

***“CHAMPS” MMIS GAP ANALYSIS AND IMPLEMENTATION
PROPOSAL FOR HIPAA 5010, ICD 10 CODE SET
EXTENSIBILITY AND ELECTRONIC HEALTH RECORD
INCENTIVE PROGRAM ADMINISTRATION AND
COORDINATION***



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June 11, 2010

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***CNSI MMIS Gap Analysis and Implementation Proposal
For HIPAA 5010, ICD 10 Code Set Extensibility and Electronic
Health Record Incentive Program Administration and Coordination
For
State of Michigan Community Health Automated Medicaid Processing
System
June, 11, 2010***

Accepted by:

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Revision History

Revision Owner	Date	Description	Change Summary
Sharif Hussein	3/19/2010	Incorporate EHR Implementation Approach	Add EHR Tasks and Cost
Sharif Hussein	3/24/2010	Revise Cost Breakdown	Define Cost by State Fiscal Year
Sharif Hussein	5/27/10	Clarify Assumptions	Define Work Scope
Sharif Hussein	6/11/10	Revise Based on Discussion with State	Revised Cost Estimate after State Discussion
Sharif Hussein	6/22/2010	Revise Based on Discussion with State	Revise Cost Calculation

1. Introduction

To ensure that the State of Michigan complies with the Federal mandated directive of having completed all HIPAA 5010 migration efforts by January 1, 2012, the State requested a proposal from CNSI to incorporate HIPAA 5010 transactions into CHAMPS, and to include ICD 10 code sets building blocks for a subsequent migration.

Therefore, CNSI is pleased to present this fixed cost proposal to implement HIPAA 5010 transactions, undertake the ICD 10 code sets extensibility planning and incorporate the Electronic Health Record (EHR) Incentive Program Administration and Coordination within the current CHAMPS system. These project initiatives will be undertaken at the direction of the Medical Services Administration within the Department of Community Health. The Medical Services Administration is the designated single state agency for Medicaid in the State of Michigan.

To undertake this project, CNSI understands that the project team must have a wide variety of skills and abilities to understand the HIPAA 5010 regulations and transactions, the migration activities required from the HIPAA 4010A to 5010, and the required activities to prepare the State of Michigan for a smooth transition to the ICD 10 transaction codes needed. In addition, the CNSI team will have the required understanding and skills to incorporate the EHR needs within the existing CHAMPS system.

In this proposal, CNSI will demonstrate that our team possesses the skills, approach, methods, and experience needed to assist the State in complying with the stated date for HIPAA 5010 implementation requirements. We will detail how CNSI proposes to assist the State in meeting its objectives in a timely and complete manner.

Moreover, CNSI's project team provides the added advantage of having been part of the CHAMPS design, development and implementation process. That in-depth knowledge of the CHAMPS system will ensure that immediate focus on the phases and activities required for the project will be provided, rather than taking valuable time away from the project to learn and understand the CHAMPS system.

CNSI not only understands the technical impact of these transaction changes but has a subject matter expertise of resources to assess the potential impact on business rule changes across the different process areas. Further CNSI's active engagement in the operations of the MMIS also provides it a unique perspective on the impacts of these changes to the provider community. One of the underlying needs of such a transition is to support multiple versions concurrently in production. eCAMS the core solution platform of CHAMPS is fundamentally designed to support multiple versions of the transaction set. As a result, CNSI is uniquely qualified to understand and perform Michigan's upgrade to the 5010 standard.

We Understand Your Needs

On January 16, 2009, The United States Department of Health and Human Services enacted the rule for adopting X12 Version 5010 for HIPAA transactions.

The compliance dates for Version 5010 for all covered entities, is January 1, 2012, which should provide the industry sufficient time to test the standards internally to ensure that systems have been appropriately updated, and then to test with trading partners before the effective compliance date. In addition, the Department of Health and Human Services (HHS) announced in August 2008 that it is transitioning the

health care industry to the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) and the International Classification of Diseases, Tenth Revision, Procedural Classification System (ICD-10-PCS) for coding and billing. The implementation was originally set to be by October 1, 2011. However, the Centers for Medicare and Medicaid Services (CMS) extended the implementation date of ICD-10-CM into the HIPAA mandated code set to October 1, 2013.

The accepted final rule will incorporate updated versions of the standards for electronic transactions originally adopted under the Administrative Simplification Subtitle of the Health Insurance Portability and Accountability Act of 1996.

Moreover, CMS has announced a proposed rule to implement the provisions of the American Recovery and Reinvestment Act of 2009 (Recovery Act) that provide incentive payments for the meaningful use of certified Electronic Health Record (EHR) technology. The Medicaid EHR incentive program will provide initial incentive payments to Eligible Professionals (EPs) and hospitals for efforts to adopt, implement, upgrade or meaningfully use certified EHR technology or for meaningful use, and incentive payments in subsequent years for meaningful use.

