

MITA Information Series

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MITA Business Process Model White Paper

Introduction

This paper presents the Medicaid Information Technology Architecture (MITA) Business Process Model and explains how it is used within the MITA architectural framework and how states and vendors will use it to design and implement better Medicaid systems. One of the MITA core concepts is that business needs and objectives inform and drive technical design.¹¹

What Is a Business Process Model?

A Business Process Model describes what an organization or business does. It describes the processes and the events or triggers that initiate the process. It also describes the results of these processes. The MITA team developed a process-oriented business model because it is a better fit than the traditional functional business model. The traditional functional business model organizes the business into the major groupings of activities the business performs. These groupings are usually shown in a structure that resembles an organization chart, even if they do not replicate the organization's structure. A business model with an organization orientation is not ideal for a framework that must support more than 50 Medicaid agencies, each with its own organizational model. The process-oriented approach views the business cross-functionally and organizes the actions of the business as a set of activities in response to business events. Opportunities for real process improvement and dramatic business change are much more likely to emerge from this perspective because they cut through the existing silos.

What Is the MITA Business Process Model?

The Business Process Model describes Medicaid business processes that are found in every state. The model organizes the business processes into various categories of common interest or focus (such as provider management, member management, and operations management). The model provides a common reference point for state Medicaid agencies. Medicaid agencies may adopt, modify, or map to this common Business Process Model, which allows Medicaid agencies to describe their business processes in a common way.

Lineage of the MITA Business Process Model

The MITA team developed the MITA Business Process Model using as primary sources the Medicaid Health Insurance Portability and Accountability Act (HIPAA)-compliant Concept Model and the STAG Medicaid Management Information System (MMIS) Redesign Report. Models shown in these documents represent integrations of individual models from several states. At the MMIS conference held in Louisiana in 2003, the MITA team collected responses from many states regarding their goals and objectives for the Medicaid program and their

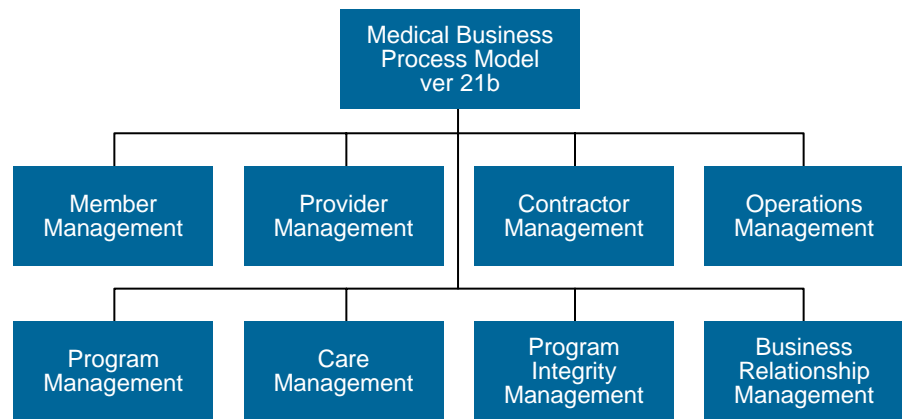


business needs. These insights were supplemented by individual state interviews. The resulting MITA Business Process Model contains processes common to most states. It is grounded in the present but also captures the vision of the future expressed by many states.

The Business Process Hierarchy

The MITA business process hierarchy groups together business processes sharing a common purpose and data; for example, Provider Management focuses on provider outreach, enrollment, and information maintenance (as opposed to payment or auditing) and it “owns” a designated set of provider demographic data. MITA presents a way to organize business processes; however, any state could have a different organization and names for its business processes. The clusters of business processes allow us to decompose until we reach the level of an actual business process. Figure 1 shows the first level of business areas of the MITA Business Process Model.

