EngagePoint™

Arkansas EEF Project
The Look Forward

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State of Arkansas,
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Contents

Executive Summary

The State of Arkansas has been a thought leader in setting public policy that is moving the State towards a citizen-centric public program administration model that is expected to be more cost effective, sustainable, and can deliver the right benefit to the citizen at the right cost with the desirable outcome

These policy initiatives and innovations combined with advent of ACA, have created a significant need for benefit administration systems modernization and integration. The legacy systems designed and built decades ago are inadequate in terms of functionality, architecture, and data. They cannot serve rapidly evolving policy and programs, and are limited in their ability to enable the caseworker to administer programs. However, citizens must be able to engage with the benefit utilization and assume greater role in managing to the desired outcome.

The AR Eligibility and Enrollment Framework (AR EEF) project was initiated to implement the much needed system modernization with the goal to have a truly integrated framework of benefit administration on which multiple (if not all) programs can be successfully administered.

This document analyzes the options to achieve the desired goals by defining the current state of the AR EEF system, the desired state, and the various options available to achieve the end goal. The document also incorporates past challenges and lessons learnt to ensure that the recommended option can be properly executed.

EngagePoint has written this assessment and recommendation document at the request of the AR Joint Performance Review committee of the Legislature, at no cost to the State. The sole intent and purpose of this document is to empower the State in making the best decision in achieving the desired success of AR EEF for the maximum benefit of Arkansans.

Eligibility and Enrollment Administration is rapidly changing

Public programs eligibility has been constantly evolving and never before at the pace as now. The HHS sector has seen unprecedented change in a very short time frame and the change of pace is not abating.

A key driver of recent spate of changes has been ACA ushering in an era of state-federal-commercial data sharing plus growing acceptance of cost sharing and earned subsidies into traditionally fully subsidized programs and last but not the least, a definitive progression towards performance based program administration.

Eligibility Models – One size does not fit all programs

So as we look to future of eligibility determination, there will be distinctly different models of eligibility determination and enrollment administration rules will need to co-exist on a common, integrated platform. There are different types of eligibility determination scenarios:

- Capitated programs
- Subsidized programs
- Cost sharing models
- Outcome focused and incentive based models
- Specialty programs

Integrated Eligibility and Enrollment (IE&E) Definition

What IE&E must accomplish is a horizontal solution that allows multiple public programs to be administered with a citizen centric approach instead of a program specific approach of the past. The objective of an integrated eligibility solution can be met by ensuring a clearly delineated set of 7 functional and architectural goals:

1. **Citizen centric case management** across all programs that citizen will be eligible for throughout their life span
2. **Eligibility determination** for various types of eligibility models, current and future
3. **Enrollment administration** across all programs types, unified handling of all life events and evidence management
4. **Financial administration** across all modes of cost sharing, subsidies, payments, attribution across all programs
5. **Reconciliation** across multiple stakeholders (state agencies, federal, commercial, clinical, employers and individual)

6. **Citizen Centric Data Layer** that serves as the shared, truth repository for citizen identity, benefit history, supporting content, evidence and life events
7. **Integration Layer** that facilitates system integration, process integration, data integration, content integration and transaction integration across legacy and future systems with the IE&E solution

Rules Engine is an important piece, but must be replaceable

Integrated eligibility and enrollment system requires a strong eligibility engine. Given the nature of public programs, the eligibility determination for each program can vary meaningfully. Most eligibility determinations share the need for a rules engine, but can vary widely in terms of eligibility criteria, type of evidence, event handling and eligibility output needed to successfully drive down stream processing such as enrollment, payment and effectuation etc.

The ideal scenario for selecting an eligibility engine is that it can handle determination for all types of programs. However, given the range of eligibility models, it is also reasonable to assume that no single engine can handle the various pre-determination, determination, verification and post-determination steps across all models.

So it is important to evaluate eligibility engine for its ability to handle the following determination functions:

- Eligibility determination and enrollment administration for Capitated programs
- Eligibility determination and enrollment administration for fully subsidized programs
- Eligibility determination, enrollment and financial administration for partially subsidized programs with some for of citizen cost sharing
- Eligibility determination, enrollment and financial administration of Elective programs
- Member allocation, enrollment administration and financial administration of Performance based programs

Enrollment Administration is critical and complex

While eligibility determination is a step, enrollment administration is a multi-step workflow management challenge. Enrollment administration is fundamentally a complex workflow management system that sits right behind the eligibility determination step. The requirements for enrollment administration are as follows:

- Event handling
- Enrollment workflow management
- Benefit selection and assignment
- Effectuation
- Renewals
- Appeals and adjustments
- Utilization and outcome management

This requires a well thought out enrollment administration module that allows for configuration and integration of all the of above capabilities.