The contents of this proposal address CNSI's approach to implementing the 5010 transactions, ensure ICD 10 extensibility is provided for, and accommodate the Provider registration capacity for the HER requirement. Section 2 of this proposal documents the approach CNSI will employ in executing all the required tasks for a successful implementation..

1.1 Current State of eCAMS and CHAMPS

Since becoming partners in 2006, CNSI and the State of Michigan have collaborated closely and successfully to replace the State's aging legacy MMIS. With an aggressive initial implementation target of 21 months, it was necessary for the project to make several timing adjustments between 2006 and the present as circumstances required. The resulting four year partnership has yielded an impressive list of accomplishments that include the successful deployment of five major releases as follows:

- Provider Web Portal
- Document Management System
- Provider Enrollment application and portal
- Managed Care and Fee for Service Processing
- Special Payments

The original timeline is depicted below in Figure 1-1 along with the ensuing schedule adjustments over the past four years (Figure 1-2):

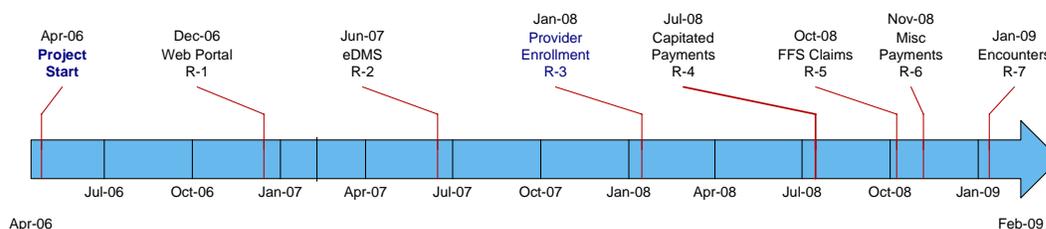


Figure 1-1. Original Timeline for CHAMPS Implementation

Subsequent schedule adjustments were rolled out as follows with the following four contract amendments:

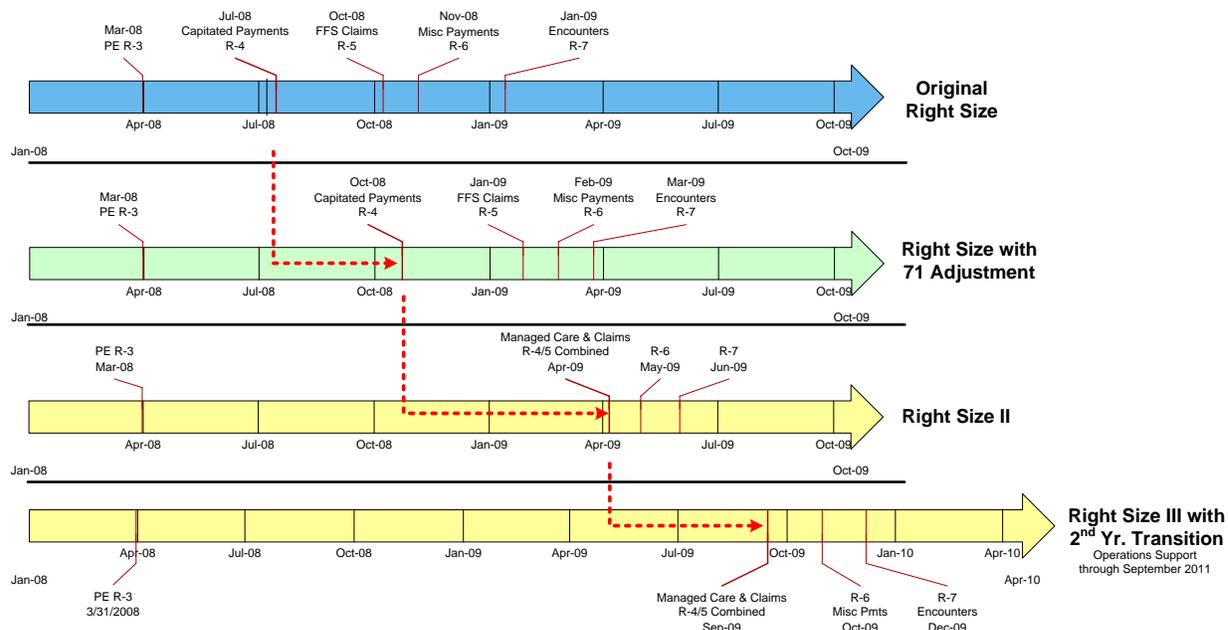


Figure 1-2. Revised CHAMPS Implementation Timeline

As HIPAA 5010 is about to ramp up, the final release in the original scope of work is close to being complete. Encounters functionality was planned for release in December 2009 but has since been adjusted out to April 2010 to accommodate additional business-to-business testing.

As it relates to HIPAA compliance standards, CHAMPS has implemented all HIPAA transactions (837 P/I/D, 270, 271, 276, 277, 820, 834, 835) as 4010A compliant. Encounters Processing is projected to go into production in April 2010. Once in production, encounter transactions will also be HIPAA 4010A compliant.

