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A Golden Opportunity for Medicaid IT Transformation:

State CIOs and the MITA Framework

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Under Pressure:

Struggling with a slow recovery and budget pressures, states have been under political strains to sustain fiscal solvency while also upholding the health insurance support system for the neediest populations. At the state level, Medicaid spending has increased four times faster than elementary and secondary spending, five times faster than higher education spending, and nine times faster than transportation spending over the past two decades.[1] Many Governors have begun to explore options that exist as a result of the Patient Protection and Affordable Care Act (PPACA) of 2010 and other state leaders are still waiting to hear which way the United States Supreme Court will decide on the four topics heard during oral arguments in March of 2012 – Anti-Injunction Act, individual mandate, severability, and Medicaid expansion. In contrast to a few options that states have used to close budget shortfalls in recent years, such as benefit restrictions and provider rate cuts, the direct costs of Medicaid eligibility expansion will initially be fully-funded by Federal dollars.[2] The states will begin to bear part of that burden in 2017 and the percentage that states will be accountable for will increase in subsequent years leading to 2020. Governors, state CIOs, and other state leaders understand the importance of using information technology to not only find budgetary savings for the state, but also provide more convenient and efficient services for constituents.[3]

NASCIO had touched upon the topic of the Medicaid Information Technology Architecture (MITA) framework in the past and highlighted the disparities between state management of Medicaid systems. The issue brief *The MITA Touch: State CIOs and Medicaid IT Transformation* explored the guidance that the United States Department of Health and Human Services' (HHS) Centers for Medicare and Medicaid Services (CMS) formulated on the MITA vision and the emphasis on conformity across the enterprise.[4] Since the last iteration, state CIOs have continued to explore state health IT efforts and venues for which they can take an active role in exchanges, data management, interoperability and solutions offered by emerging technologies such as cloud computing.

"state CIOs can decouple legacy systems and break down existing silos in state government"

On March 28, 2012, CMS released the MITA 3.0 Framework, which is an updated collection of principles, models, and guidelines that together form a template for the states to use when developing their own enterprise architectures. It is imperative that state CIOs continue to coordinate with agency and department CIOs on an enterprise view of linking agency silos and implement a unified framework. This will include integrating business, information and technological approaches to building management systems. The vision is that these systems will be capable of sharing information across organizational silos based upon nationally recognized standards.[5]
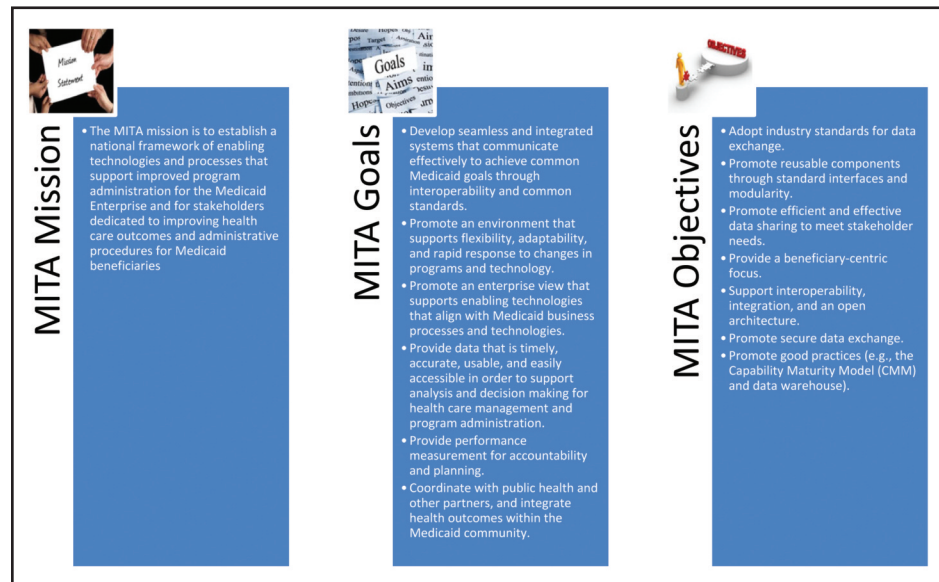
Major changes to MITA, which will later be explored in further detail, account for the legislative requirements that have been set forth by the Health Information Technology for Economic and Clinical Health Act, the Children's Health Insurance Program Reauthorization Act, and the Affordable Care Act. These are but a few of which went into effect since MITA 2.0 was published in 2006. Other issues that will be discussed are the framework for MITA 3.0, use of newer technologies such as cloud computing, the state self-assessments, advanced planning documents, and the opportunity for states to benefit from enhanced federal funding.

This is an unprecedented time for health IT in the United States, and the backbone of achieving lower costs, better health outcomes, and system interoperability relies on an enterprise view. NASCIO has been an advocate for enterprise solutions and view the MITA framework as a way state CIOs can decouple legacy systems and break down existing silos in state government.

