MITA Information Series

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Planning for MITA —
## An Introduction to Transition Planning

A business and technical transformation of the size and scope of the Medicaid Information Technology Architecture (MITA) must be made in an evolutionary manner, with collaboration from the many stakeholders, while offering a clear identification of the business benefits for each stakeholder at every step. This white paper discusses the recommended MITA approach for assisting states in defining their plan and presenting value-based and evolutionary success to their state leadership, legislators, the provider community, and citizens. Evolution to the MITA vision can be accomplished with a transformation process that is tailored to each state's needs and is cost effective.

Purpose

This white paper provides an overview of the Medicaid Information Technology Architecture (MITA) Transition Planning Process — a process that enables states to plan their transformation to meet their strategic goals and to bring their business changes and IT evolution in alignment with the MITA vision. It is not a rigid process, but one which recognizes that each state is unique, is at a different stage of capability and technology, and has individual collaboration needs that must be addressed. The process can and must be tailored to fit each state's needs, while allowing them to make effective choices while keeping their options open. This planning process allows the state to use its iterative Medicaid strategic plan to define its target business architecture and technical architecture and to identify, at a high level, a roadmap for transitioning the state Medicaid organization to the target architecture. The roadmap for the journey toward MITA or the aligned visionary roadmap must be refined, decisions must be explored in more depth, and collaborative trade-offs and choices must be made. It is important, however, to have a work plan and a disciplined approach to execute against the roadmap.

This white paper can be a guide for defining the transition planning process. As with the early MITA adopter states, states now, along with their many stakeholders, must create their own transition process by building on each collaborative step. Every state's roadmap defines the business and technical capabilities it plans to implement, as well as its priorities and need dates. Any products described in this process could become part of future APD submissions.
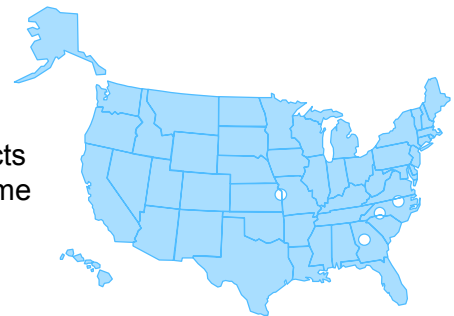
Overview of MITA Transition Planning

The MITA Transition Planning Process is divided into four general phases (Exhibit 1) – all of which require ongoing collaboration with stakeholders:

Self-Assessment. In the Self-Assessment Phase, the state looks at its current capabilities (both business and technical) and develops a list of new or combined target capabilities.

State Medicaid Enterprise Architecture (EA) Development. During this phase, the state uses its Medicaid or state EA to gather the information necessary for adequate project planning. An EA provides a cohesive blueprint for aligning the state's business and technical architectures and ensures that IT investments are aligned with business needs.

Transition Plan Development. In the Transition Plan Development phase, the state identifies specific transition projects that will deliver the target capabilities.

Transition Plan Execution and Iterative Updates. In this phase, states review their progress periodically by collecting data on the business outcomes of their transition and make any necessary business and technical changes in response to the degree of progress made. Many states will report their progress during legislative sessions or as part of other stakeholder activities. One of the benefits of the MITA Service-Oriented Architecture approach is that it fosters and encourages an evolutionary approach — especially after the basic elements of the service layer are in place.

