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Oklahoma Interoperability Grant Project

Oklahoma Interoperability Grant
Business Processes Roadmap

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1 EXECUTIVE SUMMARY

1.1 Purpose

Oklahoma is exploring and planning for improved interoperability and integration in eligibility and enrollment, case management, and other related functions across human services Information Technology (IT) systems as well as exploring integration with other programs.

This interoperability exploration and planning effort includes developing a roadmap for integration of Service Oriented Architecture (SOA) and Enterprise Service Bus (ESB) to allow interoperability, fully automated data exchange and service reusability for all services exchanged between a partnership consisting of the Oklahoma Department of Human Services (OKDHS), Oklahoma Health Care Authority (OHCA), Oklahoma State Department of Health (OSDH), the Office of Management and Enterprise Services (OMES) and other initiatives. In addition to the inter-agency interoperability initiatives, intra-agency initiatives for interoperability exist between three main business unit divisions within OKDHS, including Oklahoma Child Support Services (OCSS), Adult and Family Services (AFS) and Child Welfare Services (CWS). The intent is to develop a unified overall interoperability plan that can improve business processes through a seamless customer experience, improve data exchange processes, increase data quality and reusability, reduce errors and enhance data integrity between all the agencies.

The Business Processes Roadmap will be a collaborative effort to improve those business processes both inter-departmentally and externally in terms of quality and integrity of shared data exchanges.

1.1.1 Goals/Objectives

The major goals/objectives to be achieved with the implementation of the TO-BE system are summarized in Table 1.

Table 1: Goals/Objectives

Goal/Objective	Desired Outcome	Measurement	Impact
Standardization	Enterprise wide standards	Adopted by Inter/Intra Agencies and Programs	Improved efficiency
Reusability	Shared & reused data	Adopted by ACF as a model to be used by other states	Reduction of development time
Deduplication	Less data redundancy	Adopted by Inter/Intra Agencies and Programs	Improved data integrity and reduced errors
Governance	Policies and Procedures	Adopted by Inter/Intra Agencies and Programs	Conformance to standards

1.1.2 Project Outcomes

This project will provide opportunities for inter- agency collaboration and allow multiple state agencies to leverage SOA services and capabilities, in support of the State’s effort to meet the timelines of the Affordable Care Act (ACA) for citizen enrollment. The proposed interoperability plan provides the maximum potential for mutual benefit and “reusability” by health and human services organizations in Oklahoma, enabled through the Project Outcomes listed in Table 2.

Table 2: Outcomes

Index	Project Outcome
O1	Plan options to incorporate eligibility determinations through the Online Enrollment system for additional populations, and identify opportunities for workflow improvement through the introduction of capabilities, such as new web services or business processes that can apply heuristics (via automated rules engines).
O2	Collaborate with OHCA to design a central access point for all eligibility related communications and outreach, which would support online and web based communications and automated alerts. A central access point facilitates automated alerting to remind members when their eligibility is about to expire as well as inform them of their eligibility status for various programs.
O3	Integration of information to an enterprise data warehouse tool for monitoring and performance tracking as well as outcome measurements.
O4	Ensure timely and accurate Medicaid eligibility information to all partners to support individual business related services to their customer base.

1.2 Assumptions and Constraints

General assumptions considered for Interoperability are:

- The partnership is committed to the development of a roadmap for integration of Service Oriented Architecture (SOA)/Enterprise Service Bus (ESB) to allow fully automated data exchange and service reusability for all services exchanged between OKDHS and OHCA and other initiatives.
- The partnership is committed to the development of a model for the use of the National Information Exchange Model (NIEM) to enable a consistent exchange of data.
- The partnership is committed to the development of a plan that includes options to incorporate eligibility determinations through an online enrollment system for additional populations, and identification of opportunities for workflow improvement through the introduction of new web services or business processes that can apply heuristics (via automated rules engines).
- In collaboration with OHCA, the partnership is committed to the development of a design for an online/web based central access point which would facilitate automated alerting to remind members when their eligibility is about to expire as well as inform them of their eligibility status for various programs.

- The partnership is committed to the development of a plan to integrate information into an enterprise data warehouse tool for monitoring and performance tracking, which includes outcome measurements.
- The partnership is committed to focusing on programs that addressed those interactions between OKDHS, OHCA and OSDH, which is scoped as medical and Medicaid. This should further focus our current scope of eligibility and enrollment.
- The partnership is committed to building consensus on interoperability needs and solutions through an acceptable methodology and embraces a change management process overseen through a partnership governance model.
- The partnership will respect individual lines of business authority and capability to allow and prevent access to business data in accordance to all appropriate Federal and State requirements, Federal and State standards, Industry standards.
- The partnership will include Federal partners to assist with resolving identified Federally mandated issues that may be identified as opportunities for improvement to a more efficient interoperability experience.
- The partnership and its federal partners will explore as part of its methodology working towards interoperability, existing and future best practices, and IT solutions that provide more efficient interoperability.
- The partnership sees the opportunity to adopt an Enterprise/Electronic Master Person Index (eMPI) solution that will assist with a more efficient approach to identifying and sharing information regarding an individual, as well as avoiding potential duplications or errors.
- The partnership sees an opportunity to create through interoperability a roadmap for a coordinated process improvement and the IT solution as it relates to the enactment of House Bill 1304: Information Technology Consolidation and Coordination Act.

General constraints considered for Interoperability are:

- **Constraint:**
 - Federal funding streams earmarked to certain programs with attached restrictions and regulations create artificial silos and barriers to achieving interoperability across various human service organizations and programs. This barrier makes it difficult for certain organizations to “break out” of their current silos; although the Memorandum of Understanding (MOU) and Service Level Agreements (SLA) between organizations attempt to solve some of these issues, this barrier is ever present. As implementation of the National Human Services Interoperability Architecture (NHSIA) Business Viewpoint strives for interoperability through a functional point of view so must go the Federal funding streams and associated restrictions and regulations if true interoperability is to be achieved.
 - Oklahoma has recently passed House Bill 1304: Information Technology Consolidation and Coordination Act, along with other House Bills for

consolidation on both the Business Operations and Technical side of government. Some of the language of this Act is summarized below:

- No state agency shall expend or encumber any funds for the purchase, lease, lease-purchase, lease with option to purchase, rental or other procurement of any information technology assets without the prior written approval of the Chief Information Officer.
 - No state agency shall initiate or implement an information technology planned project without the prior written approval of the Chief Information Officer.
- **Schedule Constraint:** Currently separate agencies, divisions and programs have different schedules for upgrading systems and infrastructure based on immediate needs, Federal rules and available funding. Agencies are in different stages of the process.
 - **Data Constraints:**
 - Currently OKDHS, OHCA, and OSDH each use their own intake for services and Master Person Index (MPI) process. This is a business data constraint because we collect different information in different ways for different purposes but need to share that information between when we have common customers.
 - OKDHS, OHCA and OSDH have requirements to have interagency data sharing agreements. This is a constraint because it takes on a lengthy path through business, legal and executive reviews and approvals.
 - OKDHS, OHCA, OSDH and our Federal partners have similar or same data but different data definitions.
 - **Hardware Constraints:**
 - From a business perspective, any TO-BE required hardware must fit within a SOA and Enterprise Architecture, and acquisition of any additional hardware is dependent on funding or financial constraints.
 - OMES-ISD Hardware and Software Operating Standards will be followed.
 - The architecture will follow all established OMES security and infrastructure standards, as well as industry best practices.
 - The architecture will conform to State of Oklahoma financial and economic best practices, allowing for a maximum return on investment in serving the citizens of Oklahoma.
 - The architecture will present a scalable infrastructure accommodating future growth and adhering to established governance policies.
 - The architecture will align with OKDHS business requirements and policies for delivering quality service and utility.

- **Software Constraints:**

- Any TO-BE solution must fit within the approved SOA and Enterprise Architecture, and acquisition of any additional software is dependent on funding or financial constraint.
- Our organizations do not use any common IT solution to share business data or processes, and each uses different custom software, programming languages and coding styles.
- Current software has been developed and approved based on program requirements mandated by Federal or State standards based on their business needs.

- **Organizational Constraints:**

- Resource acquisition and allocation may be a factor in implementing the Interoperability Plan. Policies and procedures may be too specific to share or reuse for purposes other than eligibility.
- Each organizational unit uses their own data center and resources to manage and support the hardware and software that support the organizations business data and processes. In addition by having varying types of hardware and software requires different types of resources and skills sets to maintain them.
- Business process changes that may be required to implement the interoperability plan will likely meet with some resistance from affected staff in each organization.
- Funding streams often dictate specific guidelines, policies, systems, etc., and we may not be able to influence change with the respective Federal agencies. In the interim, we must be compliant with Federal funding terms and conditions.
- Some agencies may have some systems that are considered proprietary by a vendor.
- Some policies and practices are based in State and Federal law which govern accessibility to data.

- **Security Constraints:**

- Compliance with Internal Revenue Service (IRS) Standards.
- Compliance with Health Insurance Portability and Accountability Act (HIPAA)/ Health Information Technology for Economic and Clinical Health (HITECH) Act Standards.
- Compliance with Family Educational Rights & Privacy Act.
- Compliance with Social Security Accounts Standards.
- Compliance with Information Security Standards.
- Compliance with Federal and State Mandates for Accessibility.
- Compliance with Program Requirements for Confidentiality.

- Compliance with Federal and State Mandates, as well as IT Standards for the creation, storage, reading and transfer of data.

1.2.1 Benefit to Other States

- This Interoperability Plan can be used by other States to implement Enterprise Interoperability measures.
- States under many Federal programs are asked to share ideas and any custom applications that States build. States can also send staff here for on site visit to gain knowledge to avoid duplication of effort.
- Custom applications developed by government are public domain we should be willing to demonstrate and share with other States. In most instances, States interested in our systems often encounter some of the same constraints around change discussed in this document.
- Other States can benefit from lessons learned avoiding any difficulties we may encounter.
- Oklahoma has been in the forefront of this kind of effort through the utilization of Enterprise Architecture and their work with the MOSAIC project to identify an Enterprise Approach to the business process, as well as an Enterprise IT Solution to support the business decisions.

1.3 Breadth

The focus of interoperability could include: State and Federal programs that require eligibility determination: Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Low Income Home Energy Assistance Program (LIHEAP), Aid to the Aged, Blind and Disabled, and the child care subsidy. Other human services programs that will benefit from a new configuration of IT services include Child Welfare, Child Support Services, Aging Services Division (Medicaid funded long term care waiver) and Developmental Disabilities Services (Medicaid funded community based waivers). Oklahoma Child Support Services does not do Medicaid eligibility however they are legally required to receive the referral. Other State agencies that are participating in the consortium include OHCA, Oklahoma Department of Mental Health and Substance Abuse Services and Oklahoma State Department of Health's program; Women, Infants and Children (WIC).

Additional details regarding identified breadth may be viewed in Appendix B.

1.4 Human Services Program and Initiatives

OKDHS is undertaking a multi-year, multi-program, agency-wide effort to update its technology, streamline and improve its business practices, consolidate its information systems, and provide a secure, compliant web portal for OKDHS employees, customers/clients and providers to conduct daily business...anytime, anywhere. OKDHS is pursuing a new enterprise software solution that is flexible and supports interoperability to allow internal and external stakeholder's access to the enterprise

system and data, regardless of technology. OKDHS is seeking an enterprise software solution that will increase customers/client use of self-service tools. The project will lead to a fully-functional, automated system that meets Federal certification, compliance and mandates for child support, child welfare, and adult and family services and the associated titles and certifications needed for certification.

1.5 Information Technology Initiatives

OKDHS is working with State governance and leadership to procure the software, installation and configuration for an enterprise human services application (HSA) to support the core business functions and processes of OKDHS, as described for the enterprise system. Also, the OHCA is seeking to implement the technical aspects of the Affordable Care Act for Oklahoma. Many aspects of the OHCA plan are consistent with the approach envisioned by the model. OHCA and OKDHS are working together on both of their initiatives to assure no duplication in funding or resources for similar projects using MITA and NHSIA principles of re-usability. The proposed system will modernize existing system functionality to provide recipients a “golden standard” of customer care (i.e., a consistent look and feel across stakeholders and seamless customer service with consistent metrics to measure and continuously approve the customer experience). The proposed system will also significantly enhance the ability for providers to have prompt access to member eligibility and enrollment information to ensure that eligible individuals receive the health care benefits to which they are entitled and that providers are reimbursed promptly and efficiently.

1.6 Health Intersection

The OHCA will coordinate with the Federal Facilitated Marketplace (FFM) to determine applicants’ eligibility for SoonerCare (Medicaid). If the individual is not SoonerCare eligible the FFM will receive notification and process them for eligibility for Advance Premium Tax Credit. At this time Oklahoma has NOT made a decision on development of a State-Based Marketplace.

Additional Interoperability between NHSIA and MITA Programs for Oklahoma can be reviewed with Appendix B. And we believe our model would support a future exchange interoperability concept.

Application Starts through the Oklahoma Health Care Authority, see Figure 1.

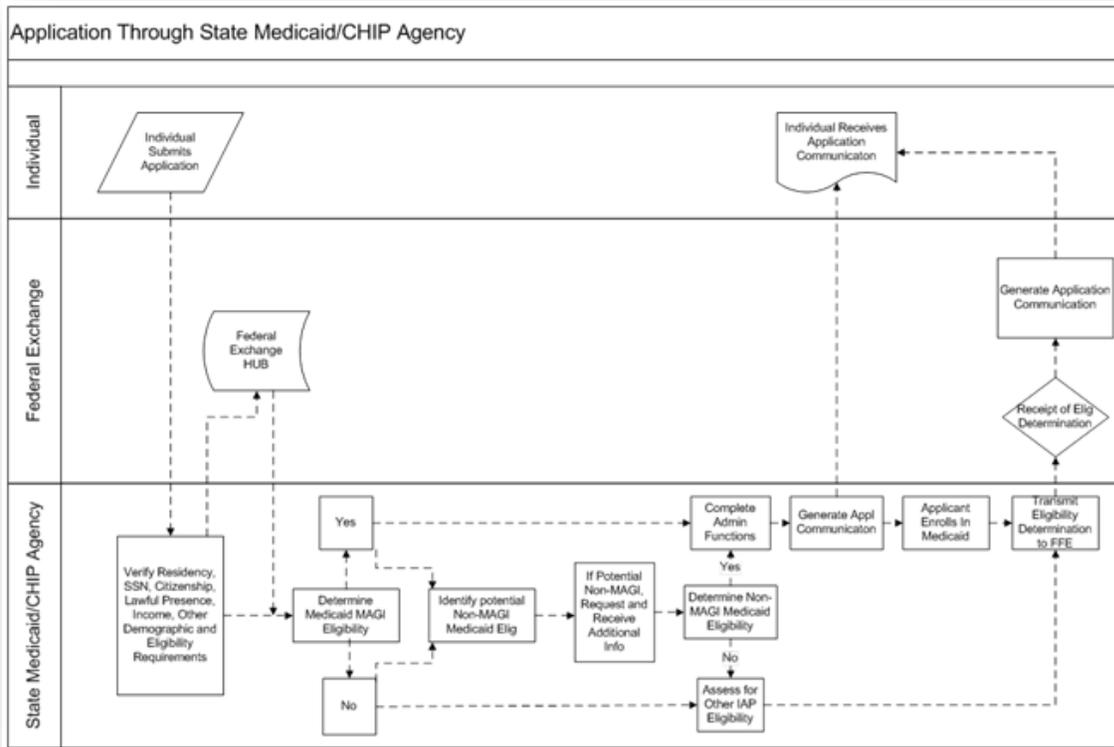


Figure 1: Application through State Medicaid/CHIP Agency

Application Starts through the Federally Facilitated Marketplace, see Figure 2.

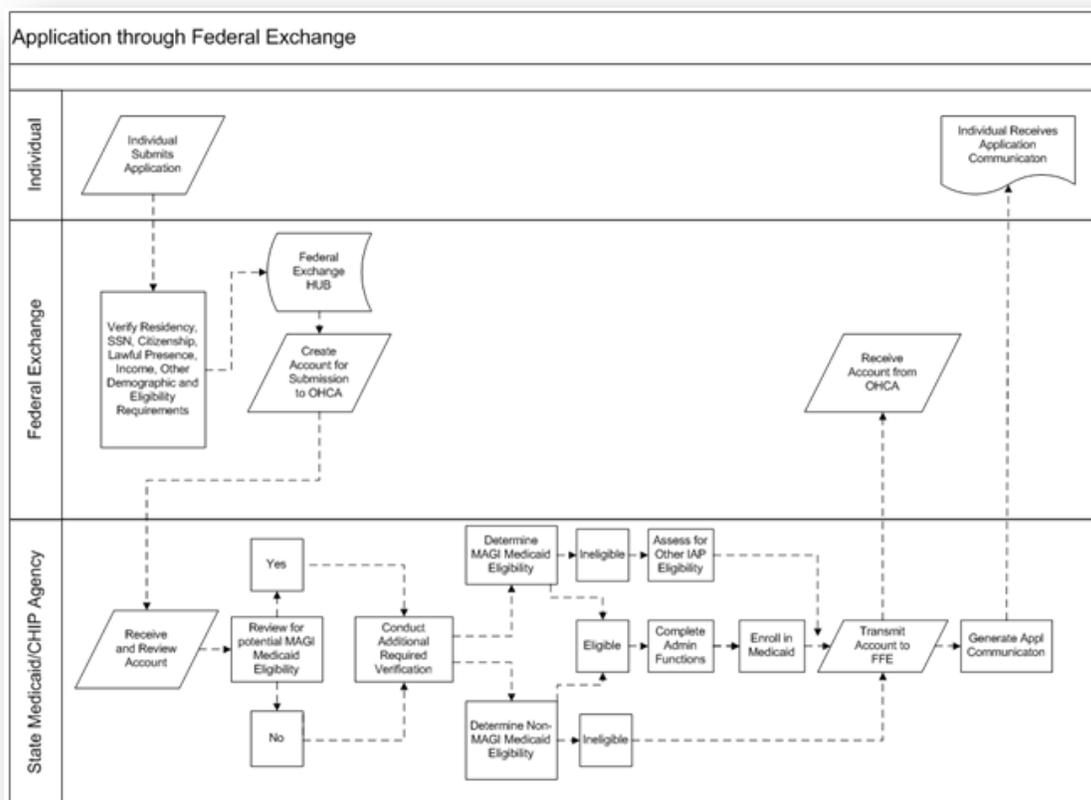


Figure 2: Application through Federal Exchange

1.7 End Result

The end results of an Architected NIEM approach will be a repeatable model that:

- Integrates MITA, NIEM and NHSIA standards for a shared functional process.
- Program and services business requirements will be harvested and consensus reached that will support interoperability implementation.
- Barriers will be identified and in working with mandating entities, removed to ensure Interoperability success.
- Funding mechanism will be established to support functional mandates that encourage Interoperability.
- One functional solution is determined and implemented in Oklahoma for the process of determining eligibility, enrollment/disenrollment, eMPI, and case management.

1.8 Background/Overview

The Business Processes Roadmap will be a collaborative effort consisting of a partnership between the OKDHS, OMES, OSDH and the OHCA to improve those

business processes, both inter-departmental and external, in terms of the quality and efficiency of data exchange.

Currently OSDH is working independently on one interoperability plan, while OHCA is working on another interoperability plan and OKDHS is developing third plan. The intent is to come up with a unified overall interoperability process that can improve data exchange processes, increase data quality and reusability, and/or reduce errors and enhance data integrity between all the agencies.

1.8.1 Shared Services

Interoperability provides an opportunity to develop a possible roadmap for identifying shared services that may provide a unique approach to approving IT resources in the future. Our enterprise approach has identified several areas of shared services that can be aligned with many agencies and divisions across the state in their delivery of programs and services. Figure 3 provides a long-term roadmap to consider as it illustrates potential service models that may be developed in the future as we consider IT solutions to meet the functional needs. The scope of this project is only a part of the possible future direction for Oklahoma.

