Medicaid Enterprise System (MES) Modernization Assessment

Current State Assessment Report

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SOUTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES
Healthy Connections MEDICAID

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Executive Summary
Introduction

Background and Context

- South Carolina's Department of Health and Human Services (SCDHHS) administers the State's Medicaid programs. Over the past decade, SCDHHS has endeavored to replace its "Core Medicaid Management Information System (MMIS)" system, a 40-year-old mainframe system developed, maintained, and hosted by Clemson University. In line with directives from the Centers for Medicare and Medicaid Services (CMS), SCDHHS aims to replace the MMIS with a more modular, scalable solution. SCDHHS has already begun to "modularize" its Medicaid Enterprise Systems (MES) environment, mostly through contracts with various Medicaid administrative services organizations (ASO's) and vendors providing specific Medicaid systems / modules.
- In the late 2010's SCDHHS started down the path of replacing its Core MMIS, contracting with a Medicaid ASO to provide key claims adjudication and processing services for the State's fee-for-service (FFS) programs. However, due to a number of challenges, SCDHHS canceled this effort and continues to rely on Core MMIS for these programs.
- In 2023, SCDHHS engaged Gartner to assess systems, operations, and business needs to develop a plan of action for the full replacement of the core MMIS in the context of a full MES modernization strategy.

Purpose of the Current State Assessment

This assessment is the first step in the MES Modernization Assessment project. Its purpose is to **provide insight into the business and technical context for the development of an MES Modernization Strategy**, and a **strategic approach to replace the Core MMIS**.

Project Goals

The goals of this MES Modernization Assessment project are to:

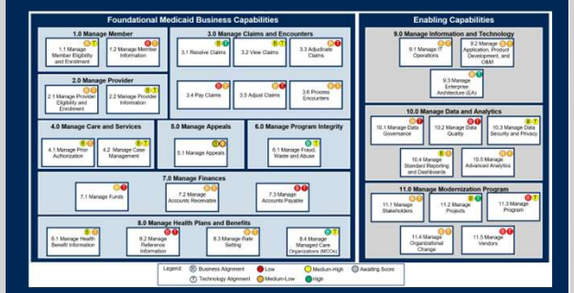
- Gain an understanding of the Agency's current state from a governance, business / program, and technology perspective
- Provide a holistic, enterprise level, "future state vision" for modernizing its information and technology systems, aligned with the organization's business strategy and goals
- Evaluate if planned and recently implemented projects will help to achieve the organization's modernization goals
- Outline the necessary strategy, structure, and steps to achieve the envisioned future state and replace the Core MMIS and related systems

Executive Summary
Approach

Discovery

- Gartner started with an extensive review of documentation provided by SCDHHS, Clemson University, and others. This included business process documents, MITA self assessments (SS-As), Advanced Planning Documents (APDs), past and present procurement documents, technical system documentation, and vendor contracts.
- In addition to documentation review, Gartner conducted an extended series of interviews with internal and external SCDHHS stakeholders to better understand SCDHHS' business and technical situation.
- Gartner also met with Clemson for a two-day on-site meeting to fully understand the technical architecture and functionality provided by Core MMIS.

SCDHHS' Business Capability Model with Business and Technical Alignment Scores



Domain	Low	Medium-Low	Medium-High	High
Business Alignment	Current state capabilities are not well defined, established or ready to support what is needed to enable SCDHHS' business model presenting serious risk to the organization.	Current state capabilities are minimally adequate for what is needed to enable SCDHHS' business model.	Current state capabilities are reasonably adequate for what is needed to enable SCDHHS' business model.	Current state capabilities meet or exceed what is needed to enable SCDHHS' business model.
Technology Alignment	The current technology frequently impairs or prevents business processes, contributes to or causes data quality issues, or requires significant manual effort/intervention to accomplish its intended tasks.	The current technology sometimes impairs or prevents business processes, contributes to or causes data quality issues, or requires significant manual effort/intervention to accomplish its intended tasks.	The current technology rarely impairs or prevents business processes, contributes to or causes data quality issues, or requires significant manual effort/intervention to accomplish its intended tasks.	The current technology adequately enables business strategy and business processes.

Assessment Methodology & Framework

- To assess SCDHHS' current state, Gartner developed a Business Capability Model (BCM), aligned with CMS' Medicaid Information Technology Architecture (MITA) Framework, tailored specifically to SCDHHS' context. The BCM framework enabled Gartner to summarize the Agency's current business capabilities, document high-level data flows related to each, and identify strengths, challenges and opportunities for improvement for each capability.
- Gartner divided the BCM assessment into two sections — "Foundational Medicaid Business Capabilities" (Sections 1-8) related to the essential business operations required to administer SC's Medicaid programs, and "Enabling Capabilities" (Sections 9-11) related to the overarching management capabilities for the organization. Gartner also scored the business and technical alignment of each capability, to provide an indicator of how successful the capability is currently supporting SCDHHS' business needs.
- Finally, Gartner developed "Systems Profiles" for each in-scope internal and external system. Included in the systems profiles are summaries of the capabilities they support, integrations, technical specs, and information on DDI and M&O services to support the system. Gartner then conducted a deeper dive on Core MMIS, MES Core, and Phoenix to assess the strengths, challenges and opportunities for improvement for each system.

Executive Summary
Key Findings

Gartner aggregated and synthesized its current state findings and observations into a set of key findings, spread across nine focus areas. These key findings are meant to **provide SCDHHS leadership with key takeaways** from this assessment. They will also **inform the development of the Agency's future state vision** for its Medicaid Enterprise Systems the strategy for replacing the Core MMIS.

Summaries of key findings from this assessment include:

1. **SCDHHS' Core Business Processes —** The Core MMIS system is a 40-year-old mainframe system with outdated technology and tools. Though it sufficiently supports the Agency's fee-for-service business processes, its limitations require significant manual effort, workarounds and technical "band-aids." Importantly, its technical design constrains it from appropriately supporting the Agency's Managed Care line of business, in which over 80% of the State's Medicaid members are now enrolled.

2. **Status and Priority of Modernization Efforts —** The Agency lacks a Medicaid Enterprise System (MES) modernization strategy. In its absence, key stakeholders have developed differing views and priorities for MES modernization. Current modernization efforts are predominantly driven by the need to reprocure Medicaid systems and services due to contract expiration. Regarding these efforts, the Agency *has* improved its approach — investing in resources to define stronger requirements to drive more successful procurements. The Agency has also undertaken modernization initiatives to modernize key MES-enabling capabilities, such as the Encounter Processing System (EPS) project.

3. **MES Core Systems Integration Approach and Capabilities —** MES Core was envisioned to be the Agency's integration hub and to provide enterprise data management services. However, it currently lacks a clearly defined business case, including tangible use cases aligned with specific, strategic, business goals and objectives. To date, the team's delivery process has limited interaction with the business areas that should be driving requirements, testing, and deliverable acceptance. SCDHHS has also been challenged with developing a technical approach for its implementation. As a result, MES Core is a mostly underutilized capability.

Executive Summary
Key Findings (cont'd)

4 **DASH's Capabilities to Manage MES Modernization —** The Delivery of Automated Systems for Healthcare (DASH) team at SCDHHS has been tasked with managing modernization efforts. DASH was originally created to replace the prior "RMMIS" program and has established Program Management controls and standards to assist with the planning and implementation of several key Medicaid system components. However, DASH, or another enterprise program office, needs to have full authority and ability to serve as the lead modernization program office.

5 **SCDHHS Data Quality and Data Management Capabilities —** Data is the backbone of MES modernization, yet data sharing within SCDHHS is limited and the Agency has only recently started to implement a data governance program to strengthen data management capabilities and improve data quality.

6 **SCDHHS' Decision Support Resources and Capabilities —** Data and analytics are needed to inform decision making at all levels of the Agency's Medicaid programs. Data and analytics are even more important in a managed care business model, as the Agency requires them to measure the performance of MCO's and to ensure the maximum value of care services purchased. However, the Agency's internal analytics capabilities are limited and SCDHHS is reliant on an array of vendors to provide this capability.

7 **SCDHHS Financial Management and Claims Payment Capabilities —** Technical challenges of the Core MMIS system constrain the Agency's financial management capabilities, resulting in manual processes, workarounds, and data reconciliation efforts between multiple systems. As well as a lack of ability to perform financial reporting at a level of granularity required of the Agency.

8 **SCDHHS' Programmatic Governance to Support Modernization —** The Agency lacks a guiding MES modernization strategy and a clearly defined governance model to manage and oversee modernization efforts.

9 **Phoenix and its Role Supporting Medicaid CLTC and Waiver Programs —** Phoenix effectively supports the Agency's CLTC and Waiver programs with key case management and related capabilities. However, technical constraints with Core MMIS and MEDS limit its ability to efficiently exchange member and provider data, creating manual effort to keep data reconciled between systems.

Executive Summary
Conclusion and Next Steps

Conclusion

- Though SCDHHS' Core MMIS system sufficiently supports the Agency's fee-for-service (FFS) business processes, its outdated technology and tools significantly impairs SCDHHS' foundational business capabilities. Core MMIS's limitations are felt most acutely in the management of the Agency's FFS line of business, where the Core MMIS requires extensive manual effort and workarounds to use. However, its constraints also impact the Agency's managed care line of business, as these programs have been made dependent on the limited support Core MMIS is able to provide. Replacing Core MMIS remains a top priority for the Agency.
- Historically, replacing the Core MMIS was the primary focus of the Agency's modernization efforts. However, especially as SCDHHS has increasingly outsourced more of its business capabilities to administrative service organizations and contracted out technical support for key Medicaid enterprise systems / modules, any effort to replace MMIS must be aligned with a broader Medicaid Enterprise System (MES) modernization strategy. To date, SCDHHS has not established such a strategy, nor defined a formal governance model to prioritize, sequence, and guide modernization efforts.
- Consequently, the Agency's modernization efforts have mostly been reactive. The Agency has made limited progress on implementing key technical infrastructure required to support the data integration, data management, and data analytics capabilities required in a modern MES environment. And, as the Agency has moved most of its business to managed care, its MES modernization efforts have not been well-aligned the overall business transformation the Agency has undertaken.
- Despite this, SCDHHS staff remain dedicated to the Agency's mission and eager to undertake modernization efforts that ensure the maximum value of care and services purchased, with a focus on improving the health and quality of life for South Carolinians.

Next Steps

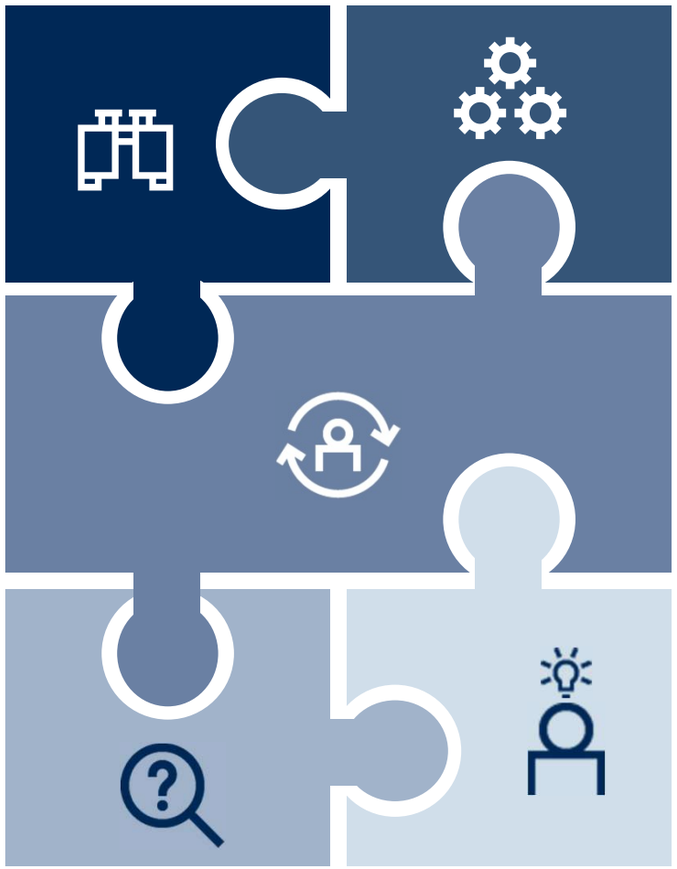
As Gartner moves into the next phase of this project, it will build out a **future state vision** for the Agency that focuses on addressing the strengths, challenges and opportunities for improvement identified in this report.

Though rooted in the business and technical findings described here, it will identify the target state of business capabilities the Agency will require in the future — specifically a future where the majority of its members are covered under managed care.

The **future state vision** will describe an MES environment that appropriately supports this target state and serve to guide the development of a strategy and roadmap to achieve that future state.

Project Background and Context

Project Background, Context, and Critical Success Factors

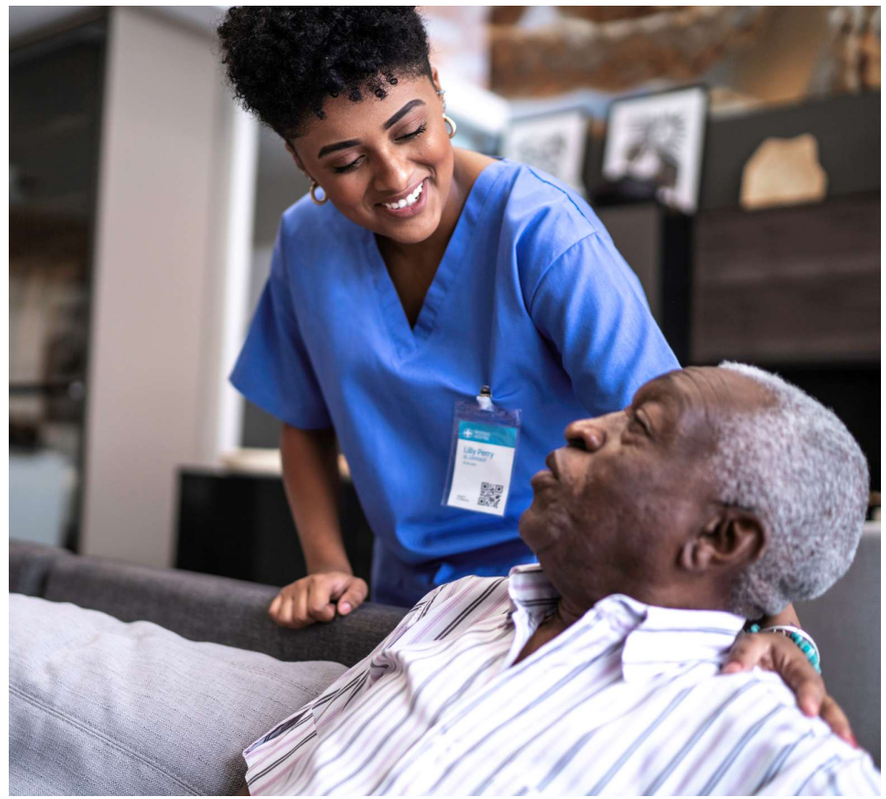


- The Medicaid program in South Carolina is administered by **SCDHHS** and the Agency **is in the process of replacing the current MMIS**. SCDHHS desires to replace the current MMIS **with a distributed MMIS that consists of multiple, integrated solutions**.
- **SCDHHS has experienced significant loss of policy and operations subject matter expertise** throughout the past few years. There are key business processes that are not documented and **key expertise not available to develop requirements** for a new system.
- SCDHHS has made steady progress with the replacement of its MMIS, however **executive leadership is looking for an independent, third-party consultant** to assess systems, operations, and business needs **to develop a plan of action for the full replacement of the core MMIS and related systems**.

Our goal is to position SCDHHS with a viable strategy and roadmap that will pave the path to the Department's desired future state.

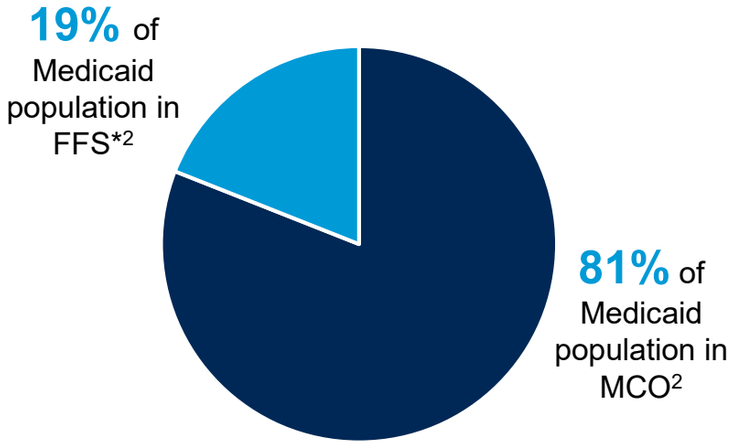
The goal for this project is to **define a strategy and roadmap for successfully modernizing SCDHHS' Medicaid Enterprise System** that:

- Leverages understanding of the **current state** from a governance, business / program, and technology perspective
- Provides a holistic, enterprise level, "**future state vision**" for modernizing its information and technology systems, aligned with the organization's business strategy and goals
- Evaluates if **planned and recently implemented** projects will help to achieve the organization's goals
- Outlines the necessary **strategy, structure, and steps** to achieve the envisioned future state and replace the core MMIS and related systems

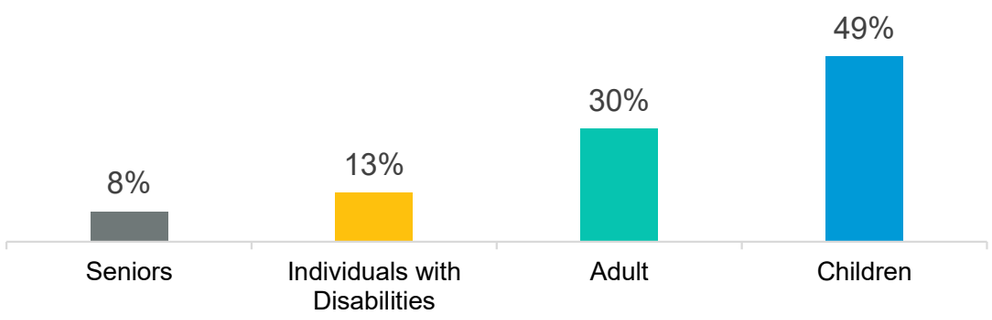


Overview of SCDHHS Enrollment and Spending

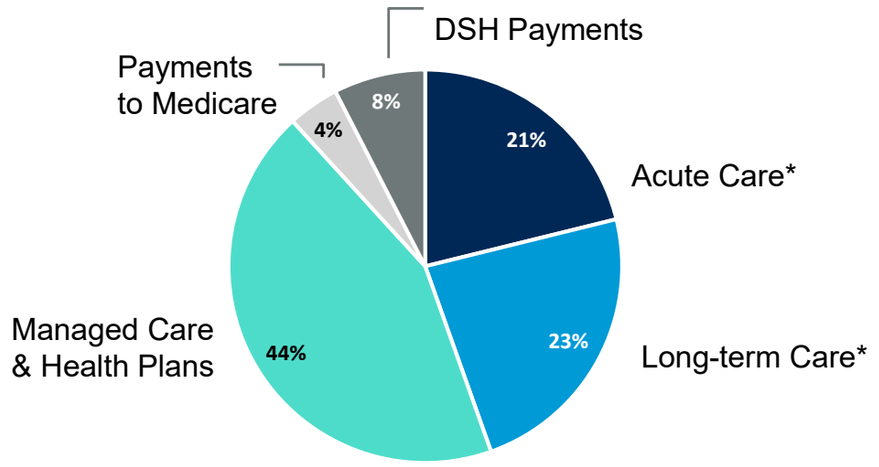
1,227,642 enrolled in Medicaid/CHIP[1]



Medicaid Enrollees by Enrollment Group[3]



$7.8 billion spent by Medicaid in 2022[4]



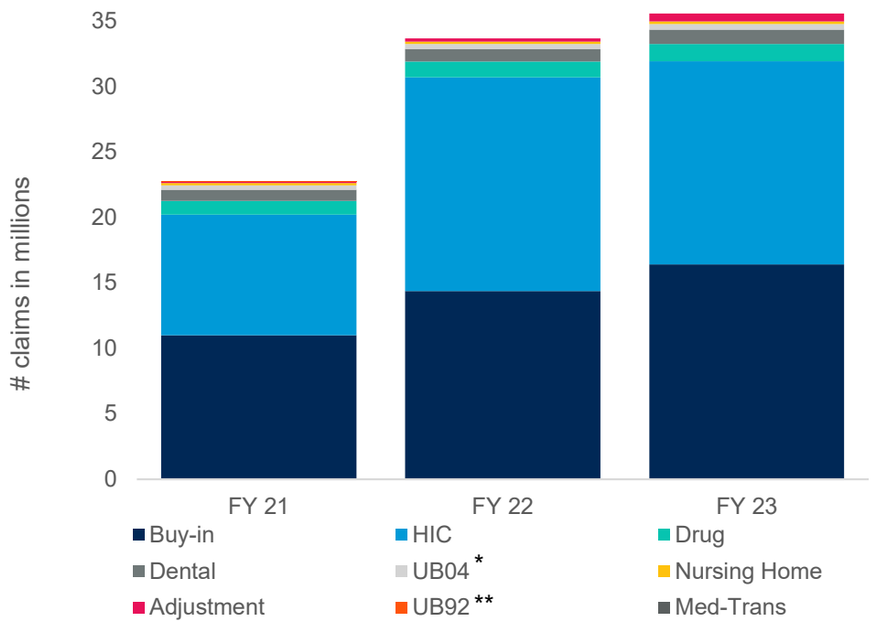
78% Federal vs **22%** State share of Medicaid spending[5]

Source: (1) *Medicaid.gov* Oct'23
(2) CMS Medicaid Managed Care Enrollment Reports, 2023
(3) KFF estimates based on T-MSIS 2019
(4) Urban Institute estimates based on CMS (Form64) FY22
(5) Urban Institute estimates based on CMS (Form64) FY22

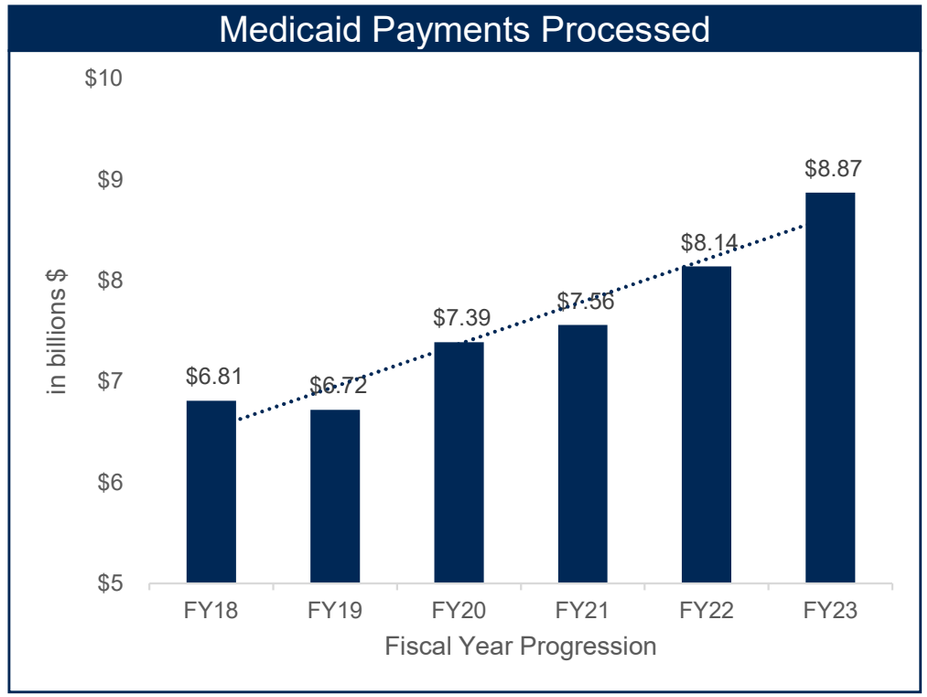
Note: * Indicates Fee-for-Services (FFS) population or payments

SCDHHS Key Statistics — Claims & Payments

MMIS processed over **36 million** claims in Fiscal Year 2023 with HICs & Buy-ins representing the biggest share of claims processed



Note: * UB04 is the legacy claim form for hospitals, nursing facilities, in-patient, and other facility providers
** UB92 is the 2007 update of the UB04



MMIS managed & facilitated over **$8 billion** in claims payments over the last 2 fiscal years

Current State Assessment Approach, Framework and Methodology

Gartner's structured approach will guide SCDHHS in assessing the MMIS replacement and crafting a future vision and roadmap

Ensure project has a solid foundation by establishing **project management processes and controls**, and engaging with key stakeholders

0

Initiate Project (✓)

YOU ARE HERE

1

Establish MES Modernization Strategic Context

Conduct a **current state assessment** to provide SCDHHS with detailed insight into the **technologies, processes, and organization/ staffing for the MMIS replacement**

Develop a **future state vision** for Medicaid systems and operations and the associated goals and objectives

2

Define Target State Vision and Operating Model

3

Develop Go Forward Strategy and Roadmap

Explore the **alternatives** for achieving the **modernization vision**. Conduct a gap analysis and develop a **strategic roadmap** to achieve the desired future state vision

Medicaid Ecosystem			Organizational Model, Governance, and Program Standards	Financial Payment and Processing	Core Business Processes
Core MMIS	Medicaid Modules	MES Core			

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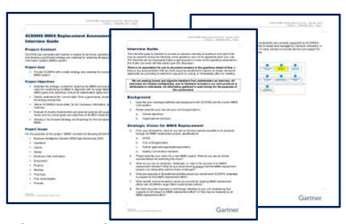
Gartner's discovery lays the foundation for a deep understanding of SCDHHS' business and technical environment

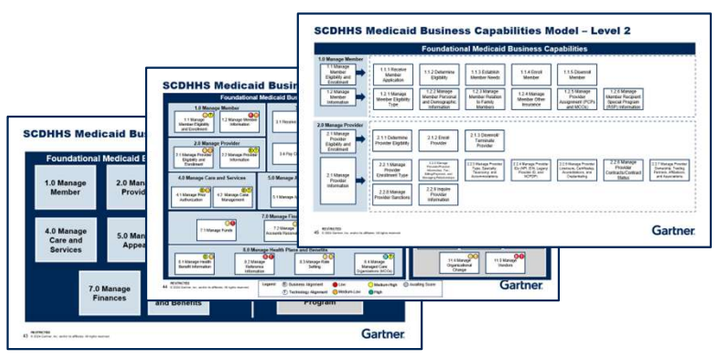
Step 1
Discovery & Interviews

- Requested discovery documentation and reviewed 500+ artifacts to establish strategic context, identify potential challenges, and formulate additional questions for a deeper understanding of the business and technology environment.
- Developed an understanding of SCDHHS stakeholders and processes by:
  - Identifying key stakeholders.
  - Scheduling and conducting interviews over a four-month period using a comprehensive interview questionnaire, based on discovery and documentation research.
  - Creating a tailored questionnaire for each specific module to facilitate a deeper understanding of the business and technical processes, pain points, and strengths.



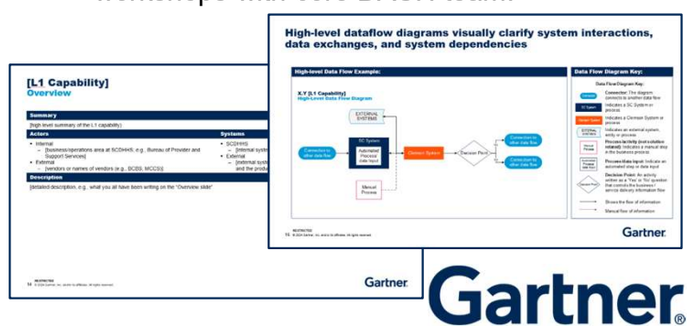
Step 2
BCM Creation & Validation

- Created a framework for conducting the current state assessment, including:
  - Developing a Business Capability Model for Medicaid (level 0, level 1, and level 2) and validating it with stakeholders and SMEs.
  - Scheduling and conducting SCDHHHS module-specific interviews with SMEs to align to BCM.
  - Collecting and curating additional discovery documentation, as required.
  - Reviewing SCDHHS feedback and incorporating it into SCDHHS-specific BCM.



Step 3
Business Capability Assessment

- Assessed each Level 1 Medicaid business capability including:
  - Provided a summary of each capability, identified all internal and external actors directly involved, and identified internally/externally controlled systems including a detailed description of each capability.
  - Created data flow diagrams to visualize the flow of data between various systems, highlight dependencies on Clemson hosted and manage systems, pinpointed integration points, and identified manual processes.
  - Held bi-weekly review and validation workshops with core DASH team.



Gartner leverages the full systems assessment and key findings to inform SCDHHS' business and systems target state

Step 4 Business Capability Alignment

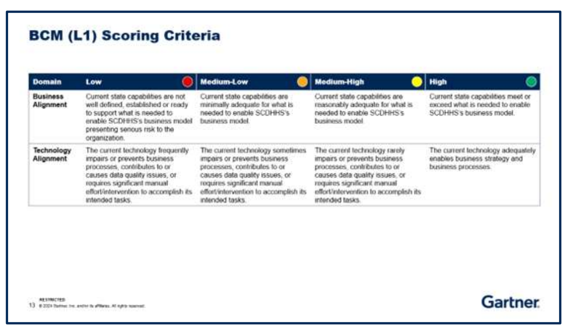
- Provided a structured and systematic framework to evaluate the current state of the SCDHHS' capabilities with their business and technology alignment. Gartner's "scoring" criteria determined how well:
  - SCDHHS' current capabilities support its business model.
  - The current technology supports business processes and contributes to data quality.

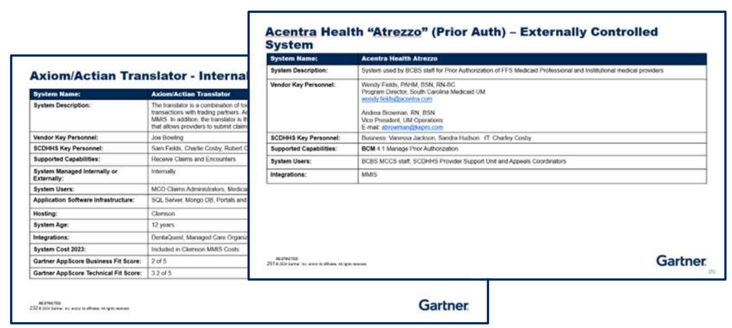
Step 5 Systems Assessment

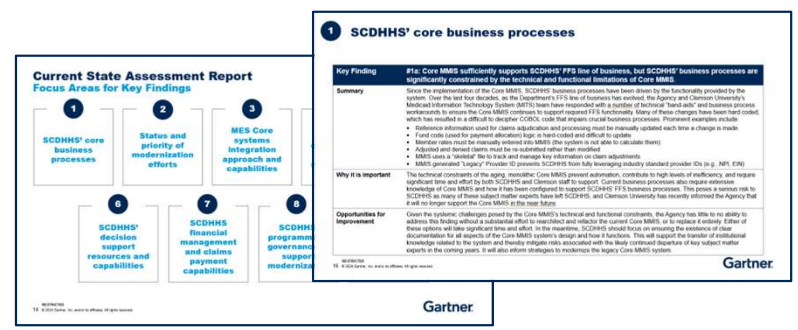
- Conducted a comprehensive assessment of both internally and externally controlled systems within SCDHHS to gather key information on each system such as supported capabilities, integrations, stakeholders, annual costs, strengths, and challenges.
- The Systems Overview provided detailed profiles on the:
  - Internally controlled systems directly managed by SCDHHS.
  - Externally controlled systems managed by contracted vendors (not under direct control of SCDHHS).

Step 6 Key Findings

- Derived Key Findings from steps 1-5, and organized findings across the Medicaid business and enabling capabilities to nine key findings which include:
  - Core business processes
  - Prioritization of modernization efforts
  - MES Core system integration assessment
  - Organizational model and program management capabilities
  - Data quality and management
  - Decision support capabilities
  - Financial management capabilities
  - Modernization governance model
  - Assessment of Phoenix support capabilities







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Key Findings

Current State Assessment Report

Focus Areas for Key Findings

1. SCDHHS' Core Business Processes
2. Status and Priority of Modernization Efforts
3. MES Core Systems Integration Approach and Capabilities
4. DASH's Capabilities to Manage MES Modernization
5. SCDHHS Data Quality and Data Management Capabilities
6. SCDHHS' Decision Support Resources and Capabilities
7. SCDHHS Financial Management and Claims Payment Capabilities
8. SCDHHS' Programmatic Governance to Support Modernization
9. Phoenix and its Role Supporting Medicaid CLTC and Waiver Programs

1 SCDHHS' Core Business Processes

1a Key Finding: Core MMIS sufficiently supports SCDHHS' FFS line of business, but SCDHHS' business processes are significantly constrained by the technical and functional limitations of Core MMIS.

Summary	Since the implementation of the Core MMIS, SCDHHS' business processes have been driven by the functionality provided by the system. Over the last four decades, as the Agency's FFS line of business has evolved, SCDHHS and Clemson University's Medicaid Information Technology System (MITS) team have responded with a number of technical "band-aids" and business process workarounds to ensure the Core MMIS continues to support required FFS functionality. Many of these changes have been hard coded, which has resulted in a difficult to decipher COBOL code that impairs crucial business processes. Prominent examples include: ▪ Reference information used for claims adjudication and processing must be manually updated each time a change is made ▪ Fund codes (used for payment allocation) logic is hard-coded and difficult to update ▪ Member capitation rates must be manually entered into MMIS (the system is not able to calculate them) ▪ Adjusted and denied claims must be re-submitted rather than modified ▪ MMIS uses a "skeletal" file to track and manage key information on claim adjustments ▪ MMIS generated "Legacy" Provider ID prevents SCDHHS from fully leveraging industry standard provider IDs (e.g., NPI, EIN)
Why it is important	The technical constraints of the aging, monolithic Core MMIS prevent automation, contribute to high levels of inefficiency, and require significant time and effort by both SCDHHS and Clemson staff to support. Current business processes also require extensive knowledge of Core MMIS and how it has been configured. This poses a serious risk to SCDHHS as many of these subject matter experts have left SCDHHS, and Clemson University has recently informed the Agency that it will no longer support the Core MMIS in the near future.
Opportunities for Improvement	Given the systemic challenges posed by the Core MMIS's technical and functional constraints, SCDHHS has little to no ability to address this finding without a substantial effort to rearchitect and refactor the current Core MMIS, or to replace it entirely. Either of these options will take significant time and effort. In the meantime, SCDHHS should focus on ensuring the existence of clear documentation for all aspects of the Core MMIS system's design and how it functions. This will support the transfer of institutional knowledge related to the system and thereby mitigate risks associated with the likely continued departure of key subject matter experts in the coming years. It will also inform strategies to modernize the legacy Core MMIS system.

1 SCDHHS' Core Business Processes

1b Key Finding: **SCDHHS lacks a primary source system or an effective master data management (MDM) solution for managing key data domains. This results in significant manual effort to keep information synchronized between systems.**

Summary	SCDHHS' FFS line of business is centered on three key data domains — member, provider, and claims. For member and provider data especially, SCDHHS lacks a single, primary source system or MDM solution to serve as the source of truth. Instead, updates can be made in several systems without any automated synchronization, creating discrepancies and other data quality issues. ▪ Member data is currently stored in several systems, including MMS, MEDS, Core MMIS, and Phoenix (for Community Long-Term Care (CLTC) and Medicaid waiver populations). ▪ Provider data is currently stored in the Provider Application, Core MMIS, Phoenix, and iFlow, (used by Blue Cross Blue Shield of South Carolina (BCBSSC), SCDHHS' provider management administrative services organization. ▪ Though Core MMIS is the system of record for FFS claims data, Phoenix also plays a major role in collecting and managing claims information for the Agency's CLTC and Medicaid Waiver programs.
Why it is important	Instances of master data (specifically member, provider, and claim data) are represented inconsistently across the FFS processes and systems on a regular basis. This results in unnecessary complexity, confusion, and substantial manual effort to manage data and contributes to significant data quality and data integrity risks.
Opportunities for Improvement	In the near term, the systemic challenges posed by Core MMIS' technical and functional constraints, limit SCDHHS' ability to address this finding without a considerable effort to rearchitect and refactor the current Core MMIS, or to replace it entirely. In the long term, SCDHHS should seek an MES enterprise solution architecture that includes effective management of this important master data.

1 SCDHHS' Core Business Processes

1c Key Finding: SCDHHS' business processes and systems remain focused on its FFS line of business, despite the majority of its members being covered under its Managed Care programs.

Summary	SCDHHS was originally structured, organized, and resourced to support its FFS line of business. This included the design of its business processes and the supporting systems. As the Agency introduced its Managed Care line of business, it accommodated this business transformation by modifying existing FFS business processes and systems when possible and introducing new business process (and systems to appropriately support those processes) when necessary. Prominent examples include: ▪ Leveraging the Core MMIS and its Translator to receive, process and store encounter information. Core MMIS and IDMS were designed for claims data and cannot store the more enhanced encounter dataset, limiting the Agency's ability to analyze and report on various dimensions of encounter data. ▪ Modifying Core MMIS claims processes to pay capitation payments.
Why it is important	Today, SCDHHS' Managed Care line of business accounts for the majority (over 80% as of January 2024) of the members and services it covers. Though SCDHHS does not currently intend to move all members from FFS to Managed Care, it intends to increase the percentage of those covered under Managed Care. Expanding SCDHHS' focus on its Managed Care business will allow it to better support its MCO partners, as well as better define what services are providing value and improving health outcomes. SCDHHS cannot afford to continue constraining critical managed care related activities by shoe-horning their support into FFS processes and systems.
Opportunities for Improvement	▪ Prioritize investments in capabilities (business processes, resources and systems) that support Managed Care, over those that support FFS only. ▪ Where possible, loosen the reliance on FFS business processes and systems to support Managed Care needs and, in future, remove all dependencies.

2 Status and Priority of Modernization Efforts (1/2)

Project Name	Purpose	Modernization Project Management	Procurement Planning Vendor	RFP Published	Contract Awarded	Implementation Complete	Federal Certification Complete
Electronic Visit Verification (EVV)	Procure a vendor to implement an EVV tool for the Agency's CLTC and Waiver programs.	DASH	PCG	4/2024	12/2024	4/2026	10/2026
Health & Welfare Critical Incident Management (HWCIM)	Procure a vendor to design, develop and implement a system for the Agency's CLTC and Waiver programs.	DASH	North Highland	9/2024	6/2025	9/2026	3/2027
Third Party Liability (TPL)	Procure an administrative services organization to manage TPL and fund recovery.	DASH	Public Knowledge	9/2024	6/2025	9/2026	3/2027
Pharmacy Benefits Administrator (PBA)	Procure an administrative services organization to manage the Agency's Medicaid pharmacy benefits program.	DASH	Public Consulting Group	12/2024	8/2025	11/2026	5/2027
Dental Prepaid Ambulatory Health Plan (PAHP)	Procure an administrative services organization to manage the Agency's dental benefits program.	DASH	North Highland	12/2024	8/2025	9/2026*	NA
Financial Management Solution (FMS)	Procure a vendor to provide financial management administrative services for the Agency's CLTC and Waiver programs.	DASH	TBD	5/2025	1/2026	5/2027	11/2027

*Dental Implementation timelines will be impacted by Readiness Review duration

2 Status and Priority of Modernization Efforts (2/2)

Project Name	Purpose	Modernization Project Management	Procurement Planning Vendor	RFP Published	Contract Awarded	Implementation Complete	Federal Certification Complete
Non-Emergency Medical Transportation (NEMT) Program	Procure a vendor to provide NEMT services.	DASH	Internal DHHS Project	6/2024	9/2024	3/2025*	NA
Business Intelligence System (BIS)	Procure a vendor to provide the Agency with data analysis, business intelligence and reporting capabilities.	BIS	Public Consulting Group	NA	6/2024#	11/2025	5/2026
Encounters Processing System (EPS)	A cloud-based platform intended to be implemented by SCDHHS to replace the existing legacy Encounters Processing Platform (EPP).	MCBS	N/A	NA	NA	7/2024	2/2025
Medicaid Clinical Data Exchange (MCDE)	The Medicaid Clinical Data Exchange (MCDE) should allow for patient-authorized exchange of ED clinical data, via industry accepted standards, between the Hospitals, SCDHHS and the Medicaid Managed Care Organization (MCO) Plans.	TBD	Random Bit	6/2024	1/2025	3/2026	9/2026
HCSC	Improve the customer service delivery for our customers and those assisting them through the centralization of customer service delivery and efficient, easy-to-use self-service options.	TBD	N/A	7/2024	3/2025	9/2026	3/2027

*NEMT Implementation timelines will be impacted by Readiness Review duration.

BIS is utilizing the State Term Contract.

2 Status and Priority of Modernization Efforts

2a Key Finding: Key internal SCDHHS stakeholders have differing views and priorities for MES modernization

Summary	Leading up to SCDHHS' Medicaid ASO contract with Optum, and throughout the Replacement MMIS (RMMIS) project, SCDHHS' primary vision for Medicaid enterprise system modernization was the replacement of the Core MMIS. Additionally, stakeholders across the Agency placed their priorities and expectations for all legacy system modernization on the RMMIS project. With the cancellation of the Optum contract, RMMIS efforts effectively ceased, and the Agency lost its vision for what its "modernization" efforts should focus on. In the absence of a formal MES strategy, much of the focus of recent MES modernization efforts has centered on the re-procurement of existing Medicaid administrative services (e.g., TPL, PBA) or Medicaid system capabilities (e.g., EVV, HWCIM). This is an important priority, given that SCDHHS' business operations rely heavily on vendors to provide key Medicaid systems and services. However, it has placed the Agency in a reactive mode, with contract expiration being the chief driver guiding modernization efforts. The absence of a shared modernization vision has also created a vacuum among Agency stakeholders on what modernization should look like, and what its priorities should be. In this gap, stakeholders have developed their own expectations, views and priorities. This has led to siloed initiatives, risking misalignment of investments and straining resources.
Why it is important	A shared vision on MES modernization priorities, with adequate buy-in from business and technical stakeholders will drive a more cohesive and equitable strategy that will serve the Agency's needs most effectively.
Opportunities for Improvement	▪ Develop a formal MES Modernization Program Charter that defines the objectives, scope, stakeholders, roles and responsibilities, and governance structure for modernization that provides a clear framework and alignment for all involved parties, guiding decision-making, and ensuring accountability throughout the modernization life cycle. ▪ Establish a MES Modernization Program Office to coordinate all modernization initiatives under a single organization, authorized and reporting to a centralized executive steering committee representing both business and technology leadership. ▪ Align outsourced core MMIS functions, processes, and services to agency priorities to drive efficiency in streamlined RFP and contract procedures.

2 Status and Priority of Modernization Efforts

2b Key Finding: **Current MES modernization efforts are divided between the re-procurement of Medicaid administrative service organizations or MES-related modules, with limited initiatives underway to modernize key MES-enabling capabilities.**

Summary	Current MES modernization efforts are divided between: ▪ Re-procurement of Medicaid administrative service organizations (e.g., Dental, PBA and TPL) or targeted MES-related modules (e.g., HWCIM, EVV, BIS) — For these efforts, the Agency is maturing its modernization capabilities by improving how these projects are managed, and by investing in activities and resources (e.g., contracting assistance of procurement planning vendors, such as North Highland, Public Knowledge and PCG) to ensure the appropriate definition of requirements drive re-procurements. ▪ Limited initiatives to modernize key MES-enabling technical capabilities (e.g., EPS, MES Core) — In the case of EPS, the Agency has followed guidance from CMS and moved to transfer another state's encounter processing system to SC. This project is in flight and the project team anticipates successful implementation of initial set of use cases by December of 2024. In the case of MES Core, the project team has recently moved the solution stack into the AWS cloud and has evolved its capabilities to take advantage of a number AWS integration and data services capabilities. The development team is currently executing against a backlog to leverage the integration infrastructure for new data exchange opportunities, including EPS.
Why it is important	MES modernization efforts are required to support the evolution and optimization of the Agency's business processes and to effectively fulfill its mission.
Opportunities for Improvement	▪ Develop a MES modernization strategy that addresses not only the Agency's needs to reprocure MES-related services and products, but also guides investment priorities in investing in MES and related enabling technical capabilities. ▪ View all of the MES modules and services as a part of holistic system that needs to be optimized together to produce optimal and desirable outcomes (i.e., claim submission to payment), and consider impact of any change to any module or component in the context of the overall performance of system (i.e., improvement or optimization of any single components or module does not always result in better overall system outcomes — it may simply move the constraint or create a new constraint in a different part of the overall system).

2 Status and Priority of Modernization Efforts

2c Key Finding: Despite setbacks, SCDHHS is dedicated to its mission and eager for modernization. The EPS project could be a turning point.

Summary	SCDHHS staff has shown considerable resolve while weathering a host of challenges, including the dissolution of the Optum ASO project and the loss of many staff with deep institutional knowledge. SCDHHS staff remains steadfast in serving the needs of the vulnerable populations it serves, while pursuing avenues for innovation. This became apparent in the host of interviews that Gartner conducted, with SCDHHS staff from many program areas showing deep expertise and pride in the work they are doing daily. As the organization takes strides towards modernization, the EPS project is a potential bright spot. When successfully implemented, EPS will provide SCDHHS with the ability to gather additional encounter data from MCOs that is not being captured today. Analysis of this data would lead to a better understanding of what services are being provided to Medicaid members in South Carolina, helping SCDHHS better gauge the value of the services it provides its members and better align it towards its MCO-provided business, which constitutes over 80% of its membership. EPS could also serve as a key turning point for SCDHHS towards a more modular Medicaid Enterprise, with component parts being moved to the cloud.
Why it is important	SCDHHS' commitment to its daily work is an essential part of fulfilling its duties as a Medicaid organization. Successfully completing a major modernization effort like EPS would give SCDHHS momentum and confidence to continue its efforts towards a modernized Medicaid Enterprise Systems landscape.
Opportunities for Improvement	▪ Efforts are well underway to define the vision, drivers, imperatives, and general scope and roadmap for the Medicaid Enterprise System Modernization. The Future State Assessment and Roadmap will serve as the foundation for chartering a robust modernization program.

3 MES Core Systems Integration Approach and Capabilities

3a Key Finding:

MES Core currently lacks a clearly defined business case, including tangible use cases aligned with specific, strategic, business goals and objectives. As a result, MES Core is a mostly underutilized capability.

Summary

MES Core was envisioned to be the Agency's primary centralized data integration hub and to provide enterprise data services for all MES systems/modules that need to share or exchange data.

The Agency originally intended MES Core to serve as the primary source of data and truth for all FFS Medicaid operations, once Optum's (Administrative Services Organization, ASO) solution was implemented. However, with the Agency's decision to discontinue its relationship with Optum, the role of MES Core became less clear, other than support for a limited number of integration use cases.

More recently, the Agency has focused on supporting the implementation of its Encounter Processing System (EPS) with a connection to MES Core, to enable improved processing of patient encounter data shared by MCOs and the Agency's pharmacy and dental ASOs. While the intent is to make the enriched encounter data available, in the current design, MES Core will only replicate the current encounter data transfer content from MCOs through the Axiom EDI Gateway and MMIS rather than leverage the EPS enriched data. The detailed plan and timelines to include the enriched datasets for analysis have not been defined. The Agency also lacks clearly defined strategies and use cases for how SCDHHS and its partners will use the enriched encounter data processed through MES Core.

MES Core remains a mostly underutilized capability:

- The operational utility and value proposition of MES Core's centralized integration services for claims processing operations (i.e., the central integration point for web services, messaging, and file exchanges utilizing secure file transfer protocol (SFTP) gateway and APIs to facilitate loose coupling of MES modules and components) and EDS (i.e., a coordinated system of data integration technologies and services designed to manage, access, ingest, materialize, and deliver SCDHHS data) have not yet been fully developed or realized, based on the observed limited use of the recently deployed centralized cloud-based infrastructure.
- Few Medicaid business processes rely on the MES Core functional and technical capabilities developed to date.
- No internal or external systems use MES Core for real-time data, application or event integration, instead continuing to interface directly with the Core MMIS using batch file sharing and the Axiom EDI Gateway.
- The primary contributing factor preventing the wider adoption of MES Core capabilities is the lack of a clearly defined business case for the system — a vision for how it will enable or enhance key business processes and practical use cases tied to strategic business goals.

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3 MES Core Systems Integration Approach and Capabilities

3a Key Finding: (cont'd)

MES Core currently lacks a clearly defined business case, including tangible use cases aligned with specific, strategic, business goals and objectives. As a result, MES Core is a mostly underutilized capability.

Why is it important	Aligning MES Core with prioritized business objectives, clearly defining MES Core's role, and measuring the benefits of each of MES Core's technical capabilities will ensure that SCDHHS can make rapid progress towards its strategic objectives and receive measurable value from its investments in MES Core.
Opportunities for Improvement	▪ Clearly define the business benefits associated with leverage of a specific set of MES Core's integration and EDS capabilities that can help advance SCDHHS business goals and strategies. ▪ Identify how MES Core may address current data latency and data quality issues by improving data sharing / integration issues across systems and/or modules, especially in key functional areas that impact the desired business outcomes. ▪ Conduct business process reengineering and cost of delay studies to identify the highest value opportunities for efficiency and effectiveness improvements by leveraging MES Core to eliminate or reduce data flow and/or availability constraints.

3 MES Core Systems Integration Approach and Capabilities

3b Key Finding: **The Agency lacks a clearly defined and adaptive technical strategy for implementing MES Core technical capabilities, services, and components aligned with high priority business use cases.**

Summary	MES Core's technical capabilities are not well-aligned to prioritized business objectives and/or a higher-level technical strategy with a clear outline of the anticipated business benefits. Some of the supporting observations related to this finding include: ▪ MES Core's technical approach and high value use cases have not been revised since the Optum ASO contract was ended. ▪ In light of the 2021 move to AWS Cloud and use of alternative persistent data and object stores (e.g., AWS S3, HealthLake, etc.) and additional Document database options (e.g., DocumentDB, MongoDB, etc.) in the cloud, the unique role and value proposition of MarkLogic ODS (Operational Data Store) as a part of EDS does not appear to be clearly defined and documented for the known short and long-term use cases. ▪ MES Core has not been designed to enable self-service access to integration services, pipelines, and metadata by the internal software development teams (e.g., Phoenix, OnBase, MMS, EPSM, etc.) to help facilitate effective use of the integration platform and services. ▪ All integration use cases appear to be dependent on the EDS persistence layer (ODS) and require a minimum of 24 hours to be shared. ▪ The cost of some of MES Core infrastructure components, software licensing fees, and operations may be relatively high for the anticipated component role and technical capabilities compared to available alternatives.
Why is it important	Clear definition of a technical strategy and a supporting solution architecture for MES Core tied to prioritized integration and data services use cases with clearly defined and agreed to business benefits will allow SCDHHS to right size its technology investments. This will also help focus on maximizing the potential benefits that can be realized by leveraging the technologies deployed.

3 MES Core Systems Integration Approach and Capabilities

3b Key Finding: (cont'd) The Agency lacks a clearly defined and adaptive technical strategy for implementing MES Core technical capabilities, services, and components aligned with high priority business use cases.