**Exhibit 1
MITA Transition
Planning Process**
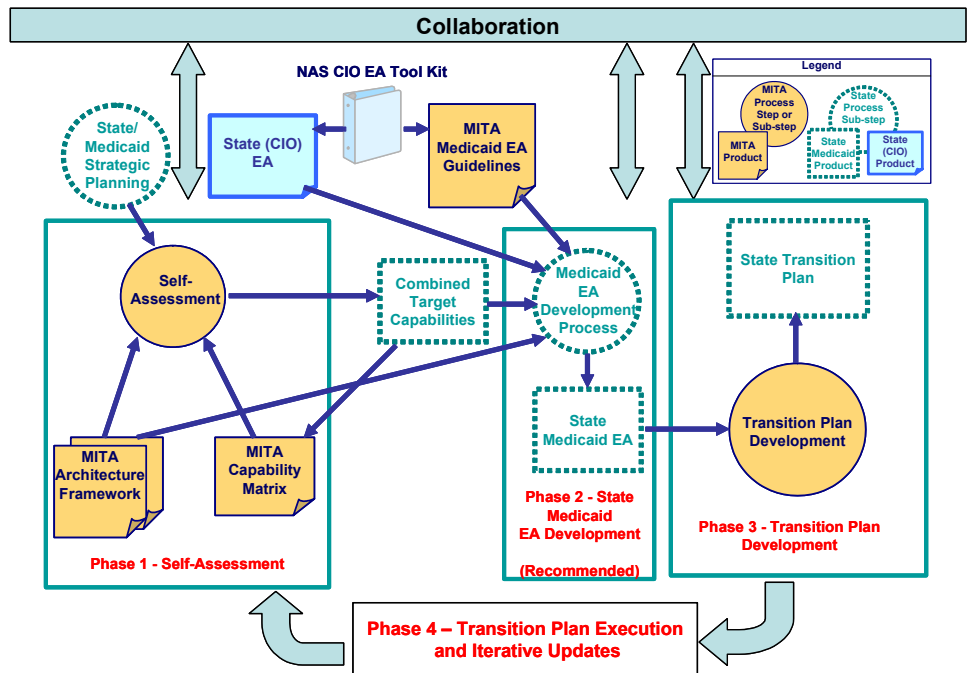
Evolutionary transition planning is an iterative process that is focused on the delivery of value to each Medicaid stakeholder. Potential triggers for iteration could include calendar time periods (e.g., annually), new or changing mandates, emergence of new technology, or opportunities for collaboration. Making choices about changing business practices and introducing new technology are naturally iterative. States will constantly have to answer basic questions such as:

• Should we? Value

• Can we? Technology

• May we? Governance Structure

• Will we? Priorities

• What have you done lately? Performance Results/Success Stories

Iterative transition planning steps should provide the common answers for those and other simple questions that are part of every state's transition planning. It should be emphasized that the iterative approach does not imply the need to update the entire transition plan; specific capabilities can be added, modified, and deleted, so that only the affected portions of the EA and the transition plan are updated as needed.

As a Medicaid agency implements improvements to its business processes and supporting systems, it should adjust its self-assessment results because EAs are constantly evolving; in a sense, they are never finished. Therefore, Medicaid agencies should focus on the parts of the EA most critical to their goals. Finally, the Medicaid agency must periodically update the transition plan to address changing factors such as state budgets, technology, and legislation.

Phase 1 — Self-Assessment

Business and Technical Capabilities

Business capabilities are associated with business processes and illustrate how the business process can mature and improve over time.

A technical capability can be an enabler that supports the business process or a technology that promotes MITA goals and objectives (i.e., flexibility, adaptability, and interoperability).

The Self-Assessment Phase requires a state to review its strategic goals and objectives, and current business and technical capabilities, against the MITA Business Capability Matrix and the MITA Technical Capability Matrix. The state can then develop a list of *combined target capabilities* that enables it to meet its strategic goals and objectives. The combined target capabilities list outlines business capabilities and technical capabilities that a state plans to implement to transform its Medicaid enterprise in accordance with MITA principles.

MITA capabilities are allocated to five maturity levels that show a progression from the current business and technical architecture (Level 1) to architecture that embodies the long-term target vision (Level 5) for the Medicaid enterprise. Each maturity level corresponds to a greater level of operational effectiveness of the Medicaid program than the prior level. It should be noted that capabilities for maturity Levels 4 and 5 have not been fully defined at this time, because they depend on developments in healthcare in the 5- to 10-year time frame, such as the National Healthcare Infrastructure Initiative (NHII). The MITA team plans to continue the buildout of the Business and Technical Capability Matrices into the future.

