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Colorado Department of Health Care Policy and Financing

MITA State Self-Assessment Report

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1 – Executive Summary

Public Knowledge conducted a Medicaid Information Technology Architecture State Self-Assessment (SS-A) on behalf of the Department of Health Care Policy and Financing (HCPF) between February and April 2014. The Centers for Medicare & Medicaid Services (CMS) introduced MITA as a framework to assist states with improving the operation of their Medicaid programs.

This assessment is based on MITA Framework 3.0, released by CMS in 2012. It is focused on a review of the Business Architecture, Information Architecture, Technical Architecture, and Seven Standards and Conditions presented in the MITA Framework. It identifies the current "As-Is" capabilities of the Colorado Medicaid program, assesses the future "To-Be" level of capability, and provides a roadmap for achieving the future maturity level.

1.1   What is MITA?

CMS introduced the MITA framework to assist states with improving the operation of their Medicaid programs. A State Self-Assessment (SS-A) documenting the State's maturity level of the Business Architecture, Information Architecture, the Technical Architecture, and the Seven Standards and Conditions is a prerequisite for requesting enhanced federal funds to improve the Medicaid enterprise.

MITA provides a standardized framework that allows the State to pay for the Medicaid enterprise's upcoming system improvements and implementations with enhanced CMS funding. More than a "compliance" activity, MITA facilitates transformation of business processes, required data and information, and supportive technology of the Medicaid organization.

In addition to the purposes described above, the MITA Framework ultimately benefits the public, states, the federal government, and Medicaid vendors in the following ways:

- **Public** — One-stop shop for financial assistance; widespread use of electronic health records; greater beneficiary access to quality care; greater choice and independence for beneficiaries; improved public health outcomes; reduction in fraudulent activity; and improved return on state and federal investments.

- **States** — Participate in health reform; alignment with federal grant requirements; improved enterprise architecture documentation; support for consumer assistance; enhanced prevention and wellness; increased business relationships; enhanced performance reporting improvements in the management of the Medicaid program; improved return on state IT investment; and IT alignment with Medicaid priorities.

- **Federal Government** — Improved CMS review of state Medicaid IT plans and systems; improved strategic planning and policy formulation; alignment with national health information initiatives; collection of national resources; and seamless coordination and integration.

- **Vendors** — Help shape product offerings; consult framework to determine product and service alignment; develop web services; and assist state customers in adopting MITA principles.

The MITA initiative produced three architecture frameworks – business, information, and technical – along with a business maturity model for process improvement. The maturity model guides the planning of technology and infrastructure build-out to meet the changing business needs of Medicaid programs. MITA enables state Medicaid enterprises to meet common, national objectives within the MITA Framework, while still supporting the local, individual needs of a particular state.

In April 2007, CMS introduced a new national initiative, CMS-2010-0251, encouraging states to conduct assessments of their Medicaid business process model against the MITA Business Process Model. Medicaid technology investments include traditional claims processing systems, as well as eligibility systems. In 2009, CMS released version 2.01 of the MITA framework. Version 3.0 was released in 2012, and was used as the basis for this SS-A.

As mentioned above, there are three architectural layers that make up the MITA Framework:

- **Business Architecture** — a layer that focuses on business processes and a maturity model that describes in detail how Medicaid operations are expected to mature over time

- **Information Architecture** — a layer that focuses on data and information to support the business architecture, including data management strategies and data standards

- **Technical Architecture** — a layer that focuses on the technology that supports both the information architecture and business capabilities, and defines a set of services and standards that states can use to plan and specify their future systems

As compared to MITA version 2.01, the Information and Technical Architectures were more thoroughly defined in MITA version 3.0. In addition, the Business Architecture was modified for the 2012 release. The Seven Standards and Conditions were also incorporated into version 3.0.

In 2011, CMS finalized the regulation establishing the Seven Standards and Conditions. States intending to qualify for enhanced federal funding for IT investments must describe in their request for funding how the intended investment will meet the Seven Standards and Conditions. The Seven Standards and Conditions include the Modularity Standard, MITA Condition, Industry Standards Condition, Leverage Condition, Business Results Condition, Reporting Condition, and Interoperability Condition. In addition to the three architectures described above, the Seven Standards and Conditions comprise a fourth layer of the MITA Framework.

1.1.1   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 clients.

1.1.2   MITA Goals

The MITA Framework, process, and planning guidelines are designed to align technology planning with Medicaid business needs and objectives. The primary goals of MITA are:

- Seamless and integrated systems with effective communication.

- Common Medicaid goals through interoperability and shared standards.

- Promoting environments that are flexible, adaptable, and can rapidly respond to changes in programs and technology.

- Promotion of an enterprise view that supports enabling technologies aligned with Medicaid business processes and technologies.

- Providing timely, accurate, useable, and easily accessible data to support analysis and decision making for health care management and program administration.

- Providing performance measurement for accountability and planning.

- Coordinating with public health and other partners to integrate health outcomes within the Medicaid community.

1.1.3   State Self-Assessment

The SS-A is a tool for states to use to assess the current capabilities of their Medicaid programs, determine what they would like to achieve in the future, and document the gaps between the two. Using the SS-A, a state reviews its current operations and develops its target capabilities that allow it to meet its strategic goals.

An SS-A, based on the MITA Framework, is now a prerequisite to securing enhanced federal funding for Medicaid program improvements. Specifically, Colorado Medicaid's Advanced Planning Documents (APDs) must now include information on how a project is expected to improve program capabilities consistent with the MITA Framework. States must complete an SS-A on an annual basis, and CMS has requested that the SS-A is included as an attachment to any APD.

1.2   What MITA Means to Colorado

Adoption of MITA starts by completing a MITA SS-A, where the State uses the CMS-defined components of the MITA Business Architecture (BA), Information Architecture (IA), Technical Architecture (TA), and Seven Standards and Conditions to establish current capabilities and maturity levels and to choose future levels of maturity as the targets for improvement. States will provide CMS with a MITA Profile, along with its Roadmap that addresses goals and objectives, key initiatives, and transition goals covering a five-year outlook that anticipates the timing for reaching the anticipated MITA maturity, with annual updates.

CMS intends to apply seven standards and conditions to each Medicaid technology investment, and each request will be viewed in light of existing, interrelated assets and their level of maturity. These standards and conditions apply to grants and other federal initiatives, as well as enhancements mandated by a state's business needs.

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Colorado's recent successful MMIS procurement, and the release of two additional requests for proposals (RFPs) for a Pharmacy Benefits Management System (PBMS), and Business Intelligence and Data Management (BIDM) Services will have a major impact on the Colorado Medicaid enterprise, by laying the groundwork for a future all-health-services enterprise, through participation with other State health agencies. Through the MITA transformation, Colorado Medicaid will use technology to improve service to the clients and providers who make up the Medicaid program.

In the past, Colorado has used the SS-A to support the planning and acquisition of the MMIS, PBMS, and BIDM. It is now a CMS requirement that the SS-A be updated annually. However, the SS-A is also an opportunity of which Colorado should take advantage. Conducting the SS-A and adoption of MITA allows states to:

- Document business processes.

- Document changes to business processes that may have occurred since the last SS-A.

- Showcase where improvements can best be made.

- Highlight priorities for improvements.

- Develop a roadmap for future business transformation.

1.3   Aligning MITA Objectives with HCPF Strategic Objectives

CMS defines the first step of the SS-A process as identifying the State Medicaid goals and objectives. Public Knowledge has mapped the MITA objectives to the objectives defined in HCPF's Five-Year Strategic Plan. The two sets of objectives are very closely aligned. Implementation of HCPF's upcoming projects will advance the State's MITA maturity level, allowing for the realization of both the MITA- and State-defined objectives. Descriptions of objectives for HCPF and MITA are detailed on the following sections.

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MITA Objectives	HCPF Strategic Objectives				
	Increase the Number of Insured Coloradans	Improve Health Outcomes	Increase Access to Health Care	Contain Health Care Costs	Improve the Long-Term Care Service Delivery System
Adopt industry standards for data exchange		X	X	X	X
Promote reusable components; modularity		X	X	X	X
Promote efficient and effective data sharing	X	X	X	X	X
Provide a beneficiary-centric focus	X	X	X	X	X
Support interoperability, integration, and an open architecture	X	X	X	X	X
Promote secure data exchange	X	X	X	X	X
Promote good practices (e.g., data warehouse)	X	X	X	X	X
Support integration of clinical and administrative data		X		X	X
Break down boundaries between systems, geography, and funding	X	X	X	X	X

Table 1.1 – Mapping of MITA Objectives to HCPF Strategic Objectives

1.3.1   HCPF Objectives

HCPF's strategic objectives are listed and described below:

- **Increase the Number of Insured Coloradans** — Increase the number of people who are eligible and enroll in public programs

- **Improve Health Outcomes** — Reduce inappropriate and avoidable utilization of services

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- **Increase Access to Health Care** — Increase the number of providers serving clients enrolled in public programs

- **Contain Health Care Costs** — Payment policies and mechanisms will be tied to expected outcomes

- **Improve the Long-Term Care Service Delivery System** — Continuously identify and implement administrative efficiencies

1.3.2   MITA Objectives

As specified by CMS, the following list describes MITA's objectives:

- Adopt data and industry standards

- Promote reusable components; 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 (single entry point)

- Promote good practices (e.g., the Capability Maturity Model [CMM] and data warehouse)

- Support integration of clinical and administrative data

- Break down artificial boundaries between systems, geography, and funding (within the Medicaid program)

1.4   Summary of Key Findings and Themes

1.4.1   Business Architecture

The MITA Business Architecture is comprised of several Business Areas that generally apply to all state Medicaid enterprises. Each Business Area includes a number of business processes and these business processes are further differentiated by classification in a Business Process Category. There are 80 business processes in total. The following graphic presents the ten MITA Business Areas.

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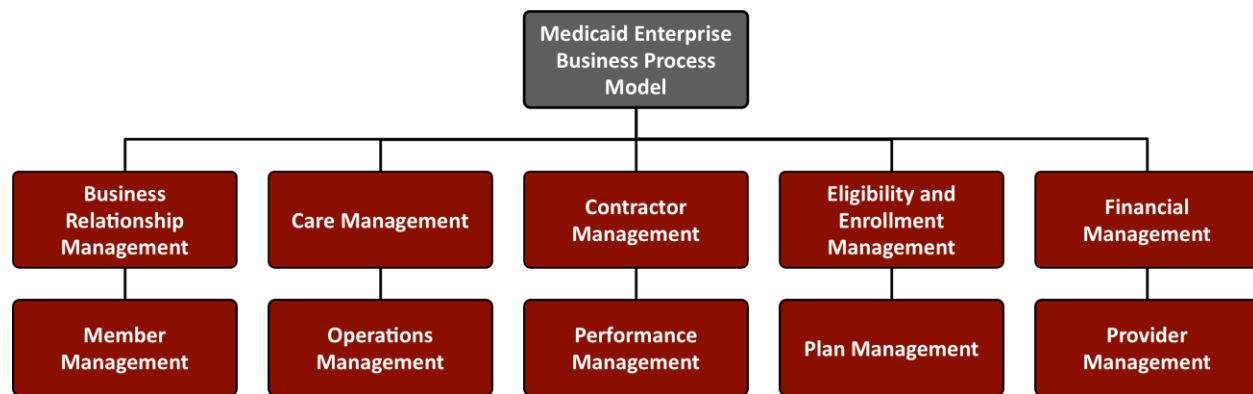
Figure 1.1 – MITA Business Areas

MITA assessment sessions were held from February 18 to April 15, 2014. These facilitated sessions documented use cases for each of the 80 MITA business processes and identified the As-Is and target To-Be capability level for each process.

Capability levels are described in the MITA Framework 3.0 as follows:

- **Level 1** – mostly manual, uncoordinated, staff intensive.

- **Level 2** – moving to more electronic, more coordination within the agency, less staff intensive.

- **Level 3** – automated information collection, decision-making is automatic using standardized business rules definitions, adoption of Standards (MITA Framework, industry standards, and other nationally recognized standards), intrastate agency/entity information exchange.

- **Level 4** – near real-time availability of information, processes use clinical information that result in immediate action/response/results, interstate agency/entity information exchange.

- **Level 5** – real-time availability of information, processes improve further through connectivity with other states and federal agencies, most processes execute at the point of service, results are almost immediate, national agency/entity information exchange.

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The levels are intended to communicate the capability of the business process/area in relation to the six components of the MITA Maturity Model. These components are:

- Timeliness of the Process

- Data Access and Accuracy

- Cost Effectiveness

- Effort to Perform

- Efficiency

- Accuracy of Process Results

- Utility or Value to Stakeholder

The following guidelines were considered in assigning the capability level for each State business process:

- The business process must meet all criteria listed for the capability level in the Business Capability Matrix for the State to assign a particular capability level.

- The lowest business capability level assigned to a business process for one of the six components (timeliness, data access and accuracy, cost effectiveness, effort to perform, accuracy of process results, and utility/value to stakeholder) will dictate the overall maturity level for that particular business process.

- The lowest business capability level assigned to a business process will dictate the overall maturity level for that particular business area. This not only follows the guidelines provided in the MITA 3.0 Framework, but Public Knowledge also believes that adjusting to the lowest level business capability sets a reasonable goal for future growth within the business process and overall business area.

Following is a graphic representation demonstrating the current and future business capability level of the MITA business categories under each business area. The results of the Business Architecture Assessment, which includes the To-Be Future Vision for each MITA business process, are detailed later in Section 5.

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Business Architecture
As-Is and To-Be Levels of Capability

As-Is ■   To-Be ■
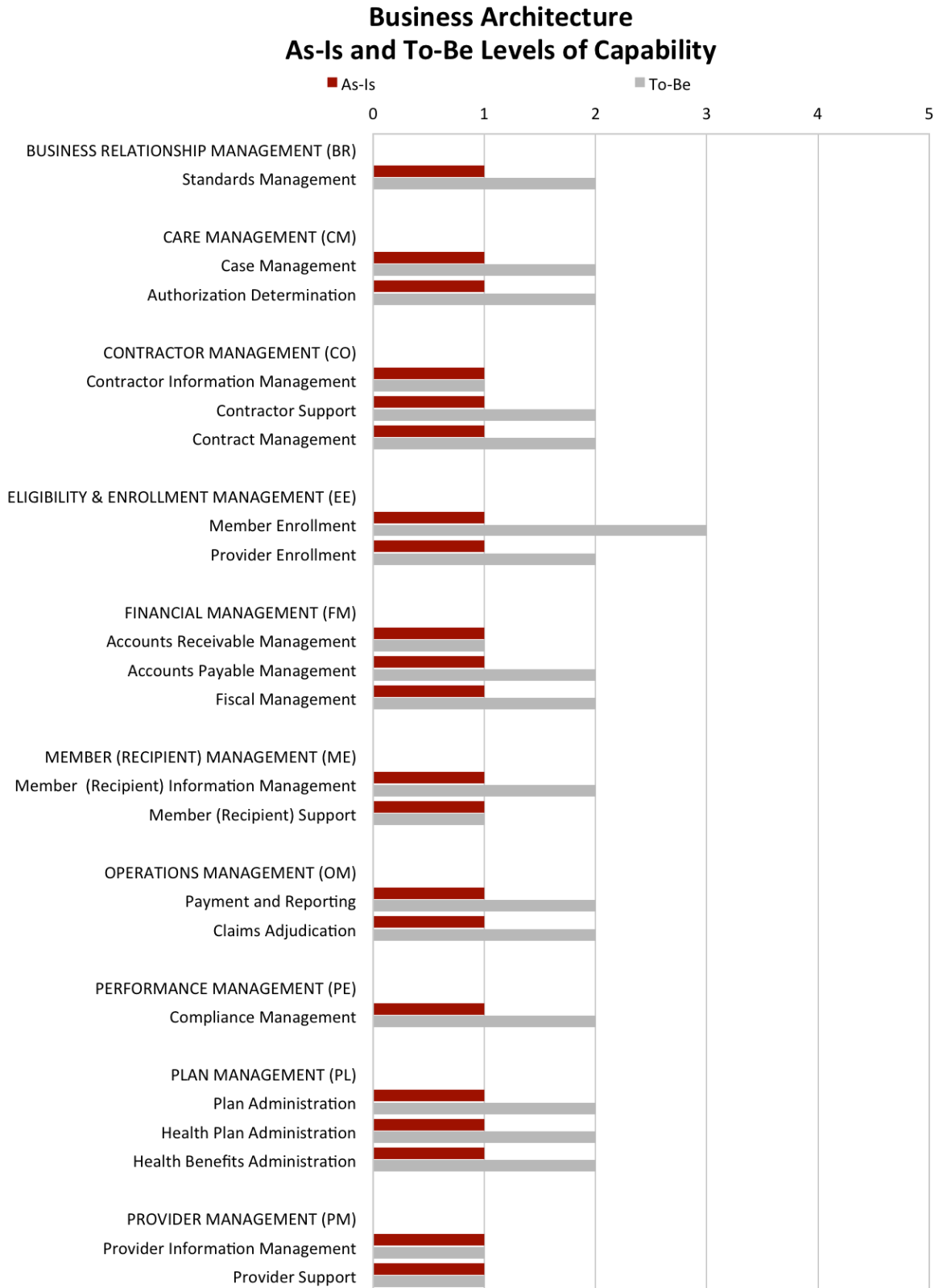
Figure 1.2 – Summary As-Is and To-Be Future Vision Business Architecture Capabilities

Public Knowledge worked with HCPF subject matter experts (SMEs) to identify and validate To-Be Future Vision statements collected during assessment sessions. These To-Be Future Vision common themes are a consolidated view of the To-Be items identified for each of the business areas/processes. These To-Be Themes represent the needs and desires of the Colorado Medicaid Enterprise staff that will move the organization from its current state of MITA maturity to an improved state for conducting business. The functionality described in the To-Be Themes will improve the way the MMIS supports Colorado's health care programs.

