

# State of Arkansas Strategic Plan for Information Technology

Fiscal Years  
2014-2015

October 30, 2013

It is my pleasure to present the Arkansas State Technology Council's (STC) State of Arkansas Strategic Plan for Information Technology 2014-2015. This plan showcases the strategic initiatives of state agencies in the area of information technology (IT) throughout state government as well as identifies technology business drivers and trends such as broadband affecting Arkansas.

With a focus on broadband, the 89th Arkansas General Assembly, Regular Session 2013, Act 1168 created a state broadband manager. As the director of the Department of Information Systems, I am pleased to serve as the single point of contact to promote, develop, and coordinate broadband

expansion and appropriate broadband infrastructure for all areas of the state. In July, Governor Beebe appointed a task force, FASTER (Fast Access for Students, Teachers and Economic Results) to study schools' broadband access availability statewide to support Common Core state standards in public schools. Sufficient broadband availability is also the cornerstone of The Digital Learning Act of 2013. The House Committee on Education and the Senate Committee on Education implemented a comprehensive study in collaboration with the Department of Education, the Department of Information Systems, and Arkansas service providers on methods to establish and maintain the necessary infrastructure and bandwidth to sufficiently facilitate and deliver a quality digital learning environment in each school district and public charter school. The final report is due no later than December 1, 2014.

On the federal level, President Obama announced in June, the ConnectED initiative to connect 99 percent of America's students to the Internet through high-speed broadband and high-speed wireless within five years calling on the Federal Communications Commission (FCC) to modernize and leverage the existing E-rate program to meet the goal. In July, the FCC launched this modernization to deliver students and teachers access to high capacity broadband nationwide.

With guidance and support from the executive and legislative branches, we continually strive to meet the strategic goals of this plan by focusing on solutions that drive innovation, maximize efficiencies, and are responsive to a consumer driven government. Leveraging and maximizing the knowledge, experience, and skills of the state's IT professionals is another key factor essential to build upon the foundation that has already been established and set a course for the future of IT in Arkansas.

On behalf of the STC, I look forward to working collaboratively across agency boundaries to advance the goals and strategies presented in this plan.

Sincerely,



Arkansas Chief Technology Officer  
Director, Arkansas Dept. of Information Systems





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# Executive Summary

Arkansas has been fortunate in its ability to remain on sound fiscal footing but continues to balance a growing demand for delivering services to citizens against the budget challenges faced in today's economy. With belt-tightening measures in place, tough decisions must be made on how to best prioritize agency and statewide investments in technology.

Chief among these considerations is the need for the state's technology infrastructure to be reliable, resilient, and secure. Beyond infrastructure, agencies' service delivery models must be responsive to the needs of Arkansans. Adopting cost-effective and efficient methods for delivering services is a key priority for the state. From strengthening the state's technology infrastructure to innovating delivery of citizen services, the value of all investment decisions must be demonstrated.

Arkansas stands as a leader in delivering effective, responsive, and trusted government services and information through flexible and secure technology solutions.

With guidance and support from the executive and the legislative branches, the 2013-2014 Strategic Plan for Information Technology reflects an effort by technology leaders within state agencies from all facets of state government to work together to shape a vision for Arkansas that delivers effective, flexible, and trusted services through a safe and secure technology infrastructure.

Each biennium, state agencies, boards and commissions participate in statewide technology planning that culminates with the creation of a strategic plan for information technology detailing both initiatives and projects for future technology investments. The projects and plans are analyzed to identify opportunities that support the governor's strategic vision and 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

The state's investment in technology must reinforce the vision that guides us toward reaching these goals and must leverage technology to maximize efficiency in state government.



**Gov. Mike Beebe and  
First Lady Ginger Beebe**

The categories of information collected during the planning process are:

- Current inventory of hardware and software
- Projected purchases of hardware and software
- Projected IT projects
- Major applications utilized
- Aspects of compliance, security, and facilities for hosted data
- Share services

This strategic plan outlines these five major goals and reinforcing actions to assist the state in achieving a 21st century government capable of providing excellent customer service.

## Our Mission

The Arkansas State Technology Council provides statewide leadership with representation from both sectors, private and public, to promote cost savings, elimination of needless redundancies, and better support of state government services and operational efficiencies. The council will also strive to identify and support cost-effective innovation.

## We Strive To Be

### **SERVICE ORIENTED**

Partnering with public service entities, technology stakeholders, and citizens

### **LEADERS**

Working with public service providers to move Arkansas forward

### **FACILITATORS**

Communicating effectively with public service entities, technology stakeholders, and citizens

### **UNIFIERS**

Continually looking across public services to unify service delivery and ease of access for citizens

### **INNOVATORS**

Seeking and facilitating innovation in service delivery and ease of access for citizens

## Principles of State Technology

To advance sustainable technology solutions and strategies, our principles include the following:

- Connecting citizens to government through expanded engagement and access to services using mobile technologies
- Innovation and improved service delivery methods through strategic partnerships and transformative technologies
- Integration and identification of Shared Services opportunities to reduce complexity, redundancy, and costs
- Bolstering the trust of citizens by strengthening the state's technology infrastructure and privacy practices
- Delivering cost-effective and efficient results through appropriate technology solutions
- Improve state government through data management-managed as a state asset, enable openness, transparency and share data to enhance its value

## Legislation

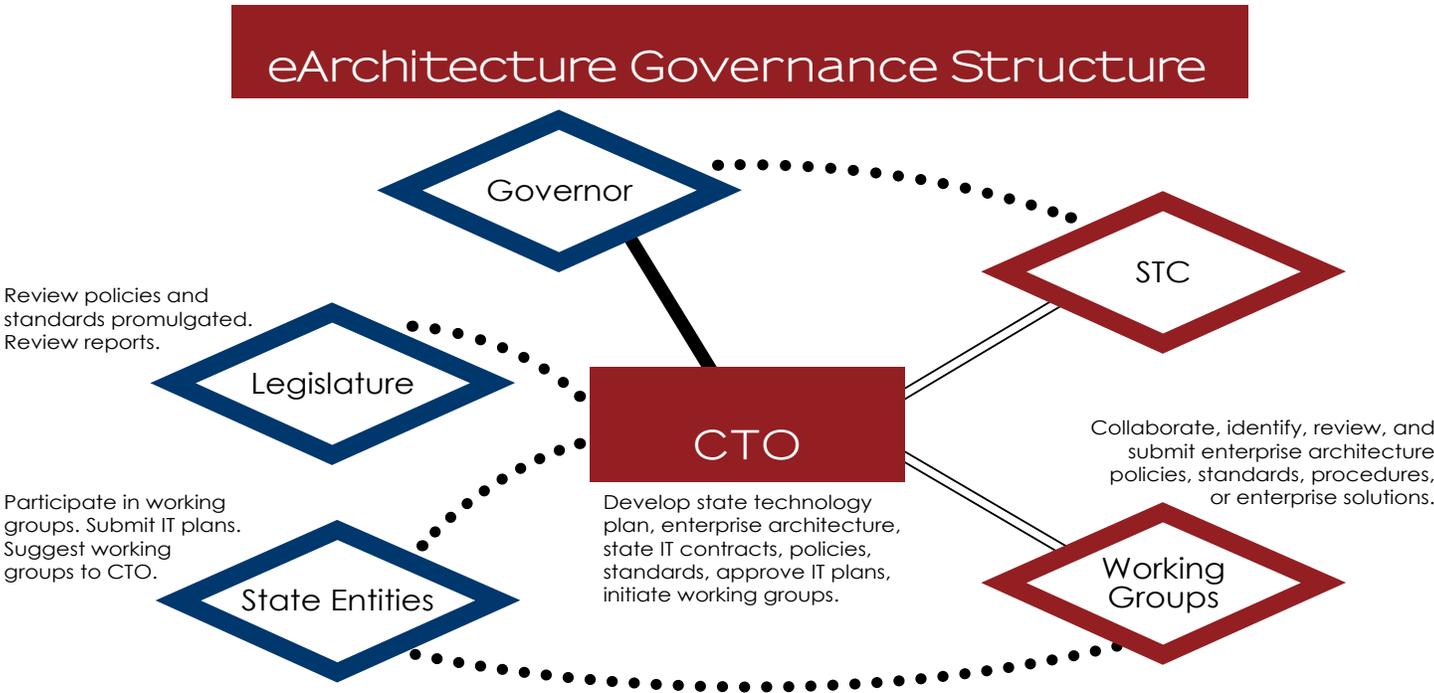
Formed in 2007 through Act 751 of the 86th Arkansas General Assembly, the Arkansas State Technology Council (ASTC) consists of members from the Arkansas Department of Information Systems, Department of Finance and Administration, and four members appointed by the governor. Two of the appointees represent the public sector and two appointees represent the private sector. The goal of this all-inclusive representation from across the state is to provide insight to technology services and efforts, as well as to focus on improving the delivery of public services.

Through Act 648 of 2009, the state realigned the technology governance structure. This centralized technology standards development and oversight helps to ensure maximum operational and cost effective use of technology. The information technology planning function is guided by the chief technology officer. Tasked with the implementation and oversight of enterprise architecture, a key goal of the State Technology Council is to review and approve the state's enterprise architecture and identify technology strategies.

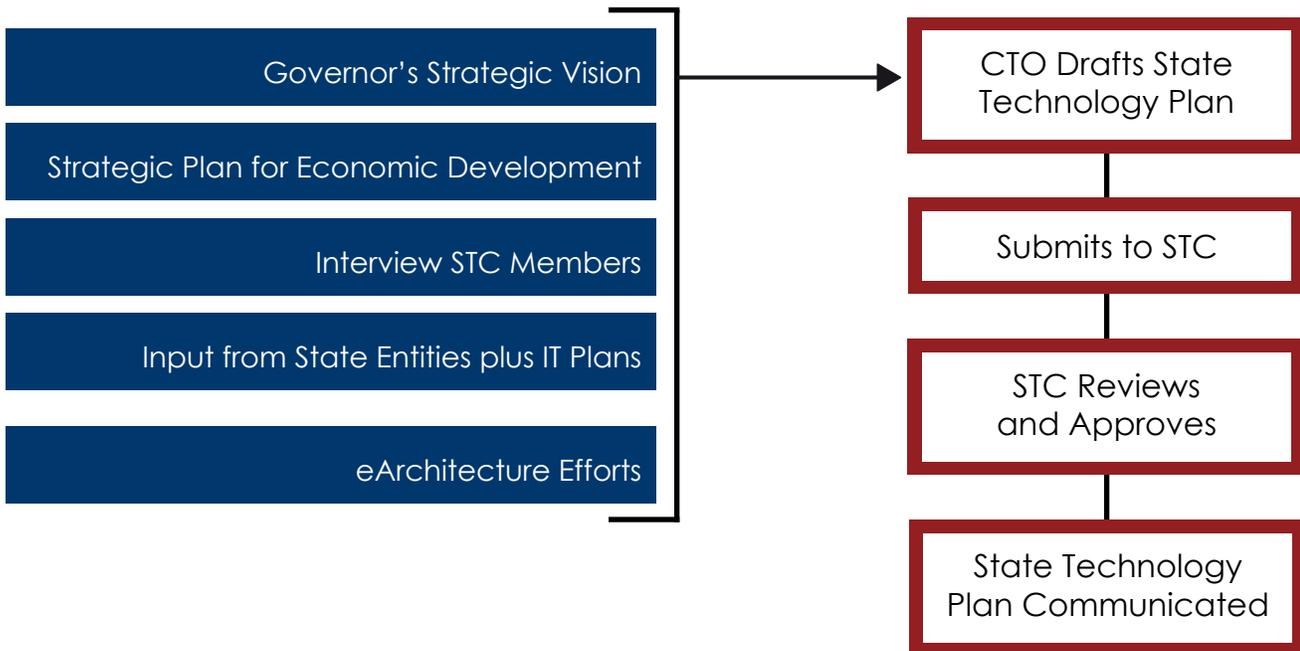
The following is technology related legislation from the 89th Arkansas General Assembly in 2013:

Act Number	Official Title
Act: 1454	An act for the secretary of state - public notice calendar and broadband services enhancements and appropriation for the 2013-2014 fiscal year.
Act: 1280	To provide digital learning opportunities in public schools.
Act: 1431	To amend provisions of Title 6 of the Arkansas Code concerning cyberbullying of public school staff.
Act: 308	To amend the procurement requirements for nonvisual access technology; and to declare an emergency.
Act: 623	To assist the administration and collection of 911 emergency phone system charges; and to regulate contributions from prepaid wireless phone users.
Act: 862	An act for the University of Arkansas at Monticello - Crossett campus - broadband expansion general improvement appropriation.
Act: 865	An act for the University of Arkansas at Monticello - McGehee campus - broadband expansion general improvement appropriation.
Act: 442	To ensure continued broadband expansion in rural areas within the state; to provide 911 emergency service to rural areas within the state; to enhance the 911 emergency system and assist its funding; and to declare an emergency.

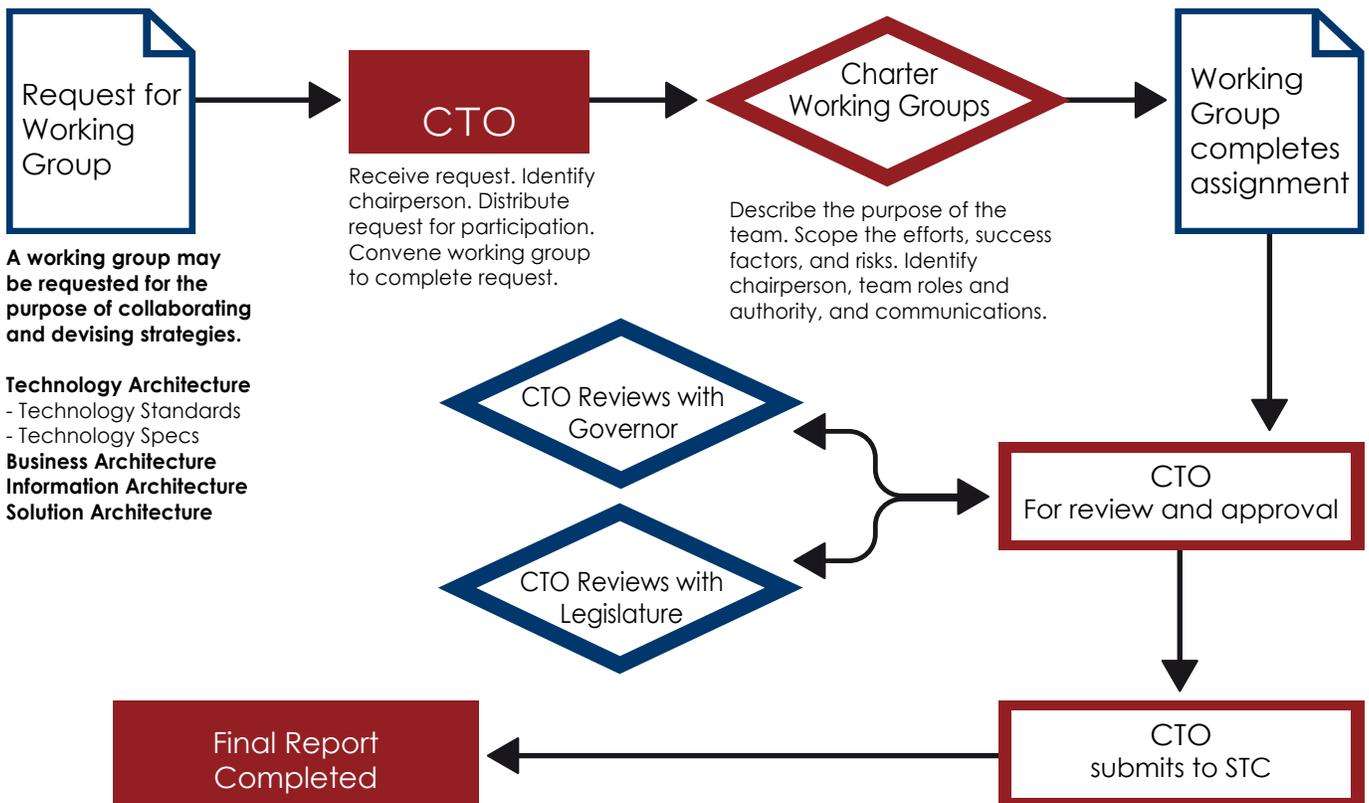
Act Number	Official Title
Act: 1168	To create a state broadband chair or other mechanism or entity to promote, develop, and coordinate broadband expansion and appropriate broadband infrastructure for all areas of the state.
Act: 1171	To establish the Arkansas Blue Ribbon Committee on local 911 systems.
Act: 276	To establish the Arkansas Video Service Act; and to declare an emergency.
Act: 1492	To amend the criminal offense of cyberbullying, 5-71-217.