Exhibit 2 MITA Business Capability Matrix

Sample Capabilities

Level	Business Capability	Example
1 Current	Inbound transactions have indeterminate formats. Information is manually validated. Some processes are automated. Rules can be inconsistently applied and decisions take several days.	Provider enrollment applications use multiple formats. Validation of credentials is manual. Staff may apply rules differently. Decisions may take several days.
2 Short-term improvements	Inbound transactions are standardized within state. Validation is a mix of manual and automated steps. Consistency of rules is improved. Requires fewer staff. Process takes less time than Level 1.	Enrollment applications are standardized through a provider portal. Some validation steps are automated. Automated rules are applied. Process takes less time.
3 Intermediate goal	Inbound transaction data are standardized nationally. All validations can be automated. Rules are consistently applied. Decisions are uniform. Some manual steps may continue. Turnaround can be immediate. Processes are easy to maintain, flexible, repeatable, and reusable. States share application solutions.	There is a national standard for the enrollment application data input and output. All validations can be automated. Rules and decisions are consistent. Turnaround can be immediate. Rules are easy to change. States can share and extend enrollment applications.
4 Long term with access to clinical data	Level 3 capabilities augmented by some new capabilities: • External and internal validation sources automatically send notice of change • Direct access to clinical data improves quality and timeliness of many processes	Clinical information in medical records can be viewed to validate credentials. Performance criteria can be linked to provider enrollment.
5 Long term with national interoperability	Level 4 capabilities are augmented by national interoperability, permitting access to and exchange of data within states, among states, and with federal agencies. There is widespread sharing of application solutions.	States automatically receive information from national registries and other states regarding providers in their jurisdiction. Improvements to the enrollment process are shared among states.

**Exhibit 3
MITA Technical
Capability Matrix**

The allocation of MITA business capabilities to the five maturity levels is represented by a matrix termed the *MITA Business Capability Matrix*. A description of the Business Capability Matrix populated with sample entries is presented in **Exhibit 2**.

Sample Capabilities

Level	Technical Capability
1 Current	1. Proprietary system interfaces, mainly batch file transfers.
2 Short-term improvements	1. Provide the capability to define and create electronic forms and to capture standardized information electronically in the form. 2. Provide the capability to define a set of rules that is linked into business processes or applications and is executed with a basic rules management system, also known as a *rules engine*.
3 Intermediate goal	1. Implement a Service-Oriented Architecture framework that provides reliable messaging between services. 2. Provide the capability for Business Process Management, including the automated execution and monitoring of business processes.
4 Long term with access to clinical data	1. Provide the capability in the MITA hub to access electronic health records that are made available through the NHII.
5 Long term with national interoperability	

**Four-Step
Process**

Exhibit 3 shows an example of the Technical Capability Matrix. More detail on the MITA Capability Maturity Model and the MITA Capability Matrix can be found in the MITA white paper entitled *The MITA Maturity Model*.

A state performs a self-assessment to define a set of business and technical capabilities that meet its strategic goals and objectives. Self-assessment is a four-step process:

1. **List and Prioritize the Medicaid Agency's Goals and Objectives.** A Medicaid agency starts by identifying its goals and objectives, and then refines and prioritizes them as a guide for selecting new business and technical capabilities. Examples of goals and objectives could include items such as improved fraud reduction or expeditious provider enrollment. Each goal is articulated to a level of detail so that specific outcomes and performance criteria can be associated with them.

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Four-Step Process

The Self-Assessment Phase captures a Medicaid agency's business and technical capabilities at a specific point in time. Most states will have different levels of capability associated with a wide range of business processes. State Medicaid business and technical capabilities are never at rest; they are always improving. Therefore, any state's Combined Target Capabilities will demonstrate different levels of maturity at any moment and different plans for transition to higher levels over time. Some states are just beginning a procurement to replace their MMIS, others have recently completed an implementation, and others are enhancing existing systems. The Self-Assessment Phase works for any state, despite its particular status.

2. **Define the Medicaid Agency's Current Business Process Model and Map to MITA Business Process Model.** States review and document their current business processes and map them to the MITA business process model contained in the MITA architecture framework (and the MITA Business Capability Matrix).

3. **Identify the Medicaid Agency's Current Capabilities using the MITA Capability Matrix.** States use the current business model to identify current capabilities implemented by the state Medicaid agency. This activity provides a baseline against which the state can identify new capabilities to be implemented. An example of the MITA Business Capability Matrix is shown in Exhibit 2. In Exhibit 3, the MITA Technical Capability Matrix contains a sample of technical capabilities that either enable a business process or provide general improvement such as flexibility. MITA provides a Technical Capability Matrix that provides a consolidated set of technical capabilities for all business processes as well as goals and objectives.

