



Department of Information Systems

*Arkansas. A State of Technology.*

the premier **Information  
Technology** Provider  
for the State of Arkansas



**Annual Report 2008**  
Department of Information Systems

DIS Aids Hurricane Gustav Victims

In September 2008, Hurricane Gustav hit the US around the Louisiana coast line. In preparation for the storm, DIS was called to action to assist in relief efforts and provide network and telephony support for evacuees at Fort Chaffee.

DIS Teams were on-site at Fort Chaffee for two weeks, providing Internet connectivity, workstations, telephones, and other technical assistance.

DIS was recognized by local television stations for its support of displaced Louisiana residents through the provision of technology equipment and connections, as well as a video feed for evacuees to watch hometown news reports from New Orleans.

For Gustav evacuee Derrick Parker, the connections provided by DIS meant a life-line back home. "I did use Internet service. You can communicate well; they do have it set up really well. You can call, see if your family is okay, you can let your family know you're okay."



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## Our Vision

Customer satisfaction every time.

## Our Mission

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

## Our Goals

Operational Excellence  
Financial Excellence  
Technology Leadership



## Our agency in 2008

In the time that I have served as DIS Director, I have learned and experienced many things. I truly love my job, and I appreciate the opportunity to serve the State of Arkansas.

Our new vision for the next biennium is 'Customer satisfaction every time.' This sounds fairly basic, but there are more than 2500 locations on the information technology network that serves the state. 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.

In this report we will highlight our three strategic goals, which include operational excellence, financial excellence, and providing technology leadership. Related to each of those goals, we will also highlight numerous things that the 257 DIS employees do to serve our customers and Arkansas citizens. Our team members work hard for you, and we are proud of all of the agency's accomplishments.

We look forward to the exciting new things coming our way in 2009, and we want to continue to serve our state in the best ways possible.

Claire Bailey  
Director  
Chief Technology Officer



**"Our employees are  
critical to our success."**

**-Jeff Dean**

## **Get to know the Executive Leadership Team**

**Claire Bailey**  
Director

**Jeff Dean**  
Deputy Director of Operations

**Herschel Cleveland**  
Enterprise Program Manager

**Kym Patterson**  
Chief Security Officer

**Nancy Jauernig**  
Customer Relationship Management  
Administrator

**Nancy Turner**  
Chief Financial Officer

**Anthony Black**  
General Counsel

**Lindy Bowie**  
Human Resources Administrator

**Penny Rubow**  
AWIN Program Director

**Shelby Johnson**  
GIS Coordinator



## Customer satisfaction every time

In 2008, the Department of Workforce Education (DWE) migrated Arkansas Rehabilitation Services to Exchange E-mail to resolve email issues experienced by the DWE division. DWE Internal Services Manager Laurel Carnes led the project along with DIS Teams.

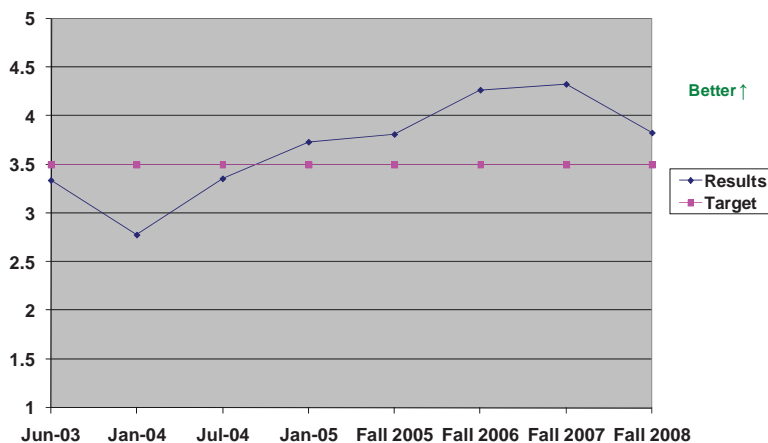
"The migration was a success, and we're very thankful for the hard work of DIS employees to resolve the Rehab division's messaging issues," said Carnes. "DIS is a great resource for our agency [DWE]. What we do is so important for our students and teachers. DIS helps us provide the best services possible to our customers."

Carnes believes that the services provided by DIS help cut IT costs for DWE by providing technical support when needed. "DWE receives more than it pays for with the support, knowledge, and expertise that DIS Team members provide," said Carnes.



*"DIS is a great resource for our agency."*

-Laurel Carnes, Department of Workforce Education



One of the ways we track our agency performance in meeting our vision of customer satisfaction every time is through an annual customer satisfaction survey. The survey results help us to identify areas for improvement.

Our Customers	
Type	Requirements
State agencies	Project coordination, engineering research, networking options, application hosting, telephony
Boards and Commissions	Desktop support, connectivity, telephony
Cities and Counties	Innovative solutions to a wide range of needs, connectivity, telephony
Emergency first responders	Innovation and high levels of coordination and cooperation
Universities and Public Schools	Innovative solutions to a wide range of needs, connectivity, telephony

Total number of billed customers in 2008 = 382



On October 15, 2008, the Governor's Quality Award Program for Performance Excellence presented DIS with the Achievement Award. Eleven organizations were recognized by the Governor's Quality Award Program during the 14th Annual Awards Celebration, and more than 250 business and civic leaders from throughout Arkansas attended the celebration.

The awards ceremony includes four award levels of Performance Excellence (in descending order of qualifications): the "Governor's Quality Award," the "Achievement Award," the "Commitment Award," and the "Challenge Award." As well as the recognition, recipients receive an in-depth evaluation of management systems and a written feedback report citing strengths and areas for improvement.