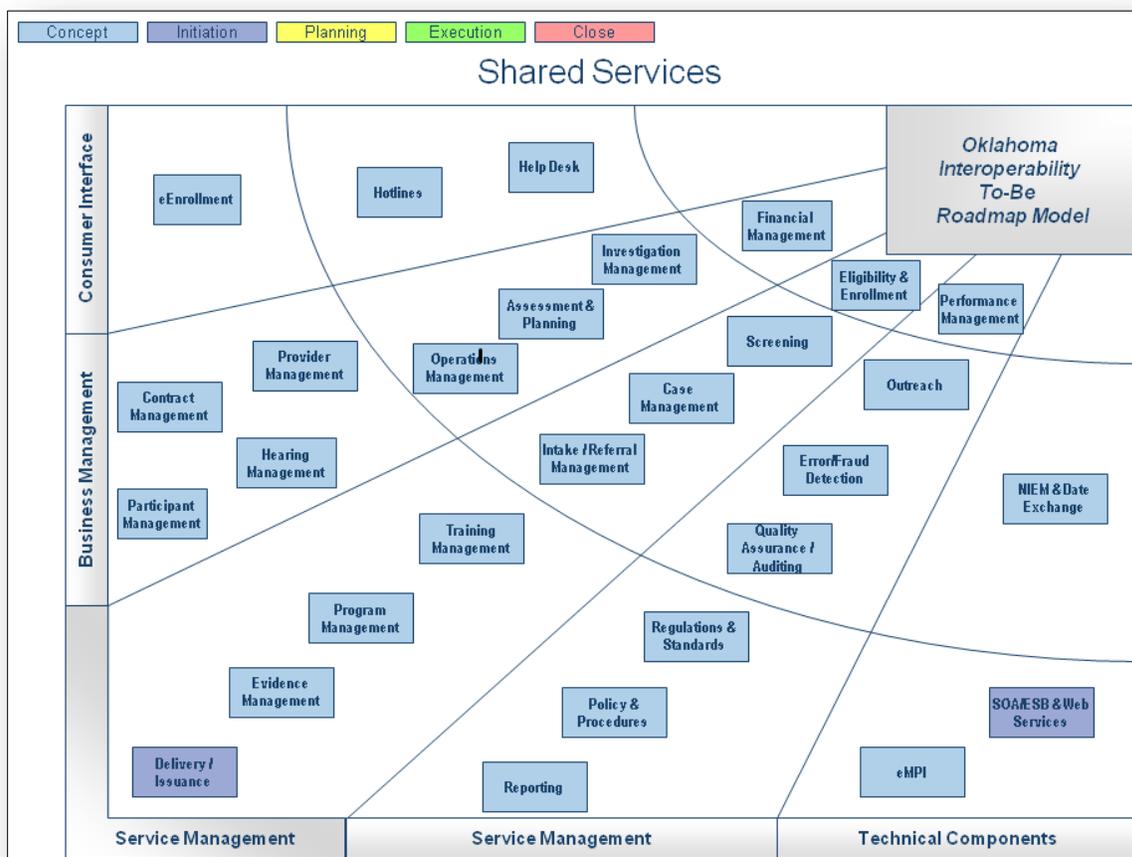
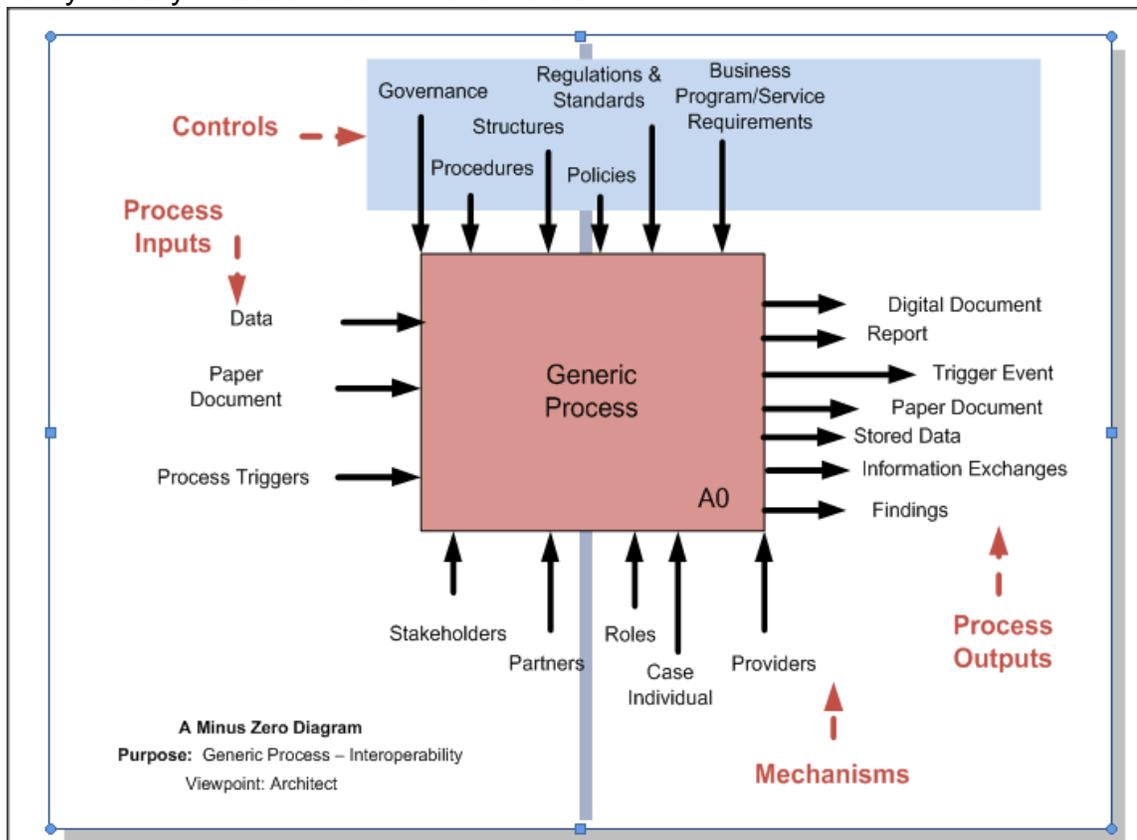


Figure 3: Oklahoma Interoperability TO-BE Roadmap Model

1.8.2 Services

Oklahoma understands the importance of building the bridge between quality business requirements in understanding how we deliver services and the importance of business driven requirements to select a complimentary IT solution through the lifecycle of software development to meet the business needs. Our roadmap illustrated in Figure 4: Integrated Definition Function Model (IDEF0-A Minus 0) below illustrates a top-level viewpoint of how we approach any process to ensure anything critical to the process is captured and related, regardless of the process. It is important to identify the Inputs, Controls, Outputs and Mechanisms (ICOMs) for each high-level viewpoint and that these are considered for driving the activity models that will follow:

1. **Inputs:** Things that are acted upon by the activity. Inputs come in from the left.
2. **Mechanisms:** Who and what performs the activity. Mechanisms come in from the bottom.
3. **Controls:** Things that dictate how an activity is performed. Controls come in from the top... every activity box must have at least one.
4. **Outputs:** Things that result from the activity. Outputs go out from the right... every activity box must have at least one.



5.

Figure 4: IDEF0-A Minus 0 Diagram

1.8.3 Exploration Questions

This plan in conjunction with the plans covered under this grant will seek to explore and answer the following questions in Table 3:

Table 3: Exploration Questions/Answers

Index	Exploration Questions/Answers
Q1	What resources will be needed to integrate OKDHS human services programs into Medicaid Information Technology Architecture (MITA) Maturity Model (MITA Framework Version 3.0)/ National Human Services Interoperability Architecture (NHSIA) compliant architecture?
A1	Interoperability will be run as a project under the Oklahoma partnership direction and will require a project schedule, staffing plan, and adherence to the Project Management methodology and the symphony of methodologies deployed as best practices in the lifecycle development of the technology solution. Methodologies need to be captured in a common, agreed upon tool.
Q2	What technical and business architecture will be needed at OKDHS to integrate MITA? What is the security architecture that protects the interests of all State agencies?
A2	The Interoperability Business Architecture required will include AS-IS and TO-BE Business Node Connection Models, Conceptual Diagrams, detailed Business Process Management Notation (BPMN) mapping for the AS-IS and TO-BE for each of the identified processes for the scope of Interoperability.
Q3	What is needed among the health and human services agencies to develop and share eMPI?
A3	The TO-BE Interoperability Architecture will require a mitigation of the current Federal and State Business requirements driving the current business decisions, a building of consensus of ID information to be applied, consensus on a new eMPI framework, consensus on matching criteria logic, consensus on a historical data migration plan and the assistance of the Federal partners to position the local partners through mandates to remove any potential barriers for building this consensus. Once consensus is achieved, MOUs and SLAs should be approved.
Q4	What initiatives of the MOSAIC human services eligibility and case management system can be shared with OHCA initiatives under the ACA?
A4	For interoperability, the work that has been completed for MOSAIC; alignment of business requirements, models created, data harvested and resolved and IT solutions offer an opportunity to have a solid foundation to move forward with the roadmap presented here. The provided roadmap is intended to build upon this work and provide an Oklahoma solution.
Q5	What efficiencies can be gained by using SOA?
A5	Sharing and agility are the major values of SOA which provide efficiencies. Sharing provides leverage and reuse. Agility provides the capability to change more rapidly. SOA helps with silos by creating interoperability agreements that reconcile how systems talk to each other, the data formats they use, and the organizational barriers to cooperation.
Q6	How can governance be used to achieve the wide range of performance expectations?
A6	Interoperability provides an opportunity for developing a strong partnership between NHSIA and MITA partners through the utilization of a strong governance model, the governance will align performance expectations with their Strategic Plan. The recommended governance process will be the owner of strategic alignment of

	measures for the partnership.
Q7	How can Oklahoma improve overall State IT operating and cost efficiencies?
A7	Interoperability provides an opportunity to realize cost savings through IT by focusing resources for developing and implementing software and hardware not from a individual program and service point of view, but rather from a shared functional point of view that crosses boundaries of siloes with something that meets at least 80% of the common needs to complete the function. Hence, cost savings and operational cost from the IT and business perspective are realized through efficient business processing time, data sharing of information, development of IT solutions to support the process.
Q8	Explore how applying NIEM Standards to our data can help facilitate a more efficient, timely and accurate exchange.
A8	An interoperability solution utilizing a NIEM Standard for our data collection will assist with developing consensus on standardized data elements to assist with the data exchanges that are required to support the overall process of serving the common customer/clients needs in a seamless approach, while reducing the required time needed for the common customer/client to access the delivery system's programs and services.

1.8.4 Options Considered

1.8.5 Options Impact and Goals

1.8.5.1 Improve service delivery for customers/clients

The implementation of common business processes across State agencies will benefit the customer/client in several ways. Primarily by reducing the amount of redundant documentation families must submit to apply for multiple benefits. Secondly, by reducing the time spent by families applying or retaining eligibility, or improving the quality of services a family receives. Finally, the customer/client is better served because the information needed to deliver more effective services is readily available to the entities that provide them.

The eligibility determination is currently a mix of processes; there are manual and electronic processes for the various Federal social service programs that are integrated only through custom interfaces with no exchange standards. No standard electronic application currently exists that can be used across multiple public assistance programs. An interoperable, reusable eligibility system will help bridge this gap. This improvement can be enabled by not only leveraging the evolving Oklahoma enterprise SOA framework, but also the governance strategy to facilitate proper design and execution of a prospective enterprise workflow. This use case also provides an opportunity to explore how additional efficiencies can be achieved to meet the ACA Gold Standard User Experience, which refers to an improved Eligibility System for customer satisfaction that is streamlined, secure and has an interactive experience that will maximize automation and real-time adjudication while protecting privacy and identifiable information. The Eligibility process should encapsulate the following functionalities:

- Individuals will answer a defined and limited set of questions to begin the process, supported by navigation tools and windows that open to provide or seek additional information based on individual preferences or answers.
- The application will allow an individual to accept or decline screening for financial assistance, and tailor the rest of the eligibility and enrollment process accordingly.
- The required verifications that will be necessary to validate the accuracy of information supplied by applicants will be managed in a standardized fashion, supported by a common, Federally managed data services hub that will supply information regarding citizenship, immigration status, and Federal tax information.
- Tools for calculation of advance premium tax credits will also be provided.
- Business rules will be supplied that will allow for resolution of most discrepancies through automation, including explanations of discrepancies for the consumer, opportunities to correct information or explain discrepancies, and hierarchies to deal with conflicts based on source of information and extent and impact of conflicts on eligibility.
- Individuals will attest to the accuracy of the information they supply.

The goal is to serve a high proportion of individuals seeking health coverage and financial support through this automated process.

1.8.5.2 Reduce errors and improve program integrity

A critical challenge to realize an enterprise solution for the Eligibility Use Case is a common and accurate way of identifying customers/clients, which is consistent across agencies. Oklahoma does not currently have a Statewide enterprise/electronic master person index (eMPI); the addition of an eMPI will aid all agencies data steward functions when attempting to align persons across systems. For example, currently, multiple identifiers exist for eligibility determination for, the Insure Oklahoma (IO) members, including a member ID (an OKDHS identifier) and an IO case ID (an Insure Oklahoma identifier). In the current workflow where manual reference checks are performed, the opportunity for errors increases. Through the development of a statewide eMPI, errors can be reduced and the accuracy of eligibility determinations increased. Information reported to or available in one program can be shared with other programs in support of program integrity efforts. By using the NIEM standards for our data that must be exchanged we will invoke a common language for the exchanges and greatly reduce errors and duplication. We have an opportunity to architect models for the norm that will provide consistencies in data collected for error reduction on shared clients/customers between partners and improve the integrity of the program through accurate and shareable data.

1.8.5.3 Improve administrative efficiency

Addressed across the Interoperability Plan tiers, performance improvements can be realized through the development of business processes, enabled by SOA, which can

automatically perform eligibility validation and cross-referencing, as web services are enabled across the enterprise. Through the SOA Roadmap, the development of business processes and the validation performed by web services to support these processes, administrative activities can be transformed to reduce redundancy of effort and streamline workflows.

2 FRAMEWORK

OKDHS, OHCA, OSDH, and OMES continually attempt to identify approaches to process improvement through the utilization of supporting IT solutions. Although each partner may have taken an individual approach to-date, this partnership offers the opportunity to focus as partners on a repeatable, enterprise model that meets the needs of the partnership's interaction points as defined through the NHISA and MITA Architectures. The approach taken in this roadmap is a Business Viewpoint to ensure we maintain focus on a business driven solution for meeting the partnership's needs. Our roadmap will include the documentation of the AS-IS eligibility determination, enrollment/disenrollment and eMPI processes using the NHISA and MITA architectures, identify best practices for the NIEM Architecture to apply to a TO-BE Model, determine the major gaps and construct a roadmap to guide a more efficient and cost effective IT solution to meet the needs for the citizens in the State of Oklahoma. Once this roadmap is implemented, Oklahoma will capitalize on knowledge and past resourcing that has brought them to the forefront in areas of Enterprise Architecture in the area of delivery of government services. In essence the Business Process Framework will use a business driven approach to identify everything critical to the business partners, including a comprehensive understanding of all the "who's" involved, "how" things get done, "what" data is needed for the exchanges, "why" are they done a certain way, "when" is it done and "where" is it done. By taking the time to understand the critical business needs associated with the process of delivering services, we ensure that an IT solution is business driven to support the needs of the mandates placed on those services. Figure 5 shows an overview of the NHISA Architecture highlighting the multiple viewpoints. Figure 6 shows the mapping of MITA Business Viewpoint to NHISA Business Viewpoint.

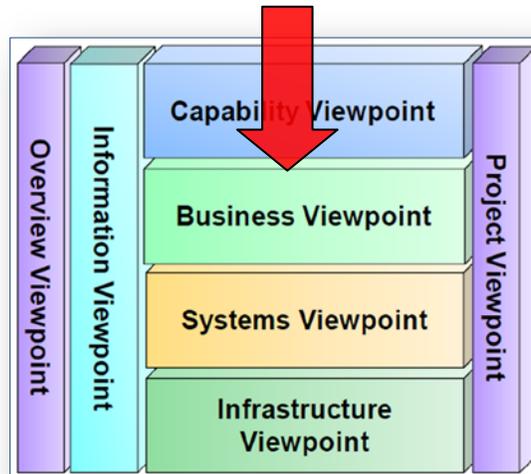


Figure 5: NHSIA Architecture

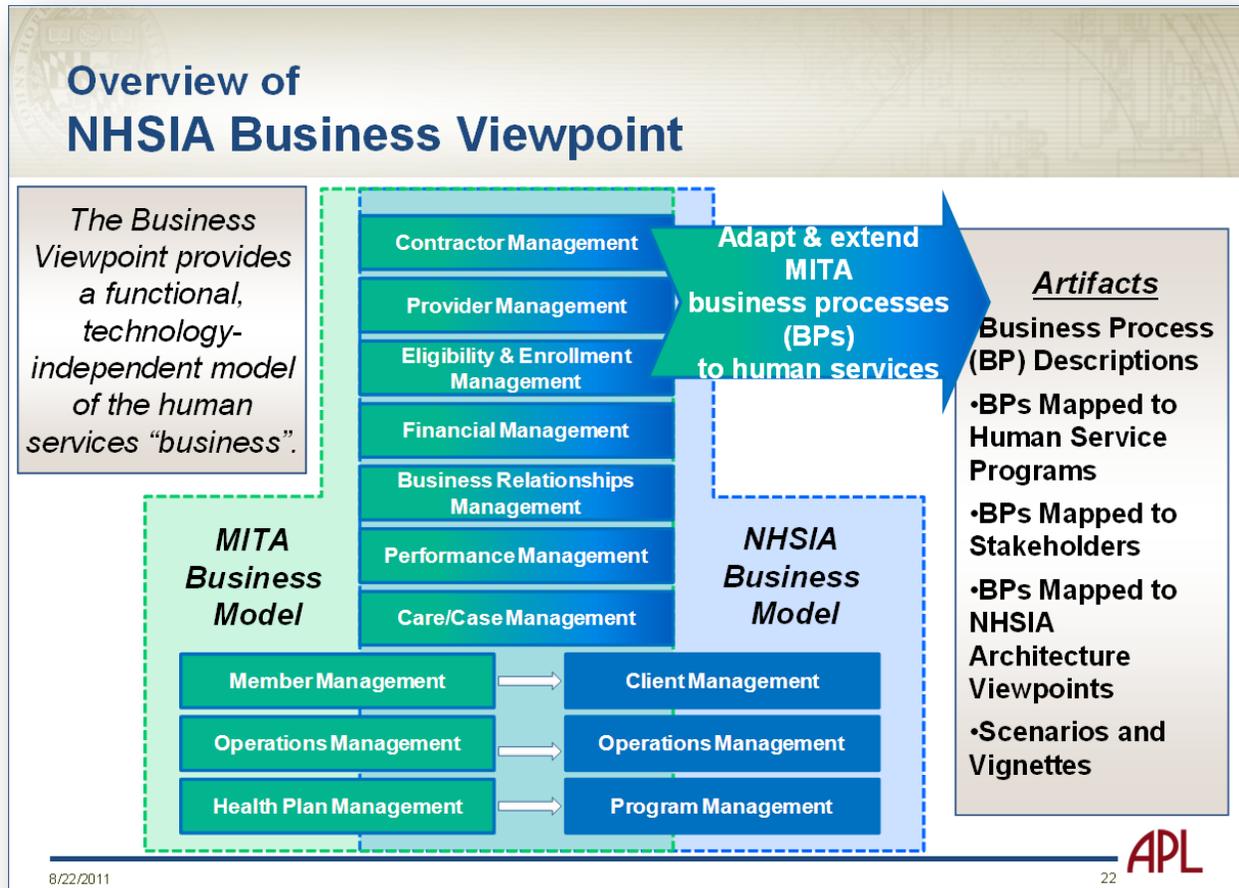


Figure 6: Overview of NHSIA Business Viewpoint

2.1 TO-BE Business Overview Roadmap

Typically, all roadmap building follows the same four steps:

- Where are we now? (current State or AS-IS)
- Where do we want to be? (desired future State or TO-BE)
- What is the gap between the two? (gap analysis)
- What is the path to get to where we want to be? (roadmap to TO-BE)

The approach used in this roadmap is to identify the current State or AS-IS architecture and identify the future State or TO-BE architecture and analyze the gaps between the two, as shown in Figure 7. This will provide a clear understanding of where we are and where we want to be.

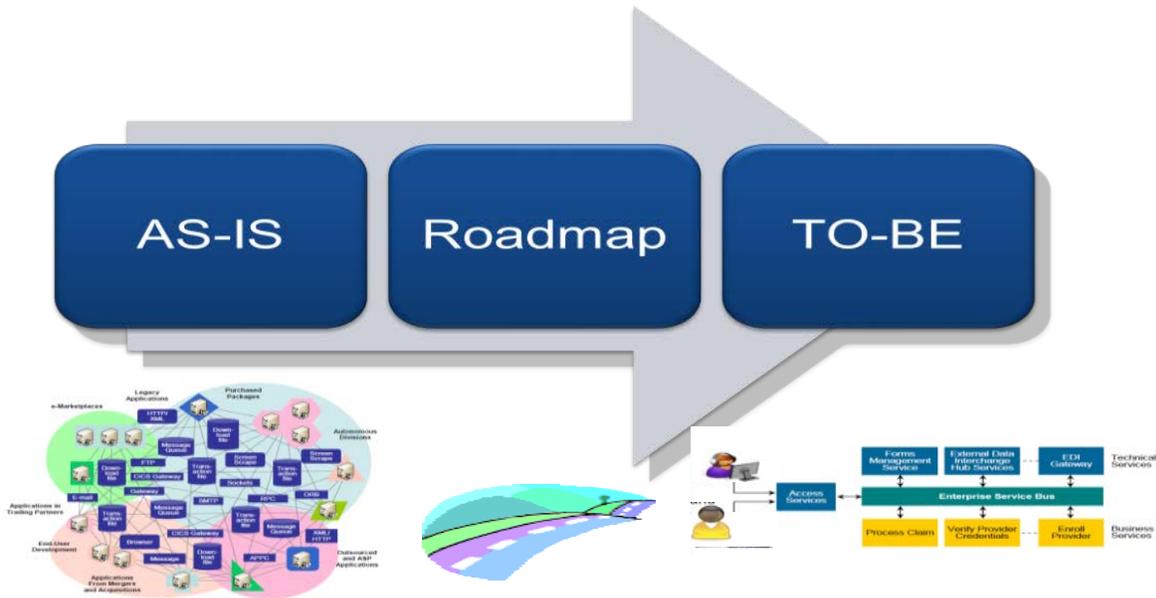


Figure 7: Identify AS-IS and TO-BE

In Oklahoma, the Whos' that are partnering to implement a TO-BE Interoperability plan are depicted in Figure 8 - Business Node Connection Model.