MITA: A Framework for the Future

The MITA team at CMS has been tasked with the challenging goals of providing quality health care to eligible constituents by providing access to the right services for the right people at the right time for the right costs.[6] Not an easy task when working with highly complex systems worth millions of dollars, but it is clear that there needs to be a national framework for enabling technologies and processes. The mission, goals, and objectives for the Medicaid enterprise are shown in Figure 1.
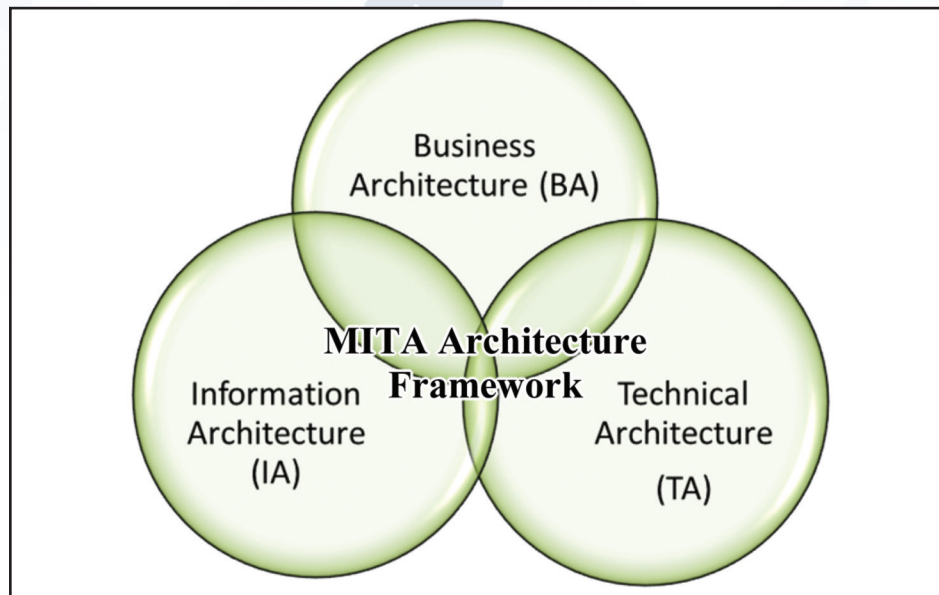
Figure 1 – MITA Mission, Goals, and Objectives[7]

MITA Mission
- The MITA mission is to establish a national framework of enabling technologies and processes that support improved program administration for the Medicaid Enterprise and for stakeholders dedicated to improving health care outcomes and administrative procedures for Medicaid beneficiaries

MITA Goals
- Develop seamless and integrated systems that communicate effectively to achieve common Medicaid goals through interoperability and common standards.
- Promote an environment that supports flexibility, adaptability, and rapid response to changes in programs and technology.
- Promote an enterprise view that supports enabling technologies that align with Medicaid business processes and technologies.
- Provide data that is timely, accurate, usable, and easily accessible in order to support analysis and decision making for health care management and program administration.
- Provide performance measurement for accountability and planning.
- Coordinate with public health and other partners, and integrate health outcomes within the Medicaid community.

MITA Objectives
- Adopt industry standards for data exchange.
- Promote reusable components through standard interfaces and modularity.
- Promote efficient and effective data sharing to meet stakeholder needs.
- Provide a beneficiary-centric focus.
- Support interoperability, integration, and an open architecture.
- Promote secure data exchange.
- Promote good practices (e.g., the Capability Maturity Model (CMM) and data warehouse).

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The Properties of the MITA Framework

The MITA framework is an evolving initiative that seeks to improve the Medicaid enterprise and also keep pace with trends such as Service-Orientated Architecture (SOA) and cloud computing. We will discuss in further detail the major changes from the 2006 version of MITA 2.0/2.01 and the recently released MITA 3.0 version, but first we need to explain how MITA is both an initiative and framework. As an initiative, MITA promotes a system that states can use to make improvements to the Medicaid enterprise. As a framework, MITA is blueprint consisting of models, guidelines, and principles for states as they implement enterprise solutions.[8] In this section we will describe the three architecture segments that, when combined, create the MITA Framework.

Figure 2 – MITA Architecture Framework

Business Architecture (BA)-

Business architecture hosts a set of complexities that exist within state government and are difficult to describe because of the numerous relationships and stakeholders involved. Major parts of enterprise architecture, and the MITA Framework, are business related and it is essential that these foundational components of the architecture framework have a clearly defined strategic intent.

Business architecture must start with an environmental context and provide the framework for improvements in the Medicaid enterprise operations. Improved outcomes for all stakeholders will come as a result of factoring in economic, legal, political, and citizen expectations. As noted in the NASCIO Enterprise Architecture Development Tool-Kit, information technology is not only a tool for government, but also a driver for transforming the operations of government. States will be able to use the MITA business architecture to assess their "as-is" business capabilities and set goals for future improvements.

The MITA 3.0 business architecture includes models, matrices, and templates. These components derive from a variety of industry standards because no sin-

gle methodology exists that meets the scope of MITA. The MITA Framework breaks new ground and is a model for other federal, state, and local entities.

