
FRONT MATTER

FM 6 – INTRODUCTION TO THE MITA FRAMEWORK



Table of Contents

FRONT MATTER	1
FM 6 – INTRODUCTION TO THE MITA FRAMEWORK.....	1
Introduction	3
Purpose.....	3
Scope	4
Background	4
Funding Requirements.....	4
MITA Framework	7
MITA Framework Components.....	8
Part I – Business Architecture	8
Part II – Information Architecture	10
Part III – Technical Architecture	13
State Self-Assessment Companion Guide	16
Architectural Components Relationships.....	16
Walkthrough of the BA, IA, and TA Components	18
Reading the MITA Framework	20

List of Figures

Figure 6-1. MITA Framework Development Approach	8
Figure 6-2. Medicaid Enterprise Business Process Model	10
Figure 6-3. Conceptual View of Interoperability in the Medicaid Enterprise	14
Figure 6-4. Architectural Component Relationships.....	17

List of Tables

Table 6-1. Correlation of Seven Standards and Conditions	6
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Introduction

The Medicaid IT Architecture (MITA) is an initiative of the Centers for Medicare & Medicaid Services (CMS) that establishes national guidelines for technologies and processes that enable improved program administration for the State Medicaid Enterprise. The MITA initiative includes an architecture framework, processes, and planning guidelines for enabling the State Medicaid Enterprise to meet common objectives within the MITA Framework while supporting unique local needs. In the context of MITA Framework, the Medicaid Enterprise includes the States, the territories, and the District of Columbia (hereinafter referred to as States).

This introduction covers the following topics:

- ❖ MITA Framework Overview
- ❖ MITA Framework Components
- ❖ Architectural Components Relationships
- ❖ Reading the MITA Framework

Purpose

MITA is an Information Technology (IT) initiative intended to stimulate an integrated business and IT transformation affecting the Medicaid Enterprise in all States. It improves Medicaid Program administration by establishing national guidelines for technologies and processes. The MITA initiative includes architecture framework, processes, and planning guidelines that allow State Medicaid Enterprise to foster national-level coordination of Medicaid transformation while supporting unique local needs.

- ❖ The MITA Framework is a consolidation of principles, business and technical models, as well as guidelines that creates a template for States to use in the development of their individual enterprise architectures.
- ❖ The MITA architectures provide guidance to State Medicaid Enterprise on how to adopt the MITA Framework through shared leadership, collaborating, and reuse of solutions.
- ❖ The MITA planning guidelines help States prepare the MITA State Self-Assessment (SS-A) and Roadmap to develop enterprise architectures to align to and advance increasingly in MITA maturity for business, architecture, and data. MITA guidelines support state's requests for appropriate Federal Financial Participation (FFP) for their Medicaid Management Information Systems (MMIS) as well as the Medicaid IT system(s) projects related to eligibility determination and enrollment activities.

The MITA Initiative and the MITA Framework evolve with the participation and help of Medicaid stakeholders and partners. MITA matures with insights from various working groups and States who have undertaken the MITA Framework, each providing feedback to enhance the Framework, processes, and planning guidelines.

Scope

The MITA Framework is a consolidation of principles, models, and guidelines that combine to form a template for the States to use to develop their own enterprise architecture. MITA processes provide guidance for State Medicaid Enterprise to use in adopting the MITA Framework through shared leadership, collaboration, and reuse of solutions.

Background

The MITA initiative began with the concept of moving the design and development of Medicaid information systems away from the siloed, sub-system components that comprise a typical MMIS. State Medicaid Enterprises are moving to a Service-Oriented Architecture (SOA) framework of designing Medicaid information systems along the core principle that business processes inform and drive the implementation of business services. The MITA initiative produces an architecture framework—business, information, and technical—along with a maturity model for process improvement, that guides the planning of technology and infrastructure to meet the changing business needs of the State Medicaid Agency (SMA). MITA enables State Medicaid Enterprise to meet common objectives within the MITA framework while still supporting local needs unique to that state.

Since the release of the MITA Framework 2.0 several federal initiatives, coding changes, and transaction set mandates have altered the information systems landscape, such as, The American Recovery and Reinvestment Act (ARRA) of 2009, Health Information Technology for Economic and Clinical Health (HITECH), Accredited Standards Committee (ASC) X12N Version 5010 and National Council for Prescription Drug Programs (NCPDP) Version D.0 for Health Insurance Portability and Accountability Act of 1996 (HIPAA) transactions, International Classification of Diseases (ICD-10), and the Affordable Care Act of 2010.

Funding Requirements

The Health and Human Services (HHS) CMS 42 CFR Part 433 Medicaid Enterprise; Federal Funding for Medicaid Eligibility Determination and Enrollment Activities modifies Medicaid regulations for Mechanized Claims Processing and Information Retrieval Systems effective April 19, 2011. The MMIS is a mechanized claims processing and information retrieval system used by the States for Title XIX of the Social Security Act (The Act.) Therefore, the guidance set forth in CMS 42 CFR Part 433 applies to the MMIS as well as the Medicaid eligibility determination and enrollment activities as set forth in the Affordable Care Act of 2010.

States must meet the standards and conditions specified in §433.112(b)(10) through §433.112(b)(16). The standards and conditions are descriptive in nature. However, CMS recognizes that in order for the States to meet these standards and conditions it is necessary to provide additional guidance that clearly articulates its criteria for meeting them in terms of timeliness, accuracy, efficiency, integrity, and performance measures for mechanized claims processing. In response to this need, additional guidance materials include:

- ❖ Enhanced Funding Requirements: Seven Conditions and Standards (a.k.a. Seven Standards and Conditions)

- ❖ Guidance for Exchange and Medicaid Information Technology (IT) Systems (a.k.a. IT Guidance)

CMS will continue to refine, update and expand this guidance in the future, based on initial and continuing feedback from stakeholders and with experience over time.