At the core of CHAMPS HIPAA processing is CNSI’s eCAMS 2.0 solution platform, which has been integrated with COTS tools for the State of Michigan implementation.

The implementation of HIPAA 5010 involves assessing the following areas:

- Changes in the implementation of the EDI Gateway services.
- Assessing the impact of usage changes around elements such as NPI, etc to the underlying business processes (provider management, claims adjudication, prior authorization).
- Identifying the usage of new elements and segments for improved accuracy of claims adjudication, while ensuring higher data quality and consistency of transactions across the different processes.

The current CHAMPS implementation conducts validation and translation of the HIPAA 4010A compliant inbound transactions as well as 4010A compliant outbound transactions. CNSI has also begun internally the exercise to analyze and identify changes required in the underlying eCAMS solution platform to enable 5010 transaction processing. Having built eCAMS and customized CHAMPS for the

State of Michigan’s needs, CNSI has already begun to identify the requirements to enable the new 5010 transaction.

Figure 1-3 illustrates the centrality of eCAMS to CHAMPS.

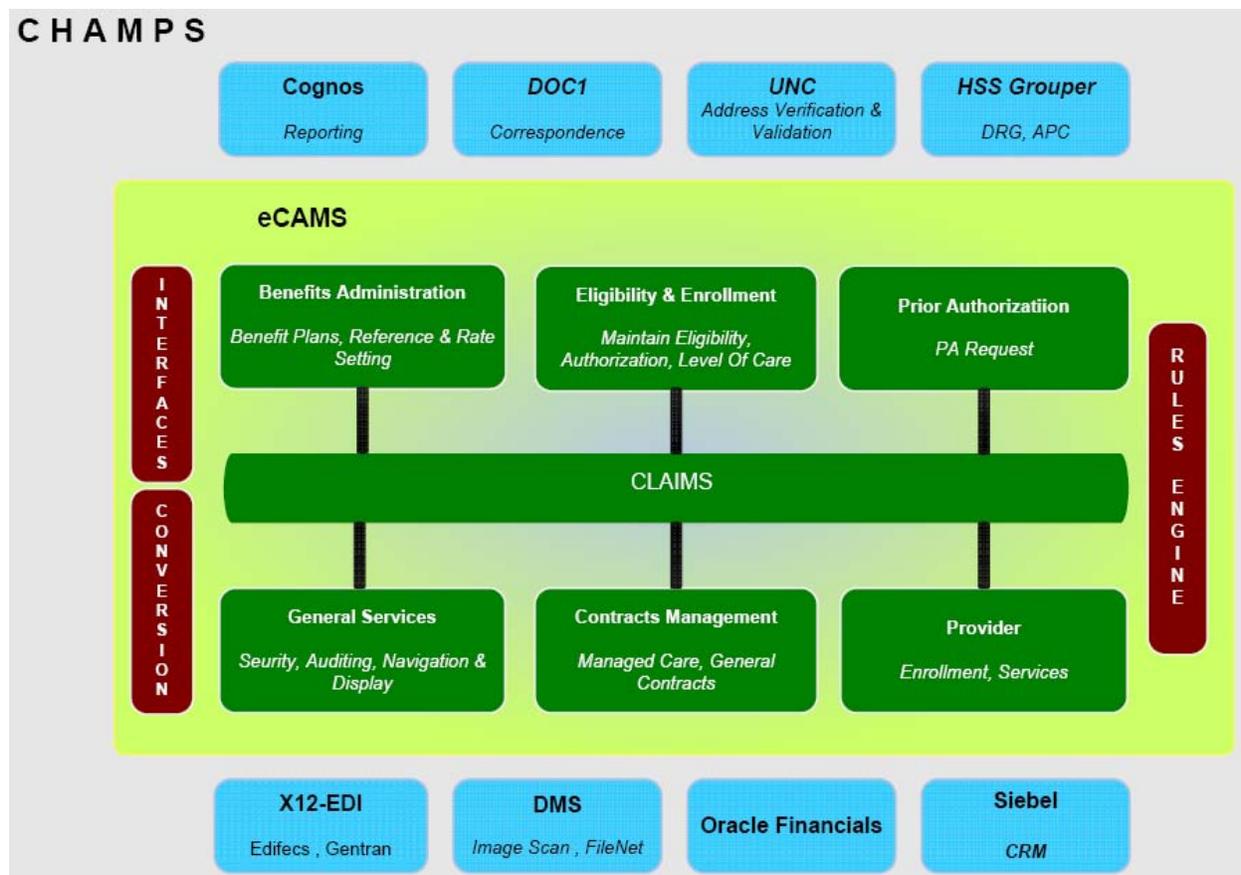


Figure 1-3. Centrality of eCAMS to CHAMPS

1.2 Regulatory and Business Drivers for Change

The enacted rule for adopting 5010 incorporates two standards for billing retail pharmacy supplies and professional services, and clarifies who the “senders” and “receivers” are in the descriptions of certain transactions. The improved eligibility responses will increase efficiency for providers and reduce the time it takes to provide services by both providers and health plans.

