AHCA Florida Health Care Connections (FX)

T-7 Design and Implementation Management Standards

Version: 350

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Modifications to the approved baseline version (100) of this artifact must be made in accordance with the Artifact Management Standards.

Quality Review History

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SECTION 1   INTRODUCTION

1.1   BACKGROUND

The Florida Agency for Health Care Administration (AHCA or Agency) is adapting to the changing landscape of healthcare administration and increased use of the Centers for Medicare and Medicaid Services (CMS) Medicaid Information Technology Architecture (MITA) to improve the administration and operation of the Florida Medicaid Enterprise. The current Florida Medicaid Enterprise is complex; it includes services, business processes, data management and processes, technical processes within the Agency, and interconnections and touchpoints with systems necessary for administration of the Florida Medicaid program that reside outside the Agency. The future of the Florida Medicaid Enterprise integration is to allow the Agency to secure services that can interoperate and communicate without relying on a common platform or technology.

The Florida Medicaid Management Information System (FMMIS) has historically been the central system within the Florida Medicaid Enterprise; functioning as the single, integrated system for claims processing and information retrieval. As the Medicaid program has grown more complex, the systems needed to support the Florida Medicaid Enterprise have grown in number and complexity.

The Medicaid Enterprise System (MES) Procurement Project was re-named Florida Health Care Connections (FX) in the summer of 2018. FX is a multi-year transformation to modernize the current Medicaid technology using a modular approach, while simultaneously improving overall Agency functionality and building better connections to other data sources and programs.

1.2   PURPOSE

The purpose of the *T-7: Design and Implementation Management Standards* deliverable is to:

- Define the minimum set of design and implementation management standards
- Establish a process to maintain the standards
- Develop management template reports for FX Project Owners to use as guidelines in performing design and implementation processes
- Establish a protocol for the SEAS Vendor to assist the Agency in reviewing and monitoring the standards throughout an FX Project

1.3   SCOPE STATEMENT

This deliverable is an iterative document maintained and updated as the FX design and implementation standards evolve. This deliverable emphasizes modularity and interoperability across the Agency.

This iteration of the deliverable establishes an initial list of design and implementation management standards for the FX Enterprise with emphasis on the foundational capabilities of the Integration Services and Integration Platform (IS/IP) including the Enterprise Service Bus (ESB), Enterprise Data Warehouse (EDW), and modular capability implementation. Deliverable content includes:

- **Section 1 Introduction** – Outlines the background, purpose, scope statement, goals and objectives, and reference documents used to prepare the deliverable.

- **Section 2 Roles and Responsibilities** – Lists the responsibilities of each of the FX stakeholders during the Design and Implementation Phases of the project.

- **Section 3 Design and Implementation Management Standards Overview** – Outlines the structure to manage each FX Project from initial design through implementation and describes how these standards align with and complement the *P-2: FX Project Management Standards* established for FX.

- **Section 4 Process to Define Design and Implementation Standards** – Describes the analysis of Florida-specific, national, and other state standards to define the standards and provides a roles and responsibilities chart for review and approval of initial design and implementation management plans from FX Project Owners. This section also includes a brief description of each *T-7: Design and Implementation Management Standards* template.

- **Section 5 Applicability Decision Tree** – Describes the decision tree analysis process and content to determine the applicable design and implementation management plan artifacts and standards that are relevant for each FX Project.

- **Section 6 Standards Support and Expertise** – Describes the SEAS support and expertise provided throughout requirements analysis and design through implementation phases of an FX Project and how design and implementation activities leverage procedures established in the SEAS deliverable *T-6: Technology Standards*, Appendix E *Technology Standards Communication, Support, Compliance, and Compliance Reporting Procedures,* for all technical standards support.

- **Section 7 Implementation Status Reporting** – Summarizes and provides reference to the *P-2: FX Project Management Standards* and the SEAS deliverable *T-6: Technology Standards*, Appendix E *Technology Standards Communication, Support, Compliance, and Compliance Reporting Procedures,* as the procedures for monitoring and reporting implementation status for the design and implementation standards.

1.4 GOALS AND OBJECTIVES

- Goal #1 – Provide clear and consistent expectations to FX Project Owners of work products and process to design and implement systems.

  › Objective #1 – Define the minimum set of design and implementation management standards used by the Agency based on national and state standards.

　　　　　› Objective #2 – Establish a process to maintain and update the standards over the course of FX.

- Goal #2 – Align the *T-7: Design and Implementation Management Standards* with other FX Enterprise Program Management Office (EPMO) or technical standards within FX to increase standardization, reduce duplication of work effort, and produce supporting documentation that meets the certification goals for new systems and services.

　　　　　› Objective #1 – Review and reuse the established FX EPMO or technical standards processes for developing, monitoring, and reporting design and implementation activities as applicable.

1.5 REFERENCED DOCUMENTS

Documents referenced to support the development of this deliverable include the following:

- P-2: FX Project Management Standards available for review in the FX Projects Repository

- P-4: Medicaid Enterprise Certification Management Plan available for review in the FX Projects Repository

- Centers for Medicare & Medicaid Services (CMS) eXpedited Life Cycle (XLC)

- Current CMS Certification guidance

- Agency for Health Care Administration Division of Information Technology (AHCA IT) Office References – Information Systems Development Methodology (ISDM)

- Florida Medicaid Management Information System/Decision Support System/Fiscal Agent Operations – Project Management Office Operational Procedures Manual

- State of Tennessee, Project Management Office (PMO) Design and Implementation Management Standards

- National Institute of Standards and Technology (NIST) Special Publication 800-34, *Contingency Planning Guide for Federal Information Systems*

- International Institute of Business Analysis (IIBA), *A Guide to the Business Analysis Body of Knowledge* (BABOK Guide)

1.6 STRATEGIC TOPIC INVENTORY

This document provides guidance on design and implementation strategy topics. In the development of FX technology deliverables, the SEAS Vendor created a Strategic Topic Inventory tool used to develop and communicate the Agency's direction on a variety of data standards topics. The tool organizes topics into a hierarchical taxonomy based logical groupings in areas of interest to Strategic, Programmatic, Technical, and Program Management Domains.

The Strategic Topic Inventory has many features to present and communicate a spectrum of strategic direction options considered across the duration of the project for a specific topic. A summary chart can dynamically display the strategic direction for a specific topic across the time spectrum from current state direction to direction for future years. The Strategic Topic Inventory includes a field documenting a summary analysis that describes the context and considerations that influenced the defined strategy for each specific topic.

Extracts of topic specific summary charts from the Strategic Topic Inventory tool are included throughout this document to communicate strategy and direction for many of the important design and implementation standards decisions that are important for FX stakeholders to understand.

Over the course of FX, the SEAS Vendor shall continue to define and elaborate strategic direction on many design and implementation standards topics. The SEAS Vendor intends to continue to use the Strategic Topic Inventory tool as a discussion, recommendation, and communication vehicle for defining design and implementation standards direction as topics arise. FX Project Owners that identify additional topics that require FX strategic direction can communicate the topic to the SEAS Vendor via email. The SEAS Vendor, along with the Agency, will evaluate the topic for inclusion in the Strategic Topic Inventory list. The SEAS Vendor shall communicate the decision back to the submitter in a timely manner based on the complexity of the issue. FX Project Owners can review strategic topics in the FX Projects Repository.

Exhibit 1-1: Strategic Topic Tool shows a screenshot example of a populated strategic topic.

Area:	Service Delivery - Technology			Description:				
Category:	Technology Strategy			What is the Agency tolerance for technology change and novelty?				
Sub-Category	Maturity							
Topic:	MES Technology Adoption							
Importance:	Medium	**Strategy Status:**	Draft Reviewed					
Displaying Row:	188							
Strategic Direction		Current	2018	2020	2022	2025		
Innovators								
Early Adopter			X	->				
Early Majority		AHCA IT / Non-FMMIS	->			X		
Late Majority		X						
Laggard								
Analysis:		The Rogers Bell curve categorized an organizations tolerance for change and novelty. The MES Technology adoption toward innovation will be tempered by a determination of the potential Agency disruption. They estimate organization tolerance for change and novelty across all industries as: Innovators (2.5%) Early Adopters (13.5%) Early Majority (34%) Late Majority (34%) Laggards (16%)						

Exhibit 1-1: Strategic Topic Tool

The SEAS Vendor developed and maintains this list that resides in the FX Projects Repository.

SECTION 2   ROLES AND RESPONSIBILITIES

This section identifies the roles and responsibilities for the primary stakeholders that maintain or use this document as shown in **Exhibit 2-1: Roles and Responsibilities** below.