SEVEN STANDARDS AND CONDITIONS

Under sections 1903(a)(3)(A)(i) and 1903(a)(3)(B) of the Social Security Act, CMS has issued new standards and conditions that it expects States to adhere to in order for Medicaid technology investments (including eligibility systems, as well as traditional claims processing systems) to be eligible for enhanced federal matched funds. The intent is to foster better collaboration with States, reduce unnecessary paperwork, and focus attention on the key elements of success for modern systems development and deployment.

The Seven Standards and Conditions consist of the following:

- ❖ **Modularity Standard** – Uses a modular, flexible approach to systems development, including the use of open interfaces and exposed Application Programming Interfaces (API); the separation of business rules from core programming; and the availability of business rules in both human and machine-readable formats. The States commit to formal system development methodology and open, reusable system architecture.
- ❖ **MITA Condition** – States align to and advance increasingly in MITA maturity for business, architecture, and data.
- ❖ **Industry Standards Condition** – Ensures alignment with, and incorporation of, industry standards: the Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws; standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.
- ❖ **Leverage Condition** – State solutions should promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States.
- ❖ **Business Results Condition** – Systems should support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.
- ❖ **Reporting Condition** – Solutions should produce transaction data, reports, and performance information that contributes to program evaluation, continuous improvement in business operations, and transparency and accountability.
- ❖ **Interoperability Condition** – Systems must ensure seamless coordination and integration with the Exchanges (whether run by the state or federal government), and allow interoperability with Health Information Exchange (HIE), public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.

IT GUIDANCE

The purpose of the IT Guidance is to assist States as they design, develop, implement, and operate technology and systems projects related to the establishment and operation of Health Insurance Exchange (HIX) as well as coverage expansions and improvements under Medicaid, Children's Health Insurance Program (CHIP), and premium tax credits and cost-sharing reductions under the Affordable Care Act of 2010. CMS published this guidance to help States achieve interoperability between IT components in the federal and state entities that work together to provide health insurance coverage through the Health Insurance Exchange (HIX), Medicaid, or CHIP programs. IT systems should be simple and seamless in identifying people who qualify for coverage through the Exchange, tax credits, cost-sharing reductions, Medicaid, and CHIP. In all cases where overlapping functionality is shared or able to be leveraged between Exchanges, Medicaid, and CHIP, these guidance documents will align to MITA.

The MITA Framework describes a structure for the Medicaid Enterprise that includes business operations, information exchange, and technological services. The Framework includes three (3) parts:

1. Business Architecture (BA)
2. Information Architecture (IA)
3. Technical Architecture (TA)

Each of the architectures aligns with the Seven Standards and Conditions. By utilizing best practices, industry standards, and technology advancements, the processes, and planning guidelines that build the MITA Framework provide a cohesive method for meeting Medicaid objectives.

Table 6-1 depicts the impact of the Seven Standards and Conditions on the MITA business, information, and technical architectures.

Table 6-1. Correlation of Seven Standards and Conditions

Correlation of Seven Standards and Conditions with MITA Architectures			
<i>Standards and Conditions</i>	<i>Business Architecture</i>	<i>Information Architecture</i>	<i>Technical Architecture</i>
Modularity Standard	X	X	X
MITA Condition	X	X	X
Industry Standards Condition	X	X	X
Leverage Condition	X	X	X
Business Results Condition	X	X	X

Correlation of Seven Standards and Conditions with MITA Architectures			
<i>Standards and Conditions</i>	<i>Business Architecture</i>	<i>Information Architecture</i>	<i>Technical Architecture</i>
Reporting Condition	X	X	X
Interoperability Condition	X	X	X

MITA Framework

The MITA Framework 3.0 is an enhancement of the MITA Framework 2.0 and 2.01. The MITA team analyzed the ARRA, HITECH, HIPAA, and the Affordable Care Act of 2010 (among other federal regulations) to determine the Framework 2.0 - 2.01 modifications. Industry data standards and emerging technologies also define the comprehensive guidelines for Medicaid Enterprise development.

The MITA Framework 3.0 contains new business procedures and business rules to comply with federal regulations. The local, regional, and national information exchanges (e.g., Electronic Health Records (EHR) Incentive Program Registration and Attestation (R&A) System, Health Information Exchange (HIE), and Health Insurance Exchange (HIX)) describe operational relationships within the Medicaid Enterprise. Established Health Care and Health Insurance Industry data standards and transactions are foundational to the conceptual and logical information models. The Framework contains advancements in technology methodologies such as Cloud Computing and SOA.

The MITA Framework is a business-driven enterprise architecture. Part I, Business Architecture, provides business models that describe the Medicaid Enterprise providing flexibility to accommodate state-specific variations and a quickly changing industry. Part II, Information Architecture, defines conceptual and logical data models based on industry data and transaction standards for simplification. Part III, Technical Architecture, describes interchangeable services; not only within each state but also nationwide.

It is a MITA principle not to implement technology simply because it is available.

The MITA Framework development approach depicts how goals and objectives develop operation concepts that feed the maturity model and data relationships (See **Figure 6-1**). The BA defines the Medicaid Enterprise As-Is operations and To-Be environment with the Business Process Model (BPM), Business Process Template (BPT), and Business Capability Matrix (BCM). The business process identifies the data relationships that define the Data Management Strategy (DMS), Conceptual Data Model (CDM), Logical Data Model (LDM), and industry data standards. The architectural analysis and design defines the strategies for technological solutions.