Financial Administration is the next step in workflow

As policy makers look towards increasing citizen engagement and cost sharing in health and social benefit programs, across all programs, the need for financial administration is getting more urgent and complex.

There is a great opportunity to engage the citizen in cost sharing based on income and need levels and with greater participation from the citizen, achieving optimal utilization and outcomes.

In order to implement the necessary cost sharing models, outcome based payments and incentives for proper utilization, a proper financial management system is required that can at-least accomplish the following:

- Multi-program accounting
- Multi-tier accounting ledgers
- Financial transaction workflow management
- Subsidy calculation
- Invoicing
- Payment collection, attribution and distribution
- Event handling
- Exception handling
- Interfaces to Enrollment administration

Reconciliation is hard but essential

There is a large number of stakeholders involved in public programs administration, particularly when program administration requires data exchange between state agencies, federal agencies, commercial carriers, employers, brokers, citizens and citizen representatives (brokers, navigators, social workers etc.)

A complete solution must account for process and data reconciliation across multiple stakeholders, such that every stakeholder truth can be reconciled to other stakeholders' truths.

For example, enrollment data reconciliation across Medicaid, Exchange and carriers is an essential function without which program expenditure accountability cannot be achieved. And lack of reconciliation will inevitably result in over/under utilization of the program.

The EEF solution must include a powerful, configurable reconciliation management system that can meet the following functional and data needs:

- Multi-party reconciliation workflow management
- Configurable process flow
- Configurable data sources for every step
- Data linking across data sources with configurable linkage rules
- Expected – Actual analysis
- Analysis and visualization of large volumes of data
- Automatic and manual resolution of variance between expected and actual
- Remediation workflow and interfaces
- Transaction auditing and compliance

Key Success Criteria - Citizen-centric case management

Most states have historically implemented program specific or agency specific case management in their operations and underlying systems. This is a natural result of how programs and agencies evolved.

However, to achieve a true citizen centric program administration, with the ability to manage utilization, cost and improve outcomes, there has to be a citizen centric view across all programs. Such a view would allow for effective citizen engagement and allow case/county workers and policy makers to influence better outcomes at lowest cost to tax payer and to the highest benefit for the citizen.

Achieving a citizen centric, any-all program model of case management is achievable with the integrated eligibility and enrollment system, but not without. This is the core value proposition of investing in IE&E systems that leads towards citizen empowerment, citizen self-service, effective communication and greater citizen engagement in the public program benefit delivery.

Effective, citizen centric case management requires unification of the following data elements across programs on a horizontal framework:

- Identity (Who is the citizen)
- Communications (CRM)
- Events (Life, administrative and system events)
- Content and evidence (Citizen supplied, internal, external)
- History (Case history, benefit history, exceptions)
- Audit trail and activity logs

Getting architecture right is critical

The right implementation approach must implement the right functionality and architecture to achieve a sustainable and effective IE&E. This is the basis for our recommendations in moving forward

Given the current state of available technology, there are several good ways to implement a truly scalable, multi-program solution architecture for IE&E, as long as key considerations are steadfastly addressed:

- Citizen centric data model
- Integration framework that shares a rich set of services across programs
- Well defined software modules that can be enhanced and upgraded
- Well defined and strictly enforced interfaces to bind modules into a solution
- Clear integration blueprint backed by empowered, skilled governance team

What is the right EEF solution for State of Arkansas?

We believe that the right EEF solution for State of Arkansas has the following:

- Is functionally complete:
  - Application intake, eligibility determination, enrollment administration, and financial administration.
  - Event management, a citizen system of record, shared services, and a common integration framework.
- Is not program-specific:
  - Building a program-specific system will lead to silos of functionality and make the system very expensive to maintain.
- Is multi-program capable:
  - Program-specific logic should be configured on top of a well-defined multi-program capable system.
- Is modular and leverages existing software modules:
  - Allows for upgrades and enhancements at the module level without major changes to the overall solution.
- Is open and capable of information sharing:
  - Uses well-defined information and integration services to publish and consume all external data.
- Is designed to meet CMS standards and conditions in theory and in practice.
- Is citizen- and case worker-centric:
  - All past systems have been designed around programs, which leads to a very disjointed caseworker experience that essentially prevents citizen engagement.
  - EEF can and should be designed to allow for seamless case management across program boundaries, which will empower case/county worker to be effective in any location.
  - EEF must allow for increasing citizen engagement and pave the path toward a unified and effective citizen experience that leads to citizens having the information they need to engage and act.
  - This approach will help achieve the desired balance between access, outcome, and cost of the programs administered through EEF.

Avoid Functional Silos

A silo is a large structure used to store bulk materials such as grain for agriculture. In technology, silo is a term used to describe a complex IT system designed to serve a certain business purpose. The connotation is that an IT silo is intended for only one purpose, and that the components inside this silo are not shareable or reusable for other purposes.

