Arkansas Health Benefit Exchange Planning Project

IT Integration Plan

Version 2.0

August 31, 2011

First Data
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Document History

This document is controlled through the Document Management Process. To verify that the document is the latest version, please contact the First Data Team.

Date	Version	Responsible	Reason for Revision
August 24, 2011	1.0	D. Sodergren / C. Wood	Initial Draft
August 31, 2011	2.0	D. Sodergren	Updated to include comments from the HBE Planning team

Table 1 Document History

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1.0 Introduction

The goals of the Health Benefits Exchange (HBE) IT Integration task was to avoid duplication of effort and maximize existing Arkansas business and technical resources and optimize Federal funding streams. To facilitate these goals, the First Data team analyzed the HBE functional areas from both the technical and operational perspectives to identify opportunities for collaboration between agencies. This task also provided an important basis for discovering technology needs, from leveraging current technologies to purchase and deployment of new technologies. The First Data team performed a high level assessment of the aspects of current information systems, hardware and software, relevant to the HBE's proposed functionality to meet the needs of Arkansans.

The IT Integration Plan documents 3 primary objectives:

1. Analyze the IT systems for the affected agencies as they currently exist,

2. Identify components, hardware and software needed to perform the business requirements to allow the State to achieve its HBE vision, both business and technical, and

3. Recommend changes to policy, procedure, technology, staffing and any other relevant factors to achieve the most appropriate solution for Arkansans.

The IT Integration Plan describes the approach used to gather the information to achieve the objective, including review of relevant documentation and conducting interviews with key agency and partner stakeholders. The document presents the findings of this research, including details on key assets, as well as opportunities to capitalize on existing systems and collaboration between agencies.

Additionally, this plan offers considerations for the implementation, including project management, hardware and software development considerations. The plan also provides recommendations for the HBE timeline, milestones for implementation, and a projected budget for start up and operations with an emphasis on maximizing Federal funding.

2.0 Approach

To accomplish the objectives of the IT Integration Plan, First Data's analysis included a variety of activities and research:

- Conducted structured Interviews with key State agencies and other partner organizations,

- Reviewed detailed information of current and future systems,

- Reviewed Other State's (early adopters) Research and Initiatives,

- Utilized knowledge of the Health Care Industry,

- Created an inventory of current and future systems related to the HBE,

- Evaluated system hardware and software solutions and resources, and

- Created alternative technology models.

2.1 Identify Agencies/Organizations

Using the list of State agencies identified in the Request for Proposal (RFP) as the base, the HBE Planning Staff expanded the list and broadened the scope to include; a representative of the Governor's Office, two insurance carriers, and a university healthcare provider. IT Interviews were held with individuals at the following agencies:

- Arkansas Department of Finance & Administration (DF&A), Employee Benefits Divisions (EBD)

- Arkansas Department of Human Services (DHS)

- Arkansas Department of Information Systems (DIS)

- Arkansas Insurance Department (AID), Information Systems Division

- Arkansas Office of Health Information Technology (OHIT)

- The Office of Governor

- Arkansas Blue Cross and Blue Shield

- Delta Dental Of Arkansas

- University of Arkansas Medical Sciences (UAMS)

- Additional information identifying the individuals interviewed is available in Appendix A.

2.2 Review of Existing Documentation

The First Data team reviewed relevant documents and agency websites regarding each entity to gather background information about the agency's organization, programs and regulations. The list below is representative of the types of information reviewed:

Agency	Document/Website
Arkansas Insurance Department (AID)	• http://www.insurance.arkansas.gov • http://hbe.arkansas.gov • One Year Later: The Benefits of the Affordable Care Act for Arkansas • Health Benefits Exchange Survey • Planning for the Arkansas Health Benefits Exchange • Arkansas Insurance Department 2009 Annual Report • Arkansas Insurance Department Organizational Chart (rev. 3/11)
Arkansas Department of Human Services (DHS)	• http://humanservices.arkansas.gov/ • Access Arkansas Website https://access.arkansas.gov/Welcome.aspx • Medicaid Eligibility Quick Reference Guide • Medicaid Application Form • SNAP Eligibility and Benefit Information • SNAP Quick Reference Guide • Arkansas Medicaid Program Overview SFY 2010 • Governor Beebe's Proposal on Transforming Arkansas Medicaid • Transforming Arkansas Medicaid • Arkansas Health System Reform & Medicaid Transformation • "Transforming Arkansas Health Care" Draft Work plan—May 2011 • How to use Direct Data Entry to Verifying Eligibility – PPT Presentation HP Arkansas Medicaid • Arkansas Department of Human Services Organizational Chart, January 2011 • State Medicaid Health Information Technology Plan (SMHP) • Arkansas Medicaid Enterprise (rev. March 4, 2011)
Arkansas Office of Health Information Technology (OHIT)	• http://ohit.arkansas.gov/Pages/default.aspx • Health Information Exchange Council (HIE) • HIT Task Force • HIE Summary of Strategic and Operational Plans, February 18,

Agency	Document/Website
	2011 • HIE Maps: Broadband and Wireline Access by Arkansas Counties • Presentation Material
Arkansas Department of Information Services (DIS)	• http://www.dis.arkansas.gov/ • www.STC.arkansas.gov • Enabling Legislation • Preparing to Implement HITECH – A State Guide for Electronic Health Information Exchange • Arkansas Department of Information Services 2010 Annual Report • Arkansas Department of Information Services Quarterly Report to the Legislature Period Ending March 2011 • State of Arkansas Strategic Plan for Information Technology – Fiscal Year 2012 • Arkansas Technology Architecture (Appendix D)
Arkansas Department of Finance & Administration (DF&A), Employee Benefits Divisions (EBD)	• http://www.dfa.arkansas.gov/offices/employeeBenefits • Performance Audit, December 2010
The Office of Governor Mike Beebe	• http://governor.arkansas.gov/ • http://www.thebenefitbank.com/About
Arkansas Blue Cross and Blue Shield	• http://www.arkansasbluecross.com
Delta Dental of Arkansas	• https://www.deltadentalar.com
University of Arkansas for Medical Sciences (UAMS)	• http://www.uams.edu
Department of Health and Human Services Centers for Medicare & Medicaid Services	• Guidance for Exchange and Medicaid Information Technology (IT) Systems – Version 2.0 • Preliminary Individual Eligibility and Enrollment Activity Descriptions • Plan Management Blueprint – Exchange Business Architecture Supplement – Version 1.0 • Eligibility and Enrollment Blueprint – Exchange Business Architecture Supplement – Version 1.0
Enrollment UX 2014 Project	• Enhance Design Implementation Approaches – Discussion Paper • Enrollment UX 2014 Project Overview
RFPs	• DHS

Agency	Document/Website
	• http://humanservices.arkansas.gov/Pages/procurement.aspx
	• AME Core System
	• AME Products
	• AME Eligibility and Enrollment (upcoming)
	• DIS
	• Single Sign-On (upcoming)
	• OHIT
	• SHARE
Miscellaneous	• http://portal.arkansas.gov/Pages/default.aspx

Table 2 Documents and Agency Websites

2.3 Structured Interviews

The HBE Planning Staff contacted each agency/organization to arrange information gathering interviews, asking that the agency spokesperson reserve one hour for the interview. The Department of Human Services asked that two separate interviews be scheduled with different representatives as they have multiple divisions within the Agency which needed to be considered. A total of 10 interviews were conducted between July 5, 2011 and July 15, 2011.

2.3.1 Interviews

Interviews were held with the following individuals, whose willingness to sit down and take time to discuss the Health Benefit Exchange was greatly appreciated:

Name of Agency	Interviewee(s)
Arkansas Department of Human Services (DHS)	Dick Wyatt
Arkansas Department of Human Services (DHS)	Victor Sterling
Arkansas Department of Information Systems (DIS)	Kym Patterson
Arkansas Insurance Department (AID), Information Systems Division	Britton Kerr
Arkansas Blue Cross and Blue Shield	Jerry Bradshaw
Arkansas Department of Finance & Administration (DF&A), Employee Benefits Divisions (EBD)	Paige Harrington, George Platt
University of Arkansas Medical Sciences (UAMS)	David Miller
Delta Dental Of Arkansas	Carl Harris
Office of Governor Mike Beebe	Frank Scott
Arkansas Office of Health Information Technology (OHIT)	Shirley Tyson

Table 3 Interviewed Parties

2.3.2 Interview Questionnaire

All Interviewees were provided with the same set of questions to allow for consistency in the compilation and presentation of their responses. These topics served as a framework for the interviews:

IT Integration Interview Questions

Understanding the current IT Inventory

1. Please provide a brief overview of your agency and its various technical components.
2. What do you envision as your agency's role and responsibility with the support of the Health Benefit Exchange technologies?
3. What assets does your agency have that will assist in the development and operation of the Health Benefit Exchange?
4. Please describe the assets/applications:
    a. Total number of users and user types
    b. Transaction volume
    c. Requirements for access, security, privacy, and confidentiality
    d. Hardware characteristic
    e. Software characteristics (GUI, procedural language, object-oriented language, operating system, embedded programs, batch programs, real time transactions, etc.)
    f. Interfaces
    g. Process for system change requests and existing backlog
    h. Existing documentation
    i. Consistency with state software standards and hardware platforms
    j. Scalability
    k. Staffing Requirements/Support Model
    l. Operational/Maintenance costs
    m. Supported Business Processes/Requirements
5. How do you expect the Health Benefit Exchange to interface with your agency?

Alternative Technologies

6. For any of the Technical components, is your agency/organization currently planning or implementing any new technology alternatives? Please explain.
7. What opportunities/improvements are expected from the new tool/application?

Other IT Considerations

8. Does your agency/organization utilize a standard Project Management approach?
9. Does your agency/organization utilize a standard System Development Lifecycle (SDLC)?
10. Does your agency/organization utilize any testing tools?
11. Does your agency/organization have a Business Continuity/Disaster Recovery Plan?
12. Has your agency designated someone to take the lead in matters related to the development and operation of the Health Benefit Exchange? If so, please provide the name and contact information for that person.

Table 4 Interview Questionnaire

The list of questions and a background document on the technical components were distributed to each interviewee via email prior to the interviews to assist them in preparing their responses and to allow them time to ensure the correct staff would be available for the session. (A copy of the technical component document is included in Appendix B.)

All interviews were conducted in person by David Sodergren and Cyrus Wood, members of the First Data Team.

2.3.3 Current System Inventory

One of the primary objectives of the interviews was to develop a comprehensive list of current systems and applications that could be used or reused to fulfill certain functional needs and integrate with the Health Benefits Exchange. Additionally, the HBE Planning Staff worked with the Information Technology Workgroup, the State Health Information Technology (HIT) Advisory Council and other stakeholders to collect this information.

The inventory effort focused on identifying common system components required for the HBE and the agencies which currently have these components or are planning to acquire these components. This will allow for reuse and maximize funding sources.