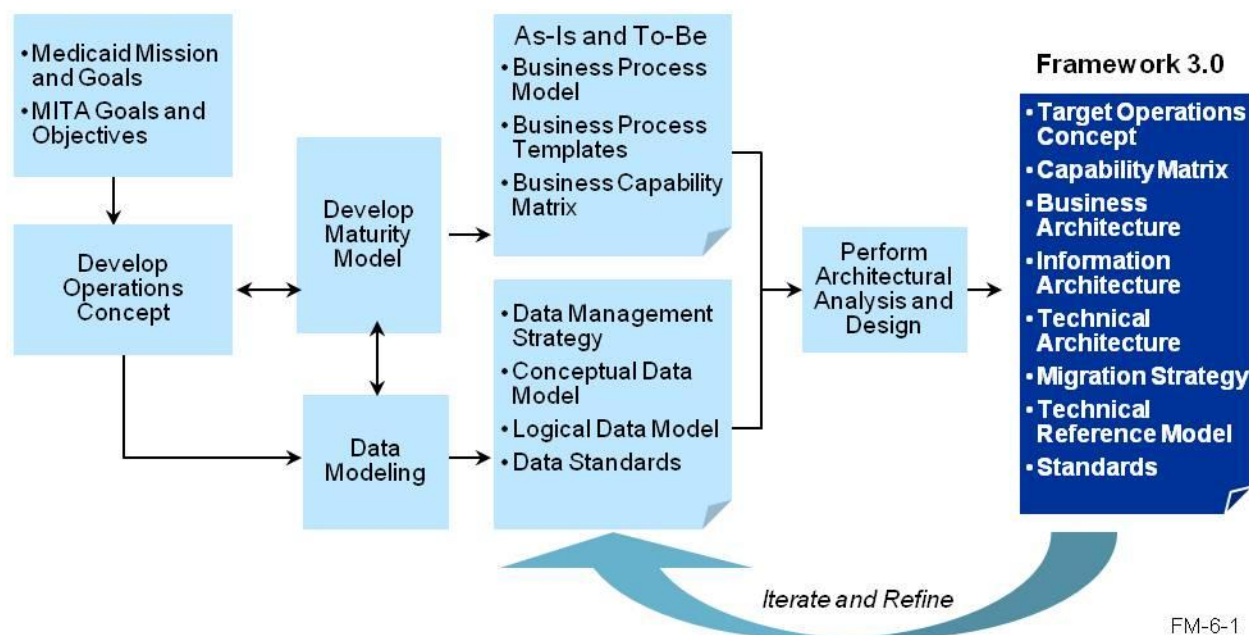


Figure 6-1. MITA Framework Development Approach

MITA Framework Components

The MITA Framework for the Medicaid Enterprise consists of the following components:

- ❖ Part I – Business Architecture
- ❖ Part II – Information Architecture
- ❖ Part III – Technical Architecture
- ❖ SS-A Companion Guide

As the MITA initiative matures, the MITA team updates these architectures to include relevant information. The Architectural Component Relationships section below summarizes the relationships among the architectural components.

Part I – Business Architecture

The MITA BA describes near-term and long-term common business operations of Medicaid Enterprise. The MITA BA allows States to map their current operations and future improvements to models of a business vision, to business processes, and to business capabilities. States can use the business models in the BA to do the following:

- ❖ Drive the development of a target State Medicaid Enterprise architecture.
- ❖ Develop a MITA Roadmap to transition to higher levels of MITA maturity.

The MITA BA consists of the following Part I Chapters:

- ❖ Concept of Operations (COO)
- ❖ MITA Maturity Model (MMM)
- ❖ Business Process Model (BPM)
- ❖ Business Capability Matrix (BCM)

CONCEPT OF OPERATIONS

The MITA COO is from industry best practices to describe the As-Is operations and To-Be environment. This provides a structure for defining a vision and establishing common goals for improvement. The COO addresses the following:

- ❖ As-Is operations common to all State Medicaid Enterprises.
- ❖ To-Be environment vision with long-term goal for all States.
- ❖ The evolution of stakeholder roles from the As-Is operations to the To-Be environment.
- ❖ The improvement of the quality and accuracy of information over time.
- ❖ Drivers and enablers that facilitate the transformation.
- ❖ Business improvements for the Medicaid Enterprise.