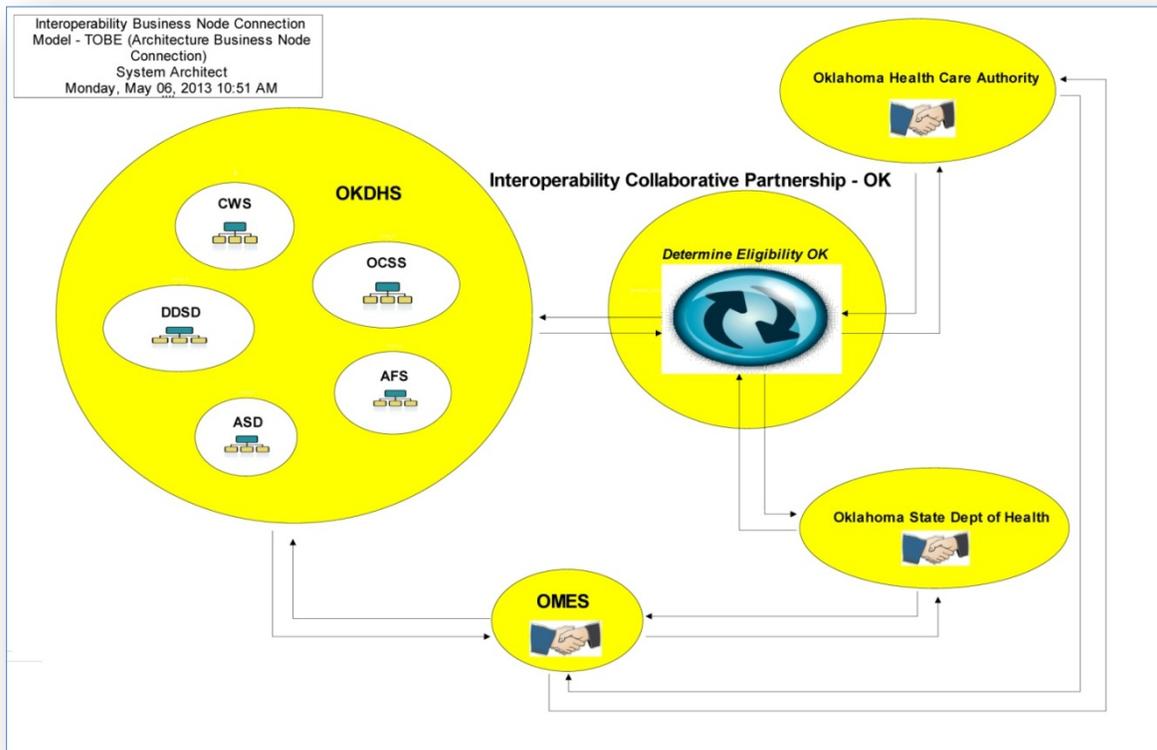


Figure 8: Business Node Connection Model

The approach that NHSIA takes is to architect a core set of essential capabilities that everyone needs. The core capabilities enable critical information sharing and create an environment that allows new capabilities to evolve more easily. The core NHSIA capabilities:

- Provide a foundation for interoperability
- Provide foundational capabilities or information

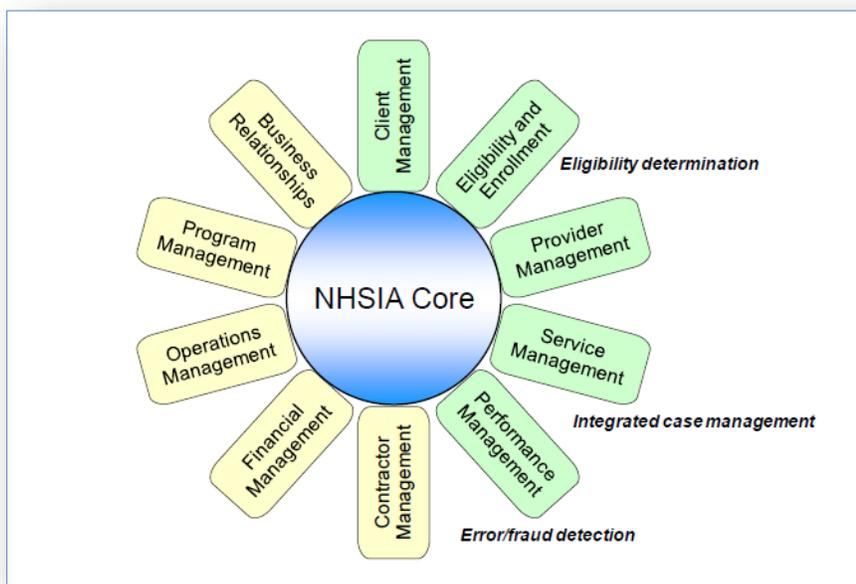


Figure 9: NHSIA Core Supports All Business Areas

Figure 9 illustrates that NHSIA core supports all the business areas involved in human services. Initial work on NHSIA addressed the business areas covering client management, eligibility and enrollment, provider management, service management, and performance management in some detail. Other business areas including business relationships, program management, operations management, financial management and contractor management defined at a high level. The core elements provide functionality upon which end-user capabilities can be built.

Implementing NHSIA core concepts means that these core information system elements will be available:

- For IT service discovery and re-use
- For information sharing that could assist with identifying NIEM-based standards. The initial shared services and information sets are those required to support core capabilities
- For developing a role-based user, single sign-on and attribute-based access control to streamline the user's experience and abide by confidentiality agreements
- For a set of repositories to facilitate selected data aggregation and analysis

In order to define NHSIA framework we have to review and attain a clear understanding of NHSIA. Many aspects of the approach outlined in NHSIA are based on methodologies recommended in the Global Reference Architecture (GRA) that has been published by the Department of Justice. NHSIA extends the MITA model to encompass the Human Services Domain.

MITA is an evolving Case Management System (CMS) initiative that fosters an integrated business, information and technological approach to building management systems that are client-based and capable of sharing information across organizational silos based upon nationally recognized standards.

NHSIA takes MITA concepts and principles and extends them beyond Medicaid to apply to human services. Therefore, an understanding of GRA and MITA would be helpful.

2.2 National Human Services Interoperability Architecture (NHSIA)

NHSIA proposes a framework to facilitate information sharing, improve service delivery, prevent fraud, and provide better outcomes for children and families. NHSIA is enterprise architecture, the enterprise being the provisioning of human services across the nation. This national enterprise is large, and comprises many lower level enterprises. Therefore, NHSIA can be thought of as a multi-enterprise or community architecture.

NHSIA is part of a hierarchical set of related architectures as illustrated in Figure 3. The scope, level of detail, and content of these architectures often do not dovetail in a simple, structured way. Nevertheless, NHSIA should be developed with an understanding of these related architectures to ensure interoperability and avoid duplication. The architectures are federated; each level has a scope and purpose and is defined to an appropriate level-of-detail as summarized in Figure 10.

Level	Scope	Detail	Impact	Audience
Community Architecture	Multiple Organizations	Very Low	Community Outcomes	Community Stakeholders
Enterprise Architecture	Agency/ Organization	Low	Strategic Outcomes	Enterprise Stakeholders
Segment Architecture	Line of Business	Medium	Business Outcomes	Business Owners
Solution Architecture	Function/ Process	High	Operational Outcomes	Users & Developers

Figure 10: Architecture Levels and Attributes

2.3 Architecture Viewpoints

A best practice in architecting is to describe architecture in terms of multiple viewpoints. Each viewpoint serves the needs of a specific user or group, such as an executive manager making investment decisions, an operational user of the systems, or a systems developer designing data structures, services, and applications.

The Department of Defense Architecture Framework (DoDAF) has evolved over a decade to include multiple viewpoints. NHSIA has adapted DoDAF to include the viewpoints shown in Figure 5. The adaptations include merging the DoDAF Systems and Services Viewpoints into a single Systems Viewpoint and pulling out an Infrastructure Viewpoint as a separate item from the Systems Viewpoint.

Overview	Overarching aspects of architecture context that relate to all views, e.g. key concepts.
Information	A conceptual data model (including high-level data classes, associations, attributes) and standards for data exchanges.
Capability	Required high-level operational capabilities described in terms easily understood by decision makers and used to communicate a strategic vision. Includes a NHSIA scorecard and performance reference model.
Business	Business processes and operational scenarios.
Systems	Describes new and legacy system components in the layers of the TO-BE architecture including software applications and services: their context, components, functions, and interfaces.
Infrastructure	The IT environment including networks, computing facilities, servers, and enterprise services.
Project	Strategies and projects planned or required to implement the capabilities defined by the architecture.

Figure 11: NHSIA Architecture Viewpoint Descriptions

Since there is some familiarity with MITA, it is helpful to compare MITA with NHSIA. MITA provides a common framework in the Medicaid arena to focus on opportunities to build common and shared services by decoupling legacy systems and processes and breaking down silos. Table 4 shows how NHSIA and MITA are closely aligned.

Table 4: NHSIA and MITA Comparison

MITA Seven Conditions and Standards		Representative NHSIA Features
Modular systems development	✔	SOA; reusable components; business rules separate from systems
Align with MITA	✔	NHSIA business viewpoint adapted from MITA; SOA
Use industry standards	✔	MITA; NIEM; GRA; GFIPM
Share and reuse technology	✔	Shared services, hubs, & HIX/Medicaid components; integrated eligibility
Deliver business results	✔	NHSIA PRM; Business viewpoint drives technology; automated processes
Performance reporting	✔	NHSIA PRM; cross-program performance information repositories (PIRs)
Interoperable across health & human services community	✔	NIEM info exchanges; verification services; shared enrollment data

NHSIA makes extensive use of MITA and uses it as the basis for NHSIA Business Viewpoint.

NHSIA provides a framework for shared business processes and understanding processes common across programs. This will help identify capabilities and processes that can be shared or reused across programs.

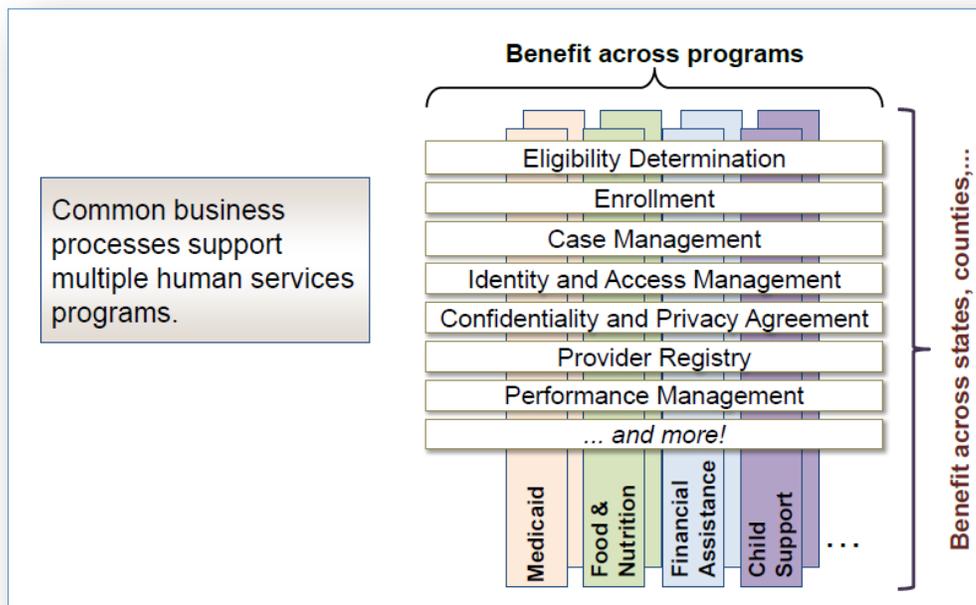


Figure 12: NHSIA Provides a Framework for Shared Business Processes

NHSIA addresses the interoperability problem by breaking down the barriers of siloed systems and promotes sharing information and applications across multiple human services programs. It is also possible to share the underlying infrastructure across human services programs. Technologies such as SOA make it possible to share the underlying hardware, network and systems software across multiple human services programs as depicted in Figure 13.

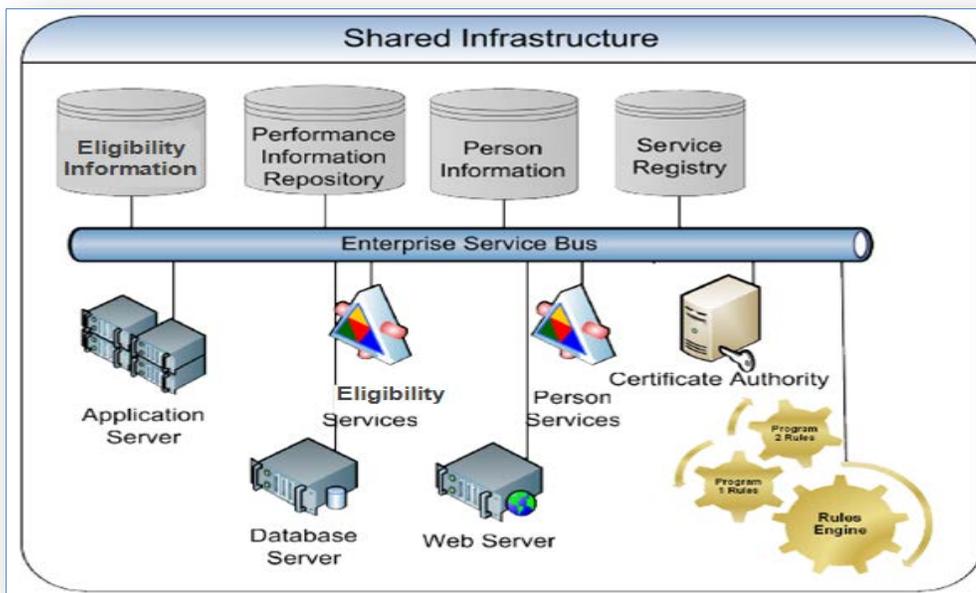


Figure 13: Shared IT Infrastructure

Implementing the complete, long term TO-BE environment envisioned by NHSIA would be a large effort, and probably not attainable in the near term given the level of available resources. In order to scope to a manageable effort, Oklahoma's NHSIA team may initially focus on clearly defining and implementing NHSIA core capabilities. A multi-year effort is envisioned as illustrated in Figure 14.

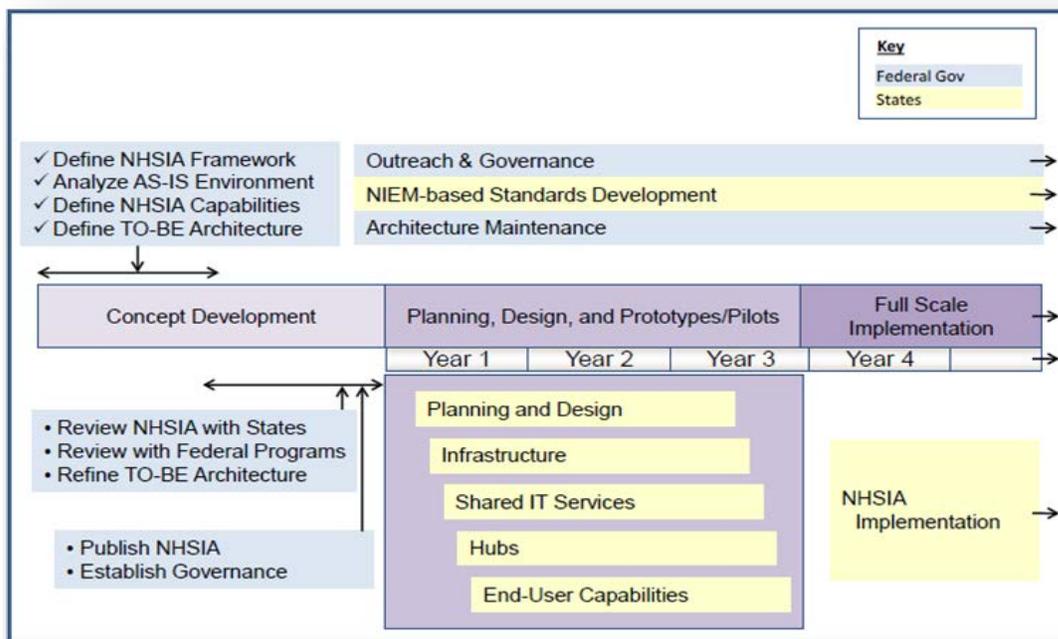


Figure 14: Notional NHSIA Roadmap

In Figure 14, Federal government activities and State government activities are shown. Completed Federal activities include defining NHSIA framework, analyzing the AS-IS environment, defining NHSIA capabilities, and defining a draft TO-BE architecture. Future activities include reviewing NHSIA with States, reviewing with Federal programs, refining and publishing NHSIA, and establishing governance. Outreach, governance, and architecture maintenance will be longer-term Federal activities.

The roadmap shows State governments starting with planning, design, and prototypes/pilots, and then shifting to full-scale NHSIA implementation. The initial planning, design, and prototypes/pilots might include establishing core infrastructure, shared IT services, hubs, and initial end-user capabilities. Development of NIEM-based standards for information exchange is likely to be a longer-term activity.

The funding and acquisition of NHSIA components may take many forms. There is no single acquisition approach for all of NHSIA implementation.

3 SCOPE

Oklahoma has continued with the development of its concept and implementation of integrating services to create positive outcomes with the foundational work for MOSAIC. The scope of this white paper will build on the work accomplished for the last couple of years with our Federal partners but is limited in focus on those business processes between agencies involving eligibility and enrollment with a focus on eMPI. Through collaboration with the OKDHS, OMES, OSDH and the OHCA, a roadmap will be developed to improve interoperability and integration in eligibility and enrollment, case

management, and other related functions across human services information technology systems, as well as explore integration with other programs. The Interoperability Grant project will create a plan to increase eligibility determination, plan for Enterprise/Electronic Master Person Index (eMPI), Service Oriented Architecture (SOA), and data warehouse monitoring, along with improving processing times, and assisting more eligible households to retain their benefits over time.

Business Objectives:

1. Develop a roadmap for integration of Service Oriented Architecture (SOA)/Enterprise Service Bus (ESB) to facilitate service reusability.
2. Develop a roadmap for Statewide eMPI to reduce enrollment data duplication.
3. Develop a model for data exchange based on the use of the National Information Exchange Model (NIEM).
4. Develop a model for enhanced automation and workflow improvement of online enrollment.
5. Develop a model for centralized customer/client alerts for all eligibility related communications.
6. Develop a model for integration of information to an enterprise business intelligence tool for monitoring and performance tracking, as well as outcome measurements.

3.1 Options Cost Benefit

Although cost benefit is primarily determined based on tangible items that can be associated with real dollars and procured it is critical to note here that efficiencies in a quality solution from the business and IT viewpoints will provide a significant cost savings with Interoperability. Benefits can be realized with process engineering through the utilization of Lean Six Sigma tools that are primarily associated with industries such as manufacturing. An example to consider here is; what is the amount of time it takes to input a screen of data and the hourly rate that needs to be applied to the worker who completes this task. By understanding this and how well the IT solution supports this task we can identify additional costs savings for those involved. Likewise, by partnering with the appropriate stakeholders to assist with removing the appropriate barriers to achieve interoperability, the cost benefits for the local implementation plan can have a significant effect on the Return On Investment (ROI). These identified savings should be identified as business requirements and utilized by all levels of decision makers to understand the impact of all decisions related to how we deliver programs and services, as well as the support mechanisms we approve to assist the delivery of critical services to the customer/client base.

3.2 Exploration Answers

Project management is the process by which projects are defined, planned, monitored, controlled, and delivered in order to realize the agreed benefits. Project management is recognized as the most efficient way of managing change within the organization. Oklahoma has a strong commitment to project management based on standards established through Project Management Body of Knowledge (PMBOK)-based project management methodologies for IT projects to track and monitor the commitments of a project. Each project has a schedule that is used to monitor progress. Risks and action items are tracked and monitored throughout the project lifecycle. A complete description of the Project Management Institute's standards and methodology can be found on at <http://www.pmi.org/Resources/Pages/Global-Standards-Program.aspx>. The Project Management Office (PMO) continues to evolve and refine its processes based on lessons learned gained from each project execution.

The partnership will use a team approach to managing projects; this reduces the dependency of the success of the project on just one person or organization. The organizational structure identified for this project has been a successful model for project implementation.

All Oklahoma IT project teams meet weekly and include the principle stakeholders in the project. Schedule, budget, risks, action items and objectives are discussed and monitored for progress against the plan during these meetings. Weekly status reports are created and sent to project team members and administration.

In addition to the project team, the project director will hold monthly sponsor team meetings. This is a decision-making body for the project. The sponsor team makes decisions regarding project viability and issues as they are escalated. They provide guidance to the project manager and communicate project status to corporate or program management. The sponsor team is not a democracy controlled by votes. The Executive Team of each partner within the partnership are the key decision makers because it is ultimately their responsibility to ensure compliance of their business. Given the high level of commitment from Oklahoma Partnership leadership, resources can be committed to address any problems identified during the team meetings.

This grant will be run as a project under the Oklahoma Partnership direction and will require a project schedule, staffing plan, and adherence to the Project Management methodology and the symphony of methodologies deployed as best practices in the lifecycle development of the technology solution.

Qualified Personnel:

The success of Oklahoma is based on the skills and knowledge of its employees. The team will be comprised of seasoned staff that is experienced with implementing changes throughout Oklahoma and collaborating with other agencies to implement change. In Figure 15 below is the organizational structure for this initiative.