Opportunities for Improvement	▪ Leverage EPS integration infrastructure (i.e., IBM MQ and IIB) and/or MuleSoft AnyPoint for application and event integration patterns and use cases beyond current SFTP and API-based data integration focus. ▪ Leverage EPS EDI infrastructure for future ingestion of EDI data by MCOs, future Medicaid ASO's, and claims clearing houses. ▪ Publish a list of common and popular integration APIs for use by application development teams. ▪ Provide expert integration architecture advisory services and quality assurance to all internal and external application development teams. ▪ Add Data Fabric design (active metadata management and data governance) and DataOps to MES Core to accommodate operational as well as analytics and reporting use cases. ▪ Integrate SAS Viya data management tools and capabilities with those in the MES Core integration hub. ▪ Analyze the suitability of MarkLogic vs. other cloud DBMS alternatives for support of known use cases and relative magnitude of total cost of ownership. ▪ Integrate with CMS Federal Data Service Hub and South Carolina Health Information Exchange.

4 DASH Capabilities to Manage MES Modernization

4a Key Finding: DASH is currently operating in a project management office model, rather than as a program management office, which is required to support the scale of business and technical transformation inherent in a true MES modernization program.

Summary	In its current portfolio and project management (PPM) operating model, DASH is limited to managing individual projects as separate initiatives versus as parts of a larger program. While DASH has successfully implemented project management processes and controls to standardize how individual modernization projects are managed, it lacks the authority and ability to manage modernization efforts as part of a more wholistic business transformation program. Additionally, the lack of a clearly defined MES modernization strategy and prioritization of modernization initiatives by Agency leadership challenges DASH to secure the needed level of buy-in, support and collaboration from the Agency's business areas. As a result, DASH struggles in identifying potential connections, dependencies, and constraints between initiatives as well as ensuring alignment of modernization efforts to the Agency's overall objectives.
Why it is important	▪ Executing modernization work through independent projects without a fully formalized transformation program delivery model and strategy (e.g., program/product management, resourcing, dependency management, integrated project management, etc.) increases the likelihood of misalignment, inefficiencies, and a lack of transparency. ▪ The lack of consistent and formalized engagement, collaboration, and thought leadership from the business contributes to risks such as misalignment to true business needs, omission of impacts to business operations and existing processes, lack of understanding of business or policy constraints, etc. ▪ DASH resources often need to take ownership of transformation project responsibilities that would typically be provided by business stakeholders, including identifying requirements gaps and needed business process changes, and mitigating impacts from other business initiatives.
Opportunities for Improvement	There are opportunities for DASH to evolve from a project management office to Enterprise Transformation Office by putting a greater focus on end-to-end / holistic program management. Opportunities include: ▪ Evolve DASH's current project management orientation to more of a program management orientation by further maturing its PPM capabilities to those of a program management office. ▪ Establish a formal MES modernization strategy (see Finding #8) and authorize the DASH program to manage the program to implement this strategy. ▪ Implement a standard process for assigning resources to modernization initiatives based on modernization program needs, expertise, capacity, and demands. Include both DASH resources and required engagement from business stakeholders for identifying business process impact and system requirements to enable business operations.

4 DASH Capabilities to Manage MES Modernization

4b Key Finding: **The relative immaturity of the Agency's vendor and contract management capabilities constrain DASH's ability to manage modernization projects.**

Summary	The Agency's vendor and contract management responsibilities and processes are currently spread across several SCDHHS organizational areas, constraining DASH's ability to appropriately plan for and conduct modernization-related procurements, develop needed contract requirements with modernization vendors, measure these vendor's performance, and manage vendor transitions. This has led to a high-level of variance in how vendors are procured and managed, difficulty in strategically planning for modernization-related procurements, a lack of visibility into the status of procurements that are underway, and little to no consistent measurement or reporting on vendor performance. To mediate these risks, DASH has assigned dedicated business analysts to projects and the related vendors, as well as defined the scope for DDI. However, given SCDHHS' heavy reliance on external vendors to support its Medicaid business, the relative immaturity of its vendor management function poses a major risk to the Agency.
Why it is important	Effective vendor and contract management capabilities are crucial to MES modernization as they: ▪ Ensure the state can monitor and evaluate vendor performance against established service-level agreement (SLA) metrics to identify areas for improvement and optimize outcomes. ▪ Enable the Agency's ability to identify and mitigate risks associated with vendor relationships, such as non-compliance, delivery delays, and quality issues which may put the State at risk. ▪ Ensure vendor compliance with legal and regulatory requirements.
Opportunities for Improvement	As part of its MES modernization strategy, SCDHHS can improve its vendor and contract management capabilities by: ▪ Providing standards for vendor performance management, key performance indicators, and defined processes for mitigating vendor performance risk. ▪ Identifying resources and determining the right organizational structure and reporting flow for vendor management oversight. ▪ Utilizing a centralized Contract Management System to provide the most current version of vendor agreements across SCDHHS, allow planning for re-procurements, and access to best practices in vendor agreement development. ▪ Developing more robust contract and vendor management policies and procedures for the Agency, including clearer roles and responsibilities for stakeholders.

5 SCDHHS Data Quality and Data Management Capabilities

5a Key Finding: Considerable friction inhibits effective data sharing across the South Carolina Medicaid Enterprise

Summary	The value of governing and managing data as a departmental and shareable asset is not universally understood or accepted along with widely varying levels of data literacy and analytics skills. Across SCDHHS there is incomplete consensus on the definition and use of terms and data, there is no strategy and plan established for the management of Medicaid enterprise data and there is a lack of trust in the veracity and quality of key data. These factors inhibit the ability to share and obtain full value from data across the Medicaid enterprise.
Why it is important	Data is the life-blood for decision and policymaking. Without a shared consensus on the need to share data, enabled by real-time access to “joined-up” data, SCDHHS will be slow to understand, develop policy, and react to the needs of South Carolinians.
Opportunities for Improvement	▪ Conduct incremental implementation of transparent enterprisewide data governance with systematic measures for continuous improvement. ▪ Determine and implement technology strategy for management and integration of Medicaid enterprise data. ▪ Plan for (and execute) proactive expansion of the boundaries of data used and shared across the Medicaid enterprise. ▪ Establish systematic program of data literacy and analytics skills improvement.

5 SCDHHS Data Quality and Data Management Capabilities

5b Key Finding: Wasteful data quality issues observed across a variety of areas

Summary	The inability to maintain desired levels of data quality (the extent to which data is fit for purpose and meets criteria for accuracy, completeness, validity, consistency, uniqueness, and timeliness) is common across SCDHHS processes and systems. Relevant examples include: ▪ Incompleteness and lack of detail in MCO encounter data ▪ Mismatches of provider identification (including e.g., errors introduced by manual mapping of legacy provider identification numbers) ▪ Discrepancies in the currency of reference data ▪ T-MSIS Outcomes Based Assessment (OBA) criteria not fully attained
Why it is important	For SCDHHS such poor data quality causes confusion, inhibits the ability to measure and manage towards success, and costs time and effort (money) to fix.
Opportunities for Improvement	Key areas where SCDHHS should consider to improve data quality include: ▪ As part of a data governance initiative, assign data stewards with specific responsibility for the quality of defined areas of data. ▪ Define, track and report data quality metrics to enhance data quality transparency and continuous data quality improvement. ▪ Target and profile key data sources to analyze, understand, and resolve data quality issues. ▪ Improve data quality management tooling and automation.

6 SCDHHS Decision Support Resources and Capabilities

6a Key Finding: SCDHHS internal analytics expertise is very limited

Summary	As SCDHHS has evolved its need for increasingly sophisticated data and analytics capabilities, it has chosen to fulfill this with external resources such as SAS Institute, KNOWLI Data Science, Milliman, Carolinas Center for Medical Excellence, and the IFS — Integrated Health and Policy Research (IHPR) at the University of South Carolina. The Agency has also been recruiting knowledgeable staff with analytics skills and backgrounds, but has not yet developed a strategy for a substantial increases in internal staff capabilities.
Why it is important	With an increasing emphasis on managed care and the need to obtain the maximum value of care and services purchased to improve the health and quality of life for South Carolinians, analytics is a critical capability for SCDHHS. Data literacy and analytics skills are most effective when these are completely trusted and dynamically available to key decision makers.
Opportunities for Improvement	▪ Develop contracting approaches with existing and future analytics vendors to transfer skills. ▪ Develop a systematic program of data literacy and analytics skills improvement for internal staff at all levels. ▪ Formalize analytics governance processes to enable investment aligned with improving enterprise data literacy. ▪ Create processes to encourage innovation and the use of advanced analytics based on measured success. ▪ Establish a strategy for analytics tool and methods standardization. ▪ Enable and encourage self-service access to metadata, dashboards, reporting catalog, and analytics workspaces for different types of reporting and analytics users.

7 SCDHHS Financial Management and Claims Payment Capabilities

7a Key Finding: The fund code management process is lengthy, complicated, and relies on multiple stakeholder groups and systems

Summary	The current fund code management process within SCDHHS is found to be tedious, repetitive, and human error prone, as it involves multiple stakeholder teams (i.e., Medicaid program areas, Clemson MITS staff, SCEIS staff, and others) to make CMS initiated changes to Federal Medical Assistance Percentage (FMAP) rates.
Why it is important	Accurate and timely determination of fund code is essential to compute the split between Federal and SCDHHS for all payments/expenses, which is fundamental to SCDHHS's Medicaid programs being appropriately funded.
Opportunities for Improvement	There are opportunities to improve the fund code management process by reengineering business process and adopting newer technology solutions. Opportunities include: ▪ Reengineer fund code management business processes with a focus on streamlining, enabling self-service capabilities, and allowing designated users within SCDHHS to make centralized changes to fund codes. ▪ Implement a fund code governance plan to specify the decision rights and accountability framework governing fund code management at SCDHHS. An established governance framework would prevent usage of fund codes for achieving non-designated purposes. It would additionally help prevent the sprawl of defunct fund codes within MMIS and SCEIS, reducing maintenance overheads and improving data quality. ▪ Explore options to establish a single source-of-record for fund codes. The source-of-record should be integrated with all downstream solutions or modules (e.g., MMIS and SCEIS) and shouldn't rely on human inputs to propagate changes to fund codes.

7 SCDHHS Financial Management and Claims Payment Capabilities

7b Key Finding: MMIS system lacks comprehensive finance and accounting capabilities

Summary	MMIS manages enrollment, claims and payment capabilities. However, it lacks the ability to perform nuanced financial and accounting transaction (e.g., adjustment to claims payment retroactively, payment reversals, others), perform financial operations at individual line level vs provider level in current state. Moreover, gaps in capabilities and processes have potentially led to discrepancies between journal entries in SCEIS and MMIS.
Why it is important	Without comprehensive finance and accounting capabilities, SCDHHS must rely on manual processes, workarounds, and data reconciliation efforts between multiple systems. Furthermore, gaps in financial capabilities expose SCDHHS to the risk of underpayment or overpayment, regulatory or reporting noncompliance, missed opportunities to optimize spend and prevents SCDHHS from realizing time efficiencies.
Opportunities for Improvement	There are opportunities to enhance the functionality as part of MES modernization to ensure the future solution can handle newer demands. The opportunities include: ▪ Strongly consider investing in and implementing (as part of MES modernization / MMIS replacement strategy) solutions capable of managing financial transactions for capitation payments, independently from fee-for-service payments. Such a solution must enable payment, adjustment and reversal of all capitation payments (e.g., MCO, PRIME, PACE, others). It should additionally allow for intuitive capitation rate maintenance for SCDHHS end-users. ▪ Eliminate / limit the usage of gross-level-adjustments (GLAs). Develop mechanisms to decompose GLAs into specific financial transactions aligned with the nature of financial adjustment (e.g., payment cancellation, reversals, lump-sum payments, etc.) being done. All adjustments must be enabled at individual line-item level or transaction level in the future solution as opposed to provider level in current state MMIS. ▪ Automating payment error handling requires a system(s) that can automatically manage payment errors. These errors may arise due to inaccurate provider banking information, returned or canceled checks, among other issues. ▪ Better self-service methods to manage, update and maintain reference information used in calculation of payments, through implementation of configurable business rules engine.

8 SCDHHS Programmatic Governance to Support Modernization

8a Key Finding: SCDHHS lacks an MES modernization strategy or unified MES modernization governance model

Summary	SCDHHS lacks a comprehensive MES modernization strategy to guide its modernization efforts and initiatives and align them with the Agency's strategic goals and objectives and larger business transformation initiatives that are underway. SCDHHS also lacks a clearly defined governance model to ensure clear accountability, authority and transparency in decisions related to MES modernization investments.
Why it is important	A clear strategy and effective governance are vital for a successful MES modernization program, to ensure strategic alignment, accountability, risk management, and effective decision-making that drive successful implementation and sustainable change for both business processes and technology.
Opportunities for Improvement	The Agency should develop an MES modernization strategy which outlines a plan to update and enhance outdated technological systems within SCDHHS, aiming to improve efficiency, functionality, and adaptability to meet current and future needs, including coordination with business process modernization initiatives necessary to support the future vision and goals of SCDHHS. As part of this strategy, the Agency should consider a governance model that aligns with the opportunities outlined in "*Key Finding 2: Status and Priority of Modernization Efforts*" section 2a around: ▪ Development of a formal MES Modernization Program Charter that defines the objectives, scope, stakeholders, roles, and governance structure for modernization, and provides a clear framework and alignment for all involved parties, guiding decision-making, and ensuring accountability throughout the modernization life cycle. This includes enhancing clarity in DASH roles and their responsibilities, particularly in managing different levels of stakeholders. ▪ Establishment of a MES Modernization Program Office to coordinate all modernization initiatives under a single organization, authorized and reporting to a centralized executive steering committee representing both business and technology leadership. This office should also develop a comprehensive stakeholder management process, including stakeholder identification, analysis, communication and engagement plans, measurement and tracking for sustainment, and conflict resolution. This process should be documented and metrics should be established for measuring progress against plans.

9 Phoenix and its Role Supporting Medicaid CLTC & Waiver Programs

9a Key Finding: Phoenix is successfully supporting the State's Medicaid CLTC and Waiver programs with a wide array of business-critical case management capabilities

Summary

SCDHHS partnered with the South Carolina Office of Revenue and Fiscal Affairs (RFA) to design, develop and implement a case management solution to support SCDHHS' Medicaid Community Long-Term Care (CLTC) and Medicaid Waiver programs. Today the Phoenix system supports most of the business capabilities required of these vital Medicaid programs, including:

- Member eligibility and enrollment — provides electronic referrals that enable community providers to request eligibility on behalf of a member. Phoenix captures the information needed for an eligibility determination and passes it on to SCDHHS' Central Intake team for processing.
- Level of care (LOC) assessment functionality — provides support for Pre-Admission Screening and Resident Reviews (PASRR), to determine the appropriate level of care based on the recipient's health condition, functional abilities and level of support required.
- Wait list functionality — allows for members to be waitlisted when their program referral is awaiting determination of financial eligibility and level of care.
- Case service planning functionality — allows case workers to document key information based on assessment results.
- Referral management functionality — enables case workers and providers to provide referrals for necessary services by service type and region, including support for prior authorization.
- Provider management functionality — allows for the set up and management of provider information, including a portal with self-service capabilities for managing their own information. It also provides access to member case information where providers can document service encounters, conduct screenings, manage treatment plans, send claims, manage medications, as well as receive and review service plans, referrals, authorizations, and conversations with other providers.
- Claims management functionality — allows providers to submit claims for in-scope programs services and transmits claims information to Core MMIS.
- Integration with the Agency's financial management services vendor (currently Morning Sun) — facilitates payments to providers.

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9 Phoenix and its Role Supporting Medicaid CLTC & Waiver Programs

9a Key Finding: (cont'd)

Phoenix is successfully supporting the State's Medicaid CLTC and Waiver programs with a wide array of business-critical case management capabilities.

Summary	▪ Integration with the Agency's electronic visit verification (EVV) solution (currently AuthentiCare) — provides the ability to verify when caregivers and home health workers visit members to provide care. ▪ Medication management functionality — allows authorized providers to add, review and manage both FDA approved and non-FDA approved medication for member prescriptions. ▪ Critical incident management capabilities — allows for documentation of critical incidents, though the Agency is currently planning to procure a separate Health and Welfare Critical Incident Management (HWCIM) module to provide this capability for its CLTC and waiver programs. In interviews with SCDHHS program operations and administrative staff, Phoenix was lauded for its ability to successfully provide all of this functionality with few pain points or challenges reported.
Why it is important	Case management is a key technical capability required to ensure the SCDHHS' ability to administer its Medicaid CLTC and various Waiver programs.
Opportunities for Improvement	▪ No major opportunities for improvement for the Phoenix system itself were observed. The only challenges observed in the business processes supported by Phoenix were related to manual effort to keep provider and member data in sync between Phoenix and the Agency's Core MMIS and MEDS systems. However, these challenges are mostly due to technical constraints imposed by the MMIS, not Phoenix.

9 Phoenix and its Role Supporting Medicaid CLTC & Waiver Programs

9b Key Finding: Phoenix's technical architecture is sound, and its modern design positions it well to continue to support the Agency's business needs with scalable functionality and robust integration capabilities

Summary	Phoenix is a 3-tier web application designed with open-source technologies (Ruby on Rails with a MySQL database management system, DBMS). It provides reliable and effective solution capabilities for case management and array of other functionality, adequately supporting business processes. It has sufficiently robust integration capabilities, including: ▪ A dedicated EDI translator (Dodo) designed to support the translation of X12 files to 835 for claim payment remittance advice; and ▪ API interfaces capabilities that support data exchange with Agency's financial management services vendor (currently Morning Sun) to support provider management and payment, and with the Agency's electronic visit and verification solution (currently AuthentiCare) RFA currently provides maintenance and operational support for Phoenix, working in concert with project managers and business analysis on SCDHHS' System Application Integrations & Development (SAID) team. From a product management perspective, RFA and SAID have a well-established set of processes and controls for engaging and supporting Phoenix's users, managing Phoenix's product backlog, prioritizing requested functionality enhancements and fixing defects. The Agency contracts with Clemson University to host Phoenix, and hosting services are provided by Clemson's Medicaid Information Technology System (MITS) team. Phoenix is hosted in the same environment used to host other SCDHHS web-based applications. From a system reliability perspective, there are no reports of significant system outages or system instability.
Why it is important	SCDHHS requires a case management solution that provides reliable, robust functional support for complex business processes with the ability to interface and exchange data with a number of internal and external systems.

9 Phoenix and its Role Supporting Medicaid CLTC & Waiver Programs

9b Key Finding: (cont'd)

Phoenix's technical architecture is sound, and its modern design positions it well to continue to support the Agency's business needs with scalable functionality and robust integration capabilities

Opportunities for Improvement

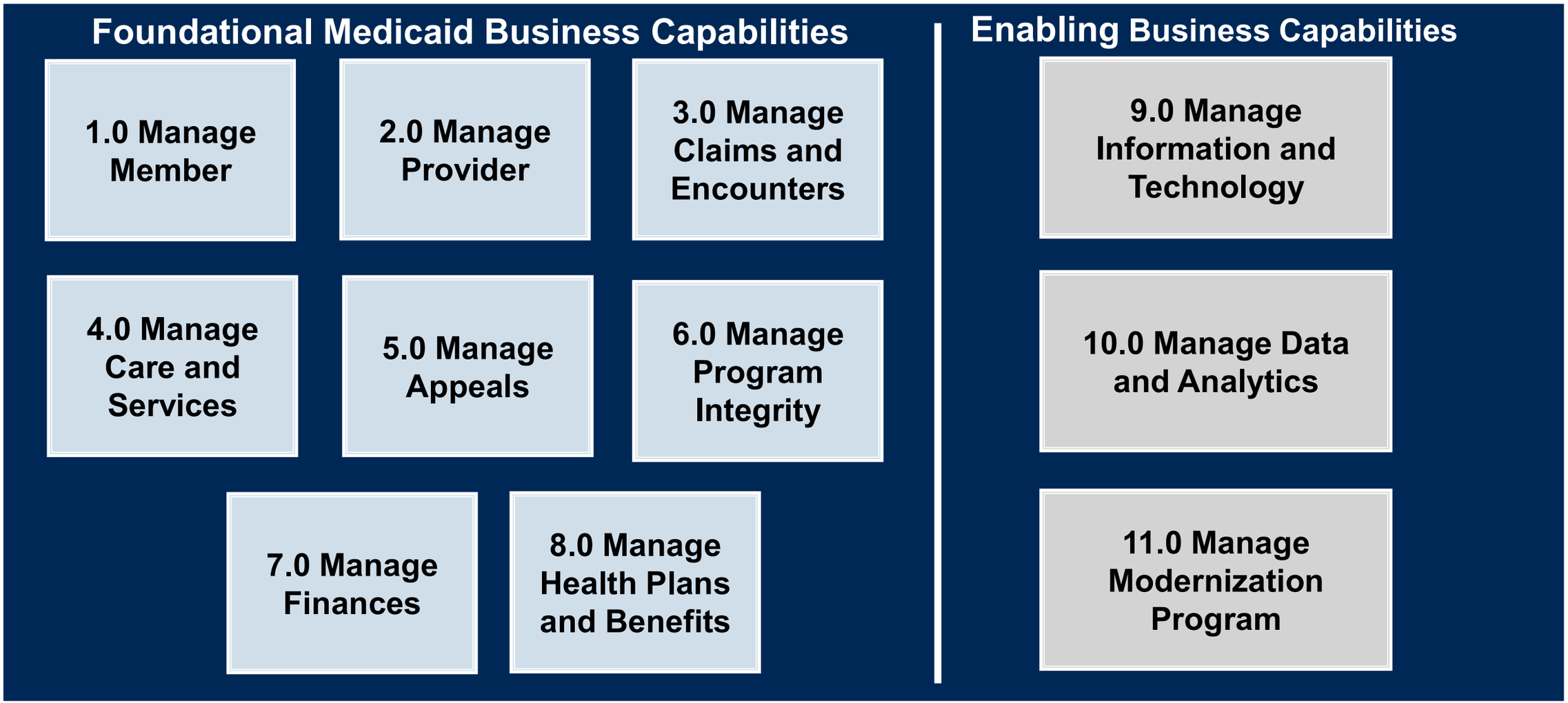
- In order to ensure long term value from its investment in Case Management, SCDHHS should consider alternatives for ensuring the Agency has the best value solution for case management functionality it requires. Some of the key alternatives to consider include, but are not limited to:
  - Continue with Phoenix — Per this option, SCDHHS would need to:
    - *Assess Sourcing Strategy*. Analyze the required resources to maintain and operate Phoenix, then assess whether the Agency can/should take on this responsibility, continue with RFA, or to procure new DDI/M&O vendor to support it.
    - *Consider where to host the Phoenix solution*. Phoenix is currently hosted by Clemson University, who have also indicated that they wish to discontinue hosting Medicaid web applications. Given SCDHHS recent adoption of cloud solutions, the Agency may choose to migrate Phoenix to the cloud.
    - *Consider rearchitecting Phoenix*. Should the agency choose to more tightly integrate Phoenix with other MES systems and modules, explore rearchitecting the Phoenix solution. Though its current solution architecture is sound, Phoenix was designed nearly 15 years ago, utilizing Service-Oriented Architecture (SOA) design patterns and approaches that are now aging and were not intended to effectively interact with the emerging composable application architecture approaches more common place now.
  - Consider solution alternatives — Analyze the capabilities, functionality, and total cost of ownership of next-generation, cloud-based COTS/SaaS and low code application platforms (LCAP) case management solutions offered by the Medicaid specialists in comparison to Phoenix, to assess the business case and benefits of migrating to a standardized next generation solution tailor made for Medicaid.

Business Capability Model for SCDHHS' Medicaid Enterprise System

BCM (L1) Scoring Criteria

Domain	Low	Medium-Low	Medium-High	High
Business Alignment	Current state capabilities are not well defined, established or ready to support what is needed to enable SCDHHS' business model presenting serious risk to the organization.	Current state capabilities are minimally adequate for what is needed to enable SCDHHS' business model.	Current state capabilities are reasonably adequate for what is needed to enable SCDHHS' business model.	Current state capabilities meet or exceed what is needed to enable SCDHHS' business model.
Technology Alignment	The current technology frequently impairs or prevents business processes, contributes to or causes data quality issues, or requires significant manual effort/intervention to accomplish its intended tasks.	The current technology sometimes impairs or prevents business processes, contributes to or causes data quality issues, or requires significant manual effort/intervention to accomplish its intended tasks.	The current technology rarely impairs or prevents business processes, contributes to or causes data quality issues, or requires significant manual effort/intervention to accomplish its intended tasks.	The current technology adequately enables business strategy and business processes.

SCDHHS Medicaid Business Capabilities Model — Level 0



SCDHHS Medicaid Business Capabilities Model — Level 1

Foundational Medicaid Business Capabilities

1.0 Manage Member

- 1.1 Manage Member Eligibility and Enrollment
- 1.2 Manage Member Information

2.0 Manage Provider

- 2.1 Manage Provider Eligibility and Enrollment
- 2.2 Manage Provider Information

3.0 Manage Claims and Encounters

- 3.1 Receive Claims
- 3.2 View Claims
- 3.3 Adjudicate Claims
- 3.4 Pay Claims
- 3.5 Adjust Claims
- 3.6 Process Encounters

4.0 Manage Care and Services

- 4.1 Manage Prior Authorization
- 4.2 Manage Case Management

5.0 Manage Appeals

- 5.1 Manage Appeals

6.0 Manage Program Integrity

- 6.1 Manage Fraud, Waste and Abuse

7.0 Manage Finances

- 7.1 Manage Funds
- 7.2 Manage Accounts Receivable
- 7.3 Manage Accounts Payable

8.0 Manage Health Plans and Benefits

- 8.1 Manage Health Benefit Information
- 8.2 Manage Reference Information
- 8.3 Manage Rate Setting
- 8.4 Manage Managed Care Organizations (MCOs)

Enabling Capabilities

9.0 Manage Information and Technology

- 9.1 Manage IT Operations
- 9.2 Manage Application, Product Development, and O&M
- 9.3 Manage Enterprise Architecture (EA)

10.0 Manage Data and Analytics

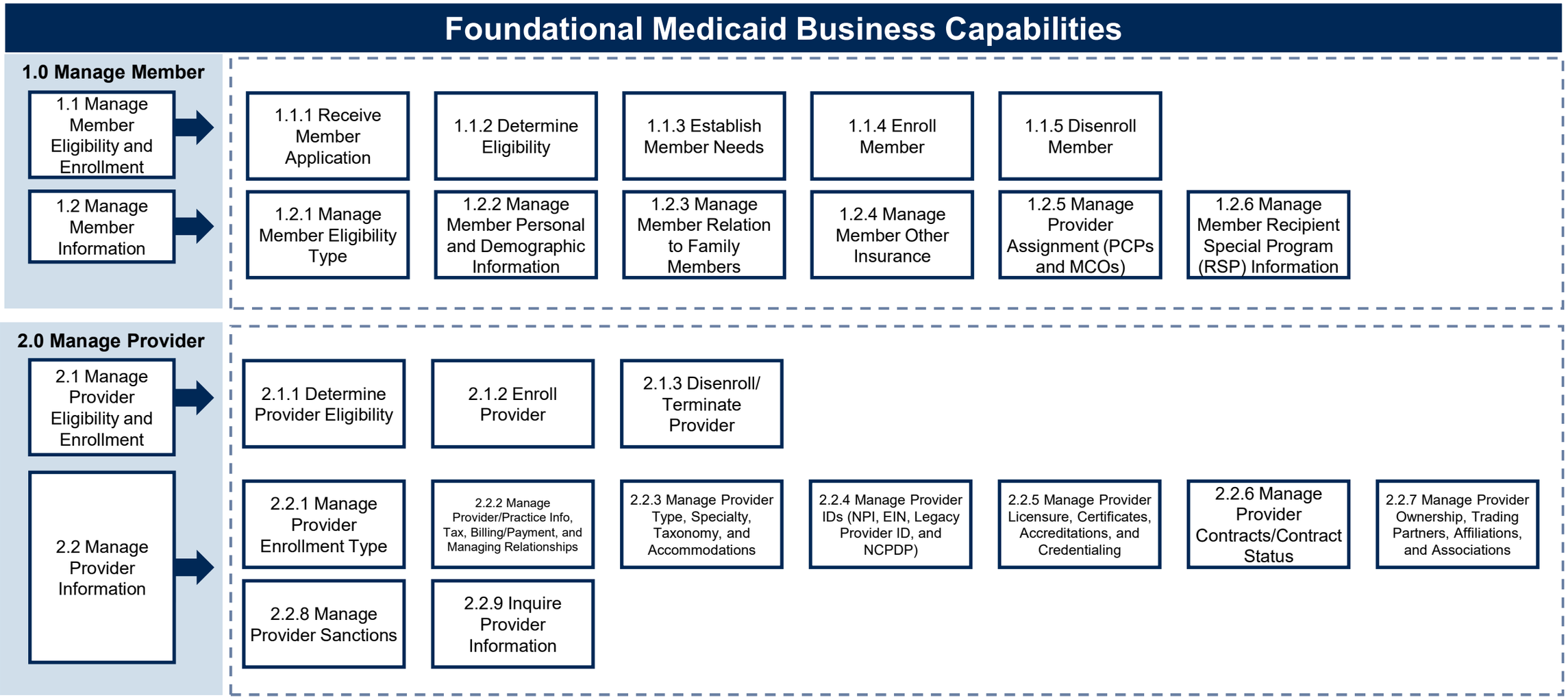
- 10.1 Manage Data Governance
- 10.2 Manage Data Quality
- 10.3 Manage Data Security and Privacy
- 10.4 Manage Standard Reporting and Dashboards
- 10.5 Manage Advanced Analytics

11.0 Manage Modernization Program

- 11.1 Manage Stakeholders
- 11.2 Manage Projects
- 11.3 Manage Program
- 11.4 Manage Organizational Change
- 11.5 Manage Vendors

Legend:
- (B) Business Alignment
- (T) Technology Alignment
- Low
- Medium-Low
- Medium-High
- High
- Awaiting Score

SCDHHS Medicaid Business Capabilities Model — Level 2



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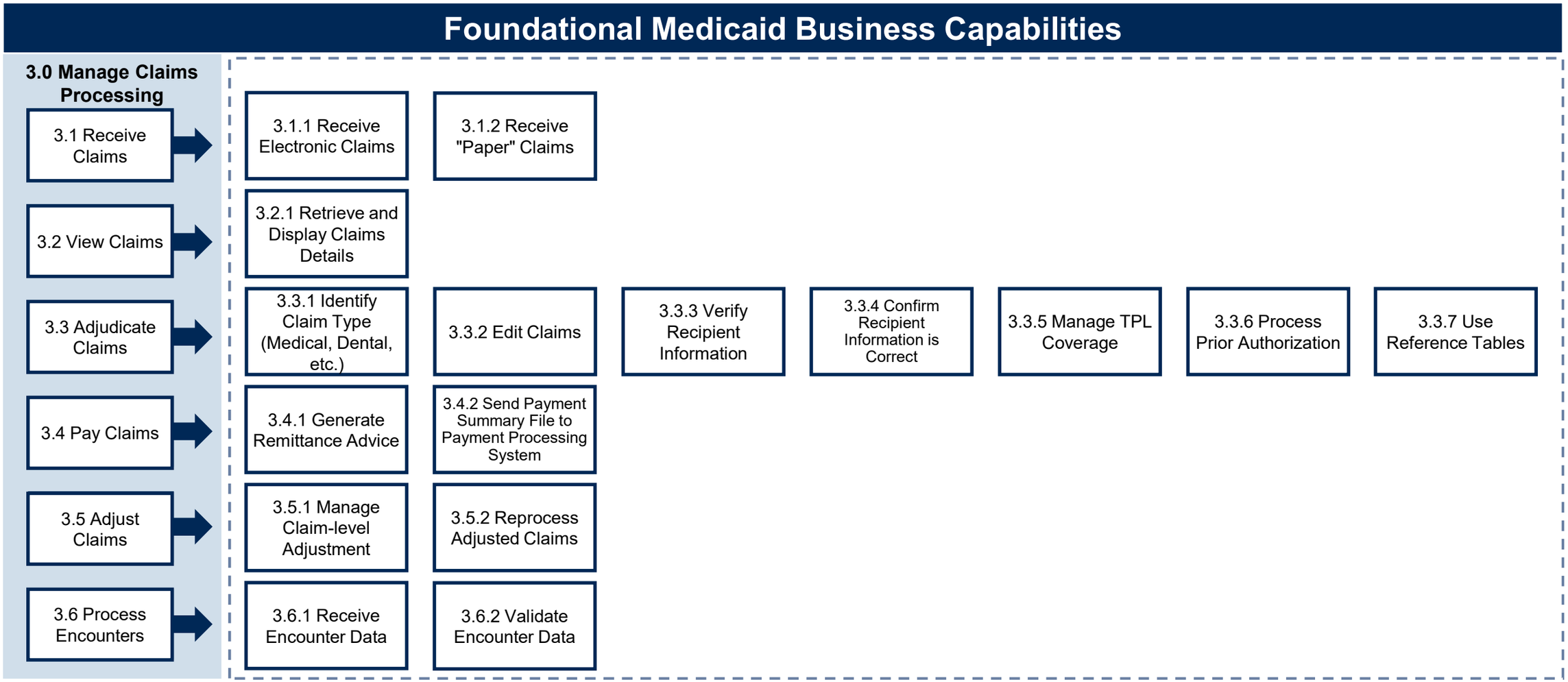

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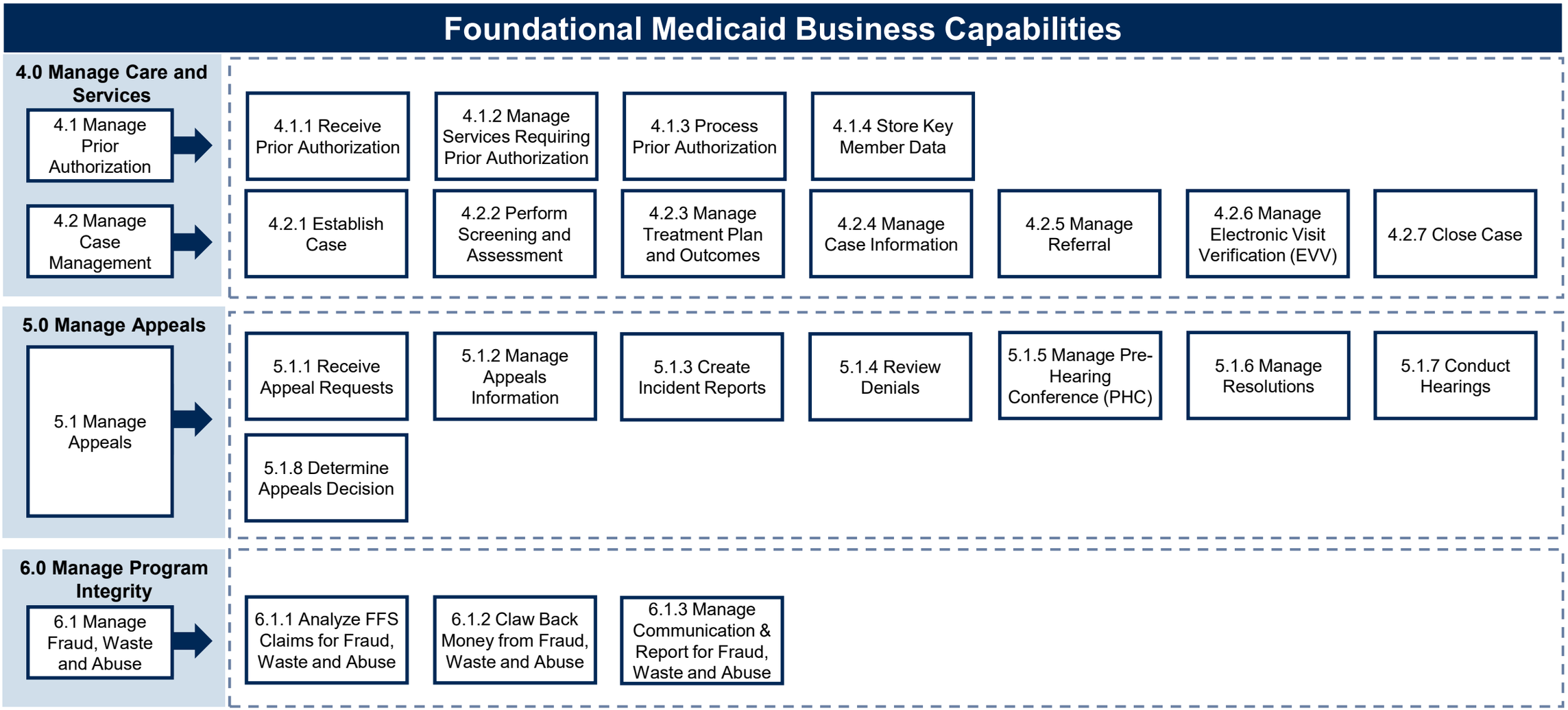

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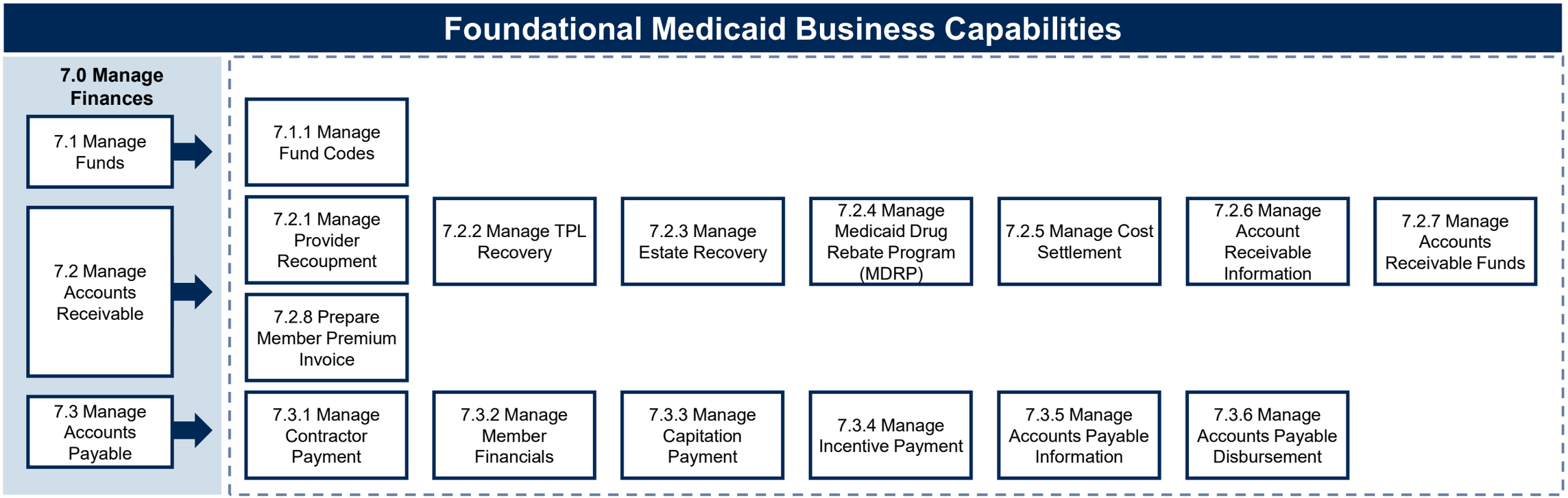

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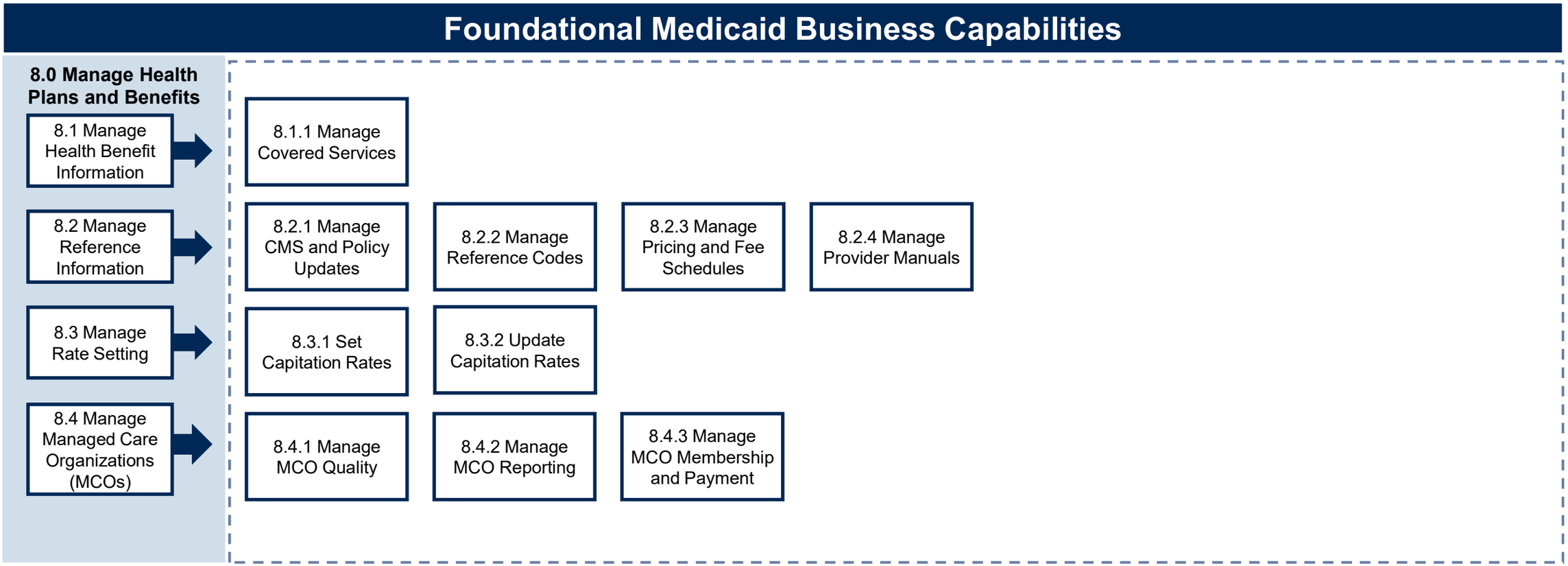
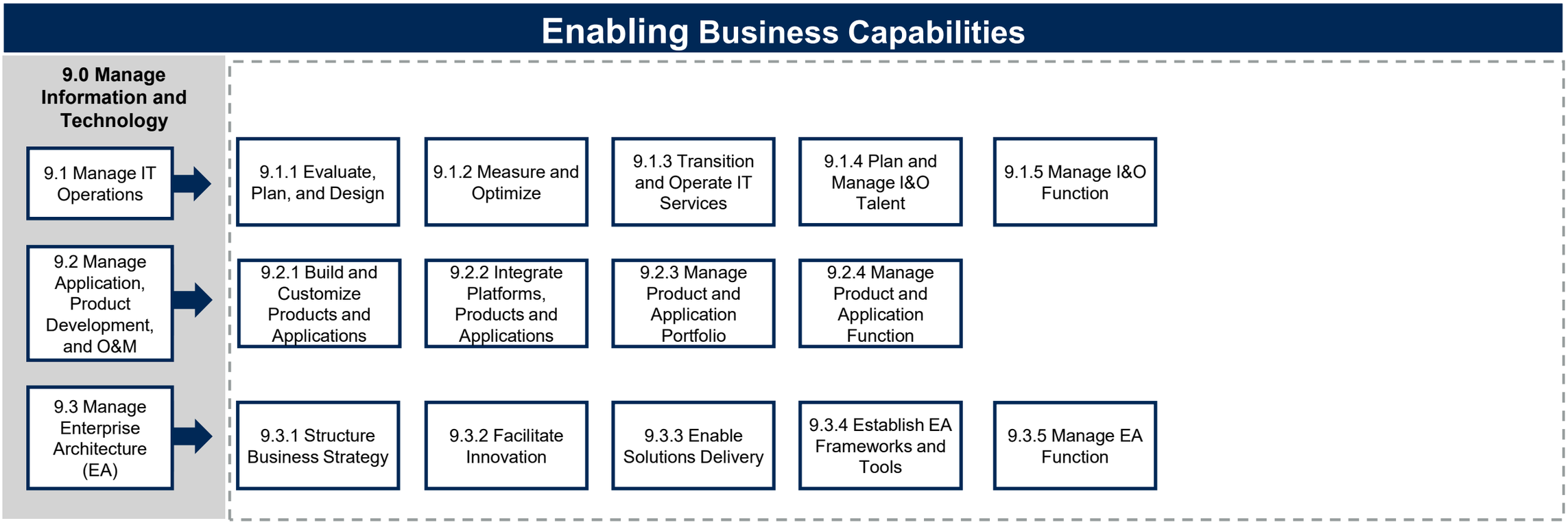
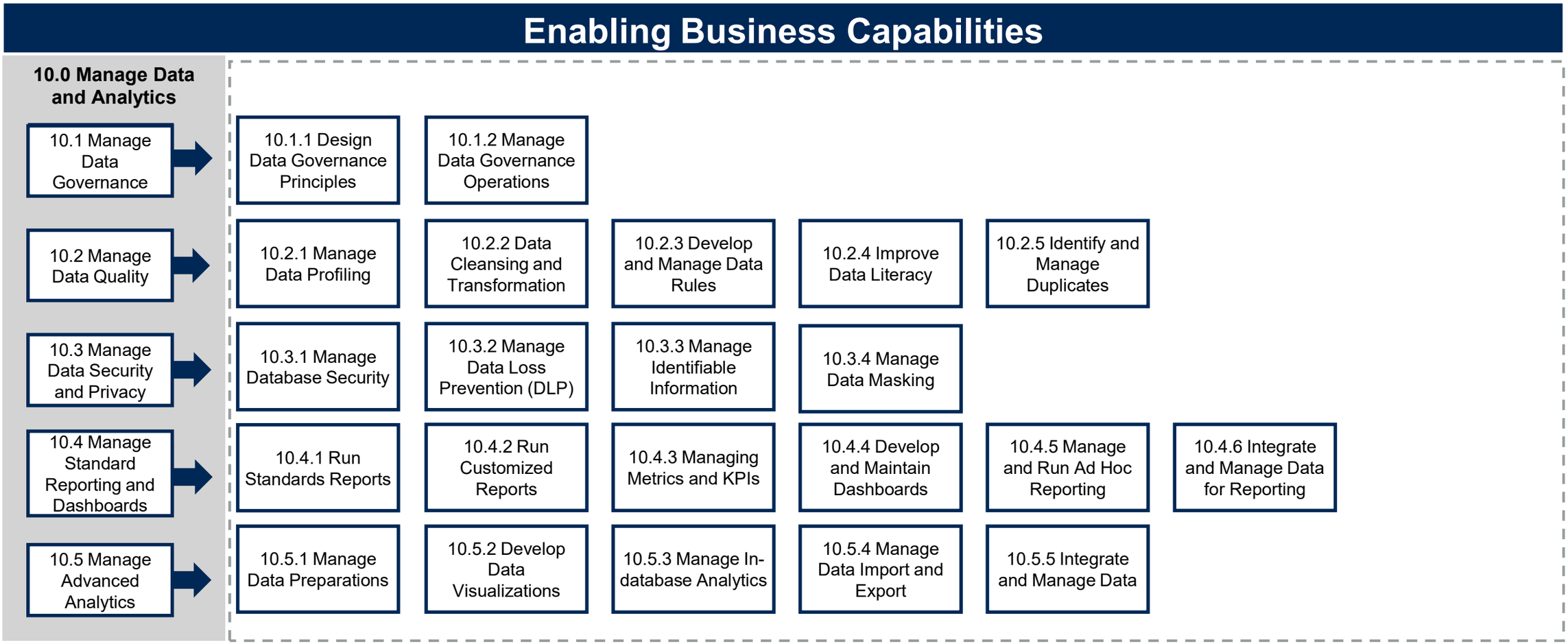


SCDHHS Medicaid Business Capabilities Model — Level 2



SCDHHS Medicaid Business Capabilities Model — Level 2



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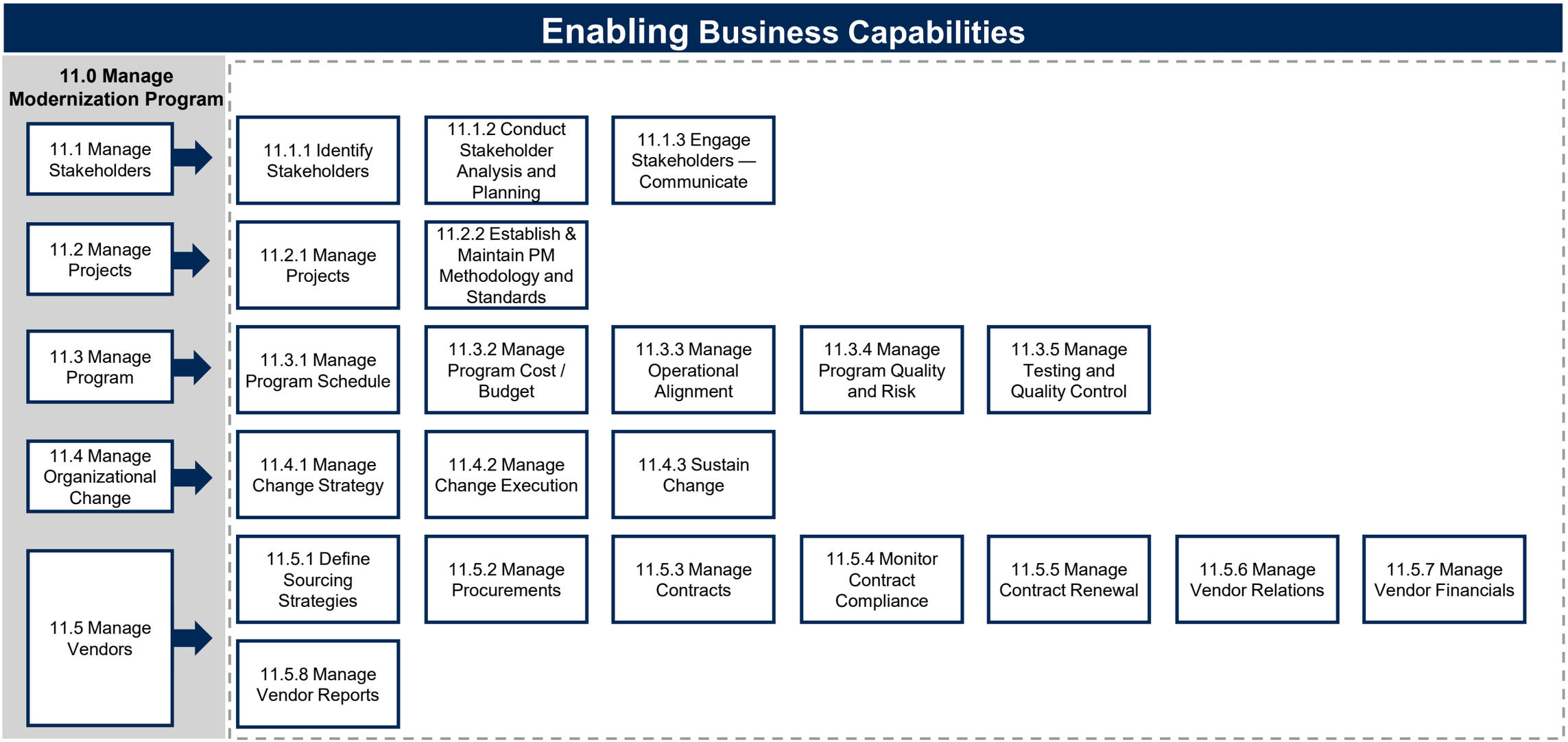


Current State Assessment: Foundational Business Capabilities

Template Overview and Definitions
Foundational Medicaid Business and Enabling Capabilities

- Each overview is focused on a specific Foundational Medicaid Business Capability or Enabling Capability required to execute Medicaid business functions. The overviews provide a high-level summary of the L1 capability, detail the internal/external actors and systems involved, as well as a granular description of the capability in its current state.

L1 Capability Overview Example and Definitions:

X.Y [L1 Capability]
Overview

Summary

A high-level description of the capability and a brief description of the purpose it serves for SCDHHS.