## State Technology Council Member Role in Approving State Information Technology Plan



## eArchitecture Governance Workflow



# Goals and Strategies

As part of the information technology planning process to coordinate efforts across state agencies, boards, and commissions, the State Technology Council aligns with the governor's strategic vision to produce a business strategy-based methodology to the service needs of the public.

## Goal 1 Improve Education for Arkansans

Providing excellence in education is imperative to the success of Arkansas. Technology can be utilized to create new opportunities in teaching and learning by integrating networking and digital and audio visual technologies. Offering improved access to education will open the doors for increased participation and higher quality education overall. Projects such as enhancing the YOUiversal portal for non-traditional students to apply for aid, electronically consolidating educational transcripts and implementation of a new scholarship application system are among the many ways in which technology can assist in improving education for all Arkansans.



Initiatives and projects such as Arkansas Research and Education Optical Network (ARE-ON), Arkansas Public School Computer Network (APSCN), Partnership For Assessment of Readiness For College and Careers (PARCC), Faster Access for Students, Teachers and Economic Results (FASTER), and the distance learning/video conferencing network support the governor's goal to improve education in Arkansas.

## Goal 2 Improve Economic Development

Governor Beebe's Strategic Plan for Economic Development postulates that all economic development endeavors are interconnected by five interdependent components: workforce development, business development, infrastructure, competitive business climate and collaborative partnerships. Each component is augmented by a vast array of resources-people, capital, entities and policies-that effectuate economic development.

Governor Beebe's five goals for economic development are:

- Increase the incomes of Arkansans at a growth pace greater than the national average.
- Expand entrepreneurship, focusing on knowledge-based enterprises.
- Compete more efficiently in the global marketplace for new businesses and jobs, and create a business retention strategy to reduce closures.
- Economic development will meet the special needs and take advantage of the extraordinary assets of various areas of the state. It will not be a one size fits all.
- Increase the number of workers with post-secondary training so they are prepared when they enter the workforce and equipped for new jobs in the future.



## Goal 2

## Improve Economic Development (continued)

Arkansas, while not immune from the effects of rising unemployment and economic uncertainty, has fared remarkably well among its state peers. The Center on Budget and Policy Priorities identified Arkansas as one of only eight states that did not face state budgetary shortfalls for fiscal year 2012. In fact, the 88th General Assembly passed several tax cuts, including one-half cent sales tax cuts on groceries and energy used by manufacturers during the manufacturing process, that were signed into law by Governor Mike Beebe.

A focus on building an even stronger infrastructure fosters the opportunity for technology to play a fundamental role in putting Arkansans back to work and increasing business and tourism to the state. Technology improvements, such as implementing a governance model to track spending and progress of awarded grants, will assist in fund management. Economic Development's Incentive Tracking project supports this initiative. Upgrading the state data center will control costs while remaining competitive resulting in higher reliability and availability.



## Goal 3 Increase Efficiency in State Government

Efficiency is an accomplishment or ability to accomplish a job with minimal expenditure of time and effort. Technology can play an integral role in enhancing efficiency through automation of processes and centralizing information for easier access. Expanding citizen access to the state's financial data, online resources for driver's license and motor vehicle information, career opportunities with the state, and locating unclaimed property are among the initiatives increasing government efficiency and accelerating Arkansas as a digital state.

Focusing on the strategic goal of improving operational efficiency, Arkansas is increasingly becoming more agile in transforming IT concepts into fully functioning applications that make public information and services more accessible to citizens and maximize state resources.

Initiatives and projects such as the Department of Finance and Administration's Arkansas Integrated Revenue System (AIRS), Arkansas Courts Automation Project, database upgrades for Arkansas Manufactured Home Commission, Arkansas Psychology Board, and Burial Association Board, and document management projects for Arkansas Natural Resources Commission, Arkansas State Board of Chiropractic Examiners, and Arkansas Department of Correction support this goal.

## Goal 4

## Improve Citizen Access

Technology is at the forefront of information and service delivery and is vital to improving citizens' access to government. It is critical that information is delivered in a timely manner. In our world of constant change, delivering out-of-date information is unacceptable. Timely access to government services is increasingly important.

The state transparency web site, [Transparency.Arkansas.gov](http://Transparency.Arkansas.gov), provides the public with a single resource for where the state, their city, town and school district get their money and how they spend it. Information Network of Arkansas (INA) improves online citizen and business access to public services and maintains and hosts the state's official website, [Arkansas.gov](http://Arkansas.gov).

Several innovative initiatives and projects align with the governor's strategic goal of improving citizen access to health services as Arkansas, especially in rural areas, will have greater access to a more agile system for delivering emergency care and greater and better health care resources. These include the Arkansas Trauma System which links hospitals, doctors and ambulances and enables personnel to track availability of doctors and services at participating hospitals allowing transport of the patient more quickly to the appropriate facility for emergency care and the Arkansas e-Link project exists as Arkansas's answer to comprehensive community broadband improvements in hospitals, clinics, community colleges and a number of other participating community facilities throughout the state.

## Goal 5

## Protect the Environment

Arkansas takes pride in its nickname "The Natural State" and Arkansans are extremely proud of their state and want to protect the environment for all future generations. Technology is an essential factor in these efforts. As green efforts continue to grow, technology can play a meaningful role, for example, in the establishment of monitoring programs to measure success. In addition, strategies can be deployed for the replacement or recycling, or environmentally friendly disposal of electronic equipment throughout the state. Above all, government employees utilizing environmentally friendly efforts will undoubtedly set a solid example for all Arkansans to adopt.

Public buildings offer prime opportunities for reducing energy use while saving taxpayer dollars. More energy efficient government buildings allow public entities to spend more on public services and less on utility bills. Executive Order 09-07 by Governor Beebe created a comprehensive approach for reducing energy usage within state facilities.

Examples of initiatives and projects to support goal five include Arkansas Department of Environmental Quality's mobile applications for the public to submit a complaint from a mobile device using a form and way to send a picture and Arkansas Forestry Commission's smartphones for county foresters and rangers provide mapping and location information critical to fighting wildfires to help reduce fire response time and increase personnel safety.



# State Enterprise Initiatives

P - primary category O - secondary category	Goal 1 Improve Education	Goal 2 Economic Development	Goal 3 Government Efficiency	Goal 4 Citizen Access	Goal 5 Protect Environment
State Initiatives					
American Recovery and Reinvestment Act (ARRA)	O	P	O	O	O
Arkansas Courts Automation Project (ACAP)			P	O	O
Arkansas Geographic Information Office (AGIO)		P	O	O	
Arkansas Integrated Revenue System (AIRS)			P	O	O
Arkansas Open Checkbook/Financial Transparency			O	P	
Arkansas Research & Education Optical Network (ARE-ON)	P	O		O	
Arkansas Wireless Information Network (AWIN)			P	O	
Arkansas.gov Mobile			O	P	O
Arkansas.gov Portal			O	P	O
Arkansas Burial Board-Database			P	O	
Chiropractic Examiners-Cloud Backup			P		O
Chiropractic Examiners-Document Management			P		O
Chiropractic Examiners-Website Update			P	O	
Community Correction-Virtualization of Desktop			P		O
Connect Arkansas	O	P	O	O	O
Correction-Automated Entrance Monitoring			P	O	
Correction-Document Management			P		O
Correction-Laserfiche			P		O
Economic Development-Incentive Tracking		O	P		
Education-Arkansas Public School Computer Network (APSCN)	P		O		
Education-LDS Data System Enhancement	P		O	O	O
Education-Partnership for Assessment of Readiness for College and Careers (PARCC)	P		O		
Environmental Quality-Mobile Apps			P	O	O
E-rate	P			O	
Fair Housing-Case Processing Database			P	O	
FASTER	P	O		O	
Forestry-Mapping and Activity Database Website			P	O	O
Forestry-Smartphones			P		O
Governor's Workforce Cabinet	P	O	O	O	O
Green Technology Initiative		O			P

P - primary category O - secondary category	Goal 1 Improve Education	Goal 2 Economic Development	Goal 3 Government Efficiency	Goal 4 Citizen Access	Goal 5 Protect Environment
State Initiatives					
Health-BreastCare Billing System			P	O	
Health-Electronic Health Records			O	P	
Health-Food Inspection			P	O	
Health-Immunization Registry			P	O	
Health-Vital Records			O	P	
Health-WIC/EBT			O	P	O
Higher Ed-Arkansas Challenge Data Warehouse	O		P		
Highway-IBM Mainframe to Windows Platform Migration			P		O
Human Services-Admin Services-Enterprise Services Framework			P	O	
Human Services-Admin Services-Enterprise Services Framework (SNAP)			P	O	
Human Services-Admin Services-SNAP E and E			P	O	
Humans Services-AME		O	O	P	O
Human Services-Behavioral Services-Medical Records			P	O	O
Human Services-County Operations-Document Imaging			P	O	O
Human Services-County Operations-Enterprise Data Warehouse			P	O	O
Human Services-County Ops-Enterprise Framework for E and E SNAP		O	O	P	O
Human Services-Medical Services-Document Imaging			P	O	O
Human Services-Medical Services-ICD-10			P	O	
Human Services-Medical Services-Arkansas Health Care Payment			P	O	
Human Services-Services for the Blind-Blind Services Information System			O	P	
Human Services-Youth Services-Distance Learning	P		O		
Information Systems-IPv6 and IPAM			P	O	
Manufactured Home-Database Upgrade			P	O	
Natural Resources-Backup System			P	O	
Natural Resources-Data Communications			P		O
Natural Resources-Document Management			P		O
Next Generation Network	O		P	O	O
Office of Health Information Technology-Health Information Exchange			O	P	O

P - primary category O - secondary category	Goal 1 Improve Education	Goal 2 Economic Development	Goal 3 Government Efficiency	Goal 4 Citizen Access	Goal 5 Protect Environment
State Initiatives					
Parole-Online Parole Hearing Decision Search Application			P	O	
Psychology-Database Upgrade			P	O	
Public Accountancy-Document Management			P		O
Public Employees Retirement System- Replacement of Current Pension Admin System			O	P	
Rural Health Care Program			O	P	O
Science and Technology-Asset II			P		
State Data Center Modernization			P		O
State Police-CDL Improvement			P		
State Police-Cyber Crimes			P	O	
State Police-Data Encryption			P		
State Police-eGrant			P		
State Police-MOVE			P		O
State Police-Records Retention			P	O	
State Police-State Fusion Center			P		
State Police-Video Storage			P		
Workforce Services-FARS			P	O	
Workforce Services-TANF			O	P	O
Workforce Services-Tax 21			P	O	
Workforce Services-UI Claims Conversion			O	P	

## Arkansas Research & Education Optical Network (ARE-ON)

ARE-ON's mission is to promote, develop, and apply advanced application and communication technologies to support and enhance education, research, public service and economic development.

ARE-ON and its members comprise a community of thought leaders focused on collaborative learning and innovation through advanced networking, technology, and research in Arkansas. ARE-ON is a not-for-profit consortium of all public degree-granting institutions in Arkansas and other selected higher education organizations.

ARE-ON provides a high-speed fiber optic backbone network throughout the state with 1Gb and 10Gb Ethernet connections to its members, affiliates, national research and education networks, regional optical networks, and commercial service providers. The network consists of approximately 1500 miles of long-haul fiber optic cable and about 40 miles of metro fiber in nine cities and four neighboring states. ARE-ON's extensive reach allows institutions to connect, collaborate, and innovate within the organization's core agendas: education, telemedicine, research, and emergency preparedness.

## Arkansas Department of Education

### Limited Data Set (LDS) Data System Enhancement

Expansion and improvement initiatives focusing on deploying improved, more visually-oriented, easy to use tools to end users, augmenting data sources, and building of institutional support is the emphasis of this comprehensive, three-year project. Over the next three years, Arkansas will implement a modern visualization interface to the data warehouse using dashboards, visual analysis, and scorecard techniques supplemented by open source initiatives for some targeted solutions. This system will integrate key data collections related to higher education, teacher licensure, teacher professional development, special education, and child nutrition. The expected completion date of this project is December 31, 2013. The total estimated project costs are \$18.99 million. The funding source is 100 percent federal funds.

### Partnership for Assessment of Readiness for College and Careers (PARCC)

PARCC is a multi-state alliance to develop common assessments serving nearly 25 million students. Its work is funded through a \$185 million dollar grant from the U.S. Department of Education. PARCC will help develop the high school component of the new assessment and use it as an indicator of student readiness. PARCC is managed by Achieve, a nonprofit group that works with states to improve student achievement by aligning K-12 education policies with the expectations of employers and the postsecondary community. PARCC's ultimate goal is to make sure all students that graduate from high school are college and career ready. In 2010, Arkansas adopted the Common Core State Standards and became a governing state in PARCC. K-12 and higher education leaders in Arkansas helped to shape PARCC's proposal for a common, next-generation, online assessment system.

## Arkansas Public School Computer Network (APSCN)

APSCN provides a statewide, shared service supporting fiscal and administrative services for public education in Arkansas and is utilized by 270 of the 271 Arkansas school districts. This application continues through fiscal year 2015 with estimated costs of \$21.3 million in FY 2014 and \$22.8 million in FY 2015.

## E-Rate

E-rate is the Schools and Libraries Program of the Universal Service Fund administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC). E-rate provides discounts that assist schools and libraries to obtain affordable telecommunications and Internet access. It is one of four support programs funded through a universal service fee charged to providers of interstate and/or international telecommunications services.

In June 2013, President Obama announced the ConnectED initiative to connect 99 percent of America's students to the Internet through high-speed broadband and high-speed wireless within five years calling on the FCC to modernize and leverage the existing E-rate program to meet this goal.

On July 19, 2013, the FCC launched a modernization of the E-rate program to deliver students and teachers access to high-capacity broadband nationwide. The revitalized E-rate program will focus on 21st century broadband needs of schools and libraries.

The number of applicants increased to 345 with 1463 funding requested in funding year 2013. The total requested funding in 2012/13 is over \$36.9 million. This information includes public and private K-12 districts/schools, public libraries, and the state's applications.

## Fast Access for Students, Teachers and Economic Results (FASTER)

In July 2013, Arkansas Governor Mike Beebe appointed a task force, FASTER (Fast Access for Students, Teachers and Economic Results) to study schools' broadband access availability statewide to support Common Core State Standards in public schools.

## Human Services-Youth Services-

### Distance Learning/Video Conferencing

Distance learning and video conferencing will provide extended education courses to youth who will reintegrate into their communities after periods of time in confinement. Today's technology allows for effective and cost efficient ways of providing service delivery that will prepare youth for secondary education and/or the workforce. The system will also allow for video conferencing between facilities to allow delivery of services from a broad area of providers. The agency will be partnering with the Department of Education's Distance Learning Center. The expected completion date of this project is June 30, 2015. The total estimated project costs are \$397,340. The funding source is 100 percent state general revenue.

## The Governor's Workforce Cabinet:

### Integrating Education, Workforce, and Economic Development

Several state agencies are dedicated to improving Arkansas's educational system and advancing economic development. The Department of Education, Department of Higher Education, and Association of Two-Year Colleges work to ensure that every Arkansan can attain a world-class education in Arkansas. The departments of Career Education and Workforce Services focus on training citizens in technical and vocational skills and then assist Arkansans by linking job seekers with employers. Finally, the Economic Development Commission and Science and Technology Authority work to recruit new businesses and investments to the state, thereby creating new jobs, helping our existing companies grow, and incorporating leading-edge-technology resources to their benefit.



The primary goal of this cabinet is a prepared workforce and a strong state economy. Under the guidance of the Workforce Cabinet, Arkansas Works, the state's College and Career Planning System, was expanded and helps equip students and adults with the skills and education required for opportunities that await them. This online resource provides tools and new information that will guide career and college plans.

## Connect Arkansas

Connect Arkansas is a community-based, economic development initiative that is working to promote and foster the development of broadband education and access throughout Arkansas. On March 28, 2007, Governor Beebe signed the Connect Arkansas Broadband Act into law to facilitate the creation of a competitive broadband infrastructure that will improve personal lives, and also the economic capabilities and prospects of all Arkansans. Connect Arkansas's core mission is to help drive Arkansans to utilize the Internet thus increasing the demand. On a state level, the governor and legislature are developing an understanding on what Internet infrastructure investment may be necessary. As a result, the Arkansas Broadband Council was created, as an independent entity, to make recommendations on this subject. They also have the Cyber Infrastructure Taskforce that is exploring public needs and the importance of Internet in education.