DIS also received the Achievement Award in 2005 and 2006.



In September 2008, the Centers for Digital Government

announced that the State of Arkansas ranked 12th in the Digital States Survey. States with the most advanced use of technology were ranked as a result of the Center's 2008 Digital States Survey, a comprehensive biannual review of digital solutions and best practices among state governments. State chief information officers and senior executives from across the nation participated in the survey which benchmarks progression in digital government. It covered a wide range of areas from infrastructure to online applications and new Web 2.0 technologies provided to citizens. This year's survey also included a first-in-nation measure of sustainability efforts, especially in the area of green IT.



DIS Director Claire Bailey accepts the 2008 Governor's Quality Award Program Achievement Award.

## Products and Services

DIS offers and provides a wide range of quality IT products and services to state agencies, boards, and commissions that serve our citizens, in areas ranging from telephony and data networking to technical consulting. Our certified IT professionals are committed to excellence.

The DIS website is your best resource for information about our products and services and related rates.

[www.dis.arkansas.gov](http://www.dis.arkansas.gov)



- Exchange E-mail Hosting
- Centrex Telephone Service
- Voice Over Internet Protocol (VOIP)
- Internet Connectivity
- Video Conferencing
- Long Distance Services
- Windows Desktop Support
  - Dedicated Server Hosting
    - Customer Equipment Hosting
    - Networking Equipment
    - Data Warehouse and Reporting
    - Imaging Services
    - Disaster Recovery and Business Continuity Services
  - Cyber-security Services
- Project Management
- Enterprise Data Storage
- Applications Management and Development
- And many more!



## Strategic Goals

Each biennium, DIS establishes strategic goals for information technology across Arkansas state government. In 2008, we began 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 the 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:

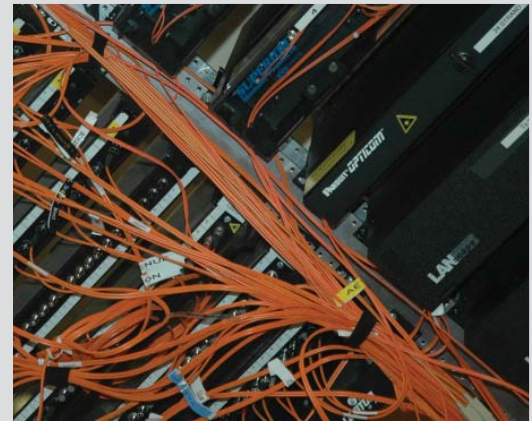
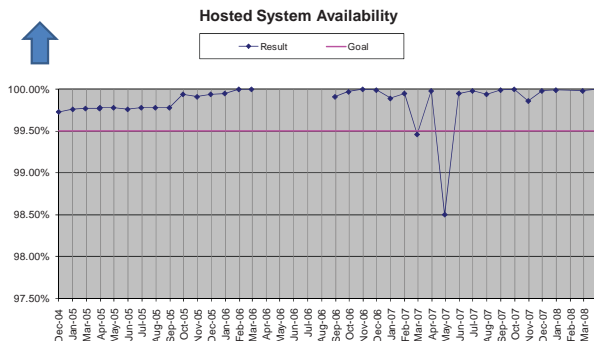
- Lead the green technology initiative
- Cultivate technology synergy across state government
- Promote disaster resistant services
- Advise decision makers on policy as it relates to technology
- Design solutions using technology innovations to answer the needs of our customers.



# 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.



## Our IT Operations

### State Network

DIS manages the state data and voice network, which includes 2,053 network edge devices utilizing more than 2,700 circuits. The state network provides 1785 Mbps of Internet bandwidth, an amount that has doubled about every 18 months over the past 12 years.

### Data Center

DIS manages the state data center in a secure 12,800 square feet area. The data center is in operation for state customers 24 hours a day - 7 days a week - 365 days a year.

### Call Center

Seven Call Center agents receive and work 115,000 customer trouble calls and emails per year. These agents create and manage more than 67,000 service tickets per year, resolving approximately 11,000 tickets created by automated systems.

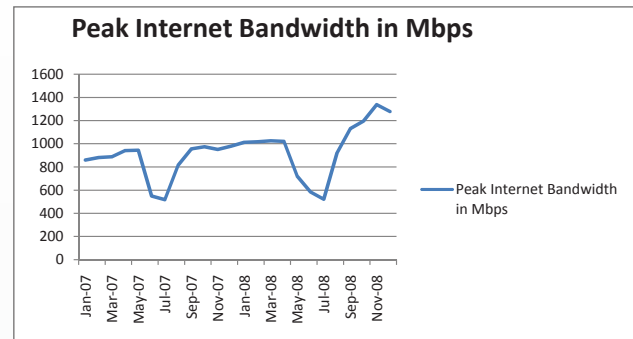
## Strategic Goal One: *Operational Excellence*

### State Network

DIS maintains a highly trained staff of IT professionals to ensure the best possible service and support for our customers. The state network is operated, monitored, and maintained by DIS. The network connects customers such as the Arkansas Public School Computer Network (APSCN), ARKNet (higher education users), Arkansas Wireless Information Network (AWIN), as well as state agencies, boards and commissions.

DIS provides a variety of network tools to ensure the protection of the state network and data center. Network firewalls deny approximately six million malicious items on a daily basis.