Actors

- Internal
  - SCDHHS staff that provide direct input, guidance, oversight or receive output from a capability (e.g., Bureau of Provider and Support Services).
- External
  - Non-SCDHHS staff that have a direct role in a capability (e.g., BCBS, MCCS).

Systems

- Internally Controlled Systems
  - Refers to a system that SCDHHS has direct control over. This can be either a system that is updated in house or by a vendor (e.g., Core MMIS — *MEDS*).
- External Controlled Systems
  - Refers to a system that SCDHHS does not have direct control over. This is typically a system used by a vendor and has been hired by SCDHHS (e.g., BCBS — *iFlow*).

Description

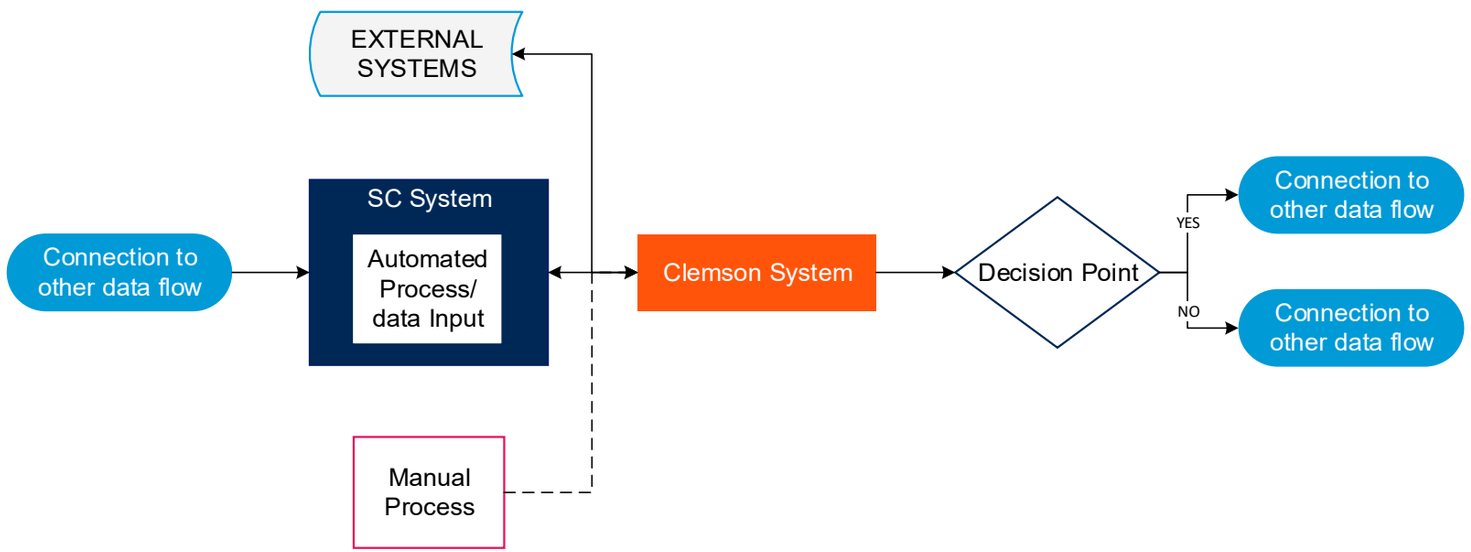
A detailed summary of the capability, including internal and external actors, the systems that are being used, and the purpose of the capability.

High-level data flow diagrams visually clarify system interactions, data exchanges, and system dependencies

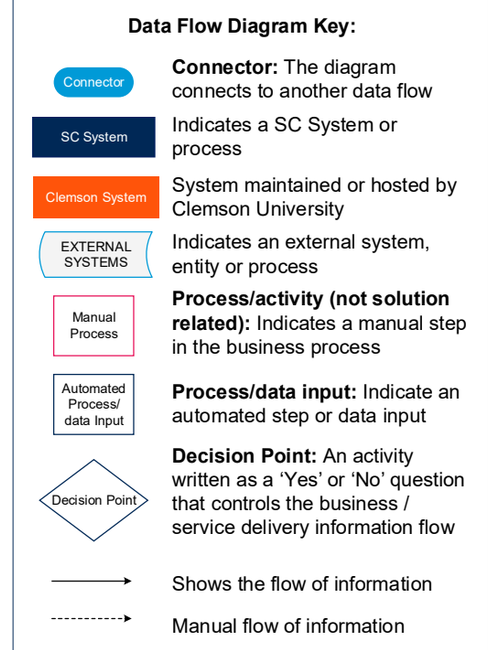
- A high-level data flow diagram is a visual representation designed to illustrate the flow of data between various actors and systems. In our assessment, it is used to highlight dependencies a capability might have on Clemson systems. These data flow diagrams offer a comprehensive view of data processing and transfer, aiding in pinpointing integration points, and identifying manual processes.
  - A Clemson System refers to systems and applications that are managed by Clemson University. These include both the Clemson mainframe and applications Clemson holds the contract for like the EDI Translator.

High-level Data Flow Example:

X.Y [L1 Capability]
High-Level Data Flow Diagram



Data Flow Diagram Key:



1.0 Member Management

1.1 Member Eligibility and Enrollment

Overview

Summary

SCDHHS receives member applications, determines if they are eligible for Medicaid, enrolls them in coverage, redetermines their eligibility on an annual basis, and disenrolls them when necessary.

Actors

- Internal
  - Eligibility, Enrollment, and Member Services — *Medicaid Eligibility Policy and Procedure Team, Escalation team for Eligibility and Enrollment*; *Office of Eligibility Appeals and Member Relations*, *Bureau of Eligibility Policy and Training, Bureau of Local Eligibility Processing, Office of Eligibility Support and Quality, Bureau of Specialized Eligibility, Bureau of Long-Term Care Eligibility*
- External
  - Maximus EDI Team

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS (Recipient data), MEDS (legacy eligibility system)*
  - RFA — *Phoenix (case management system (CMS) for the Community Long-Term Care (CLTC) program)*
  - Meritas — *Citizen Portal (eligibility application), Member Management System (MMS) (eligibility system for MAGI and MCO enrollments)*
  - Hyland Software — *OnBase* (electronic document management system (EDMS))
- External Controlled Systems
  - Maximus (broker enrollment system)
  - PathOS (tracking system that allows SCDHHS workers to manage the eligibility determination workflows)

Description

Eligibility

- *Application Submission* — To be determined eligible for Medicaid, members must submit applications. These can be submitted electronically through the Citizen Portal. Paper applications can be mailed or faxed. Applications can also be submitted via phone through the Member Services Contact Center. The Federally Facilitated Marketplace (FFM) sends SCDHHS electronic Account Transfer applications. Other states and federal partners may also send applications as well. SCDHHS works in partnership with SCThrive, a local organization that helps state residents apply for social programs.

1.1 Member Eligibility and Enrollment

Overview (cont'd)

Description (cont'd)

- *Eligibility Determination* — SCDHHS' Eligibility, Enrollment, and Member Services Team employs rules-based eligibility systems to make Medicaid eligibility determinations. The eligibility application collects key member information including age, address, income, disability status (if applicable), pregnancy status (if applicable), the number of family members in their household, and more. The South Carolina Medicaid coverage groups are divided into Medicaid Adjusted Gross Income (MAGI), Non-MAGI and eligibility categories. The system performs automated processing in many cases for both initial applications and annual renewals. In cases where full automation is not possible, workers will review application details and help the determination. As of 2021, the MMS was able to determine eligibility for all SC Medicaid categories. MEDS, the legacy eligibility system, continues to support some member eligibility cases. The goal is that all members currently housed in MEDS will be converted into MMS as Annual Case Reviews are sent from MEDS and processed in MMS.

- *Eligibility Data Verification* — MEDS/MMS interface with several systems to verify applicant information. It uses real-time calls to gather key information from the Federal Data Services Hub (FDSH), South Carolina Department of Employment and Workforce (SCDEW), and South Carolina State Retirement System (SCSRS). It can generate a request to the Benefits and Earnings Data Exchange (BENDEX) at the time of application submission. In the case where a member is determined to be deceased, Date of Death (DoD) is available from the South Carolina Department of Health and Environmental Control (SCDHEC). Note — while much of the verification can be done electronically, there are circumstances when SCDHHS needs to manually calculate financial requirements. For these cases, SCDHHS eligibility workers use an internal spreadsheet where a worker manually inputs financial information and leverages the prebuilt formulas in the spreadsheet. The worker then needs to manually input that information into MEDS to make a determination.

- *Third Party Liability and Other Health Insurance* — Currently, SCDHHS uses BCBS for its third-party liability (TPL) evaluation process. As part of the enrollment process, BCBS checks to see if members are enrolled with other health insurance (OHI). They use a variety of sources including files and reports from MMIS, providers who submit paper leads, the Medicaid Call Center, employer responses to Department of Employment and Workforce (DEW) letters, data matches from other agencies (e.g., DSS and DMV), data matches from MCOs, TPL leads in MCO data files, data gathered while recovering funds, notices from MCOs of policy terminations, and unsolicited checks from providers who discover new OHI. The OHI lead is analyzed by the BCBS TPL analyst, entered into its Benefits Recovery Tool (BRT), and then sent to MMIS.

1.1 Member Eligibility and Enrollment

Overview (cont'd)

Description (cont'd)

- *Review of Eligibility* — Due to the COVID-19 pandemic, the annual process of reviewing enrollees' eligibility and renewing their enrollments was periodically put on hold. However, as of April 1, 2023, the process has resumed. MAGI members in MMS that are due for Annual Renewal are matched against electronic data sources to be considered for automatic renewal. Members that cannot be automatically renewed and non-MAGI members in MMS are sent a pre-populated renewal form. Members must return the form, or they will lose eligibility. If the member doesn't return the form, the eligibility system closes their eligibility and sends them a notice. Some members who return the form are also determined to be no longer eligible. For these cases, an SCDHHS specialist must complete the "ex parte" process to ensure the member is no longer eligible for any Medicaid program.

- *Inquire Eligibility* — Providers or other authorized users may request the dates of a member's eligibility. If records are older than 13 months, providers request hard copies, whereas for queries within a 13-month time frame, a 270/271 HIPAA transaction is used. The provider submits a 270 transaction, and MMIS returns a response via the EDI translator in a 271 file with the member's eligibility information. Providers can also submit a request for a member's eligibility via the provider webtool. This will provide a real time eligibility update, while EDI transactions are batch.

Enrollment

- *Enrolling a Member* — If a Medicaid applicant is determined eligible for benefits, MEDS or MMS sends that information to MMIS. People that are determined eligible for Medicaid in South Carolina are enrolled either with a managed care organization (MCO) or in one of the state's fee for service (FFS) programs. Medicaid members are enrolled in one of three plans:
    1. Recipients who are required to be assigned for managed care (i.e., they cannot be in FFS) — can choose a specific MCO or be auto-assigned by Maximus (the state's current enrollment broker).
    2. Recipients that have a choice between MCOs and FFS — remain in FFS until they make a choice.
    3. Recipients that can only be assigned to an FFS program — There are some eligibility/payment categories and special program classifications that are excluded from MCOs. These are typically recipients in limited benefit categories and those enrolled in home and community-based waiver programs.

1.1 Member Eligibility and Enrollment

Overview (cont'd)

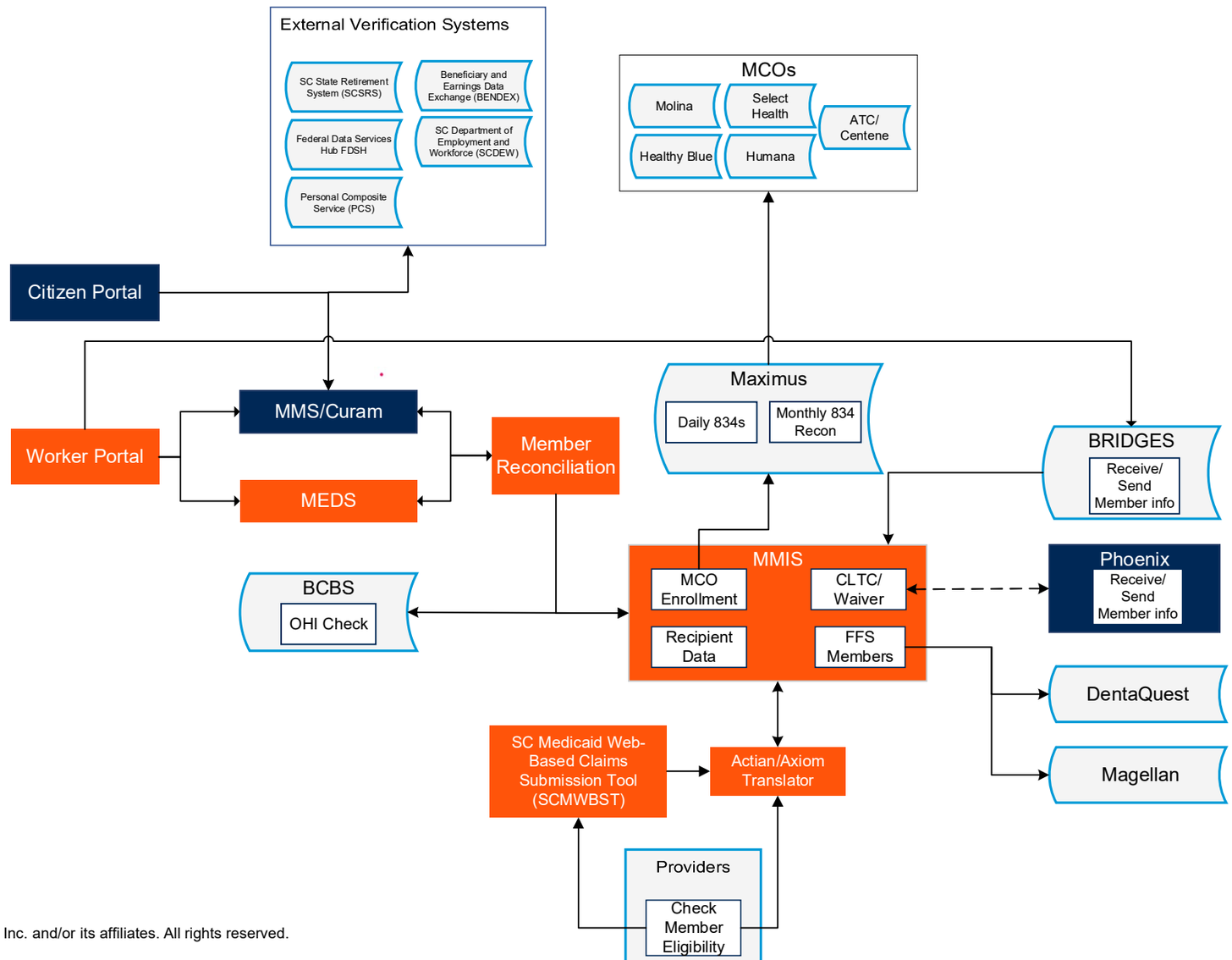
Description (cont'd)

- SCDHHS contracts with Maximus, an enrollment broker, to send member enrollment information for members that are enrolled with MCOs. Maximus sends enrollment packets to all members that are either mandatorily assigned to MCOs or have a choice between FFS and MCOs. These packets include member options and deadlines to return them. Members can make their selection by returning the packet. Members will only see MCOs that are available in their county. Maximus sends a monthly file to MMIS with enrollment information. MMIS confirms the enrollment if the member is still eligible. MMIS sends daily enrollment files (834s) to Maximus which in turn sends it to the MCOs. MCOs confirm receipt of the enrollment with a return file (999). The 834s contain a host of information about the member including coverage start date, the member's eligibility/payment category and the RSP indicator (if applicable). The MCOs confirm receipt of the enrollment via a return file to Maximus. Members that are enrolled with MCOs are given an RSP indicator in MMIS upon confirming the enrollment.
  - Enrollment with MCOs is prospective and happens monthly. For example, if a member decided to enroll with an MCO in January, s/he would start coverage with the MCO in February. Some exceptions, like the birth of a newborn, may require retroactive coverage. In addition to the daily files, Maximus sends a monthly 834 file that is designed to allow MCOs to confirm they have the correct members enrolled.
  - Members are allowed to make one change within 90 days of a new enrollment with an MCO. After that period, they remain enrolled with the given MCO for the remainder of the year. Each year the member can decide to stay in their plan, or switch. The member is notified by Maximus 60 days prior to their renewal period.

- *Disenrolling a Member* — When members lose eligibility or request to be disenrolled, their enrollment is terminated. This starts in an eligibility system and flows downstream to MMIS and MCOs (if applicable). The disenrollment process is slightly different for FFS and MCOs.
  - *FFS* — Members receive a disenrollment letter containing appeals information. In MMIS, member information is updated to reflect that they are no longer active.
  - *MCO* — MMIS is updated and generates a file that is sent to Maximus. Maximus sends an 834 file to MCOs. Eligibility workers will also trigger a disenrollment notification to these members if they are no longer eligible for any Medicaid plan. MCOs have a separate appeals process.

1.1 Manage Member Eligibility and Enrollment

High-Level Data Flow Diagram



Data Flow Diagram Key:

- Connector — **Connector:** The diagram connects to another data flow
- SC System — Indicates a SC System or process
- Clemson System — System maintained or hosted by Clemson University
- EXTERNAL SYSTEMS — Indicates an external system, entity or process
- Manual Process — **Process/activity (not solution related):** Indicates a manual step in the business process
- Automated Process/ data Input — **Process/data input:** Indicate an automated step or data input
- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

1.1 Manage Member Eligibility and Enrollment

Business Assessment

1.0 Manage Member

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The current member eligibility and enrollment process is able to make eligibility determinations for both MAGI and non-MAGI enrollees. ▪ Enrollment processes are well established. MCOs are notified of enrollees via files that are sent from MMIS to the enrollment broker (Maximus). MCOs can receive and confirm the enrollment transactions. ▪ Both the Clemson and SCDHHS teams noted that the number of errors stemming from the enrollment process was minimal. Clemson also uses a monthly summary file as a way to check that enrollments are correct in the MCO carriers' system.	▪ Resolving eligibility issues is a challenge for SCDHHS workers because they have to work with two systems. Because eligibility determinations are made in both MEDS and MMS, staff working on eligibility need to have access to and be conversant with both systems. ▪ The two different eligibility systems need to sync member data, creating a risk around data integrity.	▪ There is an opportunity to streamline the eligibility process by consolidating all eligibility determinations into a single system. It is also possible that benefit assignment could be done during the same process.

1.1 Manage Member Eligibility and Enrollment

Technology Assessment

1.0 Manage Member

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The two eligibility systems in place have a long and stable track record of proving stable results. ▪ MMIS as an enrollment system has a long history with well-established functionality. ▪ Enrollment to MCOs via Maximus is stable. Both daily and monthly files are being run successfully.	▪ Multiple eligibility systems provides a challenge for syncing data. The two systems support different functionality. ▪ MMIS is only able to store the record of a member's last 5 eligibility determinations (Payment Categories). This limitation can result in rejected claims and significant manual research.	▪ Improve the speed and accuracy of the systems providing eligibility decisions. ▪ If SCDHHS replaces or improves its MMIS system, it should require additional ability to store eligibility information for FFS members.

1.2 Manage Member Information

1.0 Manage Member

Overview

Summary

The manage member information business capability describes the various ways member information is managed, created, communicated, and shared at SCDHHS for the duration of the member's enrollment in Medicaid.

Actors

- Internal
  - Member Information Management (MIM) team
  - Eligibility, Enrollment, and Member Services — *Medicaid Eligibility Policy and Procedure Team, Escalation team for Eligibility and Enrollment, Office of Eligibility Appeals and Member Relations*
- External
  - Maximus EDI Team

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, MEDS, Worker Portal*
  - Meritas — *MMS, Citizen Portal*
  - RFA — *Phoenix*
  - Hyland Software — *OnBase*
- Externally Controlled Systems
  - Maximus
  - Magellan RX — *Point of Sale System*
  - DentaQuest
  - Yahasoft — *BRIDGES*

Description

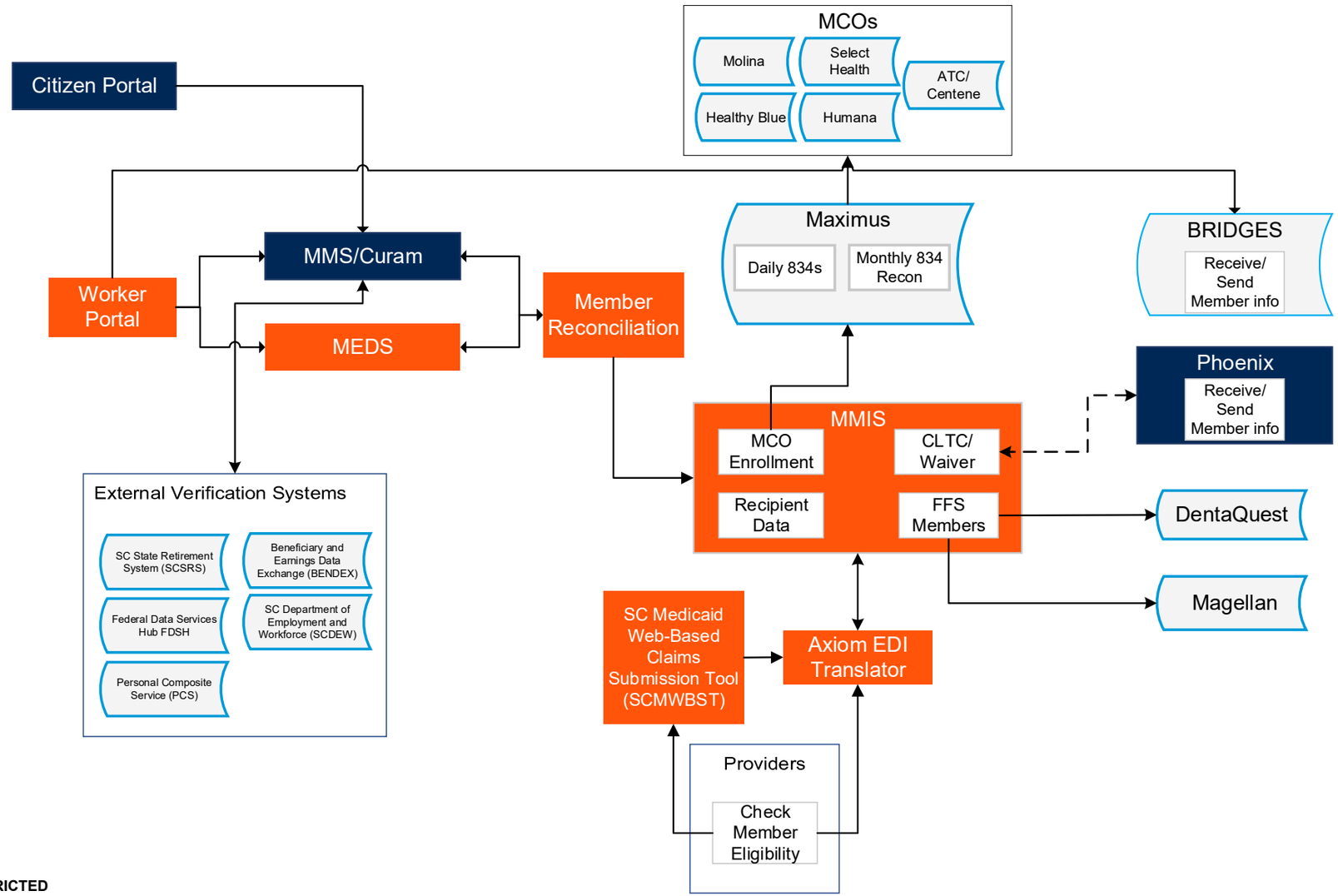
- MEDS, MMS, Phoenix and BabyNet are all member information data sources, but there is no single source of record. MMIS (Medicaid Management Information System) stores data after interfacing with MMS (Member Management System) and MEDS (Medicaid Eligibility Determination System) through a nightly transfer. This data includes members/beneficiaries in the Managed Care file and information to update the Recipient Special Program (RSP) indicator for members enrolled in waiver programs. The RSP indicator and RSP code are updated in MMIS by end-users after the member demographics and eligibility data is added or updated by the member recon process that reads extracts from MMS and MEDS. MMIS holds information about the dates and plan that a member is enrolled in but does not identify the specific services a person is eligible for. Member information is also stored in OnBase EDMS (Enterprise Document Management System) for workflow, document storage, indexing, and application information purposes.

- For the managed care enrollment process, MMIS stores the necessary data after interfacing with the eligibility systems. There is a nightly transfer of beneficiary information that will be included in the Managed Care file as well as information to update the RSP indicator for beneficiaries enrolled in waiver programs. After the MMIS applies Managed Care-specific edits, the Managed Care file is sent to the Enrollment Broker, and the RSP indicator update keeps data synchronized.

1.2 Manage Member Information

High-Level Data Flow Diagram

1.0 Manage Member



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- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

1.2 Manage Member Information

Business Assessment

1.0 Manage Member

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ Members can manage and update certain member information via the Citizen Portal. ▪ There are detailed audits available when updating member information and transaction history (eligibility determinations) in MMS.	▪ There are discrepancies between the systems of record. For example: – Not all member fields in MEDS reach MMIS member profile. – Phoenix houses specific information about members that is not captured in MMIS. ▪ Delays in getting RSP records updated cause re-work and claims adjustments. RSP codes must be manually updated. ▪ There are duplicate members in MMS, MEDS, Phoenix, BabyNet and MMIS. – Managing duplicates is primarily done manually by eligibility specialists. – Only a specialized group (supervisors, policy specialists, and the Member Information Management (MIM) team) may merge duplicates in MEDS. ▪ To ensure data is maintained in MEDS, workers must manually document changes in circumstances that are used to make a new eligibility determinations. – Worker intervention is required on all changes in circumstance cases in MEDS.	▪ There is an opportunity to establish and manage a single source of record for all member information that eliminates duplicated and includes both eligibility determinations and enrollment. ▪ Develop a process to identify and proactively address duplicates. ▪ Potentially eliminate RSP codes if the modern MMIS system and enhanced waiver assignment process are adopted in the future.

1.2 Manage Member Information

Technology Assessment

1.0 Manage Member

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS integrates with the eligibility determination systems (MMS and MEDS), enables Member enrollment to waivers and special programs, assigns provider, enrolls members in managed care, and manages other health insurance (OHI).	▪ The surveyed systems use a mix of batch and real-time interfaces. Many batch interfaces still support critical system exchanges (i.e., MMS, MMIS and ancillary systems are not real-time and update at different cadences). This causes issues with member information and data being out of sync. ▪ MEDS, MMS, MMIS, Phoenix and BabyNet are all systems of record causing duplicates and leading to members having multiple records. ▪ The legacy MEDS is not a rules-based eligibility system. To maintain data in MEDS, workers must manually document any changes in circumstances. This updated information is then used to make a new eligibility determination. Worker intervention is required for all cases involving changes in circumstances in MEDS, as the system does not have automated rules to handle these updates. This also contributes to claims resolution issues when member eligibility information is not consistent.	▪ SCDHHS could adopt a single source of record, master data management solution for managing members to streamline processes, improve integration, reduce administrative overhead, and improve data accuracy.

2.0 Manage Provider

2.1 Manage Provider Eligibility and Enrollment

Overview

Summary

The manage provider eligibility and enrollment business capability allows SCDHHS to determine eligibility of new providers, disenroll providers, and permit them to provide Medicaid services to enrollees.

Actors

- Internal
  - Bureau of Provider and Support Services — *Office of Provider Services, Office of Claims Resolution, Office of Support Services*
- External
  - Blue Cross Blue Shield (BCBS) — *MCCS*

Systems

- Internally Controlled Systems
  - Clemson University — *Provider Application*, *Core MMIS*
- Externally Controlled Systems
  - BCBS — *iFlow*

Description

- *Provider Eligibility and Enrollment* — New providers must fill out an application and provide a host of supporting documentation. SCDHHS allows the following provider types to enroll : 1) Individual, 2) Atypical individuals, 3) Organizations, 4) Atypical Organizations, 5) Ordering Referring Providers. The enrollment information requested by the application varies depending on the provider type. MCCS staff manually verifies the information provided by providers on the application with a variety of sources. For providers that are deemed moderate or high-risk, a site visit is required. Providers may submit affiliation information, which is vetted with SC.gov. Providers may also submit a hardship waiver. Upon completion of an initial application, a provider is assigned a Reference ID. The provider then has 30 days to submit supplemental information. If the supplemental information is not received within 30 days, the application will be purged.

- MCCS receives the online provider application via the provider portal. Providers are considered "contracted" or "non-contracted." **Note —** it is possible for a “non-contracted” provider to provide Medicaid services in South Carolina. The South Carolina Division of Contracts (DOC) starts the provider enrollment process for the providers that are contracted. If a provider is contracted and the application passes initial screening, the legacy ID number is assigned in MMIS, and it is passed on via iFlow. Legacy ID is cross-walked to NPI in MMIS. Prior to the application going to DOC, the application may need to go to SCDHHS program areas for added review. If rates are needed, they are requested from the reimbursement area.

2.1 Manage Provider Eligibility and Enrollment
Overview (cont'd)

Description (cont'd)

- Once rates are received, DOC will develop a contract and send to the provider for signature. Once a signed contract is returned, the director's signature will be obtained and then the signed contract is scanned into iFlow and sent back to MCCS for the provider enrollment information to be entered into MMIS. For non-contracted providers, provider screening is conducted, and the provider enrollment information entry is done at that time.

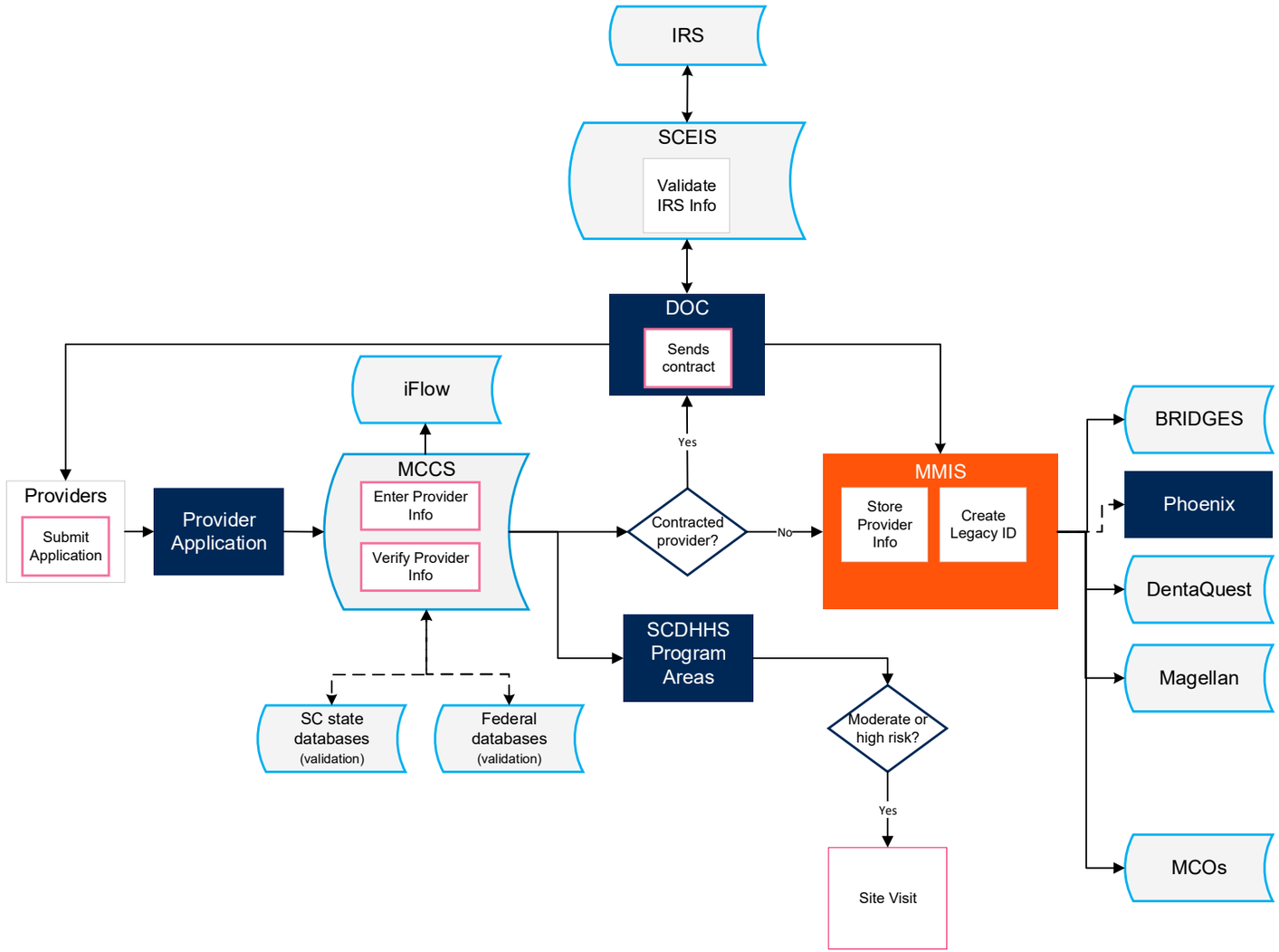
- Complex provider enrollments are escalated to SCDHHS' Office of Claims and Provider Services (CPS). All provider enrollment applications are tracked by MCCS with its proprietary system. MMIS does not house provider enrollment applications. In the event an out of state provider is approved to provide services, they must enroll before SCDHHS will process claims.

- *Provider Disenrollment* — providers are disenrolled manually. This happens either upon request from the provider, or when they no longer meet eligibility criteria. MCCS updates the provider record in MMIS reflecting the update. Providers can disenrolled for the following conditions:
  - Inactivity (one year of no payments)
  - Death

- Provider disenrollment/termination is completed by MCCS. The agency can make updates to the provider record (including disenrollment) by submitting an update form with the necessary information. The form needs to be signed by an authorized agency program area staff or the DOC staff who retain this authority. The signature authority is listed and maintained by the Provider Relations Liaison and shared with MCCS. The SCDHHS Provider Enrollment Liaison Supervisor can update a provider record to reflect the disenrollment. Termination communication must be sent to the provider. The communication may be electronic or hard copy and must contain appeal rights. All terminations must be recorded on the Termination Log which is maintained by MCCS [Note: Once provider information is keyed correctly into MMIS, a Turn Around Document (TAD) is generated and verified by MCCS. An approval letter is then emailed by Provider Enrollment to the provider.

2.1 Manage Provider Eligibility and Enrollment

High-Level Data Flow Diagram



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- Manual flow of information

2.1 Manage Provider Eligibility and Enrollment

Business Assessment

2.0 Manage Provider

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The current process effectively captures provider information and allows them to provide services to members. ▪ The current process identifies moderate and high-risk providers and sets up site visits as needed. ▪ The current process successfully queries state and federal data hubs to verify provider information.	▪ The data verification process is done manually, as opposed to member which features some real-time APIs. ▪ Tracking of provider enrollment applications is handled by MCCS. The SCDHHS teams have limited visibility into the process. ▪ Atypical providers are not required to have an NPI number. This is one reason that Legacy Provider ID is still required in MMIS. ▪ Lack of standardized process or tools for evaluation of provider network adequacy. ▪ Providers must submit certain documentation via fax because there is no option for them to submit electronic documents.	▪ Provide additional visibility into the provider enrollment process to the SCDHHS Bureau of Provider Support Services. ▪ Reduce the amount of manual verification required from staff. ▪ Per SCDHHS' strategic goals, continue to evaluate the provider enrollment process for each provider type, with a focus on timeline standards for each phase of the process.

2.1 Manage Provider Eligibility and Enrollment

Technology Assessment

2.0 Manage Provider

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Web-based, self-service option to enroll providers collects needed information and passes it to the MCCS team.	▪ Systems are unable to provide real-time and automatic data verifications with state and federal data hubs. ▪ MMIS doesn't have an enrollment tracking mechanism. ▪ Provider enrollment portal is not integrated with MMIS. Therefore, MCCS team keys in information manually.	▪ Systems to provide real-time data verifications. ▪ Better integration between provider enrollment and MMIS (or replacement).

2.2 Manage Provider Information

Overview

Summary

Once a provider has completed the eligibility and enrollment process, their information is stored in MMIS. Manage provider information is the capability to update provider information as needed, manage provider communications, and inquire about a providers' status.

Actors

- Internal
  - Bureau of Provider and Support Services — *Office of Provider Services, Office of Claims Resolution, Office of Support Services*
- External
  - BCBS — MCCS

Systems

- Internally Controlled Systems
  - Clemson University — *Provider Application*, *Core MMIS*
- Externally Controlled Systems
  - BCBS — *iFlow, Compliance 360*
  - SAP — *SCEIS*

Description

- The manage provider information capability relates to the management of all operational aspects about prospective and enrolled providers' information and their interactions with SCDHHS. This includes updates in provider information that come from the provider enrollment portal and the provider call center and makes the updates in MMIS. Specifically, the manage provider information capability includes updates to:
  - Organization and Practice Information (Tax, Bill/Payment, and Managing Relationships)
  - Enrollment Type (Individuals, Atypical Individuals, Organizations, Atypical Organizations)
  - Provider Type (Specialty, Taxonomy, and Accommodations)
  - Provider IDs (NPI, EIN/SSN, Legacy Provider ID, and NCPDP)
  - Provider Licensure, Certificates, Accreditations, and Credentialing
  - Provider Contracts/Contract Status
  - Provider Ownership, Trading Partners, Affiliations, and Associations
  - Provider Sanctions

2.2 Manage Provider Information
Overview (cont'd)

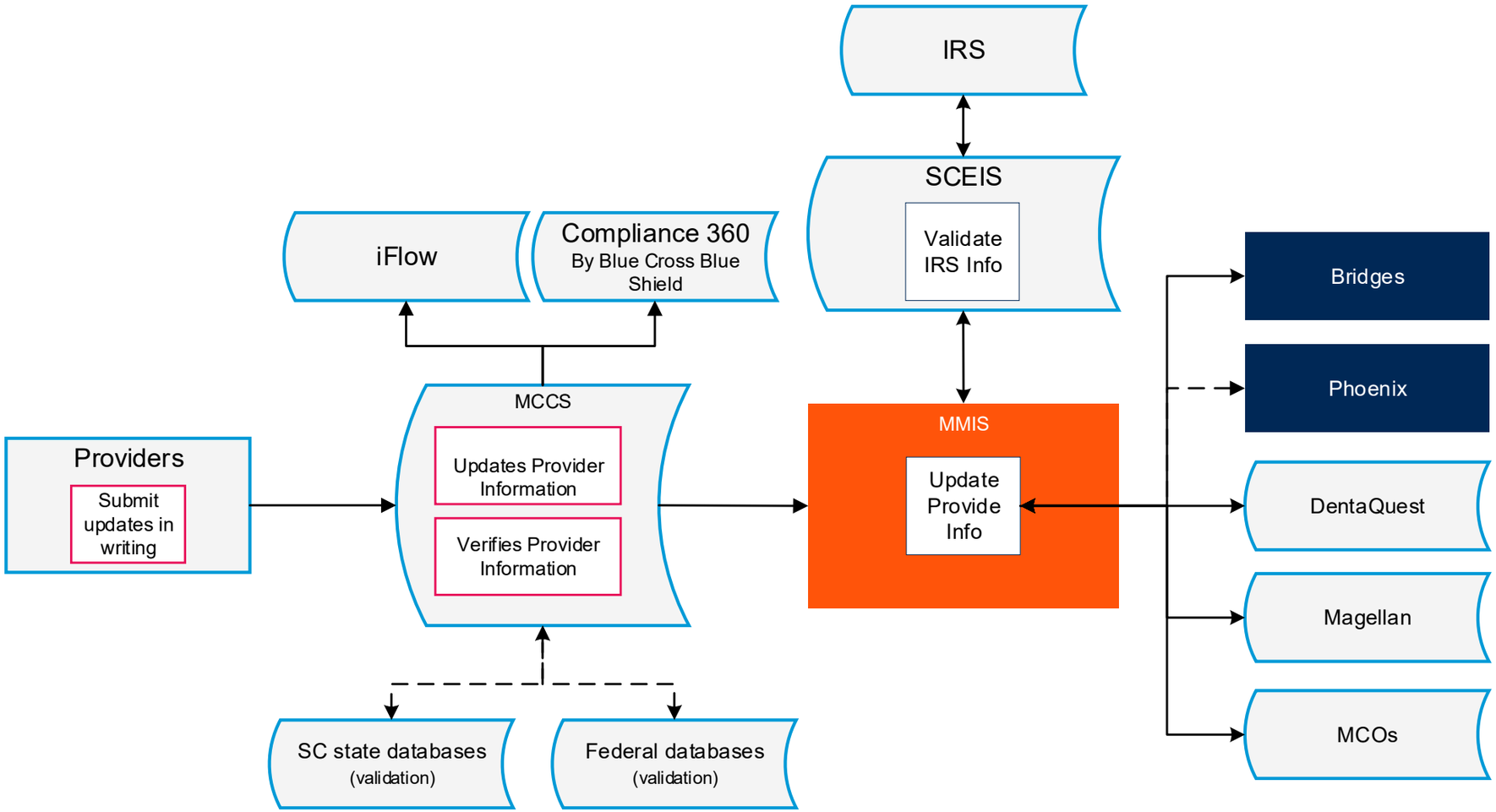
Description (cont'd)

- Providers request updates to any information in writing. When providers send updated information, it is shared with SCDHHS program areas, provider enrollment, the Division of Contracts (DOC), MCCS, and other areas of SCDHHS depending on the update.
- SCDHHS staff inquire about provider information in MMIS by validating the information, consistent with the fields that are described in page 1 of this overview.
- MMIS is the system of record for SCDHHS provider data. MMIS interfaces with SCEIS for validation of provider data with the IRS.

2.2 Manage Provider Information (MPI)

High-Level Data Flow Diagram

2.0 Manage Provider



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2.2 Manage Provider Information

Business Assessment

2.0 Manage Provider

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS' vendor BCBS updates provider information when changes are requested in writing.	▪ Communications and messaging are not fully coordinated across SCDHHS. ▪ BCBS staff must manually verify and enter key information sent in the provider application into iFlow and MMIS. In addition, manual verification of provider information is required. ▪ Provider information can be updated in multiple systems and is not always synced. This cause information to be out of sync between different systems.	▪ Where possible, seek ways to streamline business processes, with focus on reducing manual efforts through automation and eliminating redundant data entry. ▪ SCDHHS staff reported that a provider data improvement project is planned to address many of the current challenges.

2.2 Manage Provider Information
Technology Assessment

2.0 Manage Provider

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ iFlow (a Palmetto GBA tool) is used as a document storage system to house key provider information. It allows both MMIS and SCDHHS staff to see the details of provider applications and information.	▪ MMIS requires a Legacy Provider ID to be used for all providers in the system. This is independent of the national provider ID (NPI) and the federal tax identification number (TIN). ▪ MMIS requires a cross-walk between Legacy Provider ID and NPI to adjudicate and pay claims. This is an additional step that creates complexity and room for error in the adjudication process. ▪ There are no fields to add provider information (i.e., Suffix, Network), so all the information is concatenated into a single string of information requiring business rules to translate. ▪ Provider information affiliations are not date sensitive, causing billing issues. ▪ In addition to MMIS, Phoenix (Community Long-Term Care (CLTC) and other waiver populations) and BRIDGES (Babynet) also contain provider information. They need to be managed separately from MMIS and iFlow. There is no sync between the systems currently. ▪ There is no central repository containing all Medicaid providers.	▪ The SCDHHS team reported they were pursuing a provider data improvement project. The team does not believe there will be material technology changes as part of this effort. The team believed the improvements would be related to updated business rules. One primary focus of this effort is the validation of provider taxonomy. ▪ Better system integration would improve the overall process by allowing provider data to sync between various provider data source systems.

3.0 Manage Claims Processing

3.1 Receive Claims
Overview

Summary

SCDHHS uses a combination of manual and electronic methods to receive claims from various systems, which are processed through MMIS. MMIS handles different types of claims, including institutional, professional, dental, pharmacy, nursing home, and medical transportation claims, with each claim identified by a unique claim control number (CCN).

Actors

- Internal
  - Bureau of Provider and Support Services (BOPSS) — *Office of Claims Resolution*
  - Bureau of Strategic Planning and Research — *Office of Research and Analysis*
- External
  - Blue Cross Blue Shield (BCBS) — *MCCS*
  - Magellan
  - DentaQuest
  - Modivcare — *Transportation broker*

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, MEDS, Actian/Axiom EDI Translator,* South *Carolina Medicaid Web-Based Claims Submission Tool (SCMWBST)*
  - RFA — *Phoenix*
- Externally Controlled Systems
  - BCBS — *iFlow, Third-Paty Liability (TPL) System*
  - Magellan — *Magellan RX*
  - DentaQuest
  - YahaSoft — *BRIDGES*

Description

- Paper and electronic claims are received by MMIS 24/7 most of which, are processed through the Actian EDI Translator tool, using the 837 Electronic Data Interchange (EDI) input. This includes institutional or hospital (837I), professional/HIC (837P), and dental claims (837D).
  - Dental claims are submitted to and handled by DentaQuest with the resulting information being sent to MMIS.
  - Pharmacy claims are submitted to Magellan RX. These claims are pre-processed and assigned a status of approved or denied. While these claims are transmitted electronically on a weekly basis, adjustments and durable medical equipment claims are processed separately.

3.1 Receive Claims
Overview (cont'd)

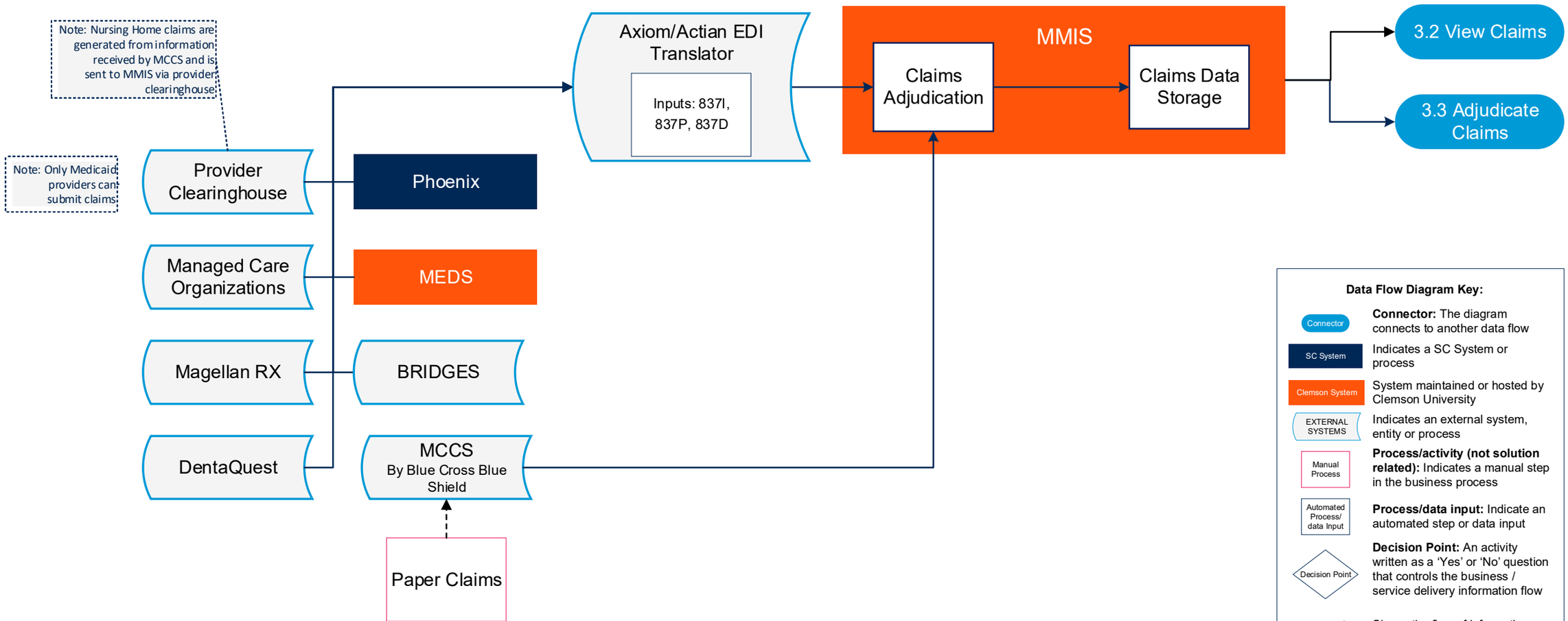
Description (cont'd)

- Nursing Home claims, categorized as Type G, are internally generated from information received by the Medicaid Claims Correction System (MCCS) and sent to MMIS via provider clearinghouse.
- Medicare Buy-in claims, categorized as Type J, originate from the MEDS. Additionally, Buy-in claims for MCO capitation payments are also internally generated monthly with adjustments being manually entered or via the 837 transaction.
- Medical Transportation claims are not received by MMIS. However, Encounter transportation claims are received during the daily Encounters cycle.
- Community Long-Term Care (CLTC) and other waiver claims are submitted and adjudicated by Phoenix with the resulting information sent to MMIS.
- BabyNet claims are submit and adjudicated in the BRIDGES system with the resulting information sent to MMIS.
- Paper Claims are scanned and uploaded by Blue Cross Blue Shield into iFlow. Only a small portion of claims are submitted via paper submission.
- Encounter data are received into MMIS for reporting purposes, however these claims are not adjudicated though MMIS.
- All claims are identified by a Claim Control Number (CCN), which provides detailed information about the claim including its date of entry, batch, and sequence number, among others. Some claims, known as "split" claims, have more than 8 lines of data and require slight modification in classification. To ensure that the same CCN is not in the system more than once, a "batch heading" record is created as the claims enter the MMIS system.

3.1 Receive Claims

High-Level Data Flow Diagram

3.0 Manage Claims Processing



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- Manual flow of information

3.1 Receive Claims
Business Assessment

3.0 Manage Claims Processing

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The SCDHHS claims receiving process operates adequately, and in the event of any issues, experienced staff have the expertise to navigate and resolve them effectively.	▪ The submission of erroneous MCO claims data cause transmission issues with the translator, remedied by a resubmission of the correct information. ▪ When SCDHHS transitioned from a manual to a more automated claims receiving process, the original business rules carried over and now limit the number of service codes on a MCO claim, which obstruct a comprehensive view of encounters.	▪ Consider revising the business rules related to the intake of MCO claim details to improve the comprehensiveness of encounter views.

3.1 Receive Claims
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS effectively receives FFS claims from the Actian EDI Translator and Phoenix.	▪ *No technology improvements identified.*	▪ *No technology improvements identified.*

3.2 View Claims
Overview

Summary

The view claims/inquire claims business capability refers to the various ways providers can check claims status and view remittance advices.