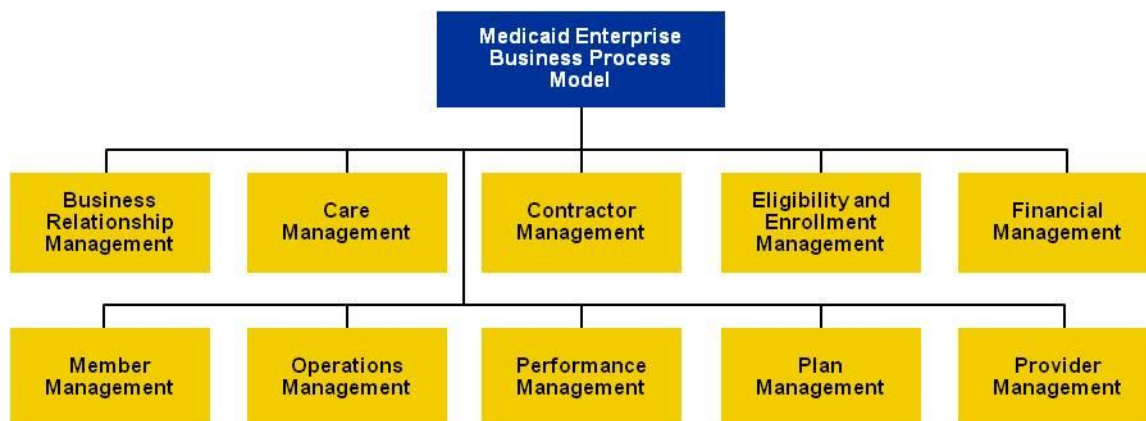
MITA MATURITY MODEL

A maturity model is a tool industry and government organizations use to illustrate how a business matures over time. Specifically, the MMM is an adaptation of industry best practices to the multistate Medicaid Enterprise. The MMM describes five (5) levels of progressive improvements and transformation over time. The MMM provides generic descriptions of the five (5) levels of maturity and distinguishes among them using a set of capabilities (e.g., timeliness, accuracy, and efficiency). The MMM serves as a reference model for grounding the definitions of business, information, and technical capabilities. The MMM also defines capabilities for the Seven Standards and Conditions. The MMM establishes boundaries and measures to determine whether a business capability is correctly and sufficiently defined.

BUSINESS PROCESS MODEL

The MITA BPM presents a hierarchy of Medicaid business processes organized into categories (or tiers) of processes. Tier 1 is the business area grouping, Tier 2 is the business category grouping, and Tier 3 is the business process. Each business process includes defined triggers and business outcomes. This hierarchy helps to categorize business activities and ensure relevant functions of the Medicaid Enterprise are present in the Framework.

The BPM includes ten (10) business areas that contain 80 individual business processes. The MITA team defines business areas based on key enterprise operations and standard business practices of the State Medicaid Enterprise. **Figure 6-2** shows Tier 1 of hierarchy with each of the MITA business areas that show the boundaries of the Medicaid Enterprise according to the MITA Initiative.



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Figure 6-2. Medicaid Enterprise Business Process Model

The MITA Framework begins with the classification of the BPM and business capabilities. The BPM defines the business needs that identify business rules and the data requirements necessary for the Information and Technical Architectures.

BUSINESS CAPABILITY MATRIX

A business capability is the SMA ability to execute a business process at a certain level of maturity as defined in the BCM. MITA derives business capabilities by applying the MMM to business processes of the BPM. Each business process includes five (5) levels of maturity.

The business capability also uses the MMM qualities that describe how effectively the process executes (e.g., ease of use, timeliness, and accuracy). Where applicable the capability description and/or quality definition includes performance standards to determine if a business process is performing at a stated level of maturity. CMS intends to provide additional guidance concerning performance standards—both functional and non-functional, and with respect to Service Level Agreements (SLA) and Key Performance Indicators (KPI).

Business capabilities illustrate how a business process matures and improves over time. Technical capabilities are enablers that support the business process at specific levels of maturity or technologies that promote MITA goals and objectives (e.g., flexibility, adaptability, and interoperability).

Part II – Information Architecture

The MITA BA drives the IA. MITA identifies information needs for each business process and groups them as subject areas and messages. The SMA constructs To-Be conceptual models using the identified subject areas. The LDM development is an ongoing process and adapts as business capabilities evolve.

BPM versus Data Model (DM). The MITA Framework begins with the BPM business capabilities and links them to a CDM and then an LDM. States could choose this approach or reverse the process for their transformation (i.e., first define the information requirements and then choose the business model that supports those requirements). The MITA Framework defines business processes first because relatively few State Medicaid Enterprises have common data models and data standards available.

The MITA IA describes the current and future (i.e., As-Is and To-Be) information and data needs of the State Medicaid Enterprise. It uses a series of models to specify the key elements of information systems that the State Medicaid Enterprise use to execute their business processes. These elements include the information itself, the applications that use the information to enable the business processes, and the combining of applications and information to support the enterprise's business functions. The BA and the IA together map enterprise data to business processes. The IA also serves as the bridge between the BA and the TA by providing the framework to go from the BA's information requirements to the TA's message requirements.

The MITA IA consists of the following Part II Chapters:

- ❖ Data Management Strategy (DMS)
- ❖ Conceptual Data Model (CDM)
- ❖ Logical Data Model (LDM)
- ❖ Data Standards
- ❖ Information Capability Matrix (ICM)

DATA MANAGEMENT STRATEGY

The DMS provides the approach to integrating and organizing data, through reference to data governance, data standards, data processes and procedures, data integration, and metadata repository.

CONCEPTUAL DATA MODEL

The CDM is a blueprint or plan for building information systems. The model is a tool to communicate the business processes and enterprise strategies. Specifically, Medicaid system architects and designers use the MITA CDM to develop plug-and-play and interoperable Medicaid information services. It represents the overall logical structure of the data independent of software or data storage structure, provides a formal representation of the data the SMA needs to run an enterprise or business activity, and might even include data objects not yet developed (i.e., To-Be objects and relationships).

LOGICAL DATA MODEL

The LDM shows a data subject area divided into data classes, including the relationships among those classes, with attributes defined as needed for one drilled-down business process. The LDM identifies all of the data elements in motion in the system or shared within

the Medicaid Enterprise. The MITA LDM does not include state-specific data objects and relationships.

DATA STANDARDS

Data Standards consist of a collection of industry standards applicable to the administration and operation of a Medicaid Enterprise. They are critical to the successful transformation and evolution of the Medicaid Enterprise. The MITA Framework promotes usage of data standards produced by national/international standards maintenance organizations. The MITA initiative coordinates the identification and use of common data standards for the Medicaid Enterprise.