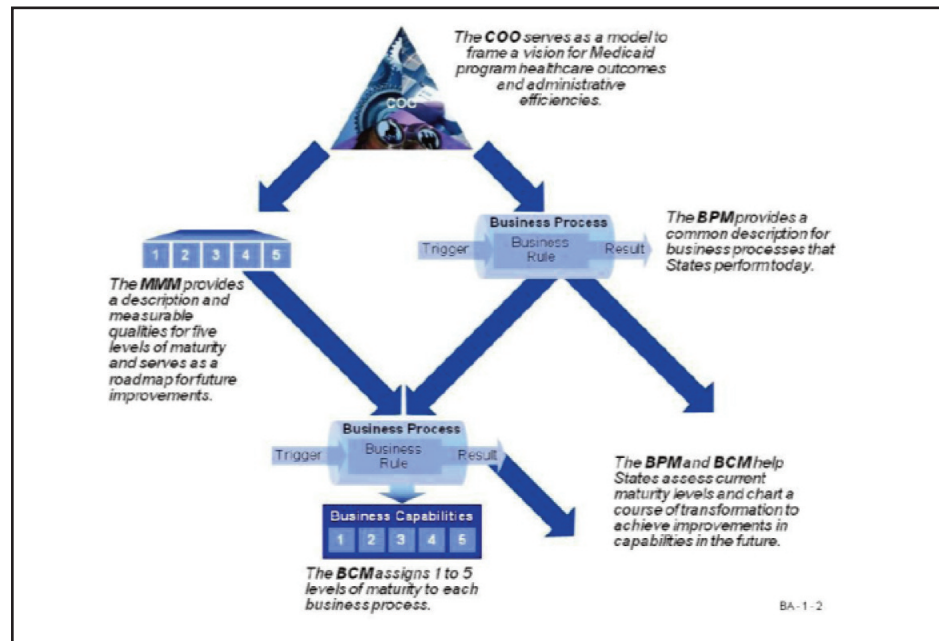The MITA BA contains four (4) key components and Figure 3 demonstrates the relationship amongst them[9]:

Concept of Operations (COO) – The COO describes current operations, a vision of transformation, transformations to stakeholder roles and information exchanges, and the influence of enablers (e.g. new policy, legislation, technology).

MITA Maturity Model (MMM) – Subdivided into five (5) levels of progressive maturity, MMM illustrates how to transform goals, objectives, and business capabilities progress. (More details are outlined in Figure 4 and provides a high level view of the "as-is" and "to-be" for states)

Business Process Model (BPM) – The BPM is a collection of common business processes for the operation of Medicaid programs. States can use a template that is provided by CMS to capture the description of each business process. The business processes cover current and near-term operations within the state.
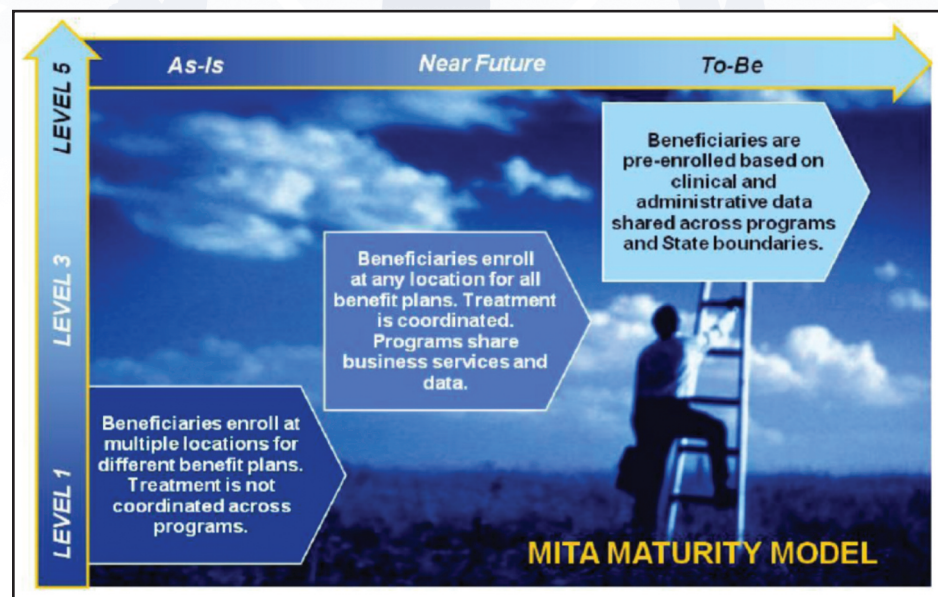
Business Capability Matrix (BCM) – Subdivided into five (5) levels of maturity, the BCM applies the MMM to the BPM to derive capabilities for each business process at each maturity level. The BCM describes how to transform and improve a business process.

Figure 3 – Relationship amongst components of Business Architecture[10]

States will need a way to measure the "as-is" of Medicaid enterprise operations and set goals for the "to-be" goals. MITA 3.0 has addressed this concern and provides a maturity model that defines how business capabilities evolve to higher levels of maturity. The MITA 3.0 Business Architecture section defines the MITA Maturity Model (MMM) as five levels. Level 1 of the MMM include capabilities to demonstrate adherence to federal and state legislative mandates. Level 2 improves over Level 1 with the introduction of quality improvements and data access achieved by the implementation of technology standards. Level 3 has high use of industry standards for data exchange and the State Medicaid Agency (SMA) is collaborating with intrastate agencies to improve health care coordination. Level 4 introduces the intrastate and interstate exchange of clinical information. Seamless coordination, real-time processing, and the integration of state and federal agencies are the defining capability for Level 5.[11] Figure 4 demonstrates how the 5 levels are integrated into the scaling system for the MMM.

Figure 4 – MITA Maturity Model (MMM)[12]

Federal, state and local governments continually face mandates for interagency sharing of information and for providing bundled services. Business architecture provides a business-based framework for developing solutions that operate across agencies and within the lines of business for federal, state and local governments. By looking at the architectures of stakeholders in the Medicaid enterprise it will increase the likelihood of interoperability amongst all governmental bodies, both vertically and horizontally.[13]

Information Architecture (IA)-

One of the key assets to the Medicaid enterprise is information. In order for state CIOs and other stakeholders to have the ability to quickly and accurately transfer information, the data must first be organized into usable formats. Information architecture seeks to address the informational needs of the enterprise and align with the business processes of the information systems associated with these programs. By providing a demonstrable, repeatable approach in aligning information assets, information architecture gives

states a clear understanding of the enterprise's current and future needs. Because the BA and IA together map enterprise data and business processes, this provides the basis for sharing information throughout the enterprise as well as organizational boundaries. The IA also serves as the bridge between the BA and TA by providing the framework to go from the BA's information requirements to the TA's message requirements.[14]

CMS has described the MITA IA as consisting of the following five (5) components[15]:

Data Management Strategy (DMS) - The MITA Data Management Strategy (DMS) provides seamless interoperability within and across the Medicaid Enterprise. Increasingly, State Medicaid Enterprises need to exchange and share information internally and with other state and federal agencies, organizations, and enterprises. This is especially true as Medicaid works toward its vision of developing integrated systems that effectively communicate to achieve common Medicaid goals.