ROLE	RESPONSIBILITY
FX Governance Committee	▪ Provide decision-making, leadership, and guidance on the overall strategic direction of the program ▪ FX Governance Committee roles and responsibilities, priorities, decision and authority rights, members, and other key committee information is provided in the *S-1: FX Governance Plan*
FX Project Sponsor	▪ Provide leadership and guidance on the overall strategic direction of the project ▪ Authorizes the use of critical resources and support for the project and is accountable for enabling its overall success ▪ Has project ownership and overall programmatic responsibility for the successful development and implementation of the project

FX Director	▪ Provides guidance, direction, and oversight over the SEAS Vendor who is:
	  › Accountable for ensuring processes are in place for the execution of the *T-7: Design and Implementation Management Standards*
	  › Accountable for ensuring expectations (contracts) are in place for FX Project Owners to develop design and implementation management plans, adhering to guidance, and templates
	  › Accountable for ensuring adequate training is provided to FX Project Owners on FX Project standards and integrated processes
	  › Accountable for ensuring processes are in place for the coordination of shared Agency resources
	  › Accountable for ensuring tools and processes are in place for the centralized support of managing changes and tracking risks, issues, decisions, and lessons learned

AHCA FX Technical Domain Lead	▪ Coordinate participation of Agency stakeholders that identify technology management strategy topics needing definition, decision, or elaboration; review and provide feedback on proposed technology management strategy topics ▪ Communicate technology management strategy to Agency FX Program Administration Team ▪ Support FX leadership communication to Agency executive leadership ▪ Approve communications between the SEAS Vendor and FX stakeholder organizations related to the *T-7: Design and Implementation Management Standards*

ROLE	RESPONSIBILITY
SEAS Vendor	▪ Responsible for ensuring tools and processes are in place for the execution of the *T-7: Design and Implementation Management Standards* ▪ Responsible for developing and maintaining the *O-1: SEAS Management Plan* and SEAS integrated processes ▪ Responsible for coordinating integrated processes ▪ Responsible for administering assessment processes ▪ Responsible for developing adequate training for FX Project Owners on FX Project standards, integrated processes, and the *T-7: Design and Implementation Management* Standards ▪ Responsible for coordination of tools and processes for managing changes ▪ Responsible for producing timely and accurate status reporting ▪ Responsible for defining the minimum set of design and implementation management standards ▪ Responsible for developing and maintaining the decision tree analysis process (which has been incorporated into the Project Process Agreement (PPA)) to determine which design and implementation management plan artifacts and standards are applicable to an FX Project ▪ Responsible for providing standards support and expertise throughout the FX ▪ Responsible for producing implementation status reporting of FX projects
FX IV&V Vendor	▪ Provide independent, objective assessments of project processes and report observations to appropriate level of governance as defined in the *S-1: FX Governance Plan* to facilitate informed decision-making regarding system development and deployment ▪ Independently monitor FX CMS Certification status and report certification progress to the CMS ▪ Verify the project has the strategy, management backing, resources, skills, and incentives necessary for an effective project ▪ Evaluate project progress, resources, cost, schedules, workflow, and reporting; evaluate project reporting process and actual project reports to verify project status is accurately traced using project metrics ▪ Verify the project's organizational structure supports training, process definition, independent Quality Assurance, Configuration Management, product evaluation, and any other functions critical for the FX Project's success
FX Project Owners	▪ Develop and execute processes in alignment with the *T-7: Design and Implementation Management Standards* ▪ Develop and execute processes in alignment with the FX integrated processes and standards ▪ Provide resources to complete assigned work as scheduled or within planned timelines ▪ Responsible for communicating and executing the T-7: Design and Implementation Management Standards ▪ Responsible for preparing documentation and supporting the CMS Certification process reviews related to their business in a manner described in the *P-4: Medicaid Enterprise Certification Management Plan*

Exhibit 2-1: Roles and Responsibilities

SECTION 3   DESIGN AND IMPLEMENTATION MANAGEMENT STANDARDS OVERVIEW

The *T-7: Design and Implementation Management Standards* provide important guidance to standardize, align, and manage FX projects that implement or modify systems or services. The *T-7: Design and Implementation Management Standards* provide tools to improve consistency, increase efficiency, and simplify integration and reuse of systems and services. The standards contain templates and guidance that define content and format expectations for design and implementation related documentation. Standardized design and implementation management related documentation enables:

- Efficient review and verification by the Agency, SEAS Vendor, IV&V Vendor, IS/IP Vendor, and other interested parties
- Understanding and confidence in services implemented by other vendors
- Reuse, integration, and evolution of high-quality content in deliverables

Design and implementation standards also help FX projects to increase quality, consistency, and communication effectiveness across the FX Enterprise.

This section outlines the structure to manage each FX Project from initial design through implementation. This section, specifically Section 3.2, also describes how the *T-7: Design and Implementation Management Standards* align with and complement the *P-2: FX Project Management Standards* established for the FX.

3.1   STRUCTURE FOR MANAGING DESIGN THROUGH IMPLEMENTATION

The *T-7: Design and Implementation Management Standards* focus on the project stages that follow project definition and project initiation. Each FX Project shall have unique scope, different expected outcomes, different stakeholders, and use different FX Project Owners and Agency resources. For this reason, it is especially important that FX projects follow *the T-7: Design and Implementation Management Standards*. Adhering to the standards improves the quality, efficiency, delivery consistency, and ultimately cost effectiveness of the FX.

3.1.1   ORGANIZATION STRUCTURE FOR DESIGN THROUGH IMPLEMENTATION

For FX projects, the following organizational responsibilities and relationships exist:

- FX Project Owner is contractually responsible to the Agency for design through implementation activities.
- The SEAS Vendor is contractually responsible to the Agency for providing strategic advisory services, standards definitions, support, assessment of FX deliverables, and FX reporting to the Agency.

- The IS/IP Vendor is contractually responsible to the Agency for providing and operating an integration platform and providing integration services that result in interoperability between systems, applications, and services.

- The IV&V Vendor is contractually responsible to the Agency and reports to CMS and the Florida Department of Management Services in performing independent verification and validation.

- External organizations perform interface and integration services based on interface control documents and data sharing agreements.

- Florida's Department of Management Services (DMS) provides oversight of FX on behalf of the Florida Executive Office of the Governor (EOG) and Legislature.

- FX Governance entities make decisions and provides guidance to the FX.

- Agency Business Units provide resources to participate in FX projects as defined in the FX Project artifacts.

- The Agency IT Change Advisory Board (CAB) controls IT System changes, version releases, compliance with Agency IT Change Control policies, and audits.

- The Module Change Board (MCB) controls changes to FX Systems and version releases.

3.1.2 FX PROJECT WORK MANAGEMENT DESIGN THROUGH IMPLEMENTATION

All FX projects shall follow sound system development life cycle management practices. There will be variations in the scope of services performed by different FX projects. FX projects may implement commercial off-the-shelf (COTS) package solutions, custom developed solutions, Software as a Service (SaaS), or Platform as a Service (PaaS) solutions. FX projects may require different amounts of data conversion, organizational change management, and user training. Regardless of the specific implementation, each FX Project that implements or modifies systems, and applications or data, will need to:

- Initiate the project, confirm the project goals, and plan the design and implementation work

- Confirm and elaborate business and technical requirements

- Perform analysis and design the solution to meet the business needs and required project outcomes

- Develop and configure software and test that the system and processing meet the business needs

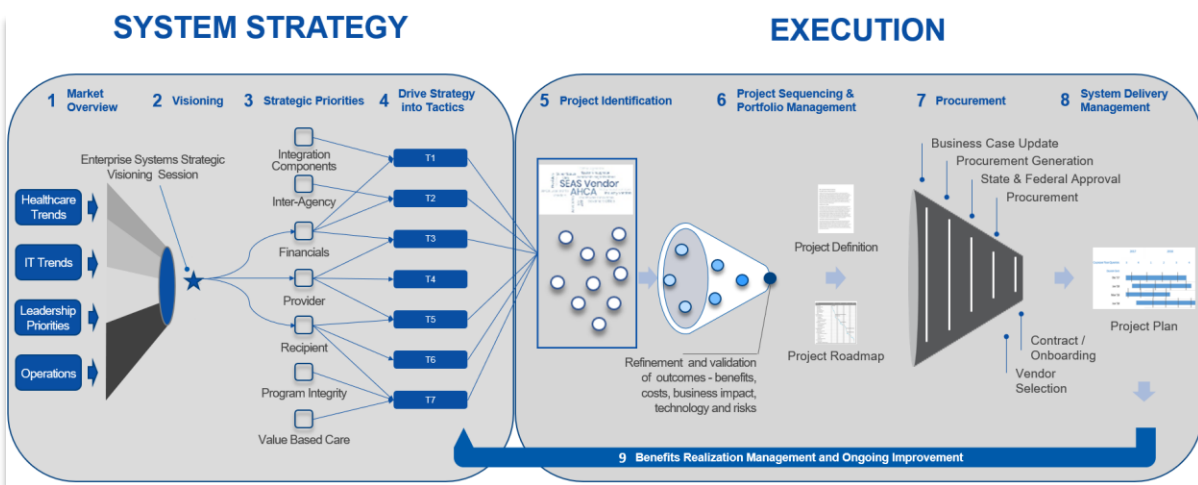- Implement the system

- Operate and maintain the system

The activities from requirements through implementation are the focus of the T-*7: Design and Implementation Management Standards*.

The FX Project Life Cycle (FXPLC) is a system development life cycle based on the CMS XLC customized to Agency and Florida specific project implementation processes. The XLC is a framework developed by CMS for defining tasks performed at each phase in the software implementation process. The XLC provides the structure and definition of activities followed by a system implementation team. It consists of a detailed plan describing how to develop, maintain, and replace specific software. Throughout this document, the term FXPLC means the FX specific system development life cycle based on the CMS XLC. Appendix C *External References* contains a list of CMS documentation about the XLC:

- CMS XLC Process Overview
- CMS XLC Artifacts and Templates
- CMS XLC Artifact Table
- CMS Project Process Agreement

As there are different solution implementation activities for FX projects, there are also variations in activities that depend on different system development methodologies. The w*aterfall* or iterative w*aterfall* is the most common system development methodology used for large complex programs like FX. This methodology aligns with Agency resource availability, Agency contracting processes, state budgeting requirements, and federal review processes. For this reason, this iteration of the *T-7: Design and Implementation Management Standards* will assume use of a waterfall or iterative waterfall methodology for most FX projects. The standards and templates described in this document will build from this assumption. If FX projects use the Agile methodology, FX would need additional standards, templates, and reporting processes.