Approximately 850 changes between Version 4010/4010A and Version 5010 have been indentified and will require analysis for potential implementation.

The detailed clarifications available within 5010 of commonly misunderstood areas such as corrections and reversals, refund processing and reimbursements will result in a consistent implementation of the X12, 835 Remittance Advice (RAs). With the adoption of the correct implementation of the X12,

835RAs will reduce phone calls to health plans, reduce appeals due to incomplete information, eliminate unnecessary customer support, and reduce the cost of sending and processing paper remittance advices.

Moreover, the greatly improved X12 278 for Referrals and Authorizations would encourage wider implementation and save valuable resource time otherwise spent.

The new Claims transaction standard contained in Version 5010 significantly improves the reporting of clinical data, enabling the reporting of ICD–10–CM diagnosis codes and ICD–10–PCS procedure codes, and distinguishes between principal diagnosis, admitting diagnosis, external cause of injury and patient reason for visit codes. These distinctions will improve the understanding of clinical data and enable better monitoring of mortality rates for certain illnesses, outcomes for specific treatment options, and hospital length of stay for certain conditions, as well as the clinical reasons for why the patient sought hospital care. Another improvement in the updated claims standard is the ability to handle identification of the “Present on Admission” (POA) indicator to the diagnoses.

Additionally, the X12 270/271 Eligibility transaction will require a more detailed response with less information supplied, which will require a major modification effort to the existing data bases.

Figure 1-4 depicts a summary of anticipated changes from 4010A to 5010 by transaction type. Please note that not ALL changes will be applicable to the needs of the State of Michigan. These changes will be defined during the Gap Analysis task. Please note that Type 3 Technical Reports rule, which will also be addressed as part of our changes, addresses adoption of the Accredited Standards Committee (ASC) X12 005010 for healthcare transactions and the National Council for Prescription Drug Programs (NCPDP) Version D.0 for pharmacy transactions.

HIPAA Transactions	X12 Transactions	Type3 Technical Reports	Change Volumes
Enrollment	834	220	117
Premium payments	820	218	23
Eligibility & Benefits	270 & 271	279	143
Authorization	278	217	277
Claims - Professional	837	222	265
Claims - Institutional	837	223	152
Claims – Dental	837	224	190
Claims Inquiry	276 & 277	212	76
Remittances	835	221	88
Total			1331

Figure 1-4. Anticipated Changes from 4010A to 5010 by Transaction Type

In addition, as previously stated, CMS proposed rule allowed for incentive payments to EPs and hospitals, however to receive the payment through the program they need to meet the defined criteria to become eligible to participate.

The following section provides a quick overview of the seven topics that are the provisions of the current Medicaid proposed rule that would be incorporated into CHAMPS:

- 1 Eligibility: This rule section defines the eligible professionals (EPs) and eligible hospitals that may participate. EPs are physicians, dentists, nurse practitioners, certified nurse midwives, and physician assistants practicing predominantly in a Federally Qualified Health Center or Rural Health Clinic (FQHC/RHC) that is directed by a physician assistant. Eligible hospitals that may participate are acute care hospitals and children's hospitals;
- 2 Payments: This rule topic addresses payment amounts, the basis for payments, and the process for making payments including that there must be no duplication with Medicare for EPs; EPs can receive up to \$63,750 over the six year period; pediatricians with Medicaid patient volume between 20 percent to 29 percent of their total patient volume can receive two-thirds of the maximum amount, and hospital payments are based on a formula outlined in the statute;
- 3 Adopting, implementing, or upgrading certified EHR technology: This rule topic discusses that providers in their first year of participation in the Medicaid incentive payment program may qualify for an incentive payment by demonstrating any of the following: that they have adopted (that is, acquired and installed), implemented (that is, trained staff, deployed tools, exchanged data) or upgraded (that is, expanded functionality or interoperability) a certified EHR. It also describes the methodology for demonstrating adoption, implementation and upgrading, and the requirements for monitoring these activities;
- 4 Demonstrating meaningful use of EHR technology: This rule topic proposes a shared minimum definition of meaningful use with Medicare. It also discusses how clinical quality measures reporting are to be submitted to the states by Medicaid providers, such as via attestation or electronically via EHRs;
- 5 Conditions for Federal financial participation (FFP) for states: This rule topic specifies the prior approval conditions that must be met in order to receive FFP (90/10) for reasonable administrative expenses;
- 6 Financial oversight/combating fraud and abuse: This rule topic provides the need for oversight for the states to fight fraud and abuse, including ensuring that there is no duplication of payment between the Medicare and Medicaid programs. This rule topic addresses the need of recoupment of monies if overpayments or erroneous payments are found to have been paid.