The following diagram depicts the functional silos that the current solution design will result in: EEF for MAGI, EEF for non-MAGI, SNAP, and other programs. When we take a close look at each of these program silos, we see that they each provide very similar capabilities and processes, such as application intake, eligibility determination, enrollment, case management, life events management, appeals management, and notifications. Despite the similarities, they are not sharing or reusing any of these commonalities. This is akin to buying four different drills with four different bits, rather than purchasing one drill with the power to support multiple bits.

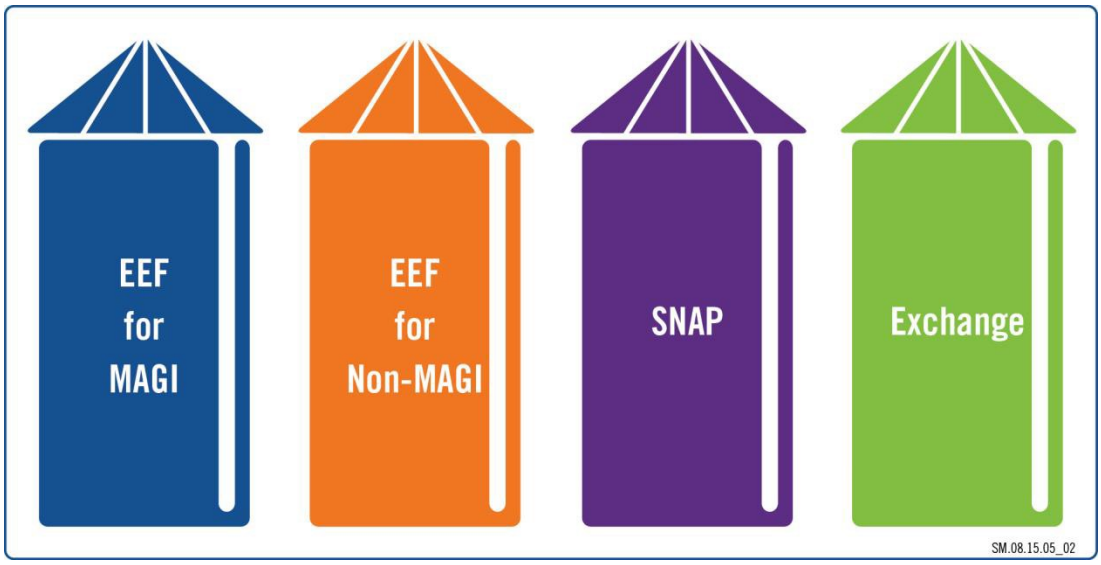

Figure 1: AR EEF Functional Silos

States need to move away from the inefficiencies of silos and strive toward the IT shared services and consolidation model like that powerful, adaptable drill for complex IT projects. CMS advocates this approach via MITA, and EngagePoint is implementing this approach for many states to manage risks, improve efficiencies, and reduce costs.

At the heart of this strategy is the enterprise foundation that powers technical capabilities that can be shared and used across other state systems, such as MMIS, health exchange, Child Welfare, and other programs. Using our drill analogy, the enterprise foundation acts as a

battery pack that can power not just the drill, but also a power saw, nail gun, and router. Inside the battery pack are rechargeable batteries that can be easily replaced if they fail to hold a charge. This is analogous to the concept of using COTS software rather than custom-built software. COTS products are proven and time-tested options that reduce implementation risks.

Coincidently, this is exactly the approach other states are embracing as part of system modernization efforts: standing up a statewide enterprise foundation based on COTS and whose technical capabilities can be shared by over 15 systems across all agencies.

Define a Single Solution for the Entire Scope

DHS project leadership must not split the AR EEF into separate MAGI, non-MAGI, and SNAP solutions. The DHS project leadership must work with the prime contractor to review and agree to the priorities, scope, milestones, and deliverables with the State project leadership for an integrated EEF MAGI, non-MAGI, and SNAP implementation.

As shown in the following diagram, Cúram software is responsible for several, but not all, functional areas of the solution. The key takeaways for our solution strategy are:

- A fully functioning EEF requires functionality outside of Cúram's boundary.
- A sustainable EEF solution must be based on modular COTS products to enable ease of maintenance, support, and enhancement.
- A sound enterprise foundation is the prerequisite to realize sustainable IT modernization. Its shared services promote IT consolidation and reuse across departments and agencies.