Public Knowledge identified 23 To-Be Themes. The To-Be Themes are listed and defined below. In the subsequent sections of the SS-A, the To-Be Themes have been mapped to the applicable business processes.

To-Be Theme	Description
Audit trail and access to history	HCPF desires a new MMIS that supports an online, human-readable audit trail. Access to changes to data within the MMIS allows HCPF to understand the history of data changes on a record. The online, human-readable audit trail could identify the effective and termination date for the data; identify who made the changes (e.g., individual or automated process); and the value of the data element for the identified data range.
Automate reconciliation process	HCPF desires the ability to synchronize data between the MMIS and Colorado Operations Resource Engine (CORE) (the replacement of the Colorado Financial Reporting System (COFRS)). This will allow for automated reconciliation of account receivables with account payables for reporting and auditing purposes.

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To-Be Theme	Description
Automate workflow management	HCPF desires to automate processes, where possible. There are automated solutions that support the establishment of work queues allowing in process documents to flow from one worker's queue to another.
Centralize access to data	HCPF desires the ability to access real-time data for clients, providers, and benefit plan(s) for many programs including Foster Care, Medicaid, CHP+, and Long-Term Care. Access should be secure and controlled to allow staff to have appropriate access to data to support their responsibilities.
Enable data interfaces	HCPF desires solutions that enable interfaces to support passing information between systems where appropriate. Two types of data interfaces were specified: one-way either into or from the MMIS, as well as bi-directional interfaces that share data back and forth between systems. An example of a bi-directional interface is between the MMIS and CBMS to support the correction of errors identified when loading eligibility data into the MMIS. A bi-directional interface would allow the MMIS to pass back information to support updates to CBMS so that both systems are in sync with respect to client eligibility.

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To-Be Theme	Description
eClearance process	HCPF currently has many documents and forms that must be routed to applicable stakeholders for review and approval, i.e., Clearance. The Department currently uses an eClearance process, but has described areas for improvement, including complete automation of Clearance activities. The Department is implementing a new electronic process via the CORE implementation, however many processes remain manual. HCPF desires a process where the majority of the Clearance documents can go through an automatic workflow and electronically routed to the appropriate stakeholders.
Electronic Attachments	HCPF expects that the new MMIS will support the ability to accept and store attachments submitted electronically. Attachments can include claim attachments, client documentation that may be produced by a different system (e.g., notices), and provider documentation. Attachments would be indexed with the appropriate claim, client, and provider for retrieval as needed.
Electronic Client Management	HCPF desires the ability to include electronic solutions to improve its ability to manage client information and client related processes. This transition goal includes the creation of an online, electronic client application through a State web portal. The data from the application would flow through to the appropriate systems to support determination of eligibility as well as benefit plan assignment. This goal also addresses a desire the move to electronic notifications to clients.

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To-Be Theme	Description
Electronic Financial Management	HCPF desires to improve financial management processes by including more electronic processing. The Department wants to leverage information available electronically to support more efficient budgeting and financial forecasting. Electronic Financial Management will leverage solutions used to support centralized data access and policy/utilization modeling.
Electronic Provider Management	HCPF desires the implementation of an online, electronic provider enrollment application. The application would collect required information to support a decision for the provider to supply Medicaid or other programs' services. The online application would allow the attachment of supporting documentation to allow efficient decision-making. The solution would leverage an automated workflow so data and documentation could be routed to appropriate units responsible for decisions on provider enrollment applications. In addition, providers could use an online portal to submit updates to their information; for example address changes or updated licensing information.
Electronic tracking of audit actions	HCPF desires a solution that supports electronic capture and tracking of claims and provider audits; including automated case management and pre-payment validation. The Department plans to use this information to improve resolution of audit findings and efficiency of the audit process.

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To-Be Theme	Description
Electronic tracking of performance measures	HCPF desires a solution that supports the capture of specific performance measures and tracking them over time. The Department plans to use this information to improve management of contracts with entities that provide services such as the MMIS Fiscal Agent, PBMS Operations, and BIDM operations. In addition, the Department foresees using this same solution to utilize satisfaction surveys provided by clients, providers, contractors, etc. to improve its delivery of services.
Electronic utilization tracking and forecasting	HCPF desires to track utilization trends to support improved decision-making on where to allocate program resources. The information collected and tracked over time will support forecasting allowing the Department to make more timely changes to policy and resources to improve health care and financial outcomes. This goal will leverage solutions used to achieve centralized data access and policy/utilization modeling transition goals.
Improve electronic Care Management	HCPF desires the improvement of their current Benefits Utilization System (BUS), or implementation of a new online, electronic case management system. Case managers will use the system to build and maintain treatment plans, and the system will interface with MMIS to verify appropriate benefit coverage. The solution would leverage an automated workflow so data and documentation could be routed to appropriate units responsible for decisions on case management activities. Case manages could access benefit and eligibility information provided in the MMIS and CBMS.

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To-Be Theme	Description
Improve electronic Contractor Management	HCPF desires an electronic solution that supports automation of processes related to contractor management. Contractors include those entities that provide services to the Department or to clients and providers on behalf of the Department. Leveraging a solution that supports the tracking of performance measures is only one aspect. The potential solution will streamline the evaluation process, provide contract management task reminders, and standardize reporting.
Improve internal knowledge management process	HCPF would like to improve communication, coordination, and training within the Department and with external agencies. Increasing standardization of communication methods would allow better coordination across agencies that own a portion of certain processes. Creating access to appropriate information will enhance the Department's ability to make informed decisions. This will be both a technological and cultural shift for the Department, e.g., dissemination of information regarding State Plan Amendments, policy changes, or system enhancements.

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To-Be Theme	Description
Improve reporting capabilities	HCPF desires a solution that offers considerably superior reporting options. The solution would leverage the solution used to provide centralized access to data to improve reporting results. The Department expects that a solution would provide flexible reporting tools that provide a variety of graphical and data formats. The variety of formats would allow the Department to communicate data in a view appropriate for each audience. The solution would also provide options to automate reporting, including the ability of users to designate reports for generation at specific intervals, and the ability to set parameters for ad hoc reports. This also includes the ability to search on user defined data elements.
Improve, standardize, and automate electronic communication capabilities	HCPF desires to improve and standardize communications with clients, providers, and other agencies. The standardization of communications would allow the Department to move to electronic options for communications including a web portal and electronic messaging. In addition, standardization should support the ability to provide messaging in multi-language and multi-literate formats. These capabilities may result in timely communications that would lead to improved outcomes.

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To-Be Theme	Description
Modern, Modular, Configurable, Flexible System	HCPF desires an MMIS solution that is easily and quickly configurable based on changing business requirements. The components of this solution will need to meet the following criteria: • **Modern.** Utilizes a flexible, configurable business rules engine. Easily interfaces with other data sources to increase access to data including Health Insurance Exchange (HIX), Health Information Exchange (HIE), Vital Statistics, and Internal Revenue Service (IRS). Assists HCPF with moving towards more electronic processing and includes automation of both client and provider communications. The solution will also be able to support flexible payment methodologies, including coordination of benefits and member premium payments. • **Modular.** Provides the ability to support constantly changing business needs and federal regulation. The MMIS may also be able to support one or more modules of other To-Be Themes in this list. • **Configurable.** The system focuses on configuration changes rather than custom coding of business requirements. • **Compliant.** The system will be compliant with all State and federal transactions and processing standards, including: HIPAA, ACA, and standard financial transactions.

To-Be Theme	Description
Reduce lag between determination and posting data to MMIS	HCPF desires solutions that support more timely movement of data between the MMIS and other systems.
Staff/Resource Concerns	Some areas of the Colorado Medicaid program indicated staff/resource availability and competing priorities are barriers to improving its capability. Automation will help in some program areas, but others, such as Plan Administration, Health Plan Administration, and Contract Administration, will continue to have manual operations and will require increased staff to improve efficiencies.
Standardize processes	HCPF desires to standardize processes to support more efficient results. Standardized processes result in more predictable decisions removing, where appropriate, the subjectivity in decision-making. Standardization would allow better coordination across agencies that own a portion of certain processes. Examples of processes that could be standardized are the grievance and appeals process and the contracting process.
Standardize Transactions	HCPF desires to increase the use of standard transactions and data load validation processes. The Department would like to take advantage of enhanced validation available for standard electronic transactions to improve efficiency in the processing of transactions. Improved validation means transactions will be rejected for missing required information prior to processing, reducing the amount of transactions that have to be processed through the MMIS.

Table 1.2 – To-Be Themes

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1.4.2   Information Architecture

The Information Architecture describes information strategy, architecture, and data. Public Knowledge used the information gathered during facilitated sessions with HCPF SMEs, along with the To-Be Themes gathered during the assessment sessions to shape themes for the future state of Colorado Medicaid Enterprise's Information Architecture in relation to MITA standards. The following list contains the themes identified during the SS-A for the Information Architecture. These themes will provide the framework for achieving the To-Be levels for all MITA business areas.

- **Data Governance** – Develop a data governance structure that promotes the creation of models for data sharing, the formation of metadata definitions for shared Medicaid information, and controls data redundancy.

- **Develop Data Sharing Architecture** – Adopt of statewide standard data definitions, data semantics, and harmonization strategies to enable the processing of subrogation cases and coordination of benefit processing.

- **Common Data Management Strategy** – Develop a common data management strategy that addresses data flow over time and keeps pace with changes to the Medicaid program.

- **Common Data Architecture** – Adopt single data architecture so that common data entities and attributes can be identified and are used across all business workflows.

- **Common Data Model** – Develop a common enterprise data model that enables consistent definition of information and understanding of the relationship between data entities.

- **Common Data Standards** – Common data standards ensure the universal understanding of data so that information can be shared with common meaning and interpretation.

Following is a graphic representation demonstrating the current and future capability level for each component of the Information Architecture.

Information Architecture
As-Is and To-Be Levels of Component Capability
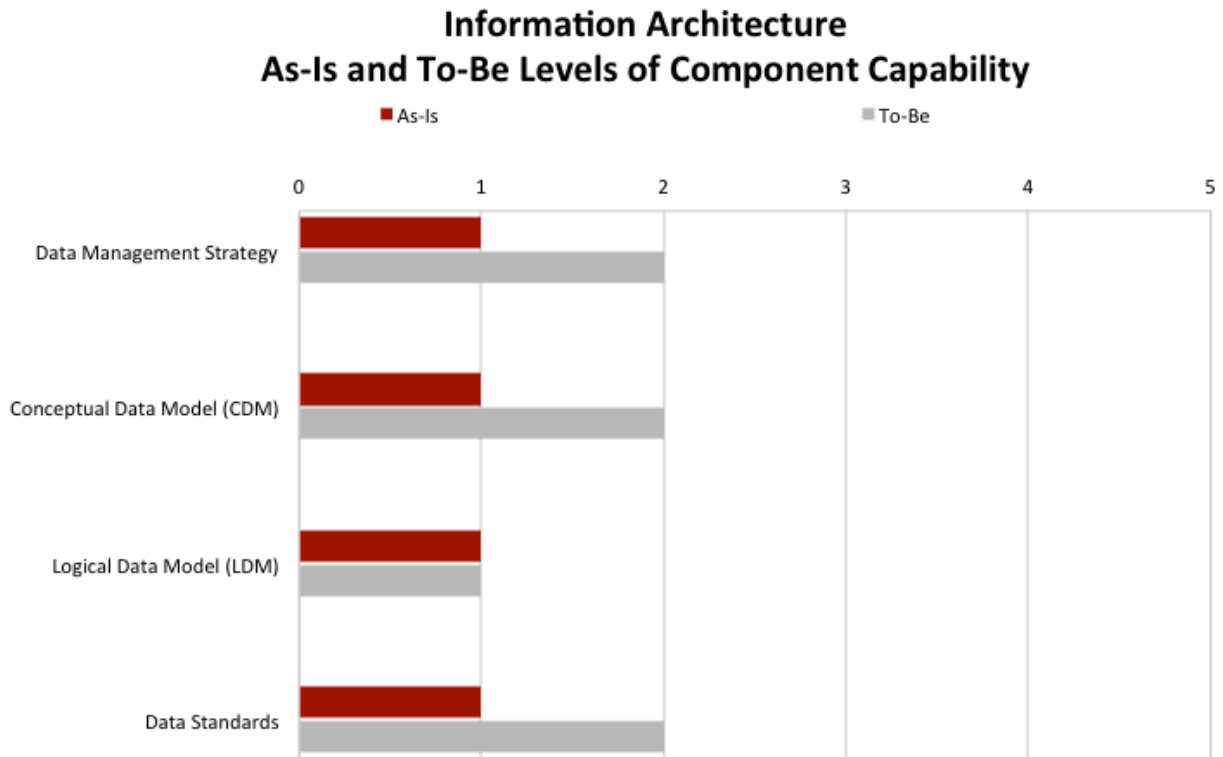
Figure 1.3 – Summary As-Is and To-Be Future Vision Information Architecture Capabilities

1.4.3   Technical Architecture

The Technical Architecture Framework is a collection of three Technical Service Areas (TSAs) – similar to business areas in the Business Architecture model – and fifteen (15) associated Technical Service Classifications (TSCs) — similar to business processes in the Business Architecture model. Public Knowledge used the information gathered during a facilitated session with HCPF SMEs, along with the To-Be Themes gathered during the assessment sessions to shape recommendations for the future state of Colorado Medicaid Enterprise's Technical Architecture in relation to MITA standards.

The technical architecture themes identified during the SS-A are summarized below. These themes provide a technical foundation for progressing HCPF to the desired To-Be levels within the MITA maturity model.

- Automated Workflow Management Tool – Automation of standard workflows will help support the timely and accurate execution of required business actions like claims processing and eligibility determination. Identifying common business

functions like tickler and alert notification, or generating client notifications will identify shared services that can be built once and used multiple times.