During the discussions, attention was given to the following potential system components which are described in detail in Appendix B:

- Portal

- Data Exchange

- Security

- Document Management

- Customer Relationship Management (CRM)

- Reporting

- Financial (premium collection and payment)

- Health plan management

2.3.4 System Information

As appropriate systems were identified, additional information was gathered about these systems. Examples of critical information include the following:

- System volume (Users, transactions, etc.)

- Hardware and software characteristics

- Interfaces

- Documentation

- Consistency with State standards

- Scalability

- Implementation Costs

- Support needs (Cost and staffing)

3.0 Findings

The First Data team carefully evaluated the information in the documentation along with the findings of the formal agency interviews, subsequent discussions with various stakeholders including those with the August IT Workgroup meeting, and other state's research. Those findings are reviewed in the remainder of this document.

Information Technology in the State of Arkansas is very much in a state of transition. During the IT interviews, almost every agency was initiating efforts to develop new systems or replace/upgrade existing technology systems. Many of these efforts are in the early planning phases, i.e. RFP's were being developed or written or the agency is still awaiting responses from published RFP's. Target implementation dates are defined for all of the initiatives, however as these RFP's and projects are in the early planning stages, these dates are not firm yet and will have to be monitored to ensure they are appropriate for the overall plan.

For those agencies using more mature systems, there are plans being developed to have components replaced or otherwise enhanced.

On a positive note, the picture should become much clearer during the last quarter of 2011 (Q4 2011). For example, the RFP responses for DHS' Business Rule Management System (BRMS) and Medicaid Management Information System (MMIS) systems, as well as OHIT's State Health Alliance for Records Exchange (SHARE), are scheduled to be received and vendors are expected to be chosen either prior to or by the end of Q4 2011. In addition, in many cases the initial phases or pilot deployments are scheduled for completion within Q4 2011. Many of the implementation plans should be solidified. All these accomplishments will provide some much needed clarity.

In recent months, there have been some IT Workgroup sessions and many additional discussions between agencies. Especially during the next few months, communication of the results of the RFPs is critical. A strong commitment to cross-project collaboration will be critical in order to accurately reflect what the HBE will need to be successful.

The overall sentiment provided through the interviews was a low expectation of current assets in "live" use that should be utilized by the HBE. In light of that, the focus of the discussion that follows is to evaluate possible solutions at a higher level: What are the alternative approaches to building the HBE?

State IT policies and standards, developed and published by DIS, provide guidance on a wide variety of technical subjects including security and encryption, virus and spyware protection, network requirements, project management, etc. They also provide a variety of common products and services available to all agencies. DIS also provides the capability to support these products and services should the agency request it. In terms of IT architecture, and as reflected by the Technologies listed in the Asset Inventory tables (Section 3.2), the State of Arkansas has deployed systems utilizing numerous operating systems, hardware platforms, software frameworks, and databases.

3.1 Interview Summaries

Each interviewee was asked to describe the technologies and application assets their agency utilized. Their responses are listed below.

- **Arkansas Department of Human Services (DHS)** – DHS is in the process of replacing their Medicaid system. Since 1989, Hewlett Packard (HP) has served as a single source vendor for Medicaid processing and all supporting activities. DHS has a number of RFPs currently out for bid to replace the various components of the current HP solution. This is a major initiative that will continue through 2013. DHS also has a Portal that allows Arkansans the capability to review information and apply for various state health and other benefit programs such as SNAP, TANF, ARKids, etc. They also utilize a Document Management System for Medicaid and other programs such as SNAP and TANF.

- **Arkansas Department of Information Services (DIS)** – DIS publishes policies and standards, offers various enterprise technology products and services, and provides technology solutions and support for technology solutions for the agencies in the State of Arkansas. They manage a Data Center which allows for multiple technology solutions and host applications for various agencies. DIS is currently in the process of selecting a Single Sign-on (SSO) solution vendor that that is planned to be utilized state-wide for any applications which will reside at the site.

- **Arkansas Department of Finance & Administration, Employee Benefits Division (EBD)** – EBD is currently running the only Insurance Exchange in the State, ARBenefits, which is the State Employee's enrollment portal. They stated that due to their background, they envision themselves primarily in an advisory role for the HBE.

- **Arkansas Blue Cross and Blue Shield (BCBS)** – BCBS stated that they are the largest insurance carrier and have the largest IT department in the State. They support robust Member and Provider portals and possess tools and experience in many customer support functions.

- **Arkansas Office of Health Information Technology (OHIT)** – OHIT is responsible for planning and implementing Arkansas' Health Information Exchange, known as the State Health Alliance for Records Exchange (SHARE). Additionally, OHIT is responsible for the coordination of the Arkansas Health Services initiatives (Medicaid/MMIS replacement, HIE/ SHARE, and HBE).

- **Arkansas Delta Dental** – Delta Dental operates as a franchise handling the state of Arkansas. The Arkansas Delta Dental franchise can only support companies that are headquartered within the state of Arkansas. Their operations include a call center of 45 agents that handles approximately 60,000/month. The discussion identified the following key interface points with Insurance carriers – QHP enrollment,

Premium payments, QHP information submission and maintenance, Call Center coordination/call transfer, and possibly Website Authentication integration.

- **Office of the Governor** – The Office of the Governor's role is to make sure all the new Health Services systems and the HBE components work together. A key success measure will be the interoperability between all the new health care systems being developed in Arkansas.

- **Arkansas Insurance Department** – AID has a small application development team. AID expects the IT development and support activities to occur external to the AID IT department. They expect to support the AID HBE Planning team in an advisory role.

3.2 IT Asset Inventory

Understanding the existing IT assets in the State of Arkansas is a critical step towards planning the HBE roadmap. This initiative laid the foundation for developing alternative approaches and the level of effort which will be required, as well as some of the demands which will be placed on the agencies. Ultimately, strategic decisions will be required which will shape the outcome of the HBE architecture.

The value of planning appropriately is to assure the enterprise that the incremental improvements will all be interoperable and that all parties will have the appropriate information to allow them to make informed decisions.

Recent procurements or other technology decisions may not have been recorded as an existing asset due to the time frame of the study. However, the planned outcome has been evaluated, to the best of our ability, as well as their applicability and influence on the overall cost of the HBE.

The evaluation of assets, included in the inventory below, relates to the ability to serve as a component of the HBE. The comments that are included are not an assessment of an asset's ability to fill its current role, but the probability as to how these components may be leveraged.

3.2.1 Asset Summary

The following table represents current or future assets of interest relative to the HBE. Additional details will be discussed later in this document.

Asset	Organization	Function	Status	Availability
Access Arkansas	DHS	Portal	In Use	Now
ARBenefits	EBD	Portal	In Use	Now

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Asset	Organization	Function	Status	Availability
AHIN	BCBS	Portal	In Use	Now
Medicaid Eligibility and Enrollment Business Rules Engine	DHS	Eligibility Rules Engine	Pending RFP	October 2011
Core Medicaid Management Information System (MMIS)	DHS	Claims Processing	RFP	October 2013
Enterprise Data Warehouse (EDW)	DHS	Data Warehouse	In Use	Now
Single Sign-On (SSO)	DIS	Security	Pending Procurement	October 2011
SHARE	OHIT	Data Exchange	RFP	April 2012
eDoctus	DHS	Document Management System	In Use	Now

Table 5 Asset Summary

For the individual assets detailed below, where known, the following information has been included:

- **Agency** – Which agency owns the existing asset or will own it once complete?

- **Technical Component** – Which required component(s) could this asset address?

- **Technologies** – What technologies is the asset built upon?

- **Volume** – What is known about the transaction volume, number of users, etc.?

- **Availability** – Does the asset exist? If not, when will it be available?

- **Risks** – Are there timing, cost, interface, or other issues that could impact usability?

- **Support** – Where is the asset supported and what is the makeup of the support staff?

- **Cost** – What did it cost to build or what are the anticipated implementation costs? What ongoing support costs are applicable?

- **Alternatives** – What other assets provide similar functionality?

3.2.2 Access Arkansas

Access Arkansas allows the people of Arkansas to find answers to their questions regarding health and nutrition programs. They can apply online for 6 different programs (e.g. Medicaid) and check eligibility for 20 others. Eligibility is determined offline.

Access Arkansas does also provide some brand recognition for access to Human Services eligibility determination.

Access Arkansas URL: https://access.arkansas.gov/

Access Arkansas	
Agency:	Department of Human Services (DHS)
Technical Component:	Portal
Technologies:	Windows, .NET
Volume:	Over 1500/month complete the screener Over 1500/month complete applications
Availability:	Now
Risks:	Architecture for additional functionality, Scalability
Support:	Onsite at DHS
Cost:	Existing asset. $3.5M total cost over 7 years. $1.3M initial development.
Alternatives:	Employee Benefits Division (EBD) Enrollment Portal Arkansas BCBS Member and Provider (AHIN) Portals

Table 6 Access Arkansas

3.2.3 ARBenefits

The Employee Benefits Division (EBD) manages the group health and life insurance plans for State and Public School Employees and Retirees. The ARBenefits system facilitates eligibility, enrollment, reporting and billing functions.

EBD is replacing an integrated 3rd party tool (Payersoft) with custom components. Payersoft will be phased out by the end of 2011. The Business Rules Management component of ARBenefits offers limited flexibility. ARBenefits also includes a Customer Relationship Management component.

The EBD Call Center currently includes 6 agents and handles 5000 calls/month. Call Center staff will soon double in order to handle higher levels of support.

ARBenefits URL: https://arbenefits.org

ARBenefits	
Agency:	Employee Benefits Division (EBD) of the Arkansas Department of Finance & Administration.
Technical Component:	Portal
Technologies:	Java and other open source technologies. Oracle DB.
Volume:	Members: Over 36,000 Transactions: 30,000/day
Availability:	Now

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Risks:	Additional staff needed to scale up. Hardcoded plan options – no determination of eligibility.
Support:	Through DF&A / Vendor supported
Cost:	System cost approx. $1M/yr to build (over 5 years) Support: $60K/yr. Also $90K/yr Oracle licensing (intend to replace with Open Source solution)
Alternatives:	This is the only Exchange Portal in the State. Other portals include: Access Arkansas Arkansas BCBS Member and Provider (AHIN) Portals

Table 7 ARBenefits

3.2.4 Advanced Health Information Network (AHIN)

Arkansas Blue Cross and Blue Shield has implemented both Member and Provider Portals, known as the Advanced Health Information Network (AHIN).

AHIN is a secure all-payer portal accessible by registered providers for use in processing business transactions, e.g. claims, eligibility, remittance advice, etc. AHIN offers virtually unlimited scalability.

AHIN also utilizes a custom Business Rules engine. While robust, the rules engine offers limited flexibility.

AHIN URL: https://secure.ahin-net.com/ahin/logon.jsp

Advanced Health Information Network (AHIN)	
Agency:	Arkansas Blue Cross and Blue Shield
Technical Component:	Portal
Technologies:	AIX (UNIX); DB2 database
Volume:	250,000+ transactions per day
Availability:	Operational since 2000
Risks:	Non-state asset
Support:	Onsite @ Arkansas Blue Cross and Blue Shield
Cost:	Initial investment of $11 million (1998-2000 dollars). Annual support & development budget of approximately $1.5 million.
Alternatives:	Access Arkansas Employee Benefits Division (EBD) Enrollment Portal

Table 8 AHIN

3.2.5 Medicaid Eligibility Business Rules Engine

DHS is developing an Eligibility and Enrollment RFP, which is scheduled to be available by the end of August 2011. This system would determine the individual's eligibility for

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Medicaid, CHIP and the Exchange as well as, the evaluation for the Exchange monthly premium subsidy.