DIAGRAM ON NEXT PAGE

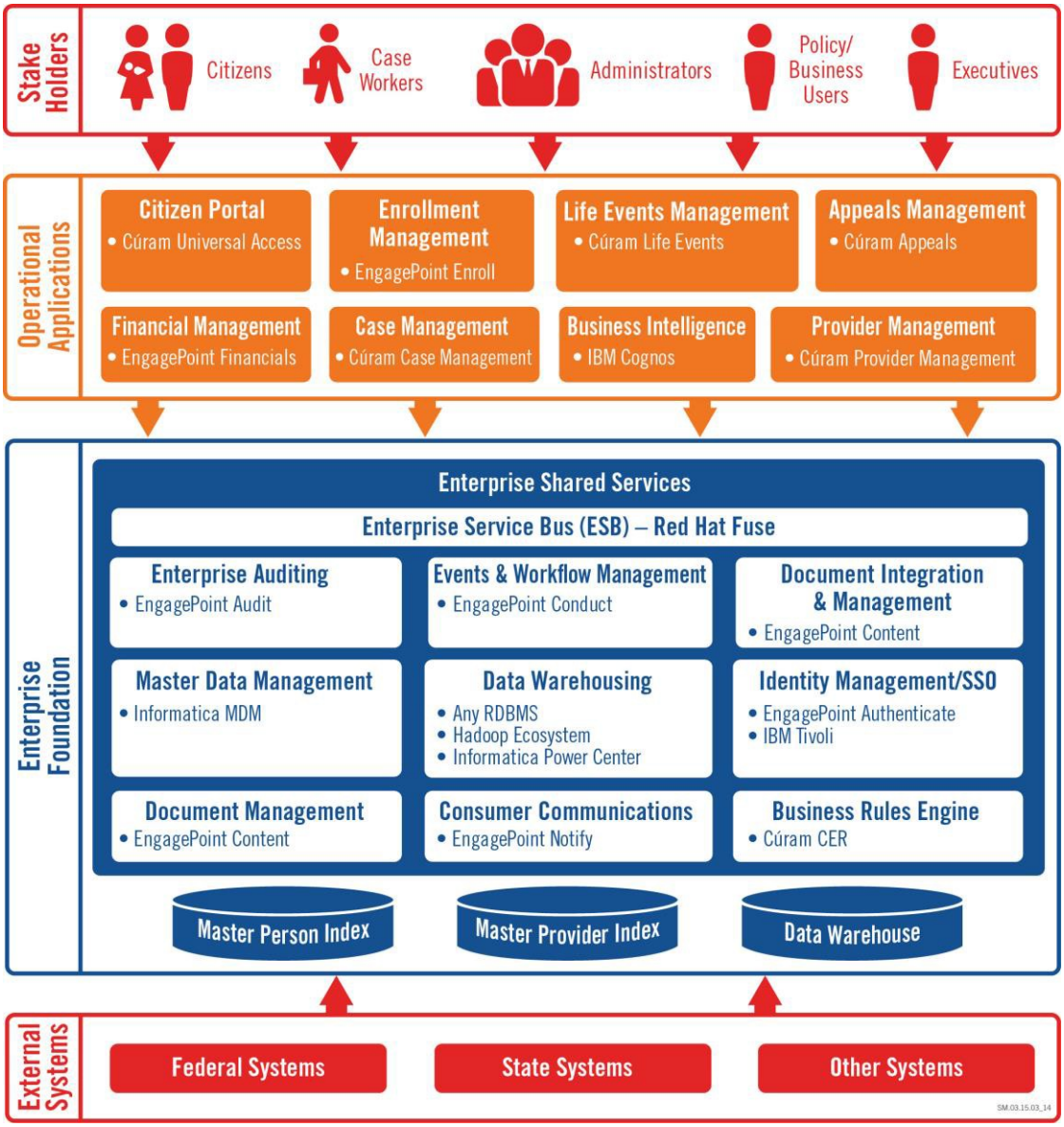

Figure 2: Sample EEF Solution Design

The Path Forward

Options for AR EEF

Given the industry-wide movement towards modularity and CMS-mandated interoperability, whatever path the State chooses, the solution must be functionally modular, software-based and capable of serving the current and future needs of Arkansans.

All options ultimately must be weighed against the standards of:

- Modularity
- Upgradability
- Good solution architecture
- Reusable components and services
- Information sharing

There are three possible paths forward for the State to achieve a sustainable IE&E solution:

- Stay the course
- Full system replacement
- Build on what you have - leverage and course-correct

Opton 1: Stay On the Current Course

This option requires maintaining the Cúram-centric architectural approach that is in place today. By doing so, the State will need to wait for the evolution of Cúram software such that addresses functional gaps while using custom development to fill gaps that remain outside of Cúram's realm. To pursue this strategy, proper fit-gap between solution requirements and software capabilities must be performed and remediation of the gaps properly managed.