4. **Define the Medicaid Agency's Target Capabilities.** This activity consists of using the information from the prior steps to select the new target capabilities (from the MITA Business and Technical Capability Matrices) desired by the Medicaid agency. For each capability, the state also identifies the priority and the need date if applicable. This prioritized list of capabilities, termed the *Combined Target Capabilities*, is used to drive the development of the state Medicaid EA (described in the next section). In the process of defining target capabilities, states may identify business or technical capabilities that are not included in the MITA capability matrices or that are variations of MITA capabilities. In such cases, states are encouraged to document these capabilities and share them with the MITA project so that they may be incorporated into MITA. For each new capability identified, the state identifies or defines a corresponding business process and integrates it into the state's business process model. The Combined Target Capabilities are provided as input to Phase 2, State Medicaid EA Development.

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Phase 2 — State Medicaid EA Development

What Is EA?

EA defines the business, the information necessary to operate the business of an organization, the technologies necessary to support the business operations, and the transitional processes necessary for implementing new technologies in response to the changing business needs.

The state Medicaid EA defines the business processes, data and information, applications and technology infrastructure, and services for both the current and target state Medicaid architectures. It provides information — both business and technical — that enables states to define the architectural elements which support each capability:

- The business process that owns the capability

- Applications architecture elements, such as business applications and services (e.g., customer relationship management, provider credential verification, and member enrollment)

- Technical architecture elements, such as forms and workflow management services, rules-based processing, interoperability, and security

- Data architecture elements, such as data warehouses, marts, or data hubs, and associated data-access services

This concrete architectural information about the current and target architecture enables a state to define a series of projects, to implement the capabilities, to develop realistic cost and schedule estimates, and to create a master schedule for implementing the projects. In the absence of an EA, the state would lack adequate information to develop realistic project cost and schedule estimates or to define dependencies among projects. Having a state Medicaid EA takes much of the guesswork out of project planning, and for this reason, MITA recommends the development of a state Medicaid EA.

Many state chief information officers (CIOs) are developing EAs to improve their IT planning. The National Association of States (NAS) CIO Enterprise Architecture Development Tool-Kit provides guidance to state CIOs on developing an EA. The NAS CIOs encourage the development of a statewide EA, citing the following benefits:

- Supports the business of government

- Enables information sharing across traditional barriers

- Enhances the government's ability to deliver effective and timely services

- Supports agencies in their efforts to improve government functions and, thereby, services

States develop their Medicaid EA to be consistent with the MITA architecture framework as well as the state CIO's EA, if one exists.

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

What Does the State Medicaid EA Include?

A state Medicaid EA consists of an overarching architecture that defines the elements necessary to develop the state's Combined Target Capabilities. It is based on the MITA architecture framework and is consistent with the guidance provided by the state EA. The state Medicaid EA includes the several key elements (see **Exhibit 4**). A description of these architecture artifacts is presented in the white paper entitled *Overview of the MITA Architecture Models*.

**Exhibit 4
Elements of a State Medicaid EA**

What Does a State Medicaid EA Include?

- State As-Is and To-Be Medicaid business architecture
  - State-specific current and target Business Process Models (developed in the Self-Assessment Phase)
  - List of business capabilities mapped to business processes (developed in the Self-Assessment Phase)
- State Medicaid As-Is and To-Be technical architecture
  - State As-Is and To-Be data architecture
  - As-Is and To-Be applications architecture
  - Technology architecture
- State cross-cutting architecture
  - Security architecture
  - Adaptability and expandability architecture

Many states and Medicaid agencies may already have some or parts of these products although they may not have a formal EA program.

Though the list of artifacts in Exhibit 4 looks formidable, the MITA framework provides a "starter kit" so that states can develop these elements relatively easily by both tailoring the corresponding MITA generic elements to support their combined target capabilities and adding architecture capabilities for state-unique capabilities.