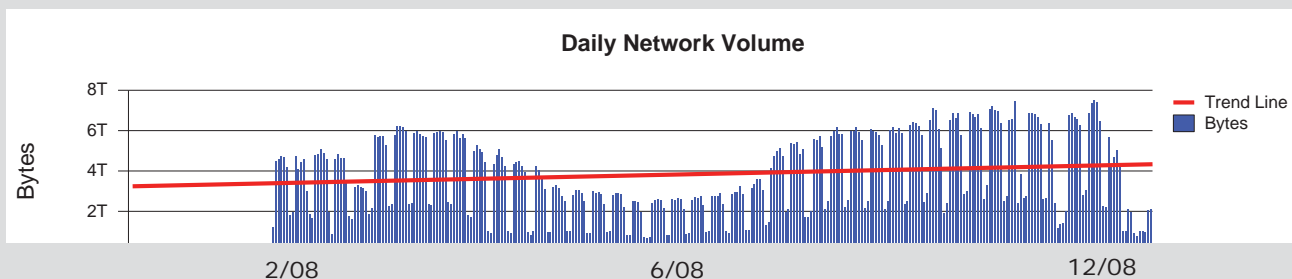
The state voice network provides dial-tone and voice-mail services to approximately 30,000 customers and long distance service to about 40,000 customers. Voice-over Internet Protocol (VoIP) has become a popular choice for customers, as it routes voice conversations over an IP network eliminating some long distance charges. DIS has seen an 800% growth in VoIP in the past two years.



State Network Bandwidth and Usage

"Not only do we have network technicians who are getting notifications to go in and look, but the call center agents have the ability to see what is happening on the network too."

-Claire Bailey



## State Data Center

*99.75% availability*

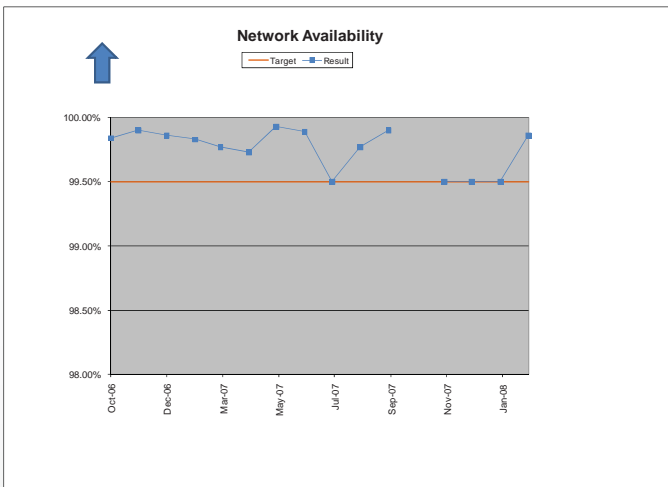
The State Data Center is managed by a DIS team of operations, network, and systems professionals. The data center is available 24 hours a day, seven days a week, 365 days a year. The data center is protected by redundant sources of power and cooling.

DIS provides operational support to critical state systems that are hosted in the State Data Center, such as revenue and tax systems, the Arkansas Crime Information Center (ACIC), Department of Human Services Child Reporting and Information System, Arkansas Public School Computer Network (APSCN), Unemployment Insurance, and many more.



## Call Center

Through our call center staffed with seven call center agents, DIS provides a centralized technology point of contact for customers 24 hours a day, seven days a week, 365 days a year. DIS also provides the State Operator, who received 41,125 calls in 2008.



**Total number of trouble tickets created in 2008**  
84,531

**Tickets resolved in the Call Center**  
10,050

**Tickets resolved by other DIS Teams**  
35,198

**Tickets created and managed through automation**  
37,711 (44.47%)

## Enterprise Storage

More than 40 TB  
(terabytes)

*one terabyte equals 1,024 gigabytes or one trillion bytes*

### 2008 Upgrades

- Mainframe and Operating System
- Enterprise Storage
- Monitoring Systems
- Exchange E-mail Hardware



### Adding efficiencies

Over the last year, DIS Teams have worked on multiple upgrades to ensure that our agency works more effectively for our customers. In February 2008, DIS migrated to a new mainframe and upgraded the mainframe operating system. These upgrades provide enhancements for customers hosting systems on our mainframe, such as upgraded system management, more engines and expanded support, new address space, better workload management, and support features that allow for precise control of resource allocation.

DIS Teams also worked to upgrade Enterprise Storage Environments, including Enterprise Disk Storage Servers and Enterprise Tape System. The upgrade of the Enterprise Disk Storage Servers allowed us to reduce our energy footprint to support the green IT initiative, while increasing availability, performance, and capacity in the backend storage environment, as well as decreasing costs. Currently, this environment hosts a total storage capacity of more than 40 Terabytes (TB).

The upgrade of the Enterprise Tape System included refreshing the virtual tape system and library, replacing an aging infrastructure no longer capable of handling security and compliance requirements necessary for the current IT environment. The new tape system provides a 40% increase in performance and a 67% increase in capacity. Security was enhanced dramatically through the use of encryption capable tape drives. All state data entering the Enterprise Tape System is now encrypted to protect critical information.



## Exchange E-mail

In 2008, DIS Windows Support Teams performed a hardware upgrade on Microsoft Exchange servers, which increased capacity and performance for Exchange E-Mail. In order to keep our Exchange E-mail up and running in the instance of an outage, we are also currently working to procure a failover hotsite for Exchange E-mail.

## Anti-virus and Spam E-mail Solution

In the first quarter of 2008, DIS deployed a new primary spam and anti-virus e-mail solution. The new product quarantines e-mail messages delivered to arkansas.gov users that are identified as spam, viruses, phishing, etc.

The new spam and anti-virus e-mail solution works through a two phase approach. If the sending server is known or tagged as a spammer, the connection is dropped. If the connection isn't dropped, the message will go through the anti-spam profiler which then evaluates the message for possible spam. On a daily basis, 2,026,085 connections are dropped and 87,349 messages are quarantined.