Exhibit 3-1: System Strategy and Portfolio Management Execution Process is the overall FX Execution Process. The *T-7: Design and Implementation Management Standards* primarily relate to activities depicted as Stage 8 System Delivery Management in the overall process.

Exhibit 3-1: System Strategy and Portfolio Management Execution Process

Exhibit 3-2: FX Project Life Cycle Phases shows the System Delivery Management Phase organized into major phases for a specific FX Project. The system delivery management activities are referred to as the FXPLC. The FXPLC provides structure to improve the quality of software and overall system delivery management.

Initiation, Concept & Planning	Requirements Analysis & Design	Development & Test	Implementation	Operations & Maintenance	Disposition

Exhibit 3-2: FX Project Life Cycle Phases

The following descriptions of each phase of the FXPLC originate from the CMS XLC Phase descriptions.

- **Initiation, Concept, and Planning:** The FX Project Owner and assigned project lead of the project identifies and confirms the business objectives and presents the plans for achieving the business goals and objectives. The project lead also creates/verifies or updates the Acquisition Strategy during this phase and throughout the life cycle. The activities of this phase include:
  - › Identify significant assumptions and constraints and explore alternatives.
  - › Identify project goals, objectives, risks, and clear and measurable success factors. This should include a set of standard criteria: software testing metrics and Key Performance Indicators (KPI's).
  - › Develop the architectural framework and high-level content.
  - › Approve the project based on evidence that the business needs will be met, and the solution will conform to the *T-5: Technical Architecture Documentation*.
  - › Analyze how the project will be managed, culminating in the project's Project Management Plan.

- **Requirements Analysis and Design:** A common set of business rules (stored in the enterprise business rules engine) are refined, and the business requirements are validated and broken down into functional and non-functional requirements. The requirements are used to 1) define the design in detail, including inputs, processes, outputs, and interfaces, and 2) permit further detailed project management planning. In this phase, initial traceability begins between requirements, design, and solution testing. Requirements need to be testable to facilitate system acceptance later in the life cycle.
  - › Detailed specifications are developed to support the IT solution that fulfills the requirements for a release.
  - › The requirements and logical description of the entities, relationships, and attributes of the data are defined and allocated into system and data design specifications. These design specifications are organized in a way suitable for

implementation and testing within the constraints of a physical environment (e.g., computer, database, and infrastructure).

- **Development and Test:** The detailed requirements and design information documented in the previous phase are transformed into machine-executable form and tested.

  › The detailed requirements and design information are verified and validated so that all the individual system components (and data) of the IT solution function correctly and interface properly with other components within the system.

  › System hardware, networking, telecommunications, security equipment, and COTS software are configured.

  › New custom-software business applications and services are developed; database(s) are built; and software components are integrated.

  › Test data and test case specifications are finalized, and tests are conducted for individual components, integration, and end-to-end functionality from end-consumer to all systems and back, testing all federal and state agencies, as appropriate, to ensure accurate functionality and data.

  › Tests verify and validate that the IT solution fulfills all business, functional, and non-functional requirements for the release.

  › IT solution system components, data, and infrastructure are migrated from a development environment to a development test environment to pre-production test environment.

  › The IT solution undergoes full integration, security, and stress testing in the pre-production environment. Integration testing should test use of shared data sets utilized by interconnecting systems (shared sets of providers, members, claims, etc.). Integration testing should also address *reverse integration* where a new modular component operates alongside the remaining legacy system (with module provided business functions deactivated) and test subsequent integration with components that ultimately replace the legacy system. The *Test Plan* artifact describes the testing approach for each type of testing. For more information see Attachment F - Testing Management Plan.

  › All system deployment and configuration management activities are executed as a dry run during this phase, including data conversion.

- **Implementation:** During the Implementation Phase, the project conducts a further level of operational readiness testing in a close to production environment followed by the CMS certification Operational Readiness Review. Users receive training to operate and maintain the IT solution. The IT solution is put into production based on Authority to Operate (ATO). The final IT solution must receive an ATO before deployment to the production environment. For further information regarding the ATO process please see SEAS deliverable *T-8: Enterprise Data Security Plan*.

- **Operations and Maintenance / Disposition:** The IT solution's system components, data, and infrastructure are maintained in the production environment and monitored to confirm the system meets business needs.

  › The first review performed about six months after entering production is a Post Implementation Review (PIR). PIR focuses on lessons learned during the development and implementation of the solution.

  › The CMS Final Certification Review is completed at least six months after implementation.

  › All investments with operational systems undergo an Annual Operational Assessment (AOA).

  › When a system no longer meets a business need, a Disposition Plan is presented at a Disposition Review (DR) and the system is subsequently retired in accordance with the approved plan. A DR ensures correct and complete plans are in place to confirm the system is completely transitioned and properly disposed.
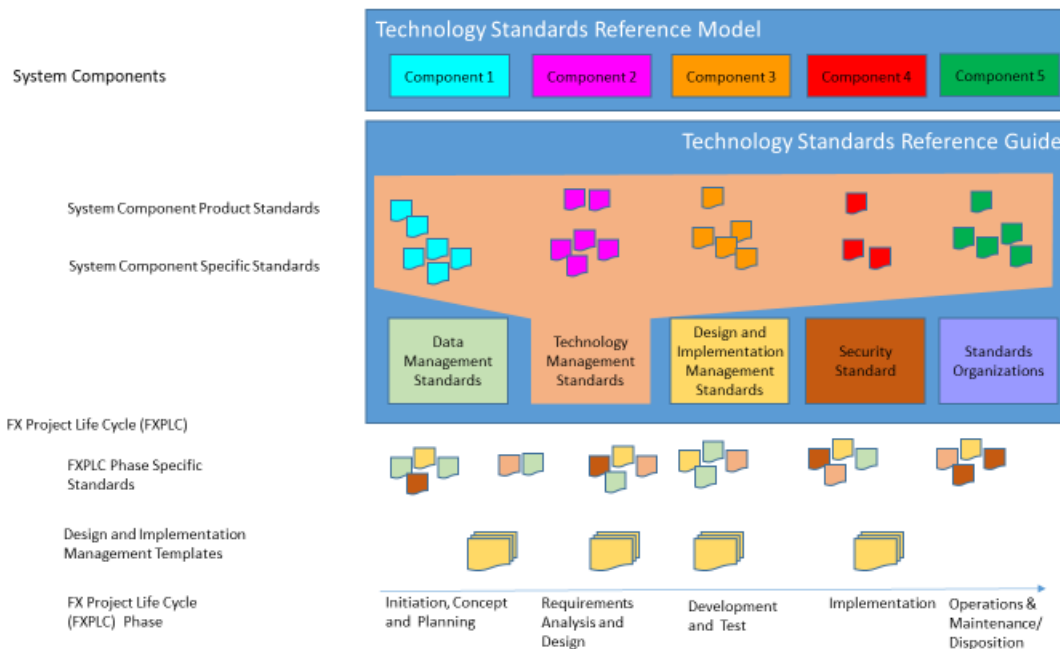
3.1.3 STRUCTURE OF FX STANDARDS

The *T-7: Design and Implementation* Standards are a specific type of standards that focus on system development and implementation activities. These differ from the other types of standards in the Technology Standards Reference Guide (TSRG) associated with the *T-6: Technology Standards* deliverable. The TSRG is the repository for all types of Technical Domain standards including:

- **System Component Product Standards** – The Technology Standards Reference Model (TSRM) defines the major types of system components implemented or to-be implemented in FX. System Component Product Standards specify acceptable vendor products or system capabilities available for use. An example of a product standard related to a system component is the list of acceptable business rules engine software for use in FX.

- **System Component Specific Standards** – There are also component specific standards that may relate to data, technology, design, and implementation or security standards. An example of system component specific standard is the requirement to use Business Process Model Notation (BPMN) for the business process management engines component.

- **FXPLC Phase Specific Standards** – FXPLC Phase specific standards are those standards that are not incorporated in the *T-7: Design and Implementation Management Standards* templates. There are a small number of FXPLC Design and Implementation Management Plan standards because most are defined project requirements or embedded in the *T-7: Design and Implementation Management Standards* templates. An example of an FXPLC Phase specific standard is the standard to adhere to NIST SP 800-34, Revision 1 from the NIST IT Contingency

Planning Guide on interim measures to recover information system services after a disruption.

- **FX Design and Implementation Management Templates** – The *T-7: Design and Implementation Management Standards* templates provide structure and guidance to help FX Project Owners to develop system development artifacts that follow FX FXPLC Phase specific standards. An example of a *T-7: Design and Implementation Management Standards* template is the *Testing Management Plan* template (i.e., Attachment F).

Exhibit 3-3: Structure of FX Technology Standards depicts the relationship of the *T-7: Design and Implementation Standards* to other standards in the Technical Domain.

Exhibit 3-3: Structure of FX Technology Standards

All technology standards reside in the TSRG. For technology components (which are defined in the TSRM), there are two types of standards. System component product standards specify specific COTS products used with the component. Component specific standards provide guidance related to implementation and use of the specific component. System component standards are independent of the FXPLC Phases or activities.