In collaboration with the Arkansas Broadband Advisory Council, Arkansas Health Information Exchange Council, Arkansas State Library System, Arkansas Literacy Council, and pilot e-Communities, Connect Arkansas addresses broadband access and adoption methods, and tracks broadband investment behaviors. It continues to develop and modify broadband strategies and share information on best practices.

## Arkansas Geographic Information Office (AGIO)

The Arkansas Geographic Information Office (AGIO) serves as the functional arm of the Arkansas Geographic Information Systems Board (ACT 244 of 2009). Major activities include providing administrative and technical support to the board. The board supports economic development and an improved quality of life for Arkansas citizens by providing basic spatial data infrastructure, coordinating geographic information activities, and creating short and long-term strategies that will result in improved decision making, effective asset management, and reduced costs. The premier service is GeoStor, which

## Arkansas Geographic Information Office (AGIO) (Cont.)

is the state's geographic information systems (GIS) platform.

AGIO in partnership with counties is publishing data that is created and maintained by the counties. These framework data are vital elements of the state's comprehensive GIS. They include real estate tax parcels showing basic information created by the County Assessor Office. The data is used by the real estate industry and many others. The other two sets of data are the road centerline file and physical address points. These layers are created and used by the E-911 function at the local level. They are shared with the state and reused for a multitude of applications and user that are too numerous to list. All the framework data feeds into a system of web, tablet and mobile map applications managed by the agency. Popular examples of these include:

The Arkansas State Highway and Transportation Department Log Miles app used by state and local law enforcement to accurately record and report motor vehicle accident locations. <http://bit.ly/19ZIIYg>



The Arkansas Economic Development Tax Parcel Viewer app used by Community and Economic Development Officials when conducting research and site visits for potential economic development projects. <http://bit.ly/19Zm1m5>

Log Miles



The Department of Information Systems Next Generation Network app used by the agency to track the order, installation and deployment status of network circuit upgrades to the state's public network. <http://bit.ly/19ZmJQ4>



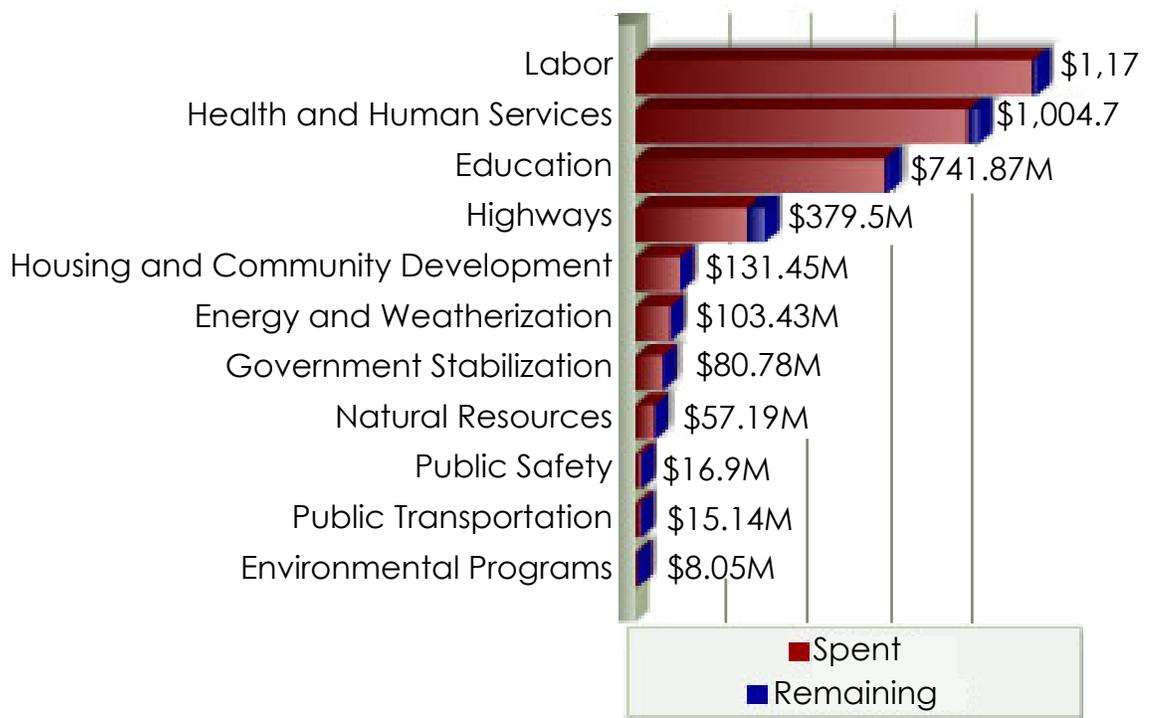
## The American Recovery and Reinvestment Act (ARRA)

Recovery.Arkansas.gov is a web site devoted solely to the ARRA in the Natural State. This site covers a wide variety of projects and programs being funded by the Recovery Act in Arkansas, from broad overviews of major programs such as the Recovery Act's support for education, to vendor-specific information on where and how Recovery Act dollars are being spent. Information on the site is updated as new programs begin, funds are invested in Arkansas's economy and the mission of the Recovery Act is carried out.

As of June 30, 2013, \$3.48 billion had been awarded through ARRA programs in Arkansas. Of this amount, \$3.38 billion had been expended, or 97.13 percent. Expenditures during the quarter alone, reached \$14.3 million.

Source: Arkansas Office of Recovery and Reinvestment, Quarterly Progress Report for the quarter ending June 30, 2013. <http://recovery.arkansas.gov/>

Total Awarded: \$3,717,453,569 Total spent: \$3,605,738,341



Recovery.arkansas.gov as of October 4, 2013

### Arkansas Court Automation Programs (ACAP)\*

Arkansas Court Automation Programs provides technological support to the state's courts, makes court information available to the public, and develops online, court-related services.

Plans to provide statewide jury and case management to all Arkansas courts were put into motion by the Supreme Court in 2001. The program began as a pilot project in circuit and district courts to determine feasibility and suitability of providing uniform case and jury management solutions in a non-uniform judicial system.

With the case and jury management software, the Administrative Office of the Courts can provide additional services to the courts and public. CourtConnect is how the public accesses court records from the jurisdictions where the software has been implemented. eTraffic allows the public to pay traffic tickets to courts using Contexte, the electronic case management system. eFiling allows attorneys and the public to electronically submit court filings. eCitation is a joint project with the Arkansas State Police and other law enforcement agencies to issue and transmit citations to the electronic case management system (Contexte).

\* <https://courts.arkansas.gov/administration/acap>

### Arkansas Integrated Revenue System (AIRS)

AIRS is a multi-phase Integrated Tax Solution (ITS) to replace legacy revenue systems administered at the Arkansas Department of Finance and Administration (DFA)-Revenue. Phase one completed the modernization of the tax system and phase two replaced legacy systems in driver's services and motor vehicles. The latest phases will implement an Office of Driver Services (ODS) drivers licensing and identification system; and implement an Office of Motor Vehicles (OMV) vehicle licensing and tracking system into the AIRS Integrated Revenue Solution. The expected completion date of this project is September 16, 2013. The estimated total project cost is \$12.45 million. The funding source is 100 percent state general revenue.

### Arkansas Burial Association Board-Database Upgrade

The current agency database was originally designed in or around 1988. The new database will provide for improved revenue record-keeping and overall accounting of the board and will allow the board to do their job more effectively and efficiently. The project was scheduled to be complete by August 30, 2013. The estimated total cost of the project is \$4,995. The funding source is 100 percent state general revenue.

## Arkansas State Board of Chiropractic Examiners

### Cloud Backup

A consistent and easy to access, backup is needed. Cloud backup is being considered for safety of records and for the staff to access from home when necessary and would increase efficiency in the office. If a disaster was to occur and the office became inaccessible, the employees would be able to continue business because the files would be backed up in the cloud and could be accessed. The project is scheduled to be completed by December 31, 2013. The estimated total cost of the project is \$7,200. The funding source is 100 percent state general revenue.

### Document Management

Laserfiche will be used to compile all electronic documents into one location. As documents are created or scanned, they will be added. Accessing the electronic files becomes a high level form of efficiency for the staff. By having the documents scanned and electronically filed, the staff would be more efficient in accessing documents and processing requests. The project is scheduled to be completed by June 30, 2015. The estimated total cost of the project is unknown at this time. The funding source is 100 percent state general revenue.

### Website Update

The agency website will be updated to provide services to the public in real-time. Different online functions will be made available to the public. This will provide faster access to information in real-time format. The staff will become more efficient and the public will have access to information requested immediately. Doctors will be able to update basic contact information. Chiropractic examiner sponsors will be able to file CE pre-approval applications and pay online; the process will be automated for all involved and save on paper, scanning, and postage fees. The public and licensees will be better served by providing information in an efficient and real-time format. There is only one full-time staff in the office. Fewer demands would be made on the agency staff, making them more efficient and allowing them to focus on other work items. The project is estimated to be completed by June 30, 2015. The estimated total cost of the project is unknown at this time. The funding source is 100 percent state general revenue.

## Arkansas Department of Community Correction

### Virtualization of Desktop

This project will migrate from the desktop server environment to a virtualized environment which will save management and maintenance costs of the desktops. Upgrades and patching of software of the desktop will be automated lowering the cost of equipment and increasing performance of the IT staff. This project is scheduled to be completed by December 31, 2014. The estimated total cost of the project is \$674,000. The funding source is 100 percent state general revenue.

## Arkansas Department of Correction

### Laserfiche-Records Retention

The purpose of this project is to provide a method of records retention for ADC state records in electronic form. The initial pilot will begin with the human resources department and procurement and accounting. This project assists the agency in compliance with Act 918 of 2005 and the Arkansas General Records Retention Schedule and the Arkansas Freedom of Information Act for electronic records. This project is scheduled to be completed by June 30, 2015. The estimated total project cost is \$105,000. Funding source is 100 percent state general revenue.

### Document Management

The purpose of this project is to provide a method of records retention for ADC state records in electronic form. Laserfiche was selected as the software solution for document management. The initial pilot project will begin with the human resource department scanning in terminated staff document files. The procurement and accounting departments will also pilot in their respective areas. This project assists the agency in compliance with Act 918 of 2005 and the Arkansas General Records Retention Schedule and the Arkansas Freedom of Information Act for electronic records. The project is scheduled to be completed by June 30, 2015. The estimated total cost of the project is \$105,000. The funding source is 100 percent state general revenue.

## Arkansas Economic Development Commission (AEDC)

### Incentive Tracking

The purpose of this project is to track all incentives that are processed through AEDC. It will provide more detailed documentation on how and where state allocated incentive monies are spent. It will be easier and less time consuming to prepare reports. The project is scheduled to be completed by August 1, 2014. The estimated total cost of the project is \$35,000. The funding source is 100 percent state general revenue.

## Arkansas Department of Environmental Quality (ADEQ)

### Mobile Applications

The purpose of this project is to provide a mobile access tool to the public for submitting a complaint from a mobile device using a provided form and way to send a picture. Other mobile apps to follow that would provide mobile versions of EnviroViewer and MethViewer. The expected completion day is June 30, 2014. The estimated total project costs are \$10,000. The funding source is 100 percent other-ADEQ Environmental Settlement Trust Fund.

## Arkansas Fair Housing Commission (AFHC)

### Case Processing Database

The case processing database will be used to electronically create and maintain all case processing information, such as intake information, case processing documentation, enforcement efforts, payment tracking and litigation status. The database will be used by the agency to target its outreach and investigative activities based on the types of cases reported in certain parts of the state. The general public will benefit from specialized training and enforcement throughout the state. The case processing database will assist the agency in the maintenance and storage of required documents. It also will enable the agency to easily create comprehensive and statewide fair housing and fair lending reports and obtains information necessary for specialized outreach and enforcement efforts. The project is scheduled to be complete by June 30, 2014. The estimated total cost of the project is \$50,000. The funding source is 90 percent federal and 10 percent state general revenue.

## Arkansas Forestry Commission

### Smartphones

The purpose of this project is to provide 97 county foresters and rangers with smartphones for fire and landowner assistance activities. Mapping and location information will be available to identify geographic features critical to fighting wildfires. Smartphones will reduce fire response and suppression times and increase personnel safety. This project is scheduled to be complete by September 30, 2013. The estimated total project costs are \$61,056. The funding source is 100 percent federal.

### Mapping and Activity Database Website

The purpose of this project is to replace two standalone computer agency activity reporting database and standalone computer mapping software with a centralized application to be used by 97 field personnel. There will be a reduction in operation costs and increase in agency efficiency. This project is scheduled to be complete by December 31, 2013. The estimated total project costs are \$10,400. The funding source is 100 percent federal.

## Arkansas Department of Health

### Food Inspection

The purpose of this project is to develop a system to enter, review, and track inspections of food establishments. The system will help better license and track inspections of food establishments in the state. This project is scheduled to be complete by June 30, 2014. The estimated total project costs are \$250,000. The funding source is 100 percent state general revenue.

## Department of Health (Cont.)

### Breast Care Billing System

The purpose of this project is to have a billing system that is reliable and conforms to all federal and state regulations. The scope is to secure a vendor hosted breast care billing system that will serve as a statewide centralized repository of billing information and will support real-time data exchange. The department will receive the benefits of being able to reliably bill for charges and services received. Being able to continue providing the breast care services will benefit all female patients. The project is scheduled to be complete by December 31, 2014. The estimated total cost of the project is \$750,000. The funding source is 100 percent state general revenue.

## Arkansas Department of Higher Education (ADHE)

### Arkansas Challenge Data Warehouse

Informatica PowerCenter and Registry Identity Match will streamline the creation and population of a student data warehouse. This will allow ADHE to overcome data quality issues and effectively track students over time and locations. Additionally it will make the information technology staff more productive and efficient. Furthermore, the tool will contribute to meeting performance targets of the federal program that is providing funds for this purchase. Effectively analyzing student data holds the key to improving performance and attainment. Informatica has been identified as a tool that can easily be used to integrate disparate student information and organize it for analysis. The time it will take to support information requests will be dramatically reduced, and the level of analysis we will be able to support with Informatica will be dramatically increased. The project is scheduled to be complete by December 31, 2014. The estimated total cost of the project is \$286,000. The funding source is 100 percent state general revenue.

## Arkansas Highway and Transportation Department (AHTD)

### IBM Mainframe to Windows Platform Migration

IBM Mainframe to Windows platform migration to improve performance, reduce ownership and maintenance costs, increase scalability, and to provide a solid foundation for future application growth and enhancements. Reduction in cost to provide IT services will free funds for other projects and services. The project is scheduled to be complete by August 1, 2014. The estimated total cost of the project is \$1.24 million. The funding source is 100 percent other: Motor fuel tax.

## Arkansas Department of Human Services-Behavioral Health Services Medical Records

Procurement of an Electronic Health Records (EHR) system for the Arkansas State Hospital will replace a manual system with a system that will enable clinical staff to electronically monitor services and medications provided to clients. This project has an expected completion date of June 30, 2014. The total estimated cost of this project is \$1.5 million. The funding source is 100 percent state general improvement.

## Human Services-Medical Services

### Arkansas Health Care Payment Improvement Initiative

Arkansas Health Care Payment Improvement Initiative is designed to reward physicians, hospitals and other providers who give patients high-quality care at an appropriate cost. The initiative is an agencywide effort and will also span across multiple agencies. As quality of care is defined, division resources supporting Medicaid services will be utilized in the development of episode models. The process of redefining payment structures based on episode models requires contribution from affected divisions, the Medicaid fiscal agent, DHS data analytic contractors, and Medicaid providers.

Public and private insurers in Arkansas and across the country are facing a financial crisis as health care costs rise to an unsustainable level. DHS, Medicaid, Arkansas Blue Cross and Blue Shield, and QualChoice of Arkansas are jointly working on an initiative to address this issue in a way that works for providers and patients. The collaborating partners developed and refined the episode model over nine months with significant contributions and comment from hundreds of physicians, health care professionals, patients and other stakeholders. This initiative also allows Medicaid to avoid making drastic cuts to the rates it uses to reimburse doctors or to programs on which tens of thousands of Arkansans depend. The project has an expected completion date of December 31, 2016. The total estimated project cost is \$40 million and the funding source is 90 percent federal and 10 percent state general revenue.