States originally built Medicaid systems to satisfy the Medicaid organizations' own and federal business needs. The States did not design them to interoperate seamlessly with other systems within the enterprise, let alone with external systems and applications. States need to extend current data and information activities to include data sharing, seamless integration, reuse, and semantic operability at the enterprise level, while maintaining data quality and integrity. The DMS coordinates this effort for State Medicaid Enterprises, with the goal of getting the right data to the right people at the right time.

As States evolve and begin aligning their technology with MITA, they will see a shift from traditional siloed methodologies to an enterprise approach that includes sharing data with other health and human service-related systems and entities such as public health, Internal Revenue Service (IRS), Child Health Insurance Programs (CHIP), Pharmacy Benefits Management (PBM), etc. In the future, States will replace the traditional way of using interfaces to address their data sharing needs by developing standardized message formats containing the same data elements and formats to exchange data with external state, regional, and national entities.

Conceptual Data Model (CDM) – 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).
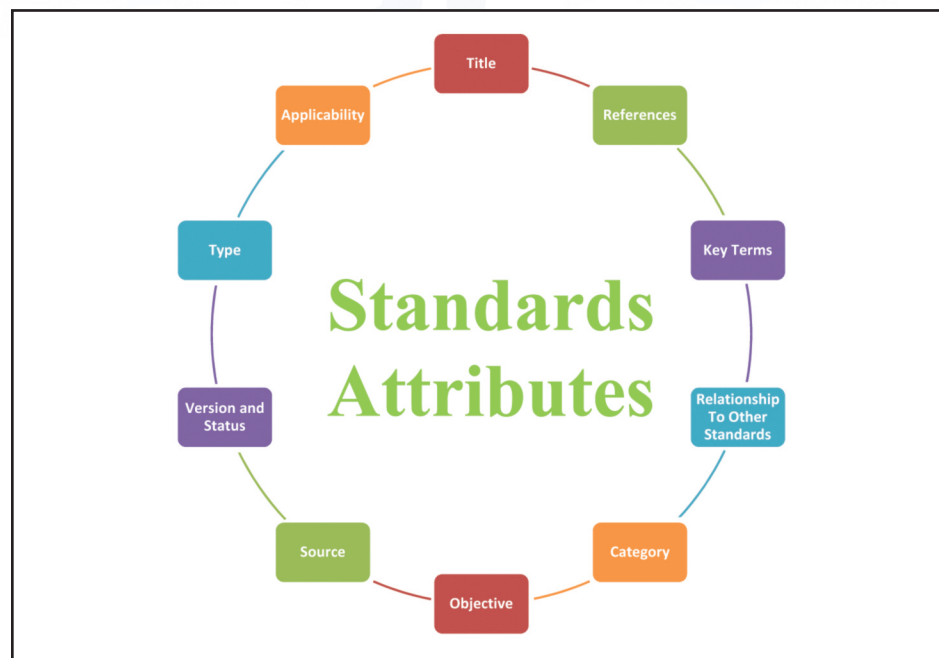
Logical Data Model (LDM) – A Logical Data Model (LDM) is a preliminary representation that serves as the plan from which architects and designers construct the final object. Data models document the data (and the characteristics of that data) required to satisfy the needs of

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the State Medicaid Enterprise. The LDM also provides guidance and specifics to IT staff (e.g., States or vendors) how to design MITA enterprise service interfaces. The LDM provides a mechanism for ensuring the completeness of the business model and serves as a tool that enables the reengineering of Medicaid business processes. Specifically, Medicaid system architects and designers use the MITA data models for guidance in developing messages produced by technical services for plug-and-play and interoperable Medicaid business and technical services.

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 attributes demonstrated in Figure 5.

Figure 5 – Standard Attributes

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. Both NASCIO and CMS also continue to support harmonizing data standards across disparate groups.

Information Capability Matrix - The Information Capability Matrix (ICM) describes each IA component (Data Management Strategy, Conceptual Data Model, Logical Data Model, and Data Standards) at a specific level of MITA maturity. The IA capabilities used in the ICM result from applying the MITA

Maturity Model's definitions of the five levels of maturity to each business process to derive specific information architecture capabilities.

Information architecture can be used as a way for states to re-use, share, and exchange information in a way that reduces redundancies. By creating clear understanding of the Medicaid enterprise formal linkages it is possible to demonstrate a repeatable approach to information exchange and identify future process improvements.

Technical Architecture (TA)-

When considering the important factors of the technical architecture for the Medicaid enterprise, it is important to first remember that it will need to be a flexible, reliable, scalable, and secure system. By having increased flexibility it will allow technical architecture to conform to future requirements, like the increased eligibility and enrollment that will occur because of mandates set forth in the Affordable Care Act. Finding the right balance between technical agility and efficiency has always been challenging for states, but balancing these tools for success amongst stakeholders is imperative for success.