There are multiple types of technology standards about system development activities. These include data standards, technology management standards, design, and implementation standards, and security standards. Information about standards organizations is also included in the TSRG. The *T-7: Design and Implementation Management* Standards templates also

embed FXPLC Phase specific technology standards. The diagram above depicts that for a given phase there may be a combination of data, technology management, design, and implementation standards applicable to each phase.

3.1.4   ACCEPTABLE SDLC METHODOLOGIES

This iteration of the *T-7: Design and Implementation Management Standards* assumes use of waterfall methodology to implement FX projects. While the content in the templates is generalized allowing flexibility, most templates presume iterative or traditional waterfall methodology. FX projects that use other methodologies (e.g., Agile) may customize the templates to optimize for the specific methodology used.

Strategic Topic 3-1: Acceptable Implementation Methodologies describes implementation methodologies that are suitable for FX projects.

ACCEPTABLE IMPLEMENTATION METHODOLOGIES	Current	2018	TIMELINE 2020	2021	2025
Agile				Preferred, particularly if there is a large user interface component	->
Lean					
Waterfall		Acceptable	->		
Iterative					

ANALYSIS

The industry has trended toward using an Agile methodology (Scrum or Kanban) as a delivery approach for software projects. The use of Agile would require a change in the collaboration and involvement from Agency stakeholders. There is a risk in mixing of methodologies across project implementations both from a management and operations perspective, and this risk should be carefully considered. The transition to using Agile requires planning and careful management. Organizational change management and communication throughout the adoption of enterprise use of Agile implementation methodologies would improve adoption and project productivity.

Strategic Topic 3-1: Acceptable Implementation Methodologies

3.1.5   PROJECT LIFE CYCLE TEMPLATES

Strategic Topic 3-2: Project Life Cycle Templates shows the direction on acceptable templates for Project Life Cycle artifacts.

PROJECT LIFE CYCLE TEMPLATES	Current	2018	TIMELINE		
			2020	2022	2025
Project Identification and Portfolio Management	AHCA IT standards for AHCA IT systems	SEAS Portfolio Management Templates	->		
Project Initiation	FMMIS specific templates	Vendor equivalent templates acceptable with approval	->		
System Design and Implementation	AHCA IT change process templates	FX Project Life Cycle templates based on XLC templates	->		
Operations and Maintenance	AHCA IT standards for AHCA IT systems	FX Project Life Cycle templates based on XLC templates	->		
Certification Templates	FMMIS specific templates		Current CMS Certification guidance	->	
Project Management & Monitoring		SEAS templates described in SEAS deliverable P-2: FX Project Management Standards based on DMS templates	->		

ANALYSIS

The preference is to use the CMS or DMS provided templates to simplify certification review or project management and oversight reviews. Large vendors are likely to have templates for system development artifacts based on the vendor-specific methodologies. The preference is to use the CMS format templates as opposed to vendor proprietary templates to improve reuse across vendors and across states. The approval to use vendor-specific templates would be on an exception basis.

Strategic Topic 3-2: Project Life Cycle Templates

3.2 ALIGNMENT WITH FX PROJECT MANAGEMENT STANDARDS

The *T-7: Design and Implementation Management Standards* align and complement the *P-2: FX Project Management Standards*. The *T-7: Design and Implementation Management Standards* provide specific standards to follow, activities to perform, and deliverables and

documentation to produce during each phase of the FXPLC for FX projects that implement or modify Agency systems, applications, or data. The Agency, SEAS Vendor, and FX Project Owners use the *P-2: FX Project Management Standards* across *all phases* of FX projects. The *P-2: FX Project Management Standards* provide the guidance to report status, progress, project schedule, and cost, and also to manage risks, action items, issues, and decisions in a consistent and organized manner that provides understanding of a specific FX Project or the overall FX.

FX established project management standards for FX projects through the *P-2: FX Project Management Standards* deliverable. The *P-2: FX Project Management Standards* deliverable provides project management standards initially used to manage the FX Project. Project Owners shall use the *P-2: FX Project Management Standards* for all other FX projects managed by the SEAS Vendor. These project management standards also define the integration management for all Project Owners selected over the course of FX. The *P-2: FX Project Management Standards* leverage and align with the Florida's DMS IT standards and policy.

The *P-2: FX Project Management Standards* include:

- Scope Management
- Schedule Management
- Cost Management
- Quality Management
- Resource Management
- Stakeholder Management
- Communication Management
- Document Management
- Performance Management
- Risk Management
- Issues, Action Items, Decisions, and Lessons Learned Management
- Organizational Change Management
- Project Close Out Management

The Integration Management processes for Project Owners include:

- Integrated Risk Management
- Issues, Action Items, Decisions, and Lessons Learned Management
- Integrated Master Project Schedule for FX projects
- Integrated Change Management

- Integrated Organizational Change Management

- Integrated Cost Management

- Integrated Project Status

The *P-2: FX Project Management Standards* deliverable describes the status reporting process for FX projects. FX uses a formal process for status reporting to communicate individual and team project status vertically through the project hierarchy. The Integrated Project Status Reporting Process provides Agency oversight, Executive Management, Project Management, and the FX EPMO a view of the progress and status of the FX Project initiation, concept and planning, requirements and design, development and testing, implementation, and operations and maintenance efforts. The *P-2: FX Project Management Standards* and the *T-7: Design and Implementation Management Standards* manage FX through the FXPLC phases and includes testing, operations, and project close out activities.

Each FX Project Owner shall provide the following in a weekly or monthly update, as described in the *P-2: FX Project Management Standards*, to the FX EPMO Team:

- Project Status

- Project Summary

- Schedule Major Milestones/Activities

  › Completed

  › Late

  › In-Progress or Future Milestones/Activities

- Risks (Risk exposure of 15+ or Increasing) or HIGH probability

- Project Issues

- Action Items (High and Medium only)

- Key Decisions or Questions

- Scope Changes

- Additional Observations and Comments

The *T-7: Design and Implementation Management Standards* establish the more detailed, technical standards for FX Project Owners to follow when implementing or modifying systems, applications, or data changes in the integrated environment. FX Project Owner design and implementation management activities provide content included in the *P-2: FX Project Management Standards* reporting processes. The *T-7: Design and Implementation Management Standards* define work products, documentation, and deliverables tracked and managed in the project plan for each FX Project. In combination, both types of standards provide the technical details to understand and measure the progress of the work reported through the Integrated Project Status Process.

3.3 ALIGNMENT WITH MEDICAID ENTERPRISE CERTIFICATION STANDARDS

The Medicaid Management Information Systems (MMIS) Certification process is the prescribed validation process from CMS for states to request and obtain enhanced Federal Financial Participation (FFP) to develop, implement, operate, and maintain their MMIS.

The Medicaid Enterprise Certification Standards for this project are in the *P-4: Medicaid Enterprise Certification Management Plan*, which is available in the FX Projects Repository. Its purpose is to provide the plan to manage the Certification reviews throughout the current process. Each FX Project Owner shall be responsible for supporting the Certification process for the associated business component(s).

SECTION 4   DESIGN AND IMPLEMENTATION STANDARDS

This section describes the process and basis for the *T-7: Design and Implementation Management Standards,* the templates for plans to document content that embody those standards, and the design and implementation roles and responsibilities of parties that implement FX projects.

The Agency, SEAS Vendor, and FX Project Owners shall use these standards throughout the FXPLC to produce an integrated system design and implementation.

4.1   PROCESS TO DEFINE DESIGN AND IMPLEMENTATION MANAGEMENT STANDARDS

To define the *T-7: Design and Implementation Management Standards*, the SEAS Vendor:

- Met with Agency staff to understand and obtain the current standards to keep and which to refine
- Reviewed national standards to verify compliance with mandatory standards
- Reviewed other states' standards to leverage lessons learned in similar projects

These meetings and review of other state and national standards led to a decision to define the *T-7: Design and Implementation Management Standards* using the *T-7: Design and Implementation Management Standards* templates. There were many existing available templates originating from the Agency (AHCA IT and AHCA Medicaid units), other states, and federal sources. The approach used was to:

- Identify the areas of the FXPLC where design and implementation plan templates were needed
- Select the most appropriate source of design and implementation plan templates
- Customize each design and implementation management plan template
- Load customized templates in the FX Projects Repository and create entries in the FX TSRG

This approach provides initial guidance for relevant documentation of activities for each FXPLC Phase. Using this approach, the plan templates will evolve over the course of FX, and the TSRG will expand with increasingly specific standards and guidance for the design and implementation of FX projects.

This document contains the initial minimum set of management standards used for an FX Project. Each specific standard derives from evaluation of current system specific Agency, state, CMS, healthcare industry, and general industry standards.

While there are no mandatory standards by law, there are widely recognized and accepted System Development Life Cycle (SDLC) standards for developing IT systems. CMS standards

are an important input because every state Medicaid program must have CMS certify new systems in accordance with current guidance to obtain or maintain enhanced federal matching funds to support the system.

4.1.1 BASIS FOR FX DESIGN AND IMPLEMENTATION STANDARDS

The SEAS Vendor reviewed current standards in place at the Agency, national standards, and the State of Tennessee's Medicaid Enterprise Standards for this deliverable. After analysis and comparison of the standards, the SEAS Vendor selected the standard or a combination of standards that would guide the development of each *T-7: Design and Implementation Management Standards* template's language.