**Arkansas.gov  
Exchange E-mail**  
18,885 mailboxes hosted

**Messaging Traffic**  
7,360,000 messages sent  
and received (per month)

**Spam e-mails  
quarantined**  
2 Million (average per  
month)

**Exchange E-mail  
uptime for 2008**  
99.99%

	2007	2008	Increase
Exchange e-mail boxes hosted	17974	18885	5%
Messages sent and received per month	6,423,000	7,360,000	13%

## Strategic Goal One: *Operational Excellence*

### Field support

The DIS Field Support Team provides desktop, server, and local area network support for K-12 education customers, as well as other DIS customers as needed. Nine remote field technicians are geographically located to provide maximum assistance to all school districts. These field techs support 263 Arkansas Public School Computer Network (APSCN) customers.

Four lead technicians are stationed at the Call Center in Little Rock to provide immediate professional assistance to customers and to assist the other field technicians when on location.

On average, 57 school districts are assisted via direct on-site support each month. The nine field support team members manage an average of 207 trouble ticket assignments per month.

The field Support Team provides technical training and workshops for K-12 customers. In 2008, the team provided more than 30 network and security workshops to schools through the Educational Cooperatives. The team plays an integral role in election support and cross-training for other DIS team members that assist with election support.

Last year, field support team members responded to two State Emergency Support Function Level 2 (ESF2) events, including the February 5th tornadoes and Hurricane Gustav response at Fort Chaffee.



*"We are very grateful for the election assistance that DIS has provided over the last couple of years. DIS employees worked*

*many long hours, providing technical assistance and testing in counties across the state which resulted in successful Arkansas elections in 2008."*

- Secretary of State  
Charlie Daniels

### Election Support

2008 was a busy political year with three elections. DIS provided technical support, including logic and accuracy testing of electronic voting machines, to counties across the state.

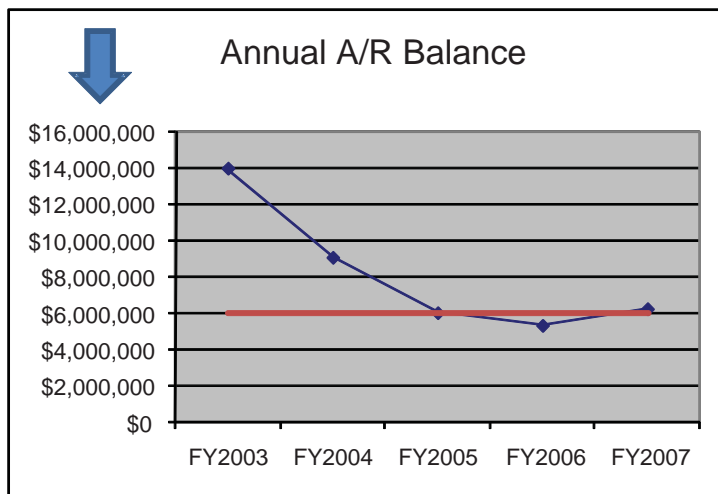
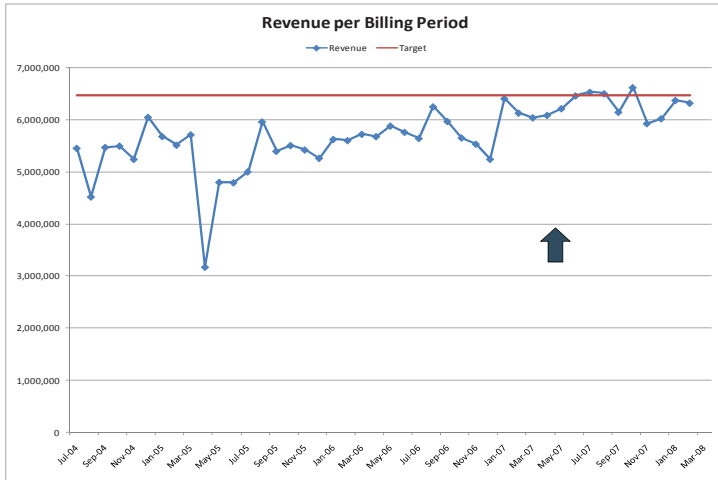
*"The Faulkner County Clerk and the Election Commission would like to express our thanks for the site support during the general election. Louis was our support person, and we couldn't have asked for better support. Again we would like to send our thanks to you and your agency for the great support."* -Faulkner County Clerk Melinda Reynolds

## 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 all 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.



	2007	2008	Increase
<b>Total Revenue</b>	\$75,098,026.61	\$79,888,027.01	6%
<b>Billed Customers</b>	367	382	4%
<b>Rebates</b>	\$2,500,000	\$5,905,490	42%

## Strategic Goal Two: *Financial Excellence*

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



In 2008, DIS negotiated a new disaster recovery contract. Two qualified vendors submitted bids for the new contract. Through the bidding and negotiating process, DIS was able to upgrade our server requirements and save a total of \$142,704 (\$71,352 annually) with the new two year contract.