Each industry standard includes the following attributes:

- ❖ Title
- ❖ Category
- ❖ Objective
- ❖ Source (e.g., standards organizations)
- ❖ Type
- ❖ Versions and status
- ❖ Applicability
- ❖ References
- ❖ Relationships to other standards
- ❖ Key terms

The MITA team reviews industry standards and relates them to key design aspects and concepts within the MITA Framework.

CMS supports collaboration efforts with industry groups across standards organizations where appropriate. CMS continues to support harmonizing data standards across disparate groups.

INFORMATION CAPABILITY MATRIX

The ICM defines the information capabilities identified in the business process that enables technical capabilities. The ICM defines information capabilities for the DMS, CDM, LDM, and Data Standards. The ICM describes an IA component at a specific Level 1-5 of MITA Maturity for each of the business areas.

Part III – Technical Architecture

The MITA TA describes the current and future (i.e., As-Is and To-Be) set of business and technical services, connectivity, and standards that the SMA uses to plan and specify new IT systems for a State Medicaid Enterprise.

The MITA TA consists of the following Part III Chapters:

- ❖ Technical Management Strategy (TMS)
- ❖ Business Services
- ❖ Technical Services
- ❖ Application Architecture (AA)
- ❖ Technology Standards
- ❖ Technical Capability Matrix (TCM)

TECHNICAL MANAGEMENT STRATEGY

The SMA uses the TMS to document the processes, techniques, and technologies the State Medicaid Enterprise needs to achieve optimal sharing of Medicaid Enterprise services and information. The TMS addresses the common Medicaid services and high-level information needs of a Medicaid Enterprise at the logical level.

The three (3) key challenges facing most State Medicaid Enterprises are:

1. Highly interconnected systems using point-to-point interfaces require pervasive modifications to accommodate changes to business rules, making them difficult to modify.
2. Users navigate through multiple functional systems to perform a single task.
3. Systems are platform-dependent and do not communicate easily across functional or technical boundaries. This causes difficulty in information sharing and reusability.

Figure 6-3 presents the high-level view of interoperability within the Medicaid Enterprise.

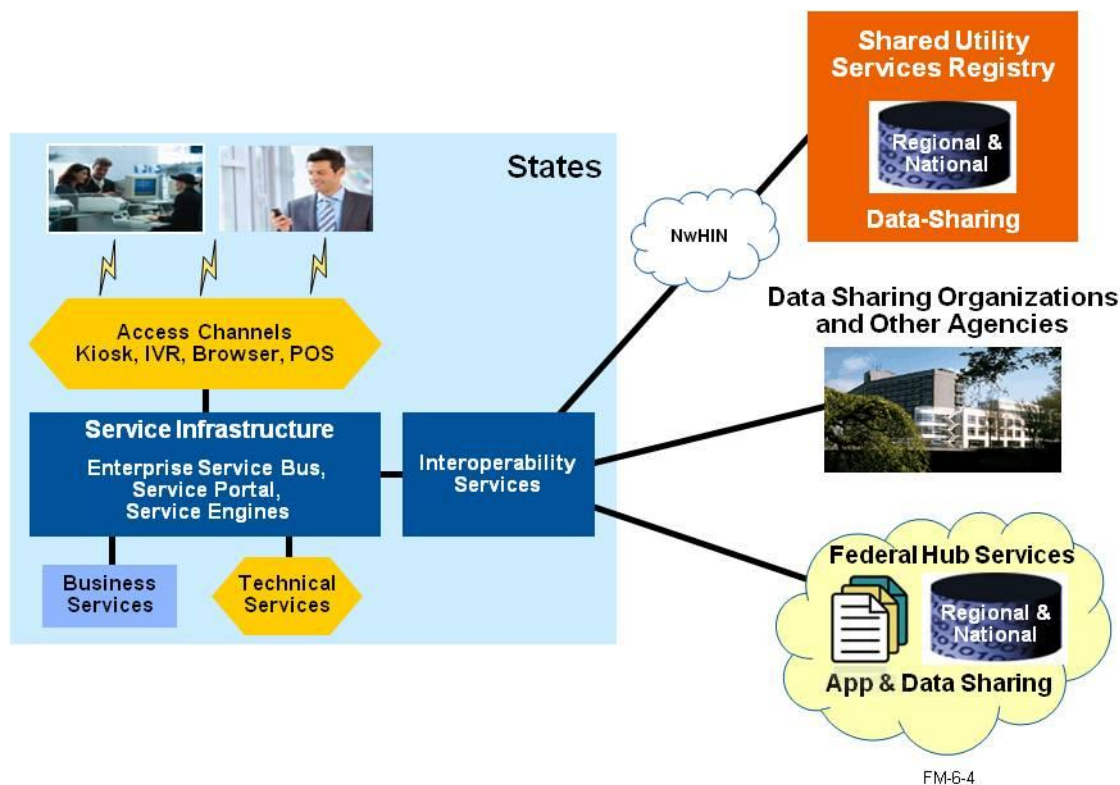


Figure 6-3. Conceptual View of Interoperability in the Medicaid Enterprise

BUSINESS SERVICES

A Business Service defines a standard interface and functionality for a business process that aligns the common factors of a state's design with the Medicaid Enterprise definition. The MITA Business Service allows the following:

1. **Plug-and-Play** – The SMA can replace an individual service with a newer one without affecting the rest of the enterprise. For example, a State Medicaid Enterprise replaces a service that is currently a wrapped Common Business-Oriented Language (COBOL) application with a commercial off-the-shelf product or C++ program without changing any of the external interfaces.
2. **Interoperability** – A system changes an external user of a service (e.g., delete, add, or modify external services or clients) without changing the service itself. For example, a new interoperable service is an application or a client added to the State Medicaid Enterprise that uses existing application services without structural modifications or enhancements (e.g., transformation functions) to those components.