Actors

- Internal
  - Bureau of Provider and Support Services (BOPSS) — *Office of Claims Resolution, Office of Support Services*
- External
  - BCBS — *Provider Support Center*

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, Actian/Axiom EDI Translator, South Carolina Medicaid Web-Based Claims Submission Tool (SCMWBST)*
- Externally Controlled Systems
  - None

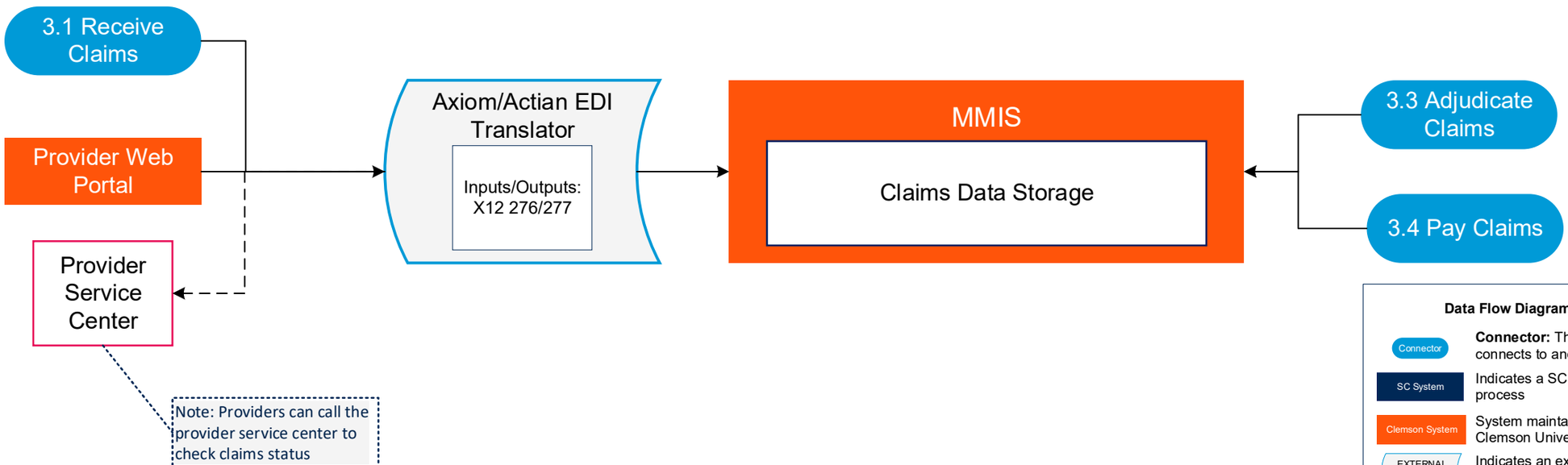
Description

- Providers check claims status in three ways: calling the Provider Service Center (PSC), using the Web Tool, or sending/receiving (ASC) X12 276/277 transactions.
  - When a provider calls, the PSC representatives can look up claim status in the MMIS and inform the provider the status over the phone.
  - Providers log-in to the Electronic Data Interchange (EDI) website and check the status of claims using specific search parameters. The Provider Web Tool maintains twelve months' worth of claims status data.
  - As with other HIPAA transactions, SCDHHS exchanges 276/277 transactions with trading partners using an FTP server and the Translator at Clemson.

- SCDHHS generates remittance advices every Friday for all providers who had claims processed during the previous week. Providers must access their remittance advices online through the Provider Web Tool.
  - Remittance advices are created in a .pdf format. Providers can view, save, and print their remittance advice(s), but not a remittance advice belonging to another provider. Remittance advices for current and previous weeks are retrievable on the Provider Web Tool.
  - Providers who file electronically can sign up for 835 electronic remittance advices. The electronic 835 EDI remittance advice will only report items that are returned with "paid," "rejected," or "suspended" statuses.

3.2 View Claims

High-Level Data Flow Diagram



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3.2 View Claims
Business Assessment

3.0 Manage Claims Processing

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ Providers can obtain claim statuses using a variety of accessibility options including the Provider Web Tool, via phone or auto-posting claim payments electronically into the providers revenue cycle systems. ▪ Viewing claims online through the Provider Web Tool offers a convenient option for providers to inquire/view claim status. ▪ Users can submit claims electronically, track their progress, and receive updates without the need for physical documents or phone calls.	▪ The Provider Web Tool and online remittance advice displays limited information about claims statuses and only reports items that are returned with “paid” or “rejected” statuses. ▪ The online remittance advice is not real time and updates via batches weekly.	▪ Allow providers, third party administrators, and PSC the ability to view comprehensive claims status and information in real time.

3.2 View Claims
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The Provider Web Tool used to view claims is compatible with many platforms and accessible by a variety of devices.	▪ Data synchronization and data validation issues exist across MMIS, SCEIS, and the Provider Web Tool systems.	▪ Setup API access for providers to transfer the data automatically to their respective practice management systems or software of choice.

3.3 Adjudicate Claims

Overview

Summary

The Adjudicate Claims capability refers to SCDHHS's ability to evaluate and determine the validity, accuracy and eligibility of a Medicaid claim. Claims are categorized, verified, edited, and assigned a status of "approved," "denied," or "suspended." Approved claims are summarized and sent to SCEIS to request fund authorization. Once payments are authorized the payment data is sent to MMIS to update claims statuses as "paid" or "rejected."

Actors

- Internal
  - Bureau of Provider and Support Services (BOPSS) — *Office of Claims Resolution*
- External
  - BCBS — TPL

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, South Carolina Medicaid Web-Based Claims Submission Tool (SCMWBST), MCTRA*
  - SAP — *SCEIS*
- Externally Controlled Systems
  - BCBS — *TPL System*
  - HMS — *National Correct Coding Initiative (NCCI)*
  - CMS — *FedWire*
  - Mobius

Description

- SCDHHS runs a weekly claims adjudication process, which operates from Thursday through Monday. The adjudication process reviews all claims to validate member information, provider information, payment category, RSP codes, provider codes, diagnosis codes, procedure codes, service level codes, dates of service, and prior authorization (see 4.1 Manage Prior Authorization) and checks for third party liability (TPL) for cost avoidance and rates. These checks ensure the validation of appropriate services and are necessary to determine pricing. However, this process generates multiple combinations of equivalent identifiers, creating complexity in claims adjudication as the system struggles to match the claims accurately. This complexity demands additional time and effort from the staff to rectify rejected and suspended claims.

3.3 Adjudicate Claims
Overview (cont'd)

Description (cont'd)

- To perform the necessary business edits to adjudicate claims, MMIS has a Reference subsystem containing tables which store and maintain Current Procedural Terminology (CPT) codes/ Healthcare Common Procedure Coding System (HCPCS) codes, modifier codes, Internal Classification of Diseases (IDC10) diagnosis codes, Recipient Special Program (RSP) codes, among others. Claims adjudication requires complex mapping of provider type/specialty and RSP codes to the Reference subsystem CTP4 subfiles to determine rates.
  - Subfiles indicate a one-byte field in front of the CPT4 procedure level code. They are defined by provider type/specialty and claim type. The subfiles help MMIS determine which CPT4 record to use for claims adjudication.

- Once the necessary edits have been made and prior authorizations have been validated, MMIS checks for the payment responsibility of third-parties liable for health insurance costs related to the claim. The third-parties can include private health insurance, Medicare, employment-based health insurance, medical support from non-custodial parents, long-term care insurance, court judgments or settlements from a liability insurer and state workers' compensation. Medicaid is considered the payer of last resort. Therefore, providers are obligated to bill any third parties responsible for covering the recipient's claim before they bill Medicaid. MMIS sends member eligibility data, other health insurance (OHI) data, claims data, Retro Health report data, Retro Health invoices and recruitment invoices, and DHEC Death Master file to BCBS. BCBS TPL sends TPL adjustments, recovery data, and Health Insurance Premium Program (HIPP) data back to MMIS.
  - BCBS is SCDHHS TPL vendor handling OHI, benefits recovery, and TPL case management.
  - SCDHHS handles the verification and reviews for HIPP, estate recovery, casualty recovery, and special needs trust.

- The current methods for adjudicating Medicaid claims include some unique processes for the following claim types:
  - *Dental and pharmacy claims* are pre-adjudicated in their respective systems and pass through MMIS to receive a fund code.
  - *Nursing Home claims* are processed monthly upon providing Turnaround Documents (TAD) reports to MCCS a group within Blue Cross Blue Shield (BCBS), which are used to update SCDHHS Patient Master Files, containing a list of all nursing home service recipients for the current month. After updating the files based on BCBS's online transactions, Clemson creates two new Patient Master Files to determine if a claim should be created: Regular Skilled Nursing Facility (SNF)/Intermediate Care Facility (ICF) Patient Master File and Residential Care Facility (RCF)/Optional State Supplementation (OSS) Patient Master File. This information is then passed onto MMIS, which adjudicates the claims. The final step involves creating "projections" or "TAD" using the updated data. These projections predict which recipients will be on the nursing home's roster for the next month.

3.3 Adjudicate Claims
Overview (cont'd)

Description (cont'd)

  - *Medicare Buy-in claims* are processed monthly. CMS sends a billing statement to SCDHHS detailing the amount owed for next month's Medicare premiums, which SCDHHS imports into MEDS. Throughout the month, SCDHHS sends weekly lists to CMS for additional buy-ins, changes, and terminations, and CMS updates the database accordingly, sending daily responses back to SCDHHS. At the end of the month, MEDS generates a Claims Processing File based on the billing summary, which is used by MMIS to generate "J" claims for each Medicare-eligible recipient's monthly premium. BCBS adjudicates these claims, printing a single check for the total amount, which is then voided by SCDHHS Accounting Operations and paid to CMS via FedWire.
  - *MCO Capitation claims* are processed monthly. MMIS sweeps its database via a batch process to identify which recipients are assigned to a specific Managed Care Organization (MCO) and creates a flat file. This file is used during the weekly adjudication process. Using the flat file MMIS creates a "J claim" for the identified recipients. Once MMIS determines whether claims are to be paid or rejected, the system sends a payment file to the Comptroller General's office, where checks are generated.
- Claims pricing is dependent on provider type/specialty, benefit information (Recipient Special Program codes), procedure codes, and fund code assignment.
  - *Health Insurance Claims (HIC), dental, medical transportation, and hospital outpatient claims* are priced by procedure codes. The procedure pricing record is obtained by combining procedure sub-file, procedure code, procedure code modifier, and provider pricing specialty. Including the pricing specialty allows claims to price differently for the same procedure for different providers. The pricing record holds the information on how to price the procedure.
  - *Inpatient facilities* use Diagnoses Related Group (DRG) for pricing. These claims need to go through a "mapper" that performs edits to determine if they suitable for a "grouper" to assign a DRG. In addition to a DRG, there can be "add-ons" for a variety of procedures and services.
  - *Outpatient facilities* have additional rules for Surgery (Reimbursement-type 1), Non-surgery (Reimbursement-type 5), and Treatment Therapy Testing (TTT Reimburse-type 4).
  - *Ambulatory Surgical Center (ASC)* use a facility fee and the provider's professional claim (837P) for reimbursement even though ASC claims should be classified as institutional claims (837I). These claims are categorized into one of nine ASC payment groups (i.e., HCPCS codes). Each payment groups has its own rate allowing for a tiered pricing structure. The facility fee is an all-inclusive rate that covers a range of services such as nursing, facility usage, related drugs, and supplies. However, it excludes certain services like physician services, unrelated laboratory services, ambulance services, in-home durable medical equipment and specific prosthetic devices.
  - *Fund Codes:* Every claim line is assigned a fund code. These codes are used to record how the money was spent. There are over 362 fund codes currently in use. The fund code lets the payment process know if the claim is to be paid using is a federal/state (90/10) funding split, or it may identify that the claim is to be paid 100% by the state. This two-byte field is critical to tracking monies.

Gartner

3.3 Adjudicate Claims
Overview (cont'd)

Description (cont'd)

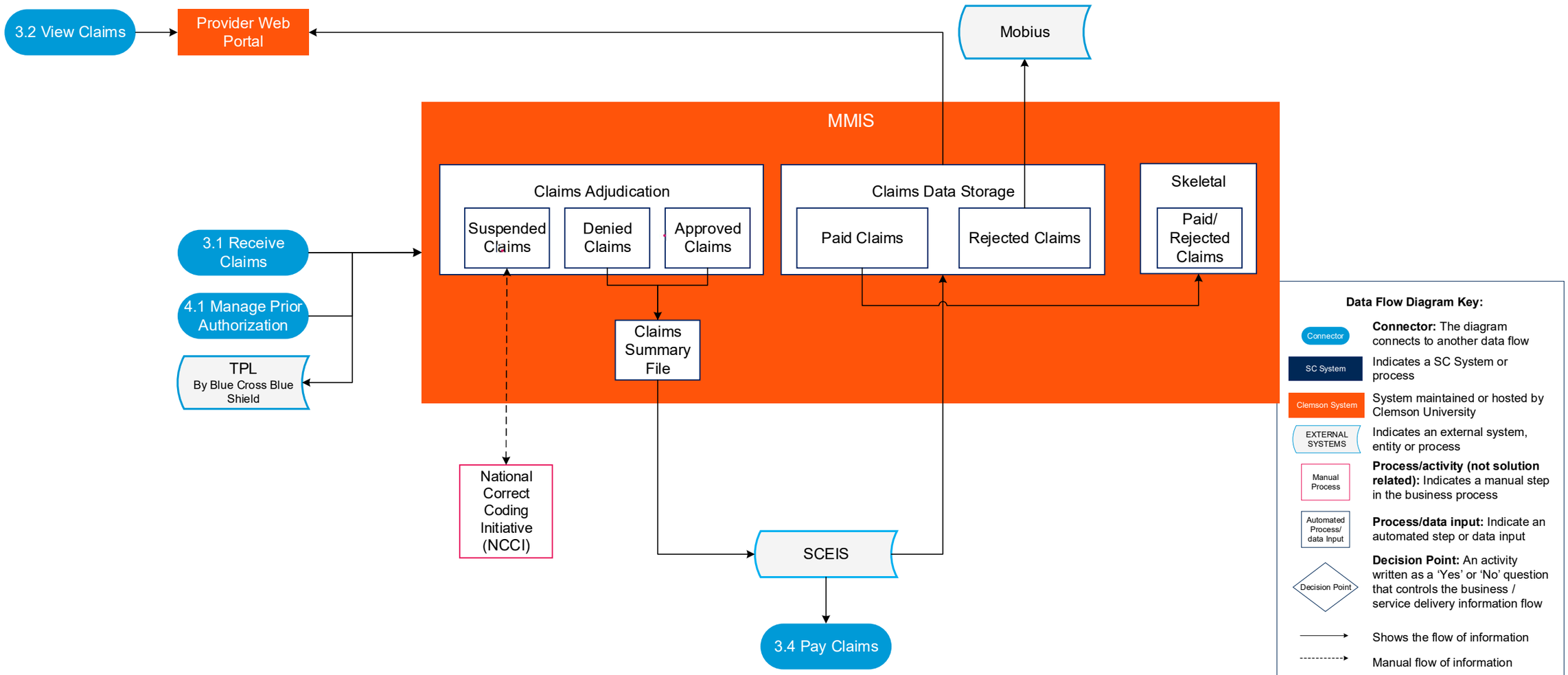
- All claims are reviewed and given a claim status including approved claims (claim status = A) or denied claims (status = D). Claims that are not awaiting payment hold a suspended status and require edits.
  - Approved claims indicate that the claim is awaiting payment.
  - Denied claims receive edit codes and can be "recycled" if a denial occurs due to a system issue, which is corrected after the claim processed or due to a reference file update. This process involves assigning the claim a new cycle number and moving it into the next claims cycle. The action taken depends on the edit the claim receives. Edits contain an approval status, "payable" and "non-payable." If an edit is "payable," it can be edited and verified using additional documentation by staff for payment. If the edit is non-payable, the claim needs to be revised and resubmitted as a new claim. While claims can be recycled multiple times, any claim that is over a year old will be rejected.
  - Suspended claims may require edits or an additional action, such as providing supplemental documentation. Suspended claims are typically suspended by an edit code and are resolved by SCDHHS. The additional functions are categorized into three types of edit codes: Inactive, Reject and Suspend. These claims are reconciled by Medicaid Claims Control Services (MCCS) and cycle through adjudication until resolved. In some cases, claims may be suspended because the claim requires National Correct Coding Initiative (NCCI) edits during adjudication and remain unaffected by payment updates. NCCI updates can be applied to claims with certain provider types that require NCCI edits (e.g., Physician Assistant). BCBS can force completion of a suspended claim by rejecting the claim.

- MMIS then summarizes the claims by Pay-to Provider and sends the files to South Carolina Enterprise Information System (SCEIS) where general ledger functions are performed and claims are designated as "paid" or "rejected." Once SCEIS has authorized claims payments, an MMIS batch process updates the claim status of each claim decision, (i.e., "paid or "rejected"). If a claim is rejected, MMIS assigns the appropriate edit to indicate the reason for the rejection. A remittance advice is then generated by MMIS, listing all paid and rejected claims along with corresponding edit codes.
  - Paid Claims indicate that a provider will be paid for a given claim.
  - Rejected claims indicate that a provider will not be paid for a given claim. Providers can access these claims via the Provider Web Tool. SCDHHS staff can access remittance advice information in Mobius, which is an internal reporting system for staff.

3.3 Adjudicate Claims

High-Level Data Flow Diagram

3.0 Manage Claims Processing



3.3 Adjudicate Claims
Business Assessment

3.0 Manage Claims Processing

Business Alignment 

Strengths	Challenges	Opportunities for Improvement

▪ There is effective collaboration among SCDHHS, Clemson, BCBS, and SCEIS when claims errors and issues arise.	▪ Claims adjudication involves complex crosschecks against provider contracts, benefit files, and reference tables among other information. The numerous subfiles for provider types/specialties required to determine the CPT4 record needed for adjudication further complicates the process.
	▪ The verification, processing, and confirmation of claims and recipient information is done by use of manually updated reference tables.
	▪ There are no subsystems used to maintain referential integrity. Examples of issues that arise from this subprocess are:
	  ▪ The system can only read one modifier (i.e., CPT and HCPCS codes) at the individual service code level when there can be up to four modifiers.
	  ▪ There is limited flexibility (i.e., capturing procedure and pricing codes based on member type and frequency).
	▪ The current nursing home claims process (TAD) is not standard practice and non-compliant.
	▪ The current capability hinders efficiency goals, primarily due to the challenges in streamlining claims information.
		▪ SCDHHS should consider a benefits subsystem to maintain referential integrity for claims adjudication in lieu of the subfile process currently in place.
		▪ Create a process to address modifier pricing.
		▪ Consider a digital platform that would give examiners the capability to finalize claims online.
		▪ There is an opportunity to explore a user-driven subsystem for fund code maintenance, which could significantly increase efficiency by eliminating touchpoints with Clemson, allowing for faster updates.

3.3 Adjudicate Claims

Business Assessment

3.0 Manage Claims Processing

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ *Refer to previous page.*	▪ There is a lack of a user driven system for fund code maintenance. Currently, changes to fund codes require sending a change order to Clemson and a lengthy update process.	▪ *Refer to previous page.*

3.3 Adjudicate Claims
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement

▪ MMIS provides sufficient support during the claims adjudication process. It effectively categorizes and manages different claims types.
▪ Medicaid Clinical Translation Review and Approval (MCTRA), the system used to automate reference code updates, performs effectively providing MMIS with real-time updates.
	▪ MMIS dependence on multiple systems and tables to gather and validate claims data complicates adjudication due to a lack of communication between modules and applications. This results in information and reference codes not being properly updated, leading to unnecessary re-work and adjustments to claims. Examples include:
	  ▪ Limited synchronization: There is a lack of real-time information updates between member, provider, reference modules, and MMIS leading to inaccurate code application, which affects pricing.
	  ▪ MMIS' inability to receive real-time updates on service dates hinders its ability to match a service with its corresponding date leading to inaccuracies when filing a claim, necessitating a resubmission.
	▪ There is a need for system rules that identify duplicate claims. The inclusion of extra duplicate check rules is essential for the adjudication of professional and institutional claims. Additionally, dual eligible BabyNet and Medicaid recipients duplicate checks sometimes fail.
		▪ SCDHHS could improve MMIS' integration capabilities or consider an alternative solution that ensures real-time information updates, reducing data loss and improving the accuracy of code application.
		▪ Process ASC claims at the revenue line level ensuring accurate reimbursements between professional and institutional claims and the corresponding bill type (i.e., inpatient or outpatient).

3.3 Adjudicate Claims
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ *Refer to previous page.*	▪ MMIS processes ASC claims as professional claims (837P) instead of the appropriate institutional claim format (837I), leading to discrepancies in reimbursement and inaccuracies in procedure code pricing.	▪ *Refer to previous page.*

3.4 Pay Claims
Overview

Summary

The Pay Claims capability refers to ability for SCDHHS to pay claims for services covered by Medicaid. In South Carolina, Medicaid fee for service claims are paid after they are received and adjudicated. **Note** — the process of MCOs receiving and paying claims is not included in this section.

Actors

- Internal
  - SCDHHS Finance and Chief Finance Office
  - Bureau of Provider and Support Services (BOPSS) — *Office of Claims Resolution*
  - Bureau of Strategic Planning and Research — *Office of Research and Analysis*
  - Office of Administration and Chief Compliance Office — *Bureau of Internal Audits and Program Integrity, Office of Appeals and Hearings*
- External
  - SCEIS
  - Morning Sun

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - RFA — *Phoenix*
- Externally Controlled Systems
  - SAP — *SCEIS*
  - Morning Sun

Description

- Payment for claims is generated out of the MMIS system. The system has a “pay” area independent of the “claims” area. Claims are stored in both areas of the database.

- The payment process runs weekly. The process starts on Tuesday when MMIS identifies those claims ready for payment processing. The payment process changes approved claims’ status to “paid” and denied claims’ status to “rejected.” MMIS ignores suspended claims. On Tuesday night, payment posts the approved and rejected claims back to the claims area of the database.

- For approved claims, checks are issued the Friday after the payments run. All checks are paid by the South Carolina Enterprise Information System (SCEIS).

3.4 Pay Claims
Overview (cont'd)

Description (cont'd)

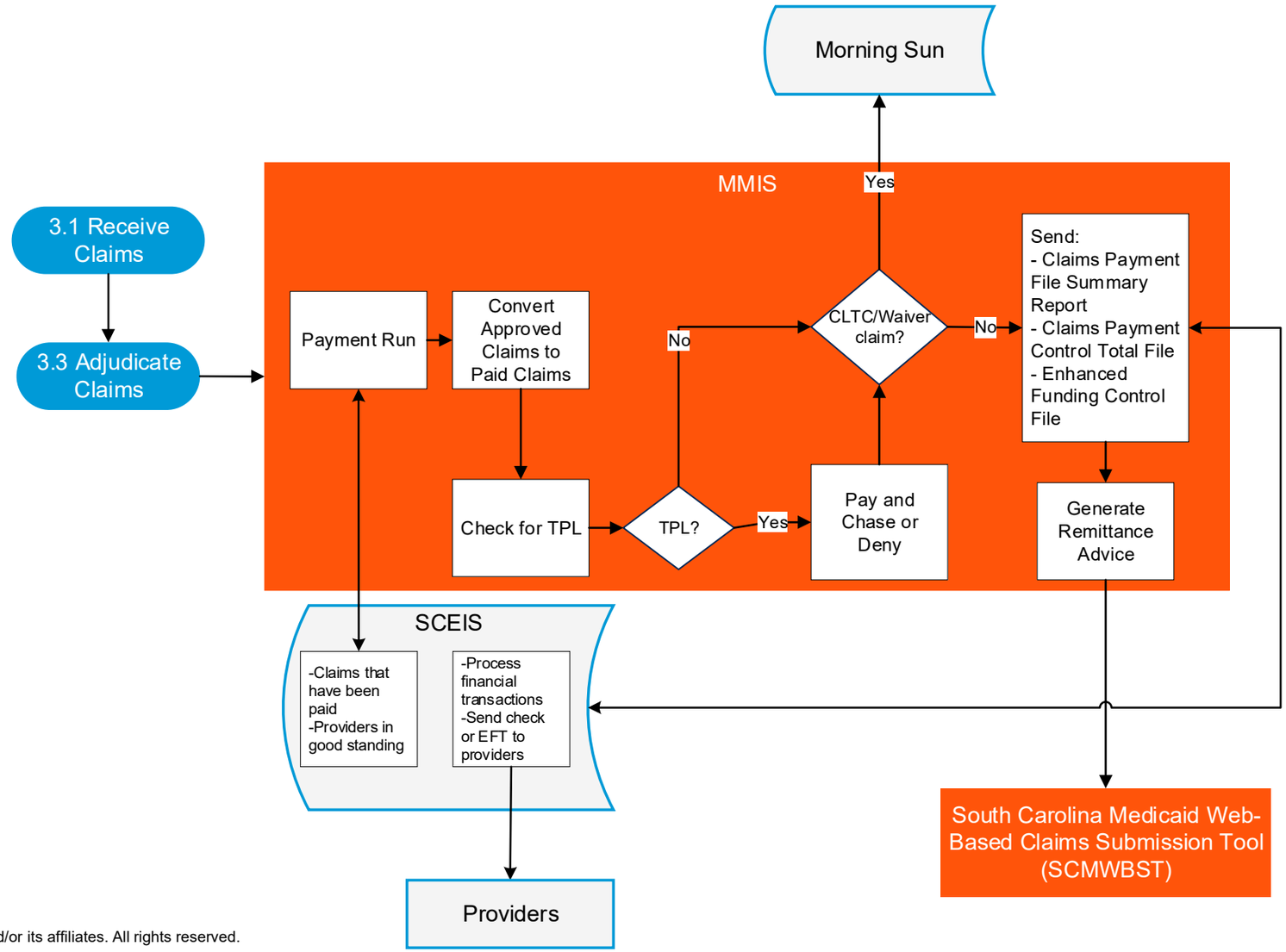
- MMIS sends SCEIS a "check file" based on what has been processed Tuesday morning. MMIS uses Fund Codes and sends them to SCEIS. These indicate how much to CMS needs to contribute for a particular payment. Payments are deposited into SCEIS by Tuesday.

- For each paid claim, the state and federal share are calculated by referring to several tables using fund code, facility code, object code, and date of payment. The output from this process is the MMIS Claims Payment File Summary Report (aka "GAFRS" file), which is a detailed payment file that is summarized by Clemson staff and sent to SCEIS for payment. Additionally, MMIS sends a MMIS Claims Payment Control Total File and MMIS Enhanced Funding Control Total File to SCEIS. These reports are summarized by fund code, budget unit code, and State funding source.

- Once payment is made, SCIES returns an outbound interface of Medicaid Payments to Clemson for Clemson staff to balance MMIS (using a combination of legacy and NPI number) in the case of imbalance Clemson staff reach out to SCEIS and SCEIS handles communications with the provider.

- There are three cases when payment is put on hold due to SCEIS:
  - The provider is waiting for IRS validation. To communicate any holds SCEIS sends a vendor record to MMIS daily. MMIS uses this record to confirm the status of a provider. Any providers with a pending status will have their claims in a hold file until the following week because these claims cannot get approved until the provider's status changes.
  - SCDHHS can place a hold on a provider if there is an outstanding legal case against the provider.
  - SCEIS has a lien on the provider.

3.4 Pay Claims
High-Level Data Flow Diagram



Data Flow Diagram Key:

- Connector — **Connector:** The diagram connects to another data flow
- SC System — Indicates a SC System or process
- Clemson System — System maintained or hosted by Clemson University
- EXTERNAL SYSTEMS — Indicates an external system, entity or process
- Manual Process — **Process/activity (not solution related):** Indicates a manual step in the business process
- Automated Process/ data Input — **Process/data input:** Indicate an automated step or data input
- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

3.4 Pay Claims
Business Assessment

3.0 Manage Claims Processing

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS has been successfully processing claim payments for many years. Though these processes are complicated and require manual intervention, they are well established and understood by staff.	▪ The current claims payment process relies on the use of Fund Codes for each claim (and if applicable each claim line). Tracking and making sure Fund Codes are used correctly was repeatedly mentioned as a pain point for SCDHHS. The number of codes has grown over time, and many staff feel that keeping track of the large number is unwieldy. Also, the process has been developed in ad hoc fashion and lacks a strict process for updates. ▪ Reference tables are used during claims adjudication to select the correct procedure and the corresponding rate as well as to inform the Provider Manuals (refer to “8.2 Manage Reference Information,” for full details). ▪ SCDHHS staff reported there were several instances of discrepancies between the MMIS and SCEIS systems in terms of payment information.	▪ Simplify the process of maintaining Fund Codes. ▪ Create a streamlined process for updating the reference information used to adjudicate and pay claims.

3.4 Pay Claims
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The MMIS system has a well-established track record of performing the necessary functionality to pay fee for service (FFS) claims. It runs a series of jobs that effectively pick up the necessary claims and provide payment files to the vendors so that SCEIS will provide the necessary payments. ▪ MMIS allows claims to be submitted from a variety of provider types, as well as from other systems like Phoenix.	▪ The technology used in the claims payment process is antiquated and can be difficult to update. ▪ Much of the logic MMIS uses for payment of claims is hard-coded, making updates more difficult than necessary. ▪ The ridgid technical requirements of SCEIS constrain the data exchange with MMIS. ▪ MMIS requires that providers have a “Legacy Provider ID” assigned for a claim to be paid. This can cause confusion as the Legacy Provider ID is distinct from the provider’s NPI number and is different from the federal taxpayer identification number (TIN).	▪ A more modern technology that allows for easier updates for claims payment (e.g., additional services that need to be covered and paid) would allow for better functionality and would help to accommodate future changes. ▪ Though claims payment requires the ability to manage and apply fund codes at the claim level for payment purposes, the current technology to manage and apply fund codes is labor intensive and causes significant challenges. SCDHHS should prioritize alternative technological tools and approaches to manage fund codes and their role in claims payment.

3.5 Adjust Claims
Overview

Summary

The Adjust Claims capability covers the tools and processes SCDHHS uses to modify paid claims if and before they are resubmitted, adjudicated, and reprocessed for payment.

Actors

- Internal
  - SCDHHS Finance and Chief Finance Office
  - Bureau of Provider and Support Services (BOPSS) — *Office of Claims Resolution*
- External
  - BCBS — TPL

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, MEDS, South Carolina Medicaid Web-Based Claims Submission Tool (SCMWBST)*
  - Meritas — *MMS*
  - RFA — *Phoenix*
  - SAP — *SCEIS*
- Externally Controlled Systems
  - BCBS — *iFlow*

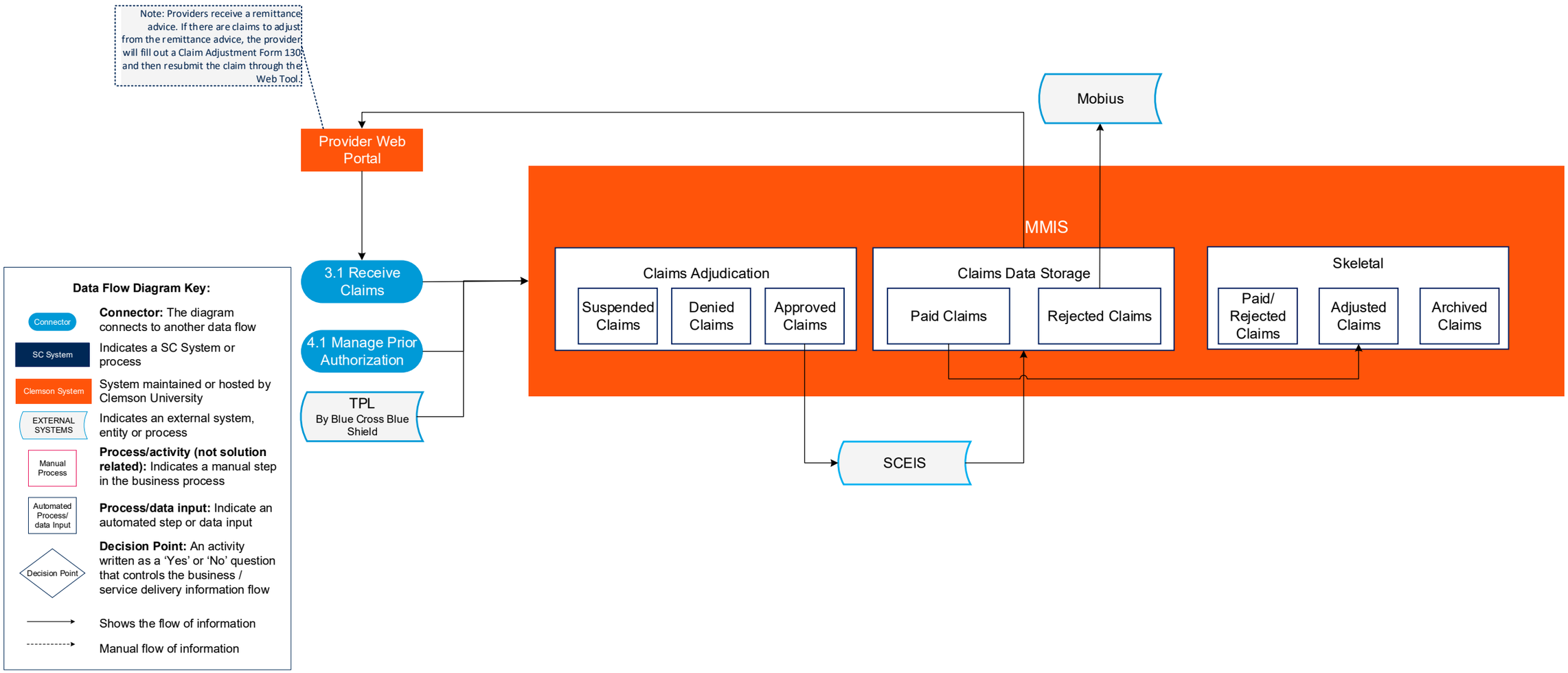
Description

- An adjusted claim refers to a paid claim that requires modification due to various factors such as retroactive rate changes, system errors, cost settlements, provider appeals, etc.
- SCDHHS requires the ability to adjust claims at both the provider level and individual claims levels. At the claim level, SCDHHS misuses the Gross Level Adjustment (GLA) process, which is typically employed for provider-level claims, to manage individual claims payment adjustments via void and replace. This process is described in “7.3 Manage Accounts Payable.”
- Once adjustments are made, they are reprocessed like all other claims. Adjusted claims are ingested into the MMIS system and adjudicated as a new claim. Currently, adjusted claims that require a second adjustment after a payment decision has been made must be processed as a new claim.
- If the claim is approved upon adjustment, a record is created and stored in MMIS “skeletal,” a database used to verify if a claim has already been paid. For reporting purposes, adjusted claims are stored in the MMIS skeletal adjustment area for 2.5 years, unlike other claims, which remain in the skeletal for only 18 months. To view the history of this new claim, a reference called a “claim link record” is used in the skeletal.

Gartner

3.5 Adjust Claims

High-Level Data Flow Diagram



3.5 Adjust Claims
Business Assessment

3.0 Manage Claims Processing

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS has identified strategic alignment metrics actively measuring and reporting on their performance with monthly claims reports from SCDHHS and Clemson. SCDHHS tracks and continuously improves performance in key areas related to claims processing and data management.	▪ Leveraging the gross level adjustment process to create a claim level adjustment is not the appropriate process for this capability. ▪ The current process to adjust claims requires creating a new claim and flowing back through the batch process, rather than directly adjusting the claim and sending it along to the next cycle to await payment status, prolonging processing period. ▪ Adjusted claims can be traced back to the original claim via “claim link record”. This workaround solution adds additional manual effort from claims staff as they need to enter both iFlow and MMIS to view adjustment details. A more modern system would not require additional tools to look up the claims history.	▪ Improve information exchange between Phoenix, MMS (Cúram), MEDS, iFlow, and Mobius. Currently, claims examiners must navigate through these different systems to view information and adjust claims. Streamlining this process could significantly reduce the workload for claims examiners. ▪ Develop a process to sync changes made in SCEIS/SAP and MMIS.

3.5 Adjust Claims
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS' ability to adjust claims, re-adjudicate, and store adjusted claims is functional and has a long track record of meeting South Carolina's basic business requirements.	▪ The MMIS system has significant technical debt, which can result in unnecessary workarounds. For the Adjust Claims capability, claims cannot be adjusted and require the submission of a new claim, which deviates from what modern systems can provide. To associate the new claim with its predecessor, a reference known as a "claim link record" is used in the skeletal. To view the comprehensive history of a claim a claims examiner must crosscheck the dates of service. ▪ The current capability impedes efficiency goals due to the extra step of re-adjudicating adjusted claims, rather than directly sending them to await payment status.	▪ A single platform that integrates all necessary data and automates adjusted claims functions could improve efficiency, reduce errors and save time.

3.6 Process Encounters

Overview

Summary

The Process Encounters capability refers to the tools and processes SCDHHS uses to receive, validate, and store claims data submitted by Managed Care Organizations' (MCOs).

Actors

- Internal
  - Bureau of Managed Care — *Office of Targeted Oversight*
  - Bureau of Medicaid Systems
  - Bureau of the Comptrollers Office
  - Bureau of Provider and Support Services (BOPSS)
- External
  - None

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - *Data Operation Hub*
  - *MES Core*
  - SAS — *BIS*
- Externally Controlled Systems
  - Magellan — *Magellan RX*
  - Milliman
  - MCO — *MCO Systems*

Description

- Managed care claims are referred to as “encounters.” They provide a record of services delivered to Medicaid beneficiaries.
- Unlike FFS claims, encounters are not adjudicated by MMIS. Encounters data is received by and stored in MMIS for analytical purposes.
- MCOs submit encounter data to SCDHHS including all relevant claim level information that the MCOs use to compensate the service provider. SCDHHS uses this data to track the types of services and care utilized by the state's residents, thereby informing rates and rebates, policy decisions, and ensuring a greater level of quality care.
  - All encounter data is sent to MMIS electronically via file transfer. MCO’s submit encounter information to MMIS either in an 837 format — 837I (institutional), 837P (professional), or by the National Council for Prescription Drug Programs (NCPDP) format. MMIS checks all encounters for HIPAA compliance, validates the data, and decides whether the encounter is valid or should be rejected. For claims, encounter edits are performed by the EDI translator and MMIS validates business edits, TPL, reference coding, provider information, and member information. When MMIS rejects encounters that fail edits or audits, it notifies providers. Approved encounters are stored in MMIS.

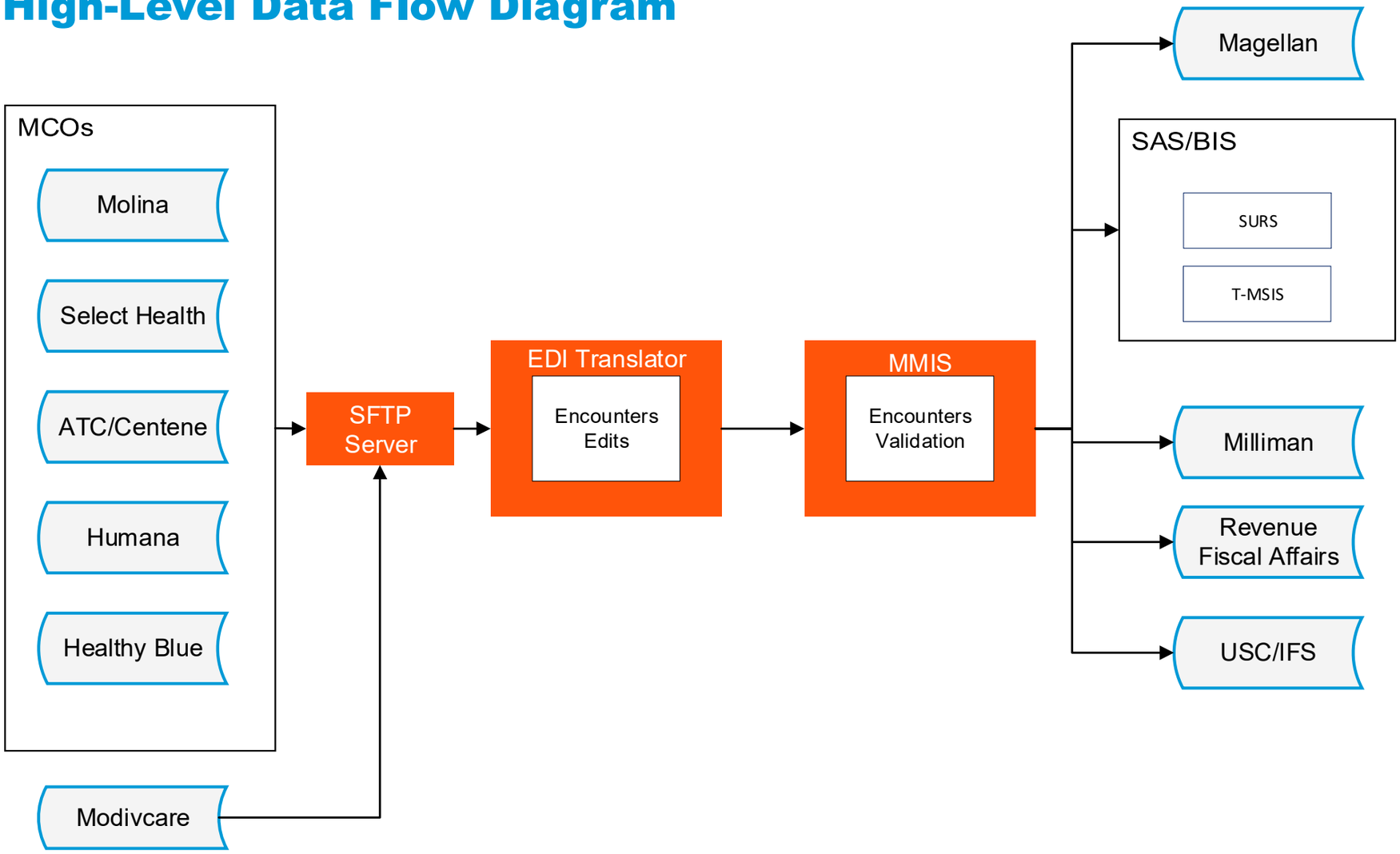
3.6 Process Encounters
Overview (cont'd)

Description (cont'd)

- Transportation encounters are submitted through a HIPAA Mailbox Interface and then reformatted into a unique transportation encounter format. **Note** — transportation vendors do not receive a per member per month capitation payment like MCOs.
- For reporting and management, encounters data flows to the Business Intelligence System (BIS) where SCDHHS creates and returns several data files to the MCOs, including a copy of the original file and an edited encounters file with any errors. MCOs use this data to correct and resubmit rejected encounters, and they also receive a summary report detailing the number of accepted/rejected encounters and a list of errors.

3.6 Process Encounters

High-Level Data Flow Diagram



Data Flow Diagram Key:

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- Automated Process/ data Input — **Process/data input:** Indicate an automated step or data input
- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

Gartner

3.6 Process Encounters

Business Assessment

3.0 Manage Claims Processing

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS' business process for encounters processing operates effectively, despite the obstacles presented by the EDI translator and manual data extraction for analytics. ▪ SCDHHS is planning to leverage the Encounter Processing System (EPS) system implemented by North Carolina Department of Health and Human Services (NCDHHS). If implemented as designed, this will greatly improve the business process for processing encounters.	▪ All encounter data is sent through MMIS via the translator, which limits SCDHHS' ability to receive raw data. ▪ SCDHHS has limited visibility into the encounter data processed by MMIS and forwarded to Milliman for rate setting. This process assists in determining capitation rates and relies on Milliman's review of encounter utilization. ▪ SCDHHS does not have access to denied claims data as part of the encounter process. This data is not currently shared to BIS as part of the encounter extract from MMIS.	▪ There is an opportunity for SCDHHS to increase ownership and control over the submission, processing, and storage of encounter data. ▪ SCDHHS should make sure it receives the complete encounter data records from MCOs.

3.6 Process Encounters
Technology Assessment

3.0 Manage Claims Processing

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS' handling of encounters data is adequately functional, meeting the basic requirements. ▪ SCDHHS is planning to leverage the Encounter Processing System (EPS) system implemented by North Carolina Department of Health and Human Services (NCDHHS). If implemented as designed, the system will provide greater validation and processing accuracy.	▪ MMIS is incapable of capturing full diagnosis data affecting quality and reimbursements. For example, MMIS can only process 5 diagnoses per encounter. ▪ MMIS performs some compliance checks, but its ability to validate encounters is limited. For example, SCDHHS does not have access to denied encounters, which hampers its ability to gain insights from what services are being denied. This limitation leads to inaccuracies in the data reported by MMIS. ▪ The system has trouble accurately filtering all encounter data, including service authorization, and faces challenges linking encounters to grievances and appeals. The encounter data used for reporting is sourced from an Excel spreadsheet hosted on SharePoint. ▪ MMIS struggles to synchronize MCO and SCDHHS provider data, leading to errors indicating missing providers when encounters enter the system. Despite these errors, the data still enters MMIS, but staff must cross-reference multiple spreadsheets and error codes to identify the associated provider.	▪ SCDHHS should ensure its EPS system allows it to: – Capture complete encounter data. – Perform necessary validations and edits (e.g., cross-referencing provider information against its database) easily, with limited or no manual effort.

4.0 Manage Care and Services

4.1 Manage Prior Authorization

Overview

Summary

Prior Authorization is the capability to pre-authorize inpatient and outpatient admissions (excluding births and deliveries), outpatient admissions, and professional services (physician services provided in physician offices) for procedures including, but not limited to, organ transplants, surgical procedures, outpatient physical therapy, outpatient occupational therapy, outpatient speech therapy, durable medical equipment, and mental health counseling for SC Medicaid members.

Actors

- Internal
  - Bureau of Provider and Support Services
  - Office of Medical Directors
- External
  - Acentra Health

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, South Carolina Medicaid Web-Based Claims Submission Tool (SCMWBST)*
  - RFA — *Phoenix*
- Externally Controlled Systems
  - Acentra Health — *Atrezzo*
  - Fiserv — *Autheticare EVV*
  - Magellan RX — *iCore*
  - DentaQuest
  - Yahasoft — *BRIDGES*

Description

- The prior authorization process for clinical service begins when a provider submits supporting documentation to obtain or fulfill a prior authorization request for a service. Providers can use the Atrezzro Provider Portal, call the IQO customer service, fax, or send an email to initiate medical prior authorizations. The authorization depends on the service type and the provider's operational parameters.

- SCDHHS contracts with Acentra Health to manage clinical prior authorization processes for its fee-for-service (FFS) program.
  - If Acentra Health approves the service, they assign an authorization number and notify the provider.
  - If a prior authorization request is denied, additional information is requested from the provider. If no supporting documents are provided or the procedure is not seen as a medical necessity, a denial letter is sent to the provider.

Gartner

4.1 Manage Prior Authorization
Overview (cont'd)

Description (cont'd)

  - SCDHHS and Acentra exchange 'provider', 'member', and 'authorization' files respectively. Provider and member data are extracted from MMIS on a predetermined schedule and then uploaded to a directory for retrieval by Acentra Health. The data is then transformed into a system-ready format, evaluated for any issues, and loaded into Acentra Health's system. Exception reports are issued to SCDHHS for the data that fails to meet established criteria. The remaining or corrected data is then loaded into Acentra Health's proprietary system where it then becomes the system of record.
  - Once all processes necessary for prior authorization of medical services are completed, Acentra Health extracts authorization data from its proprietary system on a predetermined schedule and posts this data to a directory for retrieval by SCDHHS. SCDHHS evaluates this data at the file and record levels. Files and records failing validation are reported via exception reports to Acentra Health for rectification. The remaining or corrected data is then loaded into the Prior Authorization module of MMIS.

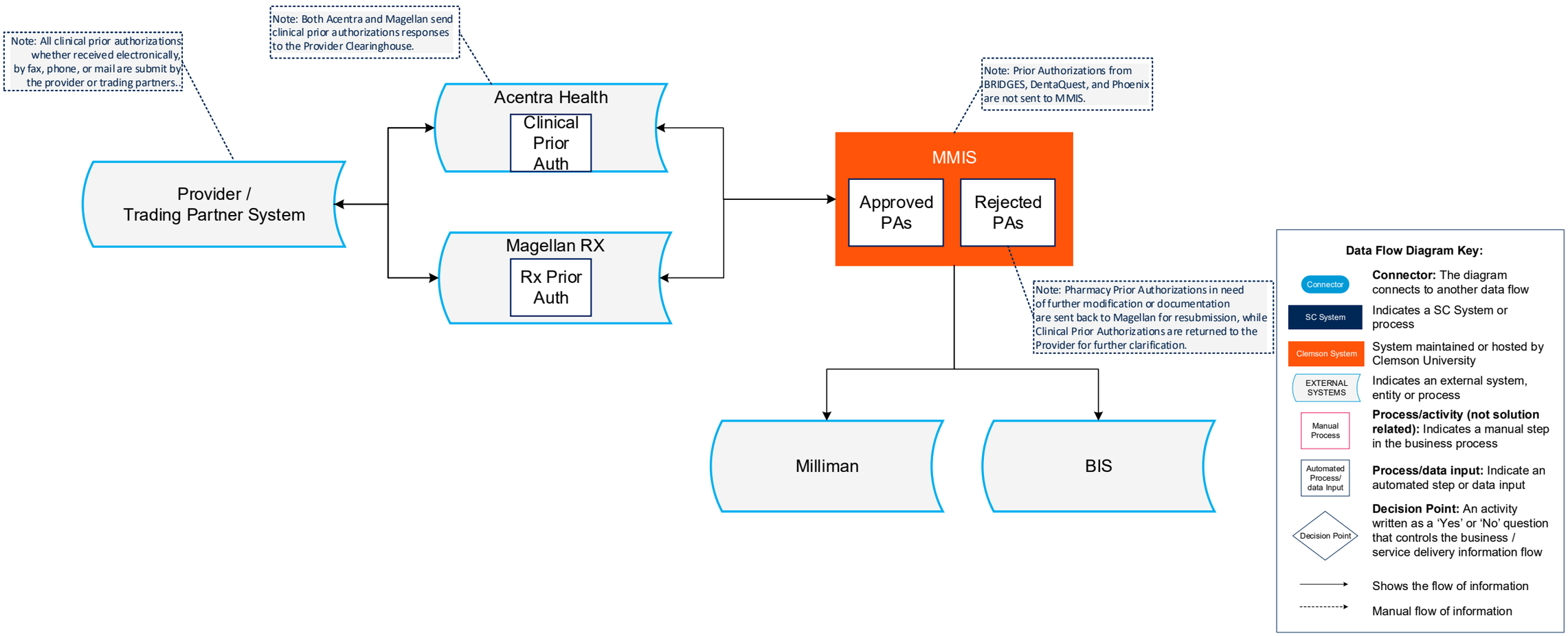
- When a provider submits a claim, a procedure code(s) is added to the claim and a check is done to verify if it was authorized. The data in the Prior Authorization Module of MMIS is used to evaluate and validate data submitted on claims from providers rendering the authorized services. If the data in MMIS matches with the claims, the claims are approved for payment. If the data does not match, appropriate edits will be issued identifying the reason(s) that the claims are denied for payment.

- In addition to clinical FFS prior authorizations:
  - Pharmacy prior authorizations are handled by Magellan RX. A daily authorization file is sent to MMIS. Approved PAs are stored in MMIS and PAs in need of further modification are sent back to Magellan RX. Pharmaceutical prior authorizations can be submitted by the provider via clearinghouse or trading partner system.
  - Dental prior authorizations are done internally by DentaQuest. DentaQuest does not submit information regarding their prior authorization back to MMIS.
  - Community Long-Term Care (CLTC) and waiver service prior authorizations intake is done via Phoenix Provider Portal or AuthentiCare EVV and prior authorizations are processed in Phoenix. Information for prior authorization for these programs does not flow from Phoenix to MMIS.
  - BabyNet prior authorizations are handled by the BRIDGES system. BabyNet service coordinators capture individualized family service plans (IFSP) in BRIDGES, which serve as prior authorization for BabyNet providers. Information for prior authorization for BabyNet do not flow from Bridges to MMIS.
  - Managed Care Organizations perform their own prior authorization. Information for prior authorization for these managed care programs do not flow from the MCOs to MMIS.

- Prior authorization data that is stored in MMIS is sent to Milliman and BIS for reporting and analytics.