The system will follow DIS authentication standards and utilize the DIS SSO tool.

Medicaid Eligibility and Enrollment Business Rules Engine	
Agency:	Department of Human Services (DHS)
Technical Component:	Portal (Eligibility)
Technologies:	Pending RFP/Contract Completion
Volume:	Pending RFP/Contract Completion
Availability:	Rules engine will be available October 2011. Will be integrated with Access Arkansas October 2012.
Risks:	Costs currently unknown
Support:	Will be housed at DIS and they will provide Level 1 support
Cost:	Estimates may be available once RFP is complete. Detailed costs will be in responses.
Alternatives:	None

Table 9 Medicaid Eligibility Business Rules Engine

3.2.6 Medicaid Management Information System (MMIS)

DHS is replacing the current HP solution with a custom MMIS system. DHS is currently awaiting responses to the published RFP.

Medicaid Overview URL:

https://www.medicaid.state.ar.us/Download/general/MOB-SFY10.pdf

Core Medicaid Management Information System (MMIS)	
Agency:	DHS
Technical Component:	Member Management / Financial Management
Technologies:	Pending RFP/Contract Completion
Volume:	Approximately 37 million claims per year
Availability:	RFP responses due August 25, 2011. Contractor to be chosen by November 30, 2011. Phase I – October 2013 Phase II – July 2014
Risks:	Targeting October 2013 Live Date. This is just 3 months before the HBE target (Jan 2014). Technology solution and cost currently unknown
Support:	Will be housed at DIS and they will provide Level 1 support
Cost:	Estimates may be available once RFP is complete. Detailed costs will be in responses.
Alternatives:	None

<center>**Table 10 MMIS**</center>

3.2.7 Enterprise Data Warehouse (EDW)

The Enterprise Data Warehouse facilitates intra/inter-divisional reporting and analysis for DHS' staff. The initial development phase focused on acquiring the data needed for what was identified as the "top 15" business processes from the 20 most accessible sources (SQL Server). The solution went to production at the beginning of 2011. Development has continued to expand the data available for reporting to include MMIS data and operations data from the Arkansas Administrative Statewide Information System (AASIS). This is expected to go to production shortly. During the next phase of development, the solution will be further enhanced with division-specific application data, not previously collected, to increase the value proposition to the divisions.

Enterprise Data Warehouse (EDW)	
Agency:	DHS
Technical Component:	Data Warehouse
Technologies:	SQL Server, Report Builder 3.0
Volume:	Approximately 30,000,000 total records processed per day into cube structures for reporting
Availability:	Now
Risks:	Funding is an on-going concern. Specialized skill sets required in both business and technical knowledge.
Support:	On-Site at DHS, consisting of 1 manager, 2 data architects, 3 business analysts, .25 DBAs, .25 Network Engineers
Cost:	On-going annual operating cost as currently staffed $1,201,992
Alternatives:	Other available 3rd party tools

<center>**Table 11 Enterprise Data Warehouse (EDW)**</center>

3.2.8 Single Sign-On (SSO)

DIS is currently evaluating Single Sign-On vendors, as well as Open Source solutions.

Single Sign-On (SSO)	
Agency:	Department of Information Services (DIS)
Technical Component:	Security
Technologies:	Pending RFP/Contract Completion
Volume:	Estimated initial number of Users: 4,000 - 7,000 (SHARE Phase 1 pilot) Initial estimates are only considering the initial Phase 1 implementation of the SHARE application. Total usage volume may approach 3 million users (state citizens).

Single Sign-On (SSO)	
	Transaction volumes are highly dependent upon state adoption rates of the SSO tool across the state enterprise. Within the next 2-3 years the primary source of usage is expected to be the Health modernization efforts (HBE, HIE, and MMIS efforts).
Availability:	1st Phase available Oct 2011. Future phases pending RFP/contract completion.
Risks:	Interfaces, support, etc. unknown at this time
Support:	DIS
Cost:	Pending RFP/Contract Completion
Alternatives:	Identifying alternatives is part of the current evaluation

Table 12 Single Sign-On

3.2.9 State Health Alliance for Records Exchange (SHARE)

The overall purpose of creating the State Health Alliance for Records Exchange (SHARE) is to facilitate and expand the secure, electronic movement and use of health information in accordance with nationally recognized standards. SHARE will be a secure electronic mechanism which allows medical information to be exchanged by participating health care providers.

Providers will have access to e-prescribing, lab results, immunization records and other vital information. By viewing health histories, health care providers will have more complete medical information to provide high quality care and coordinate treatment with other health care providers.

SHARE URL: http://ohit.arkansas.gov/share

State Health Alliance for Records Exchange (SHARE)	
Agency:	Office of Health Information Technology (OHIT)
Technical Component:	Data Exchange
Technologies:	Pending RFP/Contract Completion
Volume:	Pending RFP/Contract Completion
Availability:	Phase 1 Deployment November 10, 2011
Risks:	Technology solution and cost currently unknown
Support:	Pending RFP/Contract Completion
Cost:	Estimates may be available once RFP is complete. Detailed costs will be in responses.
Alternatives:	None

Table 13 SHARE

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3.2.10   Document Management Systems

DHS utilizes eDoctus, a scalable, 3rd party document management and workflow system developed by Premerius.

eDoctus is one of many commercially available Document Management Systems and has been included in this asset inventory to illustrate a potential solution. BCBS and other agencies utilize different Document Management tools. AID uses Para-Docs, which is viewed as a low volume solution. There is also a large variety of alternative 3rd party Document Management tools available.

http://www.premirus.com/products/edoctus.aspx

eDoctus	
Agency:	DHS
Technical Component:	Document Management System
Technologies:	Microsoft technologies including SQL Server
Volume:	eDoctus is currently housing over 1.1M documents for DHS
Availability:	Current asset
Risks:	None
Support:	eDoctus is a 3rd party product and is supported by Premerius.
Cost:	Initial cost was $75K. Maintenance costs are $34K/yr for 5000 users.
Alternatives:	Other available 3rd party tools

Table 14 eDoctus

3.3 Federal Assets

In parallel with the multiple state efforts across the country, the Federal exchange design/development effort is also underway. In recent conversations with CCIIO, they have indicated that the assets developed for the Federal Exchange will also be made available to the State Exchanges for incorporation. The Federal Exchange components will be available by individual component as well as a full application. Although many of the components of the Arkansas Exchange are expected to be tightly coupled with the other Health Services automation tools within Arkansas, the Federal Exchange components should be evaluated for fit once the information has been published.

Components with lesser integration requirements, such as the Health Plan Management component, should be considered more likely candidates for use within the Arkansas Exchange planning effort.

3.4 Enrollment UX 2014 project

As well as the active efforts both within Arkansas and at the Federal level there are other initiatives that the state of Arkansas is participating. As stated in the Enrollment UX 2014 Project Overview, "the Enrollment UX 2014 project is charged with developing a 'best-in-class' user experience to ensure that large numbers of eligible consumers successfully enroll in and retain coverage. Sponsored by the California HealthCare Foundation and several other national and state health care philanthropies, and executed by design and innovation consultancy IDEO", Arkansas is participating in the 26-week UX 2014 project in partnership with the Centers for Medicare and Medicaid Services.

"The user experience (UX) design is intended to assist individuals and families to better understand and connect with the services they are eligible to receive and support their enrollment, decision-making and ongoing relationship to these services. The transferable product of the project will be designed in full conformance with Affordable Care Act statutory requirements and existing and emerging CMS guidance."

Currently scheduled to be complete October, 2011, the design work products will include the following:

A working 'looks like' prototype with all of its known component parts. The prototype will allow users to engage in the desired enrollment experience even though it will not yet be tied into true functional databases (i.e., the eligibility process will be 'faux' rather than 'real'). Federal and State teams will provide input into the final design and receive a detailed walkthrough of the design and communication plan.

The User Experience Design Specification document will be a comprehensive technical manual intended for use by future code and product developers. It will include visual style guidelines, site information architecture, and key iconographic elements to guide implementation of the intended design.

The project also includes a subsequent optional stage that would focus on code and product development. Deliverables from the final phase would include code components, application programming interfaces (APIs) to connect to existing IT systems, and user interface guidelines and elements to implement the design as described in the User Experience Design Specifications guide.

As an active participant in the effort, the product of the Enrollment UX 2014 effort may prove to be a valuable asset in the design and development of the Arkansas HBE portal.

4.0 Recommendations

In order to understand the applicability of the existing IT Assets, the functional component framework was reviewed to assess the viability of transferring the asset(s) into the HBE architecture. This section provides an overview of the expected HBE components. Next, an analysis of component-level alternatives is considered, including cost considerations. Finally, some general recommendations are presented.

4.1 Component Overview

As a result of the Interviews and subsequent analysis, the functional component list required modification to support the existing Arkansas environment and reflect more appropriate delineation of functionality. The updated set of functional components now consists of the following:

- Portal

- Member Management (additional)

- Business Rule Management (additional)

- Finance Management

- Customer Relationship Management

- Health Plan Management

- Reporting

- Document Management

- Data Exchange

- Security

It should be noted that certain concerns exist for nearly all components. For existing assets, there are risks associated with the architecture for additional functionality and scalability. For future assets, including COTS solutions, there are concerns about the timeframe in which those assets would become available for integration into the HBE.

4.1.1 Portal

The Health Benefit Exchange Portal will serve as the single-source launching point for all HBE-related activities. Minimal functionality will be provided by the Portal component itself. Rather, the Portal is responsible for integrating the components and presenting information to the user.

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While the Portal likely wouldn't implement any of this functionality, a member would log into the Portal to connect to other components and perform tasks such as the following:

- Review general health insurance information

- Review qualified health plans

- Determine eligibility

- Initiate enrollment

- Update contact information

- Initiate a change in circumstances

- Review Financial information

- Issue resolution

- Contact an HBE agent (perhaps via phone, chat, or secure mail)

- Important Portal considerations include:

- What information will be available in the Portal for registered members?

- Will the Portal be a very lightweight interface, simply providing navigation to other systems? Or will there be substantial data exchange with other components to create a more robust and user-friendly interface, a single-source of health insurance related information?

- What information will be available for unauthenticated users?

It is expected that the Portal component would need to interface with almost all HBE components. Some key relationships include:

- **Security** - Authentication into the Portal would utilize the Single Sign-on (SSO) component. If handing the user off to an external integrated system, the Portal would pass the SSO credentials.

- **Finance Management** - The Portal would likely display current financial information about the member's account (e.g. recent and upcoming payments, etc), allow the user to update bank information, etc.

- **Member Management** - Eligibility and enrollment, as well as future changes of circumstances would be initiated from the Portal.