- Current Agency Standards

    › For an internal IT perspective, AHCA IT uses its ISDM. This is a Microsoft suite of services for managing the SDLC for IT projects.

    › For the Medicaid-specific perspective, Medicaid Fiscal Agent Operations (MFAO) and the current Medicaid fiscal agent contract management bureau have a Project Management Office Operational Procedures Manual that outlines the process and templates required for the current fiscal agent.

    › For the FX perspective and for determining any overlap in standards, the SEAS Vendor has established the *P-2: FX Project Management Standards*, which define the High-Level Change Control Process used for FX projects.

- National Standards

    › For a Certification perspective, CMS provides the guidelines used to certify MMIS and to authorize 90% federal funds share for the development and implementation of new systems and to authorize 75% federal funds share for ongoing operations throughout the life of the system contract.

    › For the CMS SDLC perspective, CMS provides the XLC documentation to complement and support the Certification process and bring formal structure to the SDLC process for IT systems funded with federal award funds.

    › For Disaster Recovery perspective, NIST provides a comprehensive plan for maintaining operations for government IT projects in Special Publication 800-34, *Contingency Planning Guide for Federal Information Systems*.

- Other States

    › For another state's perspective, the Tennessee Technical Advisory Services procurement language outlined vendor requirements for design and implementation standards in a project like the FX. Florida modeled its *T-7: Design and Implementation Management Standards* plan list from the Tennessee procurement document and selected it for additional review and comparison with national and Florida-specific standards. While the projects share some similarities, the analysis considered that the Tennessee version of Interchange differs from the architecture used in the Florida MMIS.

4.2 DESIGN AND IMPLEMENTATION ARTIFACTS

FX projects produce project artifacts during each FXPLC Phase to improve the quality and consistency of FX Project system implementations. The FXPLC uses the CMS XLC artifact table to specify project artifact standards for System Development Phases. Unless an FXPLC artifact has been defined, the CMS XLC artifact templates are the default format for artifacts produced by FX projects throughout the FXPLC.

Over the course of the FX, the FXPLC Design and Implementation artifacts are likely to evolve. The Agency and SEAS Vendor may define additional custom plans and or project specific artifacts. The Agency and SEAS Vendor also may customize artifact templates to reflect updates in XLC templates, DMS templates, FXPLC processes, or other design and implementation artifacts content updates.

4.2.1 STANDARD XLC PROJECT ARTIFACTS

FX projects shall produce the artifacts specified in the XLC Project Artifact Table that are applicable for the specific FX Project. The XLC artifacts show the life cycle phases that FX projects are to create, update, and finalize artifacts.

A CMS table of XLC Phases provides reviews associated with each phase, and the standard artifacts produced in each phase. The table shows the maturity of each artifact at a specific phase. This table includes project management, security, and system development artifacts. The project management related artifacts shown are only for reference purposes. If a CMS template exists for a specific artifact, there is a link to the XLC template on the CMS website (i.e., CMS artifacts and templates can be found at www.cms.gov: Home > Research, Statistics, Data & Systems > XLC Process > XLC Artifacts & Templates.).

4.2.2 FX PROJECT DEFINED DESIGN AND IMPLEMENTATION PLANS

In addition to the artifacts in the XLC Project Artifact Table, FX projects shall also produce or adopt FXPLC Design and Implementation Plan artifacts. The FXPLC Design and Implementation Plans are project-defined artifacts from the perspective of the XLC and the XLC Project Plan Agreement. The FXPLC Design and Implementation Plans provide guidance on the approach to perform activities that occur during System Development or Operations and Maintenance Phases.

This iteration of the *T-7: Design and Implementation Management Standards* defines customized FXPLC Design and Implementation Management Plans. For each plan, there is a separate document in the form of a template to provide FX Project Owners guidance on the content to include and format of each plan.

Exhibit 4-1: Management Plan Alignment to Standards show the *T-7: Design and Implementation Management Standards* project design and implementation plans, the primary

basis and source of content for each design and implementation plan template and the name of the equivalent FXPLC (XLC) artifact.

DESIGN AND IMPLEMENTATION MANAGEMENT PLAN	PLAN CONTENT SOURCE STANDARD ALIGNMENT	FXPLC (XLC) ARTIFACT NAME
Requirements Management Plan	CMS XLC	Requirements Document
Systems Impact Analysis Management Plan	Tennessee, Project Management Office (PMO) Design and Implementation Management Standards	
Configuration Management Plan	CMS XLC	
FX Change Control Plan	P-2: FX Project Management Standards, Section 8.3.1; FX EPMO – Scope Change Management Plan	
Testing Management Plan	Certification Guidelines, CMS XLC, and CMS Testing Framework Overview, Version 1.1	Test Plan
Software Problem Resolution Standards and Procedures Plan	CMS XLC	
Integrated System Implementation Management Plan	CMS XLC	Implementation Plan
Integrated Program Operations Management Plan	CMS XLC	Operations and Maintenance Manual
Post-Implementation Evaluation Plan	CMS XLC	Post-Implementation Report
Quality Management Plan	P-2: FX Project Management Standards and CMS XLC	
Disaster Recovery Plan	NIST Special Publication 800-34, *Contingency Planning Guide for Federal Information Systems*	Contingency Plan
Turnover Plan	P-2: FX Project Management Standards	

Exhibit 4-1: Management Plan Alignment to Standards

4.2.2.1   TEMPLATES FOR DESIGN AND IMPLEMENTATION MANAGEMENT STANDARDS PLANS

Appendix A of this document, which includes Attachments B - M, provides a list of the *T-7: Design and Implementation Management Standards* templates located in the FX Projects Repository.

The following is a description of each template.

4.2.2.1.1 REQUIREMENTS MANAGEMENT PLAN

This Requirements Management (RM) Plan describes the communications and collaboration strategy for eliciting and maintaining requirements during the development of the project (see Attachment B).

4.2.2.1.2 SYSTEMS IMPACT ANALYSIS MANAGEMENT PLAN INCLUDING SYSTEM INTERFACE/INTEGRATION, SYSTEM CAPACITY, AND SYSTEM PERFORMANCE/AVAILABILITY

The Systems Impact Analysis Management Plan communicates all possible inputs and outputs from the system for all potential actions, whether the inputs and outputs are internal to the system or transparent to system users. This plan helps achieve compatibility between system segments and components (see Attachment C).

4.2.2.1.3 CONFIGURATION MANAGEMENT PLAN

The Configuration Management (CM) Plan establishes the technical and administrative direction and surveillance for the management of configuration items (i.e., software, hardware, and documentation) associated with FX that are to be placed under configuration control (see Attachment D).

4.2.2.1.4 FX CHANGE CONTROL PLAN

The FX Change Control Plan defines the approach, administrative procedures, roles, and responsibilities for submitting, evaluating, coordinating, approving, or disapproving system and technical changes to baselined configuration items for a project (see Attachment E).

4.2.2.1.5 TESTING MANAGEMENT PLAN

The Testing Management Plan describes the overall technical and management approach, resources, testing guidelines, and schedule for all intended test activities associated with development, validation, implementation, and operational testing (see Attachment F).

4.2.2.1.6 SOFTWARE PROBLEM RESOLUTION STANDARDS AND PROCEDURES PLAN

The Software Problem Resolution (SPR) Standards and Procedures Plan describes the approach for continued system development process problem resolution and improvement during the life cycle of the project. The document identifies the specific actions to correct or improve the software process and outlines the plans for implementing those actions (see Attachment G).

4.2.2.1.7 INTEGRATED SYSTEM IMPLEMENTATION PLAN

The Integrated System Implementation Management Plan (IM Plan) describes the installation, deployment, and transition of the automated system/application or IT solution to an operational state (see Attachment H).

4.2.2.1.8 INTEGRATED PROGRAM OPERATIONS MANAGEMENT PLAN INCLUDING TURNOVER STANDARDS

The Integrated Program Operations Management Plan is the guide for those who maintain, support, or use the system in a day-to-day operations environment (see Attachment I).

4.2.2.1.9 POST IMPLEMENTATION EVALUATION PLAN

The Post Implementation Evaluation Plan is an internal assessment by the Design and Implementation Team to determine if the system is implemented and operating as designed. It also represents the official transfer of responsibility to the team tasked with operations monitoring of periodic metrics reporting for the new system (see Attachment J).

4.2.2.1.10 QUALITY MANAGEMENT PLAN

The Quality Management Plan documents the necessary information to manage quality during the life cycle of the project. It defines the project's quality policies, procedures, areas of application, and associated criteria, and roles and responsibilities (see Attachment K).

4.2.2.1.11 DISASTER RECOVERY PLAN

The Disaster Recovery Plan describes the process or set of procedures to recover and protect the FX in the event of a disaster. Specifically, the plan will describe the backup site or failover plan, the testing schedule and any business continuity plans (see Attachment L).

4.2.2.1.12 TURNOVER PLAN

The Turnover Plan is the approach to transition operations and maintenance from the current organization to a different organization. This is a written agreement which sets forth how the entities shall cooperate to support a smooth transition (see Attachment M).

4.2.2.2 FXPLC DESIGN AND IMPLEMENTATION MANAGEMENT PLANS BY FXPLC PHASE

The FXPLC Design and Implementation Management Plan artifacts follow the same process as XLC defined artifacts. Each FXPLC Design and Implementation Management Plan artifact maps to FXPLC Phases and can be implemented as a preliminary, interim, baseline, or final deliverable. Some of the FXPLC Design and Implementation Management Plans defined in this document are standard defined artifacts of the FXPLC (based on the XLC).