4.1 Manage Prior Authorization

High-Level Data Flow Diagram



4.1 Manage Prior Authorization

Business Assessment

4.0 Manage Care and Services

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS has a staff member assigned as the Acentra Health liaison who assists with inquiries, gathers information from appeals, and helps resolve denials when issues arise with the vendor's prior authorization process. ▪ SCDHHS staff has identified process failures and is working on solutions to mitigate problems around information exchange of procedure and error codes, as well as improving the provider process of updating issued prior authorizations. ▪ To measure success as outlined by the Strategic Plan, SCDHHS has specific KPIs relating to prior authorizations on which the agency actively reports.	▪ There are multiple prior authorization systems and users causing ambiguity around the definition of inpatient care management, non-medical needs (aspects of care management and social case work), and business ownership. For members enrolled in multiple programs this can result in overlapping PA business processes from DDSN, CLTC, and Targeted Case Management (TCM). ▪ SCDHHS does not require Acentra to perform reviews for some services like Early Periodic Screening and Diagnostic Testing (EPSDT), and MMIS does not have rules to account for these services causing unnecessary denials and a prolonged appeals process. ▪ Timeliness and accuracy goals are obstructed by knowledge and communication gaps between SCDHHS and vendors regarding access to the correct reference codes for prior authorizations.	▪ Establish standardized definitions and clear business ownership to reduce inaccuracies and delays among the different business areas. ▪ Increase accessibility of approved prior authorization lists developed by SCDHHS with vendors and providers to improve accuracy during prior authorization submission. ▪ Improve the line of communication between SCDHHS and Acentra to ensure a clear understanding of the correct prior authorization process.

4.1 Manage Prior Authorization

Technology Assessment

4.0 Manage Care and Services

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS can receive and store prior authorizations for fee for service medical claims, meeting timeliness goals through Acentra Health and Magellan RX.	▪ If there is a retroactive claim, issues with data exchange in the MMS eligibility system may lead to the disappearance of the initial five eligibility records from a two-year period. This loss prevents the claims resolution team from verifying prior authorizations information during that time. Additionally, communication barriers between eligibility and prior authorizations teams obstruct timely updates on RSPs, affecting the determination of a recipient's eligibility. ▪ For pharmacy prior authorizations, inconsistencies between MMIS (which uses National Provider Identifiers) and the vendor Magellan RX (which uses Tax Identification Numbers) cause issues when uploading information and may inadvertently lead to claim denials.	▪ Enhance the system's capability with real-time information updates of information to achieve CMS and state goals regarding accuracy. ▪ Address the information exchange challenge between systems to prevent record loss during transfers, thereby mitigating data inaccuracies and ensuring a more reliable and consistent flow of information.

4.2 Manage Case Management

Overview

Summary

The Manage Case Management capability involves support for establishing a case based on a recipient's unique health information and assessing, planning, documenting, monitoring, evaluating services and options, and paying for services in order to meet a recipient's health needs.

Actors

- Internal
  - Eligibility, Enrollment and Member Services — *Bureau of Long-Term Care Eligibility*
  - Office of BabyNet — *Bureau of Quality*
  - Office of Waiver and Facility Services — *Bureau of Policy*
- External
  - Revenue and Fiscal Affairs (RFA)
  - Yahasoft
  - Fiserve

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - RFA — *Phoenix*
  - Data Operations Integration Hub
  - Meritas — *MMS*
  - Hyland Software — OnBase
- Externally Controlled Systems
  - Yahasoft — *BRIDGES*
  - Morning Sun
  - Fiserve — *AuthentiCare*

Description

- SCDHHS uses two case management systems to operate programs that serve members with complex medical needs or chronic conditions. These systems manage application intake, program enrollment, needs assessment, treatment plans, referrals, documentation of services, and other case information.
  1. SCDHHS leverages Phoenix for its Community Long-Term Care (CLTC), Home and Community Based Services (HCBS, 1915c) waivers and other SCDHHS waiver programs. These include Community Choices (Elderly/Disabled Waiver), HIV/AIDS Waiver, Ventilator Dependent Waiver, Medically Complex Children's Waiver, Children's Personal Care Program, Children's Private Duty Nursing, TEFRA, PACE Programs, HASCI Waiver (initial assessment only), and Pre-Admission Screening for nursing home placement.
  2. BRIDGES supports BabyNet, a program which offers early intervention services for disabled children from birth to age three, targeting five developmental areas: physical, cognitive, communication, social/emotional, and adaptive.
     - *Note*: BabyNet services are separate from Medicaid and not administered by SCDHHS. BabyNet operates under a different statutory scheme from the Social Security Act (Individuals with Disabilities Education Act (IDEA)).

4.2 Manage Case Management
Overview (cont'd)

Description – Phoenix

- Phoenix is SCDHHS' CLTC and Medicaid waivers' case management system. It includes modules and capabilities for eligibility, intake, assessment, service planning, caregiver supports, case notes, referrals, billing, appeals, and critical incident management.

- Phoenix has an eligibility application process that allows hospital staff, nurses, and providers to request eligibility on behalf of a member. Eligibility referrals are submitted into Phoenix's public website. The Electronic Referral module uses forms to collect and store applicant data, the referral source, and intake criteria. The referrals are matched with existing client records by using a combination of details such as name, date of birth, SSN, and Medicaid number. If there's no match, the user can create a new client record using the referral information. Waiver eligibility is manually processed in Phoenix and communicated to SCDHHS to confirm the recipient's PCAT. If the referred candidate is not already enrolled in Medicaid, the Central Intake team will hold the referral until Medicaid eligibility is determined in MEDS. In cases where the referred person is eligible for a waiver program but not Medicaid, this recipient will receive a PCAT15 indicating that their Medicaid eligibility is dependent on their waiver enrollment status. Providers serving recipients with a PCAT15 are given notice that these claims are paid 30 days after adjudication. Upon approval, local area offices meet with the referred person, family, and/or case worker to determine the recipient's care level, which is documented in Phoenix.

- Phoenix enables providers to perform Level of Care (LOC) assessments to determine the appropriate level of care or services based on the recipient's health condition, functional abilities and support requirements. Phoenix's LOC assessment capabilities can be customized to specific waiver programs, with configurable algorithms that can be tailored to each program's level of care requirements. Phoenix enables providers to create, view and print LOC assessments. Phoenix also enables case managers to review and make the final LOC determinations, and then assign an RSP code to the recipient upon eligibility determination. For those clients requiring care in Medicaid-certified facilities, Phoenix also provides the ability to conduct Pre-Admission Screening and Resident Review (PASRR) assessments, ensuring appropriate care for individuals in both long-term and temporary respite stays, and automatically assign clients to nurses when released from Centralized Intake.

- During enrollment, SCDHHS staff use Phoenix to send enrollment notifications documenting the recipient's choice of service location. The system ensures all requirements are met before enrollment and generates necessary notification forms for clients and caregivers. It also records and retrieves the client's decision on whether to receive services at home or in a care facility.

- For those waiver programs that utilize wait lists, Phoenix has a waitlist management capability to retain referrals that are awaiting determination on financial eligibility and to determine level of care.

4.2 Manage Case Management
Overview (cont'd)

Description – Phoenix

- SCDHHS and case management staff use Phoenix to create an initial person-centered service plan based on their assessment results. Phoenix captures review activities of the service plan for state approval. For each service on the plan a reviewer must approve the service and its level, Phoenix records and retrieves all requests and approvals. SCDHHS requires all case-related activities, including phone calls, visits, contacts, home assessments, caregiver supports, non-waiver supports, appeals and critical incidents, to be documented in Phoenix.

- Case managers also use Phoenix for referrals and prior authorization of services. Service referral and authorization can be made after a report has been generated for the recipient to select a provider from a list, based on the services required. *Note – all listed providers must be enrolled in the Phoenix system and select a county*. The chosen provider has 48 business hours to accept the referral, or Phoenix moves to the next provider. Upon referral acceptance, Phoenix notifies the case manager and creates the authorization for the service. All communication with referred providers is done via email and the Phoenix Provider Portal. Providers can appeal a decision and have incorrect information amended, within Phoenix.

- The Phoenix Provider Portal is used by public hospitals and providers to enter recipient data, conduct screenings, manage treatment plans, send claims, and manage medications, as well as receive service plans, referrals, authorizations, and conversations. Providers can use Phoenix to manage their own information. Phoenix uses Medicaid provider information to validate provider status during registration and eligibility. Phoenix also receives provider information from MCOs and sends client information back.

- *Electronic Visit Verification (EVV)* – SCDHHS currently contracts with AuthentiCare for electronic visit verification (EVV) of in-home services. AuthentiCare's EVV solution interfaces with Phoenix, which facilitates near real-time data transfer. Providers use the system to capture service information on in-home services. Providers can use the AuthentiCare mobile app or toll-free number to send visit claims, check-in/out details, GPS, Automatic Number Identification (ANI), and information about the services provided, as well as EVV information. Phoenix sends AuthentiCare EVV reference data, including details about the client, provider, workers, and authorizations. AuthenticCare is currently only used for CLTC providers to capture EVV data. AuthentiCare integrates with Open Street Map (OSM) to track travel information, including address routing and travel time calculations.
  - Information about the provider, beneficiary, and service is transferred from Phoenix to AuthentiCare EVV through electronic data transfer (EDT). This information includes the beneficiary's name and ID, telephone number, authorized services, and geolocation of their address. It also includes the provider's name and ID, the services they can perform, the workers registered for the provider, and the services these workers can perform.
  - To ensure providers understand how to use the EVV system, AuthentiCare offers a user manual and a toll-free training line to practice service delivery documentation.

4.2 Manage Case Management
Overview (cont'd)

Description – Phoenix

- Phoenix handles CLTC and other waiver program claims submissions, resolutions, and prior authorizations. MMIS sends Medicaid data to a secure server at RFA, accessible to a small data processing team. This data includes TPL information, RSP, and eligibility data needed to support billing. Dodo, a subroutine within Phoenix, handles the final claim checks, records missed visits, translates claims information into an 837 file, and initiates the billing run. Phoenix sends 837P and 837I along with a 999 response to MMIS daily.

- Morning Sun is the financial management services (FMS) vendor that supports a network of self-directed in-home Medicaid providers and members who are part of SCDHHS waivers (i.e., Community Choices, HIV/AIDS Waiver, Mechanical Ventilator-Dependent Waiver, Palmetto Coordinated System of Care) and the Money Follows the Person demonstration (i.e., Home Again). Phoenix submits claims to MMIS for the waiver services that are provided, and MMIS pays Morning Sun as the provider. Morning Sun sends payments for in-home providers who offer attendant care and adult companion services, as well as make payments for other goods and services covered by Medicaid.
  - Morning Sun receives client, provider, and employer of record information from Phoenix to manage attendant payments and tax-related information. Morning Sun confirms receipt of information to Phoenix, which then forwards the resulting data to MMIS. MMIS sends a non-FMS and FMS 835 remittance advice weekly. The remittance advice is then sent to the Phoenix Provider Portal for providers to review.
  - Morning Sun sends confirmation to Phoenix once it receives information. Morning Sun uses documents and employer data in Phoenix to match records between clients, providers, and authorized services with University Affiliated Programs (UAP) for verification. This supports the EVV and billing sub-systems.

- Phoenix offers a medication management capability. It allows providers to add, review, and manage FDA-approved drugs, which are pre-loaded into the system and can be searched by name or National Drug Code (NDC). Providers can input dosage frequency, add comments for special instructions or non-FDA approved medications, flag medications that require special monitoring, discontinue medications, and review records of changes.

- Phoenix provides critical incident management capabilities allowing a critical incident specialist or SCDHHS staff to enter, track, and manage critical incidents associated with program participants. Note – SCDHHS is currently planning to procure a Health and Welfare Critical Incident Management (CIM) module to use with its CLTC and waiver programs.

4.2 Manage Case Management
Overview (cont'd)

Description – Phoenix

- Phoenix also provides limited Human Resources functional capabilities for providers. This includes the Phoenix Resource Directory, for inputting and updating provider details such as contact information, services offered, and areas of service. The data collated in the Resource Directory is used to create the provider lists and is shared with AuthentiCare. Additionally, Phoenix has a Provider Compliance module to ensure adherence to regulations by conducting surveys of in-home service providers. This module is responsible for tracking review dates, selecting review samples, calculating compliance scores, relaying review results to providers, and facilitating communication between staff and providers.

- Case Close Outs – When a participant withdraws from a waiver program, SCDHHS staff use Phoenix to ensure that all service referrals/authorizations are closed, notify providers of the members' disenrollment, and send the effected parties notices.

4.2 Manage Case Management
Overview (cont'd)

Description — BRIDGES

- BabyNet Reporting and Intervention Data Gathering Electronic System (BRIDGES) allows staff members to review and update referral data and complete the evaluation processes for BabyNet eligibility determination. Once enrolled, members can select a service provider of their choice. BabyNet facilitates the creation and maintenance of the Individual Family Service Plan (IFSP), outlining the approved services and frequencies for each member. The system enables providers or SC BabyNet staff to create and edit case notes, as well as submit and approve prior authorizations for service.

- A referral can be submitted by anyone with the necessary data to initiate the BabyNet enrollment process into the BabyNet Referral Portal (e.g., referrers can be providers, parents, or Child Abuse Prevention and Treatment Act (CAPTA) staff member). The BabyNet referral portal will prompt a screen for the referrer to identify themselves as a parent or professional with a corresponding form to fill out. This data is then saved in the OnBase system, which stores electronic copies of BabyNet referrals. These can be referenced by BabyNet staff throughout the baby's enrollment in the program.

- Once the referral data is reviewed and updated, the evaluation processes for BabyNet eligibility determination is done manually by the central referral team. The eligibility division of the central referral team sends families paperwork to fill out and schedules an evaluation. During the evaluation, a staff member creates a developmental profile used to generate a score to determine eligibility. Once a child is determined eligible, a county coordinator will be assigned to the case. If the enrollee also qualifies for Medicaid, their eligibility is determined using MMS. A BabyNet staff member reviews and updates referral data, and then completes the eligibility evaluation process. A staff member reviewing eligibility first checks quorum to identify recipient is Medicaid eligible, and if the recipient is not, they are identified with a PCAT89. BabyNet RSP codes are entered into MMIS by the central referral team staff and expire in three years (i.e., the duration of the program).

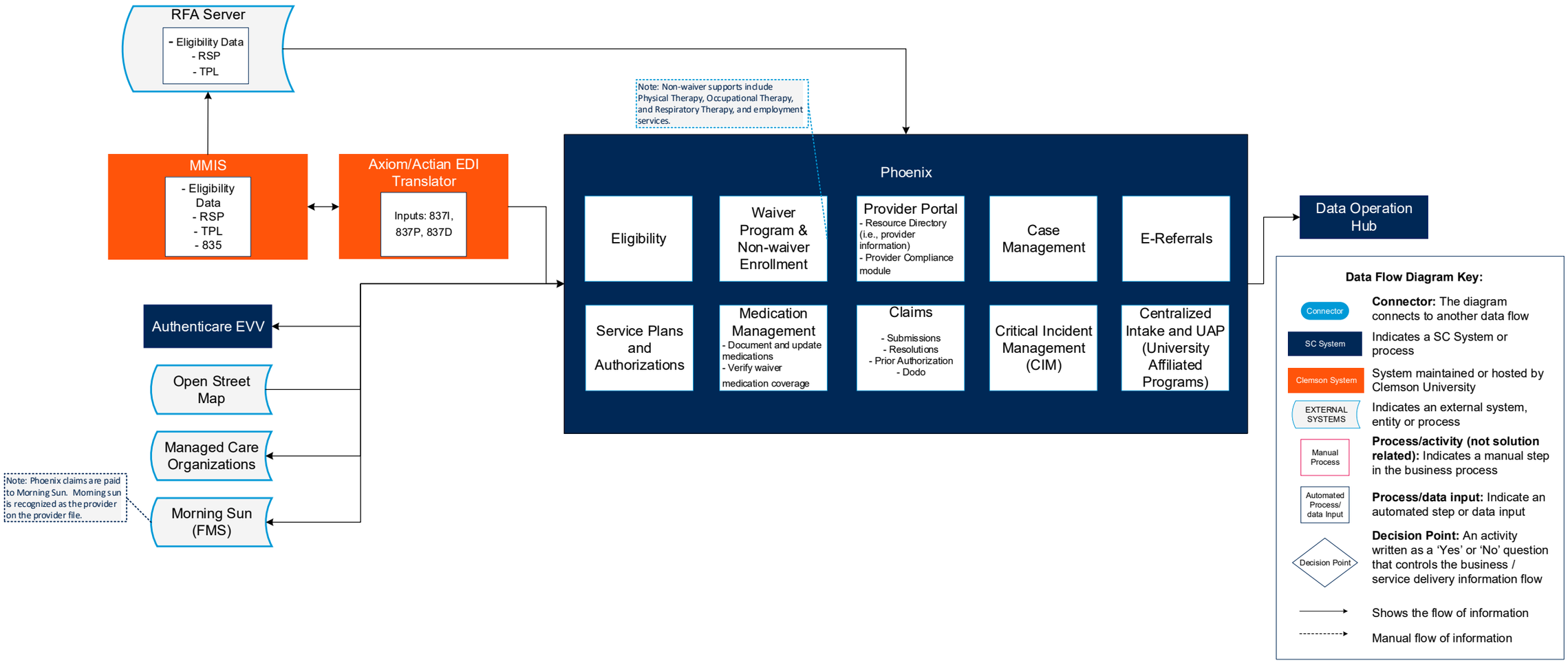
- Upon enrollment, enrollees can select a service provider of their choice through the BabyNet Provider Portal. Providers can then submit provider enrollment documentation, manage service notes, and prepare and update the Individual Family Service Plan (IFSP). The IFSP outlines the approved services and frequencies for each recipient. Additionally, providers or BabyNet staff can create and update case notes. Only BabyNet staff can request a service authorization.

- BabyNet program claims are submitted, adjudicated, and adjusted within BRIDGES with the resulting claims information sent to MMIS for payment. Payments to providers are managed through SCEIS, which registers BabyNet providers for payments and processes these payments. If the enrollee has Other Health Insurance (OHI), the TPL system collects OHI payment before payments are made through the MMIS for Medicaid to pay out. Certain BabyNet services are not covered by Medicaid, those services are paid out by BabyNet. BRIDGES generates a remittance advice and payments are handled by SCEIS. For BabyNet claims Individuals with Disabilities Education Act (IDEA) Part C is the payer of last resort.

Gartner

4.2 Manage Case Management

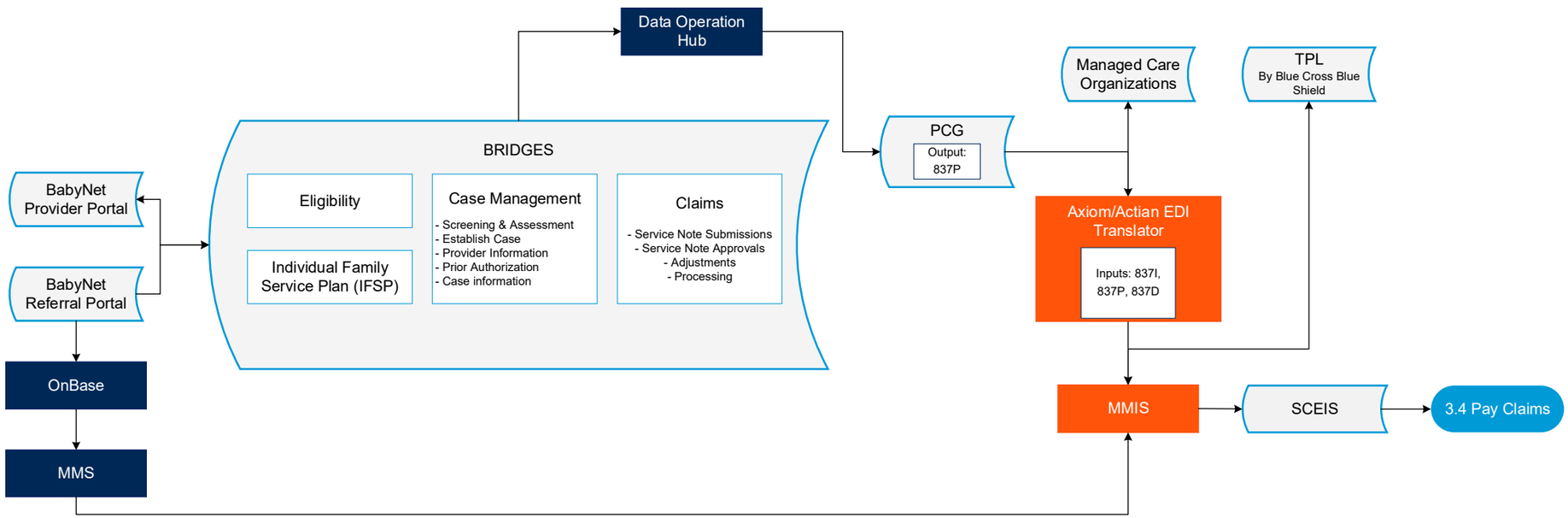
High-Level Data Flow Diagram — Phoenix Case Management



Gartner

4.2 Manage Case Management

High-Level Data Flow Diagram — BRIDGES Case Management



Data Flow Diagram Key:

- Connector — **Connector:** The diagram connects to another data flow
- SC System — Indicates a SC System or process
- Clemson System — System maintained or hosted by Clemson University
- EXTERNAL SYSTEMS — Indicates an external system, entity or process
- Manual Process — **Process/activity (not solution related):** Indicates a manual step in the business process
- Automated Process/ data Input — **Process/data input:** Indicate an automated step or data input
- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

4.2 Manage Case Management

Business Assessment — Phoenix

4.0 Manage Care and Services

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The overall case management process is operating both effectively and efficiently, and the employees that use Phoenix are satisfied with its ability to support their processes. ▪ Following CMS guidelines SCDHHS is proactively planning to enhance its service delivery by acquiring and implementing a new, more efficient EVV solution by May 2024.	▪ The current process of verifying a member's Medicaid eligibility and enrollment before enrolling them into a waiver program is manual. This requires significant effort from eligibility and enrollment staff, and the Phoenix Central Intake team to manually confirm these details. ▪ The current process for verifying provider information is manual. When changes are made to provider information in the Phoenix system, there is no direct method to communicate these updates to MMIS. Phoenix staff can update the information in their system, but these changes do not automatically update in MMIS. For changes that affect enrollment, Phoenix staff instruct the provider to contact the Bureau of Provider Support and Services. The provider is responsible for updating SCDHHS Office of Waiver and Facility Services staff about their enrollment status. ▪ There is a knowledge gap between CLTC and waiver programs and providers regarding the referral process. This lack of clear understanding from providers leads to errors and an increased number of support calls, adding to the workload of the provider support staff.	▪ Improve the eligibility process by exploring solutions to integrate MMIS, MEDS, and Phoenix. ▪ Enhance the clarity and communication of CLTC and waiver program processes to providers to minimize manual errors and support calls.

4.2 Manage Case Management

Technology Assessment — Phoenix

4.0 Manage Care and Services

Technology Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The Phoenix case management system provides a reliable and effective solution for case management capabilities, adequately supporting the necessary processes. ▪ Phoenix system has a suite of effective case management capabilities, which successfully serve over 10 waiver programs. One of which includes the auto-generation of service plan recommendations, streamlining the service planning process.	▪ The absence of a robust, bidirectional data exchange between Phoenix and MMIS results in discrepancies and misalignment in member and provider information. Phoenix is technically capable of supporting this data exchange. The technical limitation is with MMIS. This lack of data exchange causes MMIS or Phoenix to contain outdated provider information. Additionally, it slows down waiver eligibility determination due to verifications having to be conducted and communicated manually. ▪ AuthentiCare does not comply with the geolocation data collection requirements of the 21st Century CURES Act.	▪ Introduce automation of data flow from MEDS and MMIS to Phoenix to reduce manual intervention in the CLTC and other waiver member eligibility and provider enrollment determination process. ▪ Consider sourcing an EVV vendor that fully complies with necessary regulations and requirements.

4.2 Manage Case Management

Business Assessment — BRIDGES

4.0 Manage Care and Services

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The overall Bridges case management process is functioning effectively and efficiently.	▪ The BabyNet Provider Portal is not supported by BRIDGES. In turn the process of reconciling provider service notes submissions with payments received in BRIDGES is challenging and time-consuming, necessitating the use of multiple applications for case workers.	▪ Streamline the service note to payment reconciliation process by consolidating the applications needed to perform the necessary functions (i.e., BabyNet Portal, Data Operations Hub, PCG, and MMIS).

4.2 Manage Case Management

Technology Assessment — BRIDGES

4.0 Manage Care and Services

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The Data Operations Hub and PCG are effectively used to extract and format data from MMIS for use in BRIDGES.	▪ BRIDGES relies on the Data Operations Hub for data processing and preparation before passing this data to downstream systems. – BRIDGES application does not generate the 837P directly and is dependent on PCG, an independent vendor, to do this. – Reconciling service notes submissions with received payments in BRIDGES is currently challenging and time-consuming for providers, as it necessitates the use of multiple applications.	▪ There is an opportunity to reduce the dependence on external vendors for data exchange by exploring options for a case management system.

5.0 Manage Appeals

5.1 Manage Appeals
Overview

Summary

Manage Appeals refers to the capabilities SCDHHS requires to (a) inform applicants, members, and providers of their right to appeal any SCDHHS action, inaction, or failure to act in a timely manner, (b) provide applicants, members, or providers with the means to submit an appeal request, (c) receive and manage appeal requests, (d) manage Pre-Hearing Conferences and resolutions, and (e) conduct appeals hearings and arrive at appeals resolutions.

Actors

- Internal
  - Division of Appeals and Hearings
  - SCDHHS Deputy Director
  - SCDHHS Medical Staff
- External
  - Appellant (Applicant, Member, Provider)

Systems

- Internally Controlled Systems
  - Conduent
  - Service Manager
  - Hyland Software — *OnBase*
  - Internally Developed Work Management System — *Workload Pro*
  - SharePoint
- Externally Controlled Systems
  - None

Description

- Applicants, Members, and Providers have the right to appeal any SCDHHS action, inaction, or failure to act in a timely manner regarding services and/or authorizations, including but not limited to:
  - Applicants
    - Eligibility appeals for denial of Medicaid or nursing benefits.
  - Members
    - Denial of request for services by a Medicaid member before services were provided.
  - Providers
    - Appeals for denial of claim of services already rendered.
    - Appeals for decisions made by the Office of Program integrity regarding overpayment, suspension, or termination of a provider.

5.1 Manage Appeals
Overview (cont'd)

Description (cont'd)

- Response from the Division of Appeals and Hearings is required within 30 days with the appeals reviewer responsible for performing the research on the appeals packet. Case resolutions must occur within 90 days.

- SCDHHS can receive appeals from a wide variety of ways, including:
  - Electronically, via Citizen / Provider Portal on the Healthy Connections website or email
  - Phone call
  - Mail
  - In-person

- Based on origin, an appeal either flows into a provider or eligibility / member workflow before moving into SCDHHS' Division of Appeals and Hearings where intake is performed on all appeals and appeals are sorted into two categories: Providers and Eligibility / Members.
  - Provider appeals are entered into OnBase
  - Eligibility / Member appeals are entered into Workload Pro

- Once entered into the appropriate system, SCDHHS's Division of Appeals and Hearings workers research the reason for the appeal to determine the next step in addressing the appeal request. These workers document information on the appeal and status of the appeal in Workload Pro, OnBase, or in other systems (e.g., Microsoft Excel).

- Each appeal received by SCDHHS must be reviewed for consideration of merit. If the agency determines that the appeal is substantiated, the applicant, member or provider may request a fair hearing where an objective 3rd party may determine whether the SCDHHS decision should be upheld or overturned (the appeal may also be withdrawn). The appeal will remain open until the Hearing Officer is notified by the Respondent and the Petitioner that the case has been withdrawn, approved or upheld. The Hearing Officer will notify the Petitioner via certified mail to confirm withdrawal of the appeal (if approved). If there is no contact from the Petitioner, an order of dismissal will be issued by the Hearing Officer.

5.1 Manage Appeals
Overview (cont'd)

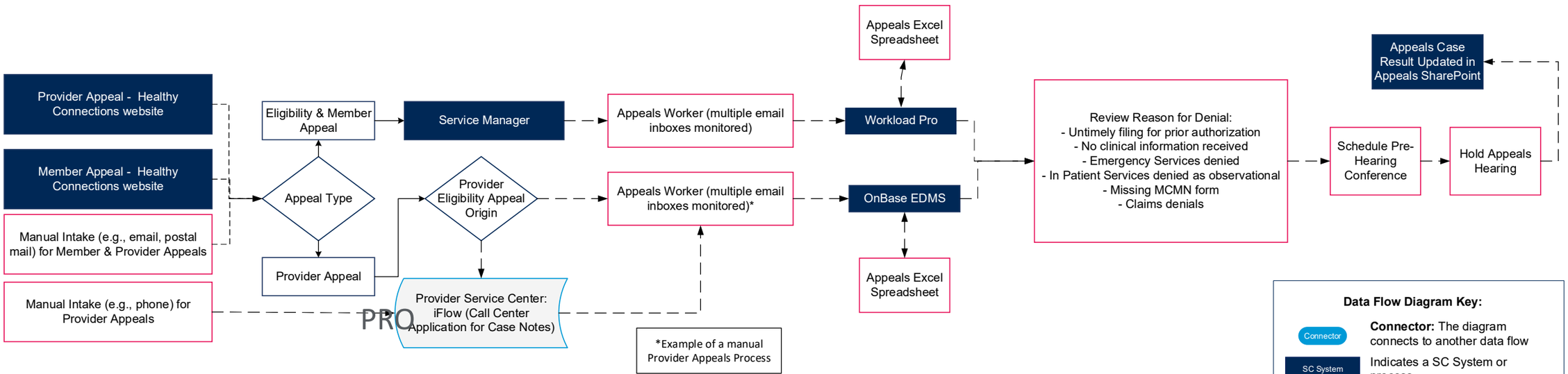
Description (cont'd)

- Once appeals are received by SCDHHS' Division of Appeals and Hearings and intake is performed on the appeals, an incident report is created in Service Manager with additional information on the appeals case stored in the appeal packet. "Reason for denial" information is then reviewed. Common reasons for denial include, but are not limited to, an untimely filing for prior authorization, lack of receipt of clinical information, in-patient medical services denied as observational, a missing Medicaid Certificate of Medical Necessity (MCMN) form, and/or claims denials. A Pre-Hearing Conference (PHC) is scheduled for review with the Deputy Director / Medical Staff before the Petitioner is contacted.

- A fair hearing is an in-person proceeding conducted by a hearing officer of the Office of Appeals and Hearings (hearings are not held telephonically). The parties and hearing officer will meet at a set time and place for the hearing. During the hearing, the hearing officer gathers information on why the petitioner does not agree with the actions taken by SCDHHS, the MCO, or another party acting on the agency's behalf. The hearing officer also listens to the representative for the other party explain the action taken on the case in question. Both sides can ask questions of the other party's witnesses. The hearing officer can also ask the witnesses questions. After the hearing, the hearing officer issues a written decision in the case.

5.1 Manage Appeals
High-Level Data Flow Diagram

5.0 Manage Appeals



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- Manual flow of information

5.1 Manage Appeals
Business Assessment

5.0 Manage Appeals

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ *No business strengths identified.*	▪ The current business processes involve a high-level of manual effort, due in large part to (1) DHHS not having a true appeals management system, and (2) the need to leverage several different systems to manage an appeal from start to end. This is also due to the nature of the business process (e.g., having to manual research on an appeal or having to document a fair hearing). ▪ The current business processes for managing different types of appeals vary by type of appeal, and are constrained by the business context (e.g., having to receive appeals from most any means, or having a different organization (BCBS) be responsible for parts of the appeals process for one of the appeal types (providers)).	▪ Consider prioritizing efforts to streamline appeals business processes.

5.1 Manage Appeals
Technology Assessment

5.0 Manage Appeals

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ *No technology strengths identified.*	▪ None of the technical solutions used for appeals management (Workload Pro, OnBase) are designed for appeals management and lack the ability to automate business processes or manage a given appeal from start to end.	▪ Consider adopting one of the current systems being used to manage appeals as the system to use to manage all appeals. ▪ Consider acquisition of an appeals management solution.

6.0 Manage Program Integrity

6.1 Manage Fraud, Waste and Abuse

Overview

Summary

SCDHHS' Bureau of Internal Audits and Program Integrity (PI) handles fraud, waste, and abuse, investigating complaint submissions through a process of fact checking and meticulous review of records. Additionally, PI conducts preliminary reviews on providers and members focused on instances of unnecessary medical services, inappropriate use of services, and excessive or improper payments. If a complaint requires escalation, PI works closely with the Office of the Attorney General (OAG) to assist in the prosecution of the cases.

Actors

- Internal
  - Office of Administration and Chief Compliance Office — *Bureau of Internal Audits and Program Integrity, Office of Appeals and Hearings*
  - Bureau of Managed Care — *Office of Targeted Oversight*
  - Department of Recipient Utilization (DRU)
- External
  - SAS M&O
  - Office of the Attorney General Medicaid Recipient Fraud Unit (MRFU)
  - Department of Recipient Utilization (DRU)

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - Data Operations Hub *(for BabyNet data)*
  - Hyland Software — *OnBase*
  - SAS — *Business Intelligence Solution (BIS*), *SAS Fraud Framework; Decision Support System; Surveillance and Utilization Review System (SUR)*
- Externally Controlled Systems
  - CMS — *National Plan and Provider Enumeration System (NPPES)*

Description

- The Bureau of Internal Audits and Program Integrity Complaints receive complaints from a variety of sources, including SCDHHS staff, referrals from other agencies, providers, and anonymous tips, either through email or the Fraud Hotline. There are three departments responsible for reviewing and investigating cases or complaints reported within the PI Division: the Department of Recipient Utilization (DRU), the Department of Medical Service Review, and the Department of Ancillary Service Review.

- The Fraud Hotline supervisors, managed by the Department of Recipient Utilization (DRU), PI Review Teams, and the PI Division Director determine if a case requires investigation. All complaints, including those from the hotline, are logged into the Complaint/CMS (OnBase) system. The DRU manages provider complaints, triages them, and forwards them to the relevant review team for resolution. If a case is escalated and fraud is suspected, the case will be referred to Office of the Attorney General Medicaid Recipient Fraud Unit (MRFU). If no fraud was detected, a closure letter is sent.

6.1 Manage Fraud, Waste and Abuse
Overview (cont'd)

Description (cont'd)

  - Provider complaints: While the DRU typically does not investigate provider cases, it does play a role in screening and assigning a PI provider supervisor to each complaint for further investigation. Either the Department of Medical Service Review or Department of Ancillary Programs investigate providers depending on the provider type.
  - Member complaints: Undergo a preliminary DRU investigation to verify Medicaid eligibility, the value of benefits received, and determine if the case should be escalated.

- BIS serves as the primary analytical solution for detecting fraud, waste, and abuse. It receives monthly provider and member information from MMIS. Only FFS claims data (not encounter) is analyzed by BIS' Fraud Detection System — *Fraud Framework*, where customized algorithms identify abnormalities leading to a risk score for each provider. Upon identifying these irregularities, SCDHHS collaborates with the BIS team to generate comprehensive reports that highlight potential leads based off those risk scores. These reports are then reviewed by PI staff, who manually create a case in OnBase. Each case is assigned to a reviewer, and if fraud, waste, or abuse is confirmed, further action is taken. This may include placing a hold on the provider's account and requesting claw back money, or the provider can request an appeal, which is then escalated to the Office of the Attorney General.

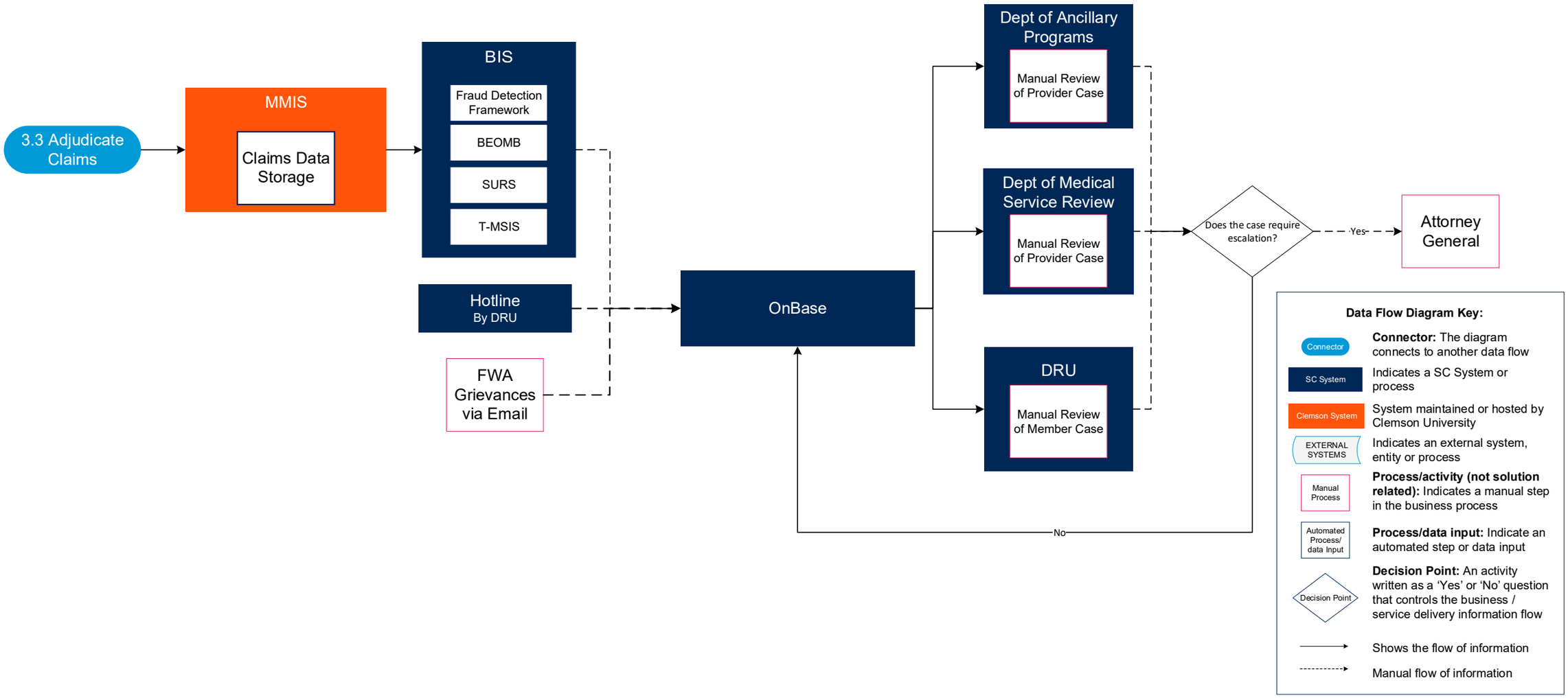
- While SCDHHS collects encounter data related to instances of fraud, waste, and abuse, the MCOs manage their own Program Integrity. MCOs regularly communicate provider suspensions to SCDHHS via email, which are then compiled into an Excel document and stored on SharePoint. This document provides a comprehensive record of all suspended providers, including the activation dates of their suspensions. Currently, MCOs are required to submit a quarterly report on fraud, waste, and abuse. Program Integrity meets with the MCO Special Investigation Units (SIUs) every other month to discuss cases and share information. As the state progressively shifts towards a greater percentage of its members being enrolled with MCOs, SCDHHS is aiming to transition into an auditor role, focused on enhancing its efforts to combat fraud, waste, and abuse on the MCO side.

- PI also manages the Member Explanation of Benefits (BEOMB) program. SCDHHS sends BEOMB notices to members to verify the receipt of services billed by providers. A monthly report is generated by BIS, based on the paid dates from the previous month and a random sample of claims. This process results in approximately 400 letters each month, requesting members to confirm the services they received. Any disputes raised by members are promptly investigated and resolved.

6.1 Manage Fraud Waste and Abuse

High-Level Data Flow Diagram

6.0 Manage Program Integrity



6.1 Manage Fraud Waste and Abuse

Business Assessment

6.0 Manage Program Integrity

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS Program Integrity team has a well functioning process to identify and investigate fraud, waste, and abuse.	▪ Currently, PI's focus is primarily on SCDHHS' Fee-For-Service (FFS) programs. SCDHHS largely relies on MCOs to conduct their own analysis and investigation into fraud, waste, and abuse, and SCDHHS does not have as much visibility into fraud, waste and abuse cases for managed care as it does for its FFS programs. As SCDHHS moves an increasing number of members to its managed care programs, its PI efforts are increasingly focused on a smaller percentage of fraud, waste and abuse cases.	▪ SCDHHS has an opportunity to refocus its fraud, waste, and abuse resources toward detecting and investigating fraudulent, abusive, or inappropriate reimbursements made to an MCO.

6.1 Manage Fraud Waste and Abuse

Technology Assessment

6.0 Manage Program Integrity

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MMIS sends the sufficient data needed to conduct fraud, waste, and abuse analysis and reporting to BIS.	▪ SCDHHS does not have a complete view of potentially fraudulent FFS claims, as there is data from waivers programs (i.e., DDSN) or EVV are not available to the Program Integrity team due to the manual process DDSN uses to capture this data. ▪ Lack of integration between the OnBase case management system and PI team sometimes leaves cases untouched for a year. ▪ Issues with MMIS identifiers prolong the review process. If there are special characters on a provider ID, claims reviewers must search the NPI and use a third-party National Plan and Provider Enumeration System (NPPES) table, the national registry, to pull provider information.	▪ Opportunity to leverage EPS to gain better insights into Encounters to spot trends highlighting potential cases of FWA with MCOs or providers.

7.0 Manage Finances

7.1 Manage Funds
Overview

Summary

The Manage Funds capability tracks the process of creating and managing Fund Codes. SCDHHS utilizes these Fund Codes to track which services require payment and to identify the funding source.

Actors

- Internal
  - SCDHHS Program Area
  - Joint Review Committees (JRC)
  - Reference Administration
- External
  - Clemson Staff
  - Process Owners for Fund Codes
  - SCDHHS Fiscal areas
  - CMS
  - Office of the Comptroller

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - Fund Code Management Site
- Externally Controlled Systems
  - SAP — *SCEIS*

Description

- SCDHHS receives Federal assistance for administering, delivering, and supporting the Medicaid program. The Federal assistance includes funds for payment of services, the maintenance and performance of MMIS, and any associated administrative costs (e.g., staffing, contractual assistance / procurements, etc.). The Federal split is not constant across all services, and vary (e.g., APD processes are funded 90/10 whereas skilled professional services are funded 75/25). Fund codes are utilized within MMIS to govern and determine the funding split within MMIS and are communicated to SCEIS via weekly batch jobs.

- The FMAP (Federal Medical Assistance Percentage) rates differ by services type, with hospitals, nursing homes, and general provider services set at the standard FMAP rate. Certain services (e.g., SCHIP) are 100% federally funded. FMAP rates are communicated through an official letters from the Department of Health and Human Services (HHS). They are also published in the Federal Register and on the HHS website. SCEIS Fiscal areas are responsible for coordinating with Clemson to upload the FMAP rates / information into MMIS. MMIS utilizes Fund Codes to assign FMAP rates to services.

7.1 Manage Funds
Overview (cont'd)

Description (cont'd)

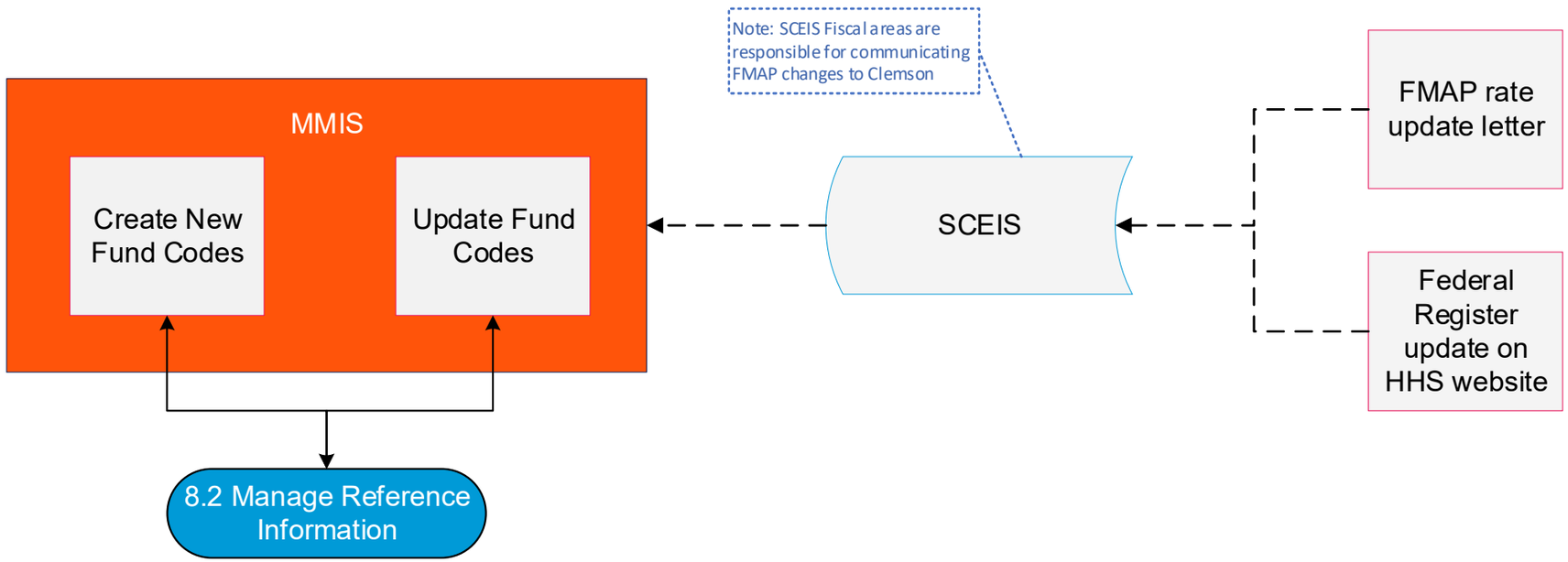
- Within MMIS, fund codes are used to determine the federal and state splits. Fund codes are applied to each claim as part of the weekly payment run. MMIS doesn't control or maintain the funds, but only determines the split. The fund codes are triggered by an identity or definition associated with a specific service and includes provider type, procedure, and other criteria.

- MMIS sends payment data weekly to SCEIS in a summary format. SCEIS processes the payment files and applies the percentage splits to PCAs (Program Cost Accounts) created by SCEIS fiscal area. SCEIS utilizes a translational logic to decipher the payment summary information received from MMIS for claims payment to process and assign the funding source. To split fund codes to correct grant and GL accounts, SCEIS deciphers many fields including RSP indicator, PCAT, and limited benefits indicator.

- Following CMS guidance, program areas update fund codes and communicate those changes to the reference administration team (see 8.2 Manage Reference Information). Any updates to fund codes are handled by Clemson and approved by a process owner. When fund code changes have been made, they are manually updated into the MMIS fund code logic.
  - Subsequently, the SCEIS translation tables must be updated to reflect the fund code updates. These tables are maintained by SCDHHS fiscal staff.

7.1 Manage Funds

High-Level Data Flow Diagram



Data Flow Diagram Key:

- **Connector:** The diagram connects to another data flow
- SC System — Indicates a SC System or process
- Clemson System — System maintained or hosted by Clemson University
- EXTERNAL SYSTEMS — Indicates an external system, entity or process
- Manual Process — **Process/activity (not solution related):** Indicates a manual step in the business process
- Automated Process/ data Input — **Process/data input:** Indicate an automated step or data input
- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

7.1 Manage Funds
Business Assessment

7.0 Manage Finances

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The Clemson staff is adept at processing fund-code changes, including coding and release of fund code requests to production. However, the process relies on institutional knowledge of a few key resources and is susceptible to considerable knowledge loss if key staff depart.	▪ Tracking and ensuring Fund Codes are used correctly was repeatedly mentioned as a pain point for SCDHHS, as it involves multiple departments and steps. Steps involve fund code changes initiated by program areas, which are then communicated to Reference Administration, and finally updated in MMIS by Clemson. ▪ Though Clemson has a defined process for Fund Code maintenance, the governance of Fund Codes in production is lacking, leading to proliferation of fund codes, which often results in inconsistencies, confusion, and errors. ▪ Fund codes were not only used for determining split between Federal and State dollars for claims, but also to achieve other non-standard functionalities within MMIS. However, the use of non-standard Fund Codes has diminished over the years and is now deemed to have been eliminated. ▪ The Fund code maintenance process is highly manual, involving multiple workflows, parallel business processes, and updates on both MMIS and SCEIS.	▪ Reengineer business processes for Fund Codes management to streamline it. Introduce greater coordinated workflows between SCDHHS and SCEIS Fiscal areas. ▪ Undertake a focused project to understand all the Fund Codes in the system, their purpose, and the functionality they serve. Additionally, identify Fund Codes which are not used solely to determine funding split, but are used to achieve other system functionalities. ▪ Develop a Fund Code master data governance framework, governing the creation, updates, deletion, and retention of Fund Codes. Reference prior DASH led efforts, and recommendations to define the Fund Code governance process including the use of a Fund Code Management website.

7.1 Manage Funds
Technology Assessment

7.0 Manage Finances

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The system has enabled SCDHHS to process payments and manage funding sources, despite growing system and technical limitations.	▪ The Fund Code maintenance process is currently manual and relies on updates by various teams (Fiscal area, Clemson) in multiple systems (SCEIS, MMIS), making the process susceptible to human error and requiring active efforts to monitor changes. ▪ Clemson and SCDHHS financial staff manually reconcile changes to fund code values and rules table to ensure the changes were properly implemented in MMIS and SCEIS. ▪ Fund code maintenance and management process is currently highly technical, and there are no options for self-service. Program areas are reliant on Clemson to make updates to Fund Codes, which has considerable time implications. ▪ There is a high-level of technical debt due to non-standard use of fund codes within MMIS, inconsistent deleting and archiving efforts, and institutional knowledge that is reliant on a few key individuals. ▪ Due to the highly complex nature of Fund Codes at SCDHHS, onboarding of new technical resources to maintain the system is challenging and cumbersome.	▪ Explore options to establish a single source of record for governing federal and state splits (FMAP rates), as opposed to replicating similar information in both SCEIS (PCA's) and MMIS (Fund Codes). ▪ Identify ways or technologies through which the fund code maintenance process can be made more intuitive and user-driven. Consider Business Rules Engine (BRE) solutions to simplify the process of fund code maintenance through implementation of user configurable business rules. ▪ Evaluate potential alternate solutions for Fund Code management.

7.2 Manage Accounts Receivable

Overview

Summary

Managing Accounts Receivable capability refers to the financial function within SCDHHS that manages and tracks the amounts owed to and by providers. These providers include, but are not limited to, Nursing Facilities, Intermediate Care Facilities/Individuals with Intellectual Disabilities (ICF/IIDs), hospitals, Federally Qualified Health Clinics (FQHCs), Rural Health Clinics (RHCs), home health agencies, and various other state agency services (e.g., DDSN administers two waiver programs for SCDHHS). This process involves invoicing, monitoring payments, reconciling accounts, and ensuring the timely collection of outstanding balances to maintain a healthy cash flow.