- **Health Plan Management** - For Insurance carriers, the portal will support access to submit, update/maintain QHP information.

4.1.2 Member Management

Once authenticated into the HBE Portal, a user will need to be able to perform various administrative functions on their account. The Member Management component will be responsible for the following functionality:

- Maintaining Profile/Demographics Information (Contact information, dependent information, etc.)

- Changes of Circumstances (Employment, dependents, marriage/divorce, etc.)

- Annual enrollment information including effective dates, enrolled plan and family status associated with the QHP.

- Important Member Management considerations include:

- How closely are the Portal and the Member Management components integrated?

- Is the member information self-contained or does it need to be shared with other components/systems?

- What actions are initiated if the member has change of circumstances?

It is expected that the Member Management component would need to interface with these other key HBE components:

- **Portal -** The Member Management tools will be accessed by an authenticated user directly from the Portal. It's likely that the Portal and the Member Management components would be built on the same platform.

- **Security** - The security component may need updated contact information. The member might also initiate password changes, etc from their user profile.

- **Document Management –** The Member Management component may need to be integrated to allow storage of eligibility/enrollment correspondence.

- **Reporting –** The Reporting component would utilize the information from the Health Plan Management component for the execution of any reporting requirements. The information would be transferred to the Data Warehouse through a defined asynchronous Extract/Transfer/Load (ETL) method.

- **Finance Management** - The financial component may need updated contact information.

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4.1.3 Business Rule Management

The Health Benefits Exchange would utilize a Business Rules Management System to define, deploy, and execute the decision logic needed to determine eligibility, federal subsidy levels, QHP certification, and any other business rule applications. The Business Rules Management component would include:

- A business rule repository which allows decision logic to be externalized from core application code

- Tools which allow both developers and business experts to define and manage decision logic

- A runtime environment which allows applications to invoke decision logic managed within the BRM component

Important Business Rules Management considerations include:

- What is the process for defining, creating, and implementing business rules needed to support the HBE?

- How is the BRM component accessed? Just through the BRM tools or also through the HBE Portal?

It is expected that the Business Rules Management component would need to interface with these other key HBE components:

- **Member Management** - Changes of circumstances initiated in the Member Management component would route the user back through the eligibility decision criteria.

- **Customer Relationship Management -** CRM's would need to be able to provide answers about member eligibility, assist members with enrollment, and other issue resolution.

- **Health Plan Management** - The Exchange would need to apply certification business rules for QHPs.

4.1.4 Finance Management

Once authenticated into the HBE Portal, a user would likely expect to have access to their financial information, including such things as payment history, upcoming payments, cost-sharing information, bank account information for electronic payments, etc. The Finance Management component could be responsible for the following functionality:

- Cost –sharing assistance administration

- Premium Tax credits administration

- Producer, broker compensation model

- Premium Billing

- Payment management system

- Online Calculator to support health plan comparisons

Important Finance Management considerations include:

- To what extent will the HBE be involved with the financial processes?

- Would the financial relationship be handled entirely between the consumer and the insurance carriers? Or would the HBE play a primary role?

- Will the HBE be responsible for managing cost-sharing assistance?

- If the HBE is involved with the collection of payments, what forms of payments would be accepted? Cash? Check? Automated Clearing House (ACH) payment?

- Can the Exchange utilize other existing payment processing units (i.e. Revenue Department) to handle paper and electronic payments?

- Will the payment processing for SHOP enrollees be handled by the Exchange or within the QHPs?

- What information needs to be stored within AASIS versus the Exchange Finance Management component?

It is expected that the Finance Management component would need to interface with these other key HBE components:

- **Portal** - The user would likely expect to have access to some information regarding their payments in the HBE. This would require communication between the Finance Management component, and their insurance carrier, and this information should be accessible in the Portal.

- **Security** - The security component would be integrated to ensure that the users' financial information is secure and protected.

- **Reporting –** The Reporting component would utilize the information from the Health Plan Management component for the execution of any reporting requirements. The information would be transferred to the Data Warehouse through a defined asynchronous Extract/Transfer/Load (ETL) method.

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- **Document Management –** The Finance Management component may need to be integrated to allow storage of financial/payment correspondence.

- **Health Plan Management** - Changes to their coverage would impact their payment model. Core information associated with each QHP will be stored and maintained within the Health Plan Management component.

4.1.5 Customer Relationship Management

The Customer Relationship Management (CRM) component would assist with complaint resolutions and contacts/inquiries due to outreach and education efforts. The CRM component may provide tools for various types of users:

- **Members** - Possible features would include: Access to FAQs, secure mail, live chat with a CSR, etc.

- **Customer Service Representatives** - CSRs would have capability to perform the same tasks as Members (e.g. updating personal information), as well as administrative functions needed for issue resolution etc. (e.g. financial adjustments).

- **Navigators** - Navigators could have tools to determine a person's eligibility and facilitate enrollment.

Important Customer Relationship Management considerations include:

- What roles would exist and what permissions would those roles have?

- Will there be a single, integrated CRM suite or will there be tools from multiple vendors?

- Does the CRM component integrate with other systems?

- Will there be a single Call Center support function or multiple Call Centers that potentially access one centralized CRM support tool.

It is expected that the Customer Relationship Management component would need to interface with these other key HBE components:

- **Security** - The Security component would provide authentication and essential role management functionality for the various user types.

- **Document Management –** The CRM component may need to be integrated to allow storage of communications/documentation with callers.

- **Finance Management** - The CRM component would need to be tightly integrated with the Finance Management component to allow authorized users (e.g. CSR's) to investigate and correct payment issues.

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- **Health Plan Management** – Navigators, producers, and CSR's would require access to the Health Plan Management component to assist with questions regarding the QHPs before, during, and following the enrollment process.

- **Member Management** – Navigators, producers, and CSR's would require access to the Member Management component to assist with updates related to changes in circumstances or potential annual renewal support processes.

4.1.6 Health Plan Management

The Health Plan Management (HPM) component would support the management of the Qualified Health Plan enrollment and certification process. The HPM component may provide tools for various types of users:

- **Insurance Carriers** - The Health Plan Management component would serve as the entry point for the Insurance Carriers. Insurance Carriers would utilize the HPM component to initiate the QHP certification process. Subsequent management and adjustments to the Insurance Carriers certified QHPs would be managed through the HPM component.

- **State Certification Staff** - The Health Plan Management component would support internal management tracking and workflow of the certification process for the state staff responsible to certify submitted QHPs.

- **Members -** Possible features would include: Access to certified QHP information for review, comparison, analysis and decision-support features during the enrollment process.

- **Customer Service Representatives/Producers/Navigators** – Navigators, producers, and CSRs would have capability to perform the same tasks as Members – supporting the member decision making process.

Important Health Plan Management considerations include:

- *SHOP versus Individuals –* SHOP introduces the need for dynamic tracking of the QHPs premiums based upon the start date of the small company coverage plan. How will the rates for each small company be tracked?

- *QHP Management* – Single Sign-On support for QHP management requires additional authentication/authorization support. Distribution of authority to QHP staff.

It is expected that the Health Plan Management component would need to interface with these other key HBE components:

- **Security** - The Security component would provide authentication and essential role management functionality for the various user types.

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- **Finance Management** - The Health Plan Management component would need to be tightly integrated with the Finance Management component to provide base insurance cost information for each member.

- **Document Management –** The HPM component may need to be integrated to allow storage of various insurance plan documents.

- **Reporting –** The Reporting component would utilize the information from the Health Plan Management component for the execution of any reporting requirements. The information would be transferred to the Data Warehouse through a defined asynchronous Extract/Transfer/Load (ETL) method.

4.1.7 Reporting

The Reporting component would provide a variety of historical, tracking, and auditing data including, but not limited to, Federal and State reporting requirements. The Reporting component would primarily be used by HBE Administrators and may include the following types of information:

- Data required for external auditing

- Reports on individual members or on all members in a specific group

- Reports on Customer Service Representative activity or collective data for a CRS group

- Data on insurance carriers or their QHPs.

- Premium tax credits administration

- Support for Qualified Health Plan certification

Important Reporting considerations include:

- What data will need to be accessible via the Reporting component?

- Will the Reporting component be integrated with a Data Warehouse?

- Will an Arkansas Enterprise Human Services Data Warehouse directly support or be integrated with Medicaid/HBE reporting?

- Will the Reporting module only support internal reporting requirements?

- Would other user types (members, insurance carriers, etc.) need to have access to any type of Reporting data?

It is expected that the Reporting component would need to interface with these other key HBE components:

- **Portal -** The Reporting Tools would be accessed through the Portal by Administrators or other users with sufficient privileges.

- **Security -** The Security component would provide authentication and essential role management functionality to restrict access to reporting data.

- **Member Management/Finance Management/Health Plan Management –** The Member Management, Finance Management and Health Plan Management components would provide the information for the execution of any reports. The information would be transferred to the Data Warehouse through a defined asynchronous Extract/Transfer/Load (ETL) method. Other sources of information include the Customer Relationship Management and Portal components.

4.1.8 Document Management

The Health Benefits Exchange will need to capture and manage incoming and outgoing documentation, including documentation associated with users and Insurance plans. As a result, the Document Management component would need to perform the following functions:

- Scanning and storage

- Routing and retrieval

- Document workflow and notification

- Full text searches

- Version control

Important Document Management considerations include:

- Which types of users would need to access stored documents in the HBE?

- Is the Document Management system expected to be available as a standalone component or is it accessed through other components?

- What type of volume can be expected? How long are documents retained and available online?

It is expected that the Document Management component would need to interface with these other key HBE components:

- **Portal** - At least some features of the Document Management component would need to be integrated with the Portal.

- **Security** - Many Document Management systems have their own security model and this would need to be integrated with the HBE Single Sign-On component.

- **Member Management** - The Member Management component will need to be integrated to allow storage of documentation sent and received that is related to the eligibility, enrollment, and re-enrollment (including change of circumstance) processes.

- **Finance Management** - The Finance Management component may need to be integrated to allow storage of various financial documents to include cancellation of coverage due to lack of payment.

- **Customer Relationship Management -** CSRs would need to have access to stored documents from the CRM component.

- **Health Plan Management** - The HPM component may need to be integrated to allow storage of various insurance plan documents.

4.1.9 Data Exchange

The Data Exchange will need to provide secure, electronic access to personal health and financial information, in line with nationally recognized standards. The Data Exchange component would be expected to provide the following features:

- Secure data access for State Health agencies

- Linkages to other State health subsidy programs and other health and human services such as SNAP, TANF as appropriate.

- Support national data exchanges standards (ONC, etc.)

- Support plan data exchanges for purposes of evaluation and ongoing performance improvements (key indicators, baseline data, plan).

Important Data Exchange considerations include:

- How will an enterprise Data Exchange be implemented? Would it utilize an Enterprise Service Bus or secure web services?

- What type of interfaces would the Data Exchange component need?

- Will the Data Exchange manage the "real time" secure connections with the external entities? Which groups would respond and communicate with the external entities?