## Human Services-Medical Services (DMS)

### ICD-10 Remediation Project

ICD-10 remediation is designed to meet a federal mandate to transition to new coding systems for diagnosis and inpatient procedures, while minimizing operational disruptions and ensuring continued claim processing and payment. Prior authorizations, program integrity reviews, third party liability recoveries and numerous other non-claims processes are significantly impacted and therefore, fall under the scope of remediation and testing. Providers and other entities external to DMS, including other divisions of DHS, are included in the outreach and communications efforts. The expected completion date of this project is June 30, 2015. The estimated total project cost is \$7.6 million. The funding source is 85 percent federal and 15 percent state general revenue.

## Human Services-Division of County Operations

### Document Imaging Project

Document imaging will achieve the ability for the Division of County Operations to maintain paperless case records. Necessary applications and documents to establish eligibility will be scanned in local county offices as part of the on-boarding processes. Clients may submit documentation needed for eligibility determination to any county office. The information will be scanned and filed electronically in the client case record. Caseworkers and others having access to Arkansas's Networked System for Welfare, Eligibility, and Reporting (ANSWER) system will have the ability to pull up case record documents with the click of a button. All cases will be back scanned at the time they are accessed for any reason.

The document imaging and content management project will enhance interviews, re-determinations, quality assurance, transferring of cases, and lessen the likelihood for lost documents. This will equate to better error rates, greater productivity, more streamlined processes, and lessen overdue rates for re-determinations. Arkansans will receive the help they need faster and caseworkers can retrieve the documents they need as they are scanned. This approach increases the division's ability to reallocate caseloads to be in line with staffing levels. The expected completion date of this project is June 30, 2015. The total estimated project cost is \$12.7 million. The funding source is 53 percent federal and 47 percent state general revenue.

## Human Services-Division of County Operations-

### Enterprise Data Warehouse

This project is part of an agency enterprise data warehouse and will allow the Division of County Operations to develop timely and accurate reports for management, operations and case managers. The expected completion date of this project is June 30, 2015. The total estimated project cost is \$649,221. The funding source is 53 percent federal and 47 percent state general revenue.

## Human Services-Division of Medical Services (DMS)

### Document Imaging Project

Document imaging will enable DMS to become paperless and will provide staff with more immediate access to needed information. More immediate access to information will also benefit citizens of the state. Upon completion of the project, all files and client information will be available online. The expected completion date is December 31, 2014. The estimated total cost is \$2.4 million. The funding source is 50 percent federal and 50 percent state general revenue.

## Human Services-Division of Administrative Services

### Enterprise Services Framework for Eligibility with Interfaces to Federal Exchange

This procurement will be the first step in consolidating all of the applications in DHS (other than financial) into one framework and to continue to provide eligibility determination and enrollment for Medicaid, CHIP, and Supplemental Nutrition Assistance Program (SNAP) while interfacing with the Federally Facilitated Exchange (FFE). The expected completion date is June 30, 2014. The total estimated cost is \$36.5 million. The funding source is 84.84 percent federal and 15.16 percent state general revenue.

An additional DHS-Administrative Services project related to the Enterprise Services Framework for Eligibility and Enrollment is to add SNAP. This will be a complete replacement of existing applications-ANSWER, AccessArkansas, and FACTS using the enterprise framework. This project has an expected completion date of June 30, 2014. The total estimated cost is \$4.8 million. The funding source is 50 percent federal and 50 percent state general revenue.

## Department of Health

### Immunizations Registry

The current immunization registry will be replaced with a new system that will provide the ability to use Health Level Seven (HL7) messaging with all of the providers in the state and provide for increased reporting capabilities. HL7 is a standard for exchanging information between medical applications and defines a format for the transmission of health related information. The current immunization registry system is hosted by an external vendor whereas the new system will be hosted by the Health Department. The expected completion date is January 31, 2015. The estimated total cost is \$950,000. The funding source is 90 percent federal and 10 percent state general revenue.

## Arkansas Department of Information Systems

### Internet Protocol Version 6 (IPv6) and IP Address Management System (IPAM)

All available IPv4 addresses have been assigned prompting the need to move to IPv6 addresses which will be required for all IP network communications in the future. Arkansas is at risk of constituents not being able to access state resource and citizen facing applications if IPv6 addresses are not put into place. The expected completion date is March 28, 2014. The total estimated cost is \$540,000. The funding source is 100 percent other. Costs will be recovered through DIS service rates.

DIS is responsible for managing hundreds of thousands of IP addresses and with IPV6, the numbers will grow. A tool is necessary to manage the addresses to ensure connectivity is available. The IPAM project will automate processes that are currently performed and allow staff to be more efficient. This project is scheduled to be completed by March 28, 2014. The estimated total cost of the project is \$150,000. The funding source is 100 percent other: Costs will be recovered through DIS service rates.

## Arkansas Manufactured Home Commission

### Database Upgrade

The purpose of this project is to develop software for tracking home installations. Accurate tracking of shipment of homes into the state and records of their installations will be the results of this project. This is essential to perform inspections to ensure all licensees are properly reporting and installing homes. The project is scheduled to be completed by December 30, 2013. The estimated total cost of the project is \$27,100. The funding source is 100 percent other: Special Revenue.

## Arkansas Natural Resources Commission (ANRC)

### Data Communications

The White River Irrigation District (WRID) is working with numerous land owners to place sensors and control systems at irrigation pumping sites to maximize irrigation efficiency and conserve water, and for other related purposes. Since these sites are quite remote, some form of wireless communications is required. The current system of dedicated point to point radio is quite expensive. Verizon has the possibility through an existing state contract to provide the data modems and cell service at a reasonable cost. An agreement is being finalized with WRID to pass through the service at cost. This project will provide cost effective data communications from remote areas for pilot projects in irrigation water and energy management at no cost to the state. Effective water and energy management in irrigation has the potential for extensive reduction of usage. The project is scheduled to be completed June 30, 2015. The estimated total cost of the project is \$85,200. The funding source is 100 percent other: Reimbursement by WRID.

### Backup System

The purpose of this project is to provide the capability to back up all the agency data on the agency's servers. At present, files are backed up with external hard drives that are hand carried to a bank vault for offsite storage. More frequent backups are kept on a network attached drive. These backups are somewhat limited because the drives don't have space for multiple backups of all files. At present, neither operating systems nor any large data sets that could be recovered from another source (such as GIS coverage) are backed up due to lack of space, and most of our internally developed GIS data is stored on individual machines. Citizens who work with, or are regulated by ANRC would be harmfully impacted by a major data loss. This project will greatly alleviate the danger of data loss. The project was scheduled to be completed by September 15, 2013. The estimated total cost of the project is \$20,000. The funding source is 100 percent federal.

### Document Management

The purpose is twofold: To create a backup of irreplaceable paper documents, and to make efficient, local or remote access to dam safety information available to staff. The current project includes scanning of paper files and engineering drawings (including emergency action plans if the price is low enough), and establishing keywords, and creation of at least two copies of the resultant files. Future enhancement may include document management software or incorporation of the documents into the existing dam safety database. This project will safeguard essential data, as well as making it much more readily available to guide decision making both in routine and emergency situations. Agency personnel will benefit from more efficient access, and citizens will benefit from enhanced safety. The project was scheduled to be completed by September 20, 2013. The estimate total cost of the project is \$43,000. The funding source is 100 percent federal.

## Next Generation State Network

State network capabilities will be enhanced by the Next Generation State Network as a combination of Multiprotocol Label Switching (MPLS) and Ethernet network elements will be implemented to address future requirements of the state network by providing network transport functions that allow high-performance packet forwarding with minimal overhead. Department of Information Systems (DIS) provides key public safety and public health systems access and support to critical state functions by providing operations 24-hours a day, every day of the year.

The state is currently experiencing a dramatic growth in the demands on the data, voice, video and wireless radio networks. With the need to provide 24-hour a day information access for the Arkansas Crime Information Center, Department of Health, Department of Emergency Management, State Police, Department of Correction, Department of Human Services, and numerous other agencies that support the safety and health of the citizens of Arkansas, this project will enable DIS to begin implementation and maintenance of the next generation enterprise network for Arkansas citizens. The expected completion date of this multi-year project is December 31, 2013 with an estimated total cost of \$45.3 million. This figure includes \$8.8 million to replace approximately 2,100 routers and other network equipment/software and \$35.5 million for bandwidth and services from commercial providers. The funding source is 100 percent Other with cost recovered through DIS services rates.

## Arkansas Board of Parole

### Online Parole Hearing Decision Search Application

The purpose of this project is to create an online application that allows users to search for and locate information pertaining to parole decisions made by the parole board. Information displayed to the public will be consistent with information currently provided upon request. The online application will allow users to access the public information easily and conveniently. This project reflects our long-held belief that providing victims of crime and the general public with information on our policies, procedures, and decisions is an essential part of our commitment to ensuring public safety. This project is scheduled to be completed by March 30, 2014. The estimated total cost of this project is \$24,000. The funding source is 100 percent state general improvement.

## Arkansas State Board of Psychology

### Database Upgrade

The purpose of this project is to develop a new database to support the agency mission. The new database will continue to provide the basic needs of the agency such as online license renewal, online license verifications, online provider lookup and documenting the annual renewal licensure information. This will be expanded to include documentation of ethical violations, supervisor status and supervision records. The new database will also accommodate scanned documents for future reference. This project is scheduled to be completed by June 30, 2015. The estimated total cost of the project is \$22,500. The funding source is 100 percent other: Psychology board cash fund.

## Arkansas State Board of Public Accountancy

### Document Management

The purpose of this project is to scan and archive office documents as well as off-site electronic storage. All paper documents will be archived for easy access and protection from elements/disaster. This project is scheduled to be completed by June 30, 2015. The estimated total cost of the project is \$30,000. The funding source is 100 percent other: Public Accountancy Board cash fund.

## Arkansas Science and Technology Authority

### Asset II

The purpose of this project to develop an online database for collecting group research and education outreach data. The database components will have protected select data entry for individualized data components of specific research groups and read-only privileges which are password protected. This project is scheduled to be completed by June 14, 2015. The estimated total cost of the project is \$66,694. The funding source is 100 percent federal.

## Arkansas Wireless Information Network (AWIN)

AWIN is a multi-phased program to leverage new and existing wireless resources to create a statewide interoperable digital wireless communications network for emergency responders and public service entities all across Arkansas. The over 21,400 AWIN users consist of law enforcement, fire, and other emergency services at the city, county, state, and federal levels. The P-25 digital 700/800 MHz radio system averages 40,500 calls per day.

This major application continues through 2015 with total application systems support charges of \$550,000 each fiscal year.

To enhance AWIN, the Public Safety Broadband Project Phase 1 will develop the strategy for public safety broadband, develop technical requirements for public safety broadband that align with nationwide requirements and will position Arkansas to participate in funding opportunities. The estimate completion date of this project is December 31, 2014, with total projected costs of \$1.5 million. Funding source, other with charge back to the Arkansas State Police.



## 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, 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 data center will reduce downtime of essential services and benefit all state agencies, boards, commissions, and Arkansas citizens utilizing state technology services. The data center can also provide a secondary/failover site for state agencies and schools that house mission critical information technology assets.

## Arkansas State Police

### Data Encryption

The purpose of this project is to encrypt data including removable media in order to protect sensitive data that could potentially have civilian data containing personal information and to meet state mandate to encrypt data. This project is scheduled to be completed by June 30, 2015. The estimated total cost of the project is \$353,571. The funding source is 100 percent state general revenue.

### eGrant

The purpose of this project is to develop a grants management solution with the ability to track and account for grant data and administration electronically. The main impact of this project will come in the form of automation of the highway safety office grants management. Citizens of the state will be affected in the timeliness of grant awards to local agencies. Citizens should see the impact of the grants quicker. This project is scheduled to be complete by June 30, 2015. The estimated total cost of the project is \$600,000. The funding source is 100 percent federal.

### Commercial Drivers License (CDL) Improvement

The purpose of this project is to provide an electronic means to take driver license and commercial drivers license tests throughout the state. Efficiently make sure of electronically captured test results saving time for the citizens of Arkansas. This project is in partnership with the Department of Finance and Administration (DFA). The new system will prevent fraud and allow State Police and DFA Revenue to quickly and more accurately give test results to citizens. This project is scheduled to be completed by June 30, 2015. The estimated total cost of the project is \$650,000. The funding source is 100 percent federal.

## Records Retention

The purpose of this project is to electronically capture and store State Police documents and be able to have an active backup available in case of an emergency and for records retention. Electronically storing documents will aid in the search capabilities for information resulting in less time to provide service to citizens. The project is scheduled to be complete by June 30, 2015. The estimated total cost of the project is \$60,000. The funding source is 100 percent state general revenue.

## State Fusion Center

State law enforcement fusion centers are central locations where local, state, and federal officials work in close proximity to receive, integrate, and analyze information and intelligence. Fusion centers are instrumental in improving quality of intelligence by closing information gaps that previously hampered counterterrorism efforts at the state and local level. As a result, fusion centers have become a major focus of homeland security programs in several states.

The Arkansas Fusion Center will provide enhanced enforcement capabilities with accurate and timely law enforcement information. Law enforcement, potential crime victims, and the general public benefit from the center. The fusion center will also provide and coordinate terrorist information for law enforcement purposes. The expected completion date of this project is June 30, 2015. The estimated total cost of this project is \$789,788. The funding source percentage is 95 percent federal and five percent state general revenue.

## Mobile Officer Virtual Environment (MOVE)

This project will provide the means to electronically capture ticket and citation information from highway patrol units in real time. In addition, MOVE brings in the ability for each of the following: eCrash (real time crash data), ATLAS, ADVANCE (automatic crash notification vehicle telematics) and CitSearch. This expected completion date of this project is June 30, 2015. The estimated total project cost is \$6.2 million. The funding source is 100 percent federal funds.

## Video Storage

New in car digital cameras will be purchased and will, over time, replace existing cameras. Each trooper unit currently has an in car camera. However, due to difficulties and programmatic issues with them, it will benefit the agency to purchase more modern in car digital cameras and will subsequently benefit law enforcement and the public. The video of a stop will show all facets of an officer to the public and vice versa. The expected completion date of this project is June 30, 2015. The estimated total cost of the project is \$3.08 million. The funding source is 75 percent federal and 25 percent state general revenue.

## Cyber Crimes

Effective law enforcement requires the tools necessary to prevent Internet Crimes Against Children (Formerly ICAC10). This project specifically targets the prevention of pedophile activity throughout the community and has a direct benefit to the citizens of Arkansas. This project is a cooperative effort among statewide law enforcement. The expected completion date of this project is June 30, 2015. The total estimated project cost is \$1.7 million. The funding source is 25 percent federal and 75 percent state general revenue.

## Arkansas Department of Correction (ADC)

### Automated Entrance Monitoring

An automated system using smart card and biometric readers for monitoring, approving and tracking the movement of personnel in, out and within all DOC unit locations will, when fully implemented, provide for an easy check-in process for inmate visitors with an automated check on visitor identification, his/her approval to visit the inmate and tracking of arrival and departure times. The system could also be used to track inmate movement within the unit allowing a more accurate and timely status of an inmate's current location. This technology will aid in general security control, help prevent escapes, control access to unauthorized areas, help prevent contraband and help improve other security issues. The expected completion date is June 30, 2014. The estimated total cost is \$1.98 million. The funding source is 100 percent state general revenue.

## Arkansas Department of Workforce Services

### Federal Accounting System Replacement (FARS)

Microsoft Dynamics Great Plains software will be implemented as a replacement for the current unsupported federal accounting system as required by the U.S. Department of Labor. This will automate many manual processes. Tasks that are currently compartmentalized will become common practice in order to easily share duties across areas. The expected completion date is June 30, 2015. The estimated total project cost is \$6.52 million. The funding source is 100 percent federal.

### Tax 21

The purpose of Tax 21 is to modernize the current unemployment insurance (UI) contributions processes. Current processes will be added to the new tax system as well as many of the reports will be generated by the new system. The new system will also enhance the feature to image reports, notices and other documents and provide a means of retaining historical data in the event it is needed for future research. This project benefits the department in gained revenue by enhancing the collection lien and bankruptcy processes and benefits the employers and claimants. The project is scheduled to be completed by December 31, 2014. The estimated total cost of the project is \$571,212. The funding source is 100 percent federal.

## Arkansas.gov Portal

Information Network of Arkansas (INA) improves online citizen and business access to public services and maintains and hosts the state's official web site, Arkansas.gov. Arkansas was the first state in the nation to provide secure payment processing services including, inmate trust account deposits, probation and parole supervision and restitution payments. Arkansas.gov was the first state web site in the country to provide "Text4Help," customer service via mobile text messaging.



Arkansas.gov's new Gov2Go feature helps citizens locate and use government services using text messages and email. This service, the first of its kind in state government, uses natural language processes, a powerful search relevancy engine connected to a broad array of government data.