TECHNICAL SERVICES

Technical services consist of technical functions that, collectively, define the MITA technology infrastructure. Each technical service, as with each business service, defines an

interface for its invocation, performs a function that corresponds to the capability, and returns results. The following are technical service areas:

- ❖ Access and Delivery
- ❖ Intermediary and Interface
- ❖ Integration and Utility

MITA technical services provide connectivity to the exchanges, incorporate Cloud Computing capabilities, and integrate within an Enterprise (intra-agency) Architecture.

APPLICATION ARCHITECTURE

The MITA AA provides the information necessary to design enterprise applications using both business and technical services. An application, in the context of the TA, is a collection of software services that conduct a business process at a specific level of maturity. The AA defines the relationship between stakeholders, services, and infrastructure. It also provides guidance to the SMA on how to connect services and infrastructures to improve services for stakeholders.

TECHNOLOGY STANDARDS

Technology Standards associates the industry standards with target technologies that support the goals of the Medicaid Enterprise. The TA selects technologies and standards that meet the MITA Framework requirements, identifies the functional components that apply to State Medicaid Enterprise, as well as any gaps in the standards, and tailors them as necessary into robust solution sets. The MITA team presents technical standards with the following:

- ❖ Technical Standards Reference Model (SRM)
- ❖ Technology Standards Reference Guide (TSRG)

The SRM is a framework to identify technical services. The SRM provides the structure for categorizing the technology standards. It provides information about each standard that a state can use in its procurement specifications. MITA Framework classifies technology standards into three (3) categories:

- ❖ **Ready** – Technology that is ready to use.
- ❖ **Emerging** – Technology that fits the needs of MITA over the next year.
- ❖ **Incubating** – Technology that is on a watch list as being nearly ready.

The TSRG is a collection of standards applicable to the administration and operation of a State Medicaid Enterprise. There are four (4) categories of industry standards:

- ❖ Architecture, Analysis, and Design Standards
- ❖ Service Interoperability
- ❖ Security and Privacy
- ❖ Business Enabling Technologies

TECHNICAL CAPABILITY MATRIX

The MITA TCM defines a set of high-level technical components to do the following:

- ❖ Enable the MITA business capabilities at different levels of maturity.
- ❖ Realizing MITA mission, goals, and objectives.
- ❖ Enabling the transition of a legacy system or process to the MITA Framework.
- ❖ Alignment with the Seven Standards and Conditions.

The TCM provides a baseline for the State Medicaid Enterprise to follow in their alignment with MITA principles. The TCM uses the five (5) levels of maturity the MMM defines. The TCM associates technical components with each level that are enablers of the corresponding business capability. Each technical capability consists of one or more technical services.

State Self-Assessment Companion Guide

The purpose of conducting the SS-A is to identify the As-Is operations and To-Be environment of Business, Information, and Technical Architectures and the Seven Standards and Conditions for the State Medicaid Enterprise. The SS-A Companion Guide is a tool to assist the state with conducting the SS-A, preparing the MITA Roadmap, and producing the necessary documentation to accompany the Advance Planning Document (APD). This Companion Guide provides guidance and templates for completing the SS-A as well as collecting supporting evidence references.

Architectural Components Relationships

Figure 6-4 shows the inter-relationships of the three (3) architectures and their components. Color coding (i.e., black and white shading) distinguishes the three (3) architectures.