Actors

- Internal
  - Bureau of Reimbursement Methodology and Policy (BRMP)
  - SCDHHS Accounting — *Operations — Accounts Receivable (AR)*
  - SCDHHS Accounting — *Operations — Cash Receipt*
- External
  - Department of Revenue (DOR)
  - BCBS — *MCCS*

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - Application Xtender
  - Accounts Receivable System (ARS)
- Externally Controlled Systems
  - SCEIS

Description

- At SCDHHS, accounts receivable business capability encompasses the following activities or processes:
  - Provider recoupment is managed under “Performance and Operations Management” and not within Accounts Receivable at SCDHHS.
  - The BRMP annually requests cost reports from certain providers to conduct cost settlements. BRMP workers pull statistics and payment information to perform cost settlements, final settlements, and retroactive rate adjustments. Depending on whether a provider is underpaid or overpaid, a BRMP worker completes form 115 (sent to MCCS for keying) or 1158 (sent to SCDHHS fiscal areas to recoup funds — payment offset process).
  - SCDHHS receives money for multiple reasons (e.g., providers refund the agency because of 3rd party payments or incorrect billing, pay-backs due to Program Integrity (PI) investigations, and other SC agencies paying their share of services and programs). Different areas within the agency request to establish an AR by completing 1158 form and send it to Accounts Receivable. All invoicing, collections, and related communications are handled internally by Accounts Receivable.

7.2 Manage Accounts Receivable

Overview (cont'd)

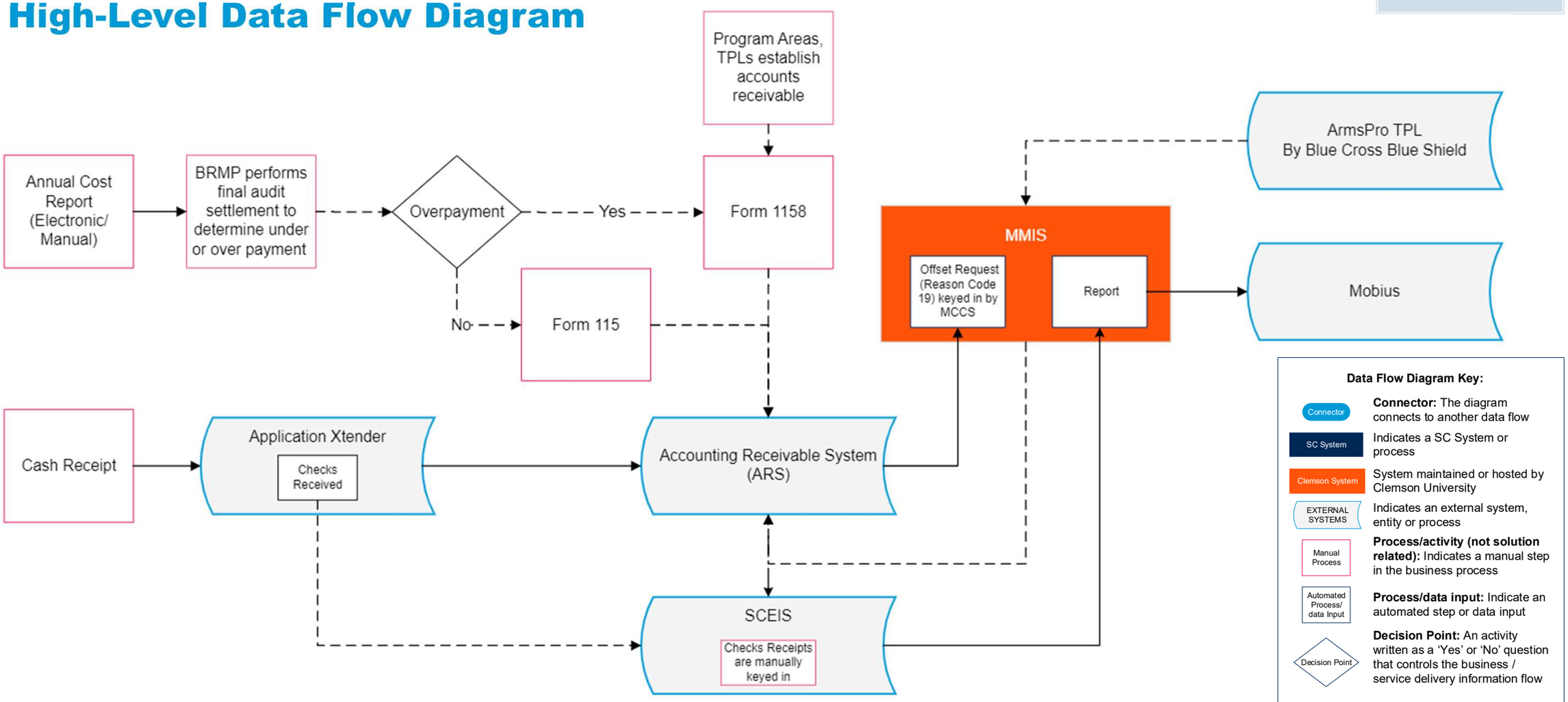
Description (cont'd)

- The AR/Cash Receipt areas scan receipts using Application Xtender (imaging software) and log each check into Accounts Receivable System (ARS). On some occasions AR uses MMIS to establish the source of checks. The receipts are manually keyed into SCEIS. Monthly reconciliations are performed between ARS and SCEIS by AR.

- TPL recovery is handled by the BCBS ArmsPro system. BCBS helps SCDHHS with the invoicing and benefit recovery processes. SCDHHS invoices providers and insurance carriers each month for Retro Health and Pay and Chase claims. Providers that fail to respond to invoices within 90 days are pulled into recovery. The TPL vendor also recovers funds originating from third party liable accident/incident of a Medicaid member. Moreover, the TPL vendor is responsible for maintaining the Estate Recovery Case Management System, which initiates and manages cases for estate recovery.
  - Note: SCDHHS does not prepare member premium invoices.

7.2 Manage Accounts Receivable

High-Level Data Flow Diagram



Gartner

7.2 Manage Accounts Receivable

Business Assessment

7.0 Manage Finances

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ All internal SCDHHS and external actors' responsibilities are documented and defined to ensure timely performance of all accounts receivable processes. ▪ SC agencies have manual checks and balances in place (through reconciliation exercises) to ensure data consistency across multiple siloed systems.	▪ BRMP workers spend considerable time and effort tracking and capturing Medicare cost reports or SC Medicaid prescribed cost reports from various providers. Only nursing facilities and hospitals with in/outpatient facilities provide electronic reports. Delays receiving offline reports result in the process spanning over 2 months. ▪ The largely manual processes due to hard copy reports, result in human errors, and delays in settlement resolution initiated by BRMP workers. ▪ The accounts receivable process relies on the manual filling of forms 115 and 1158 by different departments within SCDHHS and sending to AR. AR is then responsible for invoicing, collection, and tracking. ▪ The cash receipt process is largely manual with categorization needed by receipt type, which sometimes requires splitting a refund into multiple sources. Daily classification reports are generated to move receipts to the appropriate general ledger via journal entries.	▪ Further standardize and streamline the cost settlement process by mandating digitization of SCDHHS prescribed cost reports for all provider types (not only hospitals and nursing homes). ▪ Reengineer the process for requesting accounts receivables to eliminate manual user driven processes that contribute to longer timelines and are prone to human errors. ▪ Provide mechanisms for providers to opt-in or opt-out of the debit process for overpayment. Business rules need to be established to govern the availability of such an option to providers, potentially eliminating the need for AR to send a monthly form to MCCS.

7.2 Manage Accounts Receivable

Technology Assessment

7.0 Manage Finances

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The accounts receivable process is functional and leverages solutions including ARS, Application Xtender, MMIS, SCEIS, and others. SCDHHS has implemented the required minimum data interfaces for disparate, sometimes siloed systems to deliver value to Medicaid recipients in South Carolina.	▪ Reliance on multiple paper-based forms (115, 1158, others) throughout the accounts receivable process, and the lack of a technology solution results in human-error and delays in the process. ▪ Reporting is hampered by a lack of centralized data warehouse. SCDHHS spends time monthly, manually reconciling accounts payable information/data between ARS and SCEIS using extracted reports. ▪ There are infrequent automated real-time integrations, and a reliance on manual reporting and reconciliation efforts by AR (e.g., over or underpayment adjustments are manually keyed into MMIS, MCCS, and other downstream systems such as SCEIS because the systems lack the necessary integrations to pass the information automatically). ▪ The cost settlement process, managed by the Bureau of Reimbursement Methodology and Policy (BRMP), relies on hard copy cost reports and delays the audit and reconciliation efforts (except hospital and nursing homes that send electronic reports).	▪ Further automate integrations to streamline data flow between systems (SCEIS, MMIS, ARS, others), thereby eliminating the need to manually key in updates in multiple systems (e.g., cash receipts and related journal entries). ▪ Consider investing in a data warehousing solution to aid reporting efforts not limited to only the accounts receivable process. The data warehousing and reporting solution could automate reconciliation efforts and can be utilized by any existing SC state infrastructure or solution. ▪ Content management solutions could be considered to digitize all record keeping, thus moving away from paper-based forms and reports.

7.3 Manage Accounts Payable

Overview

Summary

The Manage Accounts Payable capability refers to processes and tools that enable SCDHHS to exclusively make payments for claims and capitation payments. This capability involves the verification, processing, and reconciliation of invoices, the facilitation of payments, and compliance with financial regulations. This not only optimizes cash flow, but also fosters strong provider/vendor relationships which are crucial for business operations.

Actors

- Internal
  - Program Areas, Bureau of Planning and Budget
- External
  - Accounting Operations (Accounts Payable, AP)
  - Comptroller General's (CG's) office
  - Clemson University — *MITS team*
  - Treasurer's Office
  - Third Party Liability vendor (BCBS)

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - RFA — *Phoenix*
- Externally Controlled Systems
  - SCEIS — *SAP*
  - *Morning Sun*
  - *SRM*
  - *Check Cancellation System*

Description

- The following section is focused on the accounts payable sub-functions associated with Medicaid payments only:
  - *MMIS Payment Processing:* MMIS generates a weekly file based on adjudicated claims data from the previous week. The process is initiated on Tuesday through a batch job processing run. MMIS calculates and generates payments based on claims and adjustments in the system. The payment file information is then used as an input for the remittance advice. The payment file is subsequently transmitted to SCEIS for processing. Medicaid providers are maintained as a separate vendor group within SCEIS through sync jobs, distinguishing them from other state vendors. Providers receive payments through check, EFT, or IDT. EFTs are managed by Bank of America, while paper checks are handled by Wells Fargo. SCEIS then generates a payment file, recording a history of payments to MMIS.

7.3 Manage Accounts Payable
Overview (cont'd)

Description (cont'd)

- *For contracts:* SCDHHS fiscal uses Form 102 to encumber contract funds in SCEIS. This form is reviewed by the budget team to determine the appropriate cost center, functional area, and a funds reservation in SCEIS. Contractors send invoices for approval to the responsible program area via Accounting Operations (Accounts Payable). For all approved invoices, the aforementioned process is used for payment (see slide 156). Other SC agencies that have contracts with SCDHHS are paid via Inter-Department Transfer (IDT). These transactions are generated in MMIS and sent through an interface to SAP. Accounting Operations staff allocate expenditures to the appropriate agency IDTs based on the agency ownership code, which corresponds to a vendor within SCEIS. The Comptroller General's (CG) office then posts the expenditure data at SCDHHS and respective revenue data to the appropriate agency.

- *Capitation payments:* Capitation payments, which are fixed amount of money paid to MCOs for a given member, are made by South Carolina Medicaid to the transportation broker, MCOs, and the Medical Homes Network (MHN) / Primary Care Case Management (PCCM). The final capitation payment amount for MCOs is set after consultation with Milliman, an actuarial firm. MMIS calculates capitation payment for MCOs and the MHN / PCCM. The rates for these payments are stored as a reference file within MMIS. MCOs receive a-per-member-per-month (PMPM) capitation payment, which is calculated by age, sex, and other criteria. Medicaid recipients, who are part of Managed Care are assigned an RSP code. A monthly batch process sweeps the MMIS recipient database for members who are assigned an MCO RSP code, associated with capitation payment, and creates a flat-file containing MCO members information. MMIS utilizes the information to calculate capitation payments. MHN / PCCM also receive a per-member-per-month fee based on a contracted rate. MMIS generates a "Claim-type J" for each member each month for beforementioned scenarios. These "J" claims are included in a weekly payment file created by MMIS. SCEIS picks up the claims summary file through scheduled batch jobs, processes the payments, and sends a payment history file to MMIS for record keeping.

- *Gross-level-adjustments (GLA) (credit or debit):* Performed at the provider level, GLAs are not linked to a specific claim or recipient. SCDHHS staff manually carry out GLAs to rectify inconsistencies stemming from previously incorrect payments, such as a one-time settlements awarded to a hospital, or for other reasons. Gross-level-adjustments are not limited to adjust capitation payments to MCOs or MHN / PCCMs. The process is also used for settlements with providers (e.g., hospitals, nursing home, others). Gross-level-adjustments are processed as "Claim-type U". MMIS adjudicates these "U" claims, and SCEIS handles the payments. The majority of GLA volumes are accounted for by provider settlements, followed by Third Party Liability (TPL) benefit recovery and corrections related to Form 130.

7.3 Manage Accounts Payable
Overview (cont'd)

Description (cont'd)

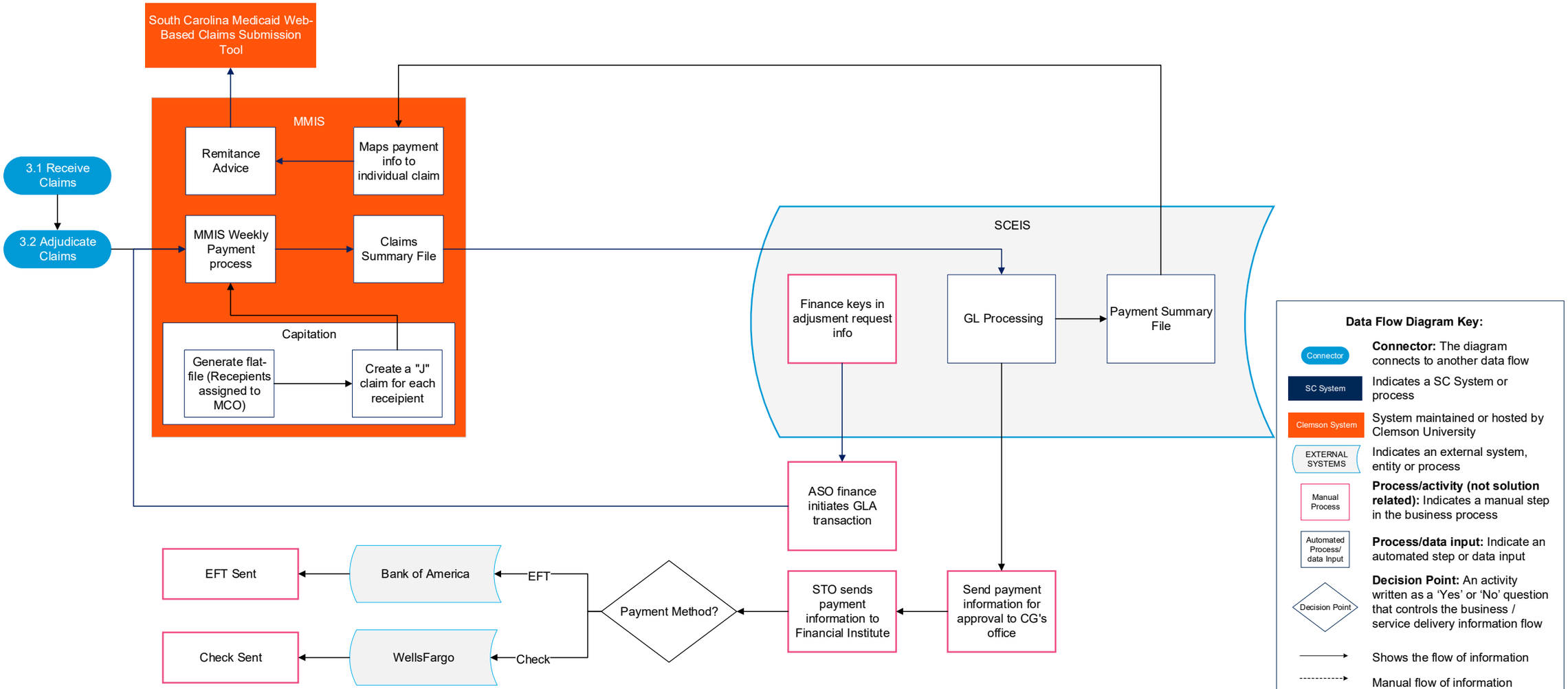
- *Remittance Advice:* Every Friday, MMIS generates remittance advices for providers, which can be accessed via the Web Tool. Gross-level-adjustments are included in the remittance advice in a distinct section and are not associated with any claim data.

- *Health Insurance Premium Plan (HIPP):* HIPP premiums are paid by the Third-Party Liability (TPL) vendor and billed to SCDHHS as pass-through costs. The TPL vendor determines the cost-effectiveness of covering the costs of third-party insurance.

- *Disproportionate Share Hospitals (DSH):* DSH payments are a significant expenditure for SCDHHS and provide crucial funding to hospitals serving a large number of Medicaid and uninsured patients.
  - These payments are calculated using a formula that considers a hospital's uncompensated care costs, including Medicaid shortfalls and the costs of care for uninsured patients.
  - DSH payments are jointly funded by the federal government and states, with the federal government providing matching funds based on the Federal Medical Assistance Percentage (FMAP).

7.3 Manage Accounts Payable

High-Level Data Flow Diagram



Gartner

7.3 Manage Accounts Payable
Business Assessment

7.0 Manage Finances

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS departmental resources (including Clemson staff) designed a process to ensure the necessary AP requirements are met, despite challenges with legacy technology and applications. ▪ SCDHHS staff regularly perform self-assessments of current processes to be aware of limitations of the accounts payable processes and to proactively mitigate some of the limitations.	▪ MMIS is devoid of true AP capabilities and handles AP functionality and GL transactions through workarounds (e.g., Gross-level adjustments). ▪ The lack of mechanisms to allocate general ledger adjustments to individual claims within MMIS results in adjustments always being made at the provider level and leads to losses of granularity. ▪ Application of GLAs across program areas are not consistent, with program areas maintaining individual spreadsheets to track adjustments. ▪ Most payments are modelled as “claim payments” due to limitations with the current processes and system. Examples include: – Home Health (both FFS and MCO) services. – Capitation payments are handled as claims (type J) in MMIS due to system limitations and do not reflect the true nature of these payments. – Gross-level-adjustments are processed as claim (type U) and do not reflect the correct way of processing these financial transactions. These transactions should be handled separately by finance solutions/systems tailor-made to handle AP and/or AR capabilities.	▪ Consider reengineering business processes to support capitation payments independently of claims. ▪ All gross-level-adjustments should be performed by dedicated financial processes or systems and should be independent and peripheral to MMIS functionality. ▪ Explore opportunities to simplify fund code management process, and streamline across MMIS, SCEIS, and others.

7.3 Manage Accounts Payable
Business Assessment (cont'd)

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ *Refer to previous page.*	▪ Inability to make mass, retroactive, capitation payment adjustments. All retroactive cap rate adjustments in payments are done via GLAs. ▪ The payment for FQHC and RHCs are dependent on the utilization of T1015 (procedure code), which is prepared by the SCDHHS specific reimbursement team and does not include the evaluation and management codes at the facility. The process is reliant on FQHCs and RHCs sending an operational cost report for reimbursement. ▪ The check cancellation process is highly manual and involves accounting operations, program areas, operation resources, and Clemson. Manual text files are utilized by Clemson to create "U" claims to perform GLAs when required.	▪ Consider making retroactive payment adjustments to capitation rates, by voiding any previous payments and releasing payments based on new rates. ▪ Model FQHC and RHC payments on actual evaluation and manage codes, as opposed to being reliant on one T1015 RSP code. • Explore opportunities to automate check cancellation processes, where system can reverse general ledger postings on cancellation events or notifications. For returned checks, the future system should have the ability to retrigger payments once errors have been resolved.

7.3 Manage Accounts Payable

Technology Assessment

7.0 Manage Finances

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Procurement of goods and services is supported by mostly automated solutions, involving SRM and SCEIS, ensuring a seamless process.	▪ The accounts payable process relies on the manual ingestion or key-in of data from multiple sources (e.g., Form 115, 1158, others) into different systems (e.g., ARS, SCEIS, MMIS), potentially leading to data discrepancies. ▪ MMIS lacks capabilities of a true AP system and needs work-arounds to process financial transactions. ▪ Manual querying and reporting are performed by SCDHHS staff to ensure data and information related to payments are synchronized between SCEIS, MMIS, ARS, and others. ▪ Minor discrepancies in financial records are observed between SCEIS (system-of-record), and MMIS. Currently Clemson is responsible for logging changes in MMIS.	▪ Introduce electronic data exchanges between systems, wherever applicable, to reduce the need for manual data entry. ▪ Consider modularized solutions which separate or have distinct capabilities for “Claims Payment” vs “Capitation Payment”. ▪ Decouple AP functionality from MMIS and independently implement it in new software or in existing SC systems (such as SCEIS). ▪ Look to automate posting of financial changes originating in SCEIS to MMIS.

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8.0 Manage Health Plans and Benefits

8.1 Manage Health Benefit Information

Overview

Summary

The Manage Health Benefit Information capability involves managing benefit packages in line with federal and state regulations and other regulatory institutions. Benefit packages are reviewed annually and can be modified in response to changes in the healthcare market, economic constraints, and best practices.

Actors

- Internal
  - Deputy Director of Programs
  - Bureau of Policy — *Office of State Plan Administration, Office of Waiver and Facility Services, Office of Behavioral Health Services Office of State Contracts and Initiatives*
  - Bureau of Provider Support Services
  - Bureau of Managed Care
  - Office of Eligibility, Enrollment, and Member Services
- External
  - Federal and state regulators
  - CMS
  - BCBS — *MCCS*

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, MEDS*
  - Meritas — *MMS*
  - RFA — *Phoenix*
  - Hyland Software — *OnBase*
- Externally Controlled Systems
  - Maximus (enrollment broker)

Description

- SCDHHS staff uses several programs to analyze healthcare utilization data to develop and maintain member benefit packages. Using this data, SCDHHS identifies demand and need for services. MCOs also provide data. However, this data's utility is limited due to the varied file types/layouts and data elements, coupled with complexities around the exchange of proprietary information.

- In addition to the services provided to standard Medicaid members, the State's Medicaid waiver programs are designed to provide specific, qualified member populations with a wider benefit package and shared services. While SCDHHS primarily manages health benefits, in certain instances, it collaborates with other agencies to assess the necessity of services for these waiver programs.

Gartner

8.1 Manage Health Benefit Information

Overview (cont'd)

Description (cont'd)

- New or updated benefit information is approved through federal or state regulations, state law, court rulings, or external quality reviews. Benefit package determinations include factors such as the scope of coverage, utilization limitations, age, gender, duration of benefits, requirements for prior authorization, among others. Staff of the Deputy Director of Programs identify the member populations that will be affected by changes in benefits and conduct an analysis to determine the best practices.

- SCDHHS begins managing health benefit information during eligibility and enrollment. The member eligibility and enrollment team and MMS determine Qualifying Categories (QCATs), and Payment Categories (PCATs). QCATs and PCATs are used to establish an enrollment group, which categorizes a recipient within a benefit plan, defining their benefit service categories and benefit plan limits.

- MMIS contains health benefit plan information, which it acquires through nightly data transfers with MMS and MEDS. It stores details about a recipient's eligibility for full benefits, limited benefits, or emergency services. However, it is important to note that MMIS does not provide information on the specific services a recipient is eligible for.
  - Benefit limits are maintained on the CPT 4 procedure code file.

- MMIS contains a Recipient Subsystem of member enrollment to maintain enrollment information of recipients qualified for special programs. Recipient Special Program (RSP) are 4-bytecodes related to each special program or waiver. RSPs are assigned to a recipient post-eligibility confirmation in MMS or MEDS and are applied during claims adjudication. A reconciliation process exists between MMS, MEDS, and MMIS for member eligibility information, allowing MMIS to maintain accurate enrollment data and avoid duplicates. RSP codes indicate to MMIS that a given recipient is qualified for additional benefits beyond the standard Medicaid offerings. When a claim gets processed the 4-byte RSP code becomes one-byte RSP indicator on the claim.

- SCDHHS eligibility staff communicate benefit information through MMS, which automatically sends notices to recipients about their benefit coverage upon availability. Eligibility staff with MMS access can view PDF versions of these notices or in OnBase where benefit notices are stored. Electronic notices are sent to recipients who choose to receive them and have linked their Citizen Portal account with their case. Recipients are notified via email when a notice is available in the Citizen Portal. Benefit communications are distributed through a monthly batch process, which includes sending out annual review forms and continuation of benefits notices. Paper notices are sent to an external print vendor by MEDS for mailing, and a copy is stored on OnBase. If benefits have been terminated, a notice providing a general reason for the ineligibility determination is sent out.

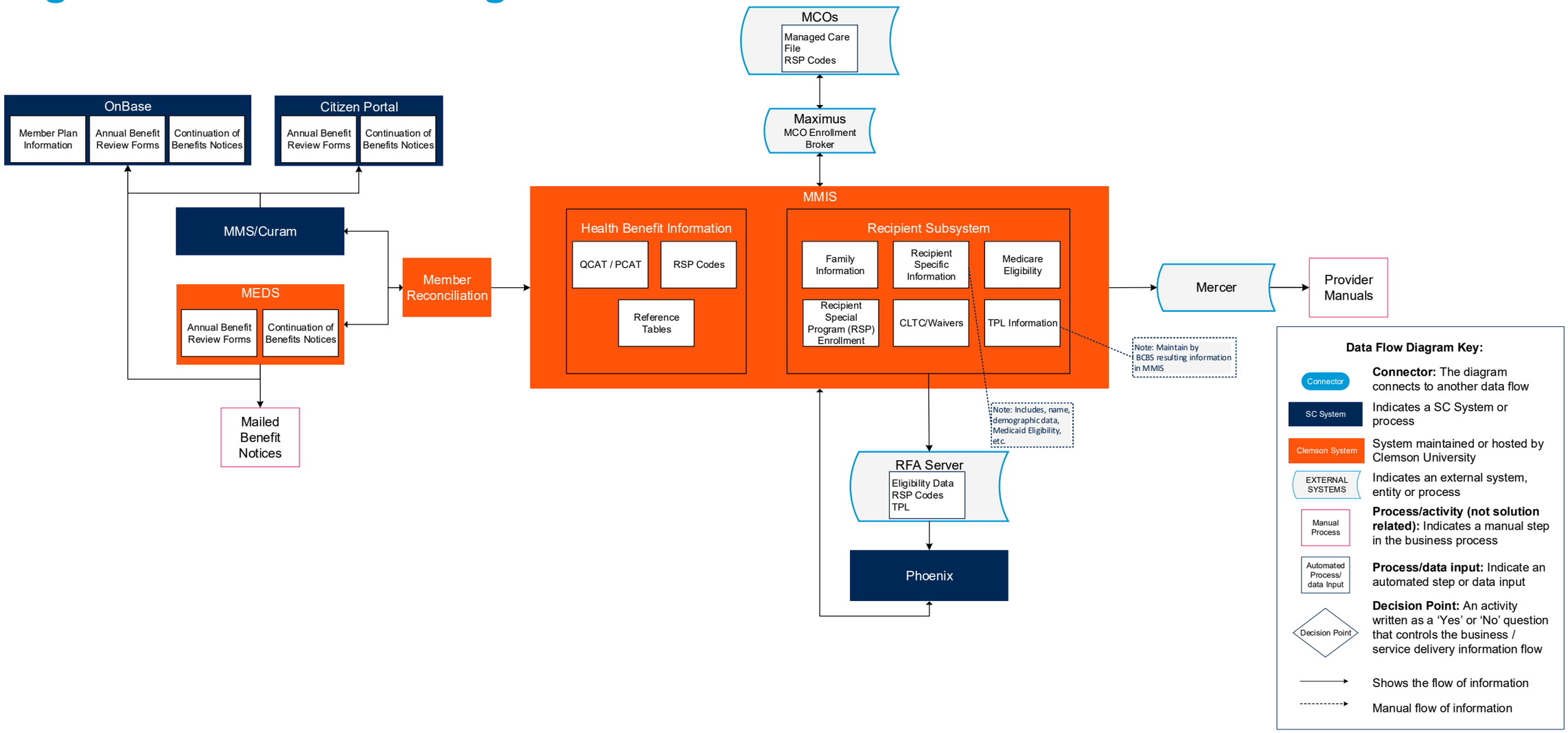
8.1 Manage Health Benefit Information
Overview (cont'd)

Description (cont'd)

- SCDHHS informs BCBS about policy changes, which are subsequently updated in the Provider Manual and Provider Portal by Mercer.
- The core benefits for MCOs are detailed in the current contract with each MCO for members enrolled in Medicaid. Changes or updates to health benefit information are updated in MMIS from the eligibility systems. These updates are subsequently made to the Managed Care file and RSP indicators for those enrolled in waiver programs. After applying Managed Care-specific edits, the Managed Care file is dispatched to the Maximus Enrollment Broker, ensuring data synchronization.

8.1 Manage Health Benefit Information

High-Level Data Flow Diagram



Gartner

8.1 Manage Health Benefit Information

Business Assessment

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS effectively manages health benefit information, regularly updating benefit packages in accordance with federal and state regulations, market changes, economic factors, and best practices. ▪ SCDHHS uses RSP codes to maintain benefit information tied to special programs and effectively applies the appropriate benefit plans for qualified recipients.	▪ SCDHHS lacks a user-maintained system for managing benefit plans. Furthermore, SCDHHS does not define benefit plans, service categories, or limits in the manner typically used by conventional benefit systems.	▪ SCDHHS could implement a benefits module to serve as the foundation for managing and defining benefit plans, service categories, and limits.

8.1 Manage Health Benefit Information

Technology Assessment

8.0 Manage Health Plans and Benefits

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The processes required to manage health benefit information, which include the assignment of QCATs and PCATs in MMS and MEDS, as well as the allocation of RSP codes in MMIS, to define benefit groups are fully automated.	▪ Data sharing constraints present challenges managing health benefit information. For example, there is limited ability to share data among the acute care group, the community and long-term care group, and the pharmacy group. Additionally, data sharing with MCOs is complicated by various file types/layouts and data elements, as well as the complexities involved in sharing proprietary information from the private sector. ▪ In MMIS, there is no direct correlation between the Member PCAT (logical enrollment group) and the RSP code (which defines waiver enrollment). PCATs and QCATs are housed in MMS and MEDS, while RSP codes reside in MMIS. A reconciliation process exists between eligibility and the MMIS recipient system. However, this separation results in hard-coded claims logic and sub-file expansion in the Reference CPT4 subsystem.	▪ Improve data exchange between systems by standardizing file layouts and data elements. ▪ House benefit information in a single system that serves as the source of truth.

8.2 Manage Reference Information

Overview

Summary

The Manage Reference Information capability includes the systems and processes to collect, store, maintain, distribute, provide access to, and report on reference information. Reference information plays an instrumental role in several key business processes including prior authorization requests/approvals, claims adjudication, and claims payment processing. It includes code-sets and other elements that facilitate a mutual understanding of concepts such as benefit plans, enrollment groups, procedure codes, fund codes, and fee schedules.

Actors

- Internal
  - Bureau of Policy
  - Bureau of Provider Support Services (BOPSS)
  - Bureau of Managed Care
- External
  - CMS
  - BCBS — *MCCS*
  - Mercer
  - Milliman

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS, MCTRA*
- Externally Controlled Systems
  - None

Description

- The process for managing reference information begins when SCDHHS staff receives CMS quarterly updates on reference information or when there have been policy updates. These updates include new, modified, and removed codes, which are manually updated into several reference tables.

- Code updates are entered into the Medicaid Clinical Translation Review and Approval (MCTRA) system, which is used to automate reference code updates. Currently, MCTRA is the primary method for entering codes unless an update is made directly into MMIS.

8.2 Manage Reference Information
Overview (cont'd)

Description (cont'd)

- Updates made through MCTRA are sent to MMIS. MCTRA incorporates an approval process, and upon the approval and implementation of a code, it triggers an immediate update in MMIS.

- Reference information can be found in the following locations:
  - *MMIS:* Has a Reference subsystem containing reference tables, which store and maintain Current Procedural Terminology (CPT) codes/ Healthcare Common Procedure Coding System (HCPCS) codes, Internal Classification of Diseases (ICD10) diagnosis and surgical procedure codes, reference file tables, among others. Claims adjudication requires complex mapping of provider type/specialty and Recipient Special Program (RSP) codes to the Reference subsystem CTP4 subfiles to determine rates and assign fund codes.
    - Subfiles: a one-byte field in front of a CPT4 procedure code, is assigned based on provider type/specialty and in some cases RSP code, used by MMIS to determine rates. Changes in policy might influence the procedures providers are able to perform affecting the subfile. Changes to subfiles are handled by Clemson staff.

  - *MCTRA:* MCTRA (Medicaid Clinical Translation, Review and Approval System) is a system developed in-house with Bonitasoft open-sources Business Procurement Management and workflow suite that allows more efficient updates to the MMIS Reference File Subsystem. It automates updates of procedure Codes (CPT, HCPCS) and ICD Codes to send to MMIS. MCTRA's design incorporates a seven-level process, with levels 4-7 including pricing information. This pricing process is not fully operational. As a result, pricing updates are currently performed manually.
    - MCTRA pricing (not in use): The system has a Procedure Code Pricing Record that breaks out into multiple components. National procedure codes are used to identify a broad spectrum of billable items on a CMS-1500 claim form, which is utilized by a variety of providers, each with a unique pricing component specific to their group. Pricing is complex given that the same procedure code can have different rates depending on the provider type, and there are different prices dependent on the facility setting.

8.2 Manage Reference Information
Overview (cont'd)

Description (cont'd)

- *Updating MCTRA pricing* requires that SCDHHS program areas fill out a *Procedure Pricing Request* form. This form provides the data for two pricing spreadsheets, which are necessary for uploading pricing information into MCTRA. The first spreadsheet is the *Base Fee Schedule* (containing the base fee schedule ID, procedure codes, modifiers, rates, and effective dates) and the second is the *Rate Reference Table* (containing the subfile, price specialty, modifier, pay status, facility pay status, the percentage of the full rate to apply, and code group). These files are then uploaded into MCTRA to request a price change. Price change requests are tracked, approved, or rejected in the SCDHHS BPM Portal. Upon approval, MCTRA will create the MMIS Procedure Code Pricing record. It is crucial when preparing the pricing files for MCTRA that these values align perfectly. Any discrepancy will result in MCTRA rejecting the update. If the pricing update was successful, MCTRA generates an email confirmation outlining the successfully processed codes.

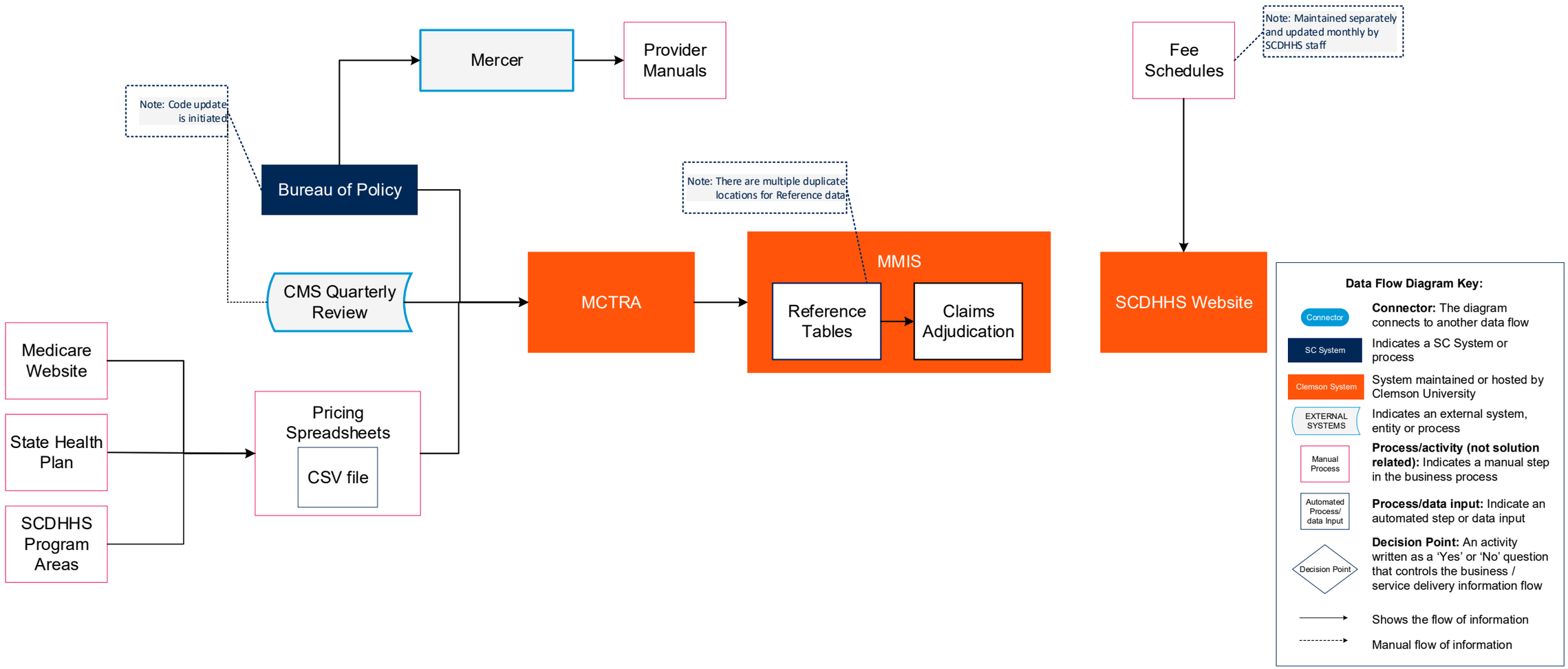
- *Pricing Spreadsheets:* The policy team notifies the Bureau of Provider Support Services about pricing changes. Fee for Service pricing updates are determined using public pricing information from the CMS.gov website (Medicare fee schedules), the state health plan, and through discussions with program area leaders. While the majority of FFS rates are set using information from the Medicare website, not all rates align with those of Medicare due to differences in covered services (e.g., children, waivers, pregnant women). SCDHHS staff use this information as a basis, applying multipliers to procedure rates based on the provider type to determine the Medicaid rates. The updated pricing information is kept on spreadsheets, and changes are sent to MCCS for manual entry into MMIS.

- *Fee Schedules:* Are available to providers on the SCDHHS website. These schedules detail Medicaid-covered services, procedure codes, modifiers (if applicable), rates, billing increments, and service limits. There are different Fee Schedules for various provider types, and the formats and information may vary. Fee Schedules are maintained separately by SCDHHS.

- *Provider Manuals:* Maintained separately by Mercer and require manual updates for each provider type addressing specific guidance and information. Provider manuals can be accessed via the SCDHHS website.

8.2 Manage Reference Information

High-Level Data Flow Diagram



8.2 Manage Reference Information

Business Assessment

8.0 Manage Health Plans and Benefits

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS has a rules repository where updates to reference information are tracked. ▪ The RMMIS team, now known as DASH, developed comprehensive documentation in 2017. These documents captured various aspects related to reference information including gaps, pain points, and workarounds, among other topics of discussion.	▪ Reference data is stored in various locations and primarily maintained manually, leading to inconsistencies. Updates, as reported by business users, can require weeks or even months to coordinate and validate. The separate upkeep of provider manuals and fee schedules adds to the challenge of manual updates and data consistency with roughly 250,000 active references to manage. ▪ MMIS does not configure network level variations in provider rates and lacks a benefits sub-system to define member coverage. Subfiles serve as the workaround to manage these types of business rules. There are multiple subfiles which are difficult to navigate. Updates to codes and subfiles take time and are handled by Clemson. ▪ The dual use of modifiers for both descriptive and pricing purposes in the billing and pricing process allows the same modifier to have multiple meanings, making it harder to manage reference data and pricing. This is further complicated by the manual entry of modifiers and the use of default modifiers. ▪ Fee schedules and pricing tables do not match.	▪ Implement a centralized and automated system for managing reference data to address the issue of inconsistencies and lengthy update times. ▪ Creation of a benefits module could serve as a foundation for establishing and managing business rules. ▪ Drive better updates on waiver rates through a better integration between Phoenix and MMIS. ▪ Automate pricing updates and fee schedules.

8.2 Manage Reference Information

Business Assessment (cont'd)

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ *Refer to previous page.*	▪ There is miscommunication between BOPSS, the policy group, and MCTRA system users over the need for pricing enhancements and in turn the pricing element of the MCTRA system. ▪ Ambulatory Surgical Centers (ASC) fee schedule pricing is outdated, and there's a lack of clarity among program staff on how to address pricing challenges due to differing reimbursement methodologies between professional and institutional claims. This has led to an ongoing issue of procedure codes being either unpriced or inaccurately priced. – Lack of a reference file to uphold the valid correlation between revenue code and HCPCS codes (ASC payment groups).	▪ Establish a specialized team with expertise on differences in reimbursement methodologies between professional and institutional claims and can create a structured approach to update the outdated ASC fee schedule pricing. Subsequently, communicate the new approach with program staff through clear guides or training. ▪ To improve lack of correlation between revenue and HCPCS codes, a revenue code reference file should be established to validate that the revenue code/HCPCS billed together on a revenue line and the corresponding rate are accepted.

8.2 Manage Reference Information

Technology Assessment

8.0 Manage Health Plans and Benefits

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The Medicaid Clinical Translation Review and Approval (MCTRA), the system used to automate reference code updates, performs effectively providing MMIS with real-time updates.	▪ There is inconsistency in waiver rates across systems like Phoenix and MMIS, primarily due to these systems not effectively communicating with each other. Additionally, these rates do not adhere to CPT4 or coding regulations. ▪ Currently, levels 4-7 of the MCTRA system require in depth knowledge about the process to resolve errors that may arise making it difficult to use for the average user. As a result, pricing information is manually entered into MMIS.	▪ Transition to a format compliant with HIPAA regulations to eliminate the need for translation tables, enhancing data accuracy and compliance.

8.3 Manage Rate Setting
Overview

Summary

The Manage Rate Setting capability governs the annual capitation rate maintenance process within MMIS.
Note — The pricing process for Fee for Service (FFS) is included within “Manage Reference Information (8.2)” section of the current state report.

Actors

- Internal
  - SCDHHS Program Areas
  - Bureau of Managed Care
- External
  - CMS
  - BCBS — MCCS
  - Milliman

Systems

- Internally Controlled Systems
  - Core MMIS
- Externally Controlled Systems
  - Maximus– *MCO Enrollment Broker* (Maximus)

Description

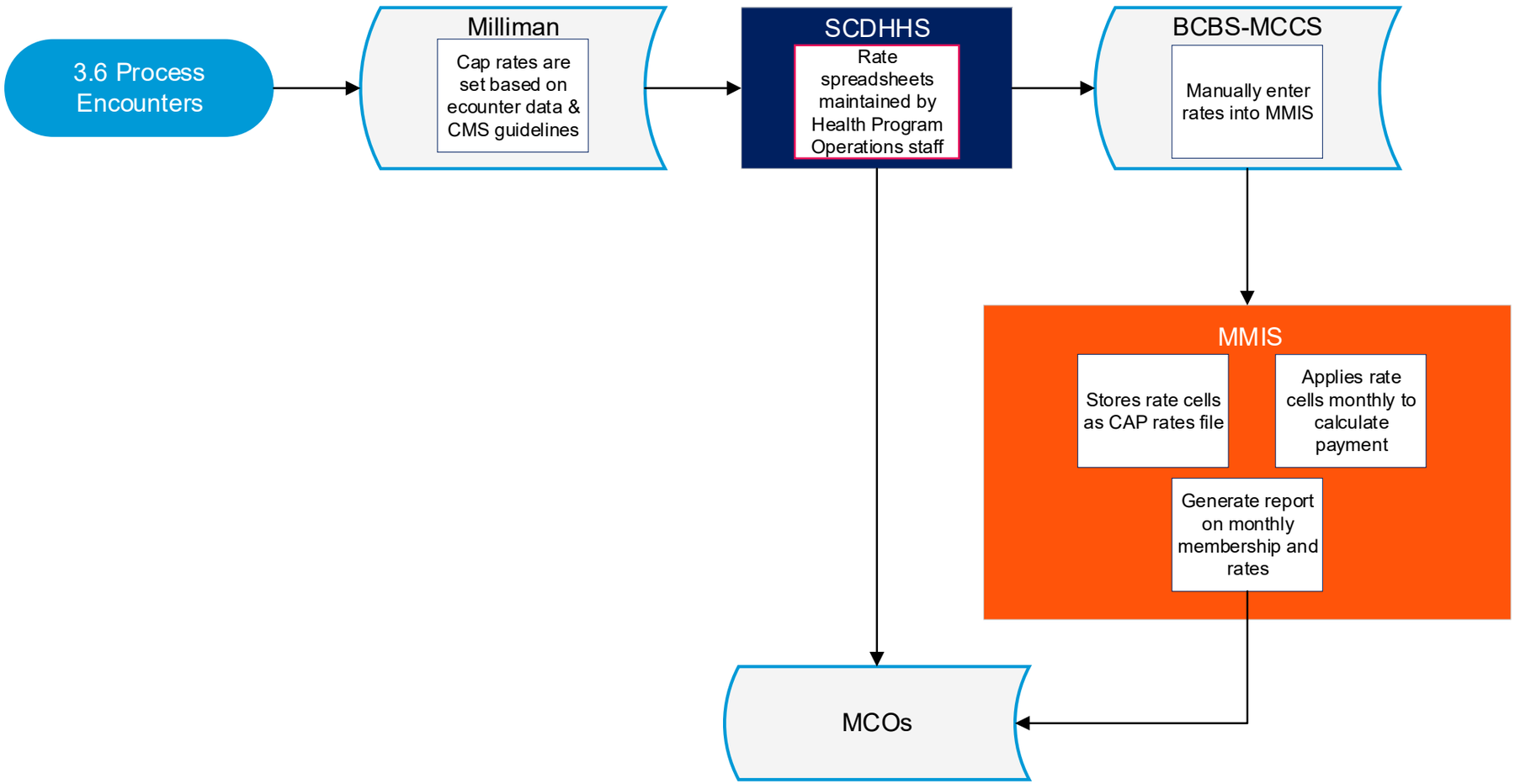
- SCDHHS sets capitation rates annually with direction from its actuarial vendor Milliman. SCDHHS sets capitation rates consistent with CMS regulations and guidance. To set capitation rates, Milliman uses encounter data from the previous fiscal year. SCDHHS health program operations staff establish and manage capitation rates using spreadsheets. Capitation rates are calculated on a per member per month (PMPM) basis by specific factors — age, sex, and eligibility / payment category. There are currently 15 different rate cells (rate components or categories within the rate structure, received from Milliman). Once they are set, capitation rates are keyed into MMIS by MCCS. Typically, adjustments to capitation rates are done mid-year. All adjustment to capitation rates retroactively are completed via mass gross-level adjustments by SCDHHS staff. The rates for the capitation payments are stored in MMIS, as the CAP rates file. The RSP file within MMIS holds information about member’s enrollment in MCOs and other programs.

- MCOs are also subject to risk adjustment. Risk rate adjustments are calculated based on the population level served by the MCO. The associated payment rate for the MCO can increase or decrease based on the risk rate.

- In addition to MCOs, capitation rates are maintained in MMIS for Medical Homes, PRIME, PACE, and Medicare Buy-In programs.

8.3 Manage Rate Setting

High-Level Data Flow Diagram



Data Flow Diagram Key:

- Connector — **Connector:** The diagram connects to another data flow
- SC System — Indicates a SC System or process
- Clemson System — System maintained or hosted by Clemson University
- EXTERNAL SYSTEMS — Indicates an external system, entity or process
- Manual Process — **Process/activity (not solution related):** Indicates a manual step in the business process
- Automated Process/ data Input — **Process/data input:** Indicate an automated step or data input
- Decision Point — **Decision Point:** An activity written as a 'Yes' or 'No' question that controls the business / service delivery information flow
- Shows the flow of information
- Manual flow of information

8.3 Manage Rate Setting
Business Assessment

8.0 Manage Health Plans and Benefits

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The SCDHHS capitation rates are actuarially sound and compliant with CMS guidelines. ▪ No documented evidence of challenges or grievances with the calculated capitation rates were identified.	▪ Inability to retroactively adjust capitation payments on capitation rate revisions. These adjustments are currently performed manually by SCDHHS through gross-level-adjustments. ▪ The maintenance of capitation rates on spreadsheets makes the process susceptible to human error. Remediations are time consuming and labor intensive.	▪ Create methods to perform capitation payment adjustments retroactively that are automated and improve traceability. ▪ Explore avenues to implement a business rules engine to capture capitation rates and provide a portal or self-service tools for SCDHHS staff to maintain rates directly in MMIS (or replacement) to remove the reliance on spreadsheets.

8.3 Manage Rate Setting
Technology Assessment

8.0 Manage Health Plans and Benefits

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ All capitation rates are successfully maintained in MMIS and are used via automated batch jobs to calculate payments to MCOs.	▪ MMIS currently lacks the ability to attach documents to gross level adjustments (GLA) for retroactive rate adjustments. ▪ MMIS lacks the ability to independently alter capitation rates and risk adjustments. This means that SCDHHS needs to manually enter multiple entries in the database, impacting payment automations. ▪ MMIS has a limited ability to store encounter data information. ▪ Milliman is reliant on receiving complete and accurate encounter data from MMIS for the rate setting process. However, due to limitations, the stored encounter data within MMIS is truncated.	▪ Implement document attachment capabilities to gross-level-adjustments to provide audit trails and greater transparency. ▪ When considering alternatives to MMIS, look for a system that can provide retroactive adjustments of capitation payments via premium recalculation and reprocessing capability. ▪ Explore a system that can house the full contents of encounter data payload.

8.4 Manage Managed Care Organizations (MCOs)

Overview

Summary

Comprehensive managed care is the primary delivery system for South Carolina Medicaid beneficiaries. The Manage MCO's capability addresses MCO membership, payment, reporting, and quality.

Actors

- Internal
  - Bureau of Quality
  - Bureau of Managed Care — *Office of Medicaid Managed Care*
  - Chief Medical Officer — *Office of Medical Directors*
  - Bureau of Quality — *Office of Quality Assurance and Compliance*

External
  - Constellation Quality Health (EQR Vendor)
  - Maximus (Enrollment Broker)

Systems

- Internally Controlled Systems
  - Clemson University — *Core MMIS*
  - Actian/Axiom — *EDI Translator*
- Externally Controlled Systems
  - Magellan — *Magellan RX*
  - MCO — *MCO Systems*
  - Maximus — *MCO Enrollment Broker* (Maximus)

Description

- *Manage MCO Enrollment and Payment* — Managed Care Organizations (MCOs) are paid capitation payments for each enrolled member. In exchange, MCOs agree to provide a defined package of services to the members. Most Medicaid members in South Carolina are enrolled with an MCO. MCOs receive daily enrollment files (834s). Enrollment is done prospectively for the next month. At the end of each month, MCOs receive an 834-summary file to reconcile membership. MMIS sends enrollment files to Maximus, who delivers the 834s to the MCOs.

- MMIS stores the list of members enrolled in managed care, and this data is synced with the Enrollment Broker to determine the count of managed care eligible members for payment purposes. MMIS updates its records based on data received from the Enrollment Broker and transmits separate payment files (820) to each MCO monthly.

- *Manage MCO Reporting* — MCOs are required to submit a variety of reports to SCDHHS. The reports required are listed on the SCDHHS website and described in the *MCO Reports Companion Guide*. Reports are required to be submitted daily, monthly, quarterly, annually, or as needed, depending on the content and nature of the report.