- Enterprise Architecture – Implement a system architecture that supports reusability of business and technical services, follows a standard configuration methodology, and allows for easy adaptation over time as the Medicaid program evolves.

- Enterprise Data Warehouse with Business Intelligence – Develop a central repository of information to be used for analysis of health services programs. Data contained in the data warehouse derived from disparate sources is used for conducting comparative analysis aimed at developing strategies for improving services to recipients and patient outcomes.

- Enterprise Health Systems – Integrate systems supporting business functions including the Care Management System, Centralized Eligibility System, Contract Management System, Electronic Document Management System, Financial Management System, and Incident (Program Integrity) Management System will enable ready access to critical information and provide tools for managing recipient benefits, provider contracts, and account for financial activity.   These functions will enhance the MMIS by providing more efficient and timely processing of client encounter and claim activity, a central repository for related information, and online capability for recipient and provider self management. The use of e-signature, standard templates, and the identification of business rules to automate workflow management will promote speedier processing times of services to recipients and providers.

- Modern, Modular, Configurable, and Compliant Medicaid System Solutions – Develop strategies for the deployment of a technology framework that consists of configuration tools supporting business rules, workflow, reporting, portal and interface management. Configurable systems will allow for adaptation of the system over time as program policies and rules change by staff with program knowledge rather relying on costly modification of the underlying computer code.

- Single Sign-on – Allow users to log in once to gain access to all systems without being prompted to log in again at each of them. Single sign-on will support central and secure access to comprehensive information.

The following graphic provides the To-Be future vision capability level for the Technical Architecture.

Following is a graphic representation demonstrating the current and future capability level for each Technical Service Area of the Technical Architecture.
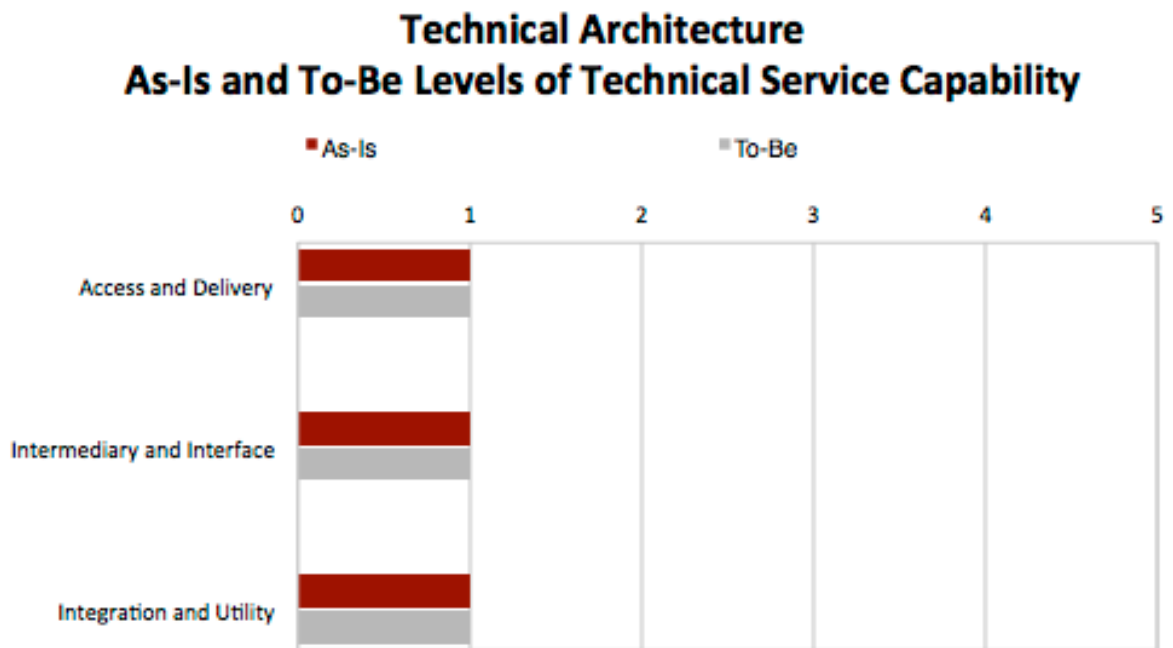
Figure 1.4 – Summary As-Is and To-Be Future Vision Technical Architecture Capabilities

1.4.4   Seven Standards and Conditions

CMS released the final regulation establishing the Seven Standards and Conditions in April 14, 2011. States intending to qualify for enhanced federal funding for IT investments must describe in their request of funding how the investment will meet the Seven Standards and Conditions. The Seven Standards and Conditions 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 health insurance exchange (whether run by the state or federal government), and allows interoperability.

Following is a graphic representation demonstrating the current and future capability level for each of the Seven Standards and Conditions.

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Seven Standards and Conditions
As-Is and To-Be Levels of Business Capability
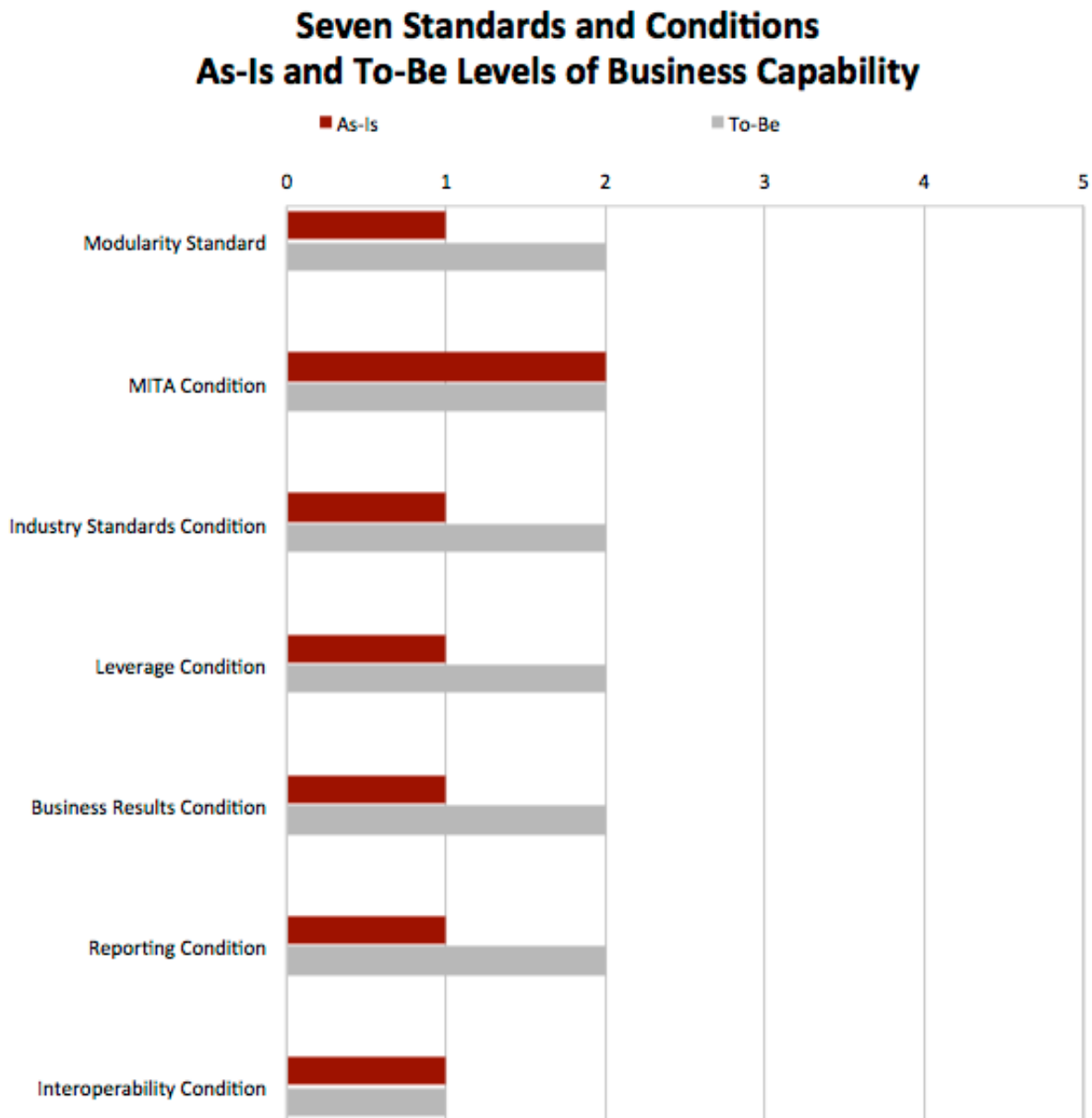
Figure 1.5 – Summary As-Is and To-Be Future Vision Seven Standards and Conditions Capabilities

The following table maps the To-Be Themes from the Business Architecture to the associated standard and/or conditions.

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Themes	Modularity	MITA	Industry Standards	Leverage	Business Results	Reporting	Interoperability
Centralize access to data	X	X		X			X
Enable data interfaces	X	X	X	X	X	X	X
eClearance process		X			X		
Electronic Attachments	X	X	X		X	X	
Electronic Client Management	X	X	X	X	X		X
Electronic Financial Management	X	X	X	X	X	X	X
Electronic Provider Management	X	X	X		X	X	X
Electronic tracking of audit actions		X	X		X	X	
Electronic tracking of performance measures		X			X	X	

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Themes	Modularity	MITA	Industry Standards	Leverage	Business Results	Reporting	Interoperability
Electronic utilization tracking and forecasting		X			X	X	
Improve electronic Care Management	X	X			X	X	X
Improve electronic Contractor Management	X	X			X	X	X
Improve internal knowledge management process		X			X		
Improve reporting capabilities		X				X	
Improve, standardize, and automate electronic communication capabilities		X				X	

Themes	Modularity	MITA	Industry Standards	Leverage	Business Results	Reporting	Interoperability
Modern, Modular, Configurable, Flexible System	X	X	X	X	X	X	X
Reduce lag between determination and posting data to MMIS		X			X		
Staff/Resource Concerns		X					
Standardize processes		X	X				
Standardize Transactions		X	X				

Table 1.3.1 – Seven Standards and Conditions Alignment

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1.4.5   Projects to Advance Maturity

Analysis of the To-Be Themes from the Business Architecture and their relationship to themes from the Information and Technical Architectures and the Seven Standards and Conditions led to the definition of five projects. The following table provides a short description for each project.

Project	Description
MMIS Replacement with Colorado interChange	This project implements both operational and technical solutions to improve Medicaid program outcomes. The major components of this project include: • Base MMIS Replacement • Standardization of processes for data exchange • Implementation of a Care Management System • Electronic Document Management System (EDMS) with automated workflow management • Provider revalidation and screening processes • Provider Portal
MMIS Replacement with Colorado interChange – BPR	The interChange Business Process Reengineering (BPR) is a contract stage component of the MMIS Replacement with Colorado interChange project. The BPR effort analyzes current Department business processes to determine areas for improvement, as well as determine areas that will require changes to facilitate adoption of the new operational and technical MMIS solutions.

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Project	Description
DSS Replacement with BIDM	This project implements a data warehouse solution that leverages flexible business intelligence tools. The solution will allow the Department to manage the following: • Provides access to data to establish and measure performance metrics • Data and tools to support Program Integrity functions • Implementation of a data warehouse
PBMS Replacement	This project replaces the current pharmacy POS system functionality and services. Most PBM systems are considered Commercial-Off-The-Shelf (COTS) business rules driven solutions so this project involves the configuration of Colorado's pharmacy business rules in the COTS solution.
CBMS Improvement and Modernization Project	The Colorado Benefits Management System (CBMS) determines eligibility and manages benefits for food. The work to make system improvements included major upgrades and the move of the entire system to a web-based platform, which allowed users to access the system for eligibility determination and benefit calculation much faster and county workers are better able to deal with increasing caseloads by reducing the amount of time it takes to deliver benefits to individuals and families.

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Project	Description
CORE (Colorado Operations Resource Engine)	CORE is a statewide initiative to implement a system that eliminates COFRS, BIDS (Bid Information and Distribution System), and COMPASS (Colorado Market Passport). CORE's scope includes: • Accounting — General accounting, budget control (implementation), accounts payable, accounts receivable, cost accounting and cost allocation, asset management, and treasury accounting • Procurement — End-user purchasing, solicitation management, contract management, and vendor self-service • Budget — Budget formulation, performance measures, salary and benefits forecasting, and budget book publishing CORE also includes a data warehouse to support enterprise reporting and data integration and management for financial management, procurement, and budgeting. Colorado currently expects CORE to go live on July 1, 2014. As of the date of this report, Department SMEs are uncertain of the extent of CORE's capabilities, but intend to integrate CORE into current and future systems where feasible.
Other Department Continual Improvement Projects	Other projects or initiatives that the Department is currently has planned or are in progress. These projects are in addition to new system implementations for the MMIS, PBMS, and BIDM.

Table 1.4.2 – Department Projects

1.4.6   Section 2 MITA SS-A Approach

Public Knowledge's approach to the SS-A began with planning for facilitated assessment sessions to document 80 MITA business processes and identified the As-Is and To-Be capability levels for each process. Once a session was complete, session attendees and other appropriate SMEs validated the results, Public Knowledge compiled and analyzed the results of the sessions for inclusion in this report. The SS-A methodology is described in greater detail in Section 2.

1.4.7   Section 3 Detailed Business Architecture Findings

Detailed Business Architecture Findings, including As-Is and To-Be capability levels and roadmap are provided in Section 3.

1.4.8   Section 4 Information Architecture Assessment Findings

Detailed Information Architecture Findings, including As-Is and To-Be capability levels and roadmap are provided in Section 4.

1.4.9   Section 5 Technical Architecture Assessment Findings

Detailed Technical Architecture findings, including As-Is and To-Be capability levels and roadmap are provided in Section 5.

1.4.10   Section 6 Seven Standards and Conditions Assessment Findings

Detailed Seven Standards and Conditions findings, including As-Is and To-Be capability levels and roadmap are provided in Section 6.

2 – MITA SS-A Approach

2.1 SS-A Approach and Methodology

Between February and April 2014, Public Knowledge worked with HCPF to conduct assessment sessions validating 80 MITA business processes, associated performance metrics, and any shared data and interfaces for each process. During the assessment sessions, SMEs identified As-Is and To-Be capability levels. Following the assessment sessions, session attendees and other appropriate SMEs reviewed the session output and provided any changes or updates. Public Knowledge collected the completed materials

The following diagram demonstrates our overall approach to the SS-A and describes how Public Knowledge divided the SS-A into four steps. Each step is described in detail.

Figure 2.1 – MITA State Self-Assessment Process Components

2.1.1   Planning and Set-Up

The following figure shows the representative activities for the planning and set-up step of the MITA SS-A, and all activities are described in additional detail below.
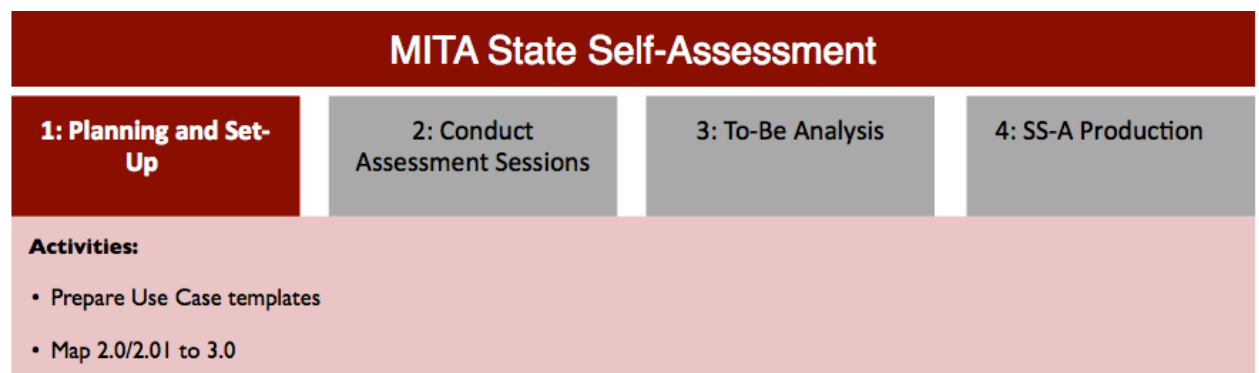

Figure 2.2 – MITA State Self-Assessment Process Components: Planning and Set-Up

Prior to participating in assessment sessions with SMEs, Public Knowledge prepared session materials and prepopulate use cases with descriptions, preconditions, triggers, steps, and outcomes. This ultimately allowed attendees to work more efficiently in the assessment sessions. Additionally, Public Knowledge worked collaboratively with HCPF to create a session schedule that was most efficient for HCPF's SMEs. Sessions were conducted from February 18 through April 15, 2014.