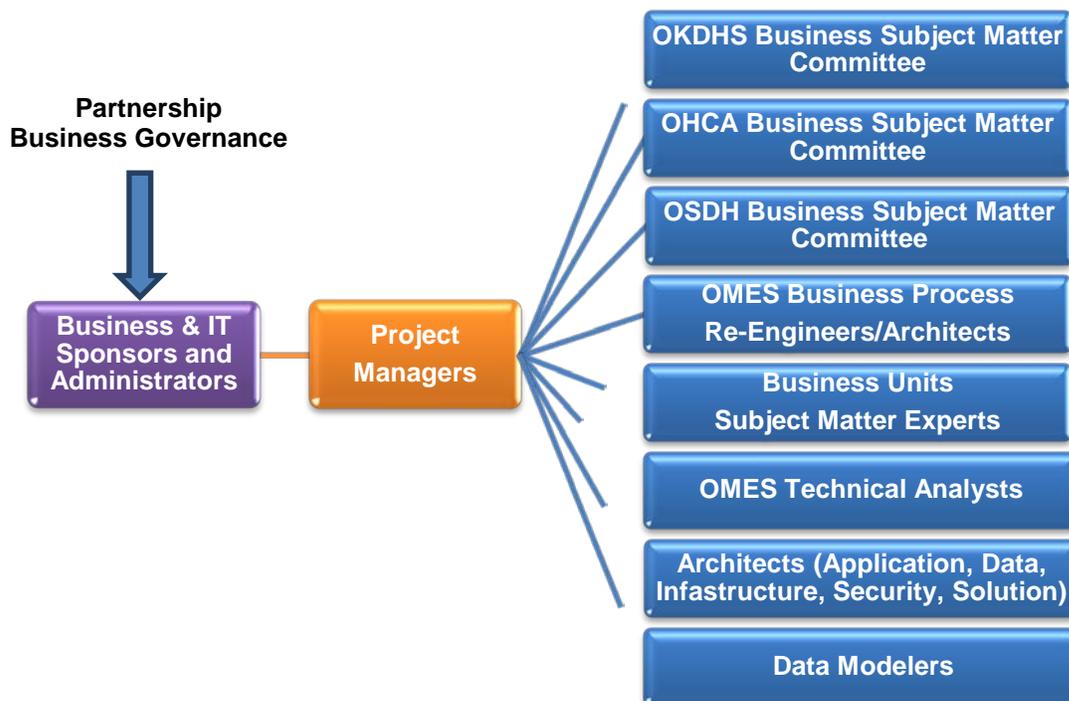


Figure 15: Oklahoma Collaborative Project Organizational Structure

3.3 Governance

In addition to the identified key personnel, Oklahoma will draw on a depth of talent from across the partnership’s organizations to ensure success for the Oklahoma Interoperability Grant Project. The additional assignment of resources and Business decision making will be guided by a Governance process. Our Governance recommendation is an expansion of a current structure called the OHCA/OKDHS Executive Steering Team, which is currently a group of officers who meet monthly or as necessary to resolve issues, delegate projects to sub-teams and monitor the interagency agreements which is the detailed governance agreement between OKDHS and OHCA. Under our interoperability efforts the recommendation is to expand this group to include the OSDH and the Oklahoma Office of Management and Enterprise Services-Information Services Division (OMES-ISD) and to ensure that this Governance team is comprised of decision makers that have the authority to approve business related decisions that streamline interoperability.

Oklahoma is currently undergoing an IT transformation that places IT under the Oklahoma Office of Management of Enterprise Services, including a newly developed IT governance process for the State of Oklahoma. Existing IT Governance processes through each partner will be utilized, in conjunction with the Implementation of the OMES IT Governance Process for technical decisions. OMES-ISD Managers for Health and for Compliance and Eligibility & Insurance will be engaged in this plan and will

assist with the alignment into the transformation of our services into the Oklahoma Federated Model of the Enterprise, as illustrated below in Figure 16.

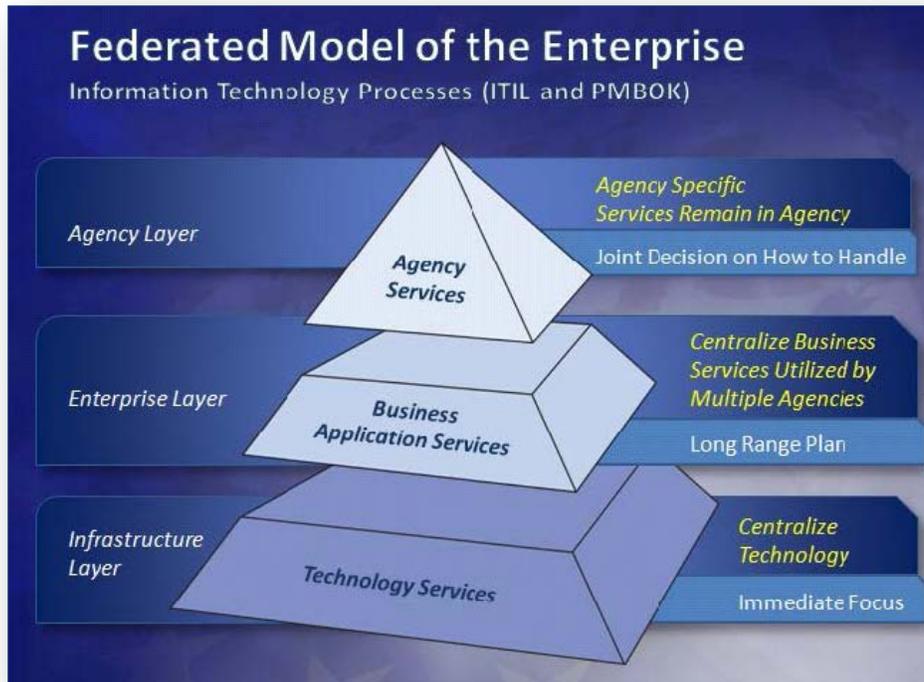


Figure 16: Federated Model of the Enterprise

4 BUSINESS REQUIREMENTS

4.1 Description and Diagram of AS-IS Business State

Figure 17 depicts AS-IS Inoperability business node connection model.

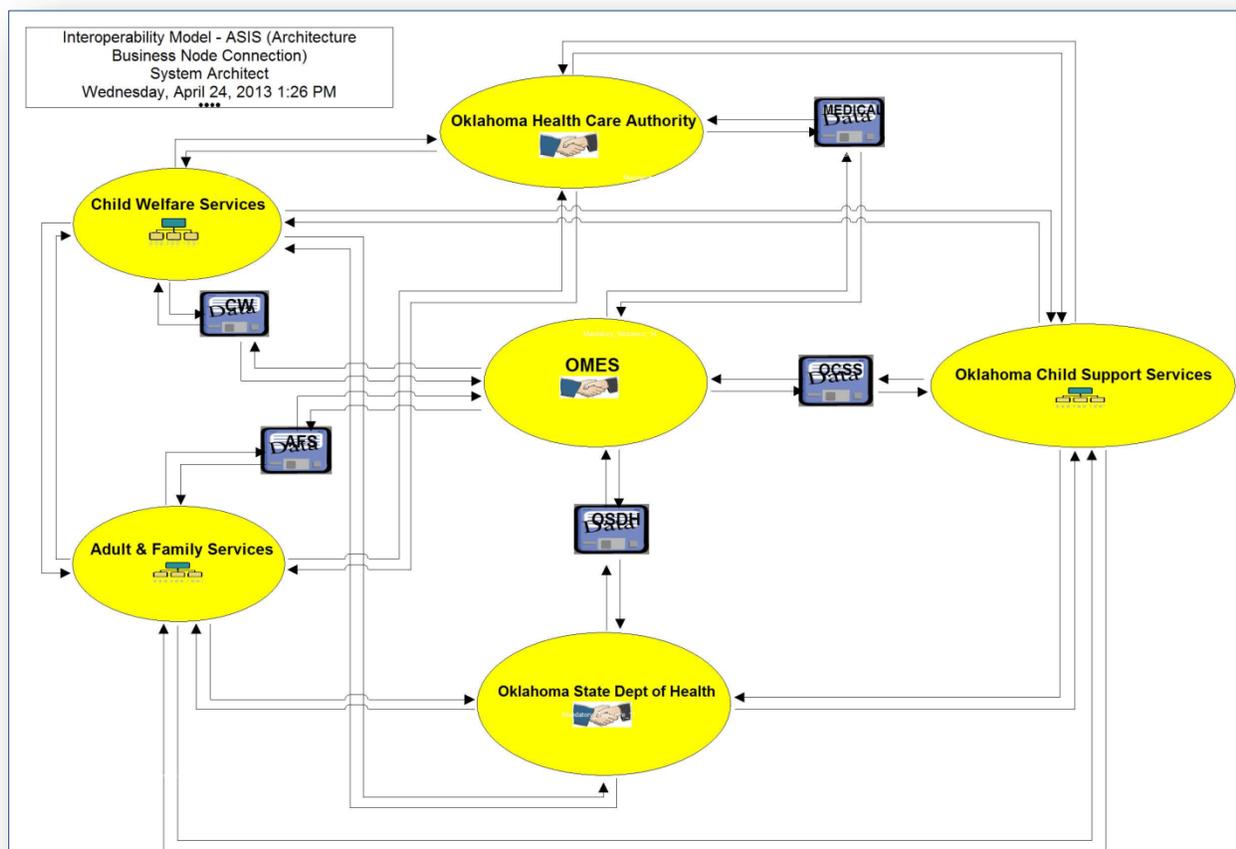


Figure 17: AS-IS Interoperability Business Node Connection Model

For a detailed description of the current AS-IS State for Oklahoma please refer to Appendix E: AS-IS Oklahoma, Appendix A: AS-IS ACTIVITY MODEL – HIGH-LEVEL, Appendix B: AS-IS AGENCY PROGRAMS and Appendix C: SAMPLE OF AS-IS AGENCY’S PROGRAMS BUSINESS PROCESS MANAGEMENT NOTATIONS (BPMN).

4.2 Description and Diagram of TO-BE Business State

Figure 8 in Section 2.1 - TO-BE Business Overview Roadmap depicts the TO-BE Interoperability business node connection model.

The eligibility determination is currently a mix of processes; there are manual and electronic processes for the various Federal social service programs that are integrated only through custom interfaces with no exchange standards. No standard electronic application currently exists that can be used across multiple public assistance programs. An interoperable, reusable eligibility system will help bridge this gap. This improvement can be enabled by not only leveraging the evolving Oklahoma enterprise

SOA framework, but also the governance strategy to facilitate proper design and execution of a prospective enterprise workflow. This use case also provide an opportunity to explore how additional efficiencies can be achieved to meet the ACA Gold Standard user experience, where customers/clients are automatically referred to appropriate services.

The implementation of common business processes across State agencies will benefit the customer/client in several ways. First, by reducing the amount of documentation families must submit to apply for multiple benefits. Second, by reducing the time spent by families applying or retaining eligibility, or improving the quality of services a family receives. Finally, the customer/client is better served because the information needed to deliver more effective services is readily available to the entities that provide them. This will only be achieved through an active and effective partnership on the State and Federal level. A business process overview to consider for the TO-BE can be viewed at Appendix D: TO-BE Interoperability High-Level Business.

5 THE OKLAHOMA APPROACH

5.1 Overview

Oklahoma is well on the way of developing the critical foundation for the Interoperability partnership through the work it has accomplished with the developments through the MOSAIC project. We would recommend a phased approach towards implementation of this roadmap, and ultimately the goals and objectives for the full implementation of the goals and objectives for MOSAIC. Predictably, this approach would dictate an expansion of MOSAIC's scope, but not necessarily the IT response for the solution. Our recommended phased approach is as follows:

5.1.1 Phase I - Implementation of a Business & IT Governance:

Through this phase, the Interoperability Governance Roadmap described above will become a framework to process critical functions as they relate to the interoperability of delivering services on a functional level and the selection of IT solutions that are more cost effective to government. Charters, by-laws, governance make-up, MOUs, SLAs, policy and procedures will be developed in the spirit of interoperability in this phase. Success in this phase will be measured through the successful engagement of the partners and their activity level of ensuring interoperability.

5.1.2 Phase II - Implementation of a TO-BE eMPI that embraces the spirit of Interoperability for Oklahoma:

Oklahoma will engage the Interoperability Governance process in providing the leadership for an eMPI system to be used by all partners. This phase will be used to understand existing mandates and other additional business requirements that have created barriers in the past and seek opportunities for removing the barriers to create a shared interoperability model. Success in this phase will be measured through

successful acceptance by all partners and through the actual utilization of the partnership's model.

5.1.3 Phase III - Implementation of a TO-BE comprehensive records management system for case management:

A phase that will build upon the foundation that MOSAIC has established and introduce to the partnership a potential IT solution that meets the needs of interoperability, including the processes for intake, interviews, eligibility, enroll/disenroll, case monitoring and reporting. Success in this phase will be measured through successful acceptance by all partners and through the actual utilization of the partnership's model.

6 ACRONYMS

Acronym	Definition
ACA	Affordable Care Act
ACF	Administration for Children and Families
AFCARS	Adoption and Foster Care Analysis and Reporting System
AFS	Adult and Family Services
AOP	Acknowledgment of Paternity
APS	Adult Protective Services
ASD	Aging Services Division
ASP	Active Server Pages
ATN	Application Tracking Number
BPMN	Business Process Management Notation
BPO	Business Process Outsourcing
CA	Computer Associates
CB	Children's Bureau
CDC	Centers for Disease Control and Prevention
CFSR	Children and Family Service Reviews
CIDS	Case Information and Data System
CMS	Case Management System
COBOL	COmmon Business-Oriented Language
CP	Custodial Parents
CSENet	Child Support Enforcement Network
CSS	Cascading Style Sheets
CWS	Child Welfare Services
DBMS	Database Management Systems
DDSD	Developmental Disabilities Services Division
DPS	Department of Public Safety
EBT	Electronic Benefits Transfer
ECC	Electronic Child Care
EDI	Electronic Data Interchange
EPC	Electronic Payment Card
EPS	Electronic Payment Systems

ESB	Enterprise Service Bus
FACS	Family Assistance and Client Services
FFM	Federally Facilitated Marketplace
FFP	Federal Financial Participation
FIdM	Federal Identification Management
FTP	File Transfer Protocol
GNR	Global Name Recognition
GRA	Global Reference Architecture
GUI	Graphical User Interface
HCFA	Healthcare Financing Administration
HIE	Health Insurance Exchange
HIPAA	Health Insurance Portability and Accountability Act
HITECH	Health Information Technology for Economic and Clinical Health
HL7	Health Level 7
HNC	Healthcare Network Cloud
HPES	Hewlett Packard Enterprise Services
HSA	Human services application
HTML	HyperText Markup Language
ICOMs	Inputs, Controls, Outputs and Mechanisms
IMS	Information Management System
IO	Insure Oklahoma
IP	Internet Protocol
IRS	Internal Revenue Service
IT	Information Technology
IVR	Interactive Voice Response
JOLTS	Juvenile On-Line Tracking System
KAHD	KIDS Application Help Desk
LAN	Local Area Network
LIHEAP	Low Income Home Energy Assistance Program
LOB	Line of Business
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
MOU	Memorandum of Understanding
MPI	Master Person Index
NASIRE	National Association of State Information Resource Executives
NCANDS	National Child Abuse and Neglect Data System
NCHS	National Center for Health Statistics
NHSIA	National Human Services Interoperability Architecture
NIEM	National Information Exchange Model
NWD	No Wrong Door
NYTD	National Youth in Transition Database
OAPD	Oklahoma Advanced Planning Document
OCS	Oklahoma Children's Services
OCSE	Office of Child Support Enforcement

OCSS	Oklahoma Child Support Services
OESC	Oklahoma Employment Security Commission
OHCA	Oklahoma Health Care Authority
OKDHS	Oklahoma Department of Human Services
OMES	Office of Management and Enterprise Services
OMES- ISD	Office of Management and Enterprise Services-Information Services Division
OSDH	Oklahoma State Department of Health
OSIS	Oklahoma Support Information System
OST	Open System Technologies
OTC	Oklahoma Tax Commission
PARB	Post Adjudication Review Board
PHOCIS	Public Health Oklahoma Client Information System
PII	Personal Identification Information
PMBOK	Project Management Body of Knowledge
PMO	Project Management Office
RDS	Relational Database Service
ROI	Return On Investment
SACWIS	Statewide Automated Child Welfare Information Systems
SAN	Storage area network
SDU	State Disbursement Unit
SLA	Service Level Agreements
SNAP	Supplemental Nutrition Assistance Program
SOA	Service Oriented Architecture
SSA	Social Security Administration
SSI	Supplemental Security Income
SSL	Secure Socket Layer
TANF	Temporary Assistance for Needy Families
TPL	Third Party Liability
USPS	United State Postal Service
VPN	Virtual Private Network
WAN	Wide Area Network
WIC	Women, Infants and Children
XML	Extensible Markup Language

APPENDIX A – AS-IS ACTIVITY MODEL – HIGH-LEVEL

See Attached Zipped file which includes: Appendix A – AS-IS Activity Model – High Level.xlsx

APPENDIX B – AS-IS AGENCY PROGRAMS

Agency/Line of Business (LOB)	System Name	Program	Eligibility Intake	Intake (face-to-face, interviews, applications, etc.)	Determine Eligibility	Case Management (Enroll/ Dis-Enroll Client)	Inquiry, Monitoring (Reports)	Medical/Medicaid
OKDHS – Oklahoma Child Support Services (OCSS)	Oklahoma Support Information System (OSIS)	Title IV-D of the Social Security Act		X	X	X	X	X
		Non-IV-D Pass-Through		X	X	X	X	
		Central Case Registry		X	X	X	X	
		Voluntary Acknowledgements		X		X	X	
		State-wide Birth Records					X	
OKDHS – Adult and Family Services (AFS)	PS2	Adult Protective Services (APS)		X	X	X	X	
		Low Income Home Energy Assistance Program (LIHEAP)	X	X	X		X	
		Supplemental Nutrition Assistance Program (SNAP)	X	X	X	X	X	
		Temporary Assistance for Needy Families (TANF)	X	X	X	X	X	X
		Child Care	X	X	X	X	X	
		Medicaid (Title XIX) Eligibility	X	X	X	X	X	X
		Title V - SSI-DCP	X	X	X	X	X	X
		Aid to the Aged, Blind and Disabled - State Supplemental Payment	X	X	X	X	X	X
KDHS – Child Welfare Service (CWS)	KIDS	Foster Care /Bridge	X	X	X	X	X	
		Investigation/Assessments	X	X	X	X	X	
		Permanency Planning				X	X	X
		Adoption			X	X	X	X
		Adoption Subsidy	X		X	X	X	X
		Guardianship Subsidy (TANF)	X	X	X	X	X	X

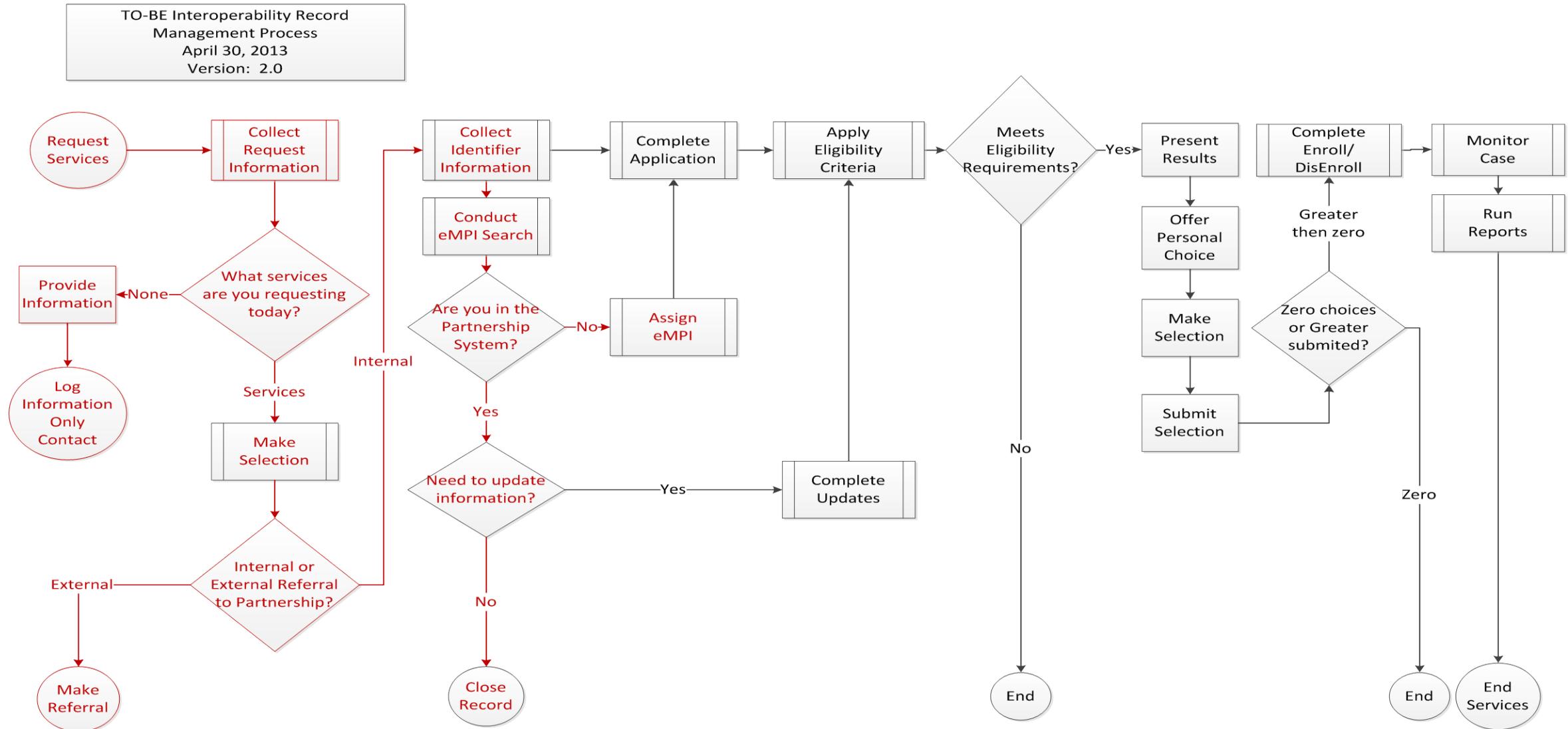
Agency/Line of Business (LOB)	System Name	Program	Eligibility Intake	Intake (face-to-face, interviews, applications, etc.)	Determine Eligibility	Case Management (Enroll/ Dis-Enroll Client)	Inquiry, Monitoring (Reports)	Medical/Medicaid
Oklahoma Health Care Authority (OHCA)	Medicaid Management Information System (MMIS)	Medicaid (Title XIX)	X	X	X	X	X	X
		Health Insurance Exchange (HIE)* 1	X					
Oklahoma State Department of Health (OSDH)	PHOCIS (OSDH Client Information System)	Women, Infants and Children (WIC).	X	X	X	X	X	X
		Children First	X	X	X	X	X	X
		Child Guidance	X	X	X		X	X
		Family Planning (Title X)	X	X	X		X	X
		Early Intervention/SoonerStart	X	X	X	X	X	X
	OSIIS (Immunization Registry) & PHOCIS	Immunizations	X	X	X		X	X
	Vital Records	Citizenship Verification/Medicaid Contract w/OHCA						X
	PHOCIS & BCC Grant Reporting System	Take Charge/Breast & Cervical Cancer Screening Program	X	X	X	X	X	X
	OHCA – MMIS	OK Cares/Breast & Cervical Cancer Rx Act	X	X				X
OHCA – Online Enrollment	Agency Partner - OSHD w/OHCA	X	X				X	
OKDHS – Aging Services Division (ASD)		Nursing Home (Intermediate Care Facility) Care and ADvantage Waiver (Medicaid funded home and community-based waiver)	X	X	X	X	X	X

