Purpose of the MITA Information Architecture

- Align information requirements with Medicaid enterprise vision and direction
- Lower overall life-cycle costs
- Enable interoperability and data sharing
MITA Information Architecture
Neutrality

- Technology-, organization-, and location-neutral
- States have the flexibility for their specific implementation
Information Architecture in the Context of the MITA Framework

MITA Framework

Business Architecture
- Concept of Operations
- Maturity Model
- Business Process Model
- Business Capability Matrix
- State Self-Assessment

Information Architecture
- Data Management Strategy
- Conceptual Data Model
- Logical Data Model
- Data Standards

Technical Architecture
- Business Services
- Technical Capability Matrix
- Technical Services
- Application Architecture
- Technology Standards
- Solution Sets
Purpose of the Data Management Strategy

- Document the processes, techniques, and products needed by a Medicaid enterprise to achieve optimal sharing of Medicaid enterprise information both within and with other entities.
Scope of the MITA Data Management Strategy

- Captures common Medicaid enterprise information at the logical level
- Location and organization neutral
- Flexibility to allow State-specific data and messages
- Physical data model, databases, and data files are not be part of MITA
MITA Data Management Approach

Environment in Which Medicaid Operates
Benefits of Using the MITA DMS

- Reduce custom solutions and promote interoperability and data sharing
- Provide a common set of processes, tools, and solutions for the information needs of Medicaid
- Allow individual States to benefit from the information assets of others
Parts of the MITA DMS

- Data Governance
- Data Architecture
- Data Sharing Architecture

For data access mechanisms and services see MITA Technical Architecture. Physical characteristics of the mechanisms used for data sharing are the responsibility of the States and are not addressed by MITA.
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Technical Architecture
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- Technical Capability Matrix
- Technical Services
- Application Architecture
- Technology Standards
- Solution Sets
MITA Conceptual Data Model

- Depicts the major business information objects (subjects/entities) in their relationships to each other using business terminology.

- Basis for development of a Logical Data Model (LDM).
Scope of the MITA CDM

- Evolves in step with the maturing of business processes, e.g., adds clinical data for Maturity Level 4
- Contains all the data needed by the defined process and services.
- Includes all of the data and data relationships common to States
- Does not contain information regarding a State’s unique processes and data
Simple Conceptual Data Model

Member \hspace{2cm} has \hspace{2cm} Address
Parts of the MITA CDM

- Entities
- Relationships
- Definitions
- Domains
- Related Standards
- Entity-Relationship (E/R) Diagram
CDM Development Process

- Develop a CDM based on the HL7 Reference Information Model (RIM) and a subset of early-adopter State Medicaid enterprise data models.
- Work with States to improve and validate the CDM
- Through a MITA governance process TBD, obtain all-State consensus
- Maintain and update in repository (TBD)
Information Architecture in the Context of the MITA Framework

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MITA Logical Data Model

- Provides guidance on design of enterprise service interfaces
- Used to develop State’s physical data model
- Basis for true plug-and-play capabilities of services and interoperability among States
Scope of the MITA LDM

- Evolves as the processes and services are defined in detail
- Includes all data needed for the entire Medicaid enterprise regardless of the location or systems
- Compatible with the electronic health records
- Does not include State’s unique processes and data
- No physical data model
Simple Logical Data Model

Member

ID
SSN
First Name
Surname
Salutation
Phone
Number

has

Address

Street
City
State
Country
ZIP Code
Parts of the MITA LDM

- Entities
- Attributes
- Relationships
- Definitions
- Domains
- Related Standards
- Entity-Relationship (E/R) Diagram
Uses for the MITA LDM

- As a reference document
- As a requirements document
- As a tool
Information Architecture in the Context of the MITA Framework
Purpose of MITA Data Standards

- Enable data sharing and interoperability of Medicaid enterprise information.
- Support both a syntactic and semantic understanding of this information.
Scope of the MITA Data Standards

- MITA adopts DSMO data standards
- MITA facilitates development of Medicaid-unique data standards and submits them to a DSMO for adoption
- Maintain data standards current
What Is a MITA Data Standard

- Represent agreements on the format and description of the shared data used by the Medicaid enterprise.

- **Two major categories —**
  - structure data standards
  - vocabulary data standards

- **Key parts**
  - data element names
  - definitions
  - data types
  - formatting rules
Information Architecture Components

Data Management Strategy

Conceptual Data Model

Uses

Provides foundation to

Logical Data Model

Uses

Data Standards

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MITA Business Process and Data Links

- Description of activities performed
- Description of input data (Trigger), result data, and stored data used by the process
State Medicaid Agency Use of the IA

- Participate in workgroups defining and maintaining the MITA IA.
- Extend the MITA data models to include their State-unique information and data requirements.
- IA is used to determine what information is required by the new processes.
- Provides detailed data specifications for defining the MITA services to implement the business process.
- IA details appear as requirements in State RFPs.
CMS Use of the IA

- Provides leadership in establishing the MITA guidelines and promoting them among States.
- The MITA Framework CMS designates the standards that Medicaid programs will have to meet in the future.
Vendor Use of the IA

- As a reference in planning research and development activities
- As a source for the syntax, semantics, definitions, and relationships of all Medicaid data
- As specifications to align their solution with the MITA Framework and interoperability with other States