1.3 CNSI Capabilities

Our approach for conducting this project is based on our extensive knowledge of CHAMPS design, implementation and operation since CHAMPS became operational. As system developers and integrators, we align our clients' business processes and information systems to allow them to access the right information at the right time, empowering them to achieve their desired business results and create enterprise value. Our professionals have extensive industry and technology experience and flexible tools and methodologies to deliver on time and on budget. We get the job done for our clients by delivering on our promises with speed and purpose in accordance with the client's specifications and expectations.

Our approach in undertaking the HIPAA 5010 implementation project will be to build upon our extensive knowledge derived in implementing CHAMPS for the State of Michigan and our on-going effort to support the operation of CHAMPS. We will work collaboratively; with the state's business and technical personnel. We envision continuing the joint effort between CNSI and the State of Michigan that will allow us to improve the efficiency of the business in defining the required HIPAA 5010

mapping. Our holistic approach to undertaking this project will be based on our proven methodology as the over arching framework and to bring an experienced team of program management, HIPAA subject matter experts, technical expertise and change management resources to support this planned undertaking.

This wealth of experience has led us to incorporate the following factors in developing this proposal:

- **CNSI's capability to conduct complex analysis of Medicaid system requirements**

Above all else, the automated CHAMPS system is a multifunctional MMIS information system, which integrates all Medicaid activities into one complete system. As such, the existing CHAMPS (designed, developed and implemented by CNSI) specification and required HIPAA 5010 transaction sets will necessitate a gap analysis process that will demand experienced and skilled individuals. CNSI is positioned to take advantage of the vast knowledge it accumulated during the CHAMPS implementation process to ensure that, that experience is carried over to the proposed HIPAA 5010 implementation solution, planned ICD 10 Code Set extensibility and the Electronic Health Record Incentive Program Administration .and Coordination CHAMPS incorporation effort.

Our project team's wealth of experience within the State of Michigan's Medicaid program will allow it to efficiently ramp-up requirements analysis activities and data gathering for integrating the three required enhancement efforts (HIPAA 5010 transaction sets, ICD 10 Code Set extensibility, EHR) with CHAMPS without spending significant time orienting to the existing business and system environments.

- **CNSI's capability to identify major issues and constraints associated with CHAMPS and 5010 upgrades and EHR stated requirements;**

The prompt identifications of major issues and constraints are an essential component of a project of this scope, and are particularly important in a systems requirements, analysis and implementation project of this nature. This identification of major issues and constraints external to the system such as strategic objectives, software / hardware constraints, migration anomalies from 4010 to 4010A to 5010, and most of all, the required prerequisite for ICD 10 adoption will be instrumental to the successful completion of this undertaking. Moreover, the need to adopt EHR Incentive Program Administration and Coordination within CHAMPS will also be addressed and completed. By devoting careful attention to identifying and resolving issues affecting the implementation of the all required project components in a timely manner, we will be able to focus efforts on the most critical requirements of the migration process to CHAMPS that will have the greatest return for the State and users at all levels.

- **CNSI's sensitivity to the State of Michigan's needs and constraints;**

Any project of this magnitude must be viewed, by its very nature, as an evolutionary process. As the project progresses, new ideas and requirements for the HIPAA 5010 implementation phase will emerge, and findings in an area will dictate further investigation in another area. Therefore, it is essential to the successful completion of this project, that we retain sensitivity to the State's needs in defining the 5010 and ICD-10 code set extensibility needs, and employ an orderly, structured, professional approach that is sufficiently flexible to respond to changes in requirements that grow from additional understanding. Some of these needs and constraints could address the business transformation process within the various departments to realign the business processes of specific functions. To ensure that no major

disruptions take place, we will examine alternatives and recommend approaches to ensure business continuity.

■ CNSI's technology roadmap for eCAMS

As a major business line, CNSI has already begun to update its Medicaid technology with significant investments in updates to its eCAMS solution that will add capabilities that support the new HIPAA 5010 and ICD-10 standards and integrate the EHR system components.

Overall, CNSI has practical "hands-on" sense of what works and what does not work, in addition to knowing the State's operational environment as a result of our ongoing effort with implementing CHAMPS. Moreover, we can relate our previous experience directly to concrete examples. Our technology road map was formulated with the strategy and foresight that changes to existing technology will take place. New federal and regulatory requirements would be introduced to safeguard the privacy of the patients and adopting a global standardized code set. As such, we have embarked on formulating a strategy that would address these forthcoming requirements. Figure 1-5 depicts the strategy underway formulated by CNSI to expand eCAMS to accommodate both HIPAA 5010 requirements and the ICD 10 code sets.