It is expected that the Data Exchange component would need to interface with these other key HBE components:

- **Security** - Access to personal health and financial information would be restricted and require authorization. Data transfer would be encrypted and secure.

- **Document Management/Member Management/Finance Management/Health Plan Management** - The Data Exchange component could potentially be tightly integrated with each of the components enabling the necessary connections between components.

4.1.10 Security

The Security component will be responsible for the following functionality:

- Authenticating users of the HBE Portal

- Distinguish public-facing information and member content

- Permitting and restricting member access based on their role/situation

- Providing Single Sign-On credentials when transferring from the HBE to another system

- Provide secure access and protect member data

Important Security considerations include:

- Will there be a single, integrated security provider or tools from multiple vendors?

- Will all external systems be able to fully integrate the solution to provide seamless transitions from the HBE and provide members with a user-friendly experience?

It is expected that the Security component could need to interface with all of the HBE components. Some key relationships include:

- **Portal** - Authentication into the Portal would utilize the Single Sign-on (SSO) component. What information the member could view in the Portal would be driven by their security role and other information about their account. If handing the user off to an external integrated system, the Portal would pass the SSO credentials.

- **Member Management -** Some features of the HBE, such as enrollment, would almost certainly be handled through the web-based Portal. The security component would likely pass user credentials between the systems to facilitate a quality experience for the member.

4.2 Alternative Technology Models

For any large-scale IT implementation, there are a number of approaches that deserve consideration, including:

- Leveraging existing infrastructure and utilizing existing resources including transfer systems from other states or the Federal Exchange, with any required modifications or enhancements;

- Custom Development;

- Acquiring industry standard Commercial Off-the-Shelf (COTS) and Framework Solutions; and

- Integrated or Hybrid Solutions.

Evaluating the various options includes evaluating the relative benefits, risks and range of estimated costs for each approach. Applicable industry trends and States best practices should also be considered.

First Data is not recommending any specific IT approach, product or service at this time. However, one of the major advancements in the IT industry has been the progress towards interoperability of technologies. These newer technologies have the capability of interfacing with other systems through concepts/protocols such as SOA, XML and service bus. There are a number of middleware products and networking products that can be used to seamlessly connect various applications and databases. This dynamic growth in the industry has promoted the concept of selecting and integrating technologies in an iterative project approach.

Overall project risk can be significantly reduced by developing and deploying system components in an iterative approach. Iterative development refers to defining "logical chunks of work" into separate smaller sub-projects. Each of these sub-projects can then be analyzed for impact risk and priority and mapped to a COTS product or Custom built solution and deployed. This has the advantage of providing a working product to the users/customers quickly.

4.2.1 Evaluating Alternatives

The following criteria can be used to compare alternatives. The attributes are based on typical industry selection criteria and are divided into specific categories to create a more dynamic comparison assessment.

- Meets the Technical Objectives

  - ✓ Capabilities support the key strategic technical objectives

  - ✓ Offers proven technologies that are robust and dependable

- Offers Flexibility for Integration and Future Enhancements

  - ✓ Capabilities support compatibility with existing software and infrastructure

  - ✓ Supports common interface protocols and industry standards such as XML

  - ✓ Capabilities support future enhancements through Object Oriented (OO) code standards, modular programming and integrated business rules engine

- Offers Scalability for Current and Future Performance Needs

  - ✓ Supports high-volume web based transactions

  - ✓ Capabilities support self-service web transactions

  - ✓ Supports the use of enterprise level data and services exchange (enterprise service bus or similar infrastructure)

- Incorporates "Best" Available Technologies

  - ✓ Capabilities support integration of different vendor products

  - ✓ Utilizes industry standard platform and technologies with limited proprietary restrictions

  - ✓ Supports the current "best of breed" software and database products and tools

- Leverages High-Value Design/Development Tools

  - ✓ Supports standardized design/development tools and processes

  - ✓ Utilizes proven design and documentation standards/techniques

  - ✓ Complies with industry standard project management, SDLC and Quality Assurance/Quality Control (QA/QC) methodologies

- Proprietary Hardware/Software Independent

  - ✓ Long-term support can be provided by internal resources with reasonable levels of training and expertise

  - ✓ Supports standard programming language, SQL and interface protocols

- Provides for Built-in Security and SOA Compliance

  - ✓ Platform supports efficient and standardized maintenance processes such as security, backups and disaster recovery

- ✓ Platform for efficient system administration

- ✓ Architecture capabilities support modular design and implementation of services

- ✓ Maintenance tools and processes are recognized as industry standard, with proven longevity (security, change control, data base administration, backup, disaster recovery)

- ✓ Solution supports built-in system access security features, ID procedures and auditing capabilities

- Provides a High Level of Technical Reliability

  - ✓ Offers proven technologies that are robust and dependable

  - ✓ Adheres to industry standards and systems are well documented

  - ✓ Product support and training is readily available

  - ✓ Compatible with industry standard architectures and infrastructures

- Offers Availability of Design and Development Tools

  - ✓ Provides robust tools to ensure consistent and complete design documentation

  - ✓ Utilizes standards and tools to easily transition from design to development

  - ✓ Provides a platform for efficient development and re-use of modules, interfaces and data

  - ✓ Supports business process automation (workflow) and business process reengineering

- Incorporates Methods for System Manageability

  - ✓ Provides a platform for efficient and standardized maintenance processes such as security, backups and disaster recovery

  - ✓ Enables standardized and efficient training development and delivery

  - ✓ Enables the robust reporting of information, enhances data quality, and provides for executive decision support

  - ✓ Includes capabilities in performance measurement, data quality, and protective measures such as fraud prevention.

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- Overall Project Risk Level – All projects have inherent risk that requires planned and implemented risk management. Large implementations can be especially challenging and formal risk management is critical.

    ✓ Availability of product/service vendors that are well established and have a proven record of quality and support

    ✓ Alternative can be implemented following industry standards for project management (such as PMI).

- Provides for "Ease of Transition" to New Systems

    ✓ Provides a platform for efficient development and re-use of modules, interfaces and data

    ✓ Supports rapid/iterative development and implementation

    ✓ Utilizes industry standards for application architecture and database architecture

    ✓ Leverages current state standards for hardware

    ✓ Supports multiple interface protocols

After completing the initial analysis and researching multiple modernization options, the First Data team has identified 4 specific options for modernization across the defined functional components. Apart from gathering information from key internal resources, the information regarding findings, options, conclusions, and recommendations was based on research of Industry trends, white papers on this subject and the extensive First Data experience in this area.

- ***Option 1 Existing Asset Transfer*** – This could include systems or applications from other states, or other AR agencies. Also consider the possibility of leveraging a Federal asset. The Federal assets are not yet available for analysis although discussions are underway and the viability of the tools is required to support the Federal exchange.

    NOTE: Transfer systems require a similar evaluation process as a COTS product in order to determine the level of customization needed and actual value.

- ***Option 2 COTS or Framework*** – COTS refers to commercial off the shelf software. Framework refers to customizable application templates. There are full COTS systems available as well as basic framework systems.

- ***Option 3 Custom Development*** – This refers to the "from scratch" design and deployment of application modules or technical systems and interfaces.

- ***Option 4 Integrated Solution (Hybrid)*** – This option refers to the combining of COTS, Framework, Transferable or Custom development that best meet the solution of AR HBE and complement each other.

The options above are further explained as applicable in the following section. Most important to the final recommendation is the evaluation of how well the alternative maps to the overall objectives of the HBE effort.

Due to the possibility of future procurement initiatives, with the exception of existing Arkansas assets, there are no specific product endorsements included within this analysis.

4.2.2 Component Alternatives and Costs

This section summarizes the various alternate approaches that are available for each Health Benefits Exchange component. Cost guidelines provided within this section are not based upon a detailed functional and technical fit analysis. In most cases, the vendor community offers a varying level of functionality and cost. Therefore, all costs listed for licensing represent averages from previous projects.

4.2.2.1 Portal Alternatives

COTS/Framework

There is a wide variety of commercial and open source Portal frameworks available that could be utilized for the HBE.

Existing Assets

There are a variety of Portals in use, including State assets like ARBenefits and Access Arkansas. Insurance carriers like Blue Cross and Blue Shield have also implemented member Portals.

Because Portal content is largely dependent on the purpose and required functionality of the website, there would likely be little opportunity to reuse these existing assets. However, there would be value in considering the frameworks being used and other lessons learned. Because they operate the only Exchange being used in the State, EBD may be able to offer mentoring or other guidance.

Additionally, although not a functional asset the final product of the Enrollment UX 2014 project will provide a comprehensive presentation layer design available for incorporation with any future procurement or development effort.

Custom

While technically feasible, web portals are a mature technology and there would be little reason to build a fully-customized solution.

Cost Considerations

Because almost all the other HBE components would interface with the Portal framework in some way, the majority of the costs associated with building the HBE Portal will be implementation-related.

➢ **Cost Range:** $1M-$3M initial cost. Annual enhancements and maintenance typically ranges between 15%-30% of the initial implementation costs.

4.2.2.2 Member Management Alternatives

COTS/Framework

There are numerous viable large-scale commercial options that could support the Member Management component, as well as many smaller scale tools.

Benefits include maintenance/enhancement support with annual licensing

Requires occasional increased support costs to handle implementation of new software releases

COTS licensing models vary depending upon the vendor/tool. Models can be based on any of the following:

- # of users

- Public web-based support versus internal usage models

- Technical "size" metrics - # of processors, # of instances

➢ **Cost Range**: $500k-$3M initial cost. Annual licensing typically ranges between 15%-30% of initial license value.

Existing Assets

Although not currently in place, the MMIS tool suite could be capable of handling the HBE Member Management functional requirements.

➢ **Risk:** All Health Services efforts have tight timeframes for completion. Detailed consideration must be made as to how to manage and support the HBE implementation effort in conjunction with the MMIS or DHS efforts.

➢ **Cost Considerations**: Although currently unknown, utilizing an existing asset can be expected to require a smaller investment, both in initial implementation and maintenance, through the utilization of the shared investment.

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Custom

Although a technically viable option, based upon the number of initiatives, the short duration and the lack of an existing IT team to begin the work, developing a custom tool is not recommended.

➢ **Cost Range**: $1M-$3M initial implementation cost. The ongoing annual support of the component should be estimated at 30% of the initial cost.

Additional considerations

Leveraging an existing asset within the state would represent a strong recommendation for utilizing a stand-alone Member Management component. However, strong consideration should be made for utilizing a tool that can demonstrate an existing integration model with the Finance Management component.

4.2.2.3 Business Rule Management Alternatives

COTS/Framework

There are many existing industry standard Business Rule management systems available. Options range from open source products to large-scale commercially licensed products. It is strongly recommended to leverage a COTS Business Rules Management system.

Existing Assets

DHS is currently in the process of procuring an industry standard tool (see section 3.2.5 for associated details).

Custom

Although possible, utilization of an industry standard product is recommended.

Additional considerations

The pending DHS procurement includes the support of the HBE requirements. Requirements within the procurement include the provision of the standard Federal eligibility rules be provided with the purchase of the Business Rules Management system.