Agency/Line of Business (LOB)	System Name	Program	Eligibility Intake	Intake (face-to-face, interviews, applications, etc.)	Determine Eligibility	Case Management (Enroll/ Dis-Enroll Client)	Inquiry, Monitoring (Reports)	Medical/Medicaid
OKDHS – Developmental Disabilities Service Division (DDSD)		Community Waiver, Family Support Assistance Payment, Homeward Bound Waiver, In-Home Supports Waiver for Adults, In Home Supports Waiver for Children, Intermediate Care Facilities for the Mentally Retarded	X	X	X	X	X	X
<p>* Oklahoma will not have an exchange of its own. OHCA will coordinate with the fed exchange but not have any control over it. 1 OHCA will intake info and if the applicant is not eligibility for Medicaid we will send info to the exchange. details unknown at this time.</p>								

APPENDIX C – SAMPLE OF AS-IS AGENCY’S BUSINESS PROCESS MANAGEMENT NOTATIONS (BPMN)

See Attached Zipped file which includes: Appendix C – Sample of AS-IS Agency’s Business Process Management Notations.pdf

APPENDIX D – TO-BE INTEROPERABILITY HIGH-LEVEL BUSINESS



APPENDIX E – AS-IS SYSTEM OVERVIEW

1 AS-IS SYSTEM OVERVIEW

Figure E-1 shows the interactions between Oklahoma Department of Human Services (OKDHS) agencies (e.g., PS2 - Adult and Family Services (AFS), Oklahoma Support Information System (OSIS) - Oklahoma Child Support Services (OCSS), KIDS – Child Welfare Services (CWS)), and other departments and organizations (e.g., OHCA - Medicaid Management Information System (MMIS), Office of Management and Enterprise Services (OMES), Oklahoma State Department of Health (OSDH)).

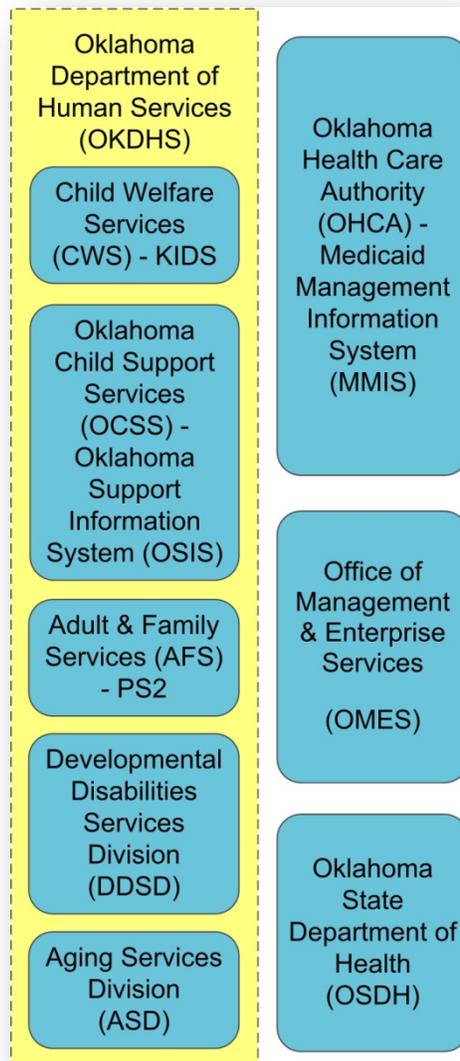


Figure E-1: AS-IS System Overview

The systems/owners identified in the Interoperability Project are shown in Table E-1 below. These systems have various types of data that are being exchanged via interfaces. Interfaces could be Real-Time (data is accessed directly any day/any time), Transactional or Transfer (push/pull via File Transfer Protocol (FTP) services).

Table E-1: Systems and Owners

System Name	Owner
Oklahoma Support Information System (OSIS)	Jim Hutchinson, Oklahoma Child Support Services (OCSS)
PS2	James Conway, Adult and Family Services (AFS)
KIDS	Carol Clabo, Child Welfare Service (CWS)
Medicaid Management Information System (MMIS)	Jerry Scherer, Oklahoma Health Care Authority (OHCA)
Vital Records	Kelly Baker, Oklahoma State Department of Health (OSDH)

See Appendix B for a list of programs and services that each agency or division provides which requires an exchange of medical information.

90FQ0006-00 Oklahoma Interoperability Grant Project
 Business Processes Roadmap, Version 1.0, May 14, 2013

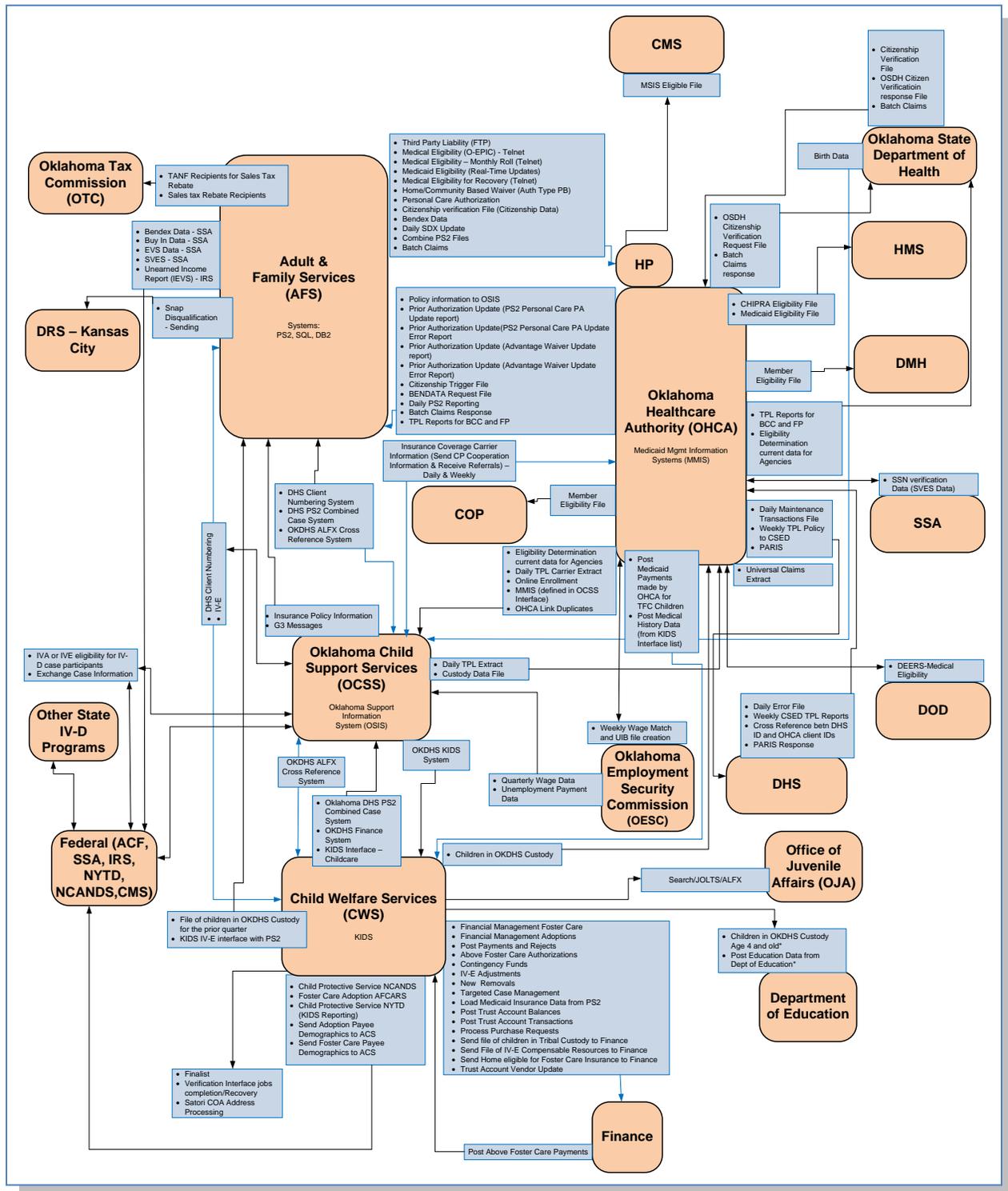


Figure E-2: AS-IS System Overview/Data Exchanges

Figure E-2 above illustrates the AS-IS data exchanges among agencies with a focus on Eligibility and Enrollment.

1.1 Oklahoma Support Information System (OSIS)

OSIS is an automated system developed to assist OCSS in administering the State's Title IV-D of the Social Security Act program functions, including case initiation, case management, paternity and order establishment, cash and medical support enforcement, financial management, interstate case processing, locate, security and reporting. In addition to supporting the Oklahoma Title IV-D program, OSIS provides automation support to eight Tribal Title IV-D programs. The system currently processes over \$300 million in financial receipts and disbursements to child support consumers each year.

OSIS is specifically designed to comply with Title IV-D, associated rules and regulations published in the Code of Federal Regulations, the Office of Child Support Enforcement (OCSE) Systems Automation Guide, Oklahoma State laws, and policies of OKDHS. The system has been in continuous production operation since June 1991 and received Federal compliance certification in August 2002.

Federal funding for OSIS and supporting staff is based on the Title IV-D Federal Financial Participation (FFP) matching rate established for OKDHS. OCSS submits funding requests annually to Administration for Children and Families (ACF)/OCSE via Operational Advance Planning document process and provides supporting program activity and expenditure reports OCSE-34A, OCSE-157 and OCSE-396.

The operational system is a COmmon Business-Oriented Language (COBOL) application using primarily IBM's Information Management System (IMS) hierarchical databases with some IBM's DB2. The system runs an IBM zEC10 mainframe with plans to migrate to a zEC12 platform in May 2013. The mainframe is fiber attached the data center Local Area Network (LAN) which is attached to the OKDHS' Internet Protocol (IP)-based Wide Area Network (WAN) servicing work locations Statewide. Primary production data storage is an IBM DS8300 with an IBM TS7740 virtual tape system backup. Data backup is asynchronously mirrored to an offsite TS7740 for disaster recovery.

To access OSIS, users on the network initiate an IP based TN3270 connection from their desktop using Attachmate's EXTRA! Non-network system users may access OSIS through the internet with a Secure Socket Layer (SSL) Virtual Private Network (VPN) single user access session. Tribal programs may use the SSL VPN single user solution or may use a site-to-site VPN connection if local printing is desired. Access to specific OSIS functions within the system is controlled through rules defined in the Computer Associates' (CA) ACF2 security product. OCSS case participants may access OSIS case information through an Interactive Voice Response (IVR) system or through the Internet. Both methods use web services which directly access DB2 and access IMS data through IBMs' IMS Connect. Access to specific cases is controlled by the participant login ID. No update access is allowed.

OSIS is tightly integrated with several other applications sharing the OKDHS mainframe and will not function properly without the data shared among these applications. OSIS also supports dozens of interfaces to external partners. Tools including CyberFusion, Connect:Direct and encrypted VPN tunnels are used to safely communicate with the external partners.

The following outlines OCSS's functional areas and the interfaces and partnership we have to carry out those functional areas of our program:

1. **Case Initiation:** Child support must receive a case referral or application for services to begin child support services. We obtain these applications from the general public by filling out the child support application for services which is sent to our State Case Registry for processing. OCSS obtains referrals through various electronic interfaces. For Title IV-E Foster Care, Temporary Assistance for Needy Families (TANF), child care, Non-Title IV-E and some Medicaid referrals, OCSS has an interface with AFS. For some Medicaid referrals, OCSS has an interface with OHCA. OCSS also receive referrals from our Federal partners through our electronic Child Support Enforcement Network (CSENet) interface. Additionally, paper referrals for all other States, territories and foreign nations are mailed directly to our State Office Central Case Registry.
2. **Locate:** Once a child support case is established, services are provided to locate the non-custodial parent and certain assets. Types of activities included but are not limited to tracking their residence through an interface with a vendor representing the United State Postal Service (USPS), searching OKDHS records through our interface with the AFS PS2 system, checking driver's license records through our interface with the Department of Public Safety (DPS), checking many records from all other Title IV-D programs nationwide through our interface with the Federal OCSE Federal Case Registry and checking employment information from the Oklahoma Employment Security Commission (OESC).
3. **Establishment & Paternity:** For married and separated cases, OCSS will establish a child support obligation through the local court systems. For cases requiring the establishment of paternity, OCSS offers services to conduct genetic testing of the case participants to gather scientific evidence on the probability of the father. The local court systems make the final determination of the legal responsibility of the father. This information is manually feed into the OSIS system.
4. **Enforcement:** When a non-custodial parent fails to honor a child support court order and is not making child support payments as instructed, the OCSS program and the automated system have many legal remedies available to compel the non-custodial parent make regular payments. Those legal remedies included but are not limited to credit bureau reporting by having an interface between OSIS and each credit bureau agency to report debt, Internal Revenue Service (IRS) and Oklahoma Tax Commission (OTC) interfaces that allow OSIS to intercept annual tax refunds, interfaces with national financial institutions (banks, credit unions, etc) to locate and intercept bank account assets, an interface with the OESC system to intercept unemployment benefits and the

ability of OSIS to generate legal notices to employers to deduct monthly child support payments from the non-custodial parents' pay check.

5. **Medical:** OCSS gets automated electronic referrals from AFS and OHCA for households that have been determined eligible to receive medical assistance. Most of these referrals receive the same activities as a case OCSS would receive through the application for service process. In addition OCSS collects cash medical "premium assistance" and reimburses the OHCA for some medical expenses. OCSS also works with the local court systems to obtain medical orders to ensure the children have medical insurance.
6. **Interstate:** All Title IV-D programs are required to accept and work cases from all other Title IV-D programs. As Stated earlier OCSS receives both paper and electronic referrals from other Title IV-D entities. For the most part OCSS works these cases just like they would for an Oklahoma application for services.
7. **Finance:** The most technically complex part of the automated system and program is the financial component. Child support collections come in from all of the automated enforcement remedies mentioned above, directly from non-custodial parents, and from other States that collect on our behalf into the OCSS State Disbursement Unit (SDU). The SDU uses an electronic interface to transmit all payments received to OSIS for distribution processing. All payment exceptions are moved to a hold area and manually resolved by staff but the majority of payments are automatically issued to families through electronic interfaces with Xerox and Open System Technologies (OST). Within this financial area OCSS must submit Federal reports like the OCSE-34A, OCSE-157 and OCSE-396 that tie to OCSS reimbursement and funding.
8. **Case Management:** OCSS staff manages the life of a child support case by handling specific activities like moving the cases from functional area to functional area as needed. They also adjust the court orders as situation change in the life of the custodial or non-custodial person. Court hearings and appointments are also managed in this functional area. If additional events occur that require the closing of a child support case, those heavily regulated closure reasons are documented here.
9. **Security & Reporting:** OSIS has special requirements in the area of security to ensure the data we collected is secure and safe and being viewed by the appropriate individuals. Security decisions are made by the OCSS program and then OMES security makes the physical changes to the access permissions. Reporting is critical for the OCSS program since program funding is dependent on it. The annual OCSE-157 and Oklahoma Advanced Planning Document (OAPD), and the quarterly OCSE-34A and OCSE-396 are what drive our funding for the program. OCSS use or interface with the AS400, Relational Database Service (RDS), Document Direct and WebFOCUS to support reporting needs.

Figure E-3 below depicts an overview of OCSS and AFS systems, specifically OSIS and PS2. This figure does not show all the interfaces between these systems but is provided for an overview.

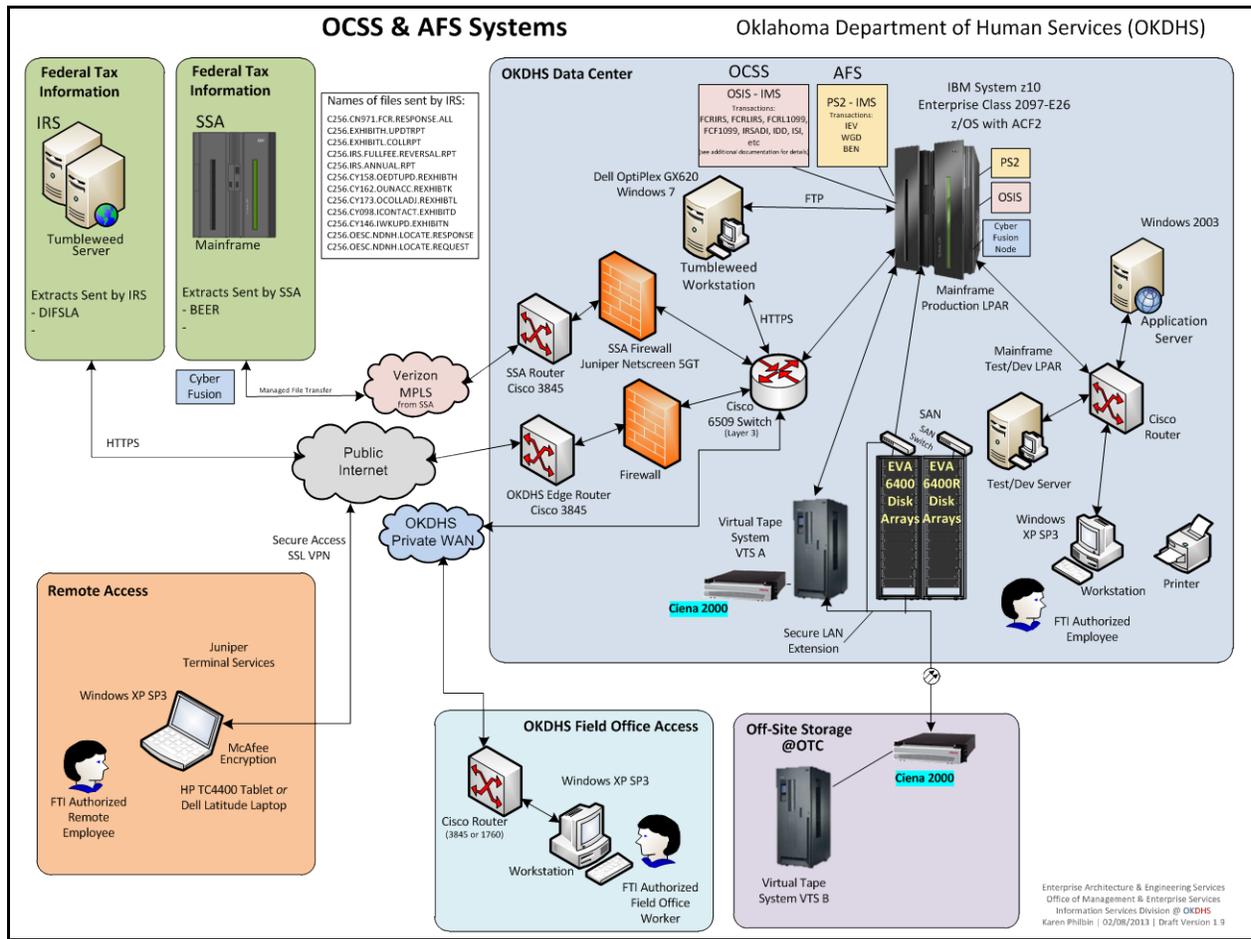


Figure E-3: Overview of OCSS and AFS Systems

Figure E-4 below illustrates the AS-IS Eligibility and Enrollment data exchanges for OCSS.