## Strategic Goal Two: *Financial Excellence*

### Fiscal Year 2008 Budget

	ACT 794 - FY 2008	Budgeted Amounts of the FY2008 Operating Period						DIS Budgeted Amounts
Description	Authorized	DIS - Operations	Security & Compliance	GIS	GIS Office Operations	Flood Map - Federal	GIS Total	FY2008
Regular Salaries	\$14,923,335.00	\$14,295,174.00	\$251,645.00	\$312,311.00	\$-	\$-	\$312,311.00	\$14,859,130.00
Extra Help	\$170,000.00	\$164,000.00	\$-	\$6,000.00	\$-	\$-	\$6,000.00	\$170,000.00
Personal Services Matching	\$4,196,330.00	\$3,896,743.00	\$57,388.00	\$84,515.00	\$-	\$-	\$84,515.00	\$4,038,646.00
Overtime	\$66,000.00	\$66,000.00	\$-	\$-	\$-	\$-	\$-	\$66,000.00
Labor Related	\$19,355,665.00	\$18,421,917.00	\$309,033.00	\$402,826.00	\$-	\$-	\$402,826.00	\$19,133,776.00
Operating Expenses	\$10,545,696.00	\$10,519,905.00	\$-	\$21,491.00	\$-	\$4,300.00	\$25,791.00	\$10,545,696.00
Conference & Travel Expenses	\$234,521.00	\$214,321.00	\$-	\$10,000.00	\$-	\$10,200.00	\$20,200.00	\$234,521.00
Professional Fees	\$631,500.00	\$631,500.00	\$-	\$-	\$-	\$-	\$-	\$631,500.00
Data Processing	\$8,623,866.00	\$8,406,866.00	\$-	\$115,000.00	\$-	\$102,000.00	\$217,000.00	\$8,623,866.00
Capital Outlay	\$3,626,000.00	\$3,500,000.00	\$-	\$120,000.00	\$-	\$6,000.00	\$126,000.00	\$3,626,000.00
Telecom Tech Delivery	\$35,950,929.00	\$35,950,929.00	\$-	\$-	\$-	\$-	\$-	\$35,950,929.00
Geostor & Framework	\$250,000.00	\$-	\$-	\$-	\$250,000.00	\$-	\$250,000.00	\$250,000.00
Non-Labor / Operating	\$59,862,512.00	\$59,223,521.00	\$-	\$266,491.00	\$250,000.00	\$122,500.00	\$638,991.00	\$59,862,512.00
Total DIS	\$79,218,177.00	\$77,645,438.00	\$309,033.00	\$669,317.00	\$250,000.00	\$122,500.00	\$1,041,817.00	\$78,996,288.00
		Cost Recovery	General Revenue	Misc. Agencies Fund	Trust	Federal		

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 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	GIS	GIS Office Operations	Flood Map - Federal	GIS Total	Recommendations
Regular Salaries	\$15,221,678.00	\$14,576,300.00	\$285,950.00	\$345,650.00	\$-	\$-	\$345,650.00	\$15,207,900.00
Extra Help	\$170,000.00	\$164,000.00	\$-	\$6,000.00	\$-	\$-	\$6,000.00	\$170,000.00
Personal Services Matching	\$4,258,599.00	\$3,696,922.00	\$61,100.00	\$85,957.00	\$-	\$-	\$85,957.00	\$3,843,979.00
Overtime	\$66,000.00	\$66,000.00	\$-	\$-	\$-	\$-	\$-	\$66,000.00
Labor Related	\$19,716,277.00	\$18,503,222.00	\$347,050.00	\$437,607.00	\$-	\$-	\$437,607.00	\$19,287,879.00
Operating Expenses	\$10,545,696.00	\$10,519,905.00	\$-	\$21,491.00	\$7,776.73	\$4,300.00	\$33,567.73	\$10,553,472.73
Conference & Travel Expenses	\$234,521.00	\$214,321.00	\$-	\$10,000.00	\$-	\$10,200.00	\$20,200.00	\$234,521.00
Professional Fees	\$631,500.00	\$631,500.00	\$-	\$-	\$-	\$-	\$-	\$631,500.00
Data Processing	\$8,623,866.00	\$8,406,866.00	\$-	\$115,000.00	\$21,195.26	\$102,000.00	\$238,195.26	\$8,645,061.26
Capital Outlay	\$3,626,000.00	\$3,500,000.00	\$-	\$120,000.00	\$-	\$6,000.00	\$126,000.00	\$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	\$-	\$420,000.00	\$420,000.00
Non-Labor / Operating	\$59,862,512.00	\$61,279,161.03	\$-	\$266,491.00	\$448,971.99	\$122,500.00	\$837,962.99	\$62,117,124.02
Total DIS	\$79,578,789.00	\$79,782,383.03	\$347,050.00	\$704,098.00	\$448,971.99	\$122,500.00	\$1,275,569.99	\$81,405,003.02
		Cost Recovery	General Revenue	Misc. Agencies Fund	Trust	Federal		

## Strategic Goal Two: *Financial Excellence*

### Miscellaneous Appropriations for Fiscal Years 2008 & 2009

Miscellaneous Appropriations - DIS		Authorized	Available 12/18/08	FY08 & FY09
5900046	Equipment Acquisitions	\$3,500,000.00	\$3,131,832.58	\$3,131,832.58
5900046	Unanticipated Services	\$20,000,000.00	\$-	\$-
5900046	SpyWare Monitoring	\$100,000.00	\$-	\$-
	Total DIS Misc.	\$23,600,000.00	\$3,131,832.58	\$3,131,832.58
Miscellaneous Appropriations - GIS		Authorized	Available	FY08 & FY09
Act 1486	Development Aerial Photos	\$1,600,000.00	\$-	\$-
"	Distribute Aerial Photos	\$375,000.00	\$-	\$-
Act 1514	Centerline File	\$750,000.00	\$-	\$-
	Total GIS Misc.	\$2,725,000.00	\$-	\$-
Re-Appropriation of General Improvement Funding			Available 12/18/08	FY08 & FY09
DIS - ACT 350				
KBJ4702	Statewide Network Core	\$749,029.00	\$351,818.67	\$351,818.67
KBJ4703	Statewide Core Data	\$249,360.00	\$-	\$-
	Total Reappropriation - DIS	\$998,389.00	\$351,818.67	\$351,818.67
OIT - SB346				
	Centerline File Program	\$90,851.00	\$-	\$90,851.00
	Arkansas E-Corridor Prog.	\$3,600,000.00	\$-	\$3,600,000.00
	Total Reappropriation - GIS	\$3,690,851.00	\$-	\$3,690,851.00