Exhibit 4-2: FXPLC Design and Implementation Plan Table below shows the FX Project Design and Implementation Plan artifacts produced for FX projects, if applicable. This table shows plans that are the equivalent of standard defined FXPLC artifacts and those artifacts that are considered project specific additions to the FXPLC (XLC). For FXPLC Design and Implementation Plans that are standard FXPLC (XLC) artifacts, the standard FXPLC (XLC) name is shown in parentheses. Each artifact can be designated as (P)reliminary, (I)nterim, (B)aseline, or (F)inal implementation.

PHASES		Initiation	Planning	Requirements Analysis	Design	Development	Testing	Implementation	O&M	Disposition
ARTIFACTS/ INFORMATION	REVIEWS	AR	PBR	RR	PDR DDR	ERR1 (VRR)	ERR2 (IRR) ERR (PRR)	ORR	PIR, AOA	DR
Requirements Management Plan (Requirements Document)		P	I	B						
Testing Management Plan (Test Plan)				P	I	B				
Integrated System Implementation Management Plan (Implementation Plan)						P	I	F		
Integrated Program Operations Management Plan (Operations and Maintenance Manual)						P	I	I	F	
Post Implementation Evaluation Plan (Post Implementation Report)								P	F	
Disaster Recovery Plan (Contingency Plan)					P	I	I	I	F	
Systems Impact Analysis Management Plan					P	I	I	F		
Configuration Management Plan					P	I	I	F		
FX Change Control Plan					P	I	I	F		
Software Problem Resolution Standards and Procedures Plan							P	I	F	
Quality Management Plan								F		
Project Management Artifacts		Reviews and Artifacts are completed/conducted per the Project Process Agreement								
Security Artifacts										

PHASES	Initiation	Planning	Requirements Analysis	Design	Development	Testing	Implementation	O&M	Disposition
Security Information from Tasks									
Systems Development Artifacts									

AR	Architecture Review
ISR	Investment Selection Review
PBR	Project Baseline Review
RR	Requirements Review
PDR	Preliminary Design Review
DDR	Detailed Design Review

Exhibit 4-2: FXPLC Design and Implementation Plan Table

4.2.2.3 FXPLC DESIGN AND IMPLEMENTATION PLAN ROLES AND RESPONSIBILITIES FRAMEWORK

Exhibit 4-3: Roles and Responsibilities Framework defines the roles of Agency staff, SEAS staff, and FX Project Owner(s) to perform design and implementation activities following contract award of an FX Project.

FXPLC DESIGN AND IMPLEMENTATION PLAN TEMPLATES		ROLES AND RESPONSIBILITIES DURING INITIAL IMPLEMENTATION OF FX PROJECTS				
		AGENCY FX TEAM	IV&V VENDOR	SEAS VENDOR	IS/IP VENDOR	FX PROJECT OWNERS
1	Requirements Management Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan

FXPLC DESIGN AND IMPLEMENTATION PLAN TEMPLATES		ROLES AND RESPONSIBILITIES DURING INITIAL IMPLEMENTATION OF FX PROJECTS				
		AGENCY FX TEAM	IV&V VENDOR	SEAS VENDOR	IS/IP VENDOR	FX PROJECT OWNERS
2	Systems Impact Analysis Management Plan including system interface/integration, system capacity, and system performance/ availability	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
3	Configuration Management Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
4	FX Change Control Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
5	Testing Management Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
6	Software Problem Resolution Standards and Procedures Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan

FXPLC DESIGN AND IMPLEMENTATION PLAN TEMPLATES		ROLES AND RESPONSIBILITIES DURING INITIAL IMPLEMENTATION OF FX PROJECTS				
		AGENCY FX TEAM	IV&V VENDOR	SEAS VENDOR	IS/IP VENDOR	FX PROJECT OWNERS
7	Integrated System Implementation Management Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
8	Integrated Program Operations Management Plan /Deployment Plan including Turnover Standards	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
9	Post-Implementation Evaluation Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Prepare Post Implementation Evaluation Plan for each FX Project Owner	▪ No Action Required on IS/IP Plan ▪ Work collaboratively with FX Project Owners ▪	▪ Provide Input and Confirm Findings and Action Items
10	Quality Management Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan
11	Disaster Recovery Plan	Review and Approve	▪ Review FX Project Owner Plans and Provide Comments to the Agency	▪ Work collaboratively with FX Project Owners to prepare plans	▪ Prepare IS/IP Plan ▪ Work collaboratively with FX Project Owners	▪ Prepare plan

Exhibit 4-3: Roles and Responsibilities Framework

4.2.3 FX PROJECT LIFE CYCLE ARTIFACTS

The most current version of the FXPLC Artifact Table is stored in the FX Projects Repository. The table depicts the relevant FXPLC specific artifact names, artifact descriptions, link to templates, and links to samples, as available. This list combines XLC artifacts, DMS artifacts, and FX Project specific artifacts.

The strategy to perform reviews of FX Project deliverables and artifacts is to perform FXPLC Phase specific reviews that align with CMS guidance of XLC Phase specific reviews. The FXPLC uses the DMS Risk and Complexity as opposed to XLC complexity levels to determine the review appropriate for each FX Project. The DMS Project Risk and Complexity Levels align closely with the XLC Complexity levels. Note there are four DMS Risk and Complexity levels and three XLC Complexity levels. The review process will evaluate relevant artifacts at a FXPLC Phase review point, if relevant for the specific FX Project. This approach provides a balance that allows timely reviews and feedback to FX without burdening FX with distracting review overhead and administration.

4.2.4 PROJECT PROCESS AGREEMENT

FXPLC Phase reviews evaluate the relevant artifacts produced by a project based on the *Project Process Agreement* (PPA) defined at project initiation.

The PPA is a key artifact in the XLC that documents the agreement between the key stakeholders regarding which reviews will be conducted for the project, which artifacts are appropriate, and which tests are necessary.

The PPA contains a complexity worksheet, a list of artifacts, a list of reviews, a list of tests, and a signature sheet. The signature sheet includes the selected items from each list. The Agency provides the PPA to a vendor as part of a procurement request. As a proposal input, the PPA helps scope the expected work and timeframe for completion.

The process determining which artifacts are relevant to the project is defined in Section 5, *Applicability Decision Tree*.

4.2.5 FX PROJECT REVIEW FRAMEWORK

There are many FX Project Owners involved with project management, standards compliance, review, oversight, or certification responsibilities. To minimize overhead to FX projects, the FX Project reviews will use an Integrated Project Team to perform each phase review. The Integrated Project Team may consist of members representing the interest of the FX Project Owner, Agency, SEAS Vendor, IV&V Vendor, IS/IP Vendor, EDW Vendor, DMS, and CMS Certification Team. A goal is to consolidate requests for information, discussion of issues, and feedback to the project team considering the review responsibilities of different participants. The SEAS Vendor shall be the coordination point to interact with the FX Project Owner and attempt to resolve conflicting assessment of status, compliance, and recommendations.

Exhibit 4-4: FXPLC Review Framework shows FX Project reviews by FXPLC Phase for FX projects of different DMS Risk and Complexity levels. This diagram also includes mapping of CMS certification process reviews and DMS Project Management and Oversight Review Phases to the FXPLC Phases.
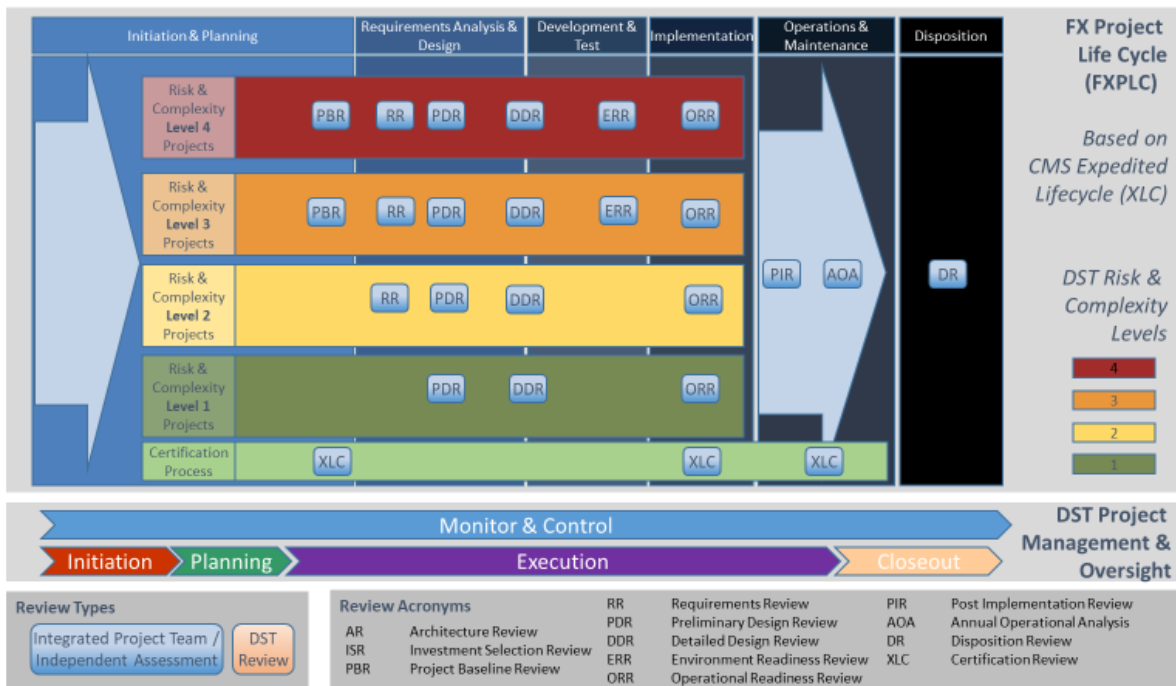
Exhibit 4-4: FXPLC Review Framework

4.2.5.1 CMS XLC REVIEW FRAMEWORK

The FXPLC Review Framework will use the review definitions and templates aligned with the CMS XLC Review guidance.