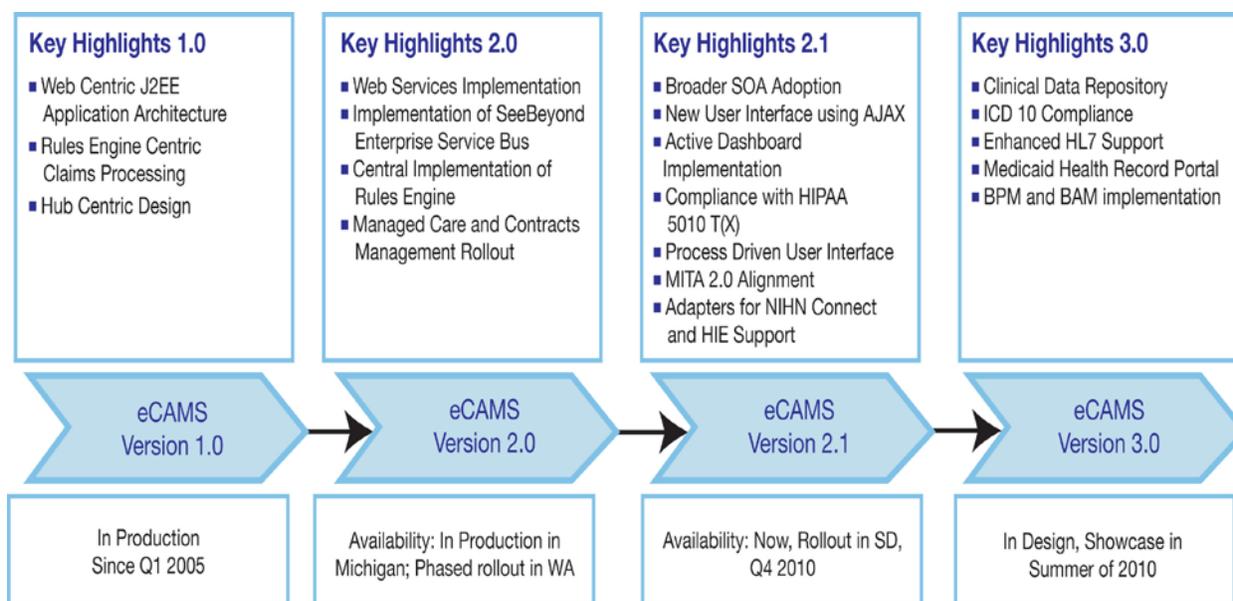


Figure 1-5. eCAMS Roadmap for Incorporating HIPAA 5010 & ICD 10

1.4 Proposed Project Organization

We believe that our proposal submission represents the best possible combination of architecture, technology, support and experience to undertake this important project. The proposed project team members as depicted in Figure 1-6 each represent the best possible member of their respective disciplines. The underlying logic for this particular grouping of individuals:

- They each share the same philosophical approach for undertaking this project - **the customer comes first**;

- They each understand the value that the others bring to the successful implementation of the project;
- They each share a total commitment to understanding and incorporating the state's specific requirements - not just the technologies, but the business needs and operational issues as well.

Our primary objective is the successful implementation and completion of the Project. We are confident in our ability to achieve that goal, since we have assembled the best combination of technology, support, project implementation skills, experience and expertise. On the following pages we introduce the composition of the Project Team.

The Customer - The State of Michigan

There is another absolutely imperative member of the project team – the customer. An effective project management plan cannot work with participation only by CNSI. **The customer must be actively engaged in the process at all levels.**

An implementation is only as good as the **partnership** established and maintained **between all parties** involved. This includes, first and foremost, the State of Michigan project team.

The success of this project is dependent on the full and active participation of the state's designated staff members from the initial planning activity, specification-setting activities all the way through testing, acceptance and final implementation.