Around 70 percent of visitors to Arkansas.gov use the search first to find what they are looking for and the new Arkansas.gov smart search adds several features to make searches more accurate and useful to visitors and provides location aware results.

Arkansas.gov's new design places a premium on mobile access through the use of responsive design and a new vertically oriented layout. Responsive design provides access to content at any screen resolution.

The site also included an eGov Services Geolocation Widget, pushing government services to local and community web sites and using geolocation technology to find government services by the user's location. The Best of Web judges were particularly enamored by this feature calling it a "great example of collaboration and really groundbreaking" in terms of filtering local information and services.

Arkansas has leveraged technology in this capacity to make it easier for access to and use of government services. The ever increasing use by citizens of the more than 500 online services offered by Arkansas.gov is evidence of its success. To garner national recognition for innovation further reinforces Arkansas's place as a leader in the development of an online, mobile, user-friendly government.

This site continues to win numerous national awards and receives high rankings compared to other states. Awards and rankings for the site are listed on the adjoining page.

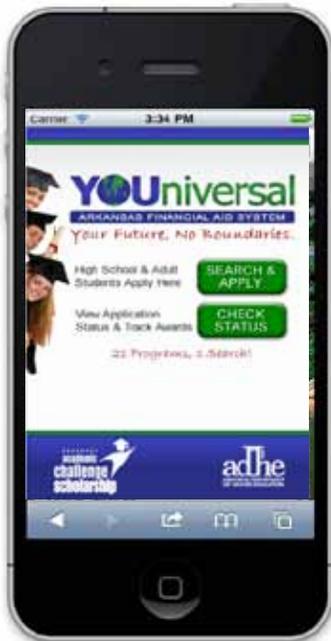
Year	Organization	Award
2013	Center for Digital Government	Finalist-Best of the Web Arkansas.gov Portal
2012	George Cronin Award	Honorable Mention-DIS Arkansas Emergency Business Listing (ABEL)
2012	Government Computer News (GCN)	Honorable Mention-YOUniversal Mobile
2011	Center for Digital Government Best of the Web, Arkansas.gov state portal	1st Place
2011	Center for Digital Government, Achievement Award Government-to-Citizen: Arkansas.gov Mobile and online services suite	1st Place
2011	Center for Digital Education Achievement Award, Department of Education Digital Application/Project Arkansas "YOUniversal" mobile applications	1st Place
2011	NASCIO, Digital Government; Arkansas.gov Mobile and online services suite	Finalist
2010	Center for Digital Government Best of Web Award	2nd Place
2010	NASCIO-Cross-Boundary Collaboration and Partnerships – Arkansas Universal Financial Aid Management	Winner
2010	YOUniversal	Top Government Website
2009	Center for Digital Government Achievement Award	Winner - Recovery.Arkansas.gov, iPhone application Honorable Mention - Arkansas Department of Finance and Administration Commercial Driver Alcohol and Drug Reporting System
2008	Center for Digital Government Best of Web	Finalist
2007	Center for Digital Government Achievement Award	Winner: Arkansas Secretary of State Franchise Tax Suite
2002	Arkansas Business Best of the Web	Government Website - 1st Place

## Arkansas.gov Mobile

The explosive growth and demand for mobility, led to the adoption of a “mobile first” development methodology and standardize the use of responsive design, which ensures that all online services will be usable on mobile devices. INA developed Arkansas.gov mobile allowing users to search for most state information and services available through Arkansas.gov from any mobile operating platform. Arkansas was the nation’s first state to provide a secure online credit card payment option. In a study of 36 state websites, Arkansas had six of the top 10 sites in mobile adoption. Arkansas uses mobile technology to provide better access to information and services for citizens and businesses, with dozens of applications and web sites now providing streamlined access for mobile users. The state has also established development standards that have promoted a consistent approach to mobile service delivery.



Mobile applications developed by INA for Arkansas agencies include:



**YOUUNIVERSAL FINANCIAL AID MANAGEMENT SYSTEM**-Arkansas Department of Higher Education took 21 unique scholarships and application processes and consolidated them into one unified process. The system automates the awarding processes and integrates with the federal student financial aid system and the state’s transcript system, as well as state colleges and universities for enrollment verification and funds disbursements. To date, the system has enrolled over 69,000 users who were awarded over 77,000 scholarships totaling in excess of \$338 million.

In 2011, YOUuniversal Mobile, a mobile interface was published. The app allows students to search and apply for financial aid, as well as track the status of their application for financial aid award throughout their academic career- all from a smartphone. Recently, 26 percent of students who accessed the site used the mobile app.



**GAME CHECK SUITE**-Arkansas hunters now have the ability to electronically check harvested game (deer and turkey). With over 65,000 downloads, this app by the Arkansas Game and Fish Commission (AGFC) has become one of the most popular in the nation. Over 25 percent of game harvested in 2011 within the state was registered with AGFC using a mobile device. The system provides online, mobile (including iPhone and Android), and call center game checking. The Game Check mobile app ranked number one in a study of 36 web sites in 16 states.



## Arkansas.gov Mobile (continued)

### **CENTRALIZED ELECTRONIC NETWORK FOR SEX OFFENDER REGISTRIES SYSTEM (CENSOR)-**

ACIC was tasked with improving the paper-based registration and management process of more than 11,720 sex offenders in Arkansas and providing more timely information to citizens. The system provides a more efficient method for local law enforcement officers and the Department of Correction to electronically register sex offenders and manage sex offender information. CENSOR allows offenders to register electronically, alleviating the state's responsibility to continue sending out certified letters. As a result of this change, the state has realized a cost savings of approximately \$55,000 per year and a \$17,500 reduction in the manual processing of Verification of Residency forms. A mobile app is also available which allows users both to search for and register to receive alerts of sex offenders in their area.

**ARKANSAS.GOV PAYMENT PORTAL-** In 2010, Arkansas became the first state government in the nation to publish a mobile payment solution for 32 online payment services. Mobile payments are approaching 20 percent and have doubled each year since 2010. Inmate Trust Account deposits and online parole payments have already exceeded 40 percent mobile usage.

Arkansas.gov now provides payment services for a total of 40 counties on the Hot Check Restitution Payment service and has expanded county tax payment services to include 42 counties. These county services cover over 90 percent of the state's 2.8 million residents. In addition, the state is expanding at the city level to provide services for utility payments, emergency medical services payments, business licensing, and court and traffic fine payments. Grants through INA help fund local initiatives like web sites and other online services.

The enterprise solution for Arkansas.gov and Arkansas.gov mobile provides one payment engine, one payment card industry (PCI) audit, and all government services follow a common look and feel.

**VOTER VIEW AND BUSINESS ENTITY SEARCH-**Arkansas secretary of state's Voter View application allows Arkansans to search for their voter registration by entering their name and date of birth. Results inform users if they are registered, where to register, and where to vote. The Business Entity Search app allows users to easily search for registered businesses with display of business names and standing statuses.

**ARKANSAS WORKS MOBILE JOB AND EDUCATION SEARCH-**This application allows users to find employment opportunities, training and education resources as well as career planning services.

The funding search application at Recovery.Arkansas.gov enables users to search for projects funded by the American Recovery and Reinvestment Act (ARRA).



**READY AR-**The Arkansas Department of Emergency Management (ADEM) app features up-to-date information on Arkansas roadway and weather conditions, current threats and emergency planning. The roadway icon links to resources from the State Highway

and Transportation Department, including maps and road closure information. Weather information includes current conditions, forecasts and alerts provided by the National Weather Service. Geospatial features align alerts to a user's specific location. Ready AR's planning section features emergency preparedness information. Discussions are ongoing to possibly add more law enforcement information and public health resources.

Other agency iPhone applications are also available including the Arkansas Educational Television Network (AETN) app for program schedules, blogs, notices, and videos. The Arkansas Hot Deals app from the Arkansas Department of Parks and Tourism contains coupons for lodging, food, shopping, events and more. The Arkansas Scholarship Lottery app provides winning lottery numbers and locations of ticket outlets.



## Text4help Mobile Support

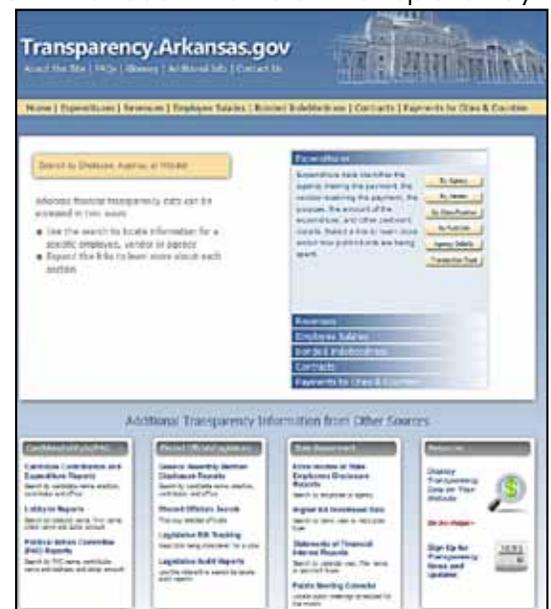


Arkansas.gov was the first state web site in the country to provide "Text4Help," customer service via mobile text messaging to chat with customer service representatives Monday-Friday, 8a.m.-5p.m. Text4help provides customer support through text messaging and is available on the mobile [www.arkansas.gov/m](http://www.arkansas.gov/m) portal, including all mobile services.

## Arkansas Open Checkbook/Financial Transparency

Act 303 of the Arkansas 88th General Assembly, the Arkansas Financial Transparency Act, required DFA to publish a database of state government expenditures. Transparency.Arkansas.gov is a resource for anyone wanting to know where the state, cities, towns, and school districts get its money, and how that money is spent. The site features several different types of financial data updated on a continuous basis. Expenditure data allows users to view a breakdown of how money is distributed. Revenue data provides a mechanism for site visitors to examine the amount of money coming into the state by source, function, agency, and type. Employee salaries are also available online.

The contracts section offers details on contracts or individual purchase orders for more than \$25,000 and construction contracts with a value of greater



## Arkansas Open Checkbook/Financial Transparency (continued)

than \$20,000. Payments to cities and counties are displayed separately from other expenditure data. The data shows money distributed to local government entities to help deliver constituent services. Bond debt held by the state will also be made available on the web site.

The Financial Disclosure Report allows users access to financial reports filed on paper and online with the Arkansas Secretary of State's Office, including Statements of Financial Interest, Extra Income Disclosures, Disclosure by the Members of the General Assembly, Contribution and Expenditure Reports, Political Action Committee Reports and Lobbyist Reports.

The web site also provides access to the public meeting calendar, institutions of higher education enrollment information, legislative bill tracking and audit reports, state budget information, Arkansas state vehicle inventory search, and other public data.

Transparency.Arkansas.gov is the first state transparency site optimized for mobile devices.

## Arkansas Department of Health

### WIC/EBT

Electronic benefits transfer (EBT) for the Women, Infants and Children (WIC) program will eliminate the use of paper vouchers. Instead, a card with benefits will be issued to citizens and families that receive WIC providing the flexibility to use a portion of the benefits on the card versus all at one time with paper vouchers. The U.S. Department of Agriculture (USDA) wants EBT implemented in all states by 2020. This project is scheduled to be completed by December 31, 2014. The estimated total cost is \$2 million. The funding source is 100 percent federal.

### Electronic Health Records (EHR)

An EHR and management system will allow non-duplication of documentation, billing directly from the EHR, and will dramatically increase patient safety and decrease medication and procedure errors. This project is scheduled to be completed by December 31, 2013. The estimated total cost is \$12.37 million. The funding source is 100 percent state general revenue.

## Office of Health Information Technology

### Health Information Exchange

Arkansas Office of Health Information Technology (OHIT) was established to provide leadership for the development of HIE and to direct the implementation of the strategic plan to guide statewide development and utilization of health information technology (HIT). The plan was approved by the Office of the National Coordinator (ONC) in February 2011 and details how Arkansas will establish the State Health Alliance for Records Exchange (SHARE) to support the exchange of secure electronic health information. OHIT is dedicated to improving health care in Arkansas. Through HIT and HIE, consumers and providers will have access to health information in a secured environment. SHARE will improve health care and reduce potential errors. The long term plan is to provide access to core infrastructure developed through SHARE with other state agencies such as Medicaid and the Department of Health.

OHIT received a \$7.9 million federal grant. SHARE will be based on proven industry standard technologies utilized across the state coupled with emerging technology

## Health Information Exchange (HIE) (continued)

to ensure SHARE will be scalable, interoperable, and encompass standards to meet Nationwide Health Information Network (NHIN) requirements.

2012 was an important year in the advancement of health information technology in Arkansas. It marked the year OHIT launched the Arkansas HIE, and when patient health data began to flow through SHARE. OHIT signed up 3,379 SHARE Secure Messaging users at a rate faster than any other state. Arkansas became the first state using the phased approach to be given the Office of the National Coordinator for Health Information Technology (ONC) approval to move from Secure Messaging into HIE implementation. North Arkansas Regional Medical Center (NARMC) became the first hospital in the state to exchange health information in SHARE. \*

The expected completion date of this project is February 7, 2015. The estimated total project cost is \$3.3 million. The funding source is 85.72 percent federal and 14.28 percent state general revenue.



\*SHARE 2012 Annual Report

### Human Services – Division of Medical Services Arkansas Medicaid Enterprise (AME)

AME replaces the Medicaid Management Information System (MMIS) to improve medical services for all Medicaid eligible citizens. Through the Office of State Procurement, Department of Human Services (DHS) released four Request for Proposals (RFP) representing solicitations for the MMIS Core, Pharmacy, Decision Support System and Project Management Office. This project is scheduled to be completed by September 30, 2015 with a total project cost of \$136 million. The funding source is 85 percent federal and 15 percent state general revenue.

### Human Services – Division of Services for the Blind Blind Services Information System (BSIS)

A modern web-based application for the BSIS through an RFP process will expedite services to consumers and conserves staff time and other state resources. Compliance with federal mandates for time service delivery by accessing information and securing documentation will also be improved as will information collection for federal reporting requirements. The expected completion date of this project is June 30, 2015. The estimated total project cost is \$1 million. The funding source is 100 percent federal.

### Human Services – Division of Administrative Services Supplemental Nutrition Assistance Program (SNAP)-Eligibility and Enrollment

SNAP functionality will be added to the Medicaid/CHIP Enterprise Services Framework for Eligibility and Enrollment as the first step in consolidating all of the applications of DHS into one framework COTS product. The expected completion date of this project is June 30, 2014. The estimated total project cost is \$4.8 million. The funding source is 50 percent federal and 50 percent state general revenue.

### Human Services – Division of County Operations Enterprise Framework for Eligibility and Enrollment for SNAP

Better tools and technologies will be implemented to support the determination of eligibility and manage the delivery of SNAP benefits by developing automated

processes that enhance accurate and timely services to Arkansas citizens. This project will provide for additional functionality not included in the initial implementation. (See the department framework project under the Human Services-Division of Administrative Services for a full description.) The expected completion date is December 31, 2014. The total estimated cost is \$7.7 million. The funding source is 50 percent federal and 50 percent state general revenue.

## Rural Health Care Program

The Rural Health Care Program is one of the four support programs funded by the Universal Service Fund providing reduced rates for telecommunications and Internet services to eligible rural health care providers. Discounts for basic telephone services, Internet access, advanced telecom services, and wireless services are provided to help ensure that rural providers do not pay more than their urban counterparts for the same or similar services. On January 8, 2013, the FCC announced up to \$400 million for the Healthcare Connect Fund to create and expand telemedicine networks and to provide increased access to medical specialists.

## Department of Health - Vital Records

Legacy applications will be replaced with a web-enabled application for vital records to include birth, death, marriage, and divorce certificates. The application will reduce the time required for citizens to obtain vital records and make it available at local health units. The expected completion date is June 30, 2014. The estimated total cost is \$2.44 million. The funding source is 100 percent state general revenue.

## Arkansas Public Employees Retirement System (APERS) Replacement of Current Pension Administration System

This project will evaluate the current pension administration system, identify functionality requirements to provide current and anticipated future services, and determine how to meet those requirements. APERS will benefit from better workflow, increased overall production, and reduction of human errors. The expected completion date is June 30, 2017. The total estimated cost is \$20.57 million. The funding source is 100 percent APERS trust fund.

## Workforce Services- Unemployment Insurance Claims Conversion

Current web-based environments necessitate a conversion involving the modification of mainframe applications to accept data from the web-based programs being developed and implemented. The project will also update current legacy mainframe programs and operations that have not been redesigned or updated as a whole since the late 1980s. The expected completion date is June 30, 2014. The estimated total cost is \$2 million. The funding source is 100 percent federal.