The technical architecture framework is designed to assist state CIOs and state leaders with a strategy and a roadmap for leveraging the latest advancements in technology from an enterprise perspective. States should consider the benefits of standards-based approach to building a Medicaid enterprise that facilitates the reuse of solutions and integrates Commercial Off-the-Shelf (COTS) products to reduce development and IT costs to the states and CMS.

The MITA technical architecture contains six (6) components that are an integrated architecture that provide standardization, data sharing, and interoperability.[16]

Technical Management Strategy – Provides the background and process for expanding Medicaid systems to incorporate modern-day technologies into the Medicaid Enterprise. The involvement of sound software design architecture practices and technology advances such as cloud computing will provide the foundation for enhanced capabilities.

Business Services – Implements a business capability for a business process. It is a basic element in cloud computing and service orientated architecture. The goal of the TA is to specify business services that allow interoperable Medicaid business processes.

Technical Services – Consists of a detailed set of technical functions that collectively define the MITA technology infrastructure. Within a given technical services classification (TSC) and corresponding technical services area (TSA), the TA defines the technical software services and provides a plug and play environment.

Application Architecture – Provides the information necessary to develop enterprise applications using business and technical services. AA can be used to create a workflow and will orchestrate the execution process.

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Technology Standards – Consists of the Technical Reference Model (TRM) and a Standards Profile. The TRM is a list of technical services, either aggregated or broken down into levels, that specifies the standards. The Standards Profile includes current, future, and emerging industry standards.

Technical Capability Matrix – Defines a set of high-level technical functions to enable the MITA business capabilities, and support the success of the Medicaid mission and goals, while meeting the MITA goals and objectives. The TCM supplements the Business Capability Matrix (BCM), and the Information Capability Matrix (ICM) in defining a benchmark for States to transform themselves in accordance with MITA principles. Each technical capability consists of one or more technical services. The TCM allows a state to demonstrate how a business area matures over time.

MITA Architectural Dependencies-

As with many frameworks, three architectures make up the MITA framework. BA, IA, and TA are interrelated and function together to provide the Medicaid enterprise solution. The BA describes the business processes along with data input, data output, and required shared data. The IA provides the bridge between the business view of operations and the technical view of the data. The TA describes the technology enablers associated with different levels of maturity.[17] It is paramount for state CIOs and state leaders to understand the dependencies that each has to one another.

MITA Adapts to Emerging Technology

The MITA Framework 3.0 continues to evolve and has resulted in the enhancement of MITA Framework 2.0 and 2.01. In order to determine changes that would need to be made, CMS thoroughly examined the American Recovery and Reinvestment Act, HITECH Act, HIPAA, Affordable Care Act of 2010, and other regulations to ensure modifications would include the proper industry standards and guidance on emerging technologies.

New business procedures and business processes have been added to this iteration to comply with new regulations. The new framework also includes technological methodologies and advancements that some state CIOs and state leaders have already begun to embrace. Cloud computing was announced as a top five (5) priority strategy and a top three (3) priority technology in the State CIO Priorities for 2012. In addition, Service Oriented Architecture has been embraced by NASCIO in the past as a way to enable a more agile enterprise. Both of these advancements are paramount for states to consider when developing the Medicaid enterprise.

Service Oriented Architecture (SOA) –

Service Oriented Architecture (SOA) has presented itself as a significant innovation for industry, state, federal government, and the vendor community. States will be able to quickly pick and choose business and technology services based on organizational re-design, new strategic intent, legislative requirements, or business process modifications.[18] It is important to note that SOA is not another technology or a replacement to enterprise architecture. As

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pointed out in the 2006 NASCIO Research Brief [Service Oriented Architecture: An Enabler of the Agile Enterprise in State Government](#), SOA is a sophisticated philosophy that enables the enterprise to act in an agile and expedient manner when disruptions or regulatory changes occur.

In addition to numerous states Medicaid systems being outdated, other key challenges that states are wrestling with have been pointed out in the MITA Information Series on Service Orientated Architecture.[19] Below you will find a few of the existing challenges that can be overcome through using the fundamentals of SOA:

- Highly interconnected systems using point-to-point interfaces require pervasive modifications to accommodate changes to business requirements, making them difficult to change.
- Users must navigate through multiple functional systems to perform a single task.
- MMIS, to a large extent, is platform dependent, and does not communicate easily across functional or technical boundaries, which makes it difficult to share information or reuse functionality.

Over time, the projected norm for states will be to design for reuse. This will include reusing components of legacy systems that are already in place. The future for the Medicaid enterprise looks more promising for sharing amongst constituents when broad re-use and reassembly becomes a reality. Before embracing SOA as part of an embedded philosophy of enterprise architecture, state CIOs and state leaders should first consider the following points:

- Is the Medicaid enterprise environment ready to accept SOA?
- Is your state ready to implement a collaborative governance structure for SOA?
- Will personnel need training and what skill sets will need attention?
- What is an acceptable and realistic return on investment? What funding is available?
- Are management, IT, and business organization in agreement and committed?

Cloud Computing –

The federal government continues to pursue a "cloud first" strategy as a result of the Federal Cloud Computing strategy that was released in February of 2011 and states have also begun to explore the security, reliability, and overall costs that may be associated with leveraging reusable components.[20] States that combine cloud computing with SOA will enable the end-users to access the Medicaid enterprise using any web browser. By making services available through any internet source it creates a device agnostic environment that can be utilized instantaneously at any location. Anyone who has had the misfortune of losing a computing device or mobile phone understands how valuable it would be to have all of that saved information back at their fingertips through a simple log-in procedure.