### Appropriation Summary for Fiscal Year 2010

Description	Agency	Executive	Legislative
Regular Salaries	\$15,125,936.00	\$15,420,783.00	\$15,420,783.00
# Positions	253	257	257
Extra Help	\$164,000.00	\$164,000.00	\$164,000.00
#Extra Help	18	18	18
Personal Services Matching	\$4,144,601.00	\$4,220,024.00	\$4,220,024.00
Overtime	\$66,000.00	\$66,000.00	\$66,000.00
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	\$58,450,929.00	\$58,450,929.00	\$58,450,929.00
<b>Total</b>	<b>\$101,224,058.00</b>	<b>\$101,594,328.00</b>	<b>\$101,594,328.00</b>

Miscellaneous Appropriations - FY 2010	Authorized
Equipment Acquisitions	\$3,500,000.00
Unanticipated Services	\$20,000,000.00
Total DIS Misc.	\$23,500,000.00

## 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, as well as design solutions using technology innovations to meet our customers' needs.



*AWIN Program Director Penny Rubow and DIS Director Claire Bailey accept the NASCIO 2008 Recognition Award for Outstanding Achievement in the Field of Information Technology*

### **Customer Events**

Throughout the year, DIS conducts events to benefit our customers. These events are typically informational in nature, with topics ranging from what your Blackberry can do for you to new emergency notification technologies. Information technology experts, consultants, and vendors typically speak and participate in the customer events.

DIS Teams and subject matter experts also attend numerous conferences and organizational meetings across the state.

## Strategic Goal Three: *Technology Leadership*



The State Security Office establishes security standards and policies for information technology in state government and serves as the focal point for cybersecurity issues. The State Security Office also coordinates resources to protect multiple governmental organizations such as the Arkansas Continuity of Operations Program (ACOOOP) which oversees and manages the development of disaster recovery plans and continuity of operations plans for state agencies.

In 2008, DIS purchased licenses and began the process of encrypting employee laptops to protect from the loss of information. In the instance that a laptop was lost or stolen, all the sensitive information on the device would be secure.

## Total managed firewalls 1,005

*DIS is currently working to install firewalls on nearly 500 eligible devices.*

## Attacks denied on state network More than 6 Million (daily)

DIS security management professionals offer security solutions to ensure the availability, integrity, and confidentiality of data on state and customer networks.

### The DIS Security Team:

- provides security monitoring of the state network
- provides protection from cyber-threats at the Internet gateway
- monitors and manages router and server security
- operates and maintains 868 firewalls on the state network
- monitors and protects DIS hosted services
- manages encryption to ensure privacy of data on the public network from remote locations
- assists Arkansas Building Authority with physical security within the MAC building

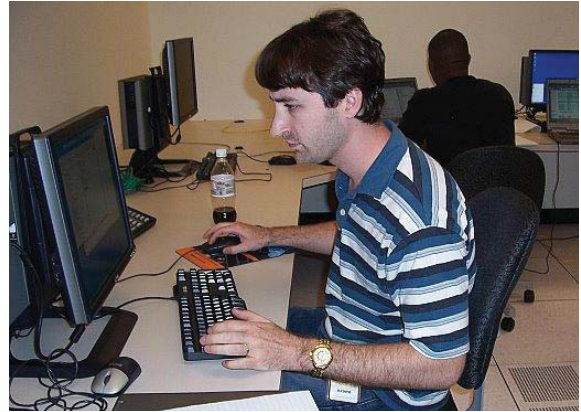




### Arkansas Continuity of Operations Plan (ACOOP)

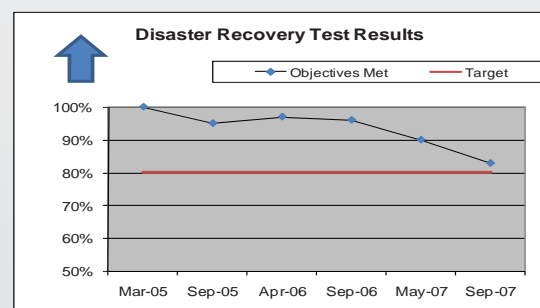
The ACOOP provides a methodology, hardware, software, training, and user assistance for the development, maintenance and testing of all-hazards plans for Arkansas agencies, boards and commissions. These plans are intended to ensure that essential services will continue to be provided after any disruptive event. At this time, more than 700 agency planners are maintaining plans for approximately 100 entities at more than 600 locations in the state.

The ACOOP effort focuses the state on developing plans to minimize the impact of natural and man-made disasters on state operations. The Strohl Systems' Living Disaster Recovery Planning System (LDRPS) is the software tool that facilitates the maintenance of standards and consistency of the hundreds of plans for Arkansas state entities. Behind the scenes, its relational database allows planners to enter data once to be used multiple times in task assignments, reporting structures, call lists, skill sets, and resource requirements. The extensive reporting and analysis capabilities allow the review of critical services across plans and agencies. Work is now underway to identify the dependencies and interdependencies of services provided by these 100 agencies, boards, and commissions. About 400 ACOOP plans are capable of associating any of their data items with physical locations through Geographic Information Systems (GIS) tools.