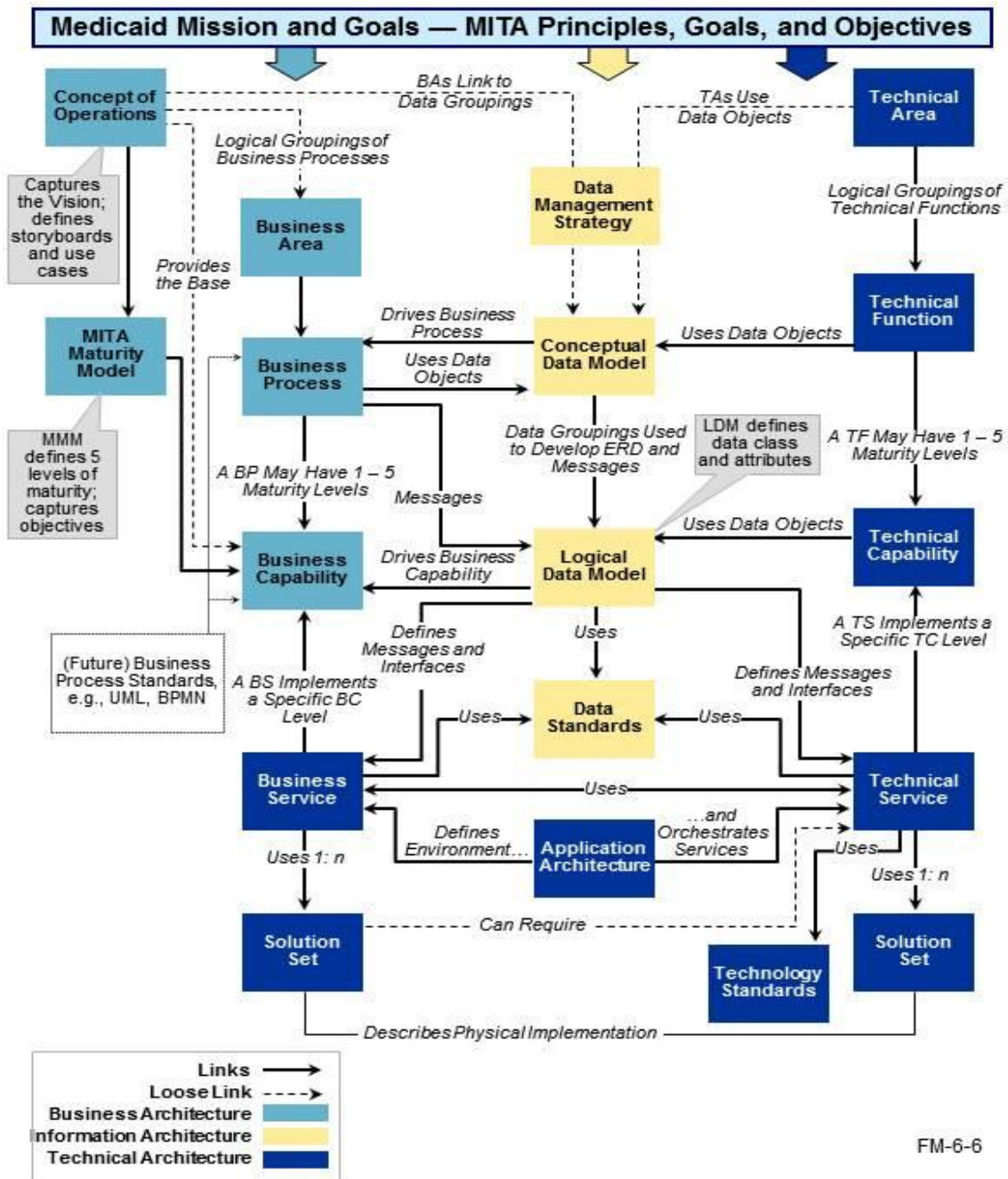


Figure 6-4. Architectural Component Relationships

Walkthrough of the BA, IA, and TA Components

The following text provides a narrative walkthrough of **Figure 6-4**, Architectural Component Relationships, and the components of the BA, IA, and TA.

Medicaid Mission and Goals — MITA Principles, Goals, and Objectives

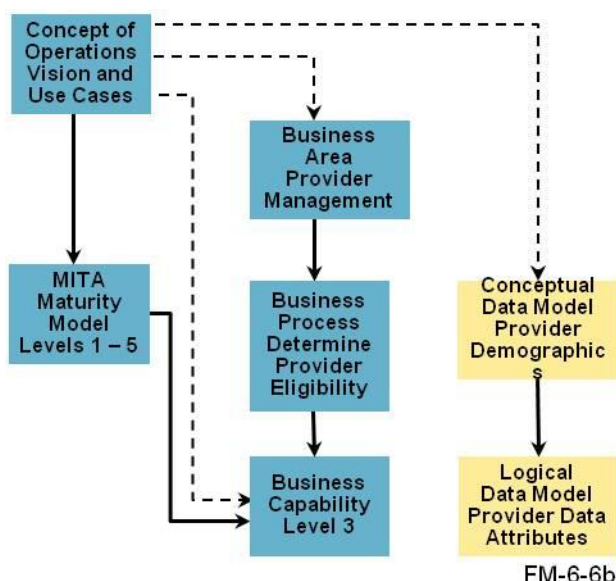
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BUSINESS ARCHITECTURE

The top left of **Figure 6-4** represents the BA. The COO is the structure for defining the Medicaid Enterprise vision. It includes operational scenarios to show a transformation of the Medicaid Enterprise over time from the As-Is operations to the To-Be environment. The COO influences the contents of the CDM.

The COO provides the base for the development of the BPM. The COO includes business improvements that begin to define the BCM.

The COO is also the point of reference for the MMM. The MMM describes five (5) levels of maturity to illustrate the migration from the As-Is operations to the To-Be environment.



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Applying the MMM to a business process produces multiple business capability statements for each level of maturity tailored to the specific business process.

Each business process description provides trigger events, expected results, and shared data that maps to the CDM. Business capability descriptions map to the LDM.

It is also possible to start the journey by defining the CDM based on the Medicaid mission and goals. In this case, the CDM becomes the driver of the BPM.

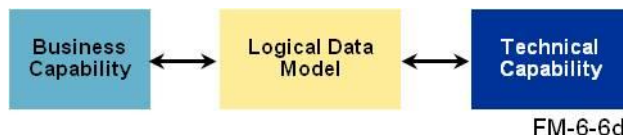
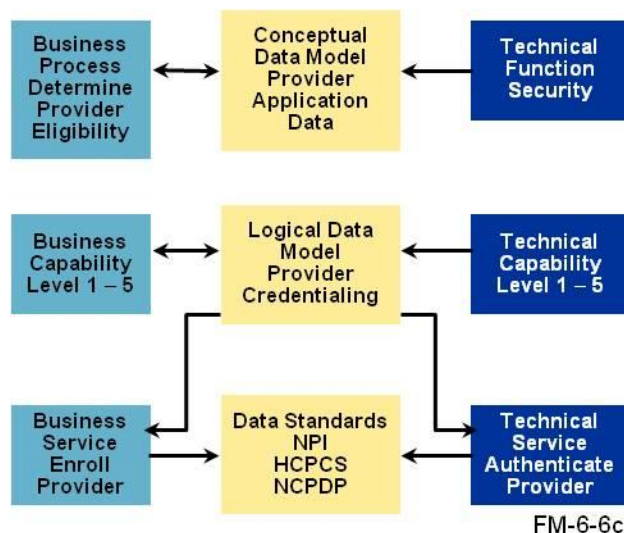
INFORMATION ARCHITECTURE

The center of **Figure 6-4** contains three (3) IA components: CDM, LDM, and Data Standards. The CDM identifies the core subject areas and groupings of data (or entities) important to the Medicaid Enterprise. The CDM links to the major business areas in the BA.