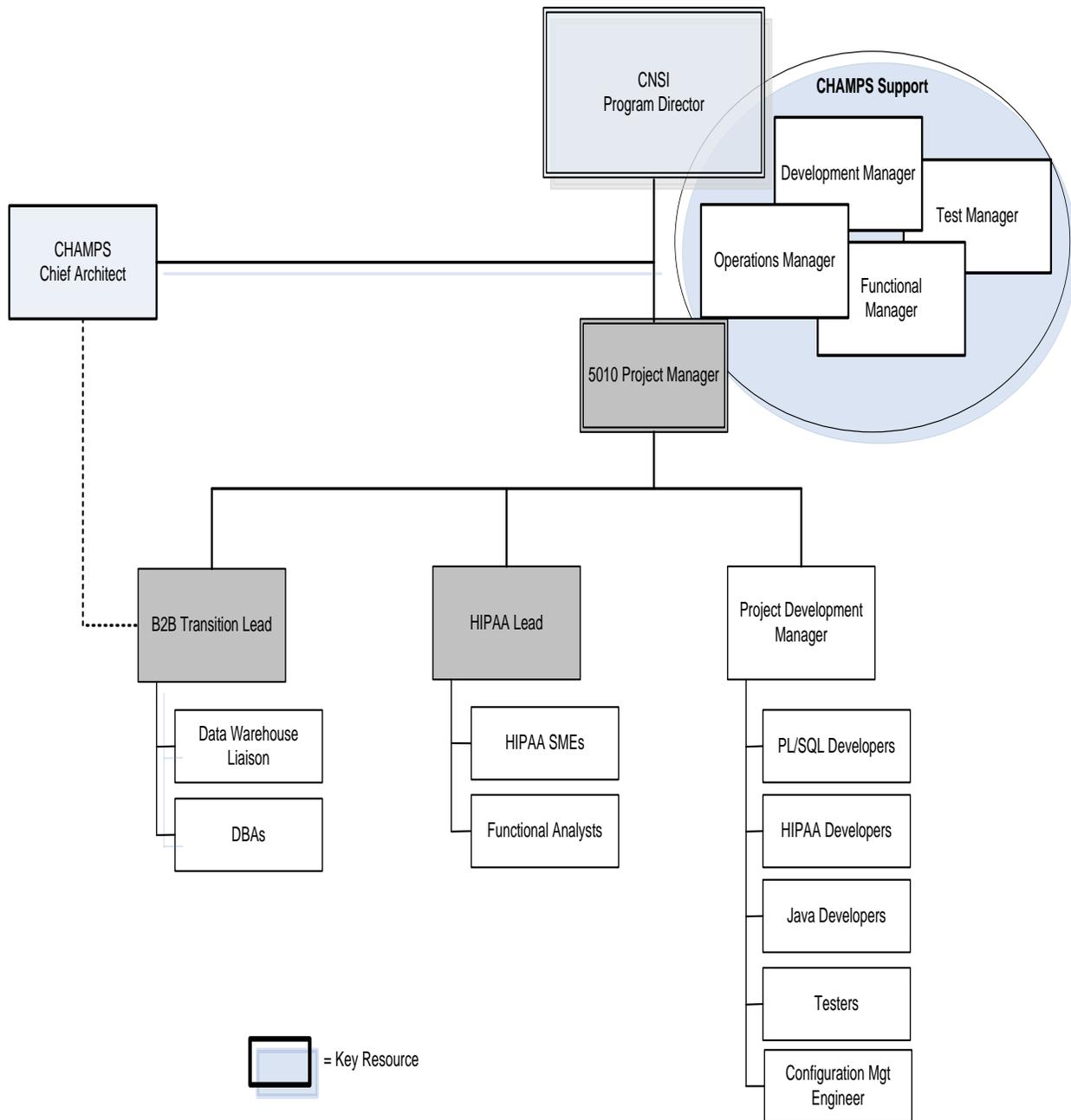


Figure 1-6. Proposed Project Organization Chart

2. Project Management, Methodology, Tools and Technical Approach

This section presents our project management approach, methodology, tools, technical approach and phase work plan for accomplishing all tasks required to implementing HIPAA 5010, formulating the strategic direction for ICD 10 implementation and the framework for incorporating the EHR Incentive Program needs. This section is intended to describe our full awareness of the entire scope of activities that must be addressed from the Project Initiation Phase through the Post Production and Stabilization Support Phase. The goal of this section of our proposal is to demonstrate to the State of Michigan our full comprehension of both technical and programmatic requirements, and the techniques and methodologies which the Project Team will employ during the conduct of this important assignment.

On the following pages we present an overview of our proposed project management approach for undertaking this project, the tools we will employ and a high level description of the four phases we envision in the conduct of this project. Within each phase, the major activities are presented and the anticipated deliverables out of each phase. This is followed by a high level description of the major milestones we anticipate encompassing the project life cycle, with expected completion dates.

2.1 Project Management Approach

CNSI recognizes that the correct implementation of the HIPAA 5010 initiative will require much more than "good planning" and "the right technical application." This large-scale transformation project contains inherent risks due to the need for extensive cooperation across internal organizational areas, the ability of a project team to work together, in addition to targeted risk mitigation activities. Our project approach contains built-in risk management activities to mitigate program risks and improve the probability of effective implementation.

The primary focus of CNSI's project management approach is to work collaboratively with DCH to ensure that the project remains on schedule and within budget, meets the defined requirements and business objectives, and consistently delivers quality in our project deliverables and overall service. Our approach also ensures roles and responsibilities are clear and resource allocations are managed efficiently and effectively by our teams throughout the project life cycle.

CNSI's approach to managing and controlling the project is based on project management fundamentals expressed in the PMBOK. Our project management processes are part of our iVision360 systems development lifecycle methodology (SDLC), presented later in this section.

CNSI considers each of the nine knowledge areas, forty-four processes and five hundred ninety-two inputs, tools and techniques, and outputs covered in the PMBOK and integrates the processes with software development life cycle as a robust, comprehensive scalable methodology that also incorporates lessons learned from our extensive experience with state and federal Project Management Offices (PMOs). Our project management (PM) and quality management (QM) methodologies are integrated with the technical processes necessary to build and deploy the required solution. This integration is accomplished through Capability Maturity Model Integrated (CMMI) processes. As part of project initiation and planning, CNSI will work with DCH to ensure that all parties agree to processes and commit to them, and they align as appropriate with the Project Plan maintained.