This strategy carries several major risks:

- The solution will end up with excessive customization and long-term cost of ownership will be very high.
- As software matures, much of the customization will have to be ripped out, which will lead to multiple periods of system instability.
- The solution will continue to have unpredictable delays based on over-dependence on a single software vendor and a high degree of customization
- The end solution will contain a great deal of custom code and fixes to address shortcomings, which will prevent the State from achieving sustainability.

Option 2: Full System Replacement

This option has the State replacing the existing solution with a new solution. This approach can be appealing when the assumption is made that there is a complete and ready-to-use solution that meets the State's needs. In reality, the best available alternative would be another solution that is functionally assembled from multiple software modules and then customized to meet State-specific program requirements. Given the specifics of the Private Option and the investment necessary for this approach, it is akin to starting from scratch with the same approach and same challenges as evidenced by current state of EEF.

There are several major risks to this strategy:

- Implementing a new system will create major disruptions to both internal staff and external customers.
- The State will make a significant investment for a similar outcome.
- The need to achieve a modular system will require overcoming same challenges as building upon the current investment.
- Changing components does not address the challenges of scope, governance, integration and execution.

If the lessons are learned and better project methodologies (as outlined in the Managing for Success section) are applied, then this option can work. However, this option offers no inherent advantage in terms of cost, risk, or leveraging past investments.

Option 3: Build on What You Have

In this option, the State would acknowledge Cúram's limitations and position Cúram to solve only what it is designed to solve, rather than morph it into something it's not intended to be. This option realigns the solution architecture to the original reference architectural vision in order to achieve a sustainable solution that will give the State the necessary foundation to move forward confidently on the modernization journey.

A sustainable design should have some of the following characteristics:

- Physically modular components
- Clear separation of application/functional layers and foundational/non-functional layers
- Components that have well-defined interfaces
- Best-practice enterprise integration patterns
- COTS products leveraged first, when possible
- Standards adoption, where possible

The risk to this strategy is purely centered on execution. The State must:

- Find a strong and unbiased systems integrator (SI) that understands how to build sustainable solutions.
- Perform a comprehensive gap analysis to identify key areas of deficiencies and leverage COTS products to plug them, rather than try to force in a solution that is not intended for the job.
- Institute a strong governance structure with the authority to make decisions and has the best interests of the State in mind.

Recommendation: Build on What You Have (But Manage For Success)

The State, by design and by good fortune, has already embarked down the modular solution path when it began the EEF project. The challenges primarily have arisen from procurement, governance, and management.

This perspective is grounded in our hands-on experience working on the project as well as our intimate knowledge of the State's systems and processes. We also draw upon our lessons learned from each of the HHS solutions we have implemented. The following recommendations are anchored by our historical insight, skills, knowledge, and expertise.

EngagePoint recommends that the State leverage the good components of the AR EEF system and complete a course correction on the root cause issues that have presented the previous challenges.