2.1.2   Conduct Assessment Sessions

Completion of planning and set-up activities enabled Public Knowledge to conduct assessment sessions. The representative activities of the assessment session's step of the MITA SS-A are presented in the following diagram. All activities are described in greater detail below.

MITA State Self-Assessment

| 1: Planning and Set-Up | **2: Conduct Assessment Sessions** | 3: To-Be Analysis | 4: SS-A Production |

Activities:

- In sessions, validate or capture degree of alignment between CO business processes and MITA 3.0
- Document outliers (why CO is different from MITA)
- Continue to capture "failures" of each process
- Capture To Be ideas
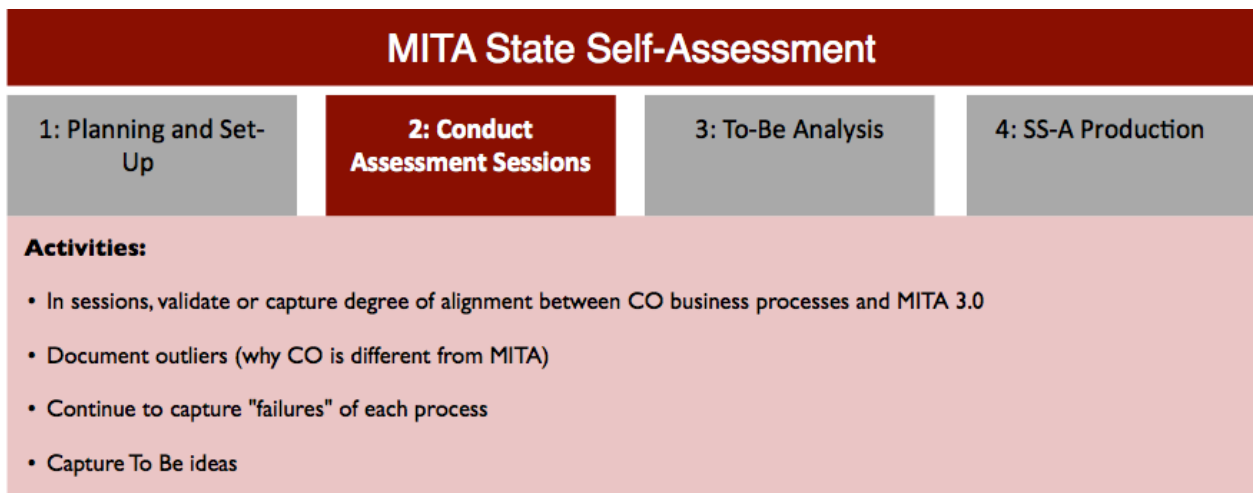
Figure 2.3 – MITA State Self-Assessment Process Components: Conduct Assessment Sessions

There were two types of assessment sessions conducted. The first of these related to the Business Architecture, in which attendees validated and updated the content of use cases for each of the 80 MITA 3.0 business processes. The second type of assessment session was an Information Architecture, Technical Architecture, and Seven Standards and Conditions (IA/TA/SSC) session to address the new components of MITA. In the Business Architecture assessment sessions, SMEs reviewed use cases for each of the business processes under a given business area. Once all business processes under a given business area had been completed, an IA/TA/SSC session was held for that business area in order to

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assess the As-Is and To-Be capabilities for each the Information Architecture, Technical Architecture, and Seven Standards and Conditions.

During Business Architecture assessment sessions, Public Knowledge worked with SMEs to validate the degree of alignment between Colorado's business process descriptions and the MITA 3.0 business process descriptions. Additionally, SMEs updated use cases for each business process to reflect any changes or make corrections to those produced during the MITA 2.0/2.01 SS-A. SMEs documented current failures of the business processes as well as any ideas for To-Be Future Visions. After completing the use case, SMEs completed scorecards to document the As-Is and To-Be capability levels for each business process.

In IA/TA/SSC assessment sessions, there were no use cases to discuss. SMEs completed a scorecard for each the Information Architecture, Technical Architecture, and Seven Standards and Conditions using guidance form the Framework.

2.1.3   To-Be Analysis

After the assessment sessions were held and SMEs reviewed the resulting materials, Public Knowledge conducted an analysis of To-Be Future Visions. The activities representing this step are shown in the following figure, and all activities have been described in detail below.
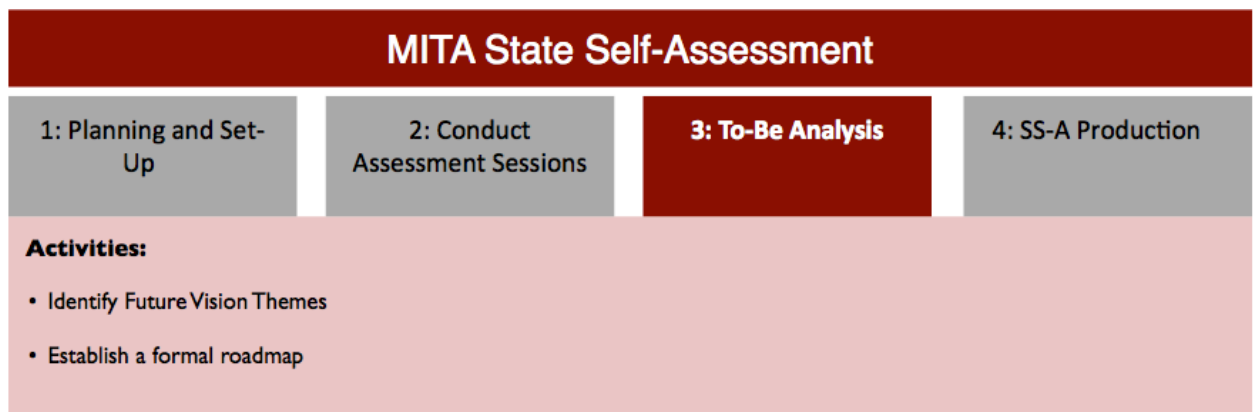

Figure 2.4 – MITA State Self-Assessment Process Components: To-Be Analysis

After SMEs were given the opportunity to review the findings Public Knowledge compiled a list of all To-Be Future Visions from all 80 business process use cases and identified themes. We then used these identified themes to develop a roadmap for each business area. The roadmaps reflect the projects that have been identified that will help HCPF advance its capability levels.

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2.1.4   SS-A Production

All findings from the assessment sessions have been included in this report. The activities contributing to the production of this report are described in the following figure.
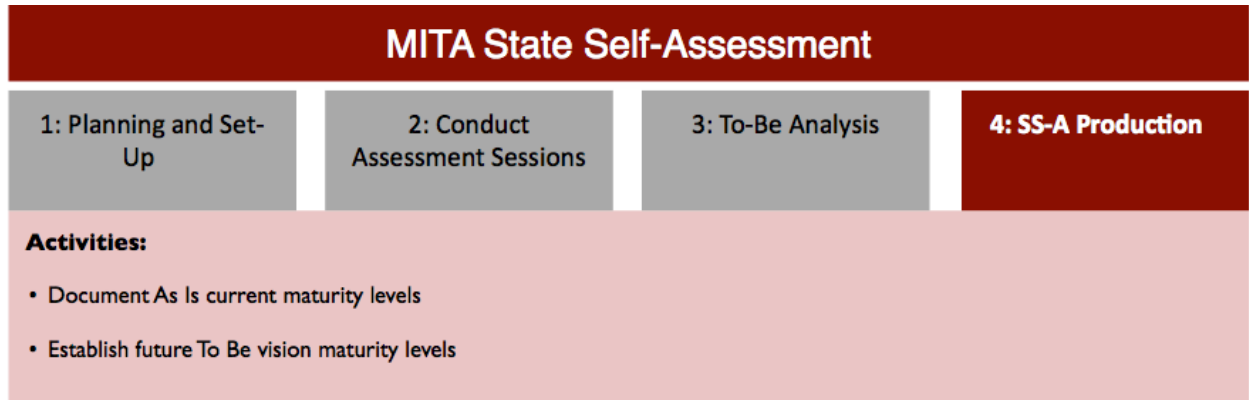

Figure 2.5 – MITA State Self-Assessment Process Components: SS-A Production

After SMEs were given the opportunity to review the output of assessment sessions, Public Knowledge compiled and analyzed the completed use cases and scorecards for inclusion in this report.

2.2   *Mapping of MITA to Colorado Medicaid Business Processes*

As there have been a number of changes made to the MITA Framework since HCPF last completed its SS-A in 2011, Public Knowledge has completed mapping of Colorado's 2.0/2.01 business processes to the current 3.0 MITA Framework. Colorado business processes align with MITA 3.0, with the exception of the following:

▪ OM20: Calculate Spend-Down Amount — Colorado does not perform this business process.

▪ PE02: Establish Compliance Incident — Colorado does not distinguish between PE01: Identify Utilization Anomalies and PE02, performing the functions of PE02 within PE01.

Note that in some cases, HCPF's vocabulary differs from the MITA vocabulary. For example, Colorado Medicaid uses the term "client" while the MITA vocabulary utilizes the word "member" to describe a recipient of services. An additional example is the use of "service plan" in Colorado, as opposed to "treatment plan" in the MITA vocabulary.

3 – Detailed Assessment Findings

3.1 Business Relationship Management

3.1.1 Description

The Business Relationship Management business area is a collection of business processes that facilitates the coordination of standards of interoperability. This business area defines the exchange of information and Trading Partner Agreements (TPA) between the Medicaid Enterprise and its partners, including collaboration among intrastate agencies, interstate agencies, and federal agencies. These agreements contain functionality for interoperability, establishment of inter-agency Service Level Agreements (SLA), identification of the types of information exchanged, and security and privacy requirements. The Business Relationship Management business area has a common focus (e.g., data exchange standards and SLA) and is responsible for the business relationship data store.
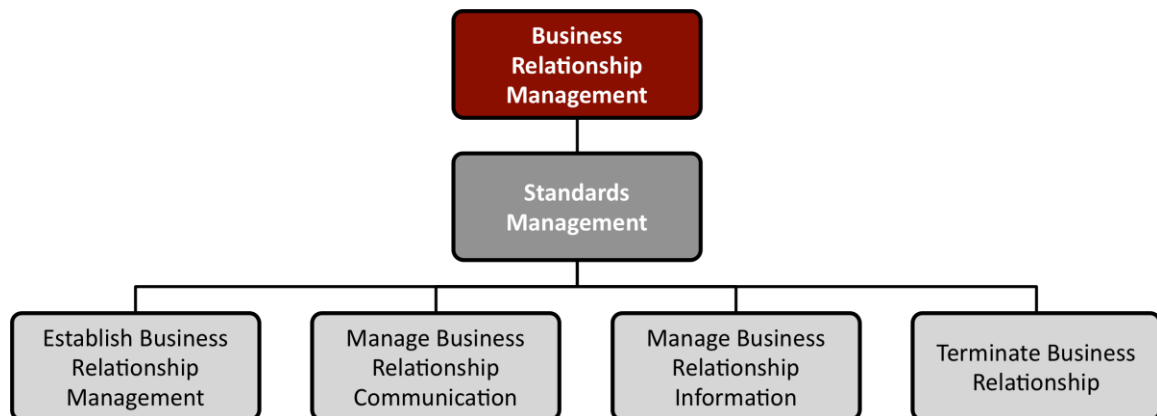

Figure 3.1 – Business Relationship Management Business Area

3.1.2 Findings

The Contractor Management business processes being performed in Colorado align closely with MITA Framework 3.0.

Colorado's Business Relationship Management business processes are heavily manual and are mainly paper-driven; however, some automation is obtained via the eClearance process used to approve agreements and contracts.

The process of implementing business exchange agreements with other agencies, contractors and providers is largely standardized and coordinated within HCPF. The State Purchasing

Office maintains a statewide Contract Management System that is used, depending on the contract type, to track and manage information related to the contracts. Use of the Contract Management System is not required and is underutilized. As a product, there is not a central and secure location to manage and track the exchange of data.

Colorado plans to advance from their current Level 1 business capability to an overall Level 2 for the Business Relationship Management business area. To-Be Themes that will support this advancement are:

- eClearance

- Electronic tracking of performance measures

- Improve electronic Contractor Management

- Modern, Modular, Configurable, Flexible System

- Standardize processes

- Centralize access to data

3.1.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Standards Management					
BR01: Establish Business Relationship	**As-Is**	**To-Be**			
BR02: Manage Business Relationship Communication	**As-Is**	**To-Be**			
BR03: Manage Business Relationship Information	**As-Is**	**To-Be**			
BR04: Terminate Business Relationship	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Business Relationship Management					

MMIS Replacement with Colorado interChange
- Improve electronic Contractor Management
- Modern, Modular, Configurable, Flexible System
- Standardize processes

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MMIS Replacement with Colorado interChange – BPR
- Standardize Processes

CORE
- Centralize access to data
- eClearance
- Improve electronic Contractor Management
- Standardize processes

Table 3.1 – Business Relationship Management Roadmap

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3.2   Contractor Management

3.2.1   Description

The Contractor Management business area accommodates a Medicaid Enterprise that has managed care contracts for a variety of outsourced contracts. The Contractor Management business area has a common focus on Medicaid contractors (e.g., managed care, at-risk mental health or dental care, primary care physician), is responsible for contractor data store, and uses business processes that have a common purpose (e.g., fiscal agent, enrollment broker, Fraud Enforcement Agency, and third-party recovery).
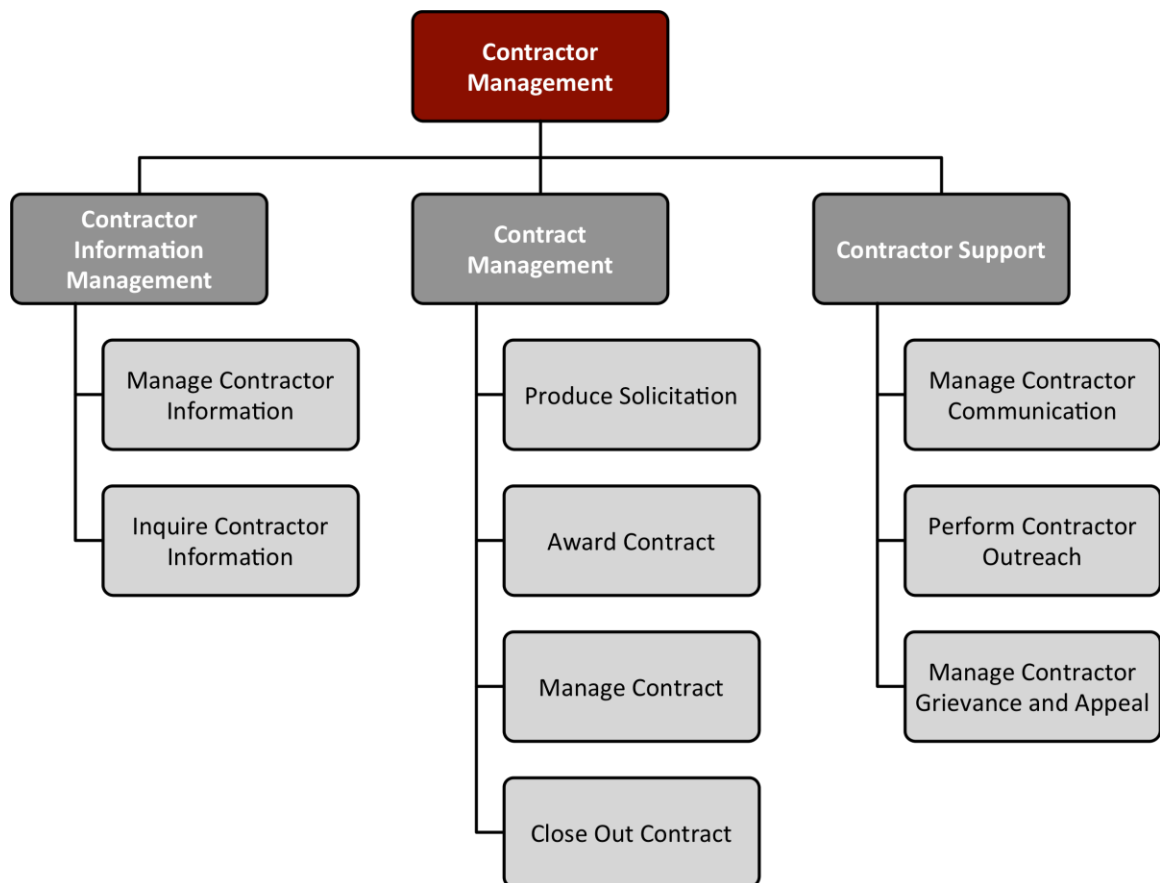

Figure 3.2 – Contractor Management Business Area

3.2.2   Findings

The Contractor Management business processes being performed in Colorado align closely with MITA Framework 3.0.

