



Best Practices for MMIS Modularity

Key Considerations When Migrating Legacy Enterprise MMIS to Modularity

Industry Response Series from HHS Technology Group

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The Migration to Modularity – The MITA Plan

Learning the lessons of the unsuccessful launch of the MMIS program, CMS introduced Medicaid Information Technology Architecture (MITA) in 2006, strongly encouraging states to work together to create and use MMIS solutions that have shareable features. To facilitate that shareability, CMS subsequently introduced the concept of a [Modular MMIS System](#). Instead of awarding a full MMIS contract to a single vendor, CMS encouraged States to go with a modular approach. In this approach, the MMIS system is divided into separate modules, which can be customized by individual vendors based on the individual State requirements. The goal was rather than awarding full MMIS contracts to single vendors – and spending millions of dollars and years of effort that often failed – each vendor would be accountable for an individual modules and each state’s vendors would have to follow a standard set of requirements.

MITA Goals include:

- Develop seamless and integrated systems that effectively communicate, achieving
- Promote an environment that supports flexibility, adaptability, and rapid response to changes in programs and technology
- Promote an enterprise view that supports enabling technologies aligned with Medicaid business processes and technologies
- Provide data that is timely, accurate, usable, and easily accessible to support analysis and decision making for healthcare management and program administration

<u>MITA 2.0 Principles</u>	<u>MITA 3.0 Principles</u>
Open Architecture	Service Autonomy
Standards	Standardized Contracts
Modularity	Loose Coupling
Reusable Components	Reuse
Collaboration	Abstraction
Data Sharing	Discoverability
Security - SSO	Statelessness

- Provide performance measurement for accountability and planning
- Coordinate with Public Health and other partners and integrate health outcomes within the Medicaid community

Key Considerations for Your Modularity Roadmap

Subsequently, it was identified that many of the commercial off-the-shelf (COTS) applications and modules that have been added in recent years **still rely on legacy technologies** that have grown **too rigid** to alter or easily integrate across multiple platforms and/or providers. Connecting disparate technologies that weren't intended to operate with other systems remains a burdensome challenge.

Thus, CMS is encouraging States to think about new vendors with modular cloud-based, MMIS implementations and to start sharing the infrastructure resources and IT applications among themselves. Key concepts include:

1. **Using a single underlying technological platform** – first defining standards and processes and then acquiring applications and services as needed over the complete lifecycle of the platform. Once a State determines which platform to use, the information gathered will provide vendors solid guidance for how to build and integrate modules to run on the platform and integrate with other systems across State agencies.
2. **Establishing a set of data and process standards** – that must be adhered to for seamless integration and optimization across multiple platforms and modules. In this scenario, state officials provide guidelines for data and/or application programming interfaces (APIs). This guidance helps industry partners determine how best to implement modules that will meet the state's predefined standards.

3. **Flexible workflows and scalable architecture** – That provides the State agencies the ability to optimize processes via configurable workflows and rules engines in efforts to minimize administrative burden.

Contracting for Modularity – NASPO ValuePoint

In the summer of 2019, after exhaustive multi-state due diligence, six certified vendors to deliver MMIS Provider Management solutions under the NASPO ValuePoint contract. Specifically, these solutions were select as they are a COTS platform delivered as a compliant, SaaS-based CMS solution. Considering this route would save your department significant time and money by shortening the procurement cycle and leveraging the due diligence of other States. In addition, the Provider Management contract is designed to meet and expedite maximum Federal match dollars.

NASPO ValuePoint is a cooperative purchasing program facilitating public procurement solicitations and agreements using a lead-state model. They are a non-profit organization dedicated to providing State Chief Procurement Officers with the support and procurement resources they need.