### Disaster Recovery

DIS has a contract disaster recovery cold-site, which provides physical space for recovery operations for hardware and software systems. DR exercises are performed twice yearly. In 2008, disaster recovery tests were performed in April and September. In April, 24 applications were tested and recovered with an overall grade of 82% (B), and in September, 34 applications were tested and recovered with an overall grade of 85% (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 then an 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: *Technology Leadership*



The Arkansas Wireless Information Network (AWIN) is managed by DIS, AWIN Program Director Penny Rubow, and the Arkansas Interoperable Communications Executive Committee.

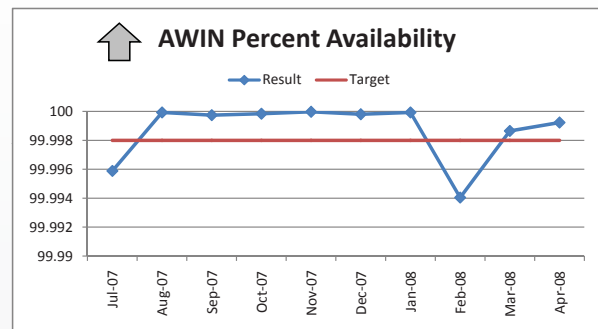
AWIN provides statewide interoperable communications for emergency responders in Arkansas. There are more than 13,000 users of the digital radio system, including first responders and local, county, and state governments. More than 100 tower sites provide a statewide network that allows users in any part of the state to communicate in times of emergencies. More than 22,000 calls are made using AWIN on a daily basis.

The AWIN Systems Support Team provides system management, including engineering support for system monitoring, engineering design and analysis for new projects, and 24 X 7 system support monitoring and on-call phone support.

In 2008, AWIN received national recognition, accepting the National Association of State Chief Information Officers (NASCIO) Recognition Award for Outstanding Achievement in the Field of Information Technology in State Government. The AWIN program was also selected to participate in the National Governors Association Public Safety Interoperability Communications Policy Academy. Arkansas is one of six states participating in the policy academy.

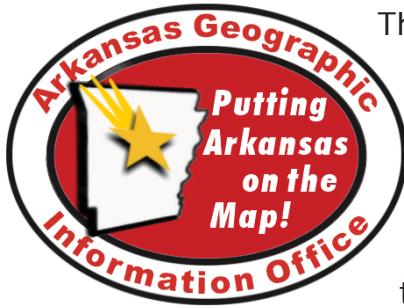
*"The Arkansas Wireless Information Network (AWIN) provides more than 13,000 first responders with a critical tool to protect our citizens. The ability for public safety and emergency responders to communicate in times of crisis is critical, and the AWIN program works daily to meet the needs of first responders in the field. We are proud of the interoperable system that has been implemented with the support of state, county, and local leadership, and we are working to enhance the system and expand capacity for additional users."*

– Governor Mike Beebe



In the first full year of AWIN operations, the original target for system uptime was 95% based on comparative data. AWIN's uptime is so much higher that the target availability was adjusted upward to 99.98%.

## Strategic Goal Three: *Technology Leadership*

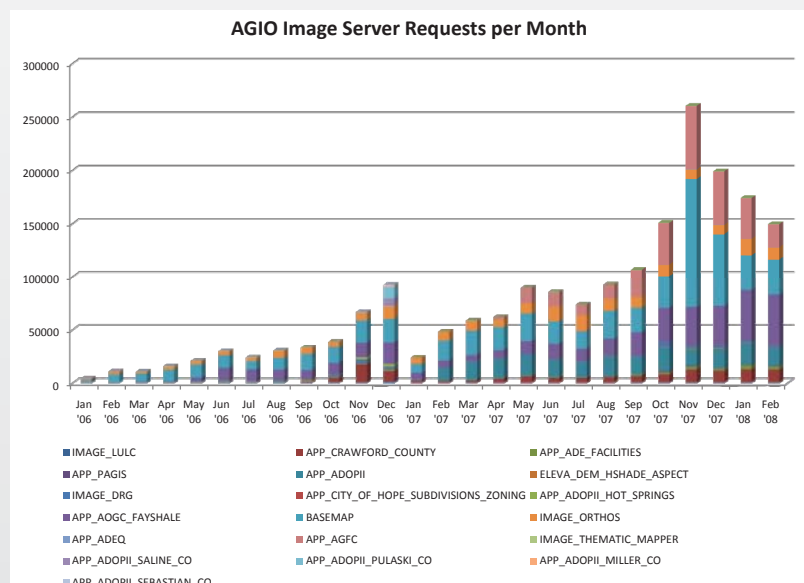


The AGIO was transferred to DIS through Act 794 of 2007. The AGIO coordinates Geographic Information Systems (GIS) and data resources to various entities throughout the state and educates the public about GIS. The AGIO coordinates state and federal geospatial data projects in conjunction with the Arkansas State Land Information Board, which sets policy and strategic direction for geospatial activities in the state.

**Framework Data Development** - The AGIO directs available funds to map framework data, assists local and state agencies in defining technical specifications and standards for collecting, distributing and reporting GIS information, and promotes and maintains awareness of existing and proposed GIS initiatives.

**GeoStor** - The AGIO maintains GeoStor, which is the state's GIS data clearinghouse. GeoStor provides a source to search, access, and retrieve state framework GIS databases. State and local agencies can publish data on GeoStor to reduce duplications and leverage investments. The AGIO collects and publishes metadata information for all publicly funded state, regional, and county mapping projects, and maintains a state GIS data catalog and dictionary to provide seamless coverage of GIS framework data for the state.

**Education** - The AGIO provides continual education of geospatial needs across the state to ensure the growth and expansion of GIS as a strategic resource for Arkansas. The group educates state decision makers, including county judges and assessors, state agency directors, and leaders in the Arkansas Executive and Legislative Branches.