Colorado's Contractor Management business processes are manual, staff intensive and lack coordination within the agency. As mentioned, use of the Contract Management System is

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not required and is underutilized. As a product, there is not a central and secure location to track and manage information related to the contracts. In addition, Contract Management System data does not integrate with the MMIS to assist in electronically monitoring contract performance measures. For contracts that are not maintained in the Contract Management System, the Purchasing & Contracts Services Section maintains contract information in Department-specific databases. By nature, the Contractor Management business process requires some level of manual intervention, but there are several areas of opportunity to streamline processes, audit data for process improvement, and automate communication to involved parties.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Contractor Management business area. The predominant To-Be Themes that will support this advancement are:

- Automate workflow management

- Centralize access to data

- eClearance

- Improve electronic Contractor Management

- Improve internal knowledge management process

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize processes

3.2.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Contractor Information Management					
CO01: Manage Contractor Information	**As-Is**				
	To-Be				
CO04: Inquire Contractor Information	**As-Is**	**To-Be**			

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MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Contractor Support					
CO02: Manage Contractor Communication	**As-Is**	**To-Be**			
CO03: Perform Contractor Outreach	**As-Is**	**To-Be**			
CO09: Contract Support	**As-Is**	**To-Be**			
Contract Management					
CO05: Produce Solicitation		**As-Is** **To-Be**			
CO06: Award Contract		**As-Is** **To-Be**			
CO07: Manage Contract	**As-Is**	**To-Be**			
CO08: Close Out Contract	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Contractor Management					

MMIS Replacement with Colorado interChange

- Automate workflow management
- Centralize access to data
- Improve electronic Contractor Management
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System

MMIS Replacement with Colorado interChange – BPR

- Standardize processes
- Improve internal knowledge management process

DSS Replacement with BIDM

- Centralize access to data
- Modern, Modular, Configurable, Flexible System
- Improve electronic Contractor Management

CORE

- Centralize access to data
- eClearance
- Improve electronic Contractor Management
- Standardize processes

| MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Other Department Continual Improvement Projects					
• Improve internal knowledge management process					

Table 3.2 – Contractor Management Roadmap

3.3   Care Management

3.3.1   Description

The Care Management Business Area illustrates the increasing shift away from the fee-for-service model of care. Care Management collects information about the needs of the individual member, plan of treatment, targeted outcomes, and the individual's health status. It also contains business processes that have a common purpose (e.g., identify members with special needs, assess needs, develop treatment plan, monitor and manage the plan, and report outcomes). This Business Area includes processes that support individual care management and population management. Population management targets groups of individuals with similar characteristics to promote health education and awareness. The Electronic Health Record (EHR), Electronic Medical Record (EMR), and Personal Health Record (PHR) are primary sources of individual health information from the Health Information Exchange (HIE).

Care Management includes Disease Management, Catastrophic Case Management, Early and Periodic Screening, Diagnosis, and Treatment (EPSDT), Population Management, Patient Self-Directed Care Management, national health registries, and Waiver Program Case Management. The Care Management Business Area is responsible for the case management, authorizations, referrals, and treatment plans data stores. Care Management also contains business processes for authorization determination including authorizing referrals, service and treatment plans.
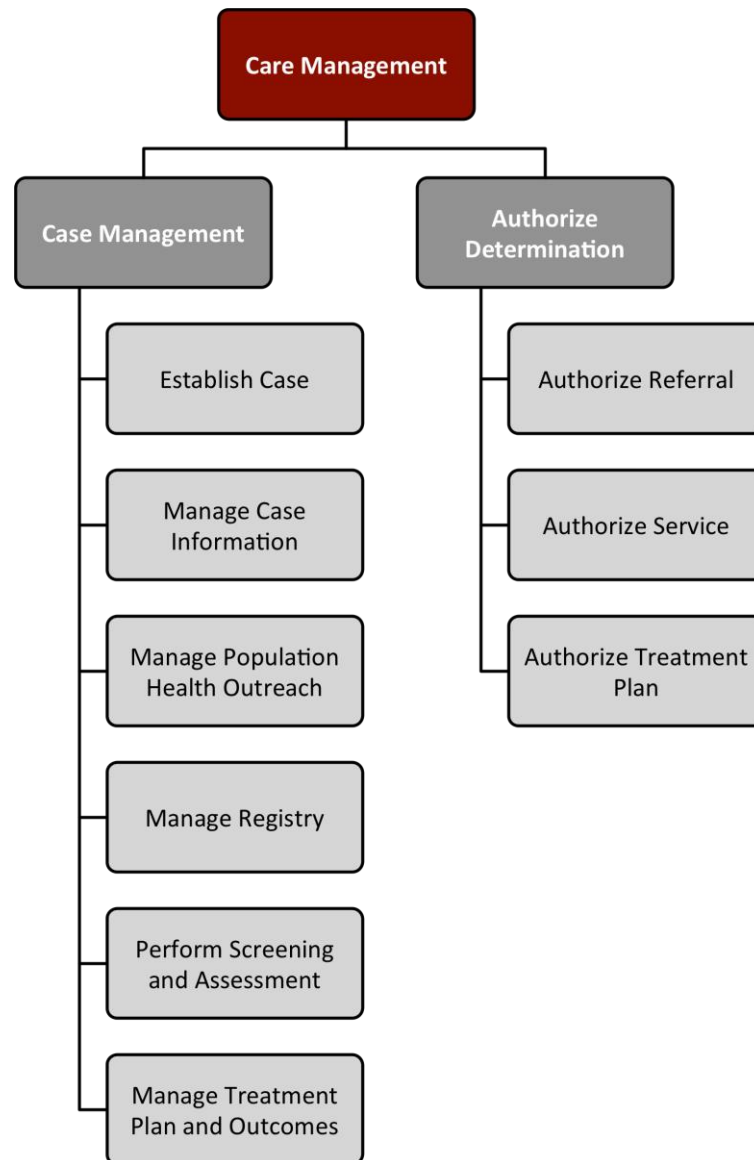
Figure 3.3 – Care Management Business Area

3.3.2   Findings

The majority of Care Management business processes being performed in Colorado align closely with MITA Framework 3.0. However, Colorado's Authorize Service and Authorize Treatment plan business processes do not require the same level of prior authorization detail as provided in the CMS language.

Colorado's Care Management business processes are largely manual and, as a result, are time intensive. However, the HCPF has implemented automation and standardization for an

interface with the State's Health Insurance Exchange to accept and process MCO request files, as well as automation of prior authorization requests. These recent additions have increased accuracy and efficiency of these processes. Colorado has implemented a number of measurements and metrics around management of cases and update of information, including recipient and provider satisfaction. However, work is discrete, and there are multiple units/sections involved. One section/unit does not have a detailed understanding of another section's functions. There is no central data repository and information from the MMIS is manually retrieved and is not coordinated with the Benefits Utilization System (BUS) used for Care Management-related information. Performance metrics exist for all processes within this business area.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Care Management business area. The predominant To-Be Themes that will support this advancement are:

- Centralize access to data

- Enable data interfaces

- Electronic tracking of performance measures

- Improve electronic Care Management

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize processes

3.3.3 Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Case Management					
CM01: Establish Case	**As-Is**	**To-Be**			
CM02: Manage Case Information	**As-Is**	**To-Be**			

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
CM03: Manage Population Health Outreach	**As-Is**	**To-Be**			
CM04: Manage Registry	**As-Is**	**To-Be**			
CM05: Perform Screening and Assessment	**As-Is**	**To-Be**			
CM06: Manage Treatment Plan and Outcomes	**As-Is**	**To-Be**			
Authorization Determination					
CM07: Authorize Referral	**As-Is**	**To-Be**			
CM08: Authorize Service	**As-Is**	**To-Be**			
CM09: Authorize Treatment Plan	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Care Management					

MMIS Replacement with Colorado interChange

- Centralize access to data
- Enable data interfaces
- Improve electronic Care Management
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System

MMIS Replacement with Colorado interChange – BPR

- Standardize processes

DSS Replacement with BIDM

- Centralize access to data
- Enable data interfaces
- Electronic tracking of performance measures
- Improve reporting capabilities
- Modern, Modular, Configurable, Flexible System

Table 3.3 – Care Management Roadmap

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3.4   Eligibility and Enrollment Management

3.4.1   Description

The Eligibility and Enrollment Management Business Area is a collection of business processes involved in the activity for determination of eligibility and enrollment for new applicants, redetermination of existing members, enrolling new providers, and revalidation of existing providers. The Provider Enrollment Business Category and related business processes focus on patient safety and fraud prevention through functions such as determining screening level (i.e., limited, moderate or high) for provider verifications. These processes share a common set of provider-related data for determination of eligibility, enrollment, and inquiry to provide services. The Eligibility and Enrollment Management Business Area is responsible for the eligibility and enrollment information of the member data store as well as the provider data store.
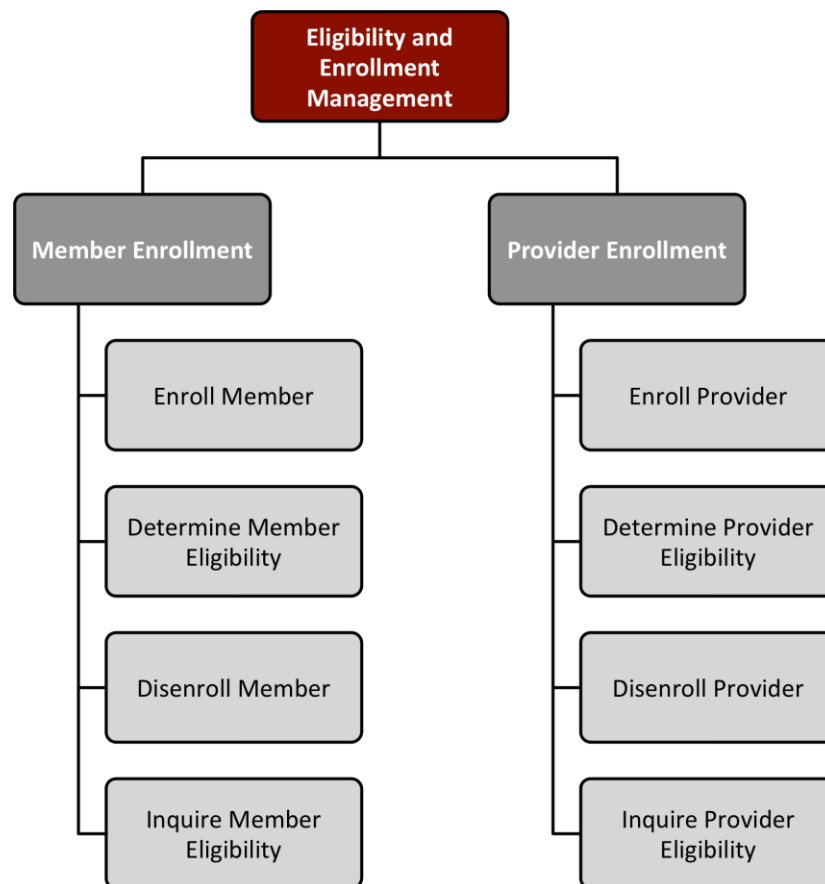

Figure 3.4 – Eligibility and Enrollment Management Business Area

3.4.2   Findings

The Eligibility and Enrollment Management business processes being performed in Colorado align closely with MITA Framework 3.0. However, Colorado's Medicaid Systems (MMIS and CBMS) do not currently interface with the State Health Insurance Exchange.

Member (Recipient) related processes

All Client Eligibility and Enrollment processes business processes in this business category have a degree of automation and standardization, but still require a lot of data entry that introduces human error. Disenroll Member (Client) is predominantly manual. In addition, there is not a centralized database for all client information.

Although Client-related eligibility and enrollment business processes are automated, SMEs did not rate them as highly accurate or efficient (due to disparate systems). There is some interagency coordination and process standardization, but all processes are constrained by disparate systems and low standardization of business rules.

There is some use of performance metrics in terms of existing SLAs or agreements. Current performance metrics are primarily used to ensure that mandatory requirements are met, rather than to measure and improve performance and outcomes. All business processes in this category meet federal/state timing requirements and thresholds, but none exceed them due to low automation.