For example, the Provider Management business area requires entities (e.g., provider, group practice, location) and relationships (e.g., provider has an address) for conducting operations. Business process descriptions contain information for CDM details (e.g., provider demographic data and licensing board data). The CDM also houses data groupings for use in technical areas and technical functions. For example, authentication requires security tokens found in the CDM.

The LDM adds detail to the CDM by further defining attributes, related standards, and entity relationships. For example, the LDM defines a provider by National Provider Identifier (NPI), taxonomy, name, and other attributes. The LDM presents attributes with more detail.

The LDM maps to specific business capabilities. For example, a beneficiary is able to inquire about his or her treatment history based on claims data at Level 3 and views personal clinical data at Level 4. The LDM also maps to specific technical capabilities (e.g., a personal key identifier entity required to support the technical capability, “Authenticate Provider,” at Level 3).



Each business service and technical service uses messages and interfaces contained in the LDM. The LDM references, where possible, existing nationally recognized data standards. These are industry standards maintained by official Standards Development Organizations (SDO) such as ASC X12N, Health Level Seven International (HL7), and NCPDP.

Business and Technical Services use specific industry data standards. The Framework uses data standards produced by Designated Standards Maintenance Organizations (DSMO), whenever available. If such standards are not available, CMS supports collaboration efforts with industry groups across standards organizations where appropriate. CMS continues to collaborate with other federal agencies and industry groups in harmonizing data standards across disparate groups. Because data standards are quite dynamic, States will need to conduct a periodic review of the available data standards and versions to keep the data standards current.

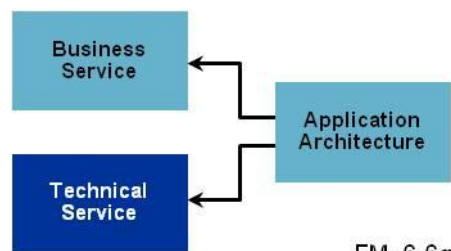
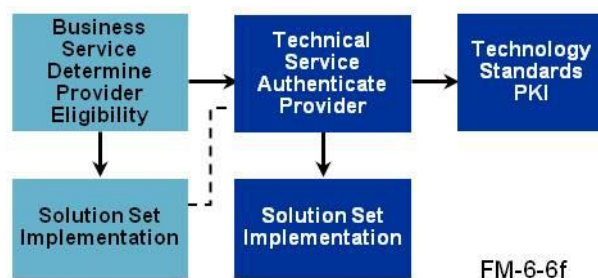
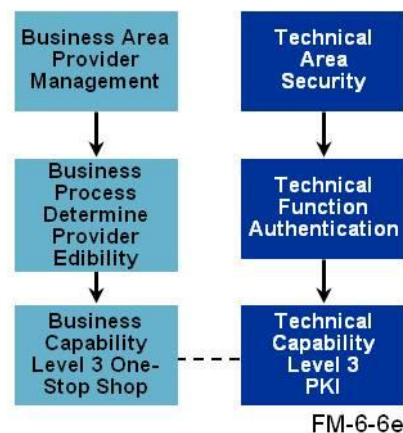
TECHNICAL ARCHITECTURE

As in the BA, the TA is a grouping of Functions. The TA assigns functions to five (5) levels of Technical Capabilities. For example, Security is a Technical Area that contains an Authentication Function (among others).

The Authentication Function has different Technical Capabilities corresponding to the Maturity Model 1 – 5 Levels. Authenticate Provider at Level 2 uses an Electronic Data Interchange (EDI) message between the provider and the SMA; at Level 3 it uses a Public Key Infrastructure (PKI).

There is a loose link between the Business Capability and the Technical Capability at Level 3. Technical capabilities are enablers of business processes. Each Business and Technical Capability at Level 3 and above has a business and technical service.

Both business services and technical services use one or more solution sets containing instructions for the development of the service. Business services are associated with business processes (e.g., Provider Enrollment), and technical services are associated with technical functions (e.g., Authentication).



A business service solution set may require use of specific technical services. For example, Enroll Provider, Level 3, requires encryption provided by a Technical Service at Level 3. A technical service defined for a Level 3 or above Business Capability uses technology standards associated with that level.

The final component of the Technical Architecture is the AA, that defines the environment and orchestrates the business and technical services.

Reading the MITA Framework

The MITA Framework for the Medicaid Enterprise includes the following organization:

- ❖ **Part I** – Business Architecture: defines business activity and maturity determinations.
- ❖ **Part II** – Information Architecture: defines data relationships and industry standards to support business activity.
- ❖ **Part III** – Technical Architecture: defines sets of business and technical services, their connectivity, and standards to support Part I and II.

❖ **SS-A Companion Guide** – State Self-Assessment: defines the process for conducting the SS-A.

Due to the size and complexity of the document, the Table of Contents and the details in this Introduction to the MITA Framework serve as a roadmap for readers. CMS encourages all readers to begin with the Overview of the MITA Initiative, the Introduction to the MITA Framework, the introduction chapter for Parts I, II, and III, as well as the SS-A Companion Guide.

The MITA initiative is a work in progress, and the Framework only captures the components as they exist at the time of publication. Through the collaboration of the SMA, CMS, and the vendor community, as well as coordination with national and federal initiatives, CMS seeks to continuously improve the products and tools in this MITA Framework document.

The MITA team welcomes all comments and questions from the readers, and CMS intends to incorporate responses to these communications into future releases of the Framework.