Cost Considerations

Standard licensing costs are typically based upon technical usage metrics such as server size/capacity (processors or instances).

Cost allocation considering usage volumes of the enterprise BRMS are not yet determined. Currently, the BRMS is expected to support the AR Human Services integrated eligibility determination as well as other business rule support decision support requirements.

HBE cost allocation may be anywhere from 10-40% of the overall licensing costs based upon usage volume and statewide distribution of use. Projected users of the DIS support include the following initiatives -

- MMIS

- HBE

- DHS

- DCO

➢ **Annual Hardware/Software Costs**: $150K-$250K

➢ **Implementation Costs**: These would be shared across the enterprise. The current procurement requires the inclusion of the initial federal eligibility rules. Additional development of Arkansas-specific rules will require ongoing business/technical support estimated at $100-150K annually during the development/implementation of the HBE components.

➢ **Annual Maintenance Costs**: Approximately $50K

4.2.2.4 Finance Management Alternatives

COTS/Framework

There are numerous viable large-scale commercial options that could support the Finance Management component (i.e. Oracle Tool Suite, Curam, etc.), as well as many smaller scale tools.

Benefits include maintenance/enhancement support with annual licensing

Requires occasional increased support costs to handle implementation of new software releases

COTS licensing models vary depending upon the vendor/tool. Models can be based on any of the following:

- # of users

- Public web-based support versus internal usage models

- Technical "size" metrics :

  ✓ # of server processors,

  ✓ # of instances

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> **Cost Range**: $500k-$3M initial cost. Annual licensing typically ranges between 15%-30% of initial license value.

Existing Assets

The existing ARBenefits system, as well as the upcoming MMIS tool suite, could be capable of handling the HBE Member Management functional requirements. Regarding the MMIS system, there would be risks associated with the tight timeframe for completion.

> **Cost Considerations**: Utilizing an existing asset can be expected to require a smaller investment, both in initial implementation and maintenance, through the utilization of the shared investment.

Custom

Although a technically viable option developing a custom tool is not recommended.

> **Cost Range:** $1M-$3M initial implementation cost. The ongoing annual support of the component should be estimated at 30% of the initial cost.

Additional considerations

Leveraging an existing asset within the state would represent a strong recommendation for utilizing a stand-alone Finance Management component. However, strong consideration should be made for utilizing a tool that can demonstrate an existing integration model with the Member Management component.

4.2.2.5 Customer Relationship Management Alternatives

COTS/Framework

Selection of a COTS solution would depend upon the breadth of usage. Larger products would only be viable options if the CRM component was supporting shared call center support across the enterprise (e.g. SSO support, business support, integrated eligibility support, etc.)

> **Cost Range**: $50K - $500K. However the cost to the HBE may be more in the range of $50K-$100K. There is likely an available licensed asset within the state of Arkansas that could be leveraged. However, the larger range reflects the estimated cost if a separate procurement is required.

Custom

This approach would feature:

- Simplified functionality focused on capture and organization of call interactions.

- Simple integration with the HBE components such as the Member Management component. However, detailed information would require the CSRs to utilize the core HBE components.

➢ **Cost Range**: $250K - $2M initial implementation cost. The ongoing annual support of the component should be estimated at 30% of the initial cost.

Hybrid

A Hybrid approach would leverage a repository such as SharePoint or another comparable tool and utilize simplified custom call tracking.

➢ **Cost Range**: $200K - $1M initial implementation cost. The ongoing annual support of the component should be estimated at 30% of the initial cost.

Additional considerations

The following factors would impact the cost for the CRM component:

- Managing contact information

- Supporting requests for information

- Potential sharing across multiple call center entities

The Communication/Education/Outreach Plan discusses the considerations associated with the implementation of the HBE call center support.

Summary

Although the final decision on the CRM tool cannot be completed until finalizing the method of supporting the enterprise Call Center capabilities, the adoption of an industry standard call tracking system is recommended.

4.2.2.6 Health Plan Management Alternatives

The Health Plan Management component is unique, requiring a different usage model that does not include public member usage. The functionality will primarily be accessed by the Insurance carriers and the internal State regulators. Access to the Health Plan Management information by the other HBE functional components could be managed through a data exchange to support functions such as QHP comparison analysis and enrollment decision-support.

COTS/Framework

The existing market has historically been focused on the commercial Insurance industry. Integration of the Insurance industry Health Plan Management tools with State regulation, as well as ongoing management and integration with enrollment in a state environment,

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has not been universally illustrated. However, the industry standard tools will likely illustrate varying levels of capability.

➢ **Cost Considerations**: Including both the licensing and services to implement a licensed application, the initial cost is estimated to be $500k-$3M. Annual licensing typically ranges between 15%-30% of initial license value. Support costs for the component are estimated to be 30% of the initial design, development and implementation services costs. Overall annual recurring costs will range between $100k-$1M.

Existing Assets

While the Employee Benefits Division's ARBenefits tool merits consideration, it does not currently support most of the functional requirements of the Health Plan Management component.

Federal Solution

While not currently available for evaluation, the Federal solution is expected to support all minimum criteria for the Health Plan Management component. There are some important factors to consider with this approach:

- Will the Federal solution include a full complement of QHP submission and maintenance requirements for Insurance carriers?

- Requires a method to share QHP data with Exchange Enrollment support

- Integration with Finance Management component would need to be evaluated

➢ **Cost Considerations**: Leveraging either the existing state asset or the federal component will result in similar costs as the COTS/Framework cost considerations. Anticipating a comprehensive set of additional functions added to the ARBenefits assets, the development costs will likely range from $500K-$2.5M with a similar annual maintenance cost ($60K/year).

The cost considerations of a federal component are dependent upon a number of factors:
- Will the federal component require additional licensing requirements?
- Will the federal component require additional customization/configuration efforts?

4.2.2.7 Reporting Alternatives

COTS/Framework

There is a wide variety of commercial and open source Reporting and Data Warehouse tools available that could be utilized for the HBE. Selection of a Reporting and Data

Warehouse module would be somewhat dependent on the architectural framework that is chosen (i.e. .NET vs. Java-based, etc.)

➢ **Cost Range**: If a commercial reporting tool were selected, there would be costs associated with licensing, integration, configuration, and maintenance. If an open source solution were selected, licensing costs would be eliminated but an increase in internal support costs could be expected.

Initial costs would range from $50K-$200K for licensing, plus $1M-$3M for implementation, depending on the requirements. Annual maintenance typically ranges between 15%-30% of both the initial licensing and implementation costs.

Existing Assets

DHS has implemented a Data Warehouse and Reporting module. If utilized, there would be additional licensing, access requirements, and efforts associated with bringing over new data sources.

➢ **Cost Range**: Costs to integrate the existing DHS asset for use in the HBE could range from $500K-$2M. Current licensing and support costs are approximately $1.2M. Additional costs to scale this solution for use by the HBE could be expected to increase licensing and support costs 50%-100%.

Custom

While technically feasible, there is a variety of reporting framework tools that could be integrated. Therefore, it seems that there would be little reason to build a fully-customized solution.

4.2.2.8 Document Management Alternatives

COTS/Framework

There is a wide variety of commercial available Document Management Systems that could be utilized for the HBE.

COTS licensing models vary depending upon the vendor/tool. Models can be based on any of the following:

- # of users

- Public web-based support versus internal usage models

- Technical "size" metrics - # of processors, # of instances

- Implementation Costs - Depending on the level of integration required with the HBE Portal vs. Standalone usage, development and integration costs of $100k-$500K could be expected.

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- Software Costs - Initial licensing costs could range between $100K-$500K depending on the tool selected and the features required. Annual licensing ranges between 20%-40% depending on the licensing model.

➢ **Hardware support Costs**: $50K-$200K per year

Existing Assets

There are Document Management Tools currently in use in Arkansas, by State agencies and insurance companies such as Blue Cross and Blue Shield. One example of a 3rd party tool is eDoctus, currently in use at DHS. If this tool is capable of the needed scalability, there would be advantages relative to licensing and current expertise.

In addition to the assets discovered during the interviews, it would be beneficial to survey 3rd party Document Management Systems licensed by agencies that were not interviewed.

➢ **Cost Range:** If utilizing an existing asset, licensing costs would be limited to annual support and maintenance. As an example, eDoctus annual costs are about $35K for 5000 users. The initial cost to integrate an existing asset with the HBE could be expected to cost $100K-$250K.

Custom

While technically feasible, Document Management Systems are a mature technology and there is no reason to build a custom solution.

4.2.2.9 Data Exchange Alternatives

COTS/Framework

Frameworks exist for secure data sharing, including utilizing an Enterprise Service Bus (ESB) or secure web services. Both are mature technologies with a wide selection of vendors and support, including open source solutions.

Existing Assets

There are no current assets in the State that utilize a Data Exchange, but OHIT has recently created an RFP for the State Health Alliance for Record Exchange (SHARE). There would be some risks associated with attempting to utilize the SHARE framework in the HBE as the timeline for that effort is still being defined.

Cost Considerations

Either solution would involve an implementation effort to integrate a Data Exchange in the HBE. Expected costs for an ESB or web-service framework plus the implementation costs could range between $500K-$1.5M, plus annual support costs of 15%-30%. The cost should become clearer once the SHARE RFP responses are available.

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4.2.2.10   Security Alternatives

COTS/Framework

There are many existing industry standard products available to support the authentication and authorization functions. Options range from open source products to large-scale commercially licensed products. It is strongly recommended to leverage a Security framework that integrates within the Arkansas state enterprise framework.

Existing Assets

DIS is currently in the process of procuring an industry standard tool which could provide at least a portion of the needed functionality (see section 3.2.7 for associated details).

Custom

Although possible, utilization of an industry standard product is recommended.

Cost Considerations

Standard licensing costs are typically based upon usage levels (e.g. $3-5 per user license).

Cost allocation considering usage volumes of the enterprise DIS offering are not yet determined. Currently, the only planned usage is in support of the SHARE Phase 1 pilot (4000-7000 users).

HBE cost allocation may be anywhere from 10-40% of the overall licensing costs. Projected users of the DIS support include the following initiatives:

- HIE/SHARE
- DHS/MMIS
- HBE
- DHS/non-MMIS

➢ **Volume**: Initial projections for the HBE are up to 300,000 members. In addition, up to another 1000 users could be accessing one or more of the HBE automation tools, including Navigators, Producers, State operations staff, and call center customer service representatives (CSR).

➢ **Annual Costs**: 301k users @ $3-5/user (10-40%) = $100K - $750K

➢ **Implementation Costs:** These costs are nominal. Integration of the Security support with other components will be considered as part of the other component's costs.

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Summary

Utilization of a State standard method of authentication is strongly recommended as this would reduce the direct implementation and annual support costs. Other considerations include the simplified method of adoption for the public user. Increased use of a standard for secure access to State services will provide intangible benefits to all services rendered through the integrated security standard. This would include user retention of ID/passwords through more frequent usage, increased awareness of the state services due to a common entry point, economies of scale, and increased purchasing leverage through increased licensing.