Figure 1. MITA Business Process Model Business Areas



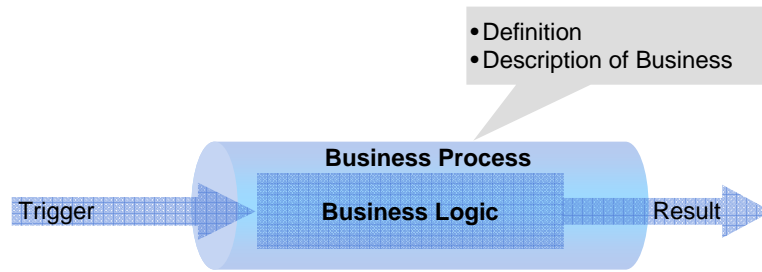
Business Process

A business process is activated by one or more trigger events, carries out one or more steps, and produces one or more results or outcomes.

For example, the business process Enroll Provider contains the following elements:

- One or more triggers (for example receiving a provider enrollment application)
- A series of steps (such as, log in provider enrollment application, authenticate sender, validate credentials)
- One or more results (for example, authorize or deny enrollment, request more information, and notify provider of result)

Figure 2.
Business
Process
Description



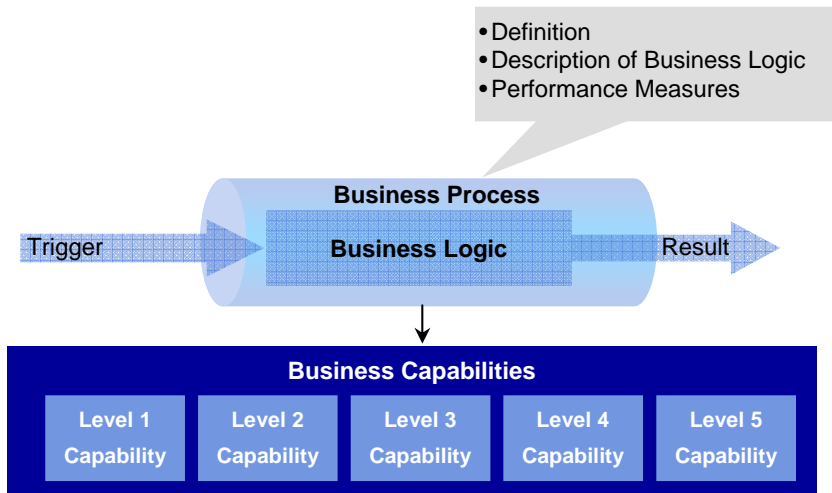
The MITA business process description is augmented by:

- A definition of the thread that describes the overall objective and purpose
- A definition of a performance measure, so all stakeholders can measure the same things in the same way
- A definition of the data used to trigger the business process and the data contained in the result. This is called *data in motion* because (1) it is received from an external source, e.g., a provider submits a claim, or (2) it is passed from one process to another.
- A definition of the data used by the business logic. This is called *data at rest* or *shared data* because the data is utilized or read, but not moved changed or updated.

Business Process Map to Business Capabilities

MITA will also contain business capabilities for each business process. Business capabilities show how the Medicaid operations of today (As-Is Business Process Model) evolve into the Medicaid operations of the future (To-Be Business Process Model). These capabilities are mapped to the MITA Maturity Model, which contains five levels of maturity. Each business process can have up to five capability descriptions. Capabilities and maturity levels provide the road map for the evolution/transition of state Medicaid systems from the present (As-Is) to the future (To-Be).

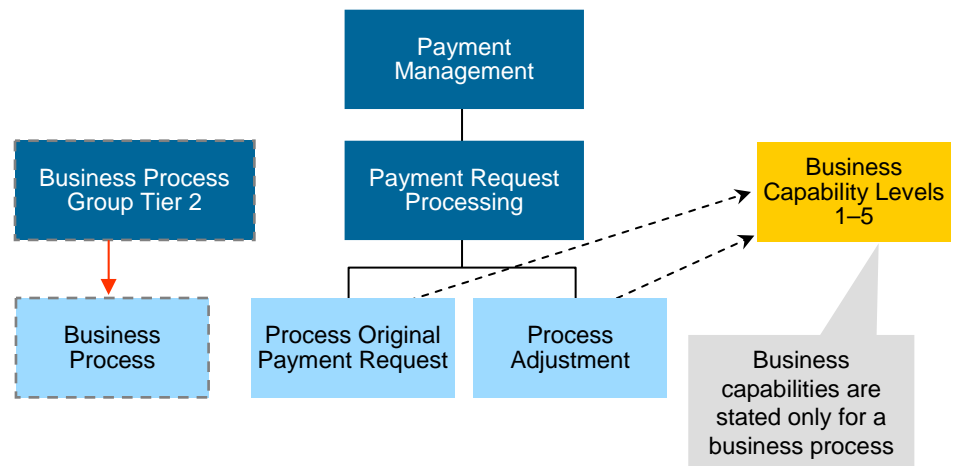
Figure 3.
Business
Processes and
Business
Capabilities