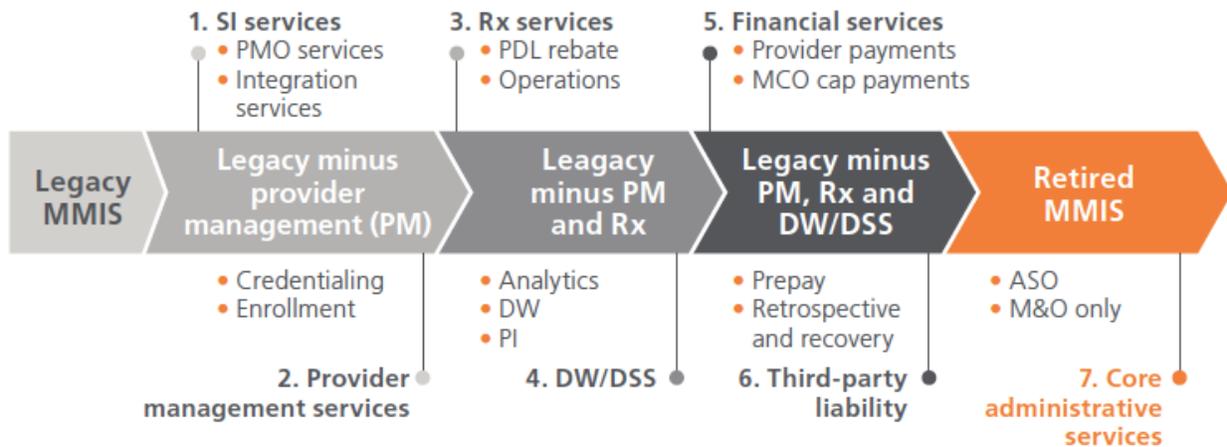
<https://www.naspovaluepoint.org/portfolio/mmis-provider-services-module-2018-2028/>

Subsequently, MMIS Claims Processing and Third-Party Liability (in process – Fall 2021) have been added to the NASPO Contracting consortium. TPL proposals are currently being evaluated by Georgia, Montana, Missouri, Rhode Island and Louisiana. With “intent to participate” letters from Alaska, California, Connecticut, Idaho, Louisiana, Maine, Missouri, Montana, New Mexico, North Carolina, Rhode Island, and Utah.

Where to Begin

Transitioning from a legacy MMIS to a new modular system is a daunting task, but one that can be accomplished. States are trying different approaches. Below is an example of how a legacy MMIS can be disaggregated while simultaneously implementing new modules that support your state’s future Medicaid Enterprise Systems (MES) model. Think of this as a “horizontal slicing” of the MMIS requirements into modules.

The implementation order can vary depending on your state’s organization. Here, we suggest starting by identifying your system integrator in order to establish your MES framework. Once determined, you can more easily plug in the modules. Below is an example of a staged, modular approach to replacing the entire legacy MMIS system.



The most popular perspective is to replace provider management first because clean provider data is critical for your “to-be” MES. In addition, Pharmacy and TPL is an easy stand-alone that can be implemented quickly and folded into the MMIS based upon your State’s priority. The enterprise data warehouse module should follow, because quality data is critical and can be used to monitor the implementation of other modules and to analyze program operations.

The financial services module, including provider payments, MCO capitated payments and accounts receivable/payable, could be moved to state finance

and accounting so that the MMIS is stripped down to its core function: processing claims. Then implement the claims processing module and retire the old MMIS with less disruption to the overall function of the Medicaid program.

Summary

A modular implementation approach to complex IT systems modernization, represents a new paradigm that offers compelling value in terms of flexibility, agility, rapid innovation and adaptive solutions.

Successful modular implementations require a careful solution decomposition leading to procurement of modules and an integration framework, enforcement of module boundaries and proper encapsulation, governance over an incremental implementation methodology and adjusted approach to maintenance and operations. The successful outcome will then result in an agile business enterprise and equally agile enterprise IT system. When done right, modular approach remediates many of the risks and costs of enterprise IT systems, particularly in the public sector.

We recommend adoption of a measured approach and use of a modularity maturity model to assess and achieve the required organizational readiness related to solution decomposition, procurement, governance, implementation and operations of a modular solution.

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