## Temporary Assistance for Needy Families (TANF)

Case management and reporting systems will be automated in determining program eligibility as required by Act 514 of the Arkansas General Assembly. The result will be more accurate, timely, and consistent eligibility outcomes with increased productivity through automating business rules. The new system will also enhance communication between agency personnel and clients resulting in improved performance. The expected completion date is December 30, 2015. The estimated total cost is \$9.99 million. The funding source is 100 percent federal.

Green Technology Initiative

Arkansas takes pride in its nickname “The Natural State”. Public buildings offer prime opportunities for reducing energy use while saving taxpayer dollars. More energy efficient government buildings allow public entities to spend more on public services and less on utility bills. Executive Order 09-07 created a comprehensive approach for reducing energy usage within state facilities.

Pursuant to the order and tied to the governor’s strategic goal of protecting the environment, the executive branch and other state agencies developed individual agency strategic energy plans (StEPs) with the goal of reducing annual maintenance and operating budgets devoted to energy consumption and promoting agency operations and practices to reduce the environmental impact of their overall operation.

Agencies track and record energy consumption and monthly costs into a free online Energy Star® Portfolio Manager (ESPM) system hosted by the Environmental Protection Agency (EPA). Annual reports are submitted to the Arkansas Energy Office (AEO). A Green.Arkansas.gov web portal serves as a central repository for annual reporting along with information and links to helpful resources.

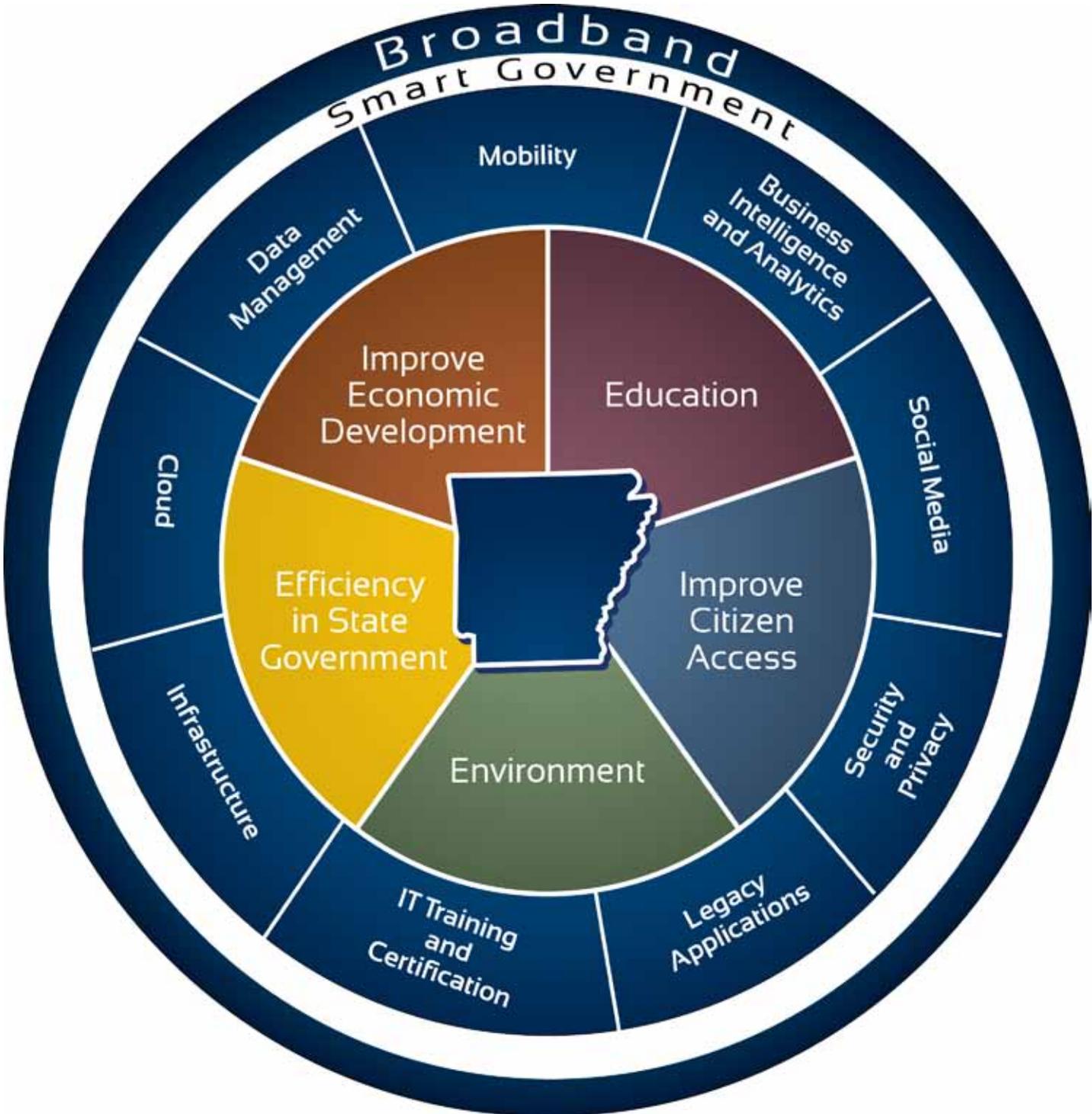
To demonstrate that Arkansas state government could design and operate its buildings to “lead by example”, the Arkansas General Assembly created the Sustainable Buildings Program and the State Buildings Energy Management Program. These programs set forth guidelines to reduce the total energy consumption per gross square foot for all existing state buildings by 20 percent by 2014 and 30 percent by 2017 based on energy consumption for the 2008 fiscal year. As a result of the energy conservation programs implemented, some entities reported a decreased energy consumption ranging from 16 percent - 31.1 percent.

To assist with funding energy saving initiatives (renovations) that exceed \$250,000 in state owned buildings, legislation provided a funding mechanism via the Sustainable Building Design Program and its revolving loan fund. The fund was created with \$12 million from ARRA.

Environmentally preferable purchasing guidelines have been established by many agencies toward purchasing products that minimize environmental impacts, toxics, pollution, and hazards to workers and community safety to the greatest extent practical, and to 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. Recycling of paper, cardboard, plastic and aluminum is carried out in the majority of state government buildings.



# Technology Trends Impacting Arkansas



## Broadband

**Arkansas will have available, affordable and adequate broadband throughout the state** is the vision statement established by the Arkansas Broadband Strategies Committee. The Arkansas Legislature has recognized that broadband is critical infrastructure and has affirmed that broadband is as critical to the future development of the state as any other critical infrastructure.

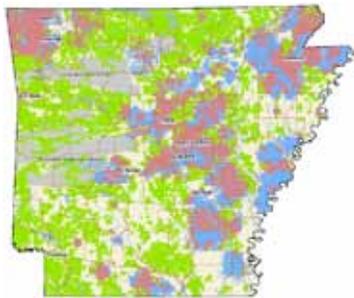
Governor Mike Beebe's Strategic Plan for Economic Development's five goals and all economic development endeavors, are interconnected by five interdependent components as set forth in Governor Beebe's plan: workforce development, business development, infrastructure, competitive business climate, and collaborative partnerships. The Governor's plan further states that, "As information technology progresses, broadband connectivity has become a required infrastructure component."

Although the state of Arkansas recognizes that broadband is critical infrastructure, broadband has yet to achieve the level of attention and discourse that other infrastructure and needs to be elevated to the same status as any other critical infrastructure. Arkansas broadband strategies are intended to ensure that residents, businesses, and governments have access to, understand the benefits of, and utilize high-speed Internet. This is critical to Arkansas because the Internet and its applications will enrich education, bolster economic development, improve government efficiencies, and better the overall quality of life for all Arkansans.

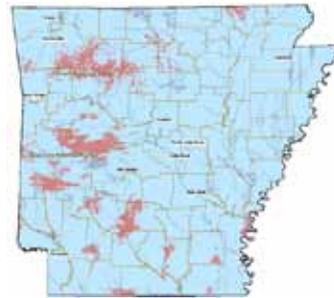
In order to achieve the vision of broadband throughout the state, broadband must be:

1. **Available** – Broadband should be available to accomplish necessary goals whether business or educational, economic or legislatively mandated – and from a technology-neutral perspective.
2. **Affordable** – For broadband to be affordable, it must be both affordable for the consumer to purchase and for the provider to offer. The definition of 'affordability' will be different for different populations with the state.
3. **Adequate** – Broadband is considered adequate if it provides enough bandwidth to meet the personal, business, educational, and economic development needs of each constituency and is capable of expansion to meet future needs. \*

### Arkansas Broadband Availability



Wireline & Fixed-Wireless



Mobile-Wireless & Satellite

The National Broadband Plan, Connecting America, is an important enabler for 21st century care, economic opportunity, job creation, education, health care, energy and environment, government performance, civic engagement, and public safety. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize, and disseminate knowledge.

In the 89th Arkansas General Assembly, Regular Session, 2013, Act 1168 created a state broadband manager to promote, develop, and coordinate broadband expansion and appropriate broadband infrastructure for all areas of the state. The director of the Department of Information Systems was designated as the broadband manager, serving as a single point of contact for:

- State agencies, boards, commissions, and constitutional officers, including without limitation the Governor, Department of Education, Department of Higher Education, and the Arkansas State Highway and Transportation Department;
- Private businesses, enterprises, and broadband providers;
- Nonprofit organizations;
- Governmental entities and organization organized under federal law or the law of another state; and
- Individuals and entities that seek to assist the state's efforts to improve economic development, elementary education, and secondary education through the use of broad band technologies.

Sufficient broadband availability is also the cornerstone of the Digital Learning Act of 2013 which provides for the expansion of digital learning opportunities to all Arkansas public school students and removes any impediments to the expansion of digital learning opportunities. Digital learning in this act means a digital technology or internet-based educational delivery model that does not rely exclusively on compressed interactive video.

This act specifies that beginning in the 2014-2015 school year, all public school districts and public charter schools shall provide at least one (1) digital learning course to their students as either a primary or supplementary method of instruction. It further states that beginning with the entering ninth grade class of the 2014-2015 school year, each high school student shall be required to take a least one (1) digital learning course for credit to graduate.

One of the basic requirements for digital learning is an infrastructure sufficient to handle and facilitate a quality digital learning environment. The House Committee on Education and the Senate Committee on Education is to implement a comprehensive study in collaboration with the Department of Education, the Department of Information Systems, and Arkansas service providers on methods to establish and maintain the necessary infrastructure and bandwidth to sufficiently facilitate and deliver a quality digital learning environment in each school district and public charter school. The final report is due no later than December 1, 2014.

Also, as schools plan for the Partnership for Assessment of Readiness for College and Careers (PARCC) assessments concurrent with enhancing bandwidth to support instructional needs, PARCC is recommending external connections to the Internet at 100 kbps per student or faster and internal school networks at 1000 kbps or faster. Minimum bandwidth requirements will be determined based on the final specifications of the PARCC assessment

delivery platform and the level of multimedia and technology enhanced items in the final assessment design. PARCC will provide minimum specifications by October 2013. Connect Arkansas, ARE-ON, ATOM, and the Next Generation State Network are examples of broadband-based initiatives in the state designed to improve personal lives and economic capabilities, while supporting key strategic efforts for economic development, education, and health care.

## Smart Government

Gartner recommends that public sector leaders must deliver value to citizens that are affordable and sustainable while making government more efficient and more effective across boundaries and improve government performance. Commoditized cloud, social, mobile and advanced analytic technologies –referred to as the Nexus of Forces – are disrupting the traditional role of government IT organizations. Government CIOs can accelerate transformational change by investing in strategic technologies and services that will have a major impact on the enterprise during the next three to five years.

The technology trends outlined in this section should be factored into your strategic planning processes, and examine the impacts they may have on your IT service catalog, vendor relationships, organizational capabilities, application portfolio and strategic road map. Technologies and services you will continue to support or must acquire, and those you will divest or broker over the next three years should be identified. A new set of core capabilities should be defined. Evaluate them in terms of individual productivity, organizational effectiveness, constituent experience and overall public value.

Governments need to become smarter by investing in affordable technologies that clearly contribute to sustainable services and operations, and are capable of crossing traditional boundaries between agencies, tiers, jurisdictions and constituencies.

A great opportunity to do this is offered by the nexus of four forces that have now reached comparable levels of maturity at the same time. These forces have the potential to produce permanent changes in how government performs, in the way citizens and government interact, and in the expectations that citizens have of government. As a result, IT leaders must reconsider and update their organization's IT capabilities if they are going to support the business transformations resulting from social, information, cloud and mobile. Regardless of their tolerance for risk or innovation, no government agency is immune from the changes that result when information generated by and for the government is collected, stored, accessed, distributed and used by stakeholders throughout society in ways that weren't possible five years ago. \*Gartner doc G00247727

## Data Management

### Data Proliferation

State agencies continue to produce and accumulate vast quantities of data. The rapid proliferation of data and the legal and regulatory requirements to retain, manage, and protect it has created significant challenges for business and IT managers. Digital storage of information offers significantly more benefits than paper storage; however, the related management and administrative costs for digital storage are rapidly growing.

Also, new and dynamic forms of electronic data are emerging across government, such as

- Third-party hosted services such as social networking sites and cloud solutions
- Rich media such as pictures, videos, and podcasts
- Data created on mobile and peripheral devices such as smartphones, tablets, and printers

Agencies must manage the digital footprint created by these devices and services. Some of these new data types should be addressed in agency policy while others may require directives through legislation. Agencies must be proactive to improve the management of data—from creation through disposition.

### Benefits of Data Management

In Arkansas, part of that preparation is for agencies to develop effective data management practices, which also increase operational efficiencies and decrease storage costs.

Effective data management is the responsibility of all agency employees, not just the IT organization. To develop sound business practices for managing data, agencies should focus on

- Reducing duplicate, transitory, or inappropriate data
- Developing effective records management policies
- Administering practical data management processes
- Preserving data future use

Data management processes should be built into all phases of a project life cycle.

Electronic storage is a significant budget item for most agencies. In general, when agencies need more storage, they seek to increase storage space rather than decrease storage volume. However, to keep the related costs of storage at a sustainable rate, agencies should review their current environment to reduce the volume of data in their possession.

Act 918 of 2005 requires all state agencies, boards, and commissions comply with the Arkansas General Records Retention Schedule.

The Arkansas General Records Retention Schedule sets forth the minimum retention requirements of records commonly found in state government. It is not intended to require the creation of such records but rather establishes minimum retention requirements for records created or retained by a state agency. This schedule is not intended to govern the retention of records which are unique to individual agencies.

The records within this schedule are organized into the following seven record categories:

## Data Management (cont.)

1) General Administrative; 2) Meetings; 3) Automated Systems; 4) Personnel and Human Resources; 5) Fiscal; 6) Legal, and 7) Grants. These categories are logical in nature and are not intended to establish any requirement for physical organization or operational handling, other than the specified retention periods. The name of a record category may or may not correspond to the area or section of an agency which handles the record. The retention periods established in this schedule are minimum retention periods. They are not intended to prevent individual agencies from establishing longer retention periods for any of their records. Regardless of the minimum retention periods stated within this schedule, an agency may determine any of its records may be of permanent value to agency operations, may have external requirements for perpetual retention, or may be useful for the study of history. Such records should be kept permanently. Should any differences in retention periods be found between this schedule and state or federal law, the applicable law will take precedence.

The retention periods of this schedule apply only to the official version of a record. Duplicates of the official version have no retention requirements under this schedule, even if the duplicates are found in different media. In some cases, this schedule provides examples for record types in order to help agencies identify records. Such examples are not intended to be all-inclusive. This retention schedule addresses all record formats and media (i.e. electronic, paper, microfiche, etc.). The minimum retention requirement is determined by content, not by format or media.

\*State government refers to state agencies, boards, and commissions, hereafter referenced simply as agencies. It does not include local, city, or county government, public institutions of higher education, judicial branch or state constitutional offices. Reference Arkansas Act 918 of 2005

The implementation of sound record management practices for electronic records can result in a number of benefits for government. One of the more important benefits is to ensure the creation, preservation and retention of accurate and reliable electronic records. This benefit allows agencies to fulfill legal mandates regarding the protection of their records.

Agencies may have high-quality records management policies, but without practical and thorough processes, these policies can be difficult to implement. Every type of agency-produced data should have a manageable life cycle—from creation, to initial storage, to permanent storage, to disposition, to disposition accounting, to recovery—detailed in their record management policy. For each step of the life cycle, agency staff should have clear and repeatable processes to follow.