8.4 Manage Managed Care Organizations (MCOs)
Overview (cont'd)

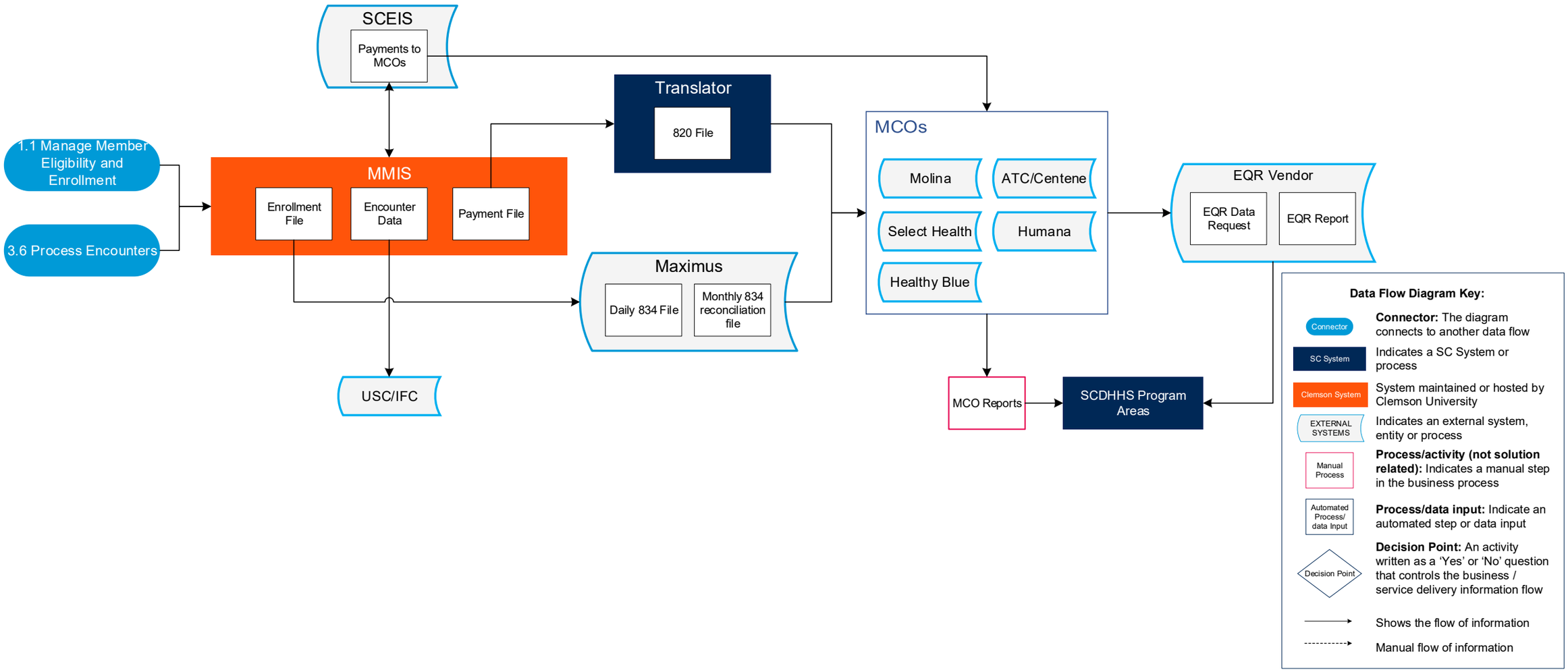
Description (cont'd)

- *Manage MCO Quality* — SCDHHS establishes and monitors quality standards that MCOs must meet for delivering healthcare services. They monitor and evaluate the performance of MCOs and conduct regular quality assessments to ensure compliance with these standards. For MCOs, SCDHHS established five quality goals that are laid out in the agency's South Carolina Medicaid Quality Strategy. They are: 1) Assure the quality and appropriateness of care delivered to members enrolled in managed care, 2) Assure Medicaid members have access to care and a quality experience of care, 3) Assure MCO contract compliance, 4) Manage continuous performance improvement, and 5) Conduct targeted population quality activities.

- To assess MCO quality, SCDHHS enlists the help of a vendor to complete an external quality review (EQR). The vendor completes this review for each of the MCOs that serve SCDHHS' members. The EQR vendor provides a full report across the following areas: administration, provider services, member services, quality improvement, utilization management, delegation, and mental health parity. It also provides recommendations and opportunities for improvement. In addition to the EQR, SCDHHS works with University of South Carolina (USC) and Integrated Health and Policy Research (IHPR) to improve quality. IHPR is part of a larger coalition called the State-University Partnership Learning Network (SUPLN), which has an overarching goal to reduce Medicaid costs and improve quality of care. IHPR provides technical assistance and research partnership to SCDHHS. As part of its research, IHPR reviews encounter data submitted by MCOs and looks for quality improvement opportunities.

8.4 Manage Managed Care Organizations (MCOs)

High-Level Data Flow Diagram



8.4 Manage Managed Care Organizations (MCOs)

Business Assessment

8.0 Manage Health Plans and Benefits

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ MCOs have flexibility to cover things that FFS does not and to maintain their own provider networks. ▪ MCOs provide all the required state and federal reports to SCDHHS for review by the Bureau of Managed Care. ▪ SCDHHS successfully sends enrollment and payment transactions to MCOs without major issues. ▪ SCDHHS has a set of quality standards it has established for MCOs. ▪ SCDHHS partners with IFC/USC for quality improvement and uses a vendor for an annual external quality review (EQR).	▪ SCDHHS is limited on the service authorizations it can monitor for MCOs. The limitation is due to encounter data being processed in MMIS from the MCOs. ▪ SCDHHS does not currently have an active procurement process for MCOs. ▪ MCOs submit reports through a variety of SFTP folders and SharePoint sites. There is no single front door for MCO reporting.	▪ Create an annual MCO procurement process.

8.4 Manage Managed Care Organizations (MCOs)

Technology Assessment

8.0 Manage Health Plans and Benefits

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS' enrollment broker and EDI translator successfully send the necessary enrollment and payment files to MCOs.	▪ Encounter data used by USC/IFC for quality improvement is processed through MMIS. Because of this, there is a limited amount of information that can be included in the encounter file.	▪ Consider adoption of a different system or improvement in an existing system that would allow for submission of additional detail from MCOs.

9.0 Manage Information and Technology

9.1 Manage IT Operations

Overview

Summary

The Manage IT Operations capability refers to those activities enabling the management of IT infrastructure and operations including management of data centers, IT infrastructure, and IT support.

Actors

- Internal
  - Bureau of IT Infrastructure and Operations
  - Bureau of Medicaid Cloud-Based Systems
- External
  - AWS support staff
  - Clemson University MITS team
  - Ahead support staff
  - OpenText support staff

Systems

- Internally Controlled Systems
  - Microsoft 365
  - OpenText Service Manager
  - Splunk
  - AWS Cloud Watch
- Externally Controlled Systems
  - None

Description

- Most IT infrastructure and IT operations are outsourced to Clemson and the State of South Carolina Data Center. There has been a move in the last 2-3 years to move most new development efforts onto the cloud, starting with the Encounters Processing System (EPS) that is being deployed in the Amazon AWS cloud.

9.1 Manage IT Operations

Business Assessment

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The primary outsourced contractors, Clemson and the State of South Carolina Data Center, have mature IT hosting and infrastructure operations. There are service-level agreements and targets in place with SCDHHS. ▪ SCDHHS has been able to meet its IT operational goals by leveraging Inter-Agency Agreements with other state agencies. ▪ There is a centralized help desk for core IT infrastructure support requests and incidents using the OpenText Service Manager software. ▪ SCDHHS has established a centralized IT help desk for support of its end users in use of the core applications and technology.	▪ SCDHHS does not have full visibility into its IT operations across the internal and external service providers and applications. ▪ There are no formal Service Level Agreements (SLAs) and/or Operations Level Agreements (OLAs) in place for several external IT services and applications. ▪ There are multiple HelpDesks, support teams, and support processes for each of the applications in use for employees and citizens. ▪ There is no established problem/incident management processes in place to investigate and address the root cause of IT issues and disruptions across all applications. ▪ IT change management, release management, and configuration management is not automated, and processes vary across application systems.	▪ Formalize problem management and root cause analysis for end-to-end business processes that may be supported by multiple systems. ▪ Establish SLAs with all business areas, supported by OLAs with internal and external IT service providers. ▪ Review incident management processes and capabilities to ensure that they can consistently meet client expectations based on application criticality and impact on business operations. ▪ Implement configuration management system/tool and supporting processes. ▪ Automate Change and Release Management. ▪ Consolidate all external stakeholders' service and support centers. ▪ Ensure optimal implementation of Information Technology Infrastructure Library (ITIL)/ Information Technology Service Management (ITSM) best practices in IT operations and support.

Gartner

9.1 Manage IT Operations
Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS has been able to secure its IT infrastructure and operations with effective use of security infrastructure and technologies. ▪ SCDHHS uses a centralized help desk application to automate the incident and problem management processes. ▪ SCDHHS has successfully started to leverage AWS public cloud services for its EPS application and MES Core infrastructure.	▪ Not all IT Service Management processes have been automated. ▪ SCDHHS does not have real time visibility into its IT operations and application performance across the various solution and outsourcing partners.	▪ Consider deployment / use of a single, centralized help desk for all IT requests and incidents. ▪ Further automate IT operational processes such as service monitoring, change, release, and configuration Management. ▪ Develop internal capability to manage the cost of the public cloud infrastructure from Amazon Web Services and Microsoft. ▪ Develop disaster recovery and service continuity plans for critical applications.

9.2 Manage Application, Product Development, and O&M
Overview

Summary

The Manage Application and Product Development and O&M capability refers to SCDHHS's ability to manage development, enhancement, operations, and maintenance of applications and products in support of Medicaid programs.

Actors

- Internal
  - Bureau of Medicaid Cloud-Based Systems
  - Bureau of Medicaid systems
  - Bureau of Systems Applications Integration and Development
- External
  - Clemson University MITS Team
  - RFA

Systems

- Internally Controlled Systems
  - MS 365
  - Jira
  - Confluence
  - Visual Studio
  - Azure DevOps
- Externally Controlled Systems
  - MS 365
  - MicroFocus Visual COBOL
  - Ruby on Rails
  - Eclipse

Description

- SCDHHS has been leveraging State Agency service providers and external Systems Integrators (SIs) to develop and deploy applications to help automate the Medicaid program over the years. The following activities were considered in the assessment of current Application and Product Development capabilities:
  - Build and Customize Products, and Applications
  - Integrate Platforms, Products, and Applications
  - Manage the Product and Application Functions

9.2 Manage Application, Product Development, and O&M
Overview (cont'd)

Description (cont'd)

- SCDHHS has been working with agency partners and shared services groups in South Carolina state government as well private sector technology and services vendors to develop and deploy custom, in-house developed applications and commercial off the shelf solutions for several years.

- There are two state partners that perform the major application design, development, implementation (DDI) as well as maintenance and operations (M&O) work for SCDHHS — Clemson University (i.e., MMIS, OnBase, MEDS, etc.) and Revenue and Fiscal Affairs (i.e., Phoenix). SCDHHS has also deployed a Project Management Office (PMO), Delivery of Automated Systems for Healthcare (DASH), to oversee the execution of some of its IT and application modernization strategy.

- There is some Systems Integration work done by SCDHHS such as the development work on the Encounters Processing System (EPS) and development work on the State of Virginia EPS solution that is being deployed on Amazon Web Services (AWS) cloud. The integration platform and enterprise data services defined for the MES Core solution is being developed using pre-qualified contractors on a time and material basis. The ongoing in-house support and oversight of application design, development, implementation, and maintenance is addressed by several SCDHHS system and technology functions including:
  - The Bureau of Medicaid Systems that oversees the MMIS enhancement efforts.
  - The Bureau of Systems Applications Integration and Development (SAID) focused on overseeing the maintenance and modification of current case and document management systems such as Phoenix, OnBase, and integration with EVV solution (AuthentiCare).
  - The Bureau of Medicaid Cloud-Based Systems focused on deployment of Virginia based Encounter Processing System, setting up the integration infrastructure and Enterprise Data Services, and overseeing the efforts related to migration to the cloud.
  - The Bureau of Business Systems Management focused on enterprise systems.

- To manage application and product development, maintenance, and operations these IT teams use some of the following development tools and environments:
  - Programming Languages: COBOL, Java, Ruby on Rails, Microsoft (MS) Power Apps, and the MS .NET Framework and languages
  - Databases: IDMS, Oracle, SQL Server, MySQL, MarkLogic to store and manage data
  - Web and App Servers: Apache TomCat, MS .NET, MS IIS, Oracle Fusion, IBM WebSphere App Server, IBM IIB, MuleSoft AnyPoint
  - Cloud Provider: AWS and Azure for cloud computing services

9.2 Manage Application, Product Development, and O&M
Overview (cont'd)

Description (cont'd)

- Within SCDHHS' purview, there are six distinct applications, each with its respective goals and objectives, including:
  - *MMIS (Clemson)*: Ensuring timely and accurate claims processing in compliance with federal regulations, maintaining data for seven years for retention purposes, and regularly running scheduled jobs within the established batch window. The emphasis on efficiency continues with goals targeting timely document keying, accurate processing of provider enrollment applications/updates, and maintaining exemplary customer service.
  - *MES Core*: Enabling enterprise modularity, improving data exchanges between systems, improving interoperability, establishing the source of truth for data and maintaining a central data warehouse for analytics.
  - *OnBase*: Streamline the workflow of cases pertaining to Program Integrity (PI), appeals, and eligibility by leveraging its Workview Module. This module aims to route tasks to the eligibility team based on case requirements, facilitates case ownership, and supports integration with MMS for enhanced data accessibility. The system, currently hosted by Clemson, aims to potentially migrate to a more flexible AWS cloud environment.
  - *MEDS (Clemson)*: Continue maturing the move of non-MAGI and long-term care eligibility into MMS. Improve operation process to wane staff off MEDS and decommission the system.
  - *Phoenix (RFA)*: Enhancing the consistency of notifications, ensuring error-free claim submissions through Phoenix, maintaining system availability, managing an increasing beneficiary base, providing user-friendly self-service reports, and efficiently handling critical incident reporting and management.
  - *Encounter Processing System:* Aims to align with SCDHHS's goals as outlined in its Strategic Plan, specifically targeting the second goal — "Purchase access to needed health services" and fourth goal — "Efficiently and effectively align the agency's administrative resources." An efficient encounter process allows for the effective purchase of necessary health services and aligns administrative resources efficiently.

- Although each application has individual goals, the system and technology units within SCDHHS operate under a shared overarching goal. This goal is drawn from the fourth objective of the SCDHHS Strategic Plan, to "Efficiently and effectively align the agency's administrative resources" focusing on consistently assessing and identifying technological resources that facilitate effective execution of the agency's business processes. In the long-term SCDHHS' goal is to move away from Clemson and homegrown systems towards outsourced cloud-based systems.

- To measure the success of each application's goals and objectives, SCDHHS captures KPIs into each application's Advanced Planning Document (APD), as appropriate. These KPIs align with both CMS-mandated and state-specific goals, outcomes, and metrics for each product or application, serving as a measure of progress.

9.2 Manage Application, Product Development, and O&M

Business Assessment

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS has outlined EPS development objectives. These include striving to retain and share 100% of all encounters data, reducing rule implementation time, implementing external, and internal web portals, and leveraging cloud infrastructure. ▪ SCDHHS established that enabling modularity and integration architecture is the principal mission of the MES Core which aligns with the CMS mandate for MITA , as well as the standards and conditions of funding. ▪ SCDHHS has a writing team dedicated to preparing Advanced Planning Documents (APD) for CMS. These documents highlight the agency's strategic decisions regarding their application and product portfolio, based on regular evaluations of value, cost, risk, and performance. ▪ There is effort underway to adopt DevOps principles and practices.	▪ There is limited collaboration between SCDHHS' application development teams and DASH. ▪ Lack of clear alignment and coordination between DASH and the office of the Deputy Director of Programs that can lead to overlapping responsibilities, inefficiencies, and confusion, hampering the effective execution of IT modernization initiatives and business objectives across the agency. ▪ Ownership of data and analytics applications has bounced back and forth between functional areas with limited clarity on any future direction. ▪ Process and knowledge gaps have accrued over time due to frequent changes in personnel. The situation is intensified by the scarcity of process documentation, which complicates the transfer of knowledge and operational continuity. ▪ Difficulty around aligning business processes and procedures across functional areas. These areas typically encounter issues with coordination. ▪ The Quality Assurance life cycle and testing activities are not fully automated. ▪ Product Manager and Product Owner roles related to agile development is not adequately defined.	▪ Strengthen coordination and collaboration efforts between the application development and maintenance teams, DASH program, and the office of the Deputy Director of Programs to ensure seamless alignment of business initiatives across the agency. ▪ Formally adopt an enterprise-scale development methodology and train all levels of management and staff on the use of the methodology. ▪ Require external vendors to follow SCDHHS' preferred Software Development Life Cycle (SDLC) methodologies. ▪ Require software development partners to adopt DevSecOps practices and develop Continuous Integration / Continuous Delivery capabilities. ▪ Establish clear business and technical roles, project / product ownership and a future state vision for all core Medicaid applications across business functions. ▪ Improve cross-functional collaborations by breaking down the silos that result in processes and procedures not to be communicated effectively. ▪ Increase efforts to develop and manage technology and systems integration talent.

Gartner

9.2 Manage Application, Product Development and O&M

Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS staff has been implemented FHIR-based architecture to allow partners to access data through APIs. ▪ SCDHHS efficiently utilizes MuleSoft for API-based data integration across various systems, critical for eligibility, enrollment, and Member Management System (MMS) operations. In addition, SCDHHS is leveraging MarkLogic's consulting services for assistance in areas like architectural designs, programming, testing strategies, and performance optimization, contributing to fulfilling enterprise delivery commitments and performance objectives. ▪ SCDHHS leverages Jira as its primary requirement management tool, facilitating efficient oversight and management of its product and application portfolio.	▪ Managing all integration through SFTP file exchange and REST API services of MES Core may limit the real time data and event updates and multi-step, cross organizational processes that may be needed among the modules. ▪ Software requirements management and IT service management tools are not integrated to create a closed loop to address incidents caused by changes and production releases. ▪ There is not full traceability capability from a defect in production to earlier parts of software development life cycle. ▪ There is limited adoption of Low-Code, cloud native application development platforms and infrastructure. ▪ There are some level of technology capability and technical services overlap and redundancy introduced by implementation of new solutions.	▪ Evolve the integration technologies to include a traditional integration broker such as MuleSoft AnyPoint or IBM IIB to accommodate traditional application integration use cases as well multi-step processes across SCDHHS and Service Provider organizations. ▪ Require software development partners to further automate unit, system, and integration testing for the internally developed applications. ▪ Improve integration of application life cycle management and IT service management tools. ▪ Ensure traceability of defects and requirements within and across the development tools. ▪ Setup self-service integration infrastructure as well as automated provisioning of the required lower environments needed for testing of core integrations. ▪ Require the leverage of SCDHHS technology standards and common technology services in all procurements and systems integration vendor contracts to minimize the potential of redundant technology infrastructure being added to the technology environment.

9.3 Manage Enterprise Architecture

Overview

Summary

The Manage Enterprise Architecture (EA) refers to the strategic processes and tools that support planning, directing, organizing, and designing the maintenance and evolution of the agency's systems, technology, business processes and data.

Actors

- Internal
  - Enterprise Architecture team in IT
  - DASH Technical Leads
- External
  - Technology Vendors

Systems

- Internally Controlled Systems
  - Sparx
  - Visio
  - Office 365
- Externally Controlled Systems
  - None

Description

- Enterprise Architecture (EA) are strategic capabilities that involve planning, directing, organizing, and designing the maintenance and evolution of the agency's systems, technology, business processes, and data. The primary aim of the EA is to assure seamless alignment between the Agency’s key business information systems (e.g., Core MMIS) and core business strategies, as well as ensuring interoperability with other interacting systems, fostering accurate and efficient information flow across various functional areas within the organization.

- Additionally, the EA serves as a communication bridge connecting SCDHHS business, IT, regulators, and vendors, to promote understanding and internal alignment across the different business functional areas.

- Currently, SCDHHS’ EA team is responsible for the development of SCDHHS’ information and technology enterprise information systems architecture, as well as its implementation and making sure that these developments align with CMS and SCDHHS' strategic goals. The team is responsible for evaluating technology products for implementation, providing integration guidance to the Chief Information Officer (CIO) and ensuring a balance between delivery speed, compliance, cost, and resource utilization. They also resolve escalated design issues, maintain architectural artifacts, ensure effective communication about changes, and oversee a range of security-related operations.

9.3 Manage Enterprise Architecture

Business Assessment

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ SCDHHS has an EA presence via contract with Random Bit LLC., to provide EA service capabilities on an ongoing basis. ▪ SCDHHS' Enterprise Architecture (EA) team has defined a vision, developed an internal strategy to reach a target state. ▪ The EA Team includes 4 enterprise architects, three platform architects deployed to MES Core and Encounters System (EPS) and a security architect. ▪ The EA team has long recognized the growing importance of data and analytics and established a working relationship with the Business Intelligence Systems (BIS) team to help drive organizational objectives. ▪ The EA team has developed Solution Plans for a majority of MES modules aligning with the SCDHHS and CMS guidance. ▪ The EA team's governance structure continually assesses the alignment between overall organizational goals and what is being delivered.	▪ There are no EA resources assigned to: – Business architecture. – Modernization and/or replacement of the core MMIS solution after the termination of the Optum contract. – Development of a Data & Analytics capability for SCDHHS. ▪ The lack of SCDHHS employees in EA roles and reliance on an all-external contractor team for managing all EA responsibilities creates vendor dependency, limited knowledge transfer and constraints with fostering innovation and managing risk. ▪ There is limited measurement and tracking of agreed to business outcome metrics, KPIs / OKRs (Key Performance Indicators / Objectives and Key Results) as documented in the IAPDs. ▪ There is no clear and concise definition of SCDHHS' Target Integration Architecture and required technical capabilities, integration styles and patterns, and use cases. ▪ Integration is not being leveraged to improve operational efficiency across organizational boundaries in a modular technology ecosystem.	▪ Develop a stakeholder engagement model to effectively agree on EA vision and strategy, and secure buy-in across all business areas. ▪ Identify and publish the future state / "north star" for enterprise data and analytics architectures. ▪ Consider leveraging low-code platforms and composable business and application architecture approaches. ▪ Consider recruiting an in-house Chief Enterprise Architect position to lead a mix of state and contracted architect roles. ▪ Establish business outcomes metrics measurement capabilities to articulate status of progress, provide the EA team direction on what constitutes success, and how to help SCDHHS achieve the overarching organizational goals. ▪ Formally assign responsibility for the Core MMIS modernization and data and analytics strategy to suitably experienced EA resources. ▪ Formally assign the enterprise business architect role and responsibilities to one or more EA resources. ▪ Formalize the definition of supported integration styles, patterns, and use cases, as well as the role and business value of each layer of Enterprise Data Services DBMS components.

9.3 Manage Enterprise Architecture

Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ The EA team uses Microsoft Office suite, SharePoint, and Sparx EA repository as their primary technology tools to analyze and understand the environment to create effective enterprise architectural solutions and to manage the EA repository.	▪ Sparx is a strong IT Architecture modeling tool but doesn't easily integrate with SCDHHS' project and portfolio management (PPM), IT service management, and EA planning tools. It also does not provide an easy way to collaborate with business / program stakeholders for business architecture planning using the tool.	▪ Look for opportunities to integrate and link the Sparx EA tool with PPM and development planning tools. ▪ Simplify business transformation model diagrams and work collaboratively with business leadership to define the desired business outcomes.

10.0 Manage Data & Analytics

10.1 Manage Data Governance

Overview

Summary

The Manage Data Governance capability includes processes and structures for decision making focused on best value sharing and use of data across the Medicaid enterprise.

Actors

- Internal
  - All SCDHHS staff and contractors using or providing data. Including executive leadership, managers, analysts, supervisors, and workers at all levels
- External
  - All partner organizations SCDHHS exchanges data with (MCOs, Providers, BCBS, Maximus, etc.)
  - Vendors providing analytical services including SAS, KNOWLI and Milliman

Systems

- Internally Controlled Systems
  - All SCDHHS Systems (relevant for data governance)
  - SAS — *BIS (includes definitional metadata of the data used currently for analytics)*
  - Clemson University — MMIS
  - *MES Core (includes a growing level of definitional metadata of shared SCDHHS data)*
- Externally Controlled Systems
  - Increasing number of external systems (used to manage Healthy Connections) include data to be part of SCDHHS data governance

Description

- Sharing data cost-effectively across the Medicaid enterprise enables the management of SCDHHS' programs and the business transformations they are undergoing. The operational data involved is generated and used across all aspects of program operations and management. It tends to be managed opportunistically and with limited coordination.

- SCDHHS has identified establishing formal decision-making mechanisms for management of data (data governance) as a priority and a study (by North Highland that interviewed over 70 people) completed in June 2023. The section of this study outlining the "Current State" notes:
  - Currently, data is stored and managed independently across many groups within SCDHHS, with no consistent and common metadata, causing:
    - Inconsistent and multiple versions of truth.
    - Varying issues with data completeness, quality, and timeliness affecting the Agency's ability to perform full-spectrum analytics.
    - Inconsistent analytics, predictive modeling, and reporting across various groups.
    - Users do not trust the data.

10.1 Manage Data Governance

Business Assessment

10.0 Manage Data & Analytics

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The SCDHHS Strategic Plan defines the key strategic goals and supporting measurable objectives. SCDHHS can use comprehensive analytics to understand progress being made towards these strategies and examine possibilities and trade-offs, for new and changing policies. ▪ Departmental leadership is aware that the department does not have the necessary data governance mechanisms in place that led to commissioning the 2023 North Highland study and its general recommendations, which will be beneficial if/when implemented.	▪ The value of managing data as a departmental and shareable asset is not universally understood or accepted. ▪ Incomplete consensus on the definition and use of terms and data inhibits the ability to share and obtain full value from data across the Medicaid enterprise. ▪ Data reuse is further inhibited by lack of trust in the veracity and quality of key data. ▪ The approach to data integration between systems is inconsistent and inefficient. ▪ Substantial business, information, systems knowledge, and skill gaps exist such that many processes and reports cannot be adequately explained. This leaves important questions unaddressed. ▪ Implementation of the North Highland recommendations is at a very early stage. This work included comprehensive recommendations, a “best practice” data governance operating model, and implementation plan that SCDHHS is struggling to understand and use. ▪ The need to address underlying legacy data structure challenges is inherent in Core MMIS. ▪ Lack of coordination and integration with the data governance roadmap, as well as other modernization / transformation activities.	▪ Create structures and processes focused on high priority data policy types including data definitions, master data consistency, data protection, and data quality. ▪ Implement tracking of data governance improvement measures including data stewardship and a data quality scorecard. ▪ Document and codify SCDHHS data, its lineage, and uses. ▪ Build streamlined data governance with defined accountabilities into the modernized systems solutions. ▪ Determine comprehensive data requirements of the modernized system components going forward. ▪ Establish and baseline data literacy targets for MES stakeholders for measured progress towards improved Medicaid data enablement. ▪ Move towards “strategic sourcing” for data and analytics, such that “strategic competencies” are aligned to in-house positions. ▪ Expand the boundaries of data used to inform policy and decisions (e.g., demographics related to social determinants of health).

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10.1 Manage Data Governance

Technology Assessment

10.0 Manage Data & Analytics

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Substantial proportion of data that has persisted operationally is organized for analytics use (the BIS environment provided by SAS tools and technology). ▪ A level of data knowledge and documentation achieved in developing the canonical data models in the MES Core.	▪ There is no strategy and plan established for the management of Medicaid enterprise data. The tools available within the MES Core environment have been deployed in a limited way with no plan established to extend this to cover the full set of data and analytics efforts. ▪ As addressed in the North Highland Data Governance Recommendations and Roadmap, there are currently no data governance or enterprise metadata management technology solutions that have been identified or deployed. ▪ As addressed in the North Highland Data Governance Recommendations and Roadmap there is no compelling business case or plan established for master data management and specific entity types have yet to be identified as master data candidates.	▪ Establish the agreed strategy for the management and integration of Medicaid enterprise data to subsequently plan the role of MES Core going forward. ▪ Establish prioritized approach for data governance technology support in line with a focused approach to data governance improvement. Key areas for tool support include: – Issue and decision process support – Data profiling and quality management – Metadata management – Master data management

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10.2 Manage Data Quality

Overview

Summary

The Manage Data Quality capability encompasses measuring how well data is fit for purpose, meets criteria for accuracy, completeness, validity, consistency, uniqueness, and timeliness. It includes tools for verifying data within source systems and following standards, so that business rules are in place to govern the usage and movement of data.

Actors

- Internal
  - Data stewards assigned with responsibility for the quality of specific data subjects and sources
  - All individuals and departments providing shared data
- External
  - Managers assigned with the responsibility of data to meet contracted levels of quality

Systems

- Internally Controlled Systems
  - All designated SCDHHS source systems
  - SAS — *BIS*
  - Clemson University — *MMIS*
  - *MES Core*
- Externally Controlled Systems
  - All external systems designated as source systems for Medicaid Data and Analytics

Description

- The data being integrated and shared across various functional areas must meet enterprise standards and definitions and fall within defined data quality criteria.
- Deficits in data quality may undermine the credibility of analytics. As such, understanding the level of data quality, using systematic approaches to manage data and improving the level of data quality, is very important.

10.2 Manage Data Quality

Business Assessment

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Awareness that data quality is an issue and the concern voiced across the organization. ▪ There are key individuals with deep institutional understanding of data and data quality issues.	▪ There is a widespread perception across SCDHHS stakeholders that data quality is a problem. Additionally, timeliness of available data is also seen as a major issue. ▪ Data quality is not assertively and systematically measured or managed. Any accountability for data quality is within limited “silos.” ▪ Data quality deficits include: – Poor data design in legacy systems exacerbated by multiple years of maintenance and enhancements – Inadequate legacy system validation at point of data ingestion – Data quality managed in silos without agreed enterprise definitions and business rules results in quality problems surfacing with attempts to share data across silos ▪ Thus far, the formal recognition and assignment for data quality accountability has not been established. There are no formally recognized “Data Owners” or “Data Stewards”. ▪ Big skill gap compounded by legacy system data complexity. ▪ Legacy designs highly constrain the way changes are addressed. ▪ Lack of data quality strategy and plan. ▪ No focused activities measuring and improving data quality.	▪ Data governance assignment of data stewards with specific responsibility for the quality of defined areas of data. ▪ Continuously improve the definition and tracking of data quality metrics to improve data quality transparency. ▪ Data sources profiled to analyze, understand, and resolve associated data quality issues. ▪ Resolve data quality issues identified by the T-MSIS Outcomes Based Assessment (OBA) criteria.

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10.2 Manage Data Quality
Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Efforts being made to focus more on continuing and repeated areas of BIS data quality deficits. ▪ The data management structures and technologies in use, and planned, align well with modern data quality toolsets and methodologies that SCDHHS could (but has yet to) invest in.	▪ Main repeated data quality issues in BIS data identified to be addressed at source with: – Current Encounters data via MMIS (may be resolved with the future move to EPS) – Provider identity data – Eligibility data from MMS (Cúram) – And areas identified in the T-MSIS CMS assessment ▪ Lack of documentation and any metadata management severely constrains the ability to verify data when questions arise. ▪ There is low level of trust in the quality of data. Additionally, attempts at data quality measurement / verification are complex and cumbersome involving extensive use of IT systems and involvement of IT staff. ▪ As identified under strengths there is potential for data quality tooling that SCDHHS has yet to take advantage of.	▪ Improved data quality management tooling and automation to identify and address some of the most critical issues. ▪ Application of tooling support and related processes for: – Data definition, standardization, and accountability – Data quality analysis and profiling – Enabling consistency checking and data enrichment

10.3 Manage Data Security & Privacy

Overview

Summary

The Manage Data Security and Privacy capability ensures that the Medicaid enterprise data security and privacy standards are defined and compliant across the data and analytics ecosystem.

Actors

- Internal
  - Content creators including the Office of Research and Data Analysis team and analysts across SCDHHS
  - Reporting and dashboard consumers including executive leadership, managers, analysts, supervisors and workers at all levels
  - Data stewards assigned with responsibility for the quality of specific data subjects and sources
  - All individuals and departments providing shared data
- External
  - Reporting and dashboard consumers in any partner organization staff with selective report and dashboard access such as BCBS, Maximus, Milliman and MCOs
  - Vendors providing content creation analytical services including SAS, KNOWLI and Milliman

Systems

- Internally Controlled Systems
  - All designated SCDHHS source systems
  - SAS — *BIS*
  - Clemson University — *MMIS*
- Externally Controlled Systems
  - All external systems designated as source systems for Medicaid data and analytics

Description

- SCDHHS has functioning and integrated Data Security and Privacy capabilities including support of the civil rights and privacy/Health Insurance Portability and Accountability Act (HIPAA) matters related to SCDHHS Medicaid. This includes the protection of certain categories of data such as personally identifiable information (PII) or protected health information (PHI) data that ensures that only the appropriate people and systems have access to data in those categories.

10.3 Manage Data Security & Privacy

Overview (cont'd)

Description (cont'd)

- Security principles defined for BIS include:
  - Confidentiality — Prevent disclosure to unauthorized people or systems.
  - Integrity — Data may only be modified by authorized parties and only in authorized ways.
  - Availability — Authorized access is not inappropriately blocked or denied.
  - Authenticity — Validation that the parties to a transaction are who/what is claimed and that their communications are genuine.
  - Non-repudiation — Parties to a transaction cannot deny their participation in the transaction.
  - Auditability — Track and log data changes including the user or system making the change. Track and log any inquires, views or access of data that may require such tracking because of law, policy or data use agreements including user or system making inquiry, viewing or accessing the data along with the date and time of the inquiry, view or access.
  - Compliance — Meet all HIPAA, HITECH, CMS MARS-E 2.0, and other State/Federal privacy and security requirements.
  - Access Control — Provide field-level security configuration and access by user role to the greatest extent practical.

10.3 Manage Data Security & Privacy

Business Assessment

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Overall SCDHHS has an awareness of standards and regulations regarding PHI and PII data. ▪ Within each business area there is a good level of security and privacy awareness as well as compliance with regulations. ▪ SCDHHS' Office of Civil Rights and Privacy has established data security and privacy policies that the Department regularly enforces.	▪ Due to the gaps in enterprise data governance and management, it is not possible to be certain privacy and security is being governed, monitored and controlled consistently enterprisewide. ▪ Given the current arrangement of extensive vendor dependency for data and analytics, there is considerable data access available to external consultants in a way that is difficult for SCDHHS to be confident of full privacy and security control. ▪ No information life cycle / data retention and destruction policy has been observed or reviewed.	▪ Implement enterprise level data classification and governance to support privacy and security compliance across integrated and aggregated uses of data. ▪ Institute processes and procedures to allow for deidentified data to be available for analysis and make it easier to share data while complying with regulations.

10.3 Manage Data Security & Privacy

Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Role based and row level security scheme and policies are established. They are enforced in the operational source systems and the analytics systems — supporting privacy and security compliance at a granular level. ▪ There is Data Loss Prevention (DLP) technology in use for desktops.	▪ Due to the gaps in enterprise data management privacy and security controls may not be applied consistently everywhere data entity types are being represented redundantly and inconsistently. ▪ The ability for analysis and research groups to be provided with granular detail level in compliance with security and privacy regulations is somewhat restricted. ▪ There are potential privacy security vulnerabilities as there can be copies of data being maintained at the desktop level.	▪ Implement enterprise level data management and align with comprehensive privacy and security operational controls. ▪ Establish the use of data obfuscation (e.g., masking techniques) to all the use of granular level data for analysis. ▪ Investigate and consider cloud-based DLP and endpoint protection.

10.4 Manage Standard Reporting & Dashboards

Overview

Summary

The Manage Standard Reporting and Dashboards capability includes those regular mechanisms that provide access to important data and business measurements using operational production information as the basis of knowledge. This capability includes reporting tools for real-time and interactive drill-down (dashboard), snapshot measurements vs. targets (scorecard), and detailed data display (reporting).

Actors

- Internal
  - Content creators including the Office of Research and Data Analysis team and analysts across SCDHHS
  - Reporting and dashboard consumers including executive leadership, managers, analysts, supervisors and workers at all levels
- External
  - Reporting and dashboard consumers in any partner organization staff with selective report and dashboard access such as BCBS, Maximus, Milliman and MCOs
  - Vendors providing content creation analytical services including SAS, KNOWLI and Milliman

Systems

- Internally Controlled Systems
  - SAS — *BIS*
- Externally Controlled Systems
  - Web-published public dashboards
  - SCEIS/SAP Business Objects

Description

- The main standard reporting and dashboard capabilities used by SCDHHS are provided by the Decision Support System (DSS) including software tools used by authorized State employees to extract and/or analyze Medicaid data to inform program decisions, policy decisions, and report on the delivery of the Medicaid program. South Carolina has deployed a Business Intelligence System (BIS) that is currently supported by SAS. The current BIS is a software suite for data management, advanced analytics, business intelligence, federal reporting, and predictive analysis. SCDHHS uses the BIS to store data, operational reporting, Transformed Medicaid Statistical Information System (T-MSIS), program integrity, and to query data for the agency. SCDHHS plans to extend the current SAS contract (including a substantial level of specialist support and upgrades to newer versions of the SAS products) until June 2027.

10.4 Manage Standard Reporting & Dashboards

Overview (cont'd)

Description (cont'd)

- BIS provides automatically updated and refreshed reports for a number of areas:
  - *DSS (Decision Support):*
    - Comparative reports based on measures standardized across all programs
    - Multi-dimensional trend reports, descriptive reports and flexible / ad hoc reports
  - *MARS (Management & Administrative Reporting Subsystem):*
    - Self service drill-down for exploration
    - Enables direct query of underlying data
  - *SURS (Surveillance Utilization & Reporting Subsystem):*
    - Automation with more than 30 reports
  - *TMSIS (Transformed Medicaid Statistical Information System):*
    - Business rules for validation implemented
    - Large volume of records automatically transmitted monthly
  - *PERM (Payment Error Rate Measurement):*
    - Entire review cycle implemented

10.4 Manage Standard Reporting & Dashboards

Business Assessment

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ By use of the BIS infrastructure, SCDHHS staff with SAS and KNOWLI consultants have achieved progress in dealing with the underlying complexity of MMIS. They have made changes to support MCOs, satisfying regular reporting needs and making headway with dashboards. ▪ Staffing assignments to strengthen SCDHHS' data and analytics competencies with a view to the vital role data and analytics will play in achieving goals to obtain the best value in Medicaid services for South Carolina. ▪ A comprehensive set of high-level performance measures have been defined in the SCDHHS Strategy.	▪ Complexity in data structures across the legacy systems, the underlying technologies in use, and loss of institutional knowledge result in high levels of content creation effort. ▪ There is a high level of vendor dependency in content creation that reduces flexibility and responsiveness tending to diminish institutional analytical knowledge. ▪ The strategic performance measures from the SCDHHS Strategic Plan have not been "cascaded" to tactical and operational levels. They also do not form the basis of reporting/dashboard content development prioritization and life cycle management. ▪ Despite progress being made with the current tools and consulting support in the development of dashboards tied to business goals and initiatives, there remains a considerable backlog of demand.	▪ Improve enterprise data management (including data structure in modernized systems, metadata management, master data management, and use of application integration capabilities) and governance to align data structures, pipelines to reporting, and dashboard needs to reduce complexity and cost. ▪ Design and implement innovative reporting and analytics approaches with full life cycle governance driving towards best value results and outcomes. ▪ Create scorecards from intelligent models across trends and interrelationships revealed by the data. ▪ Develop contracting approaches with existing and future analytics vendors to transfer skills ▪ Establish stronger and strategically aligned internal staff analytical and content creation resources. These resources should work closely with departmental business and policy leadership on focused innovation. ▪ Standardize tools, approaches, and assertive management of content creation to reduce redundancy further simplifying the reporting and analytics capabilities.

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10.4 Manage Standard Reporting & Dashboards

Technology Assessment

10.0 Manage Data & Analytics

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Substantial proportion of data persisted operationally is organized for analytics use (the BIS environment provided by SAS tools and technology). ▪ Reporting and dashboard development is managed by the SCDHHS Office of Research and Data Analytics with substantial support from SAS consultants with in-depth knowledge of the BIS infrastructure and SAS tools used for development. ▪ Procurement process underway to sustain and improve this infrastructure (i.e., BIS RFP). ▪ Plans to reduce the dependency for MCO encounter data on the legacy MMIS infrastructure via the EPS implementation. ▪ A level of data knowledge and documentation achieved in developing the canonical data models in the MES Core.	▪ The current enterprise data management strategy is unclear. The full MES Core strategy has yet to be implemented and, at this point, multiple independent data silos exist for key business functions on diverse technology platforms (e.g., Mainframe IDMS, MarkLogic, SAS, Oracle, MS SQL Server). ▪ Data across the various sources and platforms is not standardized with no comprehensive data model, even at a high level. ▪ There is a degree of costly redundancy where multiple competing technologies and approaches are in use by reporting and dashboard content creators across SCDHHS with no agreed upon rules for tool standardization. ▪ There are no catalog of tools in place for managing reporting / dashboard objects in alignment with business metrics.	▪ Implement a comprehensive enterprise data management and data fabric design strategy. ▪ Establish a strategy for analytics tool and methods standardization. This will reduce redundancy, complexity, and costs of support. ▪ Acquire and implement a reporting catalog. ▪ Enable and encourage self-service access to metadata, dashboards, and analytics workspaces for different types of reporting and analytics users.

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10.5 Manage Advanced Analytics

Overview

Summary

The Manage Advanced Analytics capability refers to the use of predictive modeling, machine learning algorithms, deep learning, business process automation and other statistical methods to analyze SCDHHS and Medicaid information from a variety of data sources to help SCDHHS be more responsive and significantly increase decision-making accuracy.

Actors

- Internal
  - Office of Research and Data Analysis team
  - Program Integrity team
  - Executive decision makers
- External
  - SAS Institute
  - KNOWLI Data Science
  - Carolinas Center for Medical Excellence
  - IFS — Integrated Health and Policy Research (IHPR) at the University of South Carolina

Systems

- Internally Controlled Systems
  - SAS — *BIS*
  - MMIS and other data source systems
- Externally Controlled Systems
  - KNOWLI Data Sciences tools

Description

- Advanced analytics uses predictive modeling, machine learning algorithms, deep learning, business process automation and other statistical methods to analyze SCDHHS business information from a variety of data sources. These techniques and technologies enable data science beyond traditional business intelligence (BI) methods to predict patterns and estimate the likelihood of future events with the potential of helping SCDHHS be more responsive and significantly increase decision-making accuracy.

- These sophisticated approaches and technologies are only important to the extent they provide enhanced understanding and improvements aligned with and progressing the strategic intent of SCDHHS.

10.5 Manage Advanced Analytics
Overview (cont'd)

Description (cont'd)

- To fully leverage advanced analytics, SCDHHS needs a combination of several capabilities (each of which with yet to be addressed due to technological and managerial challenges described in the following pages) that includes:
  - Analytical and mathematical skills
  - Advanced tools and technologies (including SAS Visual Analytics and Viya used by SAS and KNOWLI on the Agency's behalf)
  - Well-understood data describing the operation and management of SCDHHS's Medicaid programs, along with data that goes further in describing the influencing forces at work and the results of the work of SCDHHS that may not be well defined or understood

10.5 Manage Advanced Analytics

Business Assessment

10.0 Manage Data & Analytics

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The Agency understands that advanced analytics should be at the leading/driving edge of what is desirable and possible in maximizing the value of Healthy Connections for South Carolina. This aligns most closely with Goal 3 in SCDHHS's Strategic Plan around improving quality. Effective use of advance analytics will help SCDHHS to improve a range of quality measures that will improve outcomes, lower cost, and incentivize proven services. ▪ There are pockets of advanced analytical expertise being deployed. Examples include: – SCDHHS' Office of Research, Data and Analytics – Rate setting by Milliman's consulting actuaries – SCDHHS's Program Integrity team's use of SAS for Fraud, Waste and Abuse framework and tools – Various analysis services provided by KNOWLI to support questions posed by leadership ▪ Degree of flexibility and adaptability in finding ways to respond to specific needs and questions using advanced analytics and external expertise and resources.	▪ Vendor dependency — it appears that in each of the specific areas where advanced analytics is currently being deployed the deep expertise needed is outside of SCDHHS staff without concerted efforts to transfer the underlying knowledge and expertise. ▪ The limited use of advanced analytics indicates a low level of data literacy across the enterprise and no measures or processes in place aimed at raising the level. ▪ No systematic enterprise-level analytics governance processes in place. ▪ No systematic way to track level of advanced analytics efforts: – Lack of process and data about analytics work and stratification of that work – No observable formal intake process for analytics projects that could be adapted to categorize certain analytics projects as "advanced" and apply a strategy or policy in relation to such a categorization	▪ Further development of the SCDHHS Strategic Plan measurable objectives to establish hierarchical cascades of measurable objectives with well understood causal links to the strategic goals to provide a foundation for analytics efforts. ▪ Continued development and build out of the in-house data and research team to fully exploit analytics tools and MES Core data resources. ▪ Take adaptive approaches to data literacy improvement across the variety of stakeholders that have the potential to make major contributions to evolving and improving SCDHHS's ability to deliver on the Department's strategic goals. ▪ Formalize analytics governance processes to enable investment aligned with improving enterprise data literacy. ▪ Creation of a process to encourage innovation and the use of advanced analytics based on measured success.

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10.5 Manage Advanced Analytics

Technology Assessment

10.0 Manage Data & Analytics

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Substantial proportion of data persisted operationally is organized for analytics use (the BIS environment provided by SAS tools and technology). ▪ Procurement process underway to sustain and improve this infrastructure (i.e., BIS RFP). ▪ External resources employed (such as KNOWLI Data Science) that have the capability to integrate SCDHHS data with data from other sources and provide a variety of useful analytics results. ▪ Plans to reduce the dependency for MCO encounter data on the legacy MMIS infrastructure via the EPS implementation. ▪ A level of data knowledge and documentation achieved in developing the canonical data models in the MES Core.	▪ The complexity in how systems work and interoperate, along with limited in-depth data and process knowledge, and limited ability to adapt systems to changing needs result in considerable inertia when addressing complex analytics opportunities. ▪ Some important data is: – Captured in inadequate structures that limit adaptability and use – Very difficult and costly to access. – Is of poor quality (wrongly categorized and/or inaccurate) – Unavailable for access or analysis until such a long time has elapsed to undermine the usefulness of any most analyses ▪ High level of vendor dependency for multiple areas of competency including some which should be regarded as “strategic.” ▪ No clear and actionable plan for implementing data governance frameworks, processes and controls (including data management and supporting implemented systems and technologies).	▪ Implement integrated and automated system of governed and managed data to enable advanced analytics using “big” data (increasing amounts of data, speed of data processing, and variety of types of data) and "frontier” data (data describing the business environment at the frontier of activity and understanding). ▪ Design and deploy a Data Fabric designed to automate the capture, upkeep, and accessibility of all metadata. ▪ Define analytics needs across a stratified population of policy and administrative data scientists, analysts and other users. ▪ Incorporate suitable toolsets to take full advantage of the MES modules’ data resources including: – Fully defined and governed data available from SCDHHS operational systems – Less well defined (even unknown) data from further afield in various “sandboxed” environments (e.g., demographics related to social determinants of health and “attitude” data from social media sources)

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11.0 Manage Modernization Program

11.1 Manage Stakeholders

Overview

Summary

- The Manage Stakeholders capability includes ensuring all SCDHHS relevant stakeholders are identified, assessed, segmented, engaged, and communicated with throughout transformation programs and project life cycles. This includes the following considerations:
  - How are stakeholder management responsibilities assigned to DASH roles?
  - How are stakeholders identified & segmented?
  - When & how are different stakeholders brought in?
  - How are stakeholder activities defined & assigned?
  - How are stakeholders engaged and communicated with before, during, and after the transformation?
  - How is technology such as customer relationship management (CRM) systems or project management software, used for stakeholder management,?

Actors

- Internal
  - DASH Team
  - Agency business leadership & staff
  - SC SCDHHS IT leadership & staff
- External
  - System vendors
  - Contracted resources
  - Provider staff & leadership

Systems

- N/A

Description

- Stakeholder Management is a critical capability for DASH's successful execution of FY23 strategic goals in terms of managing vendors, business stakeholders, IT stakeholders, DASH team members, & leadership involvement in IT projects and the identified enterprise transformation initiatives.
  - Managing vendor participation for project planning, system requirements development, solicitation requirements & implementation, etc.
  - Identifying and managing DASH & Non-DASH SCDHHS business & IT stakeholders for defining business processes, business requirements, communication, engagement, & feedback loops.

11.1 Manage Stakeholders

Overview (cont'd)

Description (cont'd)

- Currently there are no formally established standards or processes for managing stakeholders, though DASH has been successful in getting input from specific stakeholder groups through ad hoc engagement on individual projects. The stakeholder management capability in its current state is not directly impeding progress towards the strategic goals given the infancy of the associated initiatives, however the immaturity and lack of an enterprisewide approach and standards will quickly become a barrier and create risk for successfully engaging stakeholders across enterprise transformation initiatives.

11.1 Manage Stakeholders

Business Assessment

11.0 Manage Modernization Program

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Stakeholder management responsibilities are currently carried out by project managers (PMs) and business analysts (BAs) on an individual project basis. – DASH PMs & BAs work with vendors and business-IT stakeholders on project planning, solicitation requirements, and other initiation activities – Organizational Change Management (OCM) stakeholder management activities are assigned to contracted resources with subject matter expertise ▪ Stakeholder management processes have been initiated in a few projects. – Segmentation of stakeholders based on required participation & potential business impact – Analysis of stakeholder needs and activities	▪ Lacking established standards & processes for stakeholder management. – Stakeholder management responsibilities are not explicitly assigned to DASH roles – Currently stakeholder management tasks are defined, assigned, and carried out ad hoc for each project individually ▪ Without formally established stakeholder management processes, it is difficult to set expectations for different stakeholder groups and incorporate stakeholder engagement & communication activities in a holistic project plan. – Lack of advanced communication & transparency of what different stakeholder groups can expect throughout different project & transformation stages ▪ No documentation of stakeholder management activities.	▪ Create formal role definitions (job descriptions) for DASH roles including accountability for varying levels of stakeholder management. ▪ Develop & document enterprise standard stakeholder management processes and metrics for measuring progress against established plans. – Stakeholder identification & segmentation – Stakeholder analysis (influence, interest, needs, expectations, required engagement) – Stakeholder communication & engagement plan – Measurement & tracking for sustainment – Conflict resolution as necessary

11.1 Manage Stakeholders

Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ *No technology strengths identified.*	▪ *No technology weaknesses identified.*	▪ Establish a standardized tool for managing & tracking stakeholder management activities (i.e., CRM system or organizational change management tracker).

11.2 Manage Projects

Overview

Summary

Managing projects effectively is crucial to the success of the Medicaid Enterprise Systems (MES) Modernization initiative. The Manage Projects capability refers to the tools and processes used to manage various types of modernization-related projects. The core of project management lies in planning and organizing resources, such as time, money, and staffing, to achieve specific goals within a set time frame.