The CMS XLC Review and Templates web page can be found at www.cms.gov: (Home > Research, Statistics, Data & Systems > XLC Process > XLC Reviews & Templates).

4.2.5.2 FXPLC REVIEW FRAMEWORK TEMPLATE INVENTORY

Exhibit 4-5: FXPLC Review Artifact Table lists each review type, a review description (primarily for XLC review descriptions) and references to relevant templates or samples.

ID	Review Type	Description	FXPLC Specific Template	DMS Template	XLC Template	Link to Sample(s)
AR	Architecture Review	Determine whether the proposed project potentially duplicates, interferes, contradicts, or can leverage another investment that already exists, is proposed, under development, or planned for near-term disposition. The business need is assessed to determine if it is sound and conforms to the FX Enterprise Architecture.			See XLC Review Link at path above	
ISR	Investment Selection Review	Determine if it is sound, viable, and worthy of funding, support, and inclusion in the FX Portfolio. The business need and objectives are reviewed to ensure the effort supports the Agency's overall mission and objectives and will not comprise initiatives on the horizon. This is an outward focused review designed to ensure funding and approval to proceed from senior leadership.				
PBR	Project Baseline Review	Obtain management approval that the scope, cost, and schedule that have been established for the project are adequately documented and that the project management strategy is appropriate for moving the project forward in the life cycle. The PBR includes review of the budget, risk, and user requirements for the investment; emphasis should be on the total cost of ownership and not just development or acquisition costs.				
RR	Requirements Review	Verify that the requirements are complete, accurate, consistent, and problem-free; evaluate the responsiveness to the business requirements; ensure that the requirements are a suitable basis for subsequent design activities; ensure traceability between the business and system requirements; and affirm final agreement regarding the content of the Requirements document by the FX Project Owner.				
PDR	Preliminary Design Review	Verify the preliminary design satisfies the functional and nonfunctional requirements and is in conformance with the FX technical architecture; determine technical solution's completeness and consistency with FX standards; raise and resolve any technical and/or project-related issues, to identify and			See XLC Review Link at path above	

ID	Review Type	Description	FXPLC Specific Template	DMS Template	XLC Template	Link to Sample(s)
		mitigate project, technical, security, and/or business risks affecting continued detailed design and subsequent development, testing, implementation, and operations and maintenance activities.				
DDR	Detail Design Review	Verify the final design satisfies the functional and nonfunctional requirements and is in conformance with the FX Technical Architecture; determine technical solution's completeness and consistency with FX standards; raise and resolve any technical and/or project-related issues, to identify and mitigate project, technical, security, and/or business risks affecting continued detailed design and subsequent development, testing, implementation, and operations and maintenance activities.			See XLC Review Link at path above	
ERR	Environment Readiness Review	The ERR is a representation of three distinct reviews: Validation, Implementation, and Production. These reviews are needed to enter the various FX environments to test the solution and its contingency operations. Not all solutions will go through all environments. Specific requirements for running in each environment are provided by the environment's owner.				
VRR	Validation Readiness Review	Ensure the system/application completed thorough Development Testing and is ready for turnover to the formal, controlled test environment for Validation testing.				
IRR	Implementation Readiness Review	Ensure the system/application completed thorough Integration Testing and is ready for turnover to the formal, controlled test environment for Production Readiness.				
PRR	Production Readiness Review	Ensure that the operational staff has the appropriate startup and shutdown scripts, accurate application architecture documentation, application validation procedures, and valid contact information to ensure operability of infrastructure applications.				
ORR	Operational Readiness Review	Ensure the system/application completed its implementation processes according to plan and that it is ready for turnover to the Operations & Maintenance Team and			See XLC Review Link at	

ID	Review Type	Description	FXPLC Specific Template	DMS Template	XLC Template	Link to Sample(s)
		operational release into the Production environment.			path above	
PIR	Post Implementation Review	The purpose of the PIR is twofold: (1) To ascertain the degree of success from the project; the extent to which it met its objectives, delivered planned levels of performance, and addressed the specific requirements as originally defined; (2) To enable the team, and future teams, to learn lessons from the project to improve future FX work and solutions. In that context, the PIR examines whether the team achieved the results it planned for, what those results were, and what caused the results to be different from those planned for (if they are different).			See XLC Review Link at path above	
AOA	Annual Operational Analysis	Evaluate system performance, user satisfaction with the system, adaptability to changing business needs, and new technologies that might improve the system. This review is diagnostic in nature and can lead to development or maintenance activities. Ultimately AOA determines whether the IT Investment should continue, be modified, or terminated.				
DR	Disposition Review	Ensure the IT investment has been completely and appropriately transitioned/disposed thereby ending the life cycle of the IT project.			See XLC Review Link at path above	

Exhibit 4-5: FXPLC Review Artifact Table

4.2.5.3   FXPLC REVIEW FOCUS

The focus of FXPLC reviews is to:

- Evaluate FXPLC artifacts produced during the FXPLC Phase
- Confirm development and implementation requirements are being addressed
- Confirm compliance with FX standards

- Provide technology guidance and support to FX projects
- Confirm and update the FX Project Business Case

A part of each review will be to provide updated information that enables the FX Portfolio Management with decision-making abilities. Information updates from reviews could lead to overall program management decisions about one or more FX projects. The Agency expects that findings from reviews could cause decisions for specific FX projects to be paused, canceled, resized, re-scoped, expanded, extended, or have other changes to optimize benefits to the Agency and its stakeholders. For example, if a review identifies that expected project benefits will not occur, this information could lead the Agency to decisions to utilize resources for other projects.

SECTION 5 APPLICABILITY DECISION TREE

Because each FX Project may vary in the scope of services, FX Project Owner, system implementation methodology, and system solution, not all FX Design and Implementation Management artifacts and standards are relevant to every FX Project. This section provides a description of the decision tree analysis process and content to determine the applicable design and implementation management plan artifacts and standards that are relevant for each FX Project.

5.1 DECISION TREE ANALYSIS PROCESS

The SEAS Vendor performs the decision tree analysis process, which has been incorporated into the PPA, to determine which design and implementation management artifacts and standards are applicable to an FX Project at project initiation. If a project change order causes the project scope or other factors used in the decision tree to change, the SEAS Vendor shall reassess the artifacts and standards applicable to the FX Project. The change order process described in Section 4 of the *P-2: FX Project Management Standards* documents the process of changes identified through reassessment.

The factors that influence the applicability of design and implementation management standards are:

- Size and Timing of Net Project Outcomes and Benefits
- Risk and Complexity Level
- Scope of Services Provided
- System Implementation Methodology
- System Solution Type

The PPA documents decisions on artifacts applicable to each FX Project. The PPA lists the standard XLC artifacts and FXPLC project specific design and implementation plans and artifacts. The PPA includes potential entries for the following types of project artifacts:

- Project Management Artifacts
- Security Artifacts
- Security Information from Tasks – This is an XLC category indicating security information that results from project tasks and creation of other artifacts
- Systems Development Artifacts

For each artifact listed on the PPA, the Agency and FX Project Owner specifies the applicability of the artifact. Applicable choices are:

- Provide (New)

- Provide (update)
- Waive
- Combine (with one or more other artifacts)

The applicable artifacts based on the PPA become inputs to the FX Project reviews described above in Section 4.2.4 *Project Process Agreement*.

The *P-2: FX Project Management Standards* deliverable has incorporated the decision tree analysis functionality as part of the PPA template used during the Project Analysis Phase. The PPA information can be found in Section 5.3 of the *P-2: FX Project Management Standards*.

SECTION 6   STANDARDS SUPPORT AND EXPERTISE

The SEAS Vendor shall support the use of the *T-7: Design and Implementation Management Standards* by the Agency and FX Project Owners for the implementation of FX projects. To support and provide expertise for the *T-7: Design and Implementation Management Standards*, the SEAS Vendor shall:

- Use the technology standards communication, support, compliance, and compliance reporting processes and tools defined for other Technical Domain standards (e.g., Data Management, Technology, etc.)

- Provide technical expertise relevant to the design and implementation management category of technology standards

Using the combination of common technology standards management, communication, assessment, and reporting processes, and providing relevant technical expertise will help the SEAS Vendor support FX Project Owners and ultimately the Agency implement FX projects to achieve the FX strategic vision.

6.1   STANDARDS SUPPORT – USE OF COMMON TECHNOLOGY STANDARDS PROCESSES

The SEAS Vendor shall use the common technology standards processes to define, secure governance approval, maintain, communicate, provide ad hoc support, assess compliance, and report standards compliance to the Agency. Following the processes used for other categories of Technical Domain standards improves consistency, efficiency, understanding, and communication. Specifically, the SEAS Vendor shall leverage the processes and procedures in the SEAS deliverable *T-6: Technology Standards* and in *T-6: Technology Standards* Attachment E – *Technology Standards Communication, Support, Compliance, and Compliance Reporting Procedures.* Appendix B - *Reference to Other SEAS Vendor Deliverables* contains a list of the referenced documents.