Arkansas Records Retention Schedule-<http://www.dfa.arkansas.gov/offices/intergovernmentalServices/Pages/recordRetentionSchedule.aspx>

## Legacy Applications

A legacy application is a computer program that, although critical to an organization's operations, is based on older and less efficient technology. Modernization of legacy applications—through replacement or extending compatibility with new systems—can be expensive and complex. However, failure to modernize aging legacy applications may cause an organization to become trapped in obsolete technology that costs more to operate with fewer benefits.

The maintenance of legacy applications remains a challenge due to lack of funding, staff support, and decreasing vendor support. These challenges limit the ability of agencies to enhance or revise their legacy systems and create obstacles in obtaining technical staff to sustain or upgrade aging systems. Agencies should consider prioritizing their budget toward applications modernization because there are opportunities for immediate efficiency gains, leading to reduced risk and costs, while creating enhanced services for constituents.

Legacy applications limit an organization's ability to effectively and efficiently integrate emerging technologies to meet current and future business needs. State agencies recognize how challenging it is to make the appropriate investments to modernize legacy applications.

Agencies should develop a modernization strategy for legacy applications as part of their long-term IT planning.

Agencies should address modernization efforts holistically and within the context of the agency's technology platform, long-term strategic planning, and budget requests. Agencies should plan modernization efforts by conducting an evaluation of its applications portfolio. This process, which focuses on identifying cost, risk, and performance factors, requires an agency to

- Appraise the legacy system
- Evaluate the target technology
- Define the target architecture
- Define the modernization strategy
- Reconcile the strategy with stakeholder needs
- Estimate the resources

For each legacy application, an agency should determine whether it should be retained, replaced, migrated, or interfaced to work with modern systems. Factors to consider include

- Developing internal criteria for evaluating applications based on current and future business needs
- Determining continuing operating, maintenance, and replacement costs
- determining the operational risks and unexpected costs of applications failure
- evaluating the use of managed, shared, or cloud services

## Infrastructure

IT infrastructure—which includes mainframe, server, storage, and networking assets—comprises a significant portion of an agency's technology budget. Over the last five years, servers and storage, in particular, have proliferated in state government. Additionally, the growth of both structured and unstructured data has accelerated demand for digital storage (see Data Management).

IT organizations typically add servers for new application or processing requirements rather than maximizing existing resources. Given the abundance of commercially available software solutions and the need to maintain high availability, this practice is commonplace across organizations. As new projects are implemented over time, additional servers are procured, creating silos and a disparate and aging server population. These legacy servers are often configured with a variety of operating systems and versions of those systems, increasing the complexity of managing the software for optimal performance and security.

With the proliferation of servers, there is an increasing likelihood that they physically reside at different locations throughout an organization, often without the physical security, power management, or environmental conditions that exist in a hardened server center.

The growth of storage has followed a comparable path. Because the cost of disk storage continues to decline, IT organizations can readily provision additional storage as the need arises. In spite of the decline in storage device costs, Gartner research indicates that data growth is the primary driver in increased costs relative to hardware, software, associated maintenance, administration and services. These escalating costs are compounded by the fact that, on average, storage capacity is increasing about 45 percent annually.

In this environment, an agency has few options except to use already scarce resources to maintain a growing inventory of servers and storage devices. Instead, an agency should physically combine its servers and storage devices into a limited number of hardened, resilient facilities to reduce operational complexity, provide a secure and modernized computing environment, and develop a migration path that supports optional deployment models, such as shared services strategies.

Additionally, an agency should standardize its IT infrastructure. By implementing standards that increase server productivity and optimize storage management, an agency can apply consistent processes that ease tasks associated with configuration, discovery, provisioning, security, and asset management. By implementing operating system standards, common system administration functions can be uniformly applied. Building on the base of a consolidated and standardized environment, optional deployment models—such as virtualization, cloud computing and enterprise storage management—can be used to further drive down cost and complexity.

- Virtualization – Virtualization is a form of shared services where a large server replicates the services of smaller servers. The ability to run multiple operating systems on a single server removes the one-to-one relationship between servers and applications. This enables an agency to consolidate physical servers into virtual pools of server instances and reduce the number of physical servers.

- Cloud Computing – Through cloud computing, or another hosted services model that delivers infrastructure services, an agency can achieve greater agility in meeting business needs. An agency can rapidly and dynamically provision infrastructure services over the Internet (see Cloud). Whether deployed through public or private models, cloud services can provide a cost-effective means to deliver on-demand infrastructure computing and storage services.
- Enterprise Storage Management – Storage management uses a formal process to determine the most suitable storage technologies and devices that address high-availability requirements, exponential growth, and unexpected surges in demand for capacity. Storage management uses techniques—such as tiering, which assigns categories of data to different types of storage media—to reduce total storage cost. Another technique, deduplication, is a form of compression that eliminates long sequences of redundant data by referencing a single unique version of that data to improve storage utilization. With storage virtualization, these capabilities are greatly enhanced.

Different technologies and deployment models offer flexibility to address business needs, budgets, and staff capabilities. As these technologies continue to mature and as costs decrease, options for agencies will increase. To capitalize on these opportunities, an agency should create a consolidated and standardized server and storage environment.

Standardization provides a basis for agencies to appropriately account for and potentially reduce its total operations and maintenance expenses and implement processes that provide

- Consistent application of security policies and standards
- Consistent data back-up procedures
- Consistent application of software patches
- Consistent disaster recovery procedures
- Consistent service levels

Additionally, consolidating and standardizing an agency's IT infrastructure is an important first step in a transition to a shared services strategy, such as virtualization, cloud computing, or enterprise storage management solutions.

Agencies should use defined governance processes to develop and adopt standards. These processes will guide the agency in determining and prioritizing standardization activities.

## Mobility

With the extraordinary growth in the use of devices such as smartphones and tablets, mobile workforces and citizens alike have unprecedented access to information. It is easy to identify the benefits of a mobile workforce. Both worker efficiency and effectiveness improve as employees are able to quickly execute basic tasks such as filing time reports from their phones. And “data on the go” can empower employees in the field with fast access to information. Citizens will also have greater access to relevant information and services.

Arkansas is among the most progressive states in delivering mobile-friendly government solutions. Consumer demand for mobile services and mobile use in the workplace is increasing every year. Top trends in Arkansas include application development for mobile devices. Customer demand and consumerization is requiring access to enterprise and productivity applications on mobile devices of all types and all form factors. Mobile devices command the need for web development, design professionals and system integrators with the ability to extend the life of applications known as legacy applications that are derived from earlier computer languages, platforms and technologies than that of current technology.

The State of Arkansas Enterprise Mobility Strategy is an approach that is aimed across state government to drive efficiency, enhance citizen-government interactions and seizes the opportunity to increase government employee productivity. Citizens will have easier access to relevant information and services. Tourists will have a better experience while visiting Arkansas. All from whichever device they are using or wherever they are.

The trends in Arkansas, as well as across the globe have mobile becoming increasingly ubiquitous. In the government space, open government data, providing citizens and state agencies easy access to data is becoming more and more popular. Arkansas uses a consistent approach to mobile service delivery to provide better access to information and services for citizens and businesses, with dozens of applications and websites now providing streamlined access for mobile users. Per a recent study released by the Centers for Disease Control (CDC), at 35.2 percent, Arkansas leads the nation in the percentage of citizens living in wireless only households.\*

\*2011 National Health Statistics Report, U.S. Centers for Disease Control and Prevention

Arkansas.gov, the official portal of the state, has adopted a “mobile first” development methodology and standardized on the use of responsive design, which ensures that all online services will be usable on a variety of mobile devices. A growing number of websites make use of these standards. The state portal, Arkansas.gov, provides a streamlined responsive mobile interface for users and the state transparency portal, Transparency.Arkansas.gov, was the first state transparency site in the nation to provide an interface optimized for smartphones.

For business continuity and disaster recovery, state authorities can securely access

communications and data from a remote or mobile location, in the event state facilities are affected by an emergency. Arkansas's Continuity of Operation Program is available via mobile devices allowing access to online plans during a disaster. The state does not currently have a work from home policy.

Information Network of Arkansas (INA) improves online citizen and business access to public services and maintains and hosts the state's official website, Arkansas.gov. Due to the explosive growth and demand for mobility, INA developed Arkansas.gov mobile allowing users to search for most state information and services available through Arkansas.gov from any mobile operating platform. Arkansas, in a study of 36 state websites, had six of the top 10 sites in mobile adoption. The average state government website currently experiences around 17 percent mobile traffic, a number that has doubled every year since 2010.

By opening government data and providing well documented APIs, the future state of mobile in Arkansas will provide several advantages and efficiencies for many different areas of the population. The foundations for application development will be improved, allowing for ongoing, device agnostic and efficient development. Clearly documenting APIs and opening data for consumption will simplify and encourage application and website development for a large variety of uses. In addition, many applications and websites may be created by non-government organizations, reducing the cost burden to the state. Gartner predicts that through 2014, improved JavaScript performance will begin to push HTML5 and the browser as a mainstream enterprise application development environment. Gartner recommends that developers focus on creating expanded user interface models including richer voice and video that can connect people in new and different ways. Developers should look for ways to snap together apps to create a larger application. The next evolution in user experience will be to leverage intent, inferred from emotion and actions, to motivate changes in end-user behavior.

The use of smartphones and media tablets should be governed by appropriate mobile device policies. Mobile device policies, addressing business and technical requirements, are essential to define the administrative and security practices to the ever-increasing assortment of mobile devices within the enterprise. Gartner suggests that through 2018, the growing variety of devices, computing styles, user context and interaction paradigms will make 'everything everywhere' strategies unachievable. The unexpected consequence of bring your own device (BYOD) is a doubling and even tripling of the size of the mobile workforce. Enterprise policies on employee-owned hardware usage need to be thoroughly reviewed, and where necessary, update and extended. Balance flexibility with confidentiality and privacy requirements.

The single biggest risk is security, particularly for any devices or applications used by government employees. The government APIs and data will be well secured, keeping the sensitive data safe on the backend. Mobile applications pose a great risk, especially the free ones. Properly securing the API and sensitive data and systems on the back end is the single best way to ensure overall security of the sensitive data.

## Security and Privacy

The safety and security of state information resources is a fundamental management responsibility of all agencies. Citizens trust the state with their personal information, credit card numbers, and other confidential data with the expectation of protection and privacy.

Security threats, in the form of malicious hacking, viruses, malware, unsecured devices, data breaches, among others, are commonplace today. However, not all risks lie with external threats. Although external threats continue to pose the principle risk in terms of incidents and records disclosed, both accidental and malicious internal threats also endanger state assets.

As the state's citizen-facing services continue to move to an online service model, it is critical that security and privacy are provided the highest level of attention and visibility within every organization. Beyond traditional services delivered online, the government landscape is also characterized by

- Applications and data increasingly shifting to the cloud
- Employees spending more time working remotely
- Agencies increasingly interacting with citizens on third-party social networks
- A growing use of managed services to deliver technology solutions

Due to continuously changing organizational and service delivery models, the state must advance its security posture. While the number one cause of security problems is people, the number one solution is also people. Effectively managing and responding to security risks requires a careful and deliberative approach that emphasizes the people, processes, and technologies.

Protecting private citizen and business information establishes trust among users of government services allowing for continuing growth of convenient online services. Securing the state's technology infrastructure prevents damage from malicious or fraudulent activity by protecting the confidentiality, integrity, and availability of computing systems.

The State Cyber Security Office has deployed intrusion prevention devices to keep known malware from the organizations on the state network. These devices are capable of being controlled locally by state network customers in order to block attackers from local networks.

Implementing a comprehensive strategy is critical to building a secure infrastructure. Agency security strategies should address the roles and responsibilities of all staff within an organization, the policies that govern agency practices, and the enabling technologies. <http://www.dis.arkansas.gov/policiesStandards/Pages/default.aspx>

## Social Media

Social Media is used to describe dynamic and interactive web-based communications. Current popular social media websites include Facebook, Twitter, YouTube, and Flickr. Although these websites serve different purposes, the technologies that underlie social media enable users to instantly create and share content without web programming skills.

From basic two-way communications to clever educational campaigns, many entities use social media to support business goals in creative and innovative ways. Internet technology has empowered business owners to not only create interesting and engaging content, but also to promote the content across multiple social networks. Websites aren't just for displaying static information; they've become a primary vehicle for fresh, dynamic content to captivate audiences.

This new model has shaped the public's expectation of online communications, which enhances their perception of e-government. Today, the public expects not just a website; they expect a site with a link to a Facebook page or a Twitter account. Citizen expectation is not the only reason for government to commit resources to conduct social media campaigns. Like any technology initiative, there must be clear, demonstrated value before agencies can move forward. Many government entities have shown value in using these free or low-cost online tools as an official public communication channel.

Even though social media is a strategic priority, it might not be appropriate for every agency to immediately initiate a social media presence. Although many agencies have reaped tremendous benefit from social media, some have been disappointed as well. Before an agency enters into social media, many business considerations and strategic planning elements must be addressed to increase the likelihood of success.

### **Value of Social Media**

Social media ranks as a strategic priority because there are tangible benefits from using these tools. Through appropriate use of social media, agencies have

- Increased traffic to websites
- Increased adoption of online services
- Communicated with the public in a better, faster, and cheaper manner
- Quickly resolved customer inquiries
- Promoted information that would not have reached the public through traditional channels
- Mobilized citizens with real time updates during emergency events
- Provided a moderated forum for citizens to constructively discuss important issues
- Turned negative complaints into positive experiences with timely customer service
- Increased outreach and brand recognition to stakeholders
  - Unfortunately, there are also examples of missteps:
    - Expending time and energy without any clear strategy, goal, or objective
    - Proceeding with incomplete policies and procedures
    - Not providing accessible alternatives for citizens with disabilities
    - Compromising the privacy of citizen information

## Social Media (Cont.)

- Failing to back up social media content for records retention purposes
- Allowing inappropriate content to remain visible
- Improperly engaging with public, creating public relations issues
- Misrepresenting official government material by untrained staff

### **Developing a Social Media Strategy**

Agencies have developed successful methods to avoid mistakes. Successful agencies have taken the time to develop a strategy that aligns their efforts with business objectives and to create a strong policy that keeps the agency compliant with state and federal requirements. Additional methods for success

- Gain organizational support from executive management and across business lines
- Build metrics for measuring the success of each strategy
- Work collaboratively as an agency, gaining support from legal, communications, IT, records management, accessibility, security, privacy, and other relevant groups
- Allocate resources properly; the amount of personnel hours needed will vary across agencies
- Continue to train and stay current on the evolving uses of social media
- Find helpful and informative content to publish on each social media channel
- Communicate with users when appropriate and be consistent with engagement methods
- Determine which third party tools to use to best manage each social media channel

## Business Intelligence and Analytics

Business analytics is a technique that makes it easier to visualize and analyze business data to improve decision making. Maximizing decision making increases effectiveness at all levels of the business and contributes to established goals and objectives by enabling its workforce to achieve desired outcomes. A collaborative decision making platform combines BI (business intelligence) technologies, decision tools, social networking, collaboration, and workflow to enable knowledge workers to find the information and expertise they need to work together to define a problem, analyze it, explore options, assess decision outcomes, and record the decision process and best practices for future use. “Big Data” is a relatively new term that refers to data sets that are very large such as phone records and scientific data that doesn’t work well with traditional relational databases.

The challenge of turning data into useful analytical information grows as the quantity of data grows. As the amount of structured and unstructured data grows rapidly, business intelligence and analytics is used for performance reporting and as a planning and forecasting tool to gain insight into the future allowing optimization of resources and informed decision making. Master data management, customer analytics, data warehousing, and visual information dashboards are top priorities for turning data into insights that lead to better and faster business decisions.

Gartner defines the business intelligence (BI) and analytics platform as a software platform that delivers 15 capabilities across three categories: integration, information delivery and analysis.

In integration, all tools in the BI infrastructure platform use the same security, metadata, administration, portal integration, object model and query engine, and should share the same look and feel. All tools should leverage the same metadata, and provide a robust way to search, capture, store, reuse and publish metadata objects. Collaboration enables users to share and discuss information and analytic content.

In information delivery, reporting provides the ability to create formatted and interactive reports. Dashboards includes the ability to publish web-based or mobile reports with intuitive interactive displays that indicate the state of a performance metric compared with a goal or target value.