5.0 Common IT Implementation Considerations

Through experience with similar planning efforts, First Data has identified several key considerations that lead to a successful implementation. Giving attention to these items allows for early identification and mitigation of risks, setting of realistic expectations and adequate documentation to guide the process.

5.1 Project Management

Project management techniques across the State agencies vary considerably. All agencies have project management standards or guidelines but there is not a central statewide Project Management Office (PMO) that provides oversight. DIS does publish a best practices statement regarding project management and will provide direction in this area.

Additionally, as part of the MMIS modernization effort, DHS has released an RFP for the development of a new PMO to support the numerous business and technical initiatives that will require management through 2013.

For an effort of the magnitude of the HBE, it will be critical to follow a project management discipline, preferably an industry standard such as the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK).

It will be vital to the project's success that effective project management tools, techniques, and dedicated Project Management Office (PMO) staff are in place to manage all of the short- and long-term initiatives and activities of the system development effort (i.e., requirements gathering, document reviews, testing, conversion, and implementation activities), communications to internal and external stakeholders, risks and issues, scope, quality, and the overall schedule.

5.1.1 Program Management

The Arkansas Health Management enterprise transformation efforts will clearly require close management, collaboration and communication. A clear and coordinated Program Management office for the full Health Management enterprise will help identify and mitigate impending risks before they impede progress across one or more parallel efforts.

A successful Program Management effort will include the following core capabilities:

- *Program Definition* – Definition of the multiple initiatives, how they relate to each other and scheduled activities will clarify how the initiatives will complement each other's efforts.

- *Dedicated Staff* – Both a dedicated management team (full or part-time) as well as an Executive Steering committee to provide support to the project teams when issues, risks or conflicts arise.

- *Clear Communication Channels* – Maintaining regular communication within and between the multiple projects clearly communicating ongoing schedule progress, identified issues and resolutions, identified risks and mitigations strategies and key project dependencies.

5.2 System Development Lifecycle (SDLC)

Similar as noted above regarding Project Management disciplines, there is a wide variety of approaches to software development across the State. It will be important to clearly communicate the SDLC process that will be followed within each component of the HBE implementation.

It is important to identify the SDLC phases, as well as the deliverables and outputs of each phase, to assure that all necessary steps have been completed before moving to the next phase of the development. For a large scale effort such as the HBE, it will be critical that an iterative approach be taken. This will allow for continual feedback and adaptation across many phases of development and testing.

5.3 Testing

Adherence to testing protocols and disciplines is key contributor to any successful implementation and will be especially critical for the HBE application.

During the interview process, First Data found that most State agencies have standards around testing. However, none of the various IT groups are currently utilizing an automated testing tool nor do they currently have any other automated means of application testing.

The HBE will be a complex solution which will require interoperability of different systems across multiple agencies. This understandably implies a challenging testing environment. It will be vital that an automated testing tool is utilized to support efficient testing which can perform the following functions:

- Utilities for load/stress testing

- Easy creation of automated test scripts

- Rapid support of automated regression testing

- Integrated issue tracking and resolution

Alternatives for tool usage include the following options:

- **Purchase and State Implementation** – taking responsibility for the selection and implementation of the testing support tools internally within the state.

- **System Implementation Vendor Support** – include within a vendor procurement the responsibility for providing and maintaining an automated testing capability.

- **Independent Vendor Support** – contract with an independent testing vendor that supports the required test support tools and techniques.

5.4 Business Continuity and Disaster Recovery

It is critical that the HBE be available and accessible to all customers in accordance with the State's requirements. Several of the State agencies currently employ Disaster Recovery sites for their data centers, and there is clearly some expertise in this area.

However, the HBE will be a complex system and will require extensive communication across various agency platforms. This will require careful planning in the areas of Continuity and Disaster Recovery, including the following considerations:

- Application load balancing

- Database replication and failover

- Database maintenance and optimization

- Hot, warm, or cold disaster recovery sites

DIS offers planning and support for Business Continuity and Disaster Recovery within the State of Arkansas. With such a considerable level of development that has to occur within the next 2 calendar years, it is not prudent for AID to consider developing their own Business Continuity and Disaster Recovery plans internally without leveraging available support methods. Other options include external vendor support either through an existing IT Implementation procurement or through a separate contractor supported effort.

5.5 Training

Training is an essential piece of a successful implementation. Scheduling training early in the project assures that all parties will be prepared for the transition to Operations. Establishing a functional training environment in advance of the initial Open Enrollment period will require careful planning for the availability of automation support well in advance of the "go live" date. Technical development plans must include provisions for system availability to complement the Communication, Outreach and Training efforts for HBE third-party community support (Navigator, Brokers, Producers, and Outreach/Communication support).

The HBE will require training initiatives across multiple fronts:

- Training internal support staff across multiple agencies including call center support

- Public outreach and training

- Navigator/Producer training

5.6 Contractor Engagement

Regardless of which of the various options presented above is chosen for the HBE application, it is clear that none of the State agencies currently possess the operational capacity to develop the HBE without assistance. To minimize the impact of procurement delays, it is critical to identify activities that will require contract staff.

Additional challenges could arise related to the RFPs that are in progress across the various agencies. It will be essential that there is open communication and a willingness to collaborate in order to ensure interoperability. For future RFPs that are released, especially any directly related to the HBE, this need should be clearly highlighted.

As vendors complete their tasks, it will be critical to identify activities that are needed to ensure a smooth transition to the operational teams.

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6.0 Overall Recommendations

6.1 Maximize AR Investments

A key factor in the successful development and operation of the HBE is capitalizing on existing resources and assets. The following procurement initiatives are all poised to deliver industry-standard and configurable assets that will both illustrate collaboration between the Health Services initiatives to the Federal oversight agencies, as well as, represent excellent opportunities to support the HBE requirements.

- Security component / Department of Information Services (DIS) Single Sign On (SSO)

- Business Rules Management component/ Department of Human Services (DHS) Business Rules Management System (BRMS)

- Data Exchange component / Office of Health Information Technology (OHIT) SHARE

- Member Management/Finance Management components / Department of Human Services (DHS) MMIS system replacement

Proper and efficiency use of these future assets should help minimize two significant risks to the HBE effort – reduction in "time to market" and reduction in the system implementation/maintenance costs.

6.2 Continue Requirements Development

Continuing the development of the HBE functional and technical requirements is a vital next step in the progression of establishing the technical support functions of the Arkansas Exchange. The requirement development effort should focus on the following elements:

- **AR HBE functional and technical requirements development** – Continuing the development of the AR requirements should include refining the existing Business Requirements with business process development as well as identifying which existing AR shared assets will be utilized to support the AR requirements.
- **Request for Information (RFI)/Third Party asset evaluation** – Each state represents a different set of organizational and technology variables that may impact the functional and technical fit for solutions. By leveraging the development of the AR HBE functional and technical requirements**,** the expected output of the RFI responses would be the identification of valuable features presented by the vendors and their potential solutions. To minimize the impact on the HBE timeline, the issuance of an RFI should occur as soon as possible enabling the vendor community the opportunity to develop informative results in parallel with the internal AR HBE requirements development effort.

The results of the HBE requirements development and RFI material will significantly improve the clarity of the intended technical approach. The clearer product descriptions will increase the state's confidence in effectiveness of the RFP, as well as, improve the efficiency of the vendor delivery assuring a timely completion of the RFP deliverables.

6.3 Establish Interagency Agreements

Interagency agreements describing the Operational and Financial responsibilities of the various Arkansas state agencies involved with the Health Services initiatives will be critical to defining the future integrated operations. In addition to the Operational agreement, establishing Interagency planning agreements describing each agencies' responsibilities towards the completion of the planning, design and development efforts in advance of implementation will provide significant advantage towards clarity in each agencies' roles/responsibilities.

6.4 Interagency Collaboration

In addition to the clarification provided through the Interagency agreements, establish dedicated Program Management and Enterprise Architecture roles to support Health Information Enterprise. Focusing both resources to ensure efficient coordination and collaboration across both the Project Management and Solution Management arenas, the addition of the dedicated roles will enable management to focus its attention on Communication, Outreach, Issues/Risks and working closely with the Federal and Third-party stakeholders. Both the Program Management and Enterprise Architect roles could be fulfilled through either external vendor support or internal state staff.

If the enterprise intends to leverage the staff in an ongoing state-staffed function, then efforts should be made to identify strong state staff candidates. Ongoing funding for the roles will need to be migrated to long-term operational budget sources.

If the Health Services enterprise does not expect to be able to maintain a long-term funding source, then the state should strongly consider funding the positions through the HBE, HIE and/or MMIS funding methods.

6.5 Maximize Federal Support/Minimize State Maintenance

Effectively utilizing the Federal grant aid programs to establish a more cost efficient technology maintenance and support model requires an early planning focus. An ongoing focus is needed in the functional and technical requirements to include provisions to simplify the maintenance of the HBE operation (e.g., simple user interfaces to maintain eligibility business rules). A focus on developing a technical architecture that is modular and service-enabled should ensure the capability to find staff skilled in the support of the HBE architecture.

The Federal support programs should be leveraged during the Planning and Implementation stages to support the cost of acquisition, while focusing on selecting tools

that are highly configurable and can be maintained with a level of ease. Leveraging products that reduce IT operations and maintenance costs will be critical to the long-term financial sustainability model.

6.6 Strengthen Exchange Relationships

The Arkansas HBE Planning team has already established a strong relationship with their Federal partners/liaisons as well as engaged in national initiatives such as the Enrollment UX 2014 project. Although each state that chooses to establish its own Exchange will have differences, throughout the development of the exchange each state will continue to identify new challenges and opportunities for collaboration.

Additionally, the Federal Exchange presents an excellent opportunity to leverage a technical component. For example, the Health Plan Management tools are a strong consideration because they are not expected to be directly accessed by Arkansas citizens, therefore not requiring an integrated Security usage model.

Federal assets leveraged within a State Exchange also have the option of being replaced after the January 1, 2014 implementation requirement. However, implementation costs beyond the January 1, 2014 establishment date do not have Federal grant support.

7.0 IT Integration Plan

In order to capitalize on the knowledge and experience available from these agencies and organizations, Arkansas must decide on their governance model and secure additional dedicated staff to begin establishing the HBE operation. This staff must be authorized to coordinate with other state agencies as they work to meet the Federal standards for HBE. Daily oversight must assure that staff is properly allocated and tasks are completed on time. There must also be an individual or a small group of individuals in place to make decisions in a timely manner to assure that the implementation can progress without roadblocks.

The Operations Plan will contain a comprehensive timeline with specified tasks and known dependencies. The timeline will incorporate all the plans and will include at least these critical dates:

- Level One Grant Applications may be submitted September 30. 2011 or December 30, 2011. It is the intent of Arkansas AID to meet the September 30, 2011 submission date.

- Level Two Grant Applications may be submitted December 30, 2011; March 30, 2012; or June 29, 2012. It is strongly recommended that Arkansas AID meet the March 30, 2012 submission Date

- Open Enrollment in the Exchange for consumers must begin by October 1, 2013.

- Each HBE will be evaluated and a decision made by January, 2013 as to whether or not the State is judged able to fully implement an Exchange by January 2014.