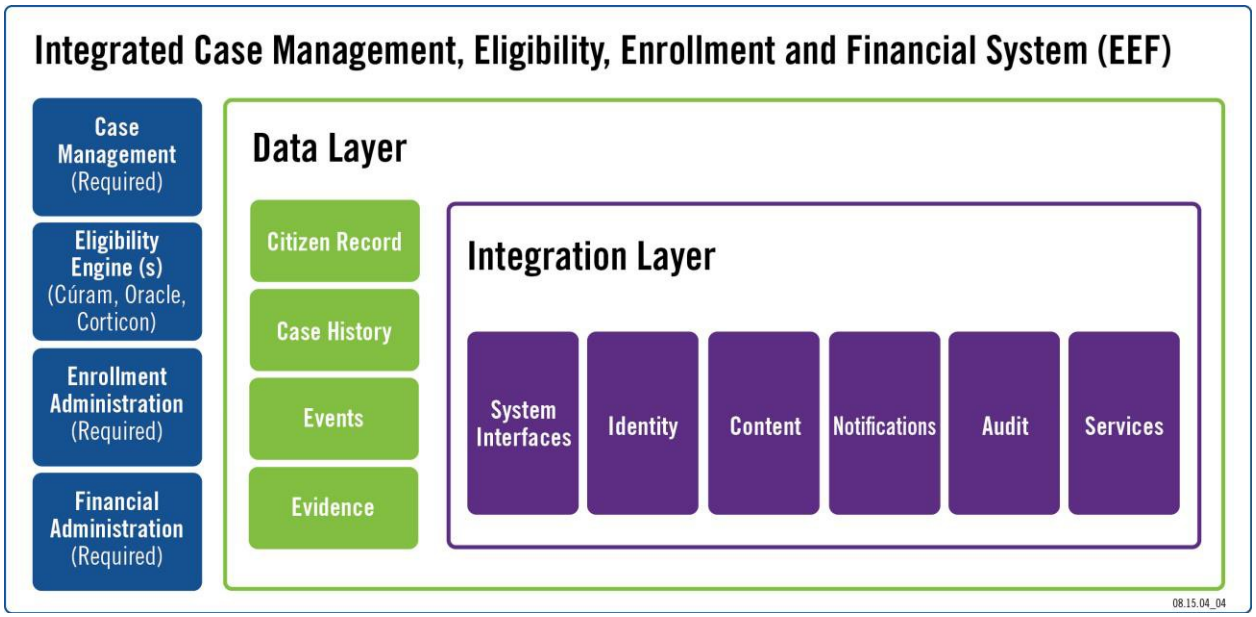

Figure 3: EngagePoint's AR EEF Solution Recommendation

Managing for Success

This section outlines EngagePoint's detailed recommendations on managing the AR EEF project's success.

Success Starts at the Beginning

Before procuring any more services, software, or solutions, the State should:

- Figure out the project's risk profile.
- Choose the methodology that matches that risk profile.
- Hire the right skill sets for the team.
- Find the right prime contractor and the right Systems Integrator.
- Stick with the methodology.

Figure out the Project's Risk Profile

Are you comfortable with waiting two to three years to get the system all at once? Or are you more comfortable receiving the system in increments, with each increment delivered a few weeks to a few months apart?

Both options have clear and subtle pros and cons. Each option requires vastly different skill sets to achieve project success. The participation, skill, and time commitment of policy makers, business analysts, project managers, and project sponsors will vary dramatically based on how the State proposes to manage risk.

Take time to think hard about what the agency/project risk profile is because this question, when answered properly, will determine the approach and fate of the project.

Choose the Methodology that Matches That Risk Profile

The State must choose the methodology that matches the risk profile and the State's resourcefulness. Then the State must prescribe the methodology in its procurement.

Choosing Agile versus Waterfall versus Iterative is a key decision. There is often a mismatch between client and vendor software development life cycle (SDLC), and most State agencies are particularly uncomfortable with Agile.

The State must carefully evaluate which SDLC the business and vendor can agree upon. Then the State must:

- Train everyone involved in the project to the same SDLC.
- Align project management and payments with the SDLC.
- Stick with the SDLC the State chooses. The project team cannot switch from Waterfall to Agile, or vice versa, mid-stream.
- Hire project managers who truly understand the chosen SDLC.

The vendor cannot and should not prescribe the methodology. The State should.

Risk is often mischaracterized because the methodology is unfamiliar. The State must ensure that project sponsor/leadership is well-educated and informed and has an experienced practitioner by their side throughout. That would be the ideal role for IV&V: acting as an experienced practitioner of the chosen methodology to help you manage the risks.

Hire the Right Skill Sets for the Team

The State must choose the right people with the right skills for the prescribed methodology:

A project manager (PM) is not just any project manager. A PM who is accustomed to the Waterfall methodology will not take to Agile automatically because they are vastly different approaches to project management. The concepts of risk, progress, and success are so different across these methodologies that success can look like failure to the practitioner of a different methodology.

Similarly, an analyst is not just any analyst. An analyst that takes pride in the completeness of requirements will dislike the iterative nature of requirements required in Agile.

A developer is not just any developer. A good Agile developer will be wasted on a Waterfall approach and will likely quit long before coding begins.

Find the Right Prime Contractor and the Right System Integrator

Fundamentally, the prime contractor with its project management office, and the system integrator with its designers and architects, must be in full alignment with the risk profile and chosen methodology.

Stick with the Methodology

The project team cannot change the methodology mid-stream, as that will surely destroy the project. The State should learn to manage the risk by leveraging the methodology, not fighting it. No approach is risk-free, or there would be no project challenges and every project would succeed.

Procurement Model

EngagePoint believes that the time and materials contract model should be replaced with a fixed price contract model. This model is critical to ensure there is a well-defined scope that can be implemented in a fixed cost basis. This will avoid runaway costs moving forward.

Additionally, as stated earlier, the success of a leverage and course correct approach is going to be centered on remediating the gaps and realigning the solution architecture foundation. It is critically important to assign a prime contractor who understands complex integration. Integration is key to success. The prime contractor must understand the need for and be capable of managing complex integration points of all State programs using the Cúram/integration solution.