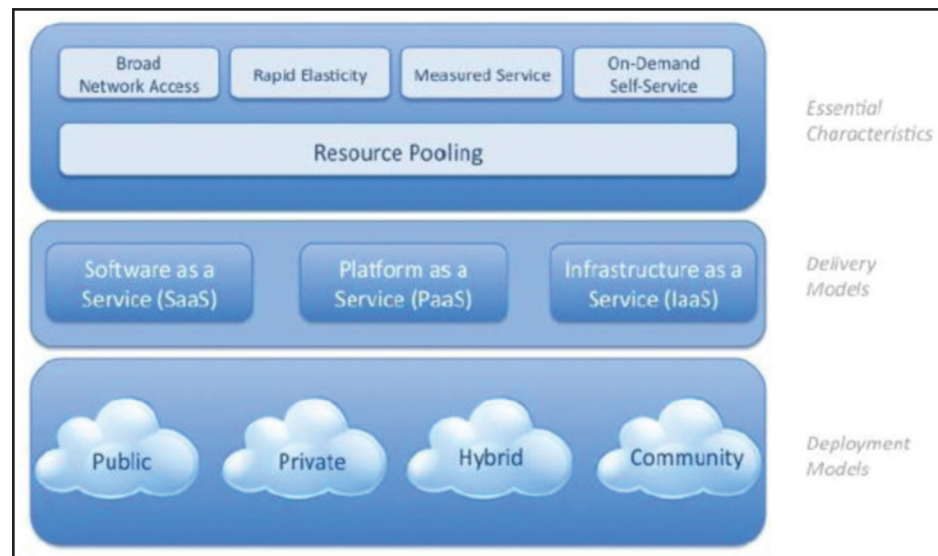CMS has embraced the following business cases for using cloud computing[21]:

- **Increased Business Agility** – The basic doctrine that declares every State Medicaid Enterprise to operate the same year after year. Business changes and uncertainty are the rule, including changes in policies, procedures, laws, and regulations. States design the MITA Framework changes and include a built-in change deployment

process. Business innovation enables this approach and allows changes to occur with business-oriented tools.

- **Business Drives the Enterprise** – The MITA initiative enables the user to interact in a business-centric way without being concerned with the IT implications. Conversely, it enables the introduction of IT without extensive change to the enterprise
- **Facilitates Greater Reuse** – By following these standards constituent organizations develop reusable business and technical services. Reuse typically has three benefits:
  ○ Lower costs
  ○ Reduced development schedules
  ○ Lower implementation risk
- **Promotes Insertion of New Technology** – The layered environment establishes platform- or technology-specific characteristics that are separate from the top-level business and technical application services. As a result, the impact of inserting new technology is local to the layer that uses the technology.

The definitions for the various aspects of cloud computing have been well described by the National Institute of Science and Technology (NIST). NIST has defined the characteristics, the service models and deployment models for cloud computing.[22] Those definitions have been used as foundational concepts for NASCIO's publications on cloud computing and the principles can be explored in further detail at the National Institute of Science and Technology website: www.nist.gov/itl/csd/cloud-102511.cfm. Below you will see a visual model for the NIST Working Definition of Cloud Computing.

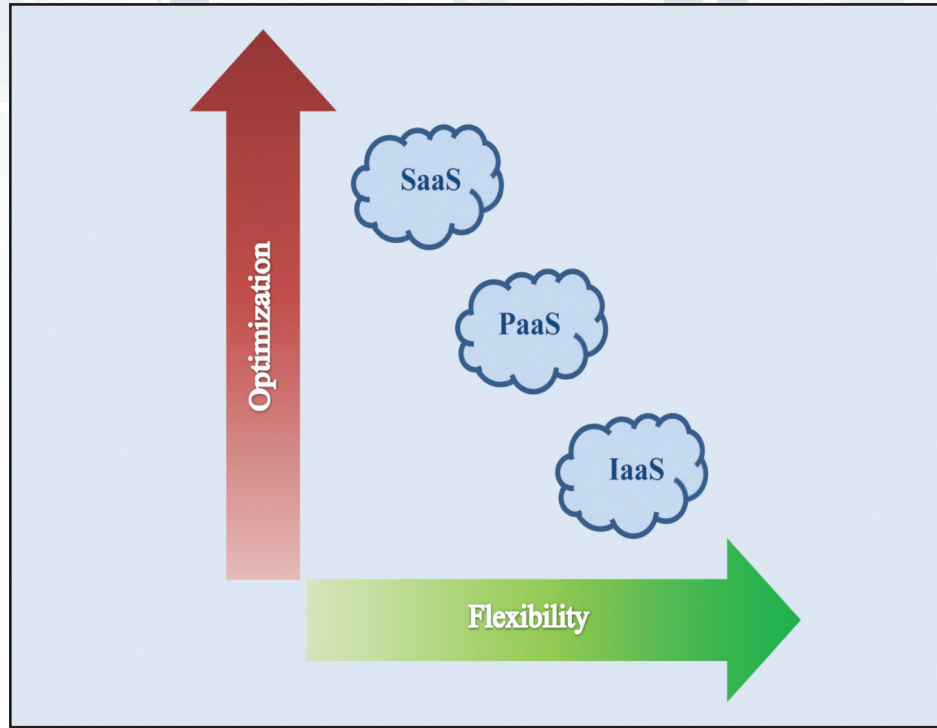*Figure 6 - Visual Model of the NIST Working Definition of Cloud Computing*

While Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS) are the three most common cloud-based service offerings, it must be determined which service model(s) are appropriate for the government asset, process, function, or management initiative. The top of the service model stack provides the greatest level of service provider provisioning of security and customer readiness. The bottom of the service model stack requires the greatest level of customer provisioning of security

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and development of functionality. The IaaS layer provides the foundation for all cloud services. Higher level layers inherit the strengths and weaknesses of the underlying layer in terms of risk, vulnerability and security. It is important for state CIOs and state leaders to determine the appropriate service model that will provide a balance between functionality and extensibility.[23] Figure 7 demonstrates the level of optimization and flexibility for the existing service models.