- Fully operational Exchange, January 2014

7.1 Additional Timeline Factors

The following table identifies some key milestones for ongoing efforts throughout the State as well as some target dates for the HBE.

Milestone	End Date	Resource
SHARE RFP Published	8/1/2011	OHIT
Core MMIS Responses Due	8/25/2011	DHS
SHARE RFP Responses Due	8/26/2011	OHIT
Secure Sign-on (SSO) Vendor Chosen	8/30/2011	DIS
SHARE Vendor Announced	9/6/2011	OHIT
SHARE Phase I Pilot begins	9/23/2011	OHIT
DHS Eligibility Engine Available	10/31/2011	DHS
SSO Phase I	10/31/2011	DIS

Milestone	End Date	Resource
SHARE Statewide Phase I Deployment	11/10/2011	OHIT
Core MMIS Vendor Chosen	11/11/2011	DHS
ARBenefits Oracle Phase-out Complete	12/31/2011	EBD
Health Benefits Exchange RFP(s) Published (target)	12/31/2011	HBE
Health Benefits Exchange RFP(s) Responses (target)	2/15/2012	HBE
SHARE Phase II Deployment	4/27/2012	OHIT
Medicaid Eligibility Engine Integrated in Access Arkansas	10/31/2012	DHS
Health Benefits Exchange Open Enrollment	10/1/2013	HBE
Core MMIS Phase I	10/31/2013	DHS
Core MMIS Phase II	7/31/2014	DHS

Table 15 Potential Timeline

Appendix A –Interviewee Contact Information

List of Key Informant Interviews and Contact Information as of July 15, 2011:

Date of Interview	Name of Agency	Interviewee(s)	Lead Contact Person
07/06/2011 07/07/2011	Department of Human Services (DHS) http://www.arkansas.gov/dhs	Richard "Dick" Wyatt Chief Information Officer Department of Human Services Donaghey Plaza North, Slot N101 P O Box 1437 Little Rock, AR 72203-1437 Phone: 501.320.3993 Fax: 501.682.1376 richard.wyatt@arkansas.gov Victor Sterling Medicaid Data Security Administrator Division of Medical Services (DMS) Phone: 501.320.6539 victor.sterling@arkansas.gov	Dick Wyatt
07/06/2011	Department of Information Systems (DIS) http://www.dis.arkansas.gov	Kym Patterson State Chief Security Officer Department of Information Systems One Capitol Mall, Third Floor P O Box 3155 Little Rock, AR 72203 Phone: 501.682.4550 Fax: 501.682.9465 kym.patterson@arkansas.gov	Kym Patterson
07/06/2011	Arkansas Insurance Department (AID) http://www.insurance.arkansas.gov/	Britton Kerr Chief Technology Officer 1200 West Third Street Little Rock, AR 72201 Phone: 501.371.2600 Britton.Kerr@arkansas.gov	Britton Kerr
07/13/2011	Arkansas BlueCross BlueShield http://www.arkansasbluecross.com	Jerry Bradshaw Executive Director Health Information Networks 601 S. Gaines St P O Box 1489 Little Rock, AR 72203-1489 Phone: 501.378.2309 Fax: 501.378.2037 jbradshaw@ahin.net	Jerry Bradshaw
07/13/2011	Department of Finance and Administration – Employee Benefits Division (EBD)	Paige Harrington Technical Manager State of Arkansas Department of	Paige Harrington

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Date of Interview	Name of Agency	Interviewee(s)	Lead Contact Person
	http://www.dfa.arkansas.gov (Offices: Employee Benefits Division)	Finance and Administration Employee Benefits Division 501 Woodlane, Suite 500 Little Rock, AR 72201 Phone: 501.682.9656 Fax: 501.682.1168 paige.harrington@dfa.state.ar.us George Platt DED/COO State of Arkansas Department of Finance and Administration Employee Benefits Division 501 Woodlane, Suite 500 Little Rock, AR 72201 Phone: 501.682.5507 Fax: 501.682.1168 george.platt@dfa.state.ar.us	
07/14/2011	University of Arkansas for Medical Sciences (UAMS) http://www.uams.edu/	David L. Miller Vice Chancellor Chief Information Officer Information Technology 4301 W. Markham St., #633-1 Little Rock, AR 72205-7199 Phone: 501.686.7609 DLMiller2@uams.edu	David Miller
07/14/2011	Delta Dental of Arkansas https://www.deltadentalar.com	Carl Harris Director Information Technology Delta Dental of Arkansas 1513 Country Club Road Sherwood, AR 72120 Phone: 501.992.1608 Fax: 501.992.1647 charris@ddpar.com	Carl Harris
07/15/2011	Office of Governor http://governor.arkansas.gov	Frank D. Scott, Jr. Deputy Director of Policy Office of Governor Mike Beebe State Capitol, Suite 124 Little Rock, AR 72201 Phone: 501.683.6462 Fax: 501.682.9499 frank.scott@governor.arkansas.gov	Frank Scott
07/15/2011	Office of Information Technology (OHIT) http://ohit.arkansas.gov/	Shirley Tyson Chief Operations and Technical Officer 1401 W. Capitol Ave, Victory Building, Plaza G Little Rock, AR 72201	Shirley Tyson

Date of Interview	Name of Agency	Interviewee(s)	Lead Contact Person
		Phone: 501.410.1996 Fax: 501.978.3940 shirley.a.tyson@hit.arkansas.gov	

Table 16 Contact Information

Appendix B – IT Integration Technical Components

Technical Component	Business Processes	Requirements
Portal	• Eligibility • Enrollment	• Web services architecture with user-friendly face that is easy to navigate by public • Compliant with 508 standards and Arkansas law • Online user-friendly comparison of qualified health plans, requirements • Online application and selection and enrollment into qualified health plans • Online requests for assistance • Linkages to other State health subsidy programs and other health and human services such as SNAP, TANF as appropriate • Services description and definition, services interfaces, policies and business rules must be published in a web services registry to support both internal and external service requests that are public and private • Provide Single eligibility/enrollment portal to determine and verify eligibility for Medicaid, CHIP and private plan subsidies and enroll consumers from individual and small group market • Carrier menu that provides choice of qualified plans and clear decision-making tools for consumers (individuals and small businesses) in choosing and enrolling in a plan that best meets their needs
Finance	• Cost –sharing assistance administration • Premium Tax credits administration • Producer, broker compensation model • Premium Billing • Payment management system	• Calculator to support online comparisons of qualified health plans, premium tax credit calculation and cost sharing reduction calculations • Premium aggregator that accurately assesses pricing/costs for coverage for individuals, families and employer groups • Premium collection and remittance to include lockbox functionality for premium collections
Reporting	• Auditing • Premium tax credits administration • Producer, broker compensation model • Health plan management to support	• Provide for transparency with State and Exchange accounting, cost allocations, auditing, and financial reporting as directed by ACA and the

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Technical Component	Business Processes	Requirements
	Qualified Health Plan certification	State • Financial reporting • External audit readiness • According to Federal/State requirements
Customer Relationship Management	• Complaints and Resolution Process • Outreach and Education	• Support consumer outreach and education follow up questions/clarifications • Call Center to assist with enrollment and consumer complaints through resolution • Support other inquiries such as Navigator access, QHP enrollment, and directing, as necessary, users/members to third party call centers for insurance program questions/issues.
Data Exchange	• IT Interfaces with: • DHHS Portal (Social Security Administration, IRS, Homeland • Security, etc.) • DHS Access Arkansas • DHS Medicaid Management • Information System (MMIS) • AID • OHIT SHARE • Private Carriers • Consumers/Navigators/Producers/Call Center • Providers (eligibility verification) • DFA EBD • Integration with other technical • components	• Linkages to other State health subsidy programs and other health and human services such as SNAP, TANF as appropriate • Support ONC standards for data exchange • Support plan data exchanges for purposes of evaluation and ongoing performance improvements (key indicators, baseline data, plan).
Security	• Eligibility • Enrollment	• Manage role-based access to underlying data • Be secure and protect privacy of consumers, providers, others in compliance with NIST Publications • Data security that includes single sign-on authentication
Health Plan Management	• Health plan management to support Qualified Health Plan certification	• Capture and manage Insurance Plan information including cost and quality information • Manage workflow of the Insurance Plan certification and eligibility processes • Provide QHP information to support decision making

Technical Component	Business Processes	Requirements
		• Manage SHOP Employer profiles
Document Management	• Eligibility • Complaints and Resolution Process	• Capture and manage incoming and outgoing documentation. • Index and track the documentation associated with consumers and Insurance plans.

Table 17 Technical Components

Appendix C – Functional Requirements

Component	Requirements
Portal	• Web services architecture with user-friendly face that is easy to navigate by public • Compliant with 508 standards and Arkansas law • Online comparison of qualified health plans, requirements • Online application and selection and enrollment into qualified health plans • Online requests for assistance • Linkages to other State health subsidy programs and other health and human services such as SNAP, TANF as appropriate • Services description and definition, services interfaces, policies and business rules must be published in a web services registry to support both internal and external service requests that are public and private • Provide Single eligibility/enrollment portal to determine and verify eligibility for Medicaid, CHIP and private plan subsidies and enroll consumers from individual and small group market • Carrier menu that provides choice of qualified plans and clear decision-making tools for consumers (individuals and small businesses) in choosing and enrolling in a plan that best meets their needs
Member Management	• Allow members to view and edit all personal information needed by the HBE (e.g. contact information, dependent information, etc.) • Interface with other components to provide updated profile information as needed.
Business Rule Management	• Basic configuration tools must be usable by business subject matter experts and be separate from the development environment • Development framework must support implementation of complex algorithms and business logic, including calling external routines • Support for rule versioning • A visual rules editor • Support for performance tracking and tuning • Reporting tools for analysis, usage, and auditing • Full documentation and context sensitive help • Support and Training
Finance Management	• Calculator to support online comparisons of qualified health plans, premium tax credit calculation and cost sharing reduction calculations • Premium aggregator that accurately assesses pricing/costs for coverage for individuals, families and employer groups • Premium collection and remittance to include lockbox functionality for premium collections
Customer Relationship Management	• Consumer outreach and education • Call Center to assist with enrollment and consumer complaints through resolution
Health Plan Management	• Capture and manage Insurance Plan data • Manage Insurance Plan certification and eligibility
Reporting	• Provide for transparency with State and Exchange accounting, cost allocations, auditing, and financial reporting as directed by ACA and the State

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Component	Requirements
	• Financial reporting • External audit readiness
Document Management	• Capture and manage incoming and outgoing documentation. • Index and track the documentation associated with consumers and Insurance plans.
Data Exchange	• Linkages to other State health subsidy programs and other health and human services such as SNAP, TANF as appropriate • Support ONC standards for data exchange • Support plan data exchanges for purposes of evaluation and ongoing performance improvements (key indicators, baseline data, plan).
Security	• Manage role-based access to underlying data • Be secure and protect privacy of consumers, providers, others in compliance with NIST Publications • Data security that includes single sign-on authentication

Table 18 Functional Requirements

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