the results of that study were analyzed. Included in the study was a conceptual design and artist rendering, as well as a cost estimate for construction, design, commissioning, land, and relocation. A Request for Information (RFI) was released to gather information regarding potential sites for a new data center. Seven sites were identified as "Top favorable" sites.

The data center team is currently studying funding alternatives for building a new data center, as well as rate impacts for our customers. The decision was made to pursue funding for the data center building only since the cost was too great to include a new office building as well. In order to move forward with building a new State Data Center, a rate impact study for the data center building must be considered and a dedicated funding stream identified.

#### **Disaster Recovery Hotsite and Email Archival**

*DIS is working to establish a disaster recovery hotsite for email and other critical state systems. We are in negotiations with a public institution for space for the site. The hotsite project will begin with email, and other critical state systems will be added for redundancy as time progresses. In the fall of 2009, teams kicked off a project to procure an email archival solution for Arkansas.gov Exchange Email. An archival solution would assist all customers with Arkansas.gov email service to easily archive email for records retention requirements. The project is targeted to be complete early in 2011.*

### Enterprise Architecture

The Enterprise Architecture (EA) Team and State Cyber Security Office are currently working to provide customers with Antivirus and Endpoint Protection solutions. The team researched many different options in 2009, and narrowed providers down to the top three choices.

We are trying to manage diversity in solutions to make our State Network more secure and save IT dollars by contracting with a select few vendors to provide antivirus and endpoint protection. The next project for the EA Team is procuring encryption solutions to protect state data.

## A Future Look

### Enterprise Architecture *continued*

Under new legislation, DIS plays a role in IT planning for the state. We are working to review technology plan amendments. The Department of Finance and Administration (DFA) reviews the financial aspects of agency's IT plans, and DIS reviews and approves the technology piece of those plans. When reviewing IT plans, agencies will be asked for some new and additional information. The EA Team wants to get a better picture for the customer technology environment and how it fits into the statewide technology architecture. We are planning for applications, systems, and services that will coordinate across agency boundaries to help our state work more efficiently. The EA Team is also working to identify a statewide IT business strategy and a future state for technology in Arkansas.

### Benefits of Fewer Endpoint Protection Solutions

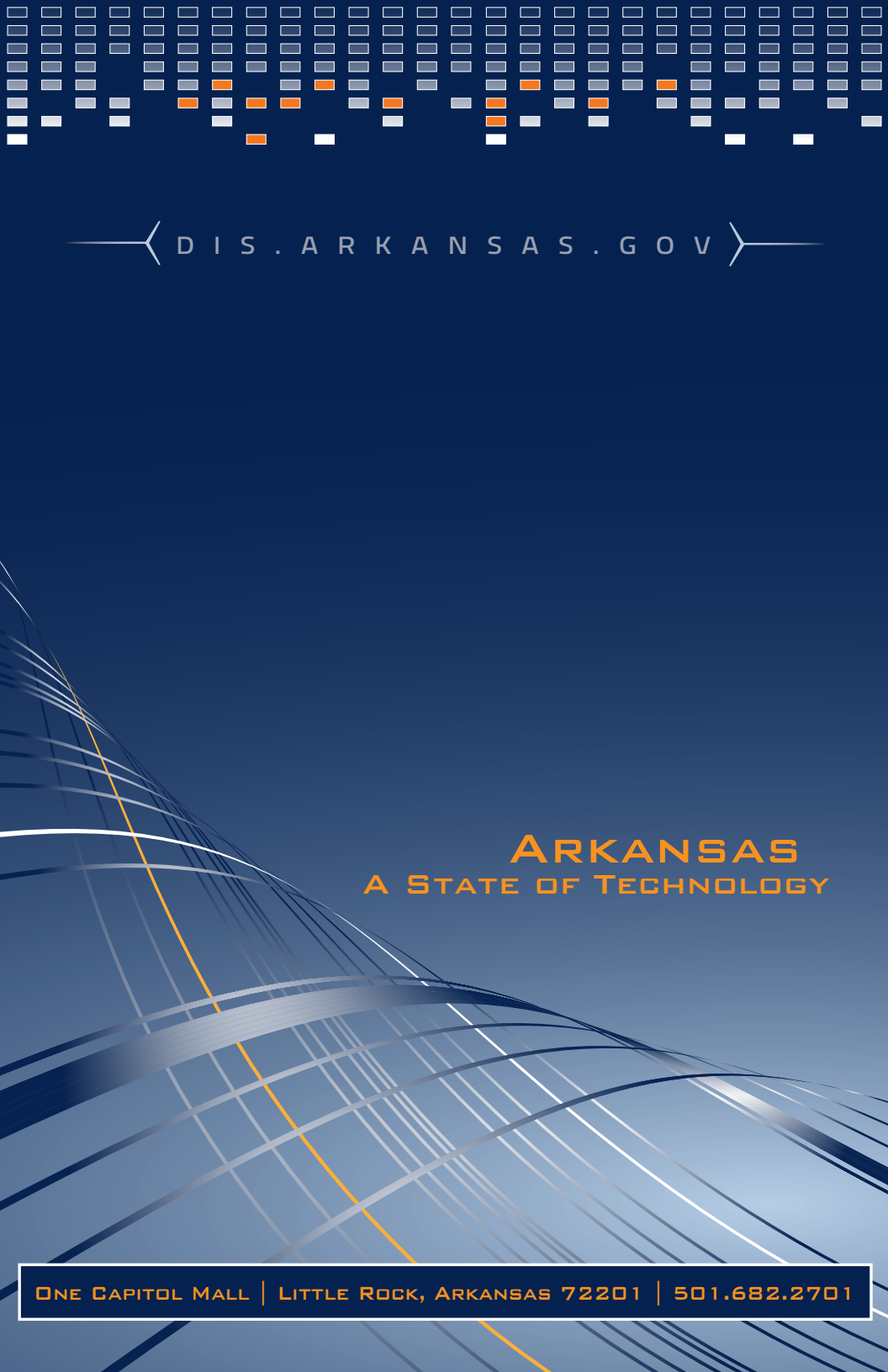
Multiple Heterogeneous Solutions	Fewer Solutions
Harder to manage due to diversity	Easier to manage
Wide variety of Pricing	More uniform Pricing
Higher Prices	Economies of Scale due to high volume
Exposure to vulnerabilities	Reduced security risks
	Better prepared against attacks

### Virtualization efforts

A computing optimization effort is currently underway at DIS. One of the aspects of this effort is to provide a hosting service that increases the efficiency and availability of computing resources for our customers' applications.

Through the use of new technologies, DIS is implementing a virtual infrastructure that will respond dynamically to the state's rapidly changing business needs with on-demand computing power, while reducing operational costs and energy demands. This effort will deliver IT resources when and where they are needed using the flexible and efficient environment for running applications created by a virtual infrastructure.

Phase two of this effort will leverage the virtual infrastructure to create the state's "internal cloud." This internal cloud will be available to Arkansas governmental entities and users to help encapsulate applications into a single unit that can be managed more flexibly. We believe this will give our customers the elasticity to run applications internally or partner with external cloud and SAAS (Software as a Service) providers to be able to provide services to citizens in the most efficient manner possible.



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