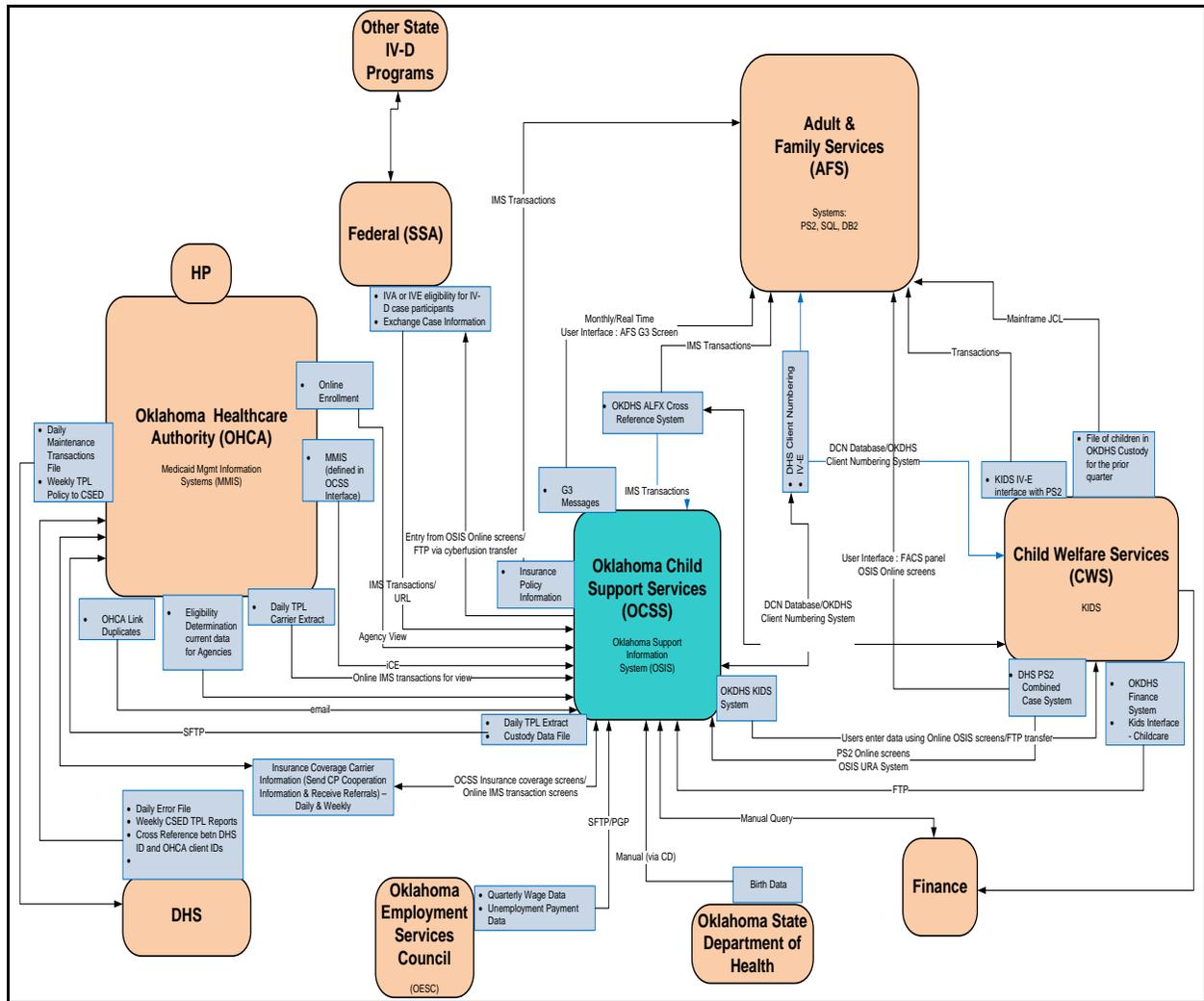


Figure E-4: AS-IS Eligibility and Enrollment Interfaces for OCSS

1.2 PS2

The mission of AFS is to partner with stakeholders to ensure program and fiscal accountability by:

- Developing clear, concise policy for staff and providers
- Providing training for staff and providers
- Monitoring and evaluating service and benefit delivery

PS2 stands for “Payments and Services 2”. It is an arbitrary name given to the collection of databases, programs, transactions, modules, and functions that are directly related to AFS benefits and services. The PS2 system is a legacy system.

PS1/PS2 is the case information and data management system. It is a major client services system. It was developed in 1981 to help AFS and Developmental Disabilities Services Division (DDSD) serve the needs of the people of Oklahoma.

The backbone of the PS2 system is a series of IMS databases. These databases are called “hierarchical databases”. Most new systems rely on “relational databases”.

Some of the primary tables in PS2 are:

- CA221DBD – PS2 Cases Sections A, B, C, D, E, and F
- Primary Segment – What case looks like with pending updates applied
- First History Segment – Case section after updates have cleared edits and case has updated
- CA244DBD – Holding place for pending updates to PS2 case Sections A, B, C, D, E, and F
- CA251DBD – Notices
- CA908DBD – Authorizations (Section K)
- CC144DBD – CWA Database
- CB250DBD – AP Info (Section I)
- CB600DBD – Medical (What is sent to EDS)
- CB800DBD – History (Sections A, B, C, D, E, and F)
- CL001DBD – Client Number (Primary)
- CL146DBD – Client Number (History)
- TL022DBD – Third Party Liability (TPL) (Section H)
- WA481DBD – Providers

Case numbers generated by the Case Number Assignment System provides the primary key to facilitate non-redundant collection, maintenance, and use of basic client data for AFS and DDSD services and a critical interface for OCSS. It performs eligibility for:

- SNAP
- TANF
- Child Care
- Title II and XVI
- Medicaid
- Medicaid Home and Community Based Waivers Energy Assistance
- Title V programs

It contains services related information as it relates to the client’s health and welfare for the following divisions: AFS, OCSS and DDSD. This is a 24/7 system which includes:

- Applications for processing case number assignment
- General client demographic
- Financial and family assistance

- Food Nutrition
- Medical eligibility and services
- Authorizations
- Day care services
- TPL information
- Data exchange
- Energy services and supported data

It contains the following subsystems:

- **Authorizations:** A data collection, validation, storage, and reporting system for establishing records about authorizations for Department expenditures for certified clients.
- **Case Number Assignment:** Online transactional system which generates case numbers for client information for OKDHS clients.
- **Case Certification:** Provides the processes for data collection, validation, storage, and eligibility determination.
- **Case Management and Reporting:** Online and batch system for reporting case information, statistical reports, and sending report files to meet Federal, State, and administrative requirements.
- **Developmental Disability Case Update:** Case benefit tracking system for people receiving disability services.
- **Data Exchange:** Online and batch file processing system from which OKDHS performs information data exchanges with Federal partners and other entities.
- **Electronic Payment Systems (EPS) (Electronic Benefits Transfer (EBT), Electronic Child Care (ECC) & Electronic Payment Card (EPC)):** Process to electronically transfer financial benefits, SNAP benefits and child care authorizations to clients and provides them via debit cards.
- **Family Assistance:** Disabilities assistance program is a cash payment program for families who are caring for children under age 18 at home.
- **Financial Activities:** Maintains on-line five years of case food benefit and warrant issuance information; provides on-line inquiries for this information; provides the vehicle for re-issuing documents which have been returned; provides for supplemental issuance; and provides for recording of reconciliation information.
- **Future Actions:** Provides for the storing and executing of transactions on a preset date and time.
- **Low Income Home Energy Assistance Program (LIHEAP):** This program is to provide assistance to eligible households to meet the costs of home energy that are excessive in relation to household income.
- **Notices:** This maintains all relative information about all notification letters (notices) which are related to a case and sent to clients and/or vendors.
- **Level of Care and Plan of Care:** Determines the level of care a client needs so that a plan of care may be developed for people with Developmental Disabilities. This is Medicaid and home community based waivers.

- **Non-Federal Medical and Supported Living:** Non–Federal medical authorization and payment system for medical services and supported living authorizations and record keeping for developmental disabilities.
- **Supported Data and Application Repository:** The online validity data, descriptive data, and systems documentation. It contains documentation and parameters associated about any entity that needs system wide availability for people or application use.

1.2.1 Family Assistance and Client Services (FACS)

FACS is the software used by OKDHS staff to update and maintain AFS case information. FACS is a “front end” to the PS2 System. The primary purpose of the FACS software is to gather information, send it to PS2 (through a clone of the ff transaction called fu) or DB2 as appropriate and display a response from PS2 and DB2. Other features in FACS include Case Notes, Case Status Monitoring, and Notice Generation. It provides a Graphical User Interface (GUI) which allows the user to navigate through tabs designed to follow the flow of an applicant interview. Through this GUI the user can enter information through “free form” fields, check boxes, or select options from drop-down fields. This is considered to be an improvement over entering the information on the PS2 “green screens”, which required the user to follow a strict format and required that the user knew the PS2 codes values, as opposed to selecting a description from a drop-down field.

FACS is written in Sybase’s PowerBuilder. The first version of FACS went to production in December, 1996. The software is now considered to be a legacy application. FACS is a client/server based application (which means that it runs from the local county office server) as opposed to a web based application (which would run using web technology from one central site). Most new generation software development is done with web based software (such as .NET or C# (C Sharp)).

Figure E-5 illustrates the AS-IS Eligibility and Enrollment data exchanges for AFS.

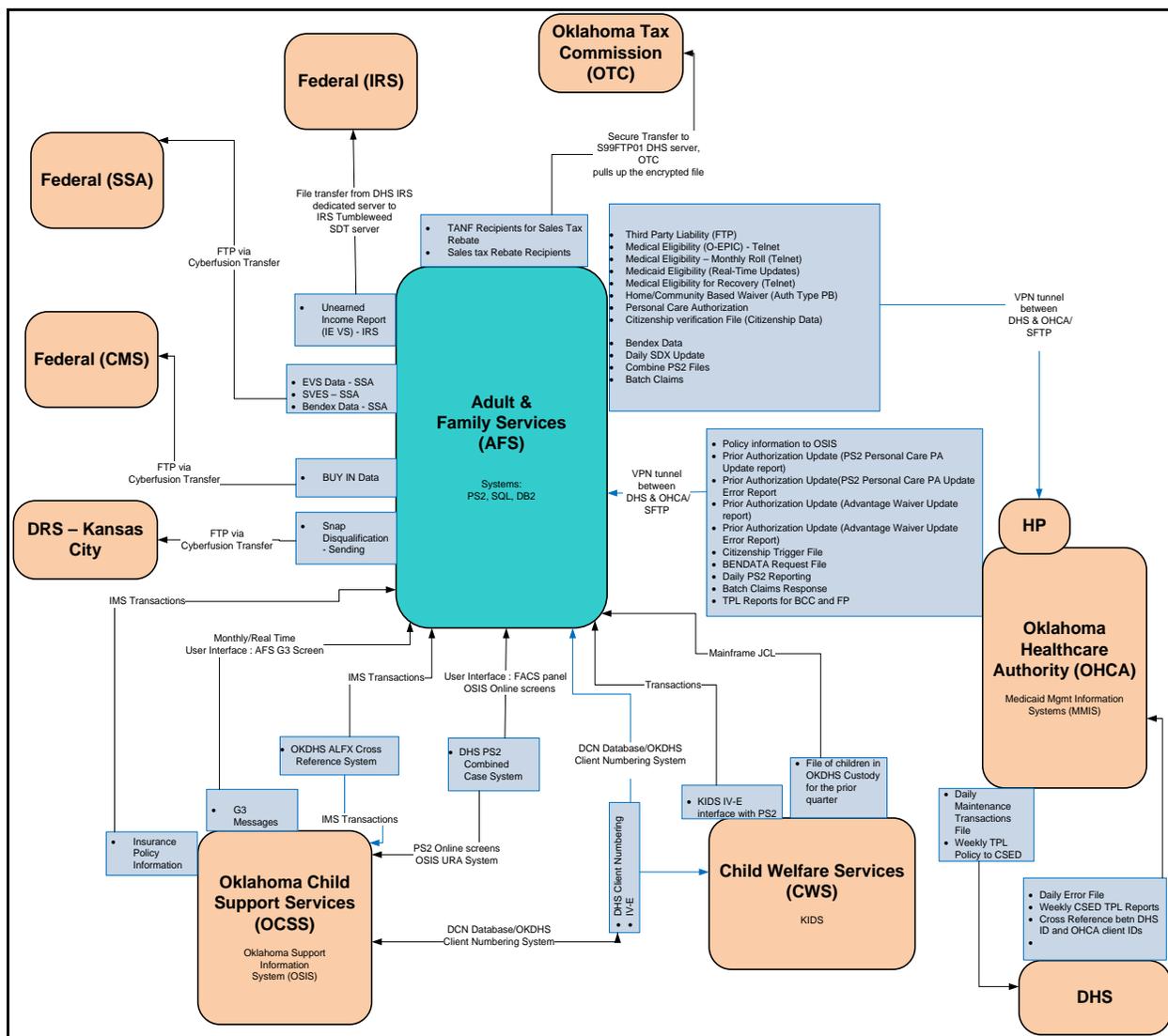


Figure E-5: AS-IS Eligibility and Enrollment Interfaces for AFS

1.3 KIDS

OKDHS CWS was the first State in the nation to implement a comprehensive Statewide Automated Child Welfare Information Systems (SACWIS). SACWIS is a comprehensive automated case management tool that supports social workers in foster care and adoptions case management. SACWIS is intended to hold the State’s “official case record”, which is a complete, current, accurate and unified case management history on all children and families served by the Title IV-B/IV-E State agency. The software application was created in 1994 and deployed Statewide to the field in May 1995. The acronym for the Case Information and Data System (CIDS) was aptly changed to KIDS. KIDS is a Windows based two-tier client server application with the front end using Sybase’s PowerBuilder 11.5 and the back end database using Oracle

10g. The newest release of the application is stored on a server in the local Child Welfare Services (CWS) offices, and CWS staff uses a desktop client to connect to this database to run the application. Information/data entered into the KIDS system is not stored on the endpoint device or the local office server; it is stored in a central Oracle database at OMES. The instance of the application runs on an endpoint device connected to a single large database via a WAN. Remote access to the system can be achieved through a server farm via a web based portal. It provides essential support to the CWS in their mission of improving the safety, permanency and well-being of children and families involved in the Child Welfare system. The KIDS application uses Global Name Recognition (GNR) for name search. The system is tightly integrated in the operations of CWS. The Statewide hotline uses the system for logging calls, and distribution to local offices. Investigation and Permanency Planning documentation is all entered into and retained in the system, and is used in court for case presentation.

eKIDS is a Windows based web enabled subset of the KIDS Application developed with Active Server Pages (ASP), JavaScript, VBScript, HyperText Markup Language (HTML), Cascading Style Sheets (CSS) and SQL (Structured Query Language) using an Oracle database. It allows online access of selected Child Welfare information to CWS partners. These partners include Native American tribes, Oklahoma Children's Services (OCS) contractors and liaisons, court officials: judges and district attorneys, school-based social workers, and child support enforcement personnel.

KIDS Application Help Desk (KAHD) is a Windows based two-tier client server Help Desk support application with the front end using Sybase's PowerBuilder and the back end database using Oracle. The KAHD application is used as an incident and response tracking system and also supports software development life cycle for the KIDS application support team. Apart from tracking problems, it logs client requests and/or enhancements to the KIDS application. The KAHD application is available to the KIDS Technology and Governance and the KIDS development teams providing an organized method for documenting and reviewing the KIDS application as to: Operational anomalies, application enhancement requests, KAHD's associated with an identified screen, and all KAHD's associated with a specified business function.

Data is pulled from the following systems to provide enrollment authorization for services and payments:

- AFS electronic records (IMS & FACS)
- OCSS
- OHCA medical histories of custody children
- Social Security Administration (SSA) (Supplemental Security Income (SSI) & SSA financial information)
- OKDHS Finance Office (payments for foster care/placements)
- Office of Juvenile Affairs' Juvenile On-Line Tracking System (JOLTS) which tracks juvenile criminal histories
- Multiple day care providers throughout Oklahoma

There are multiple and varied external consumers for the data maintained in the KIDS database. Data is used for ad hoc and State reporting. The most important external consumer of CWS data is the Federal government. A crucial function of KIDS, other than a mechanism of facilitating service delivery to CWS clientele, is the Federally mandated reporting of:

- Adoption and Foster Care Analysis and Reporting System (AFCARS)
- National Child Abuse and Neglect Data System (NCANDS)
- Reporting of case worker visitation data
- National Youth in Transition Database (NYTD)
- Reporting of Children and Family Service Reviews (CFSR) data

The Children's Bureau (CB) Under ACF supports the development of State and tribal child welfare reporting systems to enable the collection and analysis of important information about children and families, as well as improve case practice and management.

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- **AFCARS** on all children in foster care and those who have been adopted with Title IV-E agency involvement. Title IV-E agencies are required to submit AFCARS data twice a year.
- **NCANDS** is a voluntary data collection system that gathers information from all 50 States, the Washington, D.C., and Puerto Rico about reports of child abuse and neglect.
- **NYTD** collects information about youth in foster care, including outcomes for those who have aged out of foster care. This data is collected, validated and transmitted periodically to the CB on a routine scheduled basis.

In addition, there are additional "audits" performed on a periodic basis varying from annually to every few years. These audits include a Title IV-E Financial Review. The purpose of this review is to assess payment accuracy through an examination of case record documentation (both physical and electronic case files). Another audit is the CFSR which enables the CB to ensure conformity with Federal child welfare requirements, to gauge the experiences of children, youth, and families receiving State child welfare services, and to assist States as they enhance their capacity to help families achieve positive outcomes.

The following resources provide results and lessons learned from the CFSR's and address the implementation of the CFSR process in the United States:

- Key external partners of CWS have special access to CWS Data and may also be important data creators who input data into the system directly. CWS contracts for Prevention/Family Centered Services, Reunification, Parent Aide, and Resource Home Maintenance services with outside social service agencies throughout the State. These contractors are called OCS contractors. They have access to the KIDS database via web based application called “eKIDS” (ASP.NET Passport). OCS contract workers log into the system via the internet and have access to limited data and can enter documentation of their case work activities directly into the KIDS database via eKIDS. Native American tribal workers also have the ability to enter limited case documentation of their activities via eKIDS.
- There are other community external partners who also have more direct and timely access to KIDS data via eKIDS (ASP). This system is separate from the one used by OCS contractors and less complex being limited to structure “Read only” capacities. They do not have the ability to enter data into the system. These external partners include Juvenile Judges, District Attorneys, School Based Social Workers, and Post Adjudication Review Board (PARB) members.
- There are multiple additional external parties that can have access to CWS data on a prearranged or ad hoc basis. They include the previously mentioned CB entities (CFSR, Title IV-E Audits, AFCARS, NCANDS, and NYTD). Universities, colleges, schools and researchers from public or private agencies can request data and receive it via various types of electronic means if there is an approved data sharing agreement. Various reports are available to the legislature, students, general public, and the Pinnacle Plan Co-Neutrals (monitors of a Federal lawsuit settlement agreement).
- There are multiple internal customers of CWS data. CWS Specialists and other members of CWS Management and Support utilize multiple reports to help maintain data accuracy and monitor case progress and case management efficacy.
- CWS Workers/Personnel: CWS Specialists, Program Field Representatives, District Directors, Field Analysts, Programs Supervisors, Program Managers, Deputy Directors, Administrative Technicians, Administrative Assistants, and Secretaries, County Directors. The work performed by CWS Workers/Personnel involve CWS Intake, CWS Investigation, Permanency Planning, Foster Care/Bridge, Adoption, Adoption Subsidy, Guardianship Subsidy, etc.
- Other sister divisions in OKDHS have workers crucial to the delivery of CWS services. They include: Social Service Specialists, Developmental Disabilities Services Division (DDSD) Case Managers, Child Care Licensing Specialists, Child Support Specialists, Social Service Inspectors, and Adult Protective Services Specialists. Some of the CWS related work they perform includes Foster Care Payments, Child Support, and Paternity Determination, Title IV-E

Eligibility Determination, Medical Eligibility Determination, TANF, SNAP, Day Care Eligibility and Authorization, and DDSD services, etc.

The information (data) contained within KIDS database can only get there via manual data entry by CWS Specialists/Personnel or specific other external partners via limited direct entry or periodic data exchanges into the KIDS database. Only CWS Specialists (All CWS Personnel), Title IV-E Custody Specialists, and OCS contractors have direct access to the KIDS software application and enter data directly via the KIDS Application. Data transfers are via electronic “data packets” that are updated on a varying schedule (Real time, hourly, daily, weekly, monthly).

Figure E-6 provides a high level overview of the KIDS Application Architecture.