As an example, assume that Authorize Service is a business process that approves or denies payment for a service based on evidence about the person’s health status, medical needs, or other factors. The trigger event is Receipt of Service Authorization Request; the result is authorization status (denied, approved, or suspended for more information). The steps include authentication of requestor; validity of service; eligibility of client; appropriateness of service for client’s medical condition, age, or gender; service or dollar limits; availability of funds; and final disposition.

Business processes can have from one to five *Maturity Levels* of business capabilities, as reflected in Figure 4. Maturity Level 1 reflects the current capabilities commonly seen in many of today’s Medicaid operations. The other levels show advances in the timeliness, effectiveness, and efficiency of the business process.

Figure 4. Business Processes have from one to five levels of Business Capabilities



The following business capability statements map to five levels of maturity, tailored to the Authorize Service business process.

- **Maturity Level 1.** Service Authorization requests are received manually in indeterminate formats via paper, telephone, and fax; reviewed individually by professional staff against printed guidelines; and responded to via paper/USPD or fax. At Level 1 maturity, the business process complies with state and federal statutes and policies regarding timeliness. A provider network is maintained and meets the basic needs of the member population. However, there are time lags, inconsistent decisions, and delays in delivery of patient care. Clinical information that could help in decision making is difficult to access and causes further delays.
- **Maturity Level 2.** Requests are received electronically, reviewed individually by professional staff against guidelines; and responded to via EDI resulting in faster response time for the delivery of patient care; however, there is continuing inconsistency in decisions.

**How Will the
Business
Process Model
Evolve?**

- **Maturity Level 3.** Incorporates positive Level 2 capabilities plus the addition of automated business rules to streamline responses to requests, resulting in greater consistency in decisions and reduction in manual interventions. Electronic-prescribing and data-sharing protocols allow providers to share service information. Collaboration across programs supports a “one-stop shop” for service authorizations.
- **Maturity Level 4.** Incorporates positive Level 3 capabilities, plus the addition of access to medical record data, which increases the reliability and consistency of authorization decisions and frees clinical staff to focus on exception cases. Members are empowered to make their own treatment decisions. There is increased provider and patient satisfaction and more efficient program operations.
- **Maturity Level 5.** At Level 5, the state Medicaid agency enjoys full interoperability with other local and federal agencies to provide complete virtual patient clinical record and meet national clinical guidelines. Most services are instantly authorized or denied at the point of service. This improved response results in increased patient safety, positive health outcomes, and minimum operational costs.

Not every business process will have five levels of capability. Some processes may be replaced by new business processes as a result of technology, legislation, or environmental change. For example, the current third-party recovery Pay and Chase process may be eliminated by a new process that performs real-time coordination of benefits among all other payers. Other processes may have fewer than five capabilities because either the advanced capabilities cannot be envisioned today or the process does not logically have five distinct capabilities.

The Business Process Model is dynamic. It will continue to evolve and change. New processes will be identified and added to the model. A new process may be created as a result of a change in the industry such as the adoption of electronic health records (EHRs) or regional health information networks (RHINs). These innovations will change the way Medicaid agencies do business (direct access to clinical data could change the way Service Authorization and Claims Adjudication are performed today). The new business processes will replace or make an existing process obsolete. For example, online coordination of benefits may eliminate the need for cost recovery (Pay and Chase).