Colorado plans to advance from their current Level 1 to an overall Level 3 for the Member Enrollment business category. The predominant To-Be Themes that will support this advancement are:

- Audit trail and access to history

- Centralize access to data

- Electronic Client Management

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize Processes

- Standardize Transactions

Provider related processes:

Colorado Provider Eligibility and Enrollment processes meet HIPAA standards, but processes are generally time and staff intensive due to low automation. Many processes require manual data entry into separate systems for end-to-end processing. Some standardized processes exist, but they are inconsistent across systems and the Department. Currently, HCPF does not have automated business rules or an online provider application, so enrolling providers requires Staff to review and verify each application. Colorado's current revalidation process is minimal and not systematic. Provider information is stored in disparate systems. This manual process for data collection is time intensive and susceptible to inconsistent and/or incorrect information. Currently, the MMIS does automatically send enrollment acceptance letters, but enrollment denial letters are sent manually. Provider billing manuals and related documentation are available through the provider services website; however, documents are developed and maintained manually, then uploaded to the Provider Portal.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Provider Enrollment business category. The predominant To-Be Themes that will support this advancement are:

- Centralize access to data

- Enable data interfaces

- Electronic Provider Management

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize processes

3.4.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Member Enrollment [Future Release]					
EE01: Determine Member Eligibility	As-Is		To-Be		
EE02: Enroll Member		As-Is	To-Be		
EE03: Disenroll Member	As-Is		To-Be		
EE04: Inquire Member Eligibility		As-Is	To-Be		

Project Solutions to address listed realities for Member Eligibility and Enrollment Management

MMIS Replacement with Colorado interChange
- Audit trail and access to history
- Centralize access to data
- Enable data interfaces
- Electronic Client Management
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System
- Standardize Transactions

MMIS Replacement with Colorado interChange – BPR
- Standardize processes

CBMS Improvement and Modernization Project
- Enable data interfaces
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System
- Standardize Transactions

Other Department Continual Improvement Projects
- Electronic Client Management

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Provider Enrollment					
EE05: Determine Provider Eligibility	As-Is	To-Be			
EE06: Enroll Provider	As-Is	To-Be			
EE07: Disenroll Provider	As-Is	To-Be			

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MITA Business Process	Level of Business Capability				
	1	2	3	4	5
EE08: Inquire Provider Information	**As-Is**	**To-Be**			

Project Solutions to address listed realities for Provider Eligibility and Enrollment Management
MMIS Replacement with Colorado interChange • Centralize access to data • Enable data interfaces • Electronic Provider Management • Improve, standardize, and automate electronic communication capabilities • Modern, Modular, Configurable, Flexible System **MMIS Replacement with Colorado interChange – BPR** • Standardize processes **DSS Replacement with BIDM** • Improve reporting capabilities

Table 3.4 –Eligibility and Enrollment Management Roadmap

3.5   Financial Management

3.5.1   Description

The Financial Management business area is a collection of business processes to support the payment of providers, managed care organizations, other agencies, insurers, Medicare premiums, and supports the receipt of payments from other insurers, providers, and member premiums and financial participation. These processes share a common set of payables- and receivables-related data. The Financial Management business area is responsible for the financial data store.
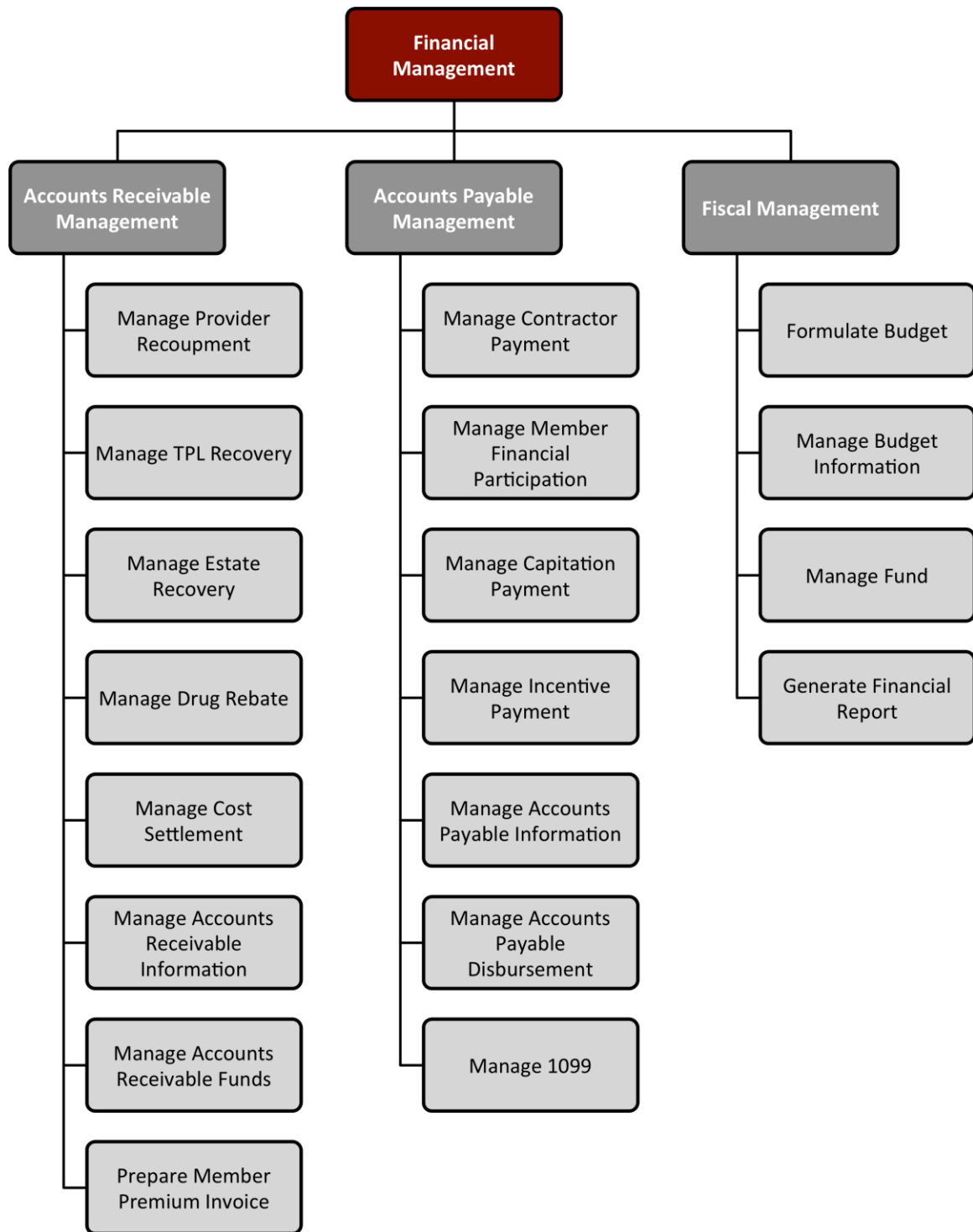
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Figure 3.5 – Financial Management Business Area

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3.5.2   Findings

The Financial Management Business Area in the MITA Framework 3.0 encompasses a quarter of all business processes in the Framework. Most of the Financial Management business processes being performed in Colorado align closely with MITA 3.0 framework. There are a few notable exceptions. The Manage Estate Recovery business process mostly aligns, except that Colorado State Plan provides that the Colorado will both cost avoid and pay and chase. Colorado also outsources part of its estate recovery. The Prepare Member Premium Invoice also mostly aligns, except that Colorado implements client cost sharing through the collections of premiums for medical coverage provided under the Medicaid/CHIP umbrella. The Manage Member Financial Participation is also mostly aligned, except that Colorado does work with federal agencies to resolve any discrepancies to ensure that the client receives appropriate Medicare premium refund(s).

The State anticipates many of the advancements in this business area will stem from the replacement of the legacy integrated financial system (COFRS). The new integrated financial system (CORE) has a planned implementation of July 2014.

Accounts Receivable Management:

Colorado's Accounts Receivable Management business processes include some automation, but are primarily manual and time-intensive. Minimal business rules exist to help ensure accuracy of some of the business processes. These processes require direct data entry, management of multiple data feeds, and manually accessing data in disparate systems. Disparate systems are a big challenge overall for the Financial Management business area. All processes meet federal requirements, but they do not exceed requirements in terms of timing due to labor intensive processes. There is little coordination across HCPF to support these processes.

Colorado plans to make advancements in many areas of accessibility, accuracy, and stakeholder satisfaction. However, SMEs feel that it is unlikely that they will achieve much improvement in timeliness. Due to the inability to make improvements in timeliness, Colorado will remain at an overall Level 1 for the Accounts Receivable Management

Business Category. The predominant To-Be Themes that will support advancement in accessibility, accuracy, and stakeholder satisfaction are:

- Automate reconciliation process

- Centralize access to data

- Enable data interfaces

- Electronic Financial Management

- Improve internal knowledge management process

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Reduce lag between determination and posting data to MMIS

- Standardize processes

Accounts Payable Management:

The Accounts Payable Management Business Category business processes utilize a combination of manual and automated processes. In some cases, the steps in specific processes were all manual. A number of business processes in this business category are described as time intensive with manual intervention that introduces risk for human error. The Manage Member Financial Participation business process includes some automation, but requires a number of manual workarounds and data entry. In addition, use of disparate systems contributes to the manual process. Generally, the processes under this business category are standardized.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Accounts Payable Management Business Category. The predominant To-Be Themes that will support this advancement are:

- Audit trail and access to history

- Centralize Access to Data

- Enable data interfaces

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- Electronic Client Management

- Electronic Financial Management

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

Fiscal Management:

The Fiscal Management Business Category business processes utilizes some automated processes. However, due to limitations of the existing systems, the processes require manual interventions to make decisions regarding policy or programs that affect funding priorities and direct data entry into federal systems. The Fiscal Management business processes benefit from some standardization. As mentioned above, use of disparate systems contributes to the need for manual intervention.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Fiscal Management Business Category. The predominant To-Be Themes that will support this advancement are:

- Audit trail and access to history

- Centralize Access to Data

- Enable data interfaces

- Electronic Financial Management

- Improve internal knowledge management process

- Improve reporting capabilities

- Modern, Modular, Configurable, Flexible System

- Staff/Resource concerns

- Standardize processes

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3.5.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Accounts Receivable Management					
FM01: Manage Provider Recoupment	**As-Is**	**To-Be**			
FM02: Manage TPL Recovery	**As-Is**	**To-Be**			
FM03: Manage Estate Recovery	**As-Is** **To-Be**				
FM04: Manage Drug Rebate	**As-Is** **To-Be**				
FM05: Manage Cost Settlement	**As-Is** **To-Be**				
FM06: Manage Accounts Receivable Information	**As-Is**	**To-Be**			
FM07: Manage Accounts Receivable Funds	**As-Is**	**To-Be**			
Accounts Payable Management					
FM08: Prepare Member Premium Invoice	**As-Is**	**To-Be**			
FM09: Manage Contractor Payment	**As-Is**		**To-Be**		
FM10: Manage Member Financial Participation	**As-Is**	**To-Be**			
FM11: Manage Capitation Payment		**As-Is**	**To-Be**		
FM12: Manage Incentive Payment	**As-Is**	**To-Be**			
FM13: Manage Accounts Payable Information	**As-Is**		**To-Be**		
FM14: Manage Accounts Payable Disbursement	**As-Is**		**To-Be**		
FM15: Manage 1099	**As-Is**	**To-Be**			

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MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Fiscal Management					
FM16: Formulate Budget	**As-Is**	**To-Be**			
FM17: Manage Budget Information	**As-Is**	**To-Be**			
FM18: Manage Fund	**As-Is**	**To-Be**			
FM19: Generate Financial Report	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Financial Management					

MMIS Replacement with Colorado interChange

- Audit trail and access to history
- Automate reconciliation process
- Centralize access to data
- Enable data interfaces
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System
- Reduce lag between determination and posting data to MMIS

MMIS Replacement with Colorado interChange – BPR

- Standardize processes
- Improve internal knowledge management process

DSS Replacement with BIDM

- Audit trail and access to history
- Centralize access to data
- Enable data interfaces
- Improve reporting capabilities
- Modern, Modular, Configurable, Flexible System

CORE

- eClearance
- Centralize access to data
- Improve reporting capabilities

Other Department Continual Improvement Projects

- Improve internal knowledge management process
- Staff/Resource concerns

Table 3.5 – Financial Management Roadmap

3.6   Member Management

3.6.1   Description

The Member Management Business Area is a collection of business processes involved in communications between the Medicaid Enterprise and the prospective or enrolled member and actions that the agency takes on behalf of the member. This business area is responsible for managing the member data store, coordinating communications with both prospective and current members, outreach to current and potential members, and dealing with member grievance and appeals issues.
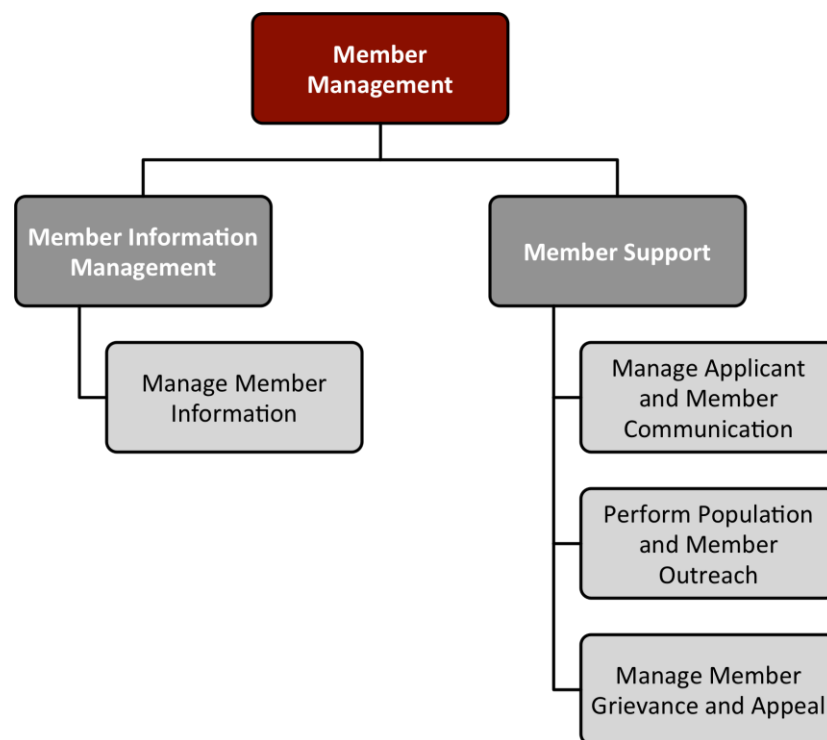
Figure 3.6 – Member Management Business Area

3.6.2   Findings

The MITA Framework 3.0 for the Member Management business area is not yet formalized by CMS. For this MITA assessment, Public Knowledge used the MITA 2.0/2.01 Framework guidance. There are two business categories in this business area, Manage Member Information and Member Support; both categories are under development by CMS and therefore the business processes within this business area will be defined in a future MITA Framework release.

Colorado's Member Management business area utilizes both manual and automated manipulation, with the exception of the Perform Population & Member Outreach and the Manage Member Grievance and Appeal business processes, which are strictly manual processes. For the business area as a whole, however, automated processes, combined with a number of established performance measurements and metrics, have increased the timeliness, efficiency, and accuracy of the business processes. Despite these improvements, a lack of a centralized data repository still impedes accuracy and efficiency. These processes involve several departments, agencies and vendors to achieve the desired outcome.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Member Management business area. The predominant To-Be Themes that will support this advancement are:

- Centralize access to data

- Enable data interfaces

- Electronic Client Management

- Improve electronic Care Management

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize processes

3.6.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Member Information Management [Future Release]					
ME01: Manage Member Information	**As-Is**	**To-Be**			
Member Support [Future Release]					
ME02: Manage Applicant and Member Information	**As-Is**	**To-Be**			
ME03: Perform Population and Member Outreach	**As-Is**	**To-Be**			

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MITA Business Process	Level of Business Capability				
	1	2	3	4	5
ME08: Manage Member Grievance and Appeal	**As-Is** **To-Be**				

Project Solutions to address listed realities for Member Management

MMIS Replacement with Colorado interChange

- Centralize access to data
- Enable data interfaces
- Electronic Client Management
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System

MMIS Replacement with Colorado interChange – BPR

- Standardize processes

DSS Replacement with BIDM

- Centralize access to data
- Enable data interfaces
- Modern, Modular, Configurable, Flexible System