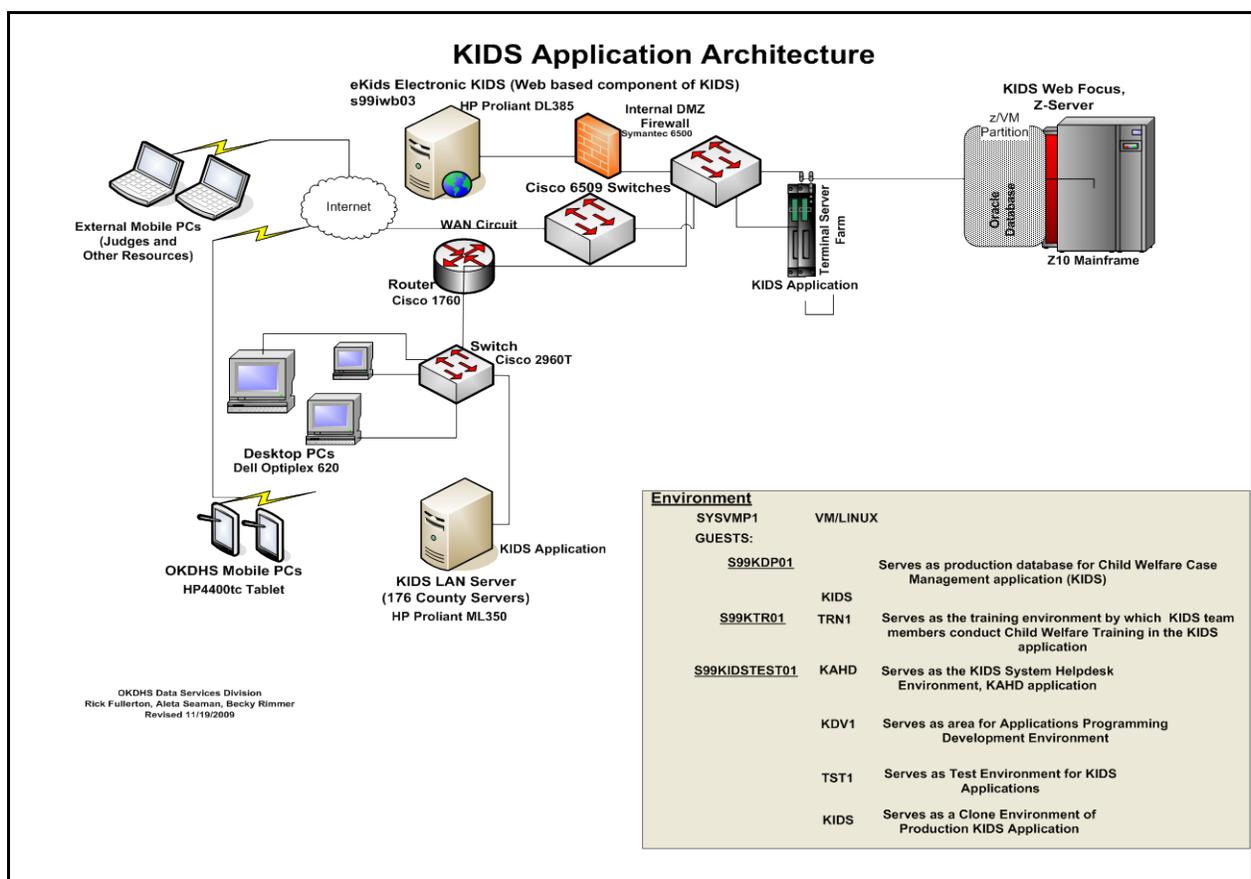


Figure E-6: KIDS Application Architecture

Figure E-7 illustrates a functional view for KIDS

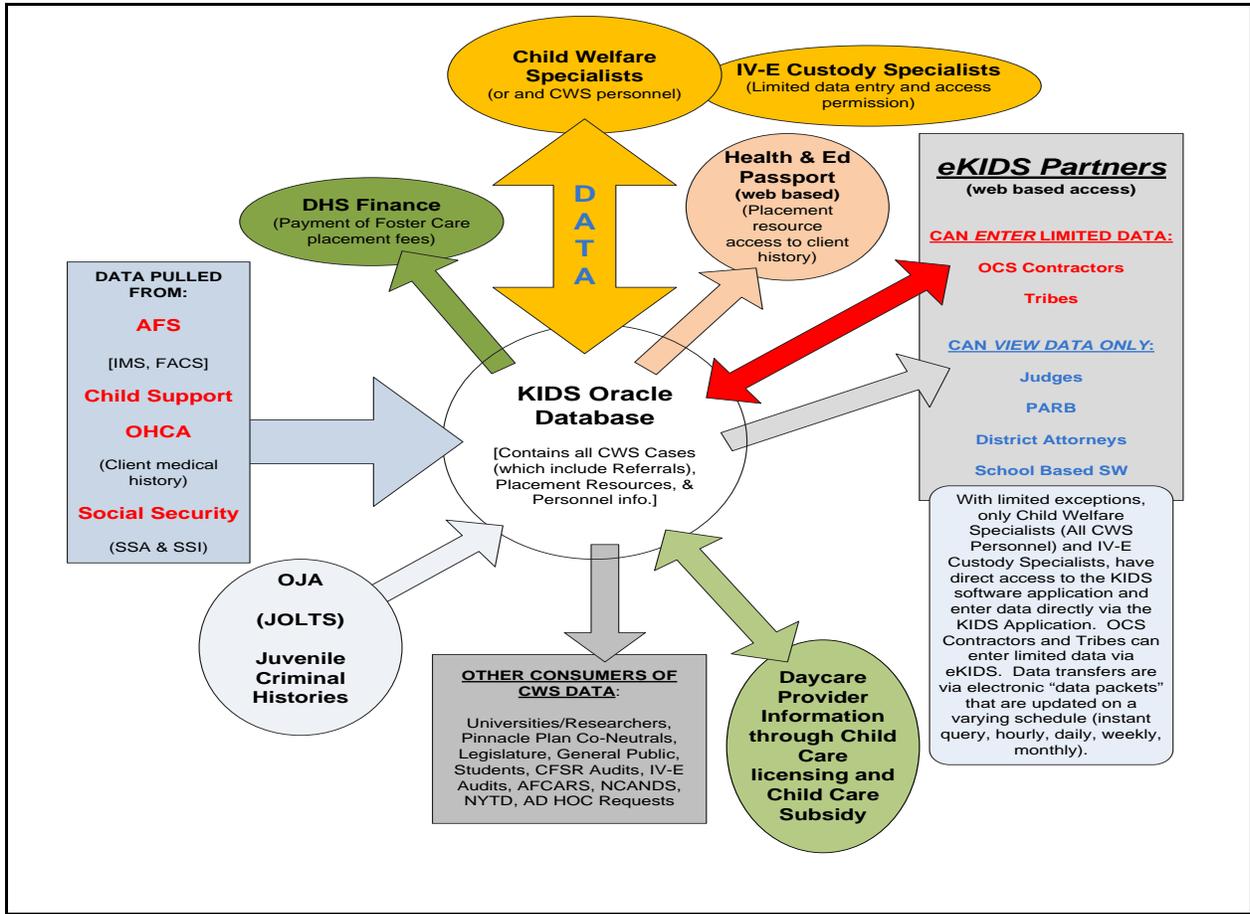


Figure E-7: KIDS System

Figure E-8 illustrates the AS-IS Eligibility and Enrollment data exchanges for CWS

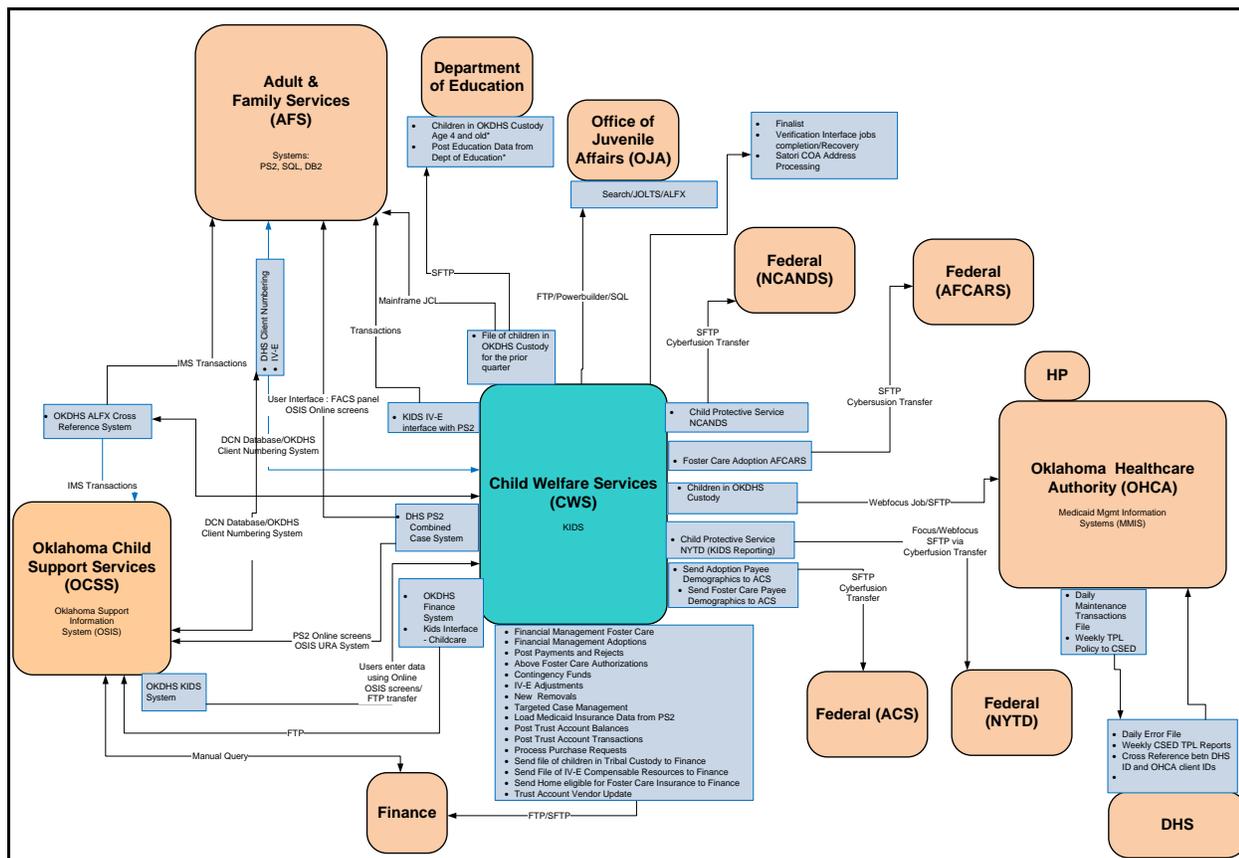


Figure E-8: AS-IS Eligibility and Enrollment Interfaces for CWS

1.4 Medicaid Management Information System (MMIS)

Title XIX of the Social Security Act is a Federal/State entitlement program that pays for medical assistance for certain individuals and families with low incomes and resources. This program, known as Medicaid, became law in 1965 as a cooperative venture jointly funded by the Federal and State governments (including the Washington, D.C. and the territories) to assist States in furnishing medical assistance to eligible needy persons.

The MMIS was developed by Hewlett Packard Enterprise Services (HPES) to serve the needs of the Federally mandated program for all States. It is Healthcare Financing Administration (HCFA) certified and has been operational since 1995. MMIS is a highly sophisticated, feature-rich system centered on a strong, Medicaid-specific relational data model. It divides the application into components which may be processed on multiple networked computers. This design and supporting architecture deliver enhanced flexibility, scalability, and reliability, as recognized by the National Association of State Information Resource Executives (NASIRE) Award for innovative use of technology that the system received after its implementation in the State of Indiana. The

systems architecture is Medicaid Information Technology Architecture (MITA) compliant and is enabled to support a Service Oriented Architecture (SOA).

The storage area network (SAN) design allows improved usage, and rapid provisioning of space to whatever application is needed. The SAN devices are consolidated units with redundancies built in for high availability. Experience has shown that SAN devices provide more efficient use of space and the device can be managed from a single console. A second SAN unit will act as a geographically dispersed electronic vault site creating a much faster disaster recovery response.

Referring to the Figure E-9 below, the system is logically divided into three primary components:

- Claim Engine is responsible for receiving interactive transactions from external sources, adjudicating them, and returning the appropriate response.
- Online/Batch Application is responsible for maintaining and reporting on data contained within the online database.
- History and Back-End reporting component is responsible for analyzing, reporting, and supporting the management of the activities that have occurred in the two front-end systems.

The external interfaces describe a variety of data sources which influence processing within the system. The External Data Submission Entities are organizations that supply information to the MMIS. PS/2 is the primary source of recipient eligibility information. HCFA is a Federal organization that supplies many different types of data feeds.

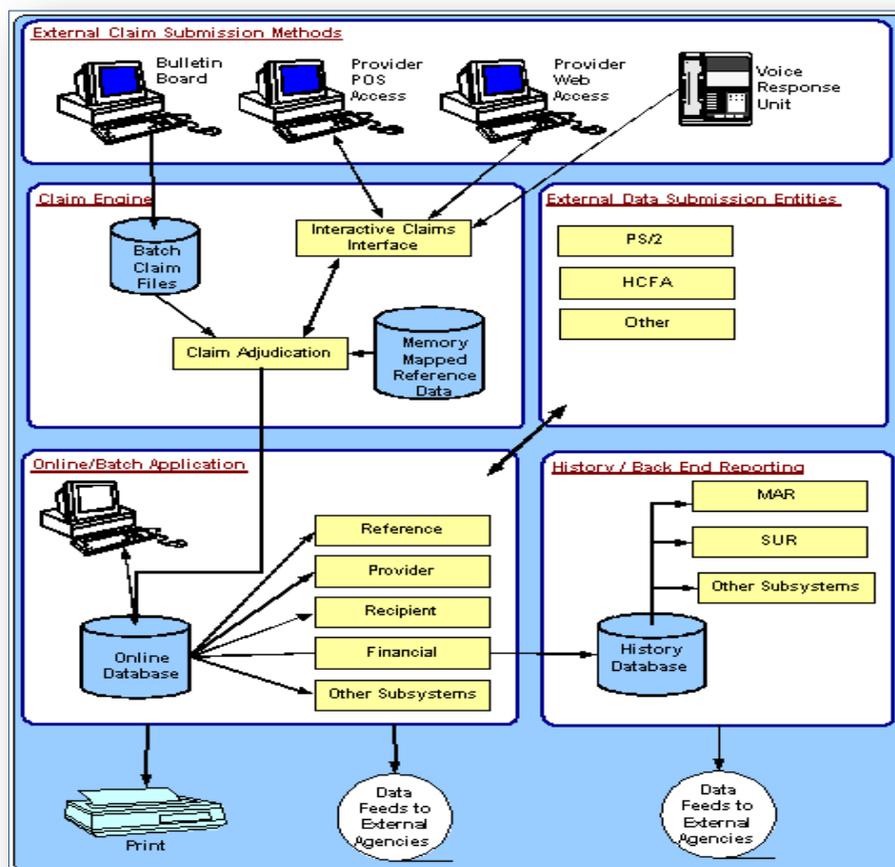


Figure E-9: MMIS Logical Components

MMIS physical infrastructure includes high-bandwidth network components, industry-leading security, and full redundancy in support of the primary user groups:

- OHCA
- External stakeholders
- HPES operations
- HPES account staff

Traffic across the network is managed by a series of switches, firewalls, and routers that are interconnected by 10 GB fiber interfaces. Primary entry points to the systems include direct local connections (for onsite staff), dedicated VPN tunnels (for remote staff and external trading partners), the Internet, and the newly implemented HP Healthcare Network Cloud (HNC). The HNC is a private, fully secure, national network that provides Electronic Data Interchange (EDI) and intranet connectivity between OHCA and national HPES Healthcare and Business Process Outsourcing (BPO) sites. The internet connection is the primary entry point for providers, other State agencies, and provider representatives.

The Oklahoma MMIS physical infrastructure also includes new UNIX and Windows servers and supporting systems upon which MMIS now processes. Physical devices, operating systems, server software, Database Management Systems (DBMS's), utilities, and applications have all been upgraded to high-end, expandable versions. The infrastructure has been virtualized for service stability and ease of maintenance. Components reside in HP's Blade System c7000 enclosures, which provide all the power, cooling, and Input/Output infrastructure needed to support modular server, interconnect, and storage components for the next several years.

Figure E-10 depicts OHCA's MMIS current AS-IS architecture.

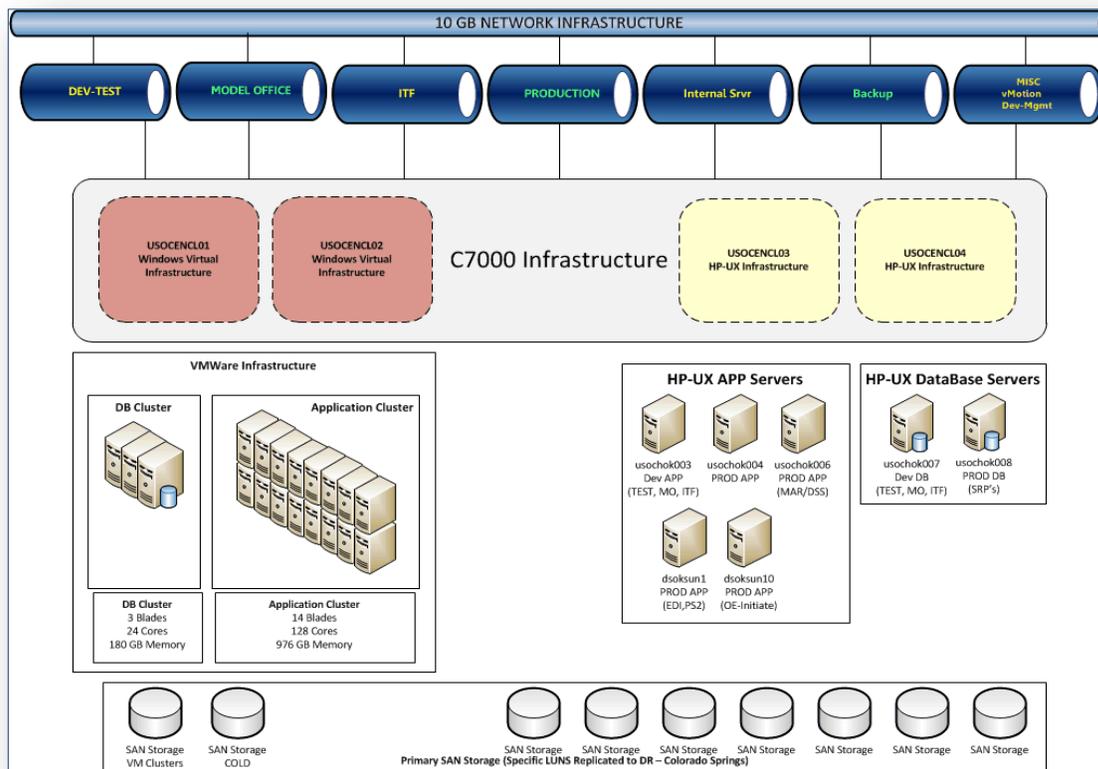


Figure E-10: MMIS Architecture

Figure E-11 provide an AS-IS Eligibility Determination Functional View for OHCA. While Figure E-12 illustrates the AS-IS Eligibility and Enrollment data exchanges for OHCA.