One key element is to establish a collaborative and decision-making environment that fits the state, which includes:

- Establishing and integrating with existing communication and collaboration approaches
- Listening to stakeholders and involving them at significant steps along the way when making critical choices

The journey may take many twists and turns so the transition plan must be open to new challenges, new capabilities, and new approaches that collectively lead to new opportunities.

State Medicaid EA Development Steps

State Medicaid EA Development

Tailor

Document

Compile

State Medicaid EA development comprises three steps:

Step 1 – Compile state As-Is and To-Be business architecture. The first step is to complete the state Medicaid business architecture by building on the target business capabilities and the updated Business Process Model developed during the Self-Assessment Phase. Detailed narrative descriptions, input and output, and the data used are developed for each business process by tailoring the MITA business process descriptions to the specific needs of the state.

Step 2 – Document the As-Is state Medicaid data and technical architecture. Document the As-Is state Medicaid data and technical architecture by inventorying the state's existing IT assets to identify current systems, applications, and databases. Document the business applications and technical utilities comprising each system, the databases utilized by each application, and the IT platforms on which they run. Map each application to the business processes and capabilities they support.

Step 3 – Tailor MITA technical architecture to state needs. Review the MITA architecture framework, tailor the technical architecture models in the framework to reflect state needs in order to implement its Combined Target Capabilities, and make them consistent with the state's EA, if one exists. Examples of EA refinements include the following:

• Map each of the state's target capabilities to the specific data architecture elements (e.g., online database, data hubs, and warehouses), application architecture elements (business applications and services), and technical architecture elements (technical services) needed to implement the capability. As an example, the Level 3 capability for Provider Enrollment requires, among other capabilities:

– A business service for validating provider-supplied credential information against state and federal sources

– A rules database containing rules associated with eligibility of each type of provider

– Technical services such as a data management utility, for accessing a provider database containing registered provider Ids

• Identify state-specific technical service utilities such as integration with state legacy systems, interoperability with partner/state agency systems, and state data integration and sharing requirements

• Identify redundant and inconsistent databases and the new data architecture elements (e.g., data hubs and data warehouses) that are included in the target architecture

• Define state Medicaid technical and data standards based on the MITA and the state CIO-developed EA

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

The state keeps track of any issues or inconsistencies between the MITA EA framework and the state CIO-developed EA and brings them to the MITA and state CIO governance boards for resolution. States will need to capture their ideas and share them at conferences (e.g., MMIS conference) or with other state agencies to leverage available best practices.

While the MITA program encourages the development of a state Medicaid EA, many states may not have the resources or the time to generate a complete EA. In such cases states are encouraged to develop a conceptual-level architecture, and drill down to the architectural element level described previously for selected high-priority capabilities to realize quick hits, and to leverage these quick hits to obtain broader support for the EA program. The EA can then be detailed in a phased manner consistent with the resources available.

Phase 3 — Transition and Plan Development

As described earlier, the transition plan specifies a set of projects that move the state from the current to the target architecture. MITA provides states with a set of tools and techniques to assist them in identifying state IT assets as well as MITA solutions to develop a low-risk, cost-effective approach to implementing the Combined Target Capabilities. The state uses the project cost and schedule estimates and project dependencies to lay out the State Transition Plan, as shown in **Exhibit 5**. Collectively, the projects in the Transition Plan evolve a state from its current architecture to a target architecture in a series of manageable increments that meets the state's needs, priorities, and budget constraints.