Actors

- Internal
  - DASH Project Managers/Business Analysts
  - Project Management Office, in the Office of Planning and Research
  - IT project management staff, in the Office of the CIO

Systems

- Internally Controlled Systems
  - Microsoft Project
  - SharePoint
  - DevOps
  - Other standard applications

Description

- SCDHHS currently relies heavily on vendors for executing MES modernization projects, including MES modernization-related procurement projects and limited design, development and implementation (DDI) projects. As such, SCDHHS currently shares responsibilities for managing projects with vendor project management staff. SCDHHS has three teams that play a role in managing MES modernization projects:
  - Delivery of Automated Solutions for Healthcare (DASH), in the Office of the CIO
  - Project Management Office, in the Office of Planning and Research
  - Project management staff in the Office of the CIO

- The DASH team is currently managing six procurement projects (EVV, Dental, Pharmacy, HWCIM, TPL, and FMS), with project managers, business analysts, and Organizational Change Management (OCM) staff assigned to each. Project managers are employing standard project tools and controls, which are supported by a Program Director and Program Manager.

11.2 Manage Projects

Overview

Description

- Project management processes begin with defining the project's objectives and scope (underway in the planning projects), followed by the development of a detailed plan that outlines the tasks, deadlines, and resources required. Project management also involves risk management, where potential issues are identified, and strategies are devised to manage them. This proactive approach will ensure that each project stays on track and can adapt to inevitable unexpected challenges. The DASH program currently has a standardized Risk Management process, including a shared Risk Log, for use of modernization projects and maintained by the Documentation Manager.

- Another essential aspect of project management is communication and team coordination. Regular meetings and updates are necessary to ensure that all team members are on the same page and that progress is aligned with the project's timeline. The DASH project manager plays a central role in this, acting as a liaison between stakeholders, resolving conflicts, and making decisions to keep the project moving forward. DASH project managers monitor and control projects using standard processes to track milestones, manage the budget, and adjust plans as necessary to address deviations.

11.2 Manage Projects
Business Alignment

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ Business subject matter expert (SME) participation in planning projects has been generally solid. ▪ Project management methodology and toolset is defined and in use within DASH. ▪ Experienced DASH program director and program manager are available to coach project managers as needed.	▪ DASH is currently organized and staffed to manage procurement planning projects. Addition of a large, complex development project, or multiple such projects, will require additional support and skill sets. ▪ Procurement planning projects, along with the follow-on procurements and system development, may be viewed as discrete, stand-alone efforts, instead of deeply integrated with MES modernization. ▪ Retaining project managers and business analysts, especially those requiring on-site presence, may prove challenging as initiatives move from procurement to design, development, and implementation (DDI). ▪ Business ownership and participation may be limited as each procurement moves into DDI phases and requirements for participation increase. Some business areas lack experienced staff to assist with system design and development.	▪ Identification of DASH organizational roles and processes required to manage significant Development, and Implementation (DDI) projects in advance. ▪ While the management of the planning projects is being successfully executed, the organization will need to grow, especially if MES modernization efforts evolve to include Design, DDI initiatives. While the DDI vendor will be responsible for managing the bulk of project activities, the state will still manage the vendor (along with multiple other vendors) and assist in coordinating state resources.

11.2 Manage Projects
Technical Alignment

11.0 Manage Modernization Program

Technical Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Standard project management software tools are in place and used by DASH team for managing projects.	▪ Once DDI projects are underway, there may be a need to integrate with other DHHS and vendor organizations or systems, which may present challenges.	▪ Identification of potential integration points with other DHHS and vendor organizations/systems to simplify scheduling, resource allocation, and project control.

11.3 Manage Programs

Overview

Summary

The Manage Programs capability refers to the processes and tools for managing interrelated projects as a cohesive set of initiatives, all focused on a single or related set of business strategic objectives or business outcomes. It involves coordination of resources, tasks, milestones, dependencies and risks across program initiatives, ensuring alignment of the projects included in the program. Given its scope and scale, Medicaid Enterprise System (MES) modernization requires strong, mature strong program management capabilities. Though SCDHHS currently has project management capabilities in place, it lacks sufficient program management capabilities and authority needed to support a mature MES modernization effort.

Actors

- Internal
  - DASH
  - SCDHHS Stakeholders
- External
  - Clemson; RFA; BCBS; other external Medicaid stakeholders

Systems

- Enterprise Resource Scheduling and Management Systems
- Budget and Contract Management Systems
- Program Management and Reporting Systems

Description

- Program management involves oversight of a portfolio of related projects, aligning them with departmental goals, and ensuring they deliver value as a collective whole. Unlike project management, which focuses on the successful completion of a specific project, program management is broader in scope, emphasizing the coordination and prioritization of multiple projects to achieve departmental objectives. Program management involves not only managing project dependencies and state resources across the program but also balancing competing demands for project scope, timelines, and budgets.

- Although SCDHHS' DASH team has been tasked with the responsibility of leading MES modernization efforts, it has not been empowered with full program management authority to do so. A further complicating factor is the absence of a defined MES modernization strategy to guide MES modernization program management efforts.

- Consequently, DASH is often forced to function in a reactive mode, being assigned project management services for specific MES modernization projects and initiatives, with limited ability to control or manage scope, mitigate project risks, or effectively control dependencies across modernization activities.

11.3 Manage Program
Business Alignment

11.0 Manage Modernization Program

Business Alignment

Strengths	Challenges	Opportunities for Improvement
▪ Efforts are well underway to define the vision, drivers, imperatives, and general scope and roadmap for the Medicaid Enterprise System Modernization. The Future State Assessment and Roadmap will serve as the foundation for chartering a modernization program. ▪ Testing team established as part of the MES Modernization initiative.	▪ SCDHHS lacks a defined MES Modernization Strategy. ▪ No Program Charter has been developed defining the Modernization Program. ▪ Though DASH has been tasked with leading some MES modernization initiatives, SCDHHS lacks a single program office for managing them. Governance, responsibility, and management of initiatives related to MES modernization is distributed among several organizations within SCDHHS, with limited, if any, coordination. ▪ Medicaid modernization projects are not coordinated or aligned into a single, coherent program supporting SCDHHS goals. ▪ Business involvement in, and ownership of, modernization initiatives may be a challenge, due to the lack of experienced, knowledgeable staff, resource constraints and competing operational priorities. ▪ External drivers, such as contract expiration and system support availability, are primary prioritization drivers and affect the pace and sequence of modernization projects.	

11.3 Manage Program
Technical Alignment

11.0 Manage Modernization Program

Technical Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Procurement planning projects are using standard project management systems and methodology that can be leveraged for Program Management.	▪ There is little integration with other SCDHHS systems for managing program schedules, resource needs, or budgets.	▪ Development of Program Management organization, processes, and systems to manage multiple projects supporting Program goals. ▪ Integrate with other SCDHHS systems for managing program contracts, schedules, resourcing, and budgets.

11.4 Manage Organizational Change

Overview

Summary

Ensuring SCDHHS transformation and project initiatives have associate change management strategies, stakeholder engagement & communication plans, and support for guiding stakeholders through transformations and implementations.

Actors

- Internal
  - DASH Team
  - Agency business leadership & staff
  - SCDHHS IT leadership & staff
- External
  - System vendors
  - Contracted resources
  - Provider staff & leadership

Systems

- N/A

Description

- Organizational Change Management (OCM) capabilities is critical for ensuring successful implementation of the MES modernization program. SCDHHS has begun to invest in OCM by bringing on contracted resources assigned to individual project implementations. However, the immaturity and lack of an enterprisewide approach and standards will quickly become a barrier and create risk for successfully aligning changes, projects, and initiatives across systems, stakeholders, and business processes.
  - At an individual project level, OCM teams are documenting progress of change management steps (i.e., # of change stakeholder groups identified, # of stakeholders assigned to each group), but these are not being tracked against established KPIs for the overall OCM capability.
  - Contracted resources have the required subject matter expertise in OCM functions and have gained overall SCDHHS institutional knowledge to guide activities.
  - The overall capability would be improved by implementing internal OCM leadership and SCDHHS subject matter experts with required decision-making & leadership authority to manage contracted resources to guide change plans aligned to SCDHHS culture lack the decision-making authority and to execute steps independently.

11.4 Manage Organizational Change

Overview (cont'd)

Description (cont'd)

- There are opportunities for improvement around the current people, process, and technology, and metrics supporting organizational change management capabilities to ensure successful implementation of MES modernization.
- Establishing an in-house enterprise capability to set standards, define frameworks & practices, and own & manage the execution of OCM activities is a critical step in MMIS transformation journey.

11.4 Manage Organizational Change
Business Assessment

11.0 Manage Modernization Program

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Investment in OCM capability through dedicated contractors assigned to OCM responsibilities on a project-to-project basis. ▪ Individual OCM processes are well-defined by the approaches and frameworks of contracted subject matter expertise, though activities are currently at very early stages with limited demonstration of activities across the full OCM life cycle.	▪ While contracted resources have gained institutional knowledge and familiarity with organizational culture and structure, the capability is lacking an in-house leadership role that can be more formally embedded into project teams and at enterprise level with greater decision-making authority. ▪ No defined organizational standards, norms, frameworks, or metrics for managing project impacts or transformations of any size. ▪ Limited communication / transparency of anticipated changes, impacts, and required engagement of relevant stakeholders from project initiation / change plan stages.	▪ Establish an in-house leadership role for managing outsourced organizational change management activities and applying consistency at the enterprise level. – Develop & document enterprise standard OCM processes and metrics for measuring progress against established plans. (i.e., Stakeholder identification & segmentation, Impact analysis, Risk & resistance assessment, Change management plan, Communication & engagement plan, Training plan, Measurement & tracking for sustainment) – Enable consistent collaboration with SCDHHS communication and training resources to ensure communication and engagement plans are well integrated with existing policies and practices. ▪ Tactical responsibilities for communications and training may be outsourced, but an enterprise OCM capability for establishing standards, approaches, and metrics will be important for successful MES modernization. ▪ When performing stakeholder analyses, identify & formally assign OCM roles & responsibilities to SCDHHS business & IT staff to work alongside contracted resources (i.e., temporary Change Agent Network roles such as Change Sponsors, Change Leaders, & Change Champions,) — these temporary assignments would benefit from dotted line reporting expectations to the in-house OCM leader. ▪ Expand current OCM activities beyond in-flight projects to consider dependencies between other projects and initiatives where relevant.

11.4 Manage Organizational Change

Technology Assessment

Technology Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ Activities currently being tracked in Microsoft Office products (e.g., Excel spreadsheets) provide insight into initial stakeholder identification & segmentation.	▪ No dedicated OCM tools for consistent tracking & management across the OCM life cycle creates limited visibility for stakeholders to understand the overall performance and progress of OCM activities against goals.	▪ Establish standardized tools for managing & tracking OCM plans, activities, & progress. ▪ This could either be achieved by standardizing customized versions of MS products (e.g., formalizing the use of specific Excel spreadsheets), investing in a CRM product with dedicated OCM capabilities, or by leveraging future OCM vendor contracts to secure industry standard toolsets.

11.5 Manage Vendors
Overview

Summary

SCDHHS contracts with many external vendors and state agencies to provide business process services, application design, development, and implementation (DDI), maintenance & operations (M&O), and other business and IT support for its Medicaid Enterprise Systems (MES). The Manage Vendors capability refers to the ability to procure and manage these vendors, including Contract Management.

Actors

- Internal
  - Delivery of Automated Systems for Healthcare (DASH)
  - SCDHHS Contracts/Procurement Management
- External
  - State Fiscal Accountability Authority State Procurement Office
  - Contracted vendors to lead procurement planning projects (e.g., North Highland, PCG, Public Knowledge)
  - Current Systems and Service Vendors

Systems

- Internally Controlled Systems
  - None
- Externally Controlled Systems
  - SC Enterprise Information System (SCEIS), to bring on vendors https://www.sceis.sc.gov/

Description

- SCDHHS's Delivery of Automated Systems for Healthcare (DASH) program manages and monitors MES Modernization projects for SCDHHS. Included in DASH's program portfolio is the procurement and management of vendors to support various aspects of SCDHHS's Medicaid Enterprise Modernization, MES module/system procurement, and other business and IT supports.

- Historically, when a vendor contract came to an end, SCDHHS reissued the same Request for Proposal used to solicit the prior vendor without considering the Department's current business needs. Recently, through DASH, SCDHHS has contracted with external vendors to assist in the procurement process by conducting procurement planning and defining requirements for specific MES procurement solicitations.

- Vendors related to MES Modernization include: Clemson (hosting and M&O of Core MMIS, hosting of MMS, Phoenix and other systems); SAS (Business Intelligence System, BIS); Magellan (Pharmacy benefits administrator); Blue Cross Blue Shield of South Carolina (Provider Management); Dentaquest (Dental benefits administrator); RFA (DDI and M&O of Phoenix); Acentra (Prior Authorization); Authenticare (Electronic Visit Verification); Maximus (managed care enrollment broker); and Meritas (MMS eligibility and enrollment system).

11.5 Manage Vendors
Business Assessment

11.0 Manage Modernization Program

Business Alignment 

Strengths	Challenges	Opportunities for Improvement
▪ DASH has recently implemented improvements to SCDHHS's sourcing strategy, contracting with experienced vendors to lead the Department through procurement planning and requirements definition processes for select MES Modernization-related procurements. ▪ Modernization project procurements currently being developed by DASH are being designed to include vendor management, performance measures, and Service Level Agreements.	▪ The vendor management function is highly distributed throughout the Department with limited governance or oversight. This has led to a high-level of variance in how vendors are procured and managed, difficulty in strategically planning for vendor procurements, a lack of visibility into the products and services these vendors provide, and little to no consistent measurement of vendor performance. Given SCDHHS's heavy reliance on external vendors to support its Medicaid business, the relative immaturity of its vendor management function poses a major risk to the Department. ▪ SCDHHS has not established a consistent approach to the inclusion of service-level agreements (SLAs) in vendor contracts. Consequently, there is a lack of clarity regarding expectations for vendor support and SCDHHS is often not able to measure or hold vendors accountable for performance. ▪ Across SCDHHS there is inconsistent oversight for all contracts, different leaders oversee different projects and accountability lines are not clear. ▪ Agreements with other state entities for system support lack defined Service Level Agreements or performance measures.	▪ Define a Vendor Management function within SCDHHS that aligns and compliments the overall MES Modernization process. Identify resources and determine the right organizational structure and reporting flow for vendor management oversight. ▪ Develop a contract and vendor management policy for the Department, including clear roles and responsibilities for stakeholders. Include this in the overall MES Modernization framework. ▪ Define outcome-oriented metrics to quantify the return on investment that the Medicaid vendor management capability delivers, not only limited to cost savings metrics. Track and report vendor management operational metrics regularly, analyze those identified metrics for performance improvement.

11.5 Manage Vendors
Technology Assessment

11.0 Manage Modernization Program

Technology Alignment

Strengths	Challenges	Opportunities for Improvement
▪ The DASH team has created a central repository for contracts under their purview — allowing for version control and change management.	▪ No centralized Contract Management System, or contract repository, is evident, creating challenges in definitively locating current vendor contracts.	▪ Establish and maintain a Department-wide vendor/contract management system and dashboard. Content Examples: all contracts and amendments, start and end dates, milestones, vendor risk profile, and business, technology and procurement owners.

Current State Assessment: Systems Analysis

Internally Controlled Systems — Orientation

Definition — Systems that are under direct control of SCDHHS as it relates to functional capabilities. These are typically systems run by vendors with direct input from SCDHHS.

Systems included in this sections — Axiom/Actian Translator, BIS, Core MMIS*, Hyland OnBase, MEDS, MES Core, Phoenix*, Provider Enrollment Portal

*** Denotes a deep dive system**

Goal — Capture key information including capabilities supported, integrations, stakeholders, annual cost in 2023, strengths and challenges

Axiom/Actian Translator — Internally Controlled System

System Name:	Axiom/Actian Translator
System Description:	The translator is a combination of tools providing complementary functionality. Axiom sends and receives EDI transactions with trading partners. Actian maps the information contained in EDI files to a format that can be ingested by MMIS. In addition, the translator is the back end for the Provider Web Portal. The Web Portal is a web-based interface that allows providers to submit claims, check the status of claims, and check eligibility status.
Vendor Key Personnel:	Joe Bowling
SCDHHS Key Personnel:	Sam Fields, Charlie Cosby, Robert Currie
Supported Capabilities:	Receive Claims and Encounters
System Managed Internally or Externally:	Internally
System Users:	MCO Claims Administrators, Medicaid Providers
Application Software Infrastructure:	SQL Server, Mongo DB, Portals and the core Axiom developed in J2E
Hosting:	Clemson
System Age:	12 years
Integrations:	BRIDGES, DentaQuest, Managed Care Organizations (MCOs), Magellan, MEDS, MMIS, FFS Providers, Phoenix, Virtual LAN (VLAN)
System Cost 2023:	Included in Clemson MMIS Costs
Gartner AppScore Business* Fit Score:	2 of 5
Gartner AppScore Technical Fit Score:**	3.2 of 5

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Bus. Process
SCDHHS
App O&M
Axiom/Actian
Infra O&M
Axiom/Actian
Hosting
Clemson

*For business fitness, 5 is highest level for current and future business needs and demands.
**For technical fitness, 5 is highest level of technical alignment with industry best practices and performance for South Carolina needs.

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Axiom/Actian Translator — Internally Controlled System (cont'd)

System Name:	Axiom/Actian Translator
System Strengths:	• Sends and receives EDI transactions as needed. Maps EDI messages to Mainframe IDMS data schema and format as needed. • Continues to be a viable player in the healthcare space for B2B and B2G and EDI integrations
System Deficiencies:	• Could perform additional validations based on SCDHHS specific business rules (similar to IBM translator used by EPS)

Business Intelligence System (BIS) — Internally Controlled System

System Name:	Business Intelligence System (BIS)
System Description:	The Business Intelligence System (BIS) solution includes data repositories, data integration components, reporting, data discovery, visualization, and advanced analytics to support SCDHHS in its efforts to measure the performance, quality, outcomes, and value of purchased services. BIS includes the Decision Support System (DSS) software tools used by authorized State employees to extract and/or analyze Medicaid data to inform program decisions, policy decisions, and report on the delivery of the Medicaid program.
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Business — Becky Wilkerson (Assistant Bureau Chief of Managed Care), Heather Kirby (Director of the Office of Research and Data Analysis), and Larry Overbaugh (Program Manager — Program Integrity) Technical — Sam Fields (Program Director, Enterprise Services and Data Governance)
Supported Capabilities:	**BCM: 10.4 Manage Standard Reporting & Dashboards, 10.5 Manage Advanced Analytics and 8.4 Manage MCOs** (addressing the following areas) **Reporting and Analytics:** Storage and management of data extracted from operational systems ▪ DSS (Decision Support Subsystem) Reporting including the following: – Comparative reports based on measures standardized across all SCDHHS programs – Multi-dimensional trend reports, descriptive reports, and flexible / ad hoc reports ▪ MARS (Management & Administrative Reporting Subsystem) Self-service drill-down for exploration that enables direct query of underlying data. ▪ SURS (Surveillance Utilization & Reporting Subsystem) More than 30 reports automatically produced on a regular basis. ▪ TMSIS (Transformed Medicaid Statistical Information System): Provides a large volume of records automatically transmitted monthly to the CMS system, based on data validated using a set of agreed business rules. ▪ PERM (Payment Error Rate Measurement): Handling the entire review cycle.

Ops. Model
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SCDHHS
App O&M
SAS
Infra O&M
SAS
Hosting
SAS

Business Intelligence System (BIS) — Internally Controlled System (cont'd)

System Name:	Business Intelligence System (BIS)
Supported Capabilities: Cont'd…	**BCM: 6.1 Manage Fraud, Waste & Abuse** **Program Integrity** (focused on State-paid Fee-For-Service Claims)**:** ▪ BIS' Fraud Detection System — Fraud Framework, where customized algorithms identify abnormalities leading to a risk score for each provider. ▪ Reporting and analysis in further support of investigations.
System Controlled Internally or Externally:	Externally developed by SAS staff using SAS Data and Analytics tools.
System Users :	Program Integrity, Bureau of Managed Care
Application Software Infrastructure:	SAS Visual Analytics, SAS Studio, SAS Enterprise Guide, SAS Fraud Framework, Oracle Database. SAS database
Hosting:	SaaS — hosted by SAS.
System Age:	Acquired in 2017 (replacing Truven) — the current BIS is 7 years old.
Integrations:	MMIS, Bridges, MEDS, MES Core, Third Party Vendors, SCEIS
System Cost 2023:	$2,920,000 Annual maintenance
Gartner AppScore Business Fit	2.0
Gartner AppScore Technical Fit	4.2

Business Intelligence System (BIS) — Internally Controlled System (cont'd)

System Name:	Business Intelligence System (BIS)
System Strengths:	▪ Very good for "traditional" FFS business, not yet fully leveraged for growing managed care operations or advanced analytics. There is potential for further addressing these areas using the toolset. ▪ Modern and viable cloud-based toolset. ▪ Potential for SCDHHS to leverage enhanced Azure integration. ▪ Vendor currently viable.
System Deficiencies:	▪ SAS product set has limited adoption with vendor market share reducing (perceived as slow to cloud adoption and inflexible pricing). ▪ SAS toolset is weak in natural language query capabilities compared to competing products. ▪ Inadequate enterprise data management data integration and ingestion is sub-optimal.

Core MMIS — Internally Controlled System

System Name:	Core MMIS
System Description:	The Clemson MMIS system is responsible for several key business processes for South Carolina Medicaid Fee for Service (FFS) population. It also currently collects encounter data from Managed Care Organizations (MCOs).
Vendor Key Personnel:	
SCDHHS Key Personnel:	SCDHHS Finance and Chief Finance Office, Bureau of Provider and Support Services (BOPSS)-Office of Provider Services, Office of Claims Resolution, Office of Support Services, Member Information Management (MIM) team, Office of Administration and Chief Compliance Office — Bureau of Internal Audits and Program Integrity, Office of Appeals and Hearings, Office of Medical Directors, Bureau of Policy — Office of State Plan Administration, Office of Waiver & Facility Services, Office of Behavioral Health Services Office of State Contracts & Initiatives, Bureau of Provider Support Services, Bureau of Managed Care — Office of Eligibility, Enrollment, and Member Services, Bureau of Policy, Bureau of Quality — Office of Quality Assurance and Compliance
Supported Capabilities:	BCM: 1.1 Manage Member Eligibility and Enrollment, 1.2 Manage Member Information, 2.1 Manage Provider Eligibility and Enrollment, 2.2 Manage Provider Information, 3.1 Receive Claims, 3.2 View Claims, 3.3 Adjudicate Claims, 3.4 Pay Claims, 3.5 Adjust Claims, 3.6 Process Encounters, 4.1 Manage Prior Authorization, 4.2 Manage Case Management, 6.1 Manage Fraud, Waste, and Abuse, 7.1 Manage Funds, 7.2 Manage Accounts Receivable, 7.3 Manage Accounts Payable, 8.1 Manage Health Benefit Information, 8.2 Manage Reference Information, 8.3 Manage Rate Setting, 8.4 Manage MCOs
System Users :	Clemson MITS Team: Claims, Member, Payments, Provider; SCDHHS Teams: Eligibility, Enrollment, Claims, Finance, Policy; BCBS: MCCS (Member Capitation Rate Input) Provider Enrollment and Information)
Application Software Infrastructure:	COBOL with Assembler, using the IDMS DBMS and IDMS/DC teleprocessing monitor. As a mainframe system, MMIS runs on z/OS.
Hosting:	Clemson Data Center on an IBM mainframe running z/OS
System Age:	40+ years old
Integrations:	Axiom/Actian (EDI Processing/Member Eligibility Inquires, Claims Status Inquiries), ARMS PRO (BCBS-TPL), Authenticare (EVV), BCBS (Member ID Cards), BIS (SCDHHS), BITS (SCDHHS), BRIDGES (Babynet), BIS, CDCO CMS Buy-in Systems, Conduent, Data Operations Hub, DentaQuest (Dental), SC Department of Health and Environmental Control (DHEC), SC Department of Education, SC Department of Social Services (DSS), Maximus (Broker System), SC Office of Research and Statistics (OIRS), MCTRA, MCOs, MEDS (Eligibility), MES Core, MMS (Eligibility), Milliman, Phoenix (Case Management), RFA (Research), SCEIS (Payment), USC/IFC (Research)

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Hosting
Clemson

Core MMIS — Internally Controlled System (cont'd)

System Name:	Core MMIS
System Cost 2023:	$17 million (Includes ISA, MMIS C&E, MMIS O&M, and MMIS MOD Pool)
Gartner AppScore Business Fit Score:	2.6 of 5
Gartner AppScore Technical Fit Score:	3.2 of 5
System Strengths:	MMIS data show little system downtime in recent years, Claims processing runs consistently as designed. Clemson has experienced staff that understand and manage day to day business processes well.
System Challenges:	**Technical** System is monolithic (non-modular) that runs on antiquated programming language and code (COBOL) that most modern developers don't know. The system's age creates ongoing complexity for maintenance and updates. Hard coding makes routine updates challenging and error prone. MMIS runs on a non-relational database (IDMS). **Claims Adjudication** Claims adjudication involves complex crosschecks against provider contracts, benefit files, and reference tables among other information. The numerous subfiles for provider types/specialties required to determine the CPT4 record needed for adjudication further complicates the process. The verification, processing and confirmation of claims and recipient information is done by use of manually updated reference tables. MMIS houses limited diagnosis codes. Much of the logic MMIS uses for payment of claims is hard-coded, making updates more difficult than necessary **Fund Codes** MMIS requires use of "Fund Codes" for adjudication. The process to create new Fund Codes or update existing Fund Codes is manual and requires a change order to Clemson. There is a lack of real-time information updates between member, provider, reference modules, and MMIS that can lead to inaccurate code application and affects pricing. The current claims payment process relies on the use of Fund Codes for each claim (and if applicable each claim line). The number of Fund Codes has grown over time, and keeping track of the large number is unwieldy. Fund Codes were designed in ad hoc fashion and lack a strict process for updates.

Core MMIS — Internally Controlled System (cont'd)

System Name:	Core MMIS
Systems Challenges (continued)	**Claims Adjustment** The current process to adjust claims requires creating a new claim and flowing back through the batch process, rather than directly adjusting the claim and sending it along to the next cycle to await payment status, prolonging processing period. Denied claims cannot be modified; they need to be resubmitted. The process relies on MMIS' "Skeletal" claims storage. Adjusted claims need to referenced in the MMIS Skeletal area. **Encounter Data** SCDHHS has limited visibility into encounter data because it is reduced to be consumed by MMIS. MMIS can only process 5 diagnoses per encounter. MMIS struggles to synchronize MCO and SCDHHS provider data, leading to errors indicating missing providers when encounters enter the system **Member Data** MMIS is only able to store the last 5 eligibility determinations, MMIS is not able to perform real time data updates. **Provider Data** MMIS does not receive data from the Provider Application without manual intervention, Legacy provider ID is a required field in MMIS and must be cross walked to National Provider Identification (NPI), The Provider Web Tool and online remittance advice displays limited information about claims statuses and only reports items that are returned with "paid" or "rejected" statuses and reason codes. There is no easy way to link adjusted claims to the original claim. MMIS can only process 5 diagnoses per encounter. Issues with MMIS identifiers prolong the Fraud, Waste and Abuse review process. If there are special characters on a provider ID, claims reviewers must search the NPI and use a third-party National Plan and Provider Enumeration System (NPPES) table, the national registry, to pull provider information. **Prior Authorization** MMIS' inability to receive real-time updates on service dates hinders its ability to match a service with its corresponding date leading to inaccuracies when filing a claim, necessitating a resubmission.

Core MMIS — Internally Controlled System (cont'd)

System Name:	Core MMIS
Systems Challenges (continued)	**Accounts Payable** MMIS system is devoid of true AP capabilities. It handles AP functionality and GL transactions through workarounds (e.g., Gross-level adjustments). Lack of mechanisms to assign general ledger adjustments to individual claims within MMIS, and are always done at provider level, leading to loss of granularity. **Health Benefit Information** MMIS lacks capabilities to support user maintenance and management of benefit plans. For that reason, SCDHHS does not define benefit plans, service categories, or limits in the manner typically used by conventional benefit systems. In MMIS, there is no direct correlation between the Member PCAT (logical enrollment group) and the RSP code (which defines waiver enrollment). PCATs and QCATs are housed in MMS and MEDS, while RSP codes reside in MMIS. **Reference Information** Reference data is stored in various locations and primarily maintained manually, leading to inconsistencies. Updates, as reported by business users, can require weeks or even months to coordinate and validate. The separate upkeep of provider manuals and fee schedules adds to the challenge of manual updates and data consistency with roughly 250,000 active references to manage. MMIS does not configure network level variations in provider rates and lacks a benefits sub-system to define member coverage. Subfiles serve as the workaround to manage these types of business rules. There are multiple subfiles which are difficult to navigate. Updates to codes and subfiles take time and are handled by Clemson. The MMIS Reference module uses character fields, which are not compliant with HIPAA regulations and require translation tables. **Rate Setting** Capitation rates are calculated manually and must be keyed into MMIS.

Core MMIS — Internally Controlled System (cont'd)

System Name:	Core MMIS
Opportunities for improvement continued	Note — Gartner will perform an alternatives analysis for MMIS in the Future State document. The following opportunities for improvement are high level suggestions: – Consider replacing the existing MMIS with a more modern system or moving the existing code to a modern codebase. – Replace hard-coding with subsystems that allow for easier updates. – Allow for denied claims to be modified and resubmitted. – Update the nursing home claims submission process to be aligned with modern, industry standards. – Allow adjusted claims to be modified and resubmitted. – Expand the amount of encounter data MMIS (or its successor) can receive. – Create a sufficient process that allows provider data submitted on the Provider Application to be automatically added to MMIS. – Create a sub-system that allows for the updates and propagation of Fund Codes. – Create a sub-system that allows for the update and propagation of Reference Information.

Hyland OnBase — Internally Controlled System

System Name:	OnBase
System Description:	OnBase is a document management system that provides a repository for all scanned documents and a variety of workflow related functionality such as Workload Pro for Eligibility Determination.
Vendor Key Personnel:	
SCDHHS Key Personnel:	Business owners — Tim Cozine, Dawn Hunt
Supported Capabilities:	**BCM:** 1.1 Manage Member Eligibility and Enrollment, 4.2 Manage Case Management, 5.1 Manage Appeals, 6.1 Manage Fraud, Waste, and Abuse, 8.1 Manage Health Benefit Information, 9.2 Manage Application, Product Development and OCM
System Controlled Internally or Externally:	Internally
System Users:	Eligibility/ Contract companies specific to eligibility (2782 individuals at last count in workload pro), Program integrity/Internal Audit, Facilities, Admin, HR, BabyNet
Application Software Infrastructure:	MS SQL Server and J2E Document Management Application Infrastructure
Hosting:	Clemson Data Center
System Age:	10 years
Integrations:	MMS, MES Core, Data Operations Hub
System Cost 2023:	Part of MMIS System Costs
Gartner AppScore Business Fit Score:	N/A
Gartner AppScore Technical Fit Score:	N/A
System Strengths:	It has a highly customizable workview that we used to build the eligibility application workload pro (I believe we discussed this one)
System Deficiencies:	It takes specialized support personnel and training for in-house support personnel that can be expensive

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MEDS — Internally Controlled System

System Name:	MEDS
System Description:	Medicaid Eligibility Determination System (MEDS) is the agency's legacy Medicaid eligibility determination system and enables Medicare buy-in processes. It is on Clemson's mainframe and has been in use since 2002. The transition to replace the legacy mainframe-based MEDS application with MMS is currently underway. While all new Medicaid applications are being processed using MMS, existing non-MAGI eligibility is still being managed using MEDS.
Vendor Key Personnel:	Clemson — Bindu Rangarajh, Tom Hannah
SCDHHS Key Personnel:	Business — Nicole Mitchell Threatt IT — Chris Cranford
Supported Capabilities:	**BCM:** 1.1 Manage Member Eligibility and Enrollment, 1.2 Manage Member Information Eligibility for Medicaid, CHIP and certain State programs. MEDS provides the following services: ▪ Member eligibility ▪ Medicare buy-in ▪ Maintain updates to member information
System Controlled Internally or Externally:	Developed by Clemson specifically for SCDHHS
System Users:	1300 users at peak — Eligibility workers
Application Software Infrastructure:	Single tier — monolithic architecture developed using COBOL and IDMS (relational) database management system (DBMS) and IDMS TP monitor
Hosting:	On-premises and single tenant by Clemson on an z/OS mainframe
System Age:	Acquired in 1997 implemented 2002 — in use for 22 years after 5 years development.
Integrations:	Actian/Axiom EDI Translator, MMIS, MMS Eligibility System, Federal Systems (including BENDEX, Buy-In, MMA, Public Assistance Reporting Information System (PARIS), State Data Exchange (SDX), and State Verification & Exchange System (SVES))

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MEDS — Internally Controlled System
(cont'd)

System Name:	MEDS
System Cost 2023:	$4.4 M
AppScore Business Fit	2.40
AppScore Technical Fit	3.33
System Strengths:	▪ Has operated as a reliable system for over 20 years. ▪ Underlying technologies remain supported by current outsourcing partners. ▪ Being retired in favor of the next generation MMS Cúram E&E system
System Deficiencies:	▪ Attracting staff with necessary technical skills is challenging. ▪ Medium to large degree of technical debt and limited in-depth system knowledge in Clemson and SCDHHS after 20 years in operation. ▪ Data needs to be synced with MMS (Cúram) during the transition that presents challenges on occasion

MES Core (ODS — Operational Data Store) — Internally Controlled System

System Name:	MES Core
System Description:	The MES Core consists of two primary components, a data integration service for file-based and API-based (FHIR) data ingestion and sharing which serves as the “piping” to move data from a variety of internal and external Medicaid related applications into and out of the MES Core, and a Data Hub, which serves to transform, standardize, materialize, store, and deliver data to the requesting applications and analytics platforms.
Vendor Key Personnel:	NA
SCDHHS Key Personnel:	Bureau of Cloud Based Medicaid Systems: David Keels, David Smith, Sarel van der Westhuizen
Supported Capabilities:	Data Integration and Enterprise Data Services Repository
System Controlled Internally or Externally:	Internally using contracted development teams since no suitable SI could be identified, and an internal proof of concept (POC) project referred to as the “Manhattan project” demonstrated that SCDHHS could develop the new capabilities on the selected platform.
System Users:	Bureau of Cloud Based Medicaid Systems
Application Software Infrastructure:	MarkLogic DBMS, AWS HealthLake, AWS Gateway, AWS Glue, AWS Lambda
Hosting:	AWS S3, AWS EC2
System Age:	3 years supporting limited business use cases.
Integrations:	MMIS, BRIDGES, Data Operations Hub, SCEIS, EPSM, Apple One, MS Active Directory
System Cost 2023:	$5.2M
Gartner AppScore Business Fit Score:	3.7 of 5

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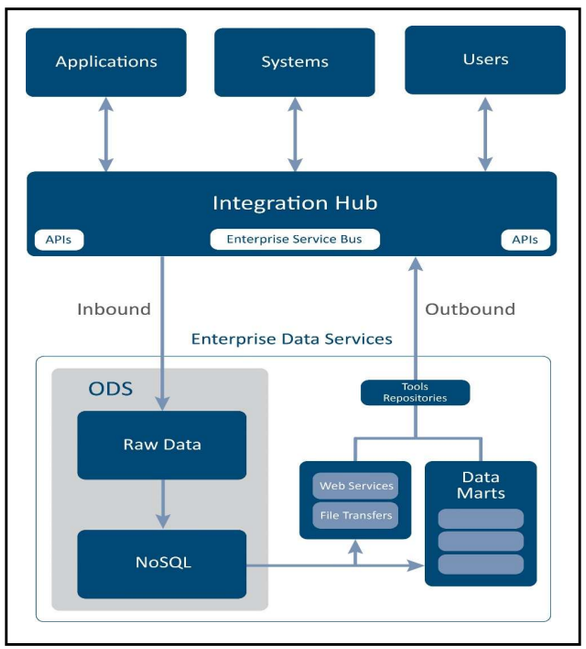
MES Core (ODS — Operational Data Store) — Internally Controlled System (cont'd)

System Name:	MES Core
Gartner AppScore Technical Fit Score:	4.2 of 5
System Strengths:	▪ Leverages native cloud with all related benefits, support for standards, pay for usage ▪ Robust Enterprise Data Services data persistence layer for Operational Data Hub, including S3 based storage, HealthLake FHIR data, and muti-model NoSQL DBMS layers ▪ Robust file transfer and API based integration using AWS toolset ▪ Amazon provides some good data management tools as a part of the MES Core infrastructure
System Deficiencies:	▪ Not designed or used as a full Hybrid Integration Platform for real-time integration of SCDHHS applications and events. ▪ The role and value of different Ent. Data Services storage and DBMS facilities is not clear for known business use cases. ▪ Lacks mature data management capabilities such as augmented data catalog and data quality management capabilities.



Phoenix — Internally Controlled System

System Name:	Phoenix
System Description:	Case management system used for managing the full case life cycle of SCDHHS' Community Long-Term Care (CLTC) and waiver programs. Phoenix also includes a provider portal for service providers to manage their provider information and "Dodo" a translator used for sending claim data to MMIS.
Vendor Key Personnel:	
SCDHHS Key Personnel:	Business: Russell Morrison, Technical: Trey Fowler
Supported Capabilities:	**BCM** 1.1 Manage Member Eligibility & Enrollment; 1.2 Manage Member Information; 2.1 Manage Provider Eligibility & Enrollment; 2.2 Manage Provider Information; 3.1 Receive Claims; 4.1 Manage Prior Authorization; 4.2 Manage Case Management; 8.2 Manage Reference Information
System Controlled Internally or Externally:	Custom system developed, operated and maintained by RFA
System Users :	SCDHHS CLTC and Waiver program operations staff
Application Software Infrastructure:	3-Tier web application developed in Ruby on Rails and MySQL database
Hosting:	The application is hosted at Clemson
System Age:	15+ years
Integrations:	MMIS, OnBase, Authenticare
System Cost 2023:	$6.3M (including $1.6M Clemson Hosting)
Gartner AppScore Business Fit Score:	3.4 of 5
Gartner AppScore Technical Fit Score:	3.5 of 5

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Phoenix — Internally Controlled System (cont'd)

System Name:	Phoenix
System Strengths:	▪ It is a Web based system designed with open-source technologies ▪ It provides a reliable and effective solution for case management capabilities, adequately supporting the necessary processes. ▪ It has a suite of effective case management capabilities, which successfully serve over 20 waiver programs. ▪ The overall case management capability is operating both effectively and efficiently, and the employees that use Phoenix are satisfied with its ability to support their needs.
System Challenges:	▪ Legacy monolithic Service-Oriented Architecture (SOA) technology that is not integrated with other core SCDHHS systems. ▪ Functionality needs to be enhanced to support a variety of Provider Management functionality. ▪ The interface between Phoenix and MMIS appears to cause discrepancies and misalignment in member and provider information in MMIS and Phoenix, instances of outdated provider information, and a slow down in waiver eligibility determination due to manual verifications. ▪ The process for verifying a member's Medicaid eligibility and enrollment before enrolling them into a waiver program is manual causing excessive manual efforts by eligibility and enrollment staff and the Phoenix Central Intake team. ▪ The current process for verifying provider information is manual (e.g., when changes are made to provider information in the Phoenix system, there is no automated methods to communicate these updates). ▪ The referral process in the system is unclear to providers leading to errors and an increased number of support calls, adding to the workload of the provider support staff.
Opportunities for Improvement:	▪ Migration of the system from Clemson Data Center to AWS Cloud to enhance scalability and flexibility. ▪ Enhancement of data pipeline automation from MEDS and MMIS to Phoenix to reduce manual intervention in the CLTC and other waiver member eligibility and provider enrollment determination process. ▪ Consider sourcing an EVV vendor that fully complies with necessary regulations and requirements. ▪ Improvement of the eligibility process by exploring solutions to better integrate MMIS, MMS/MEDS, and Phoenix. ▪ Enhance the clarity and communication of CLTC and waiver program processes to providers to minimize manual errors and support calls.

Provider Enrollment Portal — Internally Controlled System

System Name:	Provider Enrollment Portal
System Description:	Provision of a Provider Application Portal for all Medicaid service providers to apply to become an authorized service provider in State of South Carolina. It is used by BCBS for outreach and enrollment of Medicaid providers.
Vendor Key Personnel:	
SCDHHS Key Personnel:	Nick Constantino
Supported Capabilities:	BCM 2.1 Manage Provider Eligibility and Enrollment
System Controlled Internally or Externally:	Custom System developed by ICAR (Clemson University International Center for Automotive Research) and then moved to Clemson for maintenance and operations
System Users :	All Medicaid Providers, BCBS, SCDHHS
Application Software Infrastructure:	3-Tier web application developed in Java with MySQL database
Hosting:	The application is hosted and managed by Clemson
System Age:	15+ years
Integrations:	MMIS, BCBS iFlow
System Cost 2023:	$580,000 (including other Clemson managed Web Apps such as Provider Portal (aka WebTool)
Gartner AppScore Business Fit Score:	2 of 5
Gartner AppScore Technical Fit Score:	2 of 5
System Strengths:	Web based system designed with open-source technologies that is maintainable
System Deficiencies:	Legacy monolithic SOA technology that is not fully integrated with the other Medicaid Provider Management systems. Functionality needs to be enhanced to support a variety of Provider Management functionality.

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Externally Controlled Systems — Orientation

Definition —Systems that SCDHHS does not have direct control over. This is typically a system used by a vendor that has been hired by SCDHHS.

Systems included in this sections — Acentra Health “Atrezzo”, BCBS ARMS PRO, Authenticare (EVV), DentaQuest, iFLow, Magellan, and SCEIS

Goal — Capture key information including capabilities supported, personnel, integrations

Acentra Health “Atrezzo” (Prior Auth) — Externally Controlled System

System Name:	Acentra Health Atrezzo
System Description:	System used by BCBS staff for Prior Authorization of FFS Medicaid Professional and Institutional medical providers
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Business: Vanessa Jackson, Sandra Hudson IT: Charley Cosby
Supported Capabilities:	**BCM** 4.1 Manage Prior Authorization
System Users:	BCBS MCCS staff, SCDHHS Provider Support Unit and Appeals Coordinators
Integrations:	MMIS

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ARMSPro (BCBS TPL) — Externally Controlled System

System Name:	ARMSPro
System Description:	Handles all OHI for both FFS and MCOs. Arms Pro houses our Case Management Systems for Casualty, Estate Recovery, Special Needs Trusts and HIPP (Health Insurance Premium Payment Program). ARMS Pro houses Fund Recovery which includes SCDHHS Cash Receipts for Retro Health and Medicare, Unsolicited Health and Medicare, Billing Error, Casualty, SNT, Estate Recovery, etc.
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Denise Benson
Supported Capabilities:	**BCM** 3.3.4 Manage TPL Cost Avoidance; 7.2.2 Manage TPL Recovery
System Users:	BCBS MCCS Staff
Integrations:	MMIS, MMS

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Authenticare (EVV by Fiserv) — Externally Controlled System

System Name:	Authenticare
System Description:	Commercial Off-The-Shelf (COTS) System component used by SCDHHS home and community services to electronically log and validate the delivery of home and community-based services. The system is currently integrated with Phoenix and is going through a re-procurement due to dissatisfaction with the current level of performance by the vendor.
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Trey Fowler, Margarett Alewine
Supported Capabilities:	Provider service delivery tracking and validation
System Users:	Home and Community-Based Service Providers; SCDHHS CLTC
Integrations:	Phoenix

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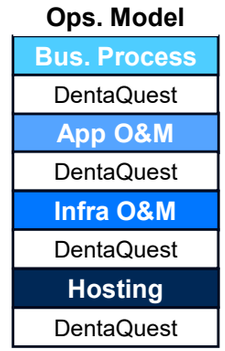
DentaQuest — Externally Controlled System

System Name:	DentaQuest
System Description:	DentaQuest runs a fee for service dental platform for SCDHHS. Dental providers submit claims through DentaQuest and they are passed to MMIS.
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Gerta Ayers, Gary Ries, Michael Orr
Supported Capabilities:	BCM for FFS Dental: 1.1 Manage Member Enrollment, 1.2 Manage Member Information, 2.1 Manage Provider Eligibility and Enrollment, 2.2 Manage Provider Information, 3.1 Receive Claims, 3.2 View Claims, 3.3 Adjudicate Claims, 3.4 Pay Claims, 3.5 Adjust Claims, 3.6 Process Encounters, 4.1 Manage Prior Authorization
System Users:	Dental providers
Integrations:	MMIS, DHEC System



iFlow — Externally Controlled System

System Name:	iFlow
System Description:	iFlow is a workflow management and automation tool with integrated document management used by BCBS developed tool to automate some of their internal processes as the business process outsourcer (BPO) of Provider Enrollment and the claims management operations for SCDHHS. The iFlow toolset is a system from Palmetto GBA providing scalable document and workflow management. For BCBS iFlow provides secure management of a variety of document types (email, faxed/scanned documents, formatted data files, and related correspondence) and supports customizable workflow management of uploading, routing, indexing, and linking of documents to enable BCBS to service the aspects of SCDHHS's provider management and claims processing needs outsourced to BCBS.
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Business Owner: Nick Constantino
Supported Capabilities:	BCM: 2.2 Manage Provider Eligibility & Enrollment and 3.1.2 Receive "Paper" Claims
System Users:	BCBS (MCCS), SCDHHS (DOC, BPSS)
Integrations:	Provider Enrollment Portal, MMIS

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Magellan (PBM/PASO by Prime Magellan) — Externally Controlled System

System Name:	Magellan
System Description:	System used by Magellan to process Pharmacy benefits for the Medicaid population as well as handle drug rebates on behalf of the state
Vendor Key Personnel:	[redacted]
SCDHHS Key Personnel:	Cheryl Anderson — cheryl.anderson@scdhhs.gov Dr. Wessinger — kevin.wessinger@scdhhs.gov Brandie Crider — brandie.crider@scdhhs.gov
Supported Capabilities:	Pharmacy Prior Authorization, Pharmacy Claim Processing, Drug Rebates
System Users:	SCDHHS FFS Pharmacy Benefit Management staff
Integrations:	MMIS, SCEIS

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SCEIS — South Carolina Enterprise Information System

System Name:	External System Example
System Description:	The South Carolina Enterprise Information System (SCEIS) is a centrally hosted SAP implementation including several SAP modules, used by various SC state agencies. SCEIS provides enterprise functions for financial management and processing and a variety of human resources and administrative functions, this description relates only to the financial functions. The SCEIS SAP implementation is current on-premise ERP Central Component (ECC) with a major upgrade to S4/HANA in the immediate future. This system provides all financial accounting and management functions for SCDHHS including the payments of FFS claims to providers and premiums to managed care plans.
Vendor Key Personnel:	NA
SCDHHS Key Personnel:	Jenny Shealy
Supported Capabilities:	BCM: 2.2 Manage Provider Information, 3.3 Adjudicate Claims, 3.5 Pay Claims, 3.6 Update Paid Claims, 3.9 Execute Gross Level Adjustment, 4.2 Manage Case Management, 5.0 Manage Finances, 6.2 Manage Vendors
System Users:	Office of Provider Services, Office of Claims Resolution, Office of Support Services, *Office of Claims Resolution, Office of Research and Analysis, Office of Administration and Chief Compliance Office, Office of Appeals and Hearings* DHHS financial management and accounting teams, the Department of Administration and financial departments of many SC state agencies
Integrations:	Those critical to Medicaid Claims and Payment processing include: MMIS and IRS

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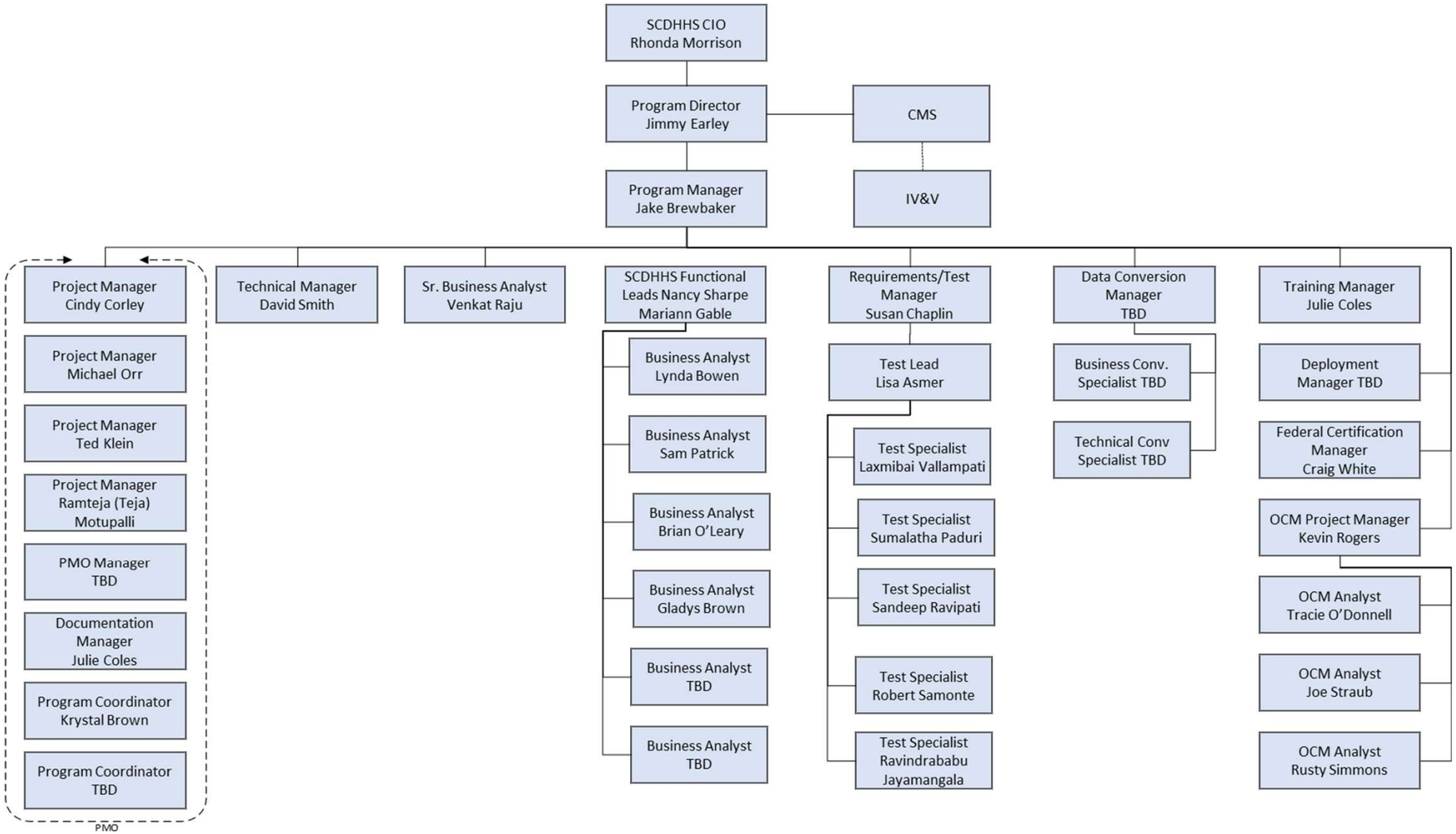
Current State Assessment: DASH Overview

Current SCDHHS DASH Organizational Structure



DASH Current Responsibilities

Strategy

- Development and execution of a strategy and approach for MES module / solution or services procurements
- Procurement of vendors to lead MES module / solution or services procurement planning projects
- Coordination with DHHS staff for development of Federal funding requests (Advanced Planning Document — APD)
- Management of the Federal certification process, as applicable

Project Management

- Project Management of planning projects — including requirements and RFP development, business analysis, documentation management, and vendor management
- Project Management of MES solution development projects, as applicable
- Management of MES solution testing and project data conversion processes, as applicable
- Coordination with DHHS functional areas for SME support and participation

OCM and Training

- Organizational Change Management (OCM) for planning and solution development projects
- Training coordination for DASH projects

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