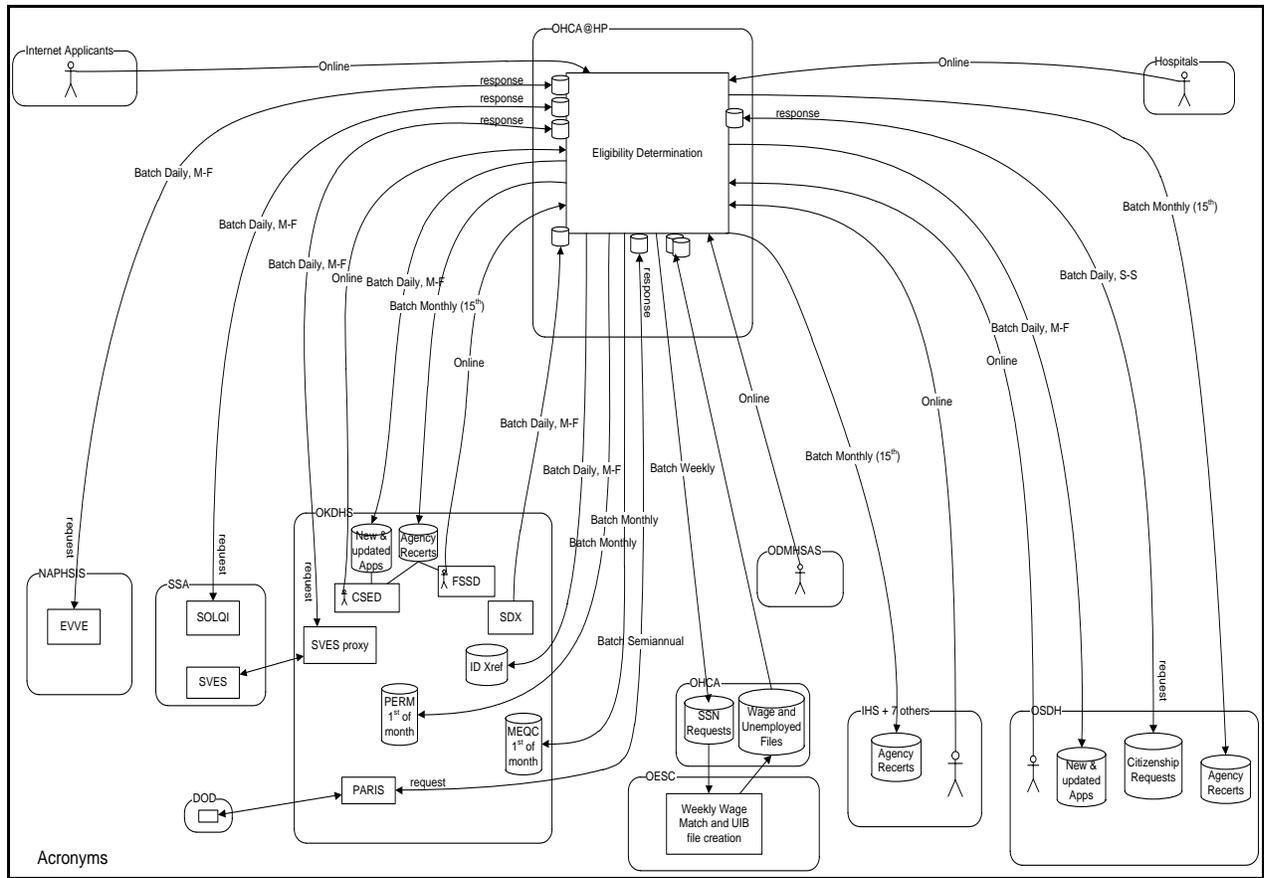


Figure E-11: AS-IS Eligibility Determination Functional View for OHCA

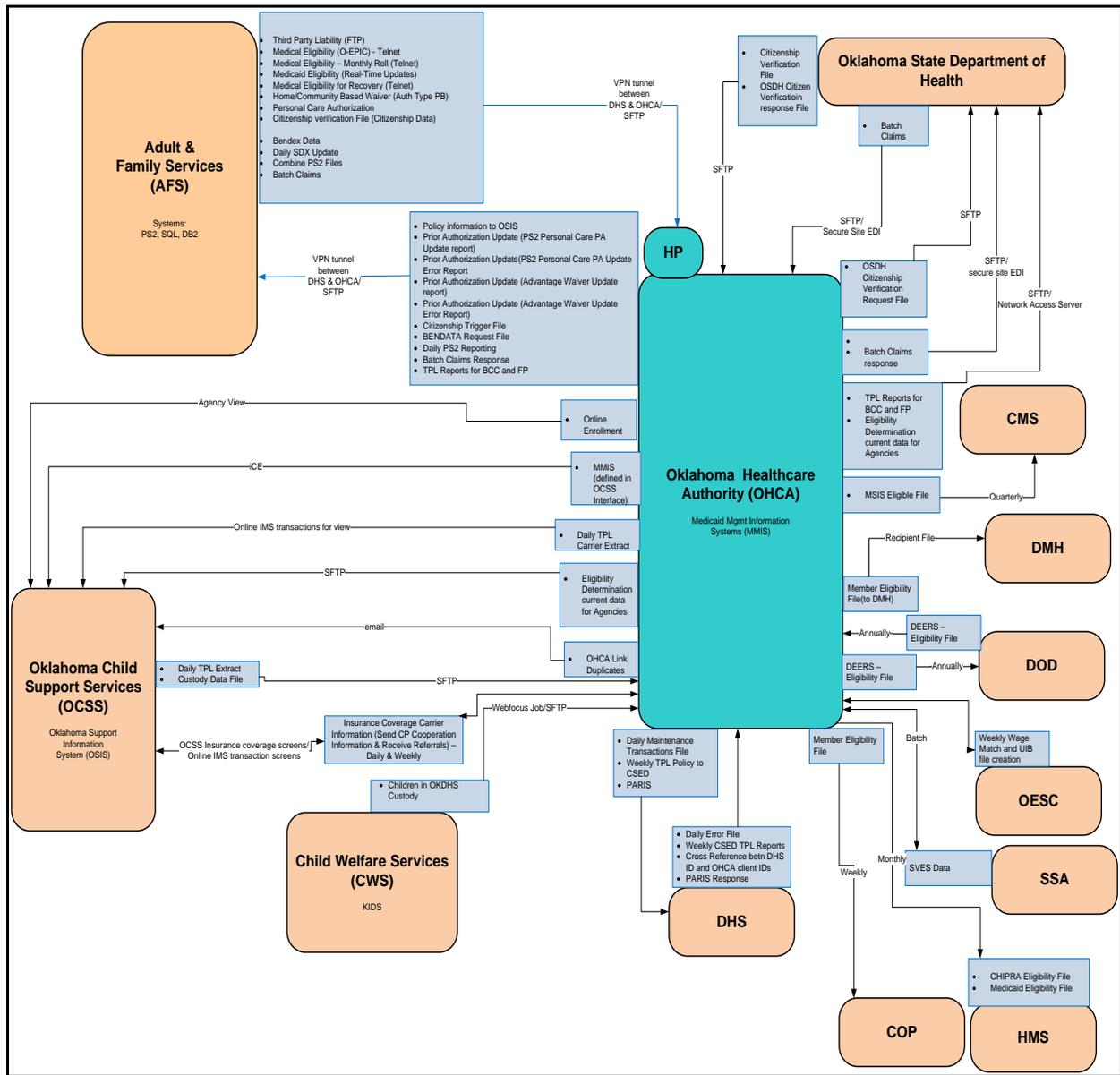


Figure E-12: AS-IS Eligibility and Enrollment Interfaces for OHCA

1.5 Oklahoma State Department of Health (OSDH)

Most of the systems at OSDH were independently designed, developed, and are uniquely customized to the particular program. The bulk of OSDH's systems are designed for capturing, tracking, and reporting information, and mostly for non-clinical purposes. A few are used in providing both clinical and non-clinical services. The most common business processes supported by OSDH systems are data capture/collection, data management, data analysis, tracking, and data reporting. Some systems additionally support limited case management functions, threshold identification, and

notification/letter generation, primarily to providers. Where Centers for Disease Control and Prevention (CDC) developed systems are being used, there is little commonality of platform, format, or content across systems. OSDH is working to migrate some of the systems to a standard SQL-based platform and integrate them into OSDH's Public Health Oklahoma Client Information System (PHOCIS), which supports client services at the county level and allows these external users to directly and more effectively access and use the data. All of the systems supporting direct client services have been migrated into PHOCIS. Few systems have direct interfaces that allow data to be sent/received between systems with no human intervention. Of the small numbers that are automated, only a few are set up to utilize Health Level 7 (HL7) formats.

Figure E-13 provides a functional look at the OSDH Vital Records, Birth Registration Workflow. Birth information to OCSS – It is the interface where birth information is sent to OCSS with Personal Identification Information (PII) removed. The file is kept at a File Transfer Protocol (FTP) site for pickup by OKDHS.

Birth data cannot be used for Master Person Index (MPI) purposes in the Enterprise Service Bus (ESB) because there's a State mandate that allows the sharing of such information only for certain purposes as defined in the mandate. Since it is a State mandate even sharing this data with security in place would be against the law.

The Vital Records for a birth has a Birth Certificate Number and a Record Number attached to it but it is internal to the system. The Death System has a different unique identifier. The Record Number and Birth Certificate Number is not a unique identifier that is used throughout the systems. It is only applicable to the Birth System.

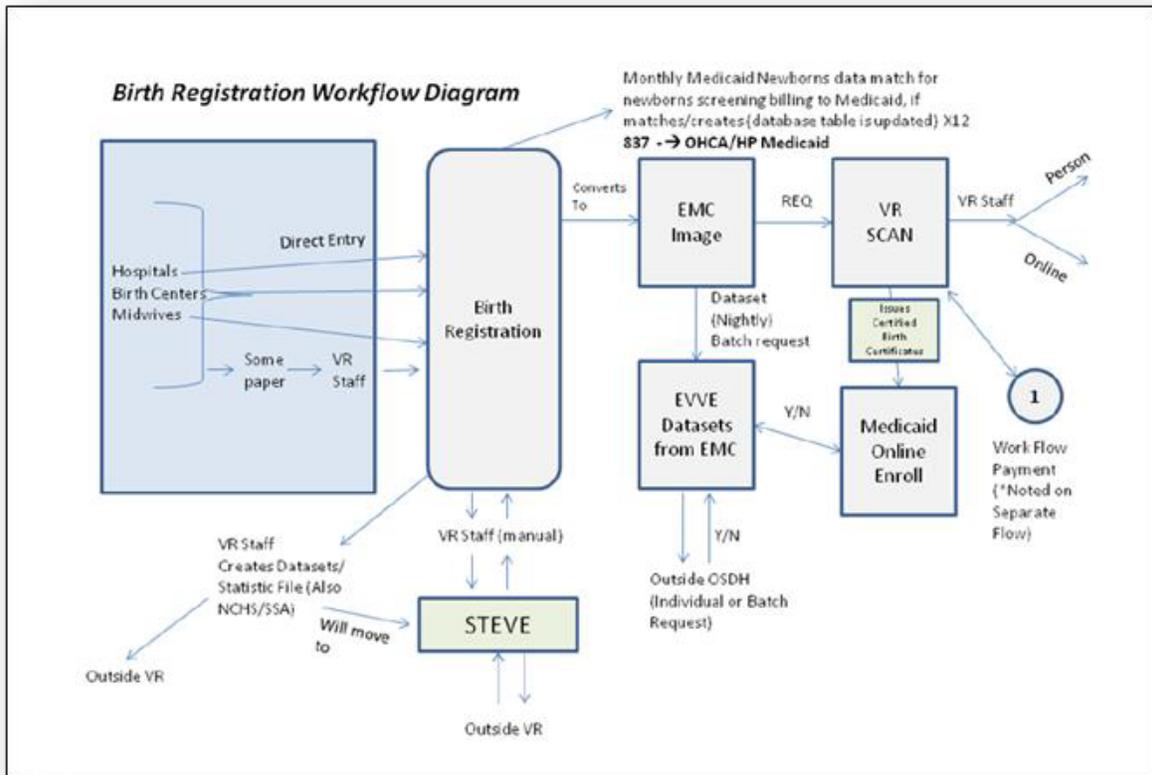


Figure E-13: OSDH – Vital Records, Birth Registration Workflow

1.5.1 No Wrong Door (NWD)

Software needed for OSDH to interface with the No Wrong Door (NWD) Project. This allows PHOCIS access/presentation of SoonerCare application forms hosted on remote servers. PHOCIS is able to create new SoonerCare applications and also maintenance of existing applications. OSDH also regularly receives and stores new/changed SoonerCare applications.

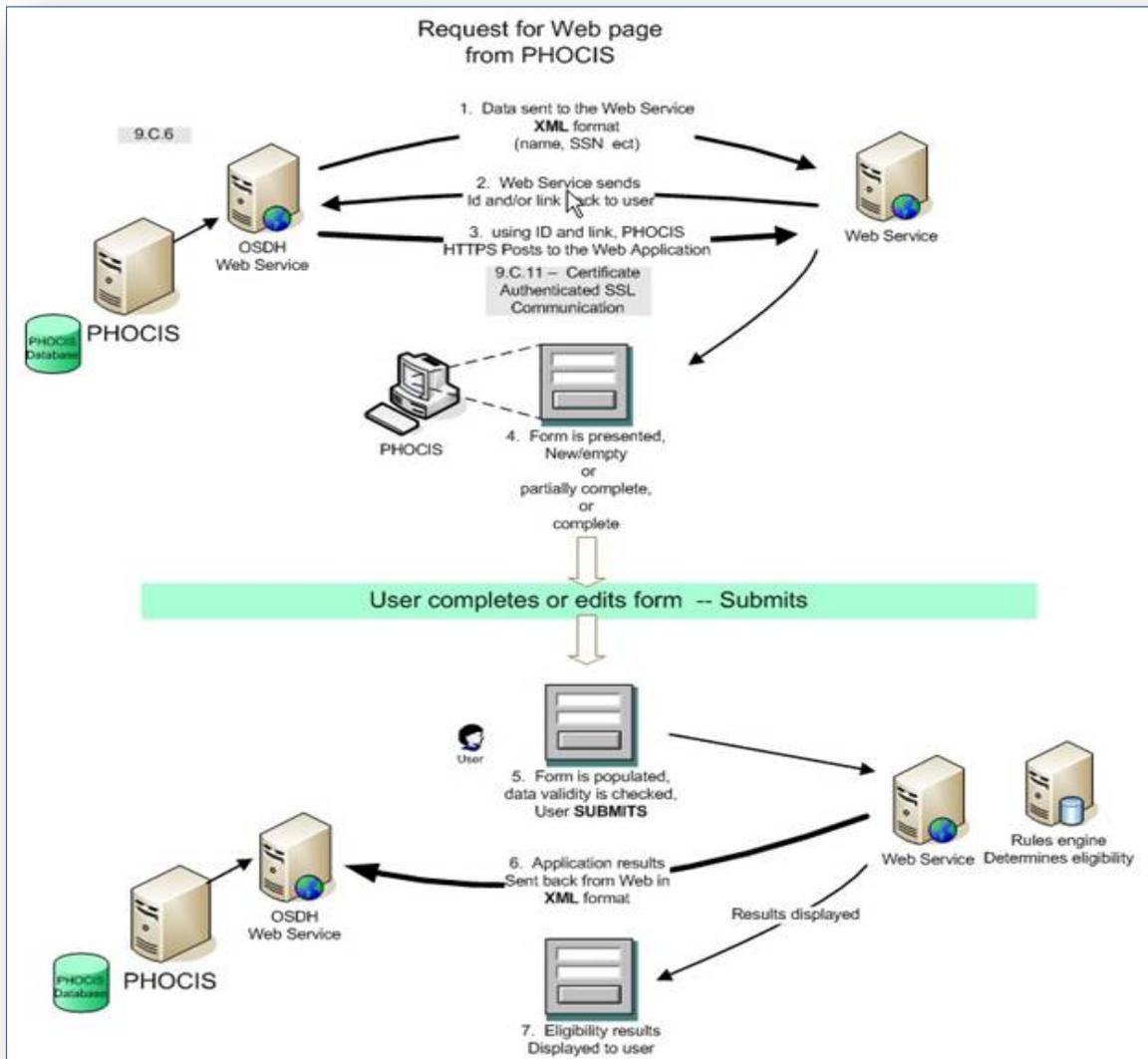


Figure E-14: PHOCIS

PHOCIS makes a request from OHCA’s (HPES) web service for a new or existing SoonerCare application. Extensible Markup Language (XML) data is sent from PHOCIS to request a SoonerCare application, Figure E-14 above. This data contains any demographic data OSDH may have for that the person. Also, if an Application Tracking Number (ATN) exists for the person, OSDH sends it. Demographics data from OSDH is used by OHCA’s (HPES) to partially complete new applications.

OHCA’s (HPES) web service returns to the PHOCIS web service an “ATN” and a URL/link which is used by the PHOCIS web service to make an HTTPS “Post” call to the OHCA’s (HPES) web service. If it is a new application, OHCA’s (HPES) returns a new ATN when the web page is requested.

The PHOCIS application presents/displays the editable SoonerCare application. PHOCIS does not have “control” of the functionality/workings of the SoonerCare application form displayed; PHOCIS merely presents the interactive web page served by the OHCA’s (HPES) web service.

PHOCIS users complete the SoonerCare application and submit it.

Once a completed SoonerCare application is submitted by the user, OHCA’s (HPES) web service returns to OSDH an XML file containing the contents of the SoonerCare application. Only completed applications are sent to OSDH.

For each application approved/changed, the SoonerCare application is sent to OSDH from the OHCA’s (HPES) web service(s). These transmissions occur in real-time. The record sent contains all of the agency fields as well as the OHCA determined data. OSDH stores these in the OSDH-NWD database by inserting new applications or updating existing applications:

- Citizen verification – batch data exchange
- Batch data exchange between OSDH and OHCA of data to verify citizenship.
- OHCA sends a file requesting checks to be made. OSDH returns a file of results.
- Nightly process, 7 days a week

Figure E-15 illustrates the AS-IS Eligibility and Enrollment data exchanges for OSDH.

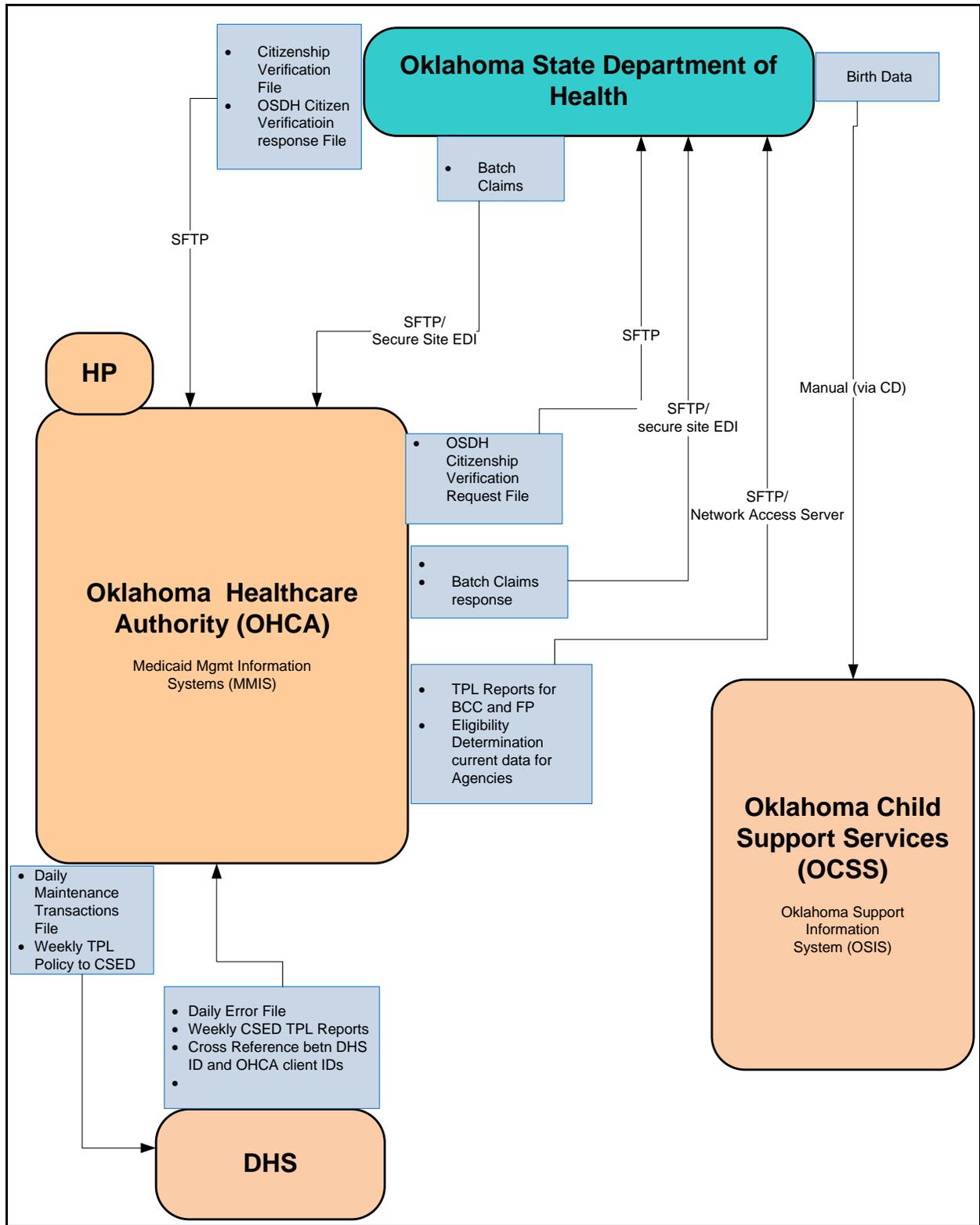


Figure E-15: Eligibility and Enrollment Interfaces for OSDH

2 STAKEHOLDERS

The following describes those integrated stakeholders and interface(s) between systems, agency(s) and internal/external customers that collaborate with the OMES, OHCA, OSDH and OKDHS which provides services for three Health and Human Services communities, CWS, OCSS and AFS.

2.1 Case Workers

OKDHS Case Workers: Directly access the data through user interfaces provided by the organizations that own the following systems:

- OSIS
- PS2
- KIDS
- MMIS

2.2 Clients

OCSS Clients (known as Customers to OCSS) access the following:

- OSIS via IVR
- Web Portal
- CARE Call Center

2.3 Federal Authorities

Federal Authorities – Directly access to OSIS via the user interface. OCSS participates in various interfaces provided by Federal authorities such as Federal Offset Program, Federal Identification Management (FIDM) multi State matching and Passport Denial for example.

2.4 Other States

Access OCSS data via interfaces provided by OCSE called State Services portal and CSENet.

2.5 Providers

- Collection Agencies
- Credit Bureaus
- District Attorney's Office
- Community Action Agency Office
- SMI (SDU vendor)

- Young–Williams
- Xerox
- Informatix (In State FIdM)
- Office of Administrative Court

2.6 Management

The same access as Case Workers to the various interfaces.

2.7 Reporting Module

OCSS, AFS, and CWS – Uses the same reporting module which are:

- WebFOCUS
- RDS/Document Direct

2.8 Oklahoma Public Health Module

- OCSS Currently receives birth records and Acknowledgment of Paternity (AOP)
- OCSS needs adoption information but currently has no agreement.

2.9 Oklahoma Human Services Module

OCSS, AFS, and CWS – Uses the same reporting module which are:

- Department Client Numbering
- Adobe Live Cycle for document generation
- TANF, Foster Care, Medicaid, and Child Care Subsidy eligibility information
- Benefits expended for TANF, Foster Care, and Child Care Subsidy
- WebFOCUS
- RDS/Document Direct

2.10 Oklahoma Child Welfare Services (CWS) Module

CWS exchanges data (interfaces) with AFS, OHCA and OCSS. OCSS needs:

- Foster Care eligibility information
- Benefits expended for Foster Care
- Child Support orders that are established

2.11 Adult and Family Services (AFS) Module

AFS exchanges data (interfaces) with OCSS and OHCA.

2.12 Oklahoma Child Support Services (OCSS) Module

AFS, CWS, OHCA and OSDH exchanges data (interfaces) with OCSS.

2.13 Oklahoma Medicaid Services Module

OCSS – OHCA refers cases to OCSS that are required to participate in the Title IV-D program due to participation in the Medicaid program. OHCA and OCSS exchange Demographic information, child support order and payment information, TPL insurance information, Custodial Parents (CP) cooperation information, and eligibility information on participants in OHCA Medicaid cases. OCSS obtains orders and collects payments that are forwarded to OHCA to offset the cost of the Medicaid program.

OCSS has a very similar relationship with AFS and CWS. Case referrals are received and information is shared between the programs on case participants, child support orders and payment information, CP cooperation, and benefits expended. OCSS retains child support payments when an assignment of support rights is in effect and forwards retained collections to the Title IV-A and Title IV-E programs. OCSS also retains child support payments in Non-Title IV-E foster care cases and forwards these to CWS.

2.14 Oklahoma Providers Module

2.14.1 Oklahoma Health Care Authority (OHCA)

MMIS physical infrastructure includes high-bandwidth network components, industry-leading security, and full redundancy in support of the primary user groups: OHCA, external stakeholders, HPES operations, and the HPES account staff.

2.14.2 Oklahoma State Department of Health (OSDH)

OSDH Vital Records creates data sets for National Center for Health Statistics (NCHS) and SSA. It creates files from database and sends on media, through shared folders, FTP or other mechanisms.