Figure 7- Optimization and Flexibility of Services[24]

In addition to the delivery models, NIST has described the various types of cloud deployment models that exist: public cloud, private hybrid, and community cloud. CMS has provided a few considerations on viable cloud deployment models for the state Medicaid enterprise and stated that the more conceivable options would be a federal community cloud or a hybrid cloud that would allow for portions of the application solution to reside in a cloud environment.[25] The hybrid model would give state CIOs and states a transition period, but consideration should also be devoted to SaaS because in time it may provide the highest level of optimization.

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States Lucky Number – The Seven Standards and Conditions

In addition to the major technological changes made to MITA, this is also an unprecedented time for funding in the states and in order to receive initial and ongoing approval for enhanced funding, states must meet the seven conditions and standards that CMS issued during April of 2011. The seven conditions and standards that must be met to receive federal funding are:

1. **Modularity Standard** - use of a modular, flexible approach to systems development.
2. **MITA Condition** - requires states to align with, and advance increasingly in, MITA maturity for business, architecture, and data.
3. **Industry Standards Condition** - ensures States alignment with, and incorporation of, industry standards.
4. **Leverage Condition** - promotes solution sharing, leverage, and reuse of Medicaid technologies and systems within and among states.
5. **Business Results Condition** - Supports accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.
6. **Reporting Condition** - requires states to produce transaction data, reports, and performance information
7. **Interoperability Condition** - ensures seamless coordination and integration with the Exchange (whether run by the state or federal government), and allows interoperability.

For states to qualify for enhanced federal funding, all projects must comply with the seven standards and conditions. That means that every health insurance exchange, eligibility and enrollment project, or new Medicaid Management Information System (MMIS) must comply upon start of operations. This is of course dependent upon the Supreme Court's decision on what will be deemed constitutional or unconstitutional. For more information and more specific requirements states must meet, please reference the CMS Medicaid IT Supplement announcement.[26]

Win-Win Situation for Stakeholders

MITA provides an opportunity for states, the federal government, vendors, and the public to come together and achieve greater results. Although there are enormous potential benefits of such a partnership, there are also risks such as mission alignment and vertical and horizontal organizational synchronization that could make such cooperative effort a disaster. The potential benefits to stakeholders, if aligned properly with the MITA initiative, can create a "win-win" situation for all parties involved. Figure 8 points out a few of the potential benefits.

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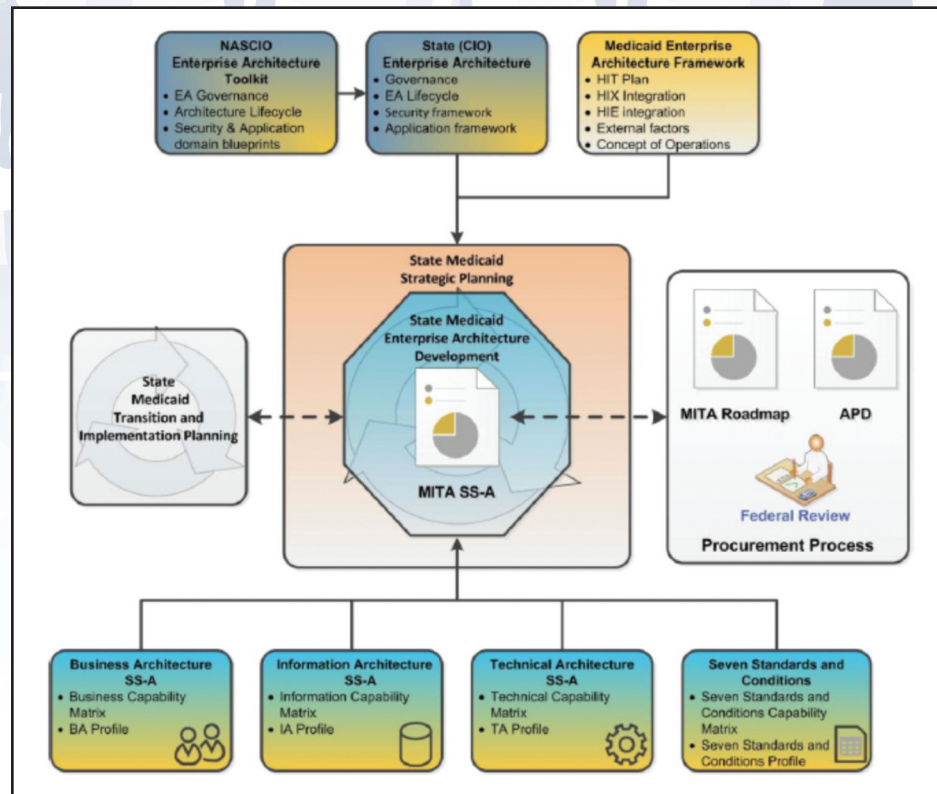
Figure 8 – Potential Stakeholder Benefits