Other Department Continual Improvement Projects

- Electronic Client Management

Table 3.6 – Member Management Roadmap

3.7 Operations Management

3.7.1 Description

The Operations Management Business Area is a collection of business processes that manage claims and prepare premium payments. This business area uses a specific set of claims-related data and includes processing (i.e., editing, auditing and pricing) a variety of claim forms including professional, dental, institutional, drug and encounters, as well as sending payment information to the provider. All claims processing activity incorporates compatible methodologies of the National Correct Coding Initiative (NCCI). The Operations Management business area is responsible for the claims data store.
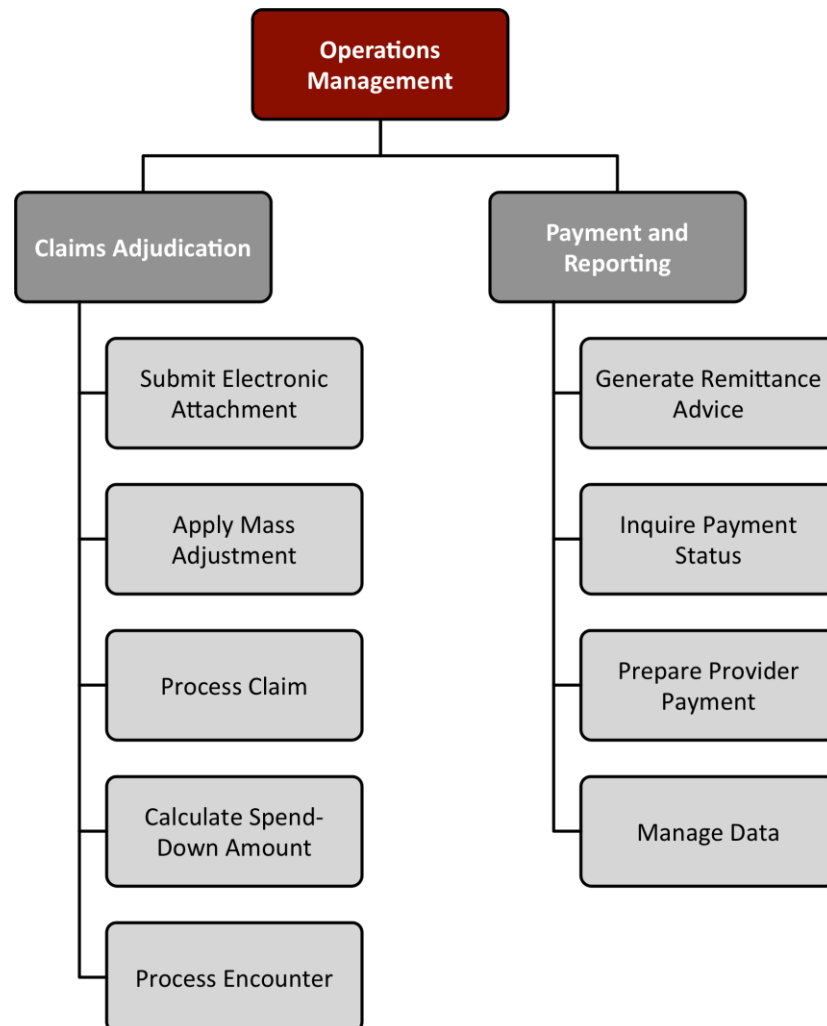
Figure 3.7 – Operations Management Business Area

3.7.2   Findings

Colorado's Operations Management business processes align closely with MITA Framework 3.0. The Calculate Spend-Down Amount business process is not currently performed in Colorado.

The Operations Management Business Area is comprised of both automated and manual business processes. Process Claim and Generate Remittance Advice business processes are primarily automated. However, Apply Mass Adjustment is primarily automated, but some of the associated steps are manual. All other business processes utilize a combination of manual and automated processes. Overall, the Operations Management business processes appear to be limited by the MMIS. These limitations include the manual workarounds required by the antiquated MMIS. Business rules are maintained outside of the system and there is a backlog of Change Service Requests (CSR). Colorado's encounter data does not go through financial processing in the MMIS. In addition, no remittance report is generated for encounter data. Additionally, the inflexibility of the current system is restrictive. However, even with issues related to the MMIS, Colorado's business processes exceed federal and state timing requirements.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Operations Management business area. The predominant To-Be Themes that will support this advancement are:

- Audit trail and access to history

- Centralize access to data

- Enable data interfaces

- Electronic Attachments

- Electronic Client Management

- Electronic Financial Management

- Electronic Provider Management

- Improve internal knowledge management process

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

3.7.3 Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Claims Adjudication					
OM04: Submit Electronic Attachment	**As-Is**	**To-Be**			
OM05: Apply Mass Adjustment	**As-Is**	**To-Be**			
OM07: Process Claim		**As-Is**	**To-Be**		
OM20: Calculate Spend-Down Amount	*Not Applicable*				
OM29: Process Encounter	**As-Is**	**To-Be**			
Payment and Reporting					
OM14: Generate Remittance Advice		**As-Is**	**To-Be**		
OM18: Inquire Payment Status		**As-Is**	**To-Be**		
OM27: Prepare Provider Payment	**As-Is**	**To-Be**			
OM28: Manage Data	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Operations Management					

MMIS Replacement with Colorado interChange
- Audit trail and access to history
- Centralize access to data
- Enable data interfaces
- Electronic Financial Management
- Electronic Provider Management
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System

MMIS Replacement with Colorado interChange – BPR
- Standardize processes
- Improve knowledge management process

PBMS Replacement
- Centralize access to data
- Enable data interfaces
- Modern, Modular, Configurable, Flexible System

DSS Replacement with BIDM
- Audit trail and access to history
- Centralize access to data
- Enable data interfaces
- Improve reporting capabilities
- Modern, Modular, Configurable, Flexible System

Table 3.7 – Operations Management Roadmap

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3.8   Performance Management

3.8.1   Description

The Performance Management Business Area is a collection of business processes involved in the assessment of program compliance (e.g., auditing and tracking medical necessity and appropriateness of care, quality of care, patient safety, fraud and abuse, erroneous payments, and administrative anomalies). This business area uses information about an individual provider or member (e.g., demographics, information about the case itself such as case manager ID, dates, actions, and status, and information about parties associated with the case) and uses this information to perform functions related to utilization and performance. The Performance Management Business Area is responsible for the business activity and compliance data stores.
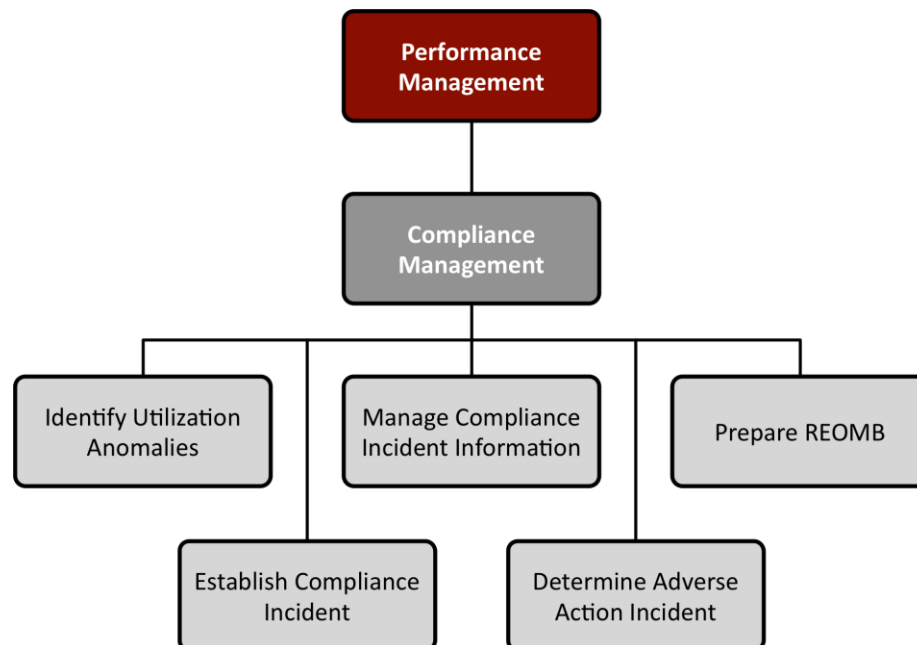
Figure 3.8 – Performance Management Business Area

3.8.2   Findings

Colorado's Performance Management business processes somewhat align with MITA 3.0. Colorado does not distinguish its Identify Utilization Anomalies business process separately from its Establish Compliance Incident business process. In Colorado, the Manage Compliance Incident Information business process is responsible for conducting reviews and monitoring of incidents of utilization anomalies. The Prepare Recipient Explanation of

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Benefits (EOMB) business process for clients has ceased due to HIPAA privacy concerns and only continues for durable medical equipment (DME) and supplies.

The majority of Colorado's Performance Management business processes are manual and time intensive. SMEs feel that by nature, this business area is heavily manual and will likely remain that way. While there is little automation, standardization of the business processes is high. Due to "no wrong door" incident reporting policies, information comes in from a number of different sources making it difficult for the Program Integrity unit to ensure that all cases follow the same pathway for entry into the investigation process. As a result, incidents can be misdirected through the wrong channels. Colorado does not have a centralized incident management system that assigns numbers or assigns and tracks resources and outcomes. Disparate data sources and current MMIS functionality hinders efficiency and accessibility of the incident management.

Colorado plans to advance from their current Level 1 to an overall Level 2 for the Performance Management business area. The predominant To-Be Themes that will support this advancement are:

- Automate workflow management

- Centralize access to data

- Enable data interfaces

- Electronic tracking of audit actions

- Improve internal knowledge management process

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize processes

3.8.3 Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Compliance Management					
PE01: Identify Utilization Anomalies	**As-Is**	**To-Be**			
PE02: Establish Compliance Incident	*Performed within PE01*				
PE03: Manage Compliance Incident Information	**As-Is**	**To-Be**			
PE04: Determine Adverse Action Incident	**As-Is**	**To-Be**			
PE05: Prepare REOMB	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Performance Management					

MMIS Replacement with Colorado interChange

- Automate workflow management
- Centralize access to data
- Enable data interfaces
- Electronic tracking of audit actions
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System

MMIS Replacement with Colorado interChange – BPR

- Standardize processes
- Improve knowledge management process

DSS Replacement with BIDM

- Audit trail and access to history
- Centralize access to data
- Enable data interfaces
- Improve reporting capabilities
- Modern, Modular, Configurable, Flexible System

Table 3.8 – Performance Management Roadmap

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3.9   Plan Management

3.9.1   Description

The Plan Management Business Area includes the strategic planning, policymaking, monitoring, and oversight business processes of the agency. This business area is responsible for the primary data stores (e.g., Medicaid State Plan, health plans and health benefits) as well as performance measures, reference information, and rate setting data stores. The business processes includes a wide range of planning, analysis, and decision-making activities. These activities include service needs and goals, health care outcome targets, quality assessment, performance and outcome analysis, and information management.

As the Medicaid Enterprise matures, Plan Management benefits from immediate access to information, addition of clinical records, use of nationally recognized standards, and interoperability with other programs. The Medicaid program is moving from a focus on daily operations (e.g., number of claims paid) to a strategic focus on how to meet the needs of the population within a prescribed budget.
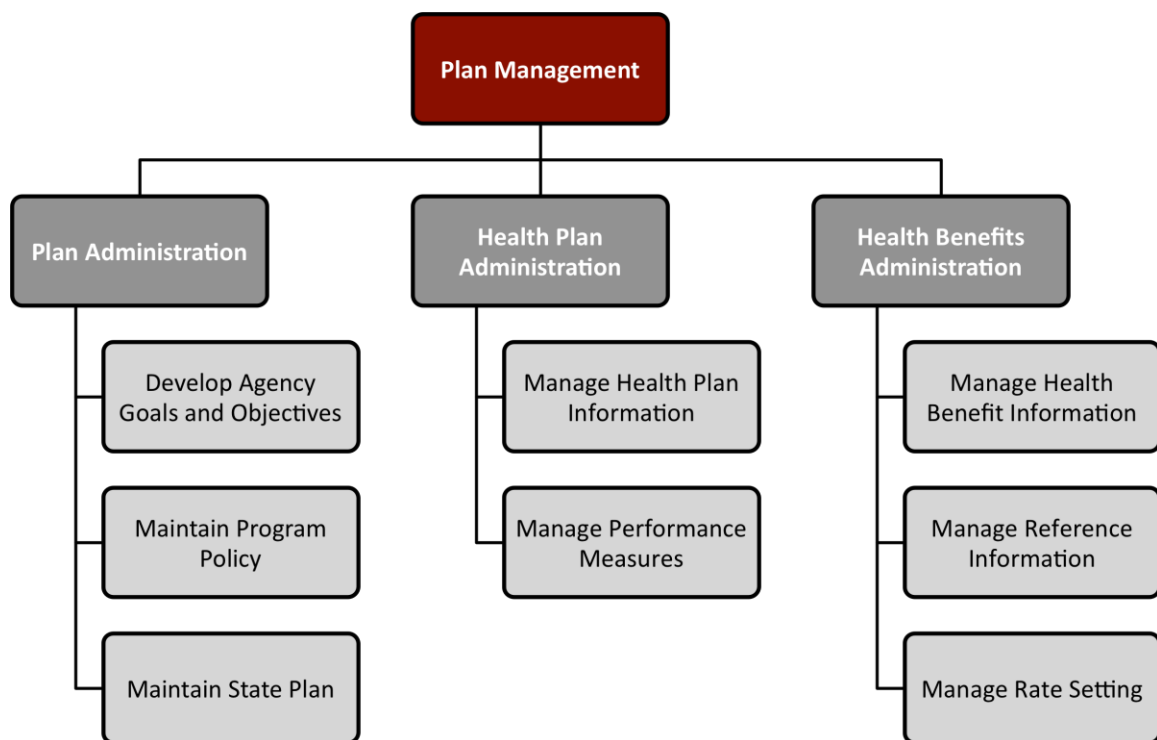

Figure 3.9 – Plan Management Business Area

3.9.2   Findings

Colorado's Plan Management business processes closely align to the MITA Framework 3.0.

Colorado's Plan Management business processes are primarily manual, time intensive, and paper-centric. The internal Clearance process and CMS coordination are exceptions in that they do provide some automated steps for these business processes. Information is stored in disparate systems and interfaces are inflexible, which make it difficult to access relevant information and reportable data. Performance measures are in place; however, due to a lack of standardization and Department coordination, they are not consistently enforced. Subject matter experts are key to the process, but there is a lack of documented procedures to define required steps.