Each new business process has an initial capability. The level of the capability indicates when the process is available. To follow our earlier example, real-time coordination of benefits may be a Level 4 capability. The cost recovery process would only have capabilities for Levels 1 through 3. Both the old and the new processes remain in the model, because some states may have implemented the new processes while other states continue to use the older process.

What Are the Next Steps?

The Business Process Model results in identifying all the major Medicaid Business Processes that are common between states. Once the MITA Business Processes have been identified, the next step is to develop the MITA Business Service. (Business services are described in the SOA whitepaper and in Framework 2.) As part of the development of the Business Process, an entry in the business capability maturity matrix was developed for each process (Figure 3). For each business process non-Level 1 (and optionally Level 2) capability, a single business service will be developed. Only one MITA business service is defined per business process per capability.

Identify and Demonstrate the Transfer from Business Process (Conceptual) to Business Service (Logical/Physical)

Not all business processes are capable of being service enabled. Manual processes cannot be service enabled; however, automated processes are capable of being service enabled. For the processes that can be service enabled, the Capability business process (defined at Level 3 and above) requires a supporting Business Service Definition package or packages. The Business Service Definition packages contain the necessary specifications to allow states and vendors to build MITA services. The specification includes the details of the trigger event and the results or outcomes. The specification also includes interfaces to common data stores. Typically, several services work together to support a business capability.

How to Reach the To-Be Vision

The Center for Medicaid and State Operations (CMSO) is encouraging states to adopt a service-oriented approach in future IT initiatives to support the Medicaid enterprise because the return on investment is strongly evidenced in other industries. Healthcare, in general, and state Medicaid programs have been slow to accept the technical solutions that have benefited manufacturing, banking, and global trade. We believe the time has come for state Medicaid agencies to benefit from a convergence of technology advances, national initiatives, mandated standards, and a state's will to control costs. What should states do?

- Assess As-Is status and identify gaps
- Prepare a multiyear strategic plan for transitioning to a future Medicaid program that is fair to providers and beneficiaries
- Consider the benefit of collaboration with other states to create business capabilities that all can use
- Jointly prepare a multistate vision of the To-Be state
- Challenge the vendor community to rise to the occasion, "mothball" obsolete applications, and address the ever-expanding needs of states

How Will States, Vendors, and CMS Use the Business Process Model?

The definition of the business process allows all Medicaid agencies to identify their business processes within the MITA Business Process Model. The business process capabilities enable states and vendors to assess their current systems and plan for enhancements, upgrades, or replacement systems.

How States Will Use the Business Process Model

States will use the Business Process Model to:

- Map their own processes to the common model.
- Identify the current maturity level of their core business processes (levels will vary from process to process). **Note:** There is no one single maturity level per state.
- Determine the target future capabilities they wish to achieve for each business process (or groups of processes).
- Chart their course for transitioning to higher levels of maturity.
- Specify their maturity level goals in strategic planning documents, APDs, and RFPs.
- Select business processes and associated levels of maturity that groups of states can jointly develop and then share with others.
- Align their transition planning with the communal goals of MITA.
- Adopt a service-oriented approach for all future IT applications.

How Vendors Will Use the Business Process Model

Vendors will use the Business Process Model to:

- Assess how their products and services support MITA core business processes
- Assess how their products and services map to the MITA business maturity levels
- Consider MITA business capability goals in future research and development projects
- Show how the vendor can assist the state in transitioning to higher levels of business capability
- Establish return on investment goals that benefit from alignment with MITA
- Facilitate response to RFPs
- Incorporate service-oriented architecture into their core application design

***Relationship
to Other
White Papers***

How CMS Will Use the Business Process Model

CMS will use the Business Process Model to:

- Establish a common baseline for any state in any region to assess their As-Is business capabilities and describe their transition plan
- Rebase the Planning and Implementation APDs using the state's self-assessment and MITA business capabilities to standardize the APD submission and approval process across the country
- Encourage states to voluntarily align with MITA
- Encourage states to collaborate on certain areas of business capability improvement
- Encourage adoption of a service-oriented architecture where appropriate

See Service-Oriented Architecture, Planning and Transition