Navigating MITA and the Transition Planning Process

Much like the MITA initiative, which captures components as they exist at this point in time, states will also need to be able to take a snapshot of the "as-is" to properly begin preparation for the "to-be" Medicaid enterprise. MITA 3.0 has built upon previous iterations and has provided a tool which states should follow for strategic planning purposes. The MITA State Self-Assessment (SS-A) companion guide consists of five (5) key components and numerous scorecard templates that will aid states in completing the SS-A. The five (5) major components of the SS-A are:

- Advanced Planning Document Checklist
- Business Architecture Profile
- Information Architecture Profile
- Technical Architecture Profile
- Seven Standards and Conditions Profile

In addition to the SS-A, CMS recommends that state Medicaid agencies leverage artifacts, blueprints, guidelines, and frameworks from the NASCIO Enterprise Architecture Toolkit, state enterprise architecture efforts, and the MITA Framework. An illustrative diagram of the activities necessary for conducting a state Medicaid enterprise self-assessment have been illustrated in Figure 9.[27]

Figure 9 – Activity for Conducting the State Self-Assessment

State CIOs are a key stakeholder in transition planning and should consider the following high-level steps as reference if the state plans to adopt an enterprise architecture methodology that can evolve within the environment in which it operates.[28]

- Focus on clarifying the state Medicaid enterprise strategy.
- Leverage the State Self-Assessment tool to find new capabilities.
- Project development should include state Medicaid enterprise architecture so there is a cohesive blueprint for aligning the state's business with technical architectures and ensuring that IT investments align with business needs.
- Use transition plan development for identifying specific projects that deliver the target capabilities.
- Transition plan execution and iterative updates should be done periodically by collecting business outcomes of projects. This data will be valuable for benchmarking future projects and may be used to report to state legislatures and stakeholder groups.
- It is imperative to involve stakeholders in a collaborative manner at each step of transition planning.

Thwarting Enterprise Threats

Threats to Personally Identifiable Information (PII) and Personal Health Information (PHI) are growing in frequency and complexity—both from the inside and the outside. Merely complying with the mandates of HIPAA is no longer enough to keep Medicaid data secure because of the inherent incentives for criminals to use PII and PHI to commit fraudulent acts. The economic repercussions of identity theft have been closely monitored and it has been esti-

mated by the Ponemon Institute that victims will on average pay about $20,000 to resolve each medical identity theft incident.   Considering that about 6 percent of the U.S. population have been victimized by medical identity theft it has created a significant burden to citizens and liable parties.

The 2010 Deloitte-NASCIO Cybersecurity Study found that states need to do more to secure citizen data and maintain public trust, but many states are still in the early stages of establishing enterprise-wide programs and deploying technology to fully protect this sensitive data. Because state agencies rely heavily on the services of third-party providers that have access to sensitive information, it is crucial that states enforce third-party security. Data from the 2010 Deloitte-NASCIO Cybersecurity Study supported this claim. A full 20 percent of the respondents reported they were "not very confident" at all in the information security practices of their third parties, and 69 percent of the survey respondents indicated they were only "somewhat confident." The study further emphasizes the importance of creating a "cyber mindset" within respective enterprises, and in this case it would include turning to education and awareness to combat threats to the Medicaid enterprise. Findings from the survey also underscored funding problems faced by state IT security and the complexity of the service delivery environment.

In response to the need for well-articulated and clearly understood security requirements on both the provider side and the business side, NASCIO developed a core state security services taxonomy in October 2011. The guidance set forth in The Heart of the Matter: A Core Services Taxonomy for State Security Programs can be used by state CIOs to align the Medicaid enterprise with the use of cloud computing services and SOA. The common vocabulary that is set forth in the taxonomy will help states to identify and report security expenditures in a time when every dollar invested in security needs to be maximized in order to fulfill enterprise goals.

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The Path Ahead

MITA will have a dramatic impact on all of the key stakeholders. States will be better prepared for the way they build, change and modify existing Medicaid system. In addition the advanced planning that states perform will result in better IT investments and outcomes. CMS will be able to convey a holistic view for state Medicaid systems and ensure that criteria are met for MITA goals and objectives. The vendors will also be able to use MITA as a way to strategize on products that they offer and leverage existing systems in multiple jurisdictions. One of groups that will benefit the most, eligible citizens, will have greater independence, enhanced privacy, access to quality care, and hopefully better health outcomes.

While the state CIO may not be the lead on MITA transformation, it is crucial that they are informed and engaged in these efforts. Many of the principles that state CIOs apply to the state enterprise can be applied to MITA implementation. While the current status of your state's Medicaid enterprise may not glisten, now is a golden opportunity for transformation through adhering to MITA principles, goals, and objectives.

Below are a few considerations that state CIOs and state leaders should consider when following the MITA framework roadmap.

- Has your state contemplated using cloud computing for the Medicaid enterprise?
- Does your state promote an environment that supports flexibility, adaptability, and rapid response to changes in programs and technology?
- Can you currently provide performance standards for accountability and planning?
- Is the state enterprise view supportive of enabling state technologies that align with state business processes?
- What security and privacy enhancing policies have been integrated into the Medicaid enterprise?
- Are the standards being used in your states Medicaid enterprise interoperable?
- What steps are being taken to ensure that accurate and current data is being used?
- Have you considered the re-use of software and hardware components and leveraging modularity at an enterprise level?
- What challenges exist when breaking down artificial boundaries between systems, geography, and funding?

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