Colorado plans to advance from a Level 1 to an overall Level 2 for the Plan Management business area. The predominant To-Be Themes that will support this advancement are:

- Centralize access to data

- Data Interfaces

- Electronic utilization tracking and forecasting

- Improve internal knowledge management process

- Improve reporting capabilities

- Modern, Modular, Configurable, Flexible System

- Reduce lag between determination and posting data to MMIS

- Standardize processes

- Standardize Transactions

3.9.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Plan Administration					
PL01: Develop Agency Goals and Objectives	**As-Is**	**To-Be**			
PL02: Maintain Program Policy	**As-Is**	**To-Be**			

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MITA Business Process	Level of Business Capability				
	1	2	3	4	5
PL03: Maintain State Plan	**As-Is**	**To-Be**			
Health Plan Administration					
PL04: Manage Health Plan Information	**As-Is**	**To-Be**			
PL05: Manage Performance Measures	**As-Is**	**To-Be**			
Health Benefits Administration					
PL06: Manage Health Benefit Information	**As-Is**	**To-Be**			
PL07: Manage Reference Information	**As-Is**	**To-Be**			
PL08: Manage Rate Settings	**As-Is**	**To-Be**			
Project Solutions to address listed realities for Plan Management					

MMIS Replacement with Colorado interChange

- Centralize access to data
- Enable data interfaces
- Modern, Modular, Configurable, Flexible System
- Reduce lag between determination and posting data to MMIS

MMIS Replacement with Colorado interChange – BPR

- Standardize processes
- Improve knowledge management process

PBMS Replacement

- Centralize access to data
- Enable data interfaces
- Modern, Modular, Configurable, Flexible System
- Reduce lag between determination and posting data to MMIS

DSS Replacement with BIDM

- Centralize access to data
- Enable data interfaces
- Electronic utilization tracking and forecasting
- Improve reporting capabilities
- Modern, Modular, Configurable, Flexible System

Table 3.9 – Plan Management Roadmap

3.10 Provider Management

3.10.1 Description

The Provider Management Business Area is a collection of business processes involved in communications between the Medicaid Enterprise and the prospective or enrolled provider and actions that the agency takes on behalf of the provider. Business processes focus on terminating providers, communications with providers, dealing with provider grievances and appeals issues, and performing outreach services to providers. The Provider Management Business Area is responsible for the provider data store.
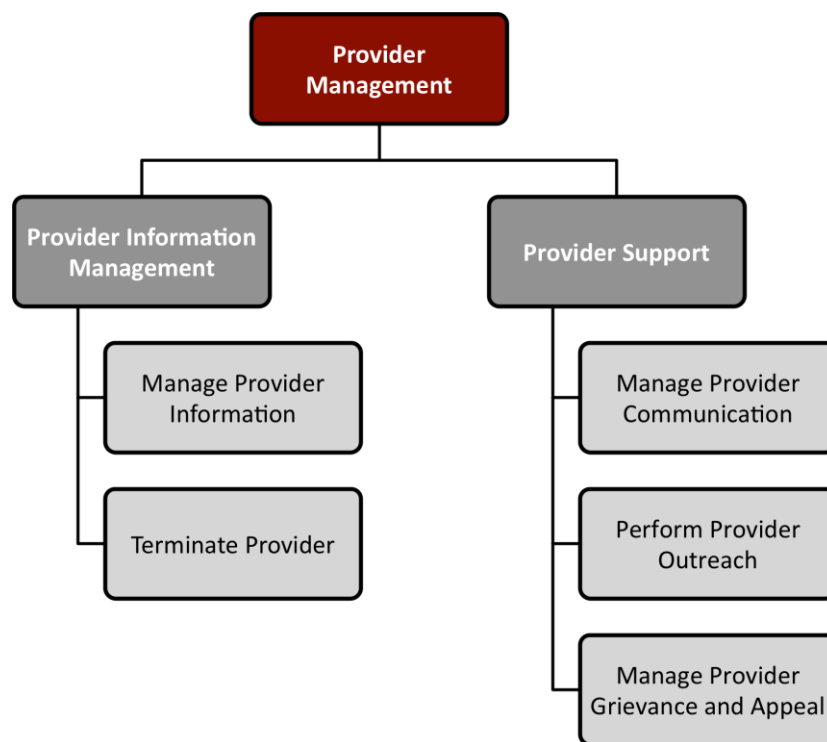
Figure 3.10 – Provider Management Business Area

3.10.2 Findings

The majority of Colorado's Provider Management business processes closely align to the MITA Framework 3.0 with two exceptions. Colorado's Manage Provider Grievance and Appeal business process does not update their state plan as a result of any provider winning an appeal. In addition, Colorado's Terminate Provider business process has additional bases for termination not detailed in the MITA language.

Colorado's Provider Management business processes are primarily manual and are both time and staff intensive. Although processes are highly manual, business processes are standardized across the Department. There is no central repository, and disparate systems are used to access provider information, including the provider web portal and MMIS. Performance measures around Provider Management exist. However, they are minimal.

Colorado plans to advance from a Level 1 to an overall Level 2 (except for Terminate Provider and Manage Provider Grievance and Appeal which will remain at Level 1), for the Provider Management business area. The predominant To-Be Themes that will support this advancement are:

- Audit trail and access to history

- Automate workflow management

- Centralize access to data

- Enable data interfaces

- Electronic Provider Management

- Improve reporting capabilities

- Improve, standardize, and automate electronic communication capabilities

- Modern, Modular, Configurable, Flexible System

- Standardize processes

3.10.3   Roadmap

MITA Business Process	Level of Business Capability				
	1	2	3	4	5
Provider Information Management					
PM01: Manage Provider Information	As-Is	To-Be			
PM08: Terminate Provider	As-Is / To-Be				
Provider Support					
PM02: Manage Provider Communication	As-Is	To-Be			

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MITA Business Process	Level of Business Capability				
	1	2	3	4	5
PM03: Perform Provider Outreach	**As-Is**	**To-Be**			
PM07: Manage Provider Grievance and Appeal	**As-Is** **To-Be**				
Project Solutions to address listed realities for Provider Management					

MMIS Replacement with Colorado interChange

- Audit trail and access to data
- Automate workflow management
- Centralize access to data
- Enable data interfaces
- Electronic Provider Management
- Improve, standardize, and automate electronic communication capabilities
- Modern, Modular, Configurable, Flexible System

MMIS Replacement with Colorado interChange – BPR

- Standardize processes

PBMS Replacement

- Audit trail and access to data
- Centralize access to data
- Enable data interfaces
- Modern, Modular, Configurable, Flexible System

DSS Replacement with BIDM

- Centralize access to data
- Enable data interfaces
- Improve reporting capabilities
- Modern, Modular, Configurable, Flexible System

Table 3.10 – Provider Management Roadmap

4 – Information Architecture Assessment Findings

4.1   Description

The Information Architecture Framework describes information strategy, architecture, and data. It is divided into four areas:

Data Management Strategy — Provides a structure for sharing Medicaid information both internally and externally.

- Does business area have governance of data management?

- Does business area have common data architecture?

- Does each business area use Enterprise Modeling?

- Does business area utilize data sharing architectures?

Conceptual Data Model (CDM) — Provides a depiction of major business information objects and their relationships with each other. Provides a basis for the Logical Data Model.

- Does business area have CDMs?

Logical Data Model (LDM) — Provides a more detailed accounting of Medicaid enterprise information. Based upon the Conceptual Data Model.

- Does business area have LDMs?

Data Standards — Emphasizes standards to ensure data interoperability.

- Does business area use structure and vocabulary data standards to support current and emerging health data standards?

4.2   Findings

Data Management:

Data management policies are not in place for all business areas. There is little formal data governance across the Medicaid Enterprise. Some policies are in place that promote some data governance over internally shared data. However, the State does implement data use

agreements and business associate agreements to support data governance. There is no enterprise modeling in place for any of the business areas.

Conceptual Data Model and Logical Data Model:

Conceptual data models do not consistently exist. If a conceptual data model is in place for a business area, it is system-specific or department-specific, as in the case of the Member Management business area. SMEs stated departments contributing to the Member Management business area have CDMs, but there is no CDM for all of Member Management. A logical data model is in place only for the Operations Management, Performance Management, and Provider Management business areas.

Data Standards:

There are some data standards in place, but they are inconsistent. The Contractor Management, Eligibility and Enrollment Management, Operations Management, Performance Management, and Provider Management business areas have some data standards in place. In these business areas, Colorado uses State-specific and HIPAA data standards.

Colorado plans to advance from a Level 1 to a Level 2 for the Data Management, Conceptual Data Model, and Data Standards areas. For the Logical Data Model area, Colorado plans to remain at a Level 1. Subject matter experts did not anticipate that a logical data model would be in place within the next three to five years for the Financial Management business area. Otherwise, subject matter experts anticipate that the remaining nine business areas will advance to a Level 2.

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4.3 Roadmap

MITA Information Architecture Area	Level of Component Capability				
	1	2	3	4	5
Data Management					
Governance of Data Management	As-Is	To-Be			
Common Data Architecture	As-Is	To-Be			
Enterprise Modeling	As-Is	To-Be			
Data Sharing Architecture	As-Is	To-Be			
Conceptual Data Model					
Conceptual Data Model	As-Is	To-Be			
Logical Data Model					
Logical Data Model	As-Is / To-Be				
Data Standards					
Structure, Vocabulary Data Standards	As-Is	To-Be			

Table 4.1 – Information Architecture Roadmap

5 – Technical Architecture Assessment Findings

5.1 Description

The Technical Architecture Framework is a collection of three Technical Service Areas (TSAs) – similar to business areas in the Business Architecture model – and fifteen (15) associated Technical Service Classifications (TSCs) — similar to business processes in the Business Architecture model. Note that unlike the Information Architecture, the MITA Framework does not provide questions for the TSCs to aid states in assigning levels of business capability. Public Knowledge created questions and they are provided below.

Access and Delivery — Covers design, Section 508 compliance, language support, business intelligence, and forms and reports services. Also covers performance measures and security and privacy mechanisms.

- Client Support — What level of access is supported for beneficiaries, providers, and other staff?

- Business Intelligence — Is a business intelligence infrastructure in place (both technical and programmatic) that supports business analysis?

- Forms and Reporting — To what degree does the technical infrastructure support the automated entry of data and reports?

- Performance Measures — To what degree does the technical infrastructure support the data collection and reporting of performance measures?

- Security and Privacy — What level of technical security control is in place for access to agency systems and information?

Intermediary and Interface — Covers process orchestration, Enterprise Service Bus (ESB), middleware/intermediate services, and workflow and relationship management functionality.

- Business Process Management — How does the technology infrastructure support business process management?

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- Relationship Management — To what degree does the technical infrastructure support the relationship management between Medicaid system users (e.g., clients and providers)?

- Data Connectivity — To what degree does the technical infrastructure support information exchange with stakeholders and communities of interest?

- Service Oriented Architecture (SOA) — Does the technical infrastructure support system modularity and interoperability (e.g., add or replace services with services) through the use of a SOA?

- System Extensibility — Does the technical infrastructure enable states to add new functionality to MITA while still meeting MITA goals and objectives?

Integration and Utility — Covers programming stacks, database access layer services, scalability, logging and configuration management, versioning, and decision management/rules engines used by claims processing systems.

- Configuration Management — What level of system configuration management exists within the system development environment?

- Data Access and Management — How is data access and management supported?

- Decision Management — How are business rules implemented through system applications?

- Logging — How are security controls related to user authentication deployed?

- Utility — Public Knowledge did not create a question for this TSC as it covers multiple topics.

5.2   Findings

Access and Delivery:

There is significant use of manual, time intensive processes throughout the Medicaid Enterprise. A notable exception is claims adjudication, which is largely automated through the use of the MMIS.

Intermediary and Interface:

There is no SOA in place for any business area. As a result, integration with other agencies and systems is difficult. Information is typically exchanged in ad hoc formats, requiring manual intervention. Additionally, electronic forms are used for data entry. If paper applications are used, data is entered by hand into electronic forms. Reporting is highly manual. Business analysis is manually intensive and requires custom coding.

Integration and Utility:

Making changes to the legacy MMIS is difficult and requires extensive code change, which affects other systems. There is limited automation of configuration management, however, and manual intervention is typically required. There is no single sign-on. Business rules are manually applied or maintained outside of the system. Additionally, security assessments are required for new systems, but not all systems have had security assessments. The use of web services is minimal.

Colorado expects that the implementation of CORE, MMIS, BIDM, and PBMS will allow the agency to move to more standard processes using defined business rules maintained in a rules engine, use technology neutral interfaces, implement standards in interface formats and processing, and collect and monitor performance metrics to support business process improvements and management decision-making.

Colorado plans to advance from a Level 1 to a Level 2 for the Access and Delivery and the Integration and Utility TSAs. For the Intermediary and Interface TSA, Colorado plans to remain at a Level 1. The Business Relationship Management business area was rated a Level 1 for this TSA, and within the Business Relationship Management business area, all of the TSCs except for Data Connectivity will advance to a Level 2. The remaining nine business areas will advance to a Level 2.

Roadmap

MITA Technical Architecture Area	Level of Technical Service Capability				
	1	2	3	4	5
Access and Delivery					
Client Support	As-Is	To-Be			
Business Intelligence	As-Is		To-Be		
Forms and Reporting	As-Is	To-Be			
Performance Measures	As-Is / To-Be				
Security and Privacy	As-Is	To-Be			
Intermediary and Interface					
Business Process Management	As-Is	To-Be			
Relationship Management	As-Is	To-Be			
Data Connectivity	As-Is / To-Be				
Service Oriented Architecture	As-Is	To-Be			
System Extensibility	As-Is	To-Be			
Integration and Utility					
Configuration Management	As-Is	To-Be			
Data Access and Management	As-Is	To-Be			
Decision Management	As-Is / To-Be				
Logging	As-Is	To-Be			
Utility	As-Is	To-Be			

Table 5.1 – Technical Architecture Roadmap

6 – Seven Standards and Conditions Assessment Findings

6.1 Description

CMS released the final regulation establishing the Seven Standards and Conditions in April 14, 2011. States intending to qualify for enhanced federal funding for IT investments must describe in their request of funding how the investment will meet the Seven Standards and Conditions.

The Seven Standards and Conditions that must be met to receive federal funding are further defined in the following subsections.

6.1.1 Modularity Standard

The modularity standard includes the use of a modular, flexible approach to systems development, including the use of open interfaces and exposed Application Programming Interfaces (API); the separation of standardized business rule definitions from core programming; and the availability of standardized business rule definitions in both human and machine readable formats.

6.1.2 Medicaid Information Technology Architecture Condition

The MITA condition expects that states will align to and advance increasingly in MITA maturity for business, architecture, and data. Specific activities include the completion of a MITA SS-A, development of a MITA Roadmap, and documenting program operations and related business processes.

6.1.3 Industry Standards Condition

The industry standards condition calls for an alignment with, and incorporation of, industry standards: the Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws; standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.

6.1.4   Leverage Condition

The leverage condition encourages states to promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States. This can be accomplished though collaboration with other states, identification of open source, cloud-based, or commercially available products. Computing infrastructure and application components are both viable candidates for leverage opportunities.

6.1.5   Business Results Condition

The business results condition is directed at the development of systems that support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public. Business results should be quantified through the development of performance standards and periodically measured to ensure performance expectations are being met.

6.1.6   Reporting Condition

The reporting condition involves the development of solutions that produce transaction data, reports, and performance information that contributes to program evaluation, continuous improvement in business operations, transparency, and accountability.

6.1.7   Interoperability Condition

The interoperability condition outlines the seamless coordination and integration with the insurance exchanges, and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.

6.2   Findings

Modularity Standard:

As described in the Technical Architecture findings, there is no SOA for any of the business areas. As a result, there is minimal modularity throughout the Enterprise. Business Relationship Management was the only business area to score above a Level 1 for the Modularity Standard.

MITA Condition:

Colorado conducted the SS-A in 2011 before seeking to procure the MMIS, BIDM, and PBMS. Colorado's SS-A in 2014 evaluated the Medicaid program against the Business Architecture, Information Architecture, Technical Architecture, and Seven Standards and Conditions. Colorado plans to develop its MITA Roadmap and continue conducting annual SS-As.

Industry Standards Condition:

Colorado uses a mixture of HIPAA and state-specific standards.

Leverage Condition:

Very little collaboration occurs with other agencies to leverage or reuse business processes, data standards or information, or messages or technical solutions.

Business Results Condition:

HCPF uses disparate systems to access information. Business processes are highly manual.

Reporting Condition:

There are some performance metrics in place, but they are minimal. If present, performance standards are most often in the form of service level agreements (SLAs) with contractors.

Interoperability Condition:

For most business areas, HCPF has identified areas where it interacts with other agencies and the Exchange. However, Colorado intends to improve its ability to interact with other agencies and the Exchange. The implementation of the MMIS, BIDM, and PBMS will improve interoperability, but in a number of business areas, SMEs indicated lower scores for the Interoperability Condition as related to the Technical Architecture.

Colorado plans to advance from a Level 1 to a Level 2 for each of the Seven Standards and Conditions with the exception of the MITA Condition and the Interoperability Condition. For the MITA Condition, Colorado is currently a Level 2 and expects to remain a Level 2 within the next three to five years. Colorado is currently at a Level 1 for the Interoperability Condition and expects to stay at a Level 1.

6.3 Roadmap

Seven Standards and Conditions	Level of Business Capability				
	1	2	3	4	5
Modularity Standard	As-Is	To-Be			
MITA Condition		As-Is To-Be			
Industry Standards Condition	As-Is	To-Be			
Leverage Condition	As-Is	To-Be			
Business Results Condition	As-Is	To-Be			
Reporting Condition	As-Is	To-Be			
Interoperability Condition	As-Is To-Be				

Table 6.1 – Seven Standards and Conditions Roadmap

Appendix A: Scorecards

Appendix B: Final Use Cases

Appendix C: Use Case Author Inventory

Appendix D: CMS Profile

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