Procurement Guidelines

- Fixed price
  - Prime contractor that has the necessary experience and commitment
    - COTS-based solutions
    - Vendor management
    - Scope management
    - Change management
  - System Integrator
    - Must have experience with integrating third-party software
    - Understands and believes in modular architecture
    - Compliant with CMS standards and technological direction
  - Software Vendors
    - Must have clear and committed roadmaps
    - Committed to well-defined and published interfaces for:
      - Data
      - Process
      - Events
      - Audits
      - Other items, as needed
- Fixed Scope
  - Must be defined for functional, architectural, and performance criteria

  - Every requirement must have an executable test case and acceptance criteria or the requirement should be removed from project acceptance
  - Establish proper change control board with representation from business and technical
    - Establish dispute resolution and appeal processes that have definitive outcomes
      - Either scope or cost/timelines must be adjusted
      - No decision is automatically a decision to contain scope
- Fixed Timeline
  - Allow for proper time allocation for:
    - Development
    - Testing
    - Acceptance
    - Deployment
  - Work backwards:
    - Do not allow for reduction in time allocated to:
      - Deployment
      - Acceptance
      - Testing
    - First look to manage scope
- Choose the SDLC that matches your risk management approach, and prescribe that SDLC

EEF Is a Generational System – Right Design is Essential

- Procure for sustainability and reusability.
- Own the architecture, not just the functionality
- This approach will save money in terms of cost of ownership

The ACA fueled the first wave of State IT modernization. Unfortunately, because of tight deadlines and the failure of most State leadership to fully understand CMS MITA, many early implementations are far from reaping the promises of MITA and SOA.

A second wave of procurement has begun. These procurements are calling for solutions that leverage a state- or agency-wide shared services enterprise foundation; this is a fundamental change to the previous attempt and the right prerequisite for achieving sustainable design.

The principles for achieving sustainable design must be ingrained in the entire process, from procurement to solution design to governance. The AR EEF is no different.

A good integration blueprint should include a well-defined enterprise

foundation powered by well- defined components (such as EngagePoint Audit, Authenticate, Content, Conduct, and Notify). These components have been identified and validated by industry thought leaders as foundational and mandatory in any successful enterprise modernization initiative.

The bad news is that the AR EEF project has deviated from a sustainable blueprint. Continuing down this current path will lead to the proliferation of the same monolithic silos that the entire country has lived with for the past four decades and now is trying to move away from. The tax dollars invested in this cycle of modernization will be a complete waste, and the goals of better serving the increasing population with an ever-decreasing budget will not be achieved.

The good news is that with the right knowledgeable resources and partners, the system can be brought back onto a sustainable track, but only if it has not deviated too far. The timing and the decision to take corrective action are critical.

Project Governance and PMO

The DHS project leadership must implement a qualified IT project management office (PMO). The PMO must possess an appreciation and awareness that this is a complex IT project, and neither the PMO nor prime contractor can succeed alone. The PMO must be staffed with resources that have the appropriate skills and experience to effectively facilitate and enforce project management processes to effectively manage day-to-day efforts. To ensure success, the State must implement the proper project governance and oversight and establish an effective governance structure for quick decision-making and resolution of risks and issues. The governance structure must reside above the PMO and prime contractor in the leadership hierarchy in order to effectively enforce solution architecture integrity and sustainability.

There are many ways to slice the governance apple. Good governance balances out-of-the-box with needed customization:

- Balance functional, architectural, and project management tracks.
- Require proper certification of key personnel, including PMP-certified project managers with the relevant experience in scale, domain, and complexity of the project.

Manage Scope in Alignment with SDLC

Scope definition must be aligned with implementation methodology. If the methodology is waterfall, then all elements of scope must be spelt out and agreed up-front with proper allocation of time and money to achieve a

complete and executable scope at functional, non-functional level. On the other hand if the methodology is software based, then a fit-gap approach can be taken. And if the methodology is agile, then appropriate sprint based scope management must be put into place.

Define Roles Clearly

All sides have a critical role to play:

- DHS: Requirements, acceptance, avoidance of customization, and timely procurement.
- Prime contractor: Project plan, execution, vendor management, software release management, holding clients accountable, and compliance.
- Policy makers: Must define acceptance criteria, and cannot rely on perfection (such as zero defects or 100 per cent accuracy).

Enforce Accountability

The State must leverage IV&V properly, not just monitor the role. The goal is to establish key performance indicators for the project. The State should have IV&V objectively measure each indicator. The State cannot allow the project stakeholder to hire or manage IV&V.

Allow for Surprises

Benefit administration is complex because there are so many categories and sub-categories of beneficiaries. The State must allow for metric-driven automation.

The State must also be sure to plan for exceptions. Not every category or case is worth automating. The State should set clear criteria for scenarios where a manual workflow is acceptable.

Finally, the State should understand that data will never be perfect.

Remember Infrastructure

Infrastructure needs to be ready at the start, not towards the end. The State needs proper environments, including multiple development, test, acceptance, production, and backup environments. Release management is not easy and is expensive. Everything does not have to be on premise and self-managed.

Make Sure There Are Enough Business Experts Who Can Accept the System

The State should hire a proper team of business and policy analysts engaged up-front and make sure they have the power to negotiate and decide on fit versus gap.