## Strategic Goal Three: *Technology Leadership*

### Green IT

DIS is working in several different areas to lead the green technology initiative for the State of Arkansas. We are currently taking steps toward increasing energy efficiencies in the State Data Center. Extra space in the data center has been closed off and air cooling leaks have been identified and addressed, resulting in better directive airflow and cooling in the data center. Two simple measures cooled temperatures in some areas of the data center by six to eight degrees. We are also researching electrical metering at the racks in the data center for more accurate reads of electrical outputs. DIS Teams are currently identifying and addressing means to reduce power consumption outside the data center, as well as developing administrative policies to support green initiatives.

The need for more green technology is driving planning for data center virtualization. With the virtualization of servers, there is less hardware, less power consumed, and fewer licenses needed to do the same amount of work, resulting in less e-waste, a more green environment, and lower costs.

DIS is also working to reduce internal paper consumption. DIS is participating in the state office paper program, which focuses on recycling junk mail, newspapers, magazines and more. Other sensitive documents are shredded and recycled. Goals are also in place to implement paperless detailed customer billing.



### Working with the State Technology Council

DIS works closely with the Arkansas State Technology Council, which is chaired by the state Chief Technology Officer (CTO) and DIS Director Claire Bailey. The State Technology Council was created through Act 751 of 2007. Six technology professionals serve on the council, including members from the public and private sector. The council is responsible for approving information technology standards and specifications for state agencies, a state technology plan that establishes a mission, goals, and objectives for the use of information technology in the state, and technical standards to support the state's shared enterprise architecture.

DIS is building a strong relationship with the State Technology Council and is working to increase collaboration regarding IT across state government in order to make the most of state IT dollars, increase operational efficiencies, and eliminate redundancies.





The E-Rate Program for schools and public libraries provides discounts and reimbursements to eligible entities for technology expenditures used to facilitate education of K-12 students and service library patrons. DIS assists schools and libraries in filing applications for the E-Rate program. State entities received \$12,060,692.41 for the 2006-2007 school year through the participation of schools and libraries. In 2008, 100% of eligible Arkansas schools participated in the E-Rate program.

DIS also assists the state in applying for funds through the Rural Health Care program, filing and managing the receipt of \$138,003.51 for rural health care providers.



V-Net is the state's interactive video network that supports K-12, higher education, health care, and administrative applications, which includes tele-medicine, distance learning, tele-justice, and tele-government. The total number of VNet endpoints doubled to more than 520 within the last Fiscal Year. Conference hours have peaked at 20,000 hours per month with 310 conferences conducted per day.

In 2006, the V-Net was listed as one of the "101 Best Practices" by Campus Technology Magazine.



## *A future look*

### State Data Center

Late in 2008, as a result of studies performed on the current statewide data center and network, DIS received approval to procure preliminary design services for a new mission critical Tier III State Data Center facility to benefit the State of Arkansas. 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.

DIS is currently working across state government to research ways to design and provide a mission critical data center facility to benefit all agencies, boards, commissions and Arkansas citizens utilizing state technology services. A requirements analysis and feasibility study for a new Tier III data center will provide preliminary plans and specifications for budgeting, analysis of computer and network hardware space, power needs, security, and site location, cost estimates, and other critical information.



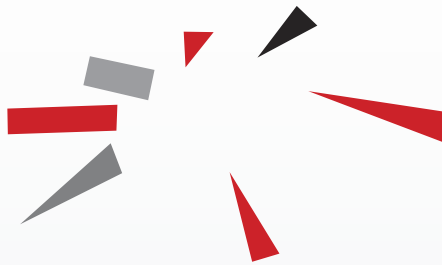
### Emergency Notification

In looking at the need for disaster event preparation, DIS is working with the Arkansas Department of Emergency Management (ADEM) to implement an emergency notification system. In the event of a disaster, or a situation that requires the need for mass notification, the web-based system will deliver messages to DIS and ADEM employees, as well as the Governor's office staff and Cabinet members. Messages may be sent via text message, voice notification to a cell or land-based phone, or email.



## Optimization Study

In 2009, DIS will work to analyze findings in a Core Infrastructure Optimization Study that was performed and presented in December 2008. The study provides the basis for a comprehensive infrastructure optimization improvement plan, and presents opportunities for improvement, a roadmap of recommended improvements, cost estimates, value and return on investment. The improvements recommended in the optimization study could potentially save a significant amount of IT dollars for the agency and the state.



## DIAMONDS

### Customization of billing system

DIS is focusing on our vision of customer satisfaction every time. It was realized in 2008, that the DIS Invoicing, Asset Management, Order Notification and Delivery System (DIAMONDS) used for customer billing was in need of some updates. Our customers provided us feedback on the system, and we listened. DIS Teams will continue to work to make DIAMONDS a user-friendly system for our customers.



## STARNet

The next generation State of Arkansas Network, or STARNet, is the vision for the collaboration of current disparate networks across the state. These networks include, but are not limited to, the state network, Arkansas Wireless Information Network (AWIN), and Arkansas Research and Education Optical Network (ARE-ON). The successful implementation of STARNet will require synergy and collaboration between the state leaders, higher education, and all branches of state government partnering with the vendor community.

In 2008, DIS worked with consultants to prepare a data network assessment. The final report provides a view of our current environment, the vision for STARNet, an approach to implementation, recommendations, funding projections, and other considerations. Connecting disparate networks would allow the state to provide a greater level of service to citizens and customers, promote interoperability between agencies and institutions, and would ultimately stimulate economic development through new technology and extended connectivity into rural Arkansas.

[www.dls.arkansas.gov](http://www.dls.arkansas.gov)