6.2   STANDARDS SUPPORT – PROVIDING TECHNICAL EXPERTISE

During each FXPLC Phase, the SEAS Vendor shall provide technical expertise supporting the use of the Design and Implementation Management Standards to help:

- Improve the quality of systems implemented or modified by FX projects

- Support FX Project Owners

- Ensure compliance with FX standards and policies

- Achieve project scope and outcomes according to project plan and cost projections

- Improve the interoperability and reuse of systems and services

- Optimize use of Agency, SEAS, IV&V, IS/IP, and other FX Project Owner resources

The SEAS Vendor shall support FX Project Owners by providing technical expertise appropriate to each FXPLC Phase to help the Agency achieve the FX strategic vision.

Exhibit 6-1: Design and Implementation SEAS Vendor Standards Support and Expertise shows examples of the types of standards support and technical expertise provided to FX projects by FXPLC Phase.

SEAS VENDOR TECHNICAL EXPERTISE PROVIDED	INITIATION, CONCEPT & PLANNING PHASE	REQUIREMENTS, ANALYSIS & DESIGN PHASE	DEVELOPMENT & TEST PHASE	IMPLEMENTATION PHASE	OPERATIONS & MAINTENANCE PHASE
Review of FX Project design and implementation plans	✓	✓	✓	✓	✓
Analysis of FX Project deliverables and provide recommendations	✓	✓	✓	✓	✓
Analysis of design documentation, scope, activities, and project results, including (Rule Chapter 60GG-2, Florida Administrative Code, (Florida Cybersecurity Standards) compliance)		✓	✓	✓	✓
Participation in JAD, RAD, or other development sessions		✓	✓		✓
Ad hoc oral or written technical expertise as needed	✓	✓	✓	✓	✓

Exhibit 6-1: Design and Implementation SEAS Vendor Standards Support and Expertise

Below is a description and examples of each type of SEAS Vendor-provided standards and technical expertise support:

- Review of FX Project design and implementation plans – Throughout the FXPLC the SEAS Vendor shall review design and implementation plans. During the Planning and Requirements Phase, these technology reviews focus on achievable solution plans, work planning completeness, reasonable estimates, schedule projections and resource needs, and capabilities. During the Design Phase, reviews focus on validating the design and assuring the implementation plan reflects the impact of design decisions on later phases. In the Development and Build Phase and the Testing Phase reviews focus on confirming design, validating schedule progress, and quality.

- Analysis of FX Project deliverables and provide recommendations – The SEAS Vendor shall provide consistent, technical expertise in reviewing, analyzing, and providing recommendations for FX Project work products and deliverables. Analysis of FX

Project work products and deliverables includes compliance with and full support of the current CMS certification artifacts and documentation requirements.

- Analysis of design documentation, scope, activities, and project results including (Rule Chapter 60GG-2, Florida Administrative Code, (Florida Cybersecurity Standards) compliance) – The SEAS Vendor reviews documentation of scope, activities, and project results throughout the phases of the FXPLC. The technical analysis will focus on FX Project Owner approved designs and changes that may arise or when technical issues occur on FX projects. Throughout the FXPLC, the SEAS Vendor provides awareness of FX Project Owner actions required for Rule Chapter 60GG-2, Florida Administrative Code, compliance. SEAS Vendor analysis of risks, vulnerabilities, and data protection activities occur throughout all phases of the FXPLC.

- Participation in Joint Application Design (JAD), Rapid Application Development (RAD), or other development sessions – The SEAS Vendor shall be available to participate in FX Project Owner development sessions to help clarify design and implementation standards, work through complex development components, or provide other recommendations relevant to the Development and Build Phases of the FXPLC.

- Ad hoc oral or written technical expertise as needed – Throughout the phases of the FXPLC, the SEAS Vendor provides technical expertise in ad hoc oral or written technical form. Technical experience of the staff that developed the FX standards and that have years of relevant technical implementation experience will be provided in both formal and informal settings using oral or written communication methods.

SECTION 7   IMPLEMENTATION STATUS REPORTING

Project status reporting follows the *P-2: FX Project Management Standards*. The *P-2: FX Project Management Standards* establish standardization in project management processes executed by FX Project teams and facilitate the integrated processes essential to managing FX. Section 6.1: *Complete the Project Management Plan* of the *P-2: FX Project Management Standards* and the Project Management Plan template highlight the process by which FX projects report status.

The FX EPMO provides templates, job aids, and mentoring to assist FX Project teams in following the *P-2: FX Project Management Standards*. FX Project schedules will incorporate the key deliverables and activities related to the *T-7: Design and Implementation Management Standards*. Therefore, reporting of implementation status including progress on FXPLC standards will occur via FX Project status reports.

Detailed reporting on FX Project compliance with the *T-7: Design and Implementation Management Standards* uses the standard process for communicating, providing support, assessing compliance, and performing compliance reporting as defined in SEAS deliverable *T-6: Technology Standards* Attachment E – *Technology Standards Communication, Support, Compliance, and Compliance Reporting Procedures.* Attachment E to the *T-6: Technology Standards* deliverable describes the processes that:

- Communicate new and modified standards and compliance expectations to stakeholders
- Support stakeholders' adherence to standards
- Assess stakeholder compliance to standards
- Communicate levels of standards compliance to the Agency

APPENDICES

APPENDIX A - DESIGN AND IMPLEMENTATION MANAGEMENT TEMPLATES AND PROCESS DEFINITIONS

During the Requirements, Analysis, and Design Phase through the Implementation Phase of each FXPLC, FX Project Owners produce plans that are deliverables or artifacts of the specific FX Project. The *T-7: Design and Implementation Management Standards* templates outline and organize suggested content, provide vendor guidance and instructions, and include sample information tables for the minimum set of FXPLC Design and Implementation Plans for an FX Project. The templates align closely with the CMS XLC templates allowing FX Project Owners and the Agency to reduce the development cost and enable reuse of relevant content across states. FX specific customizations from CMS XLC templates help FX Project Owners produce relevant plans that reflect evaluation of Agency (Medicaid and non-Medicaid), State, CMS, healthcare industry, and general industry standards.

Appendix A provides a list of Design and Implementation Management templates that are available to FX projects. A description of each template is provided in Section 4.2.2.1 of this document. The following attachments are stored in the FX Projects Repository. (i.e., Florida Health Care Connections > FX Hub > Templates .> Templates tab > Category: Technology)

Appendix A also provides the *FX Change Control Plan* (Attachment E) which outlines the process for application changes to FX modules.

Attachment A - (**Note:** This attachment is obsolete and has been retired.)

Attachment B - Requirements Management Plan

Attachment C - Systems Impact Analysis Management Plan

Attachment D - Configuration Management Plan

Attachment E - FX Change Control Plan

Attachment F - Testing Management Plan

Attachment G - Software Problem Resolution Standards and Procedure Plan

Attachment H - Integrated System Implementation Management Plan

Attachment I - Integrated Program Operations Management Plan

Attachment J - Post Implementation Evaluation Plan

Attachment K - Quality Management Plan

Attachment L - Disaster Recovery Plan

Attachment M - Turnover Plan

APPENDIX B - REFERENCE TO OTHER SEAS VENDOR DELIVERABLES

P-2: FX Project Management Standards – provides formats and guidelines for FX Project Owners to develop consistent project management plans that can support integrated processes developed by the FX EPMO. This deliverable also describes the process for FX Project status reporting.

T-6: Technology Standards – establishes the MITA compliant FX TSRG and TSRM and describes a maintenance process.

T-6: Technology Standards, Attachment B – *How to Maintain the TSRG* is a Microsoft Word document that describes the procedures to maintain content in the TSRG content.

T-6: Technology Standards, Attachment E – *Technology Standards Communication, Support, Compliance, and Compliance Reporting Procedures* describes the processes to communicate new and modified standards or compliance expectations to stakeholders, support stakeholders' adherence to standards, assess stakeholders' compliance to standards, and communicate levels of standards compliance to the Agency.

T-8: Enterprise Data Security Plan – provides information and technical security strategy guiding secure development of FX, and describes the security architecture, life cycle, and processes used to satisfy federal and state regulations, industry standards, and Agency policy.

APPENDIX C - EXTERNAL REFERENCES

CMS XLC Process Overview – provides an overview of the CMS XLC process. (i.e., CMS.gov > Research, Statistics, Data & Systems > XLC Process > XLC Phases)

CMS XLC Artifacts and Templates – provides a CMS web page that describes XLC templates available for use. (i.e., CMS.gov > Research, Statistics, Data & Systems > XLC Process > XLC Artifacts and Templates)

CMS XLC Artifact Table – provides a CMS table that maps XLC artifacts to XLC phases and reviews. (i.e., CMS.gov > Research, Statistics, Data & Systems > XLC Process > XLC Artifacts and Templates)

CMS Project Process Agreement – provides the CMS PPA spreadsheet. (i.e., CMS.gov > Research, Statistics, Data & Systems > XLC Process > XLC Project Process Agreement)

DMS Project Management Templates – The Florida Department of Management Services' provided templates that focus on project management and status reporting as opposed to specific artifacts or deliverables produced during the Requirements Analysis and Design Phase through the Implementation Phase of a project. (DMS.MyFlorida.com > Business Operations > State Technology > Project Management and Oversight)