In analysis, online analytical processing (OLAP) enables users to analyze data with fast query and calculation performance. Interactive visualization gives users the ability to display numerous aspects of data more efficiently. Predictive modeling and data mining enable organizations to classify categorical variables and to estimate continuous variables using mathematical algorithms. Scorecards take the metrics displayed in a dashboard a step further by applying them to a strategy map that aligns key performance indicators (KPIs) with a strategic objective.

Gartner sees more organizations building diagnostic analytics that leverage critical capabilities such as interactive visualization to enable users to drill more easily into the data to discover new insights.

## Business Intelligence and Analytics (Cont.)

The amount of data the state is collecting through the services it provides is continually growing. It is more important to turn the data into information for analysis and forecasting to enhance timely decision making effectiveness. Business intelligence tools are in place so that all workers, managers, and senior leaders can take the most effective action in any given business situation. Dashboards, for example, such as the new state COMPASS (Centralized Operational Monitoring and Performance Analysis Support System), are being created to help personnel create a business practice of visualizing indicators of internal and external processes. COMPASS allows users of state services to view and analyze the operational status and performance of hosted services as well as provide users with financial information including monthly billing and trends; incident reports by count and additional Service Desk statistics. Compliance with electronic discovery is also necessitating the creation of processes for identifying, preserving, and collecting data for legal and regulatory investigations.

## IT Training and Certification

According to Gartner, to meet future challenges, IT leaders must collaborate with HR managers to build a targeted game plan that includes training current staff on nontechnical skills and hiring people with complementary skills. Some key challenges include IT budgets and the talent pools available are shrinking. As IT operations evolves to include technologies such as cloud computing, leaders need to position their organizations to meet those staffing needs by hiring employees who possess appropriate skills. In order to address these issues, devise a strategy and plan to hire skilled IT employees to meet future business and technology needs, implement training programs that improve interpersonal skills and other nontechnical skills in addition to developing technical skills and devise short and long term game plans that outline target dates and prioritize business impact and timing. In order to measure results, you should track your progress. Focused on operating with fewer employees and reduced budgets, IT leaders need to strategize to ensure that resources will be available to meet future business need. Gartner projects that skill gaps will present a greater obstacle for leaders to meet business objectives than any technology challenge.

With an understanding of where crucial gaps exist, it is time to act on closing those gaps. Leverage your team and other resources to assist in the effort. Assigning specific skills gaps for closure across the organization creates a team effort and increases the chances of success. Some recommendations include reducing staff uncertainty by communicating the skills needs for the next three years; reward skills development that closes critical gaps; create professional development plans for all team members, linked to skills requirements; and, leverage mentoring, internal and external training, external talent providers, and local education partnerships. \* Gartner document G00247871.

Mentoring is a low-cost, effective technique for skill, leadership and career development and it also improves employee engagement and inter-team relationships. Set clear objectives and leverage existing resources to create a targeted mentoring program that is best suited to the needs of your team. Mentoring offers an effective, low-cost approach to mitigate several of the critical issues that IT leaders face from an employee skill, engagement and retention perspective. \*Gartner document G00231688.

The state of Arkansas is seeking to capitalize on opportunities to develop leadership and enhance the knowledge of agency CIOs who have been in their roles less than three years and to maximize the potential of up-and-coming CIOs and other IT staff wishing to enhance the knowledge and skills relevant to employees in today's dynamic government setting. The inaugural session of the Arkansas State IT Academy will be held in January 2014 with the mission to support and enhance professional and personal development of state of Arkansas IT leaders through an interactive and practical curriculum that expands an awareness of self and state government while promoting pride in public service.

## Cloud Computing

Leverage the benefits of the cloud while ensuring the proper levels of security to protect the state assets is the vision statement from the Arkansas Enterprise Cloud Strategy.

The state of Arkansas is seeking ways to take advantage of the benefits cloud computing offers. While the existing model of hosted services has and will continue to provide critical state services, cloud computing offers another option to procure information technology (IT) hosting services. Due to the nature of the cloud, not all state processes and data are suitable for the cloud. The decision to use the services cloud computing offers is primarily a business decision as the cloud can offer benefits ranging from financial to enhanced productivity. The total cost of going to the cloud must be considered in order to determine the business case. Agreements with cloud providers should also be evaluated to ensure compliance with Arkansas law. Sensitive Arkansas data is controlled by many external security mandates and cloud providers must be compliant with these mandates.

Government users can access government services via the Internet, which can increase government availability. Organizations should fully evaluate the benefits and risks cloud computing presents before moving data and applications to the cloud.

As cloud computing evolves and matures, it is being presented as the solution to all IT problems. Cloud computing has a significant potential impact on every aspect of IT and how users access applications, information and business services. However, cloud computing is still a new model for IT and lacks success patterns, standards, best practices and no established long-term track record. While the promises are compelling, the obstacles are formidable. Cloud computing presents numerous cost, agility, and operational advantages which convinces organizations to include it in their planning for IT modernization. Organizations are already entering into individual formal agreements and need insight on best practices and guidelines to protect the agency and state.

According to Gartner, enterprises should design private cloud services with a hybrid future in mind and make sure future integration/interoperability is possible. Hybrid cloud services can be composed in many ways, varying from static to very dynamic. Managing this composition will often be the responsibility of something filling the role of cloud service broker (CSB), which handles aggregation, integration and customization of services. Cloud/client computing models are shifting. In the cloud/client architecture, the client is a rich application running on an Internet-connected device, and the server is a set of application services hosted in an increasingly elastically scalable cloud computing platform.

However, not all applications are suitable for external cloud solutions. For example, if an Arkansas citizen needs access to a government service that is only available online and the citizen doesn't have access to a computer or the broadband necessary to access the service, the service is essentially unavailable. A significant number of Arkansans do not have access to the Internet, and typically these Arkansans are dependent on government services. A balance must be achieved to ensure services are available to Arkansans in the manner they can receive them.

ArCloud, the state's private cloud, currently offers services such as Exchange Email, virtualized servers, and backup and recovery services. The state data center hosts 20,102



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## FY14/15 IT Inventory Plan

### Hardware Type

Hardware Type	% to Total Devices	Quantity
Desktop	47.99%	27,314
Laptop	15.56%	8,856
Printer	13.94%	7,935
Network Equipment	8.49%	4,830
Tablet	4.11%	2,340
Server	2.92%	1,664
Smartphone	2.12%	1,205
Netbook	1.55%	881
Thin Client	1.66%	946
Storage Device	1.66%	940
<b>Sum:</b>	<b>100.00%</b>	<b>56,911</b>

### Vendor Summary

Vendor Name	% to Total Devices	Quantity
Dell	56.54%	32,177
HP	18.29%	10,409
Other	10.95%	6,228
Cisco	5.83%	3,320
Gateway	3.74%	2,127
Lexmark	2.39%	1,363
Apple	2.26%	1,287
<b>Sum</b>	<b>100.00%</b>	<b>56,911</b>

### Operating System

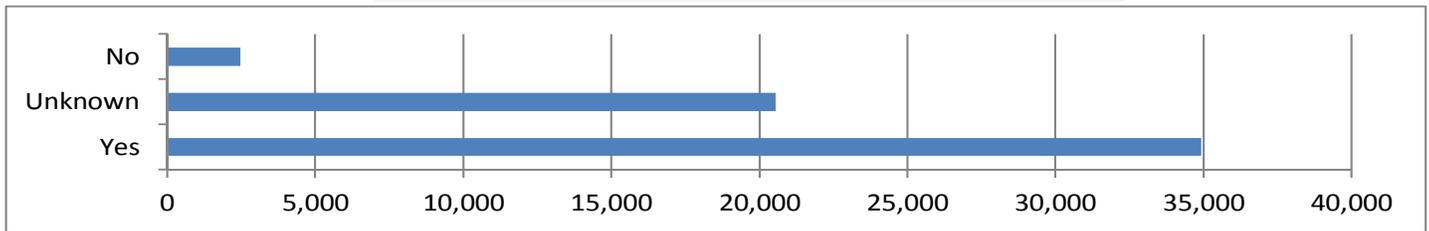
Hardware Os	% to Total OS	Quantity
Windows XP	46.36%	19,358
Windows 7	32.48%	13,560
Windows Vista	11.43%	4,772
Windows 2000	1.88%	784
Win Server 2008	1.87%	783
Win Server 2003	1.54%	643
Other	4.44%	1,852
<b>Sum</b>	<b>100.00%</b>	<b>41,752</b>

## Network Device

Device Name	Percentage	Count
Router	36.20%	2,089
Switch	37.28%	2,151
Flashdrive	11.13%	642
Wireless Access Pt	4.92%	284
External HD	3.03%	175
Other	3.93%	227
SAN	1.75%	101
Firewall	0.97%	56
NAS	0.57%	33
Tape	0.17%	10
Modem	0.05%	2
Sum	100.00%	5,770

## Devices with Energy Star

Yes/No	% to Total Devices	Quantity
Yes	61.66%	35,090
Unknown	33.74%	19,200
No	4.60%	2,621



## Printer Type

Name	Percentage	Count
Total Number of Printers	100.00%	7,935
Number of Color Printers	22.95%	1,821
Number of B\W Printers	77.05%	6,114
Number of Personal Printers	56.65%	4,495
Number of Network Printers	43.35%	3,440
Number of Duplex Printers	29.07%	2,307
Number of Simplex Printers	70.93%	5,628
Number of Multi Function Printers	82.53%	6,549
Number of Single Function Printers	17.47%	1,386

## Printer Vendors

Vendor Name	Percentage	Quantity
HP	38.16%	3,028
Dell	29.31%	2,326
Lexmark	17.18%	1,363
Cannon	6.99%	555
Others	8.36%	663

## Inventory Compared to Previous Biennium

Hardware Type	FY14/15	FY12/13
Desktop	27,314	27,844
Laptop	8,856	7,882
Printer	7,935	8,134
Network Equipment	4,830	4,528
Tablet	2,340	1,213
Server	1,664	1,854
Smartphone	1,205	772
Netbook	881	910
Thin Client	946	841
Storage Device	940	1,064
<b>Sum:</b>	<b>56,911</b>	<b>55,042</b>

## Vendor Trends

Vendor Name	FY 12/13	FY 14/15
Dell	31,291	32,177
HP	8,558	10,409
Other	5,993	6,228
Cisco	3,520	3,320
Gateway	4,226	2,127
Lexmark	1,161	1,363
Apple	293	1,287
<b>Sum</b>	<b>55,042</b>	<b>56,911</b>

## Operating System Trends

Hardware Os	FY 12/13	FY 14/15
Windows XP	27,940	19,358
Windows 7	2,494	13,560
Windows Vista	7,066	4,772
Windows 2000	966	784
Win Server 2008	505	783
Win Server 2003	1,006	643
Other	567	1,852
<b>Sum</b>	<b>40,544</b>	<b>41,752</b>

## Network Device Trends

Network Storage Type	FY 12/13	FY 14/15
Router	2,244	2,089
Switch	1,917	2,151
Flashdrive	864	642
Wireless Access Pt	219	284
External HD	110	175
Other	52	227
SAN	82	101
Firewall	46	56
NAS	32	33
Tape	15	10
Modem	11	2
<b>Sum</b>	<b>5,592</b>	<b>5,770</b>

## Support Category

Support Category	FY14 Budget Total	FY15 Budget Total	IT Support Total
Contracted Services	\$71,531,922	\$71,617,424	\$143,149,347
In-House Labor	\$48,157,175	\$49,542,705	\$97,699,881
State Network Connectivity	\$15,806,991	\$15,945,366	\$31,752,357
Telephone Service	\$17,124,295	\$17,668,597	\$34,792,893
Hardware	\$24,070,805	\$26,075,847	\$50,146,652
Software	\$18,823,640	\$18,438,239	\$37,261,879
Other	\$8,497,709	\$8,605,592	\$17,103,301
ISP or Agency Provided Email/Internet	\$212,741	\$190,963	\$403,704
<b>Total</b>	<b>\$204,225,280</b>	<b>\$208,084,735</b>	<b>\$412,310,016</b>

## Top 10 Major Applications

Agency	Division	App Name	FY14 Costs	FY15 Costs	Total Costs
Human Services	Medical Services	Medicaid-MMIS	\$30,030,000	\$20,030,000	\$50,060,000
Education		Arkansas Public School Computer Network (APSCN)	\$21,300,500	\$22,800,000	\$44,100,500
Finance & Administration		Arkansas Child Support Information System	\$13,789,000	\$13,964,000	\$27,753,000
Finance & Administration		Arkansas Administrative Statewide Information System	\$11,685,000	\$11,685,000	\$23,370,000
Finance & Administration		AIRS - Integrated Tax System	\$10,450,000	\$5,700,000	\$16,150,000
State Police		Arkansas Wireless Information Network	\$5,426,000	\$5,820,000	\$11,246,000
Workforce Services		Unemployment Insurance	\$4,900,057	\$5,100,000	\$10,000,057
State Police		Arkansas Finger Print Information System 14/15	\$4,062,000	\$3,020,000	\$7,082,000
Human Services	Administrative Services	Children's Reporting and Information System	\$3,051,000	\$3,051,000	\$6,102,000
Workforce Services		TANF Eligibility & Case Management System	\$2,500,000	\$3,050,000	\$5,550,000

## Top 10 Projects

Agency	Project Name	Est. Start Date	Est. End Date	FY 14 Costs	FY 15 Costs	Total Costs
Human Services	Medicaid System Update / Replacement	7/1/2011	9/30/2015	\$70,000,000	\$50,000,000	\$136,000,000
Information Systems	Next Generation Network	7/1/2009	12/31/2013	\$15,324,361	\$0	\$45,327,000
Human Services	Payment Improvement Initiative	1/1/2011	12/31/2016	\$15,000,000	\$15,000,000	\$40,000,000
Human Services	Eligibility & Enrollment with interfaces to Fed Exchange	7/1/2012	6/30/2014	\$7,573,621	\$0	\$36,524,482
Public Employees Retirement System	Replacement of Current Pension Administration System	7/1/2011	6/30/2017	\$6,471,211	\$4,700,241	\$20,795,100
Education	LDS Data System Enhancement	4/15/2009	12/31/2013	\$3,276,000	\$745,000	\$18,998,388
Human Services	Document Imaging	7/1/2008	6/30/2015	\$1,524,984	\$1,247,000	\$12,699,179
Finance & Administration	AIRS Driver Services Motor Vehicle Expansion	5/1/2011	10/1/2013	\$4,500,000	\$0	\$12,450,000
Health Department	Electronic Health Records	5/1/2011	12/31/2013	\$150,000	\$150,000	\$12,362,999
Workforce Svc	TANF Eligibility & Case Management System	10/1/2012	12/30/2015	\$3,525,250	\$634,400	\$9,990,490

## Online Resources

AR Geographic Information Office  
[www.gis.arkansas.gov/](http://www.gis.arkansas.gov/)

Connect Arkansas  
[connect-arkansas.org/](http://connect-arkansas.org/)

AR Office of Health Information Technology  
[www.ohit.arkansas.gov](http://www.ohit.arkansas.gov)  
[www.ohit.arkansas.gov/share](http://www.ohit.arkansas.gov/share)

Cyber Secure Arkansas  
[www.dis.arkansas.gov/security/](http://www.dis.arkansas.gov/security/)

Arkansas.gov  
[portal.arkansas.gov](http://portal.arkansas.gov)  
[portal.arkansas.gov/services/Pages/ServicesMobile.aspx](http://portal.arkansas.gov/services/Pages/ServicesMobile.aspx)

Dept. of Information Systems (DIS)  
[www.dis.arkansas.gov](http://www.dis.arkansas.gov)

ARE-ON  
[www.aron.net](http://www.aron.net)

E-Rate  
[www.e-ratecentral.com/](http://www.e-ratecentral.com/)

ATOM  
[www.arktelehealth.org/ArkTelehealth/Home.html](http://www.arktelehealth.org/ArkTelehealth/Home.html)

Green.Arkansas.gov  
[green.arkansas.gov/](http://green.arkansas.gov/)

AWIN  
[www.awin.arkansas.gov/](http://www.awin.arkansas.gov/)

Recovery.Arkansas.gov  
[recovery.arkansas.gov](http://recovery.arkansas.gov)

Arkansas Works  
[arworks.arkansas.gov/](http://arworks.arkansas.gov/)

State Technology Council (STC)  
[www.stc.arkansas.gov/](http://www.stc.arkansas.gov/)

AR Transparency Web Site  
[www.transparency.arkansas.gov](http://www.transparency.arkansas.gov)

UAMS  
[www.uamshealth.com/](http://www.uamshealth.com/)

YOUiversal Portal  
[www.ark.org/adhe\\_financialaid/login.aspx](http://www.ark.org/adhe_financialaid/login.aspx)