Maintenance & Operations of COTS-Based Systems

There is a huge difference between maintaining custom-built solution and maintaining a COTS-based solution. Software-based systems require a different approach to ownership and maintenance and are driven by the following considerations:

- The EEF is inherently dependent on external data and external transactions.
- The EEF is assembled from both COTS software and custom configuration and code.
- Support for COTS products should be purchased from the respective vendors.
- Support for the custom code and configuration, which are closely tied to and are extensions of the standard COTS capability, requires a support model that is closely aligned with COTS and integration knowledge.

In addition to the above constraints, all COTS-based solutions require a different approach to M&O that includes the following functions:

- COTS roadmap management
- On-going Fit-Gap
- Backward compatibility
- Impact analysis
  - Functional
  - Performance
  - Security
- Test automation and acceptance management
- Release management

States typically do not have the experience to manage COTS-based solutions. The State is paying for software maintenance, so the State needs to learn to leverage that maintenance. The State will not get every enhancement it asks for (and custom is costly). However, the State also will not have to pay for many enhancements. The systems will not fall behind because COTS vendors have to keep innovating, and the State benefits from the innovation.

Managing upgrades and enhancements requires skills and resources, so the State must hire the right M&O vendor with strong COTS management experience.

Plan for a Tiered M&O model

A tiered model of M&O will allow the State to focus its resources on the right functions while maximizing value from COTS maintenance contracts and vendor paid innovations -- to maximum advantage. Managing tiers will allow the State and vendors to own clearly delineated roles and responsibilities such that defects and enhancements can be properly evaluated and incorporated in the functioning system

EngagePoint recommends a four-tier M&O Support Model:

- L1 Support (State)
  - Initial call
  - Priority assignment
  - Logging
  - Dispatch
  - Knowledge base resolution
  - Communications to initiator
- L2 Support (System Integrator)
  - Initial analysis
  - Known and approved intervention
  - Data conversion and transfer resolution
  - Log and data collection
  - Problem attribution
  - Estimation
  - Issue log updates
  - Assignment
- L3 Support (System Integrator and COTS vendors)
  - Attribution validation
  - COTS resolution
  - Custom code resolution
  - Integration layer resolution
  - Data quality and format resolution
  - Non-production verification of resolution
  - Issue log updates
  - Knowledge base updates
- L4 Support (State Infrastructure/IT Department)
  - Staging resolution verification
  - Release management
  - End to end and regression testing as applicable o Knowledge

base updates with release notes
- Problem closure
- Final communications

When Can This Be Accomplished?

The following table shows potential sequence and timeframes required to roll out the complete solution across various programs. There are a number of assumptions and dependencies that will drive these timelines and should be used as a reference point only.

Table 1: Potential Solution Timelines

Program	%age Complete	Time needed to completion	Recommended Start Date	Target Finish Date
MAGI	75-80%	18 months	Jan 2016	June 2017
NON-MAGI	0%	30 months	Jan 2016	June 2018
SNAP	0%	15 months	June 2016	Oct 2017
TANF	0%	24 months	June 2017	Dec 2018

Summary

In closing, the AR EEF project has been challenged by very difficult timelines, delayed procurement, ambiguous requirements, and the challenges of managing complex IT project with unique and new technical challenges. The initial approach taken for the project was to build an integrated solution that would serve multiple programs using a modular, upgradeable, and open architecture. However the project exigencies forced the project off-track into a highly custom, vendor-dependent implementation, which is neither modular nor sustainable. In addition, project governance failures and a lack of a prime contractor compounded the issues. However, despite all the challenges, the solution is serving a large number of Arkansans and can be course-corrected. The current solution and past investments cannot only be salvaged, but can also serve as a stepping-stone towards achieving a very successful outcome for the State. The path forward comprises a well defined project organization, with careful emphasis on solution architecture, methodical execution, and governance.

Acronyms

Acronym	Definition
ACA	Affordable Care Act
AR EEF	Arkansas Eligibility and Enrollment Framework
BRB	Business Review Board
CMS	Centers for Medicare & Medicaid Services
COTS	Commercial-off-the-shelf
DCO	Division of County Operations
DDI	Design, development, and implementation
DHS	Department of Human Services
DIS	Department of Information Systems
FFM	Federally Facilitated Marketplace
HHS	Health and human services
IV&V	Independent verification and validation
IT	Information Technology
M&O	Maintenance and operations
MAGI	Modified adjusted gross income
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
NG	Northrop Grumman
PMO	Project Management Office
RFP	Request for Proposal
SI	Systems Integrator
SNAP	Supplemental Nutrition Assistance Program
SNAP FE	SNAP Facilitated Enrollment
SOA	Service-oriented architecture
T&M	Time and materials
TRB	Technical Review Board
UAT	User acceptance testing