**Exhibit 5
Overview of the
State Transition
Plan**
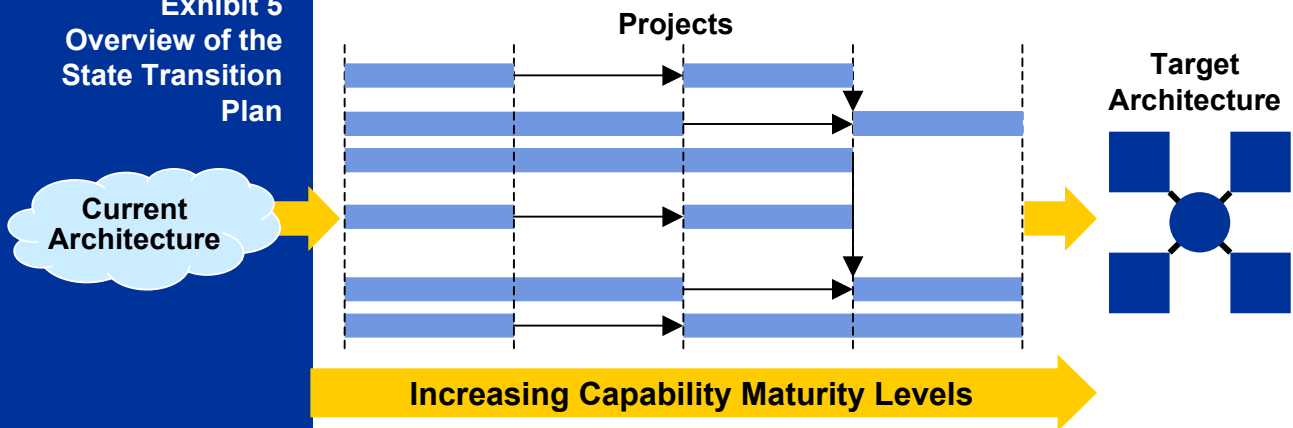
The transition plan is developed by allocating projects (shown in the blue horizontal bars in Exhibit 5) on a timeline consistent with project dependencies and need dates, and adjusting project schedules iteratively until the project costs in each budget period fit within the funding profile. The transition plan is developed in detail for the first few years, and refined periodically for later years to incorporate such changes as state business needs, funding profiles, and availability of new technologies.

Phase 4 — Transition Plan Execution and Iterative Updates

The transition plan should be actively maintained and managed based on priorities and value-based choices. At each stage, the transition plan will have to be adjusted and decisions revisited. Collaboration with key stakeholders may involve "replowing" some of the ground and planning for changes in a phase that is 12 to 18 months out. At each stage of the journey, states will need to take time to step back and review their accomplishments and lessons learned, and then move forward to address new challenges, use some of the new capabilities introduced, and initiate business innovations that have been enabled. Each step should deliver new value-based capabilities and improved performance for most of the stakeholders. Priorities and value-based choices, however, may be hard to make because any given decision may not work for all stakeholders; therefore, states will need to recognize and acknowledge this situation, and work with stakeholders to achieve consensus or, at least, alignment.

Benefits of Using the Process

The MITA Transition Planning Process presents a win-win situation both for the states and for the MITA program.

State Benefits

Using the MITA Transition Planning Process provides several tangible benefits to states:

• Providing a standardized planning process across states that supplements and simplifies states' transition planning

• Promoting value-based technology investments

• Allowing states to assess their own progress and compare themselves to other states using an objective self-assessment process

• Allowing states to objectively determine where their "weaknesses" are and to provide guidance in developing plans to resolve gaps and monitor progress in closing gaps

• Providing the ability to reuse and leverage common solutions within and across states, thereby potentially reducing cost and risk

• Planning collaborative activities with stakeholders

• Enabling faster generation and approval of APDs

Benefits for the Center for Medicaid and State Operations

The Center for Medicaid and State Operations (CMSO) will derive the following benefits from state gap analyses and self-assessments:

• Insights into state-specific needs that can be used to expand and refine the MITA framework

• A simplified evaluation of state APDs

• An overall cost and risk reduction of states' IT implementation

CMS
CENTERS for MEDICARE & MEDICAID SERVICES

Next Steps

Once a state has developed its transition plan, it will have developed IT project implementation approaches and cost and schedule estimates to a level whereby the state can prepare and submit its implementation APDs. The evaluation criteria are described in a separate white paper entitled *MITA and APDs*.

Finally, an important aspect of MITA's development is for us at the Centers for Medicare and Medicaid Services (CMS) to continue improving the effectiveness of our communication. We would greatly appreciate your feedback on this white paper. Did you find it useful? If not, why not? What can we do better in the future?

For further information, please contact:

Denise Bazemore, Technical Director

Division of State Systems, CMSO

Center for Medicare and Medicaid Services

U.S. Department of Health and Human Services

Phone: 410-786-4449

dbazemore@cms.hhs.gov

Thank you for your interest.