Project and quality management provide the overall framework and environment for executing the Project. Figure 2-1 shows our project and quality management framework, as well as how PM and QM activities interact with the activities of the other project tasks at a high level.

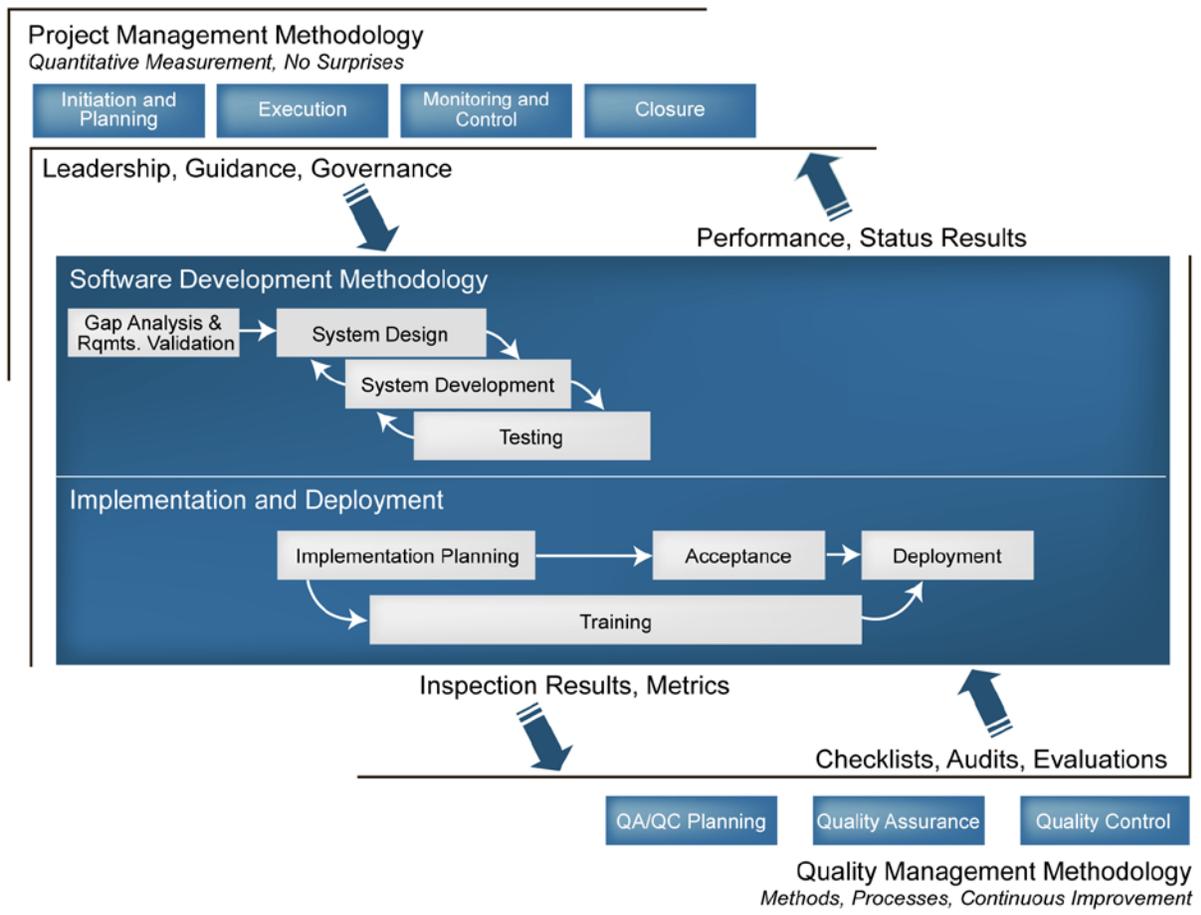


Figure 2-1. Team CNSI's Project Management and Quality Management Framework

Although all projects are unique, they do share common components or processes that are normally grouped together. The generally accepted process groups defined by the PMBOK, as incorporated into the CNSI Project Management Process are:

Initiating

This process group defines the project objectives and grants authority to proceed. For CNSI, the initiating processes are largely incorporated into the proposal development process during which any required partners are identified. The RFP acts as a project charter, and the proposal itself is the preliminary scope statement.

Planning

This process group refines the project objectives and scope; plans the tasks, activities and steps necessary to meet the project's objectives. The planning processes start during proposal development

and proceed following contract award as CNSI works with DCH to establish and base line the project management plan (PMP), and then to modify as necessary over the course of the project. The PMP is the culmination of the planning processes for scope definition and management, time (schedule), staffing (human resources), communications, and risk management.

Executing

This process group puts the project's plans into motion and performs the work of the project. For the design phase, this will include the software development methodology included in the iVision360 approach.

Monitoring and Controlling

This process group measures the performance of the project's executing activities and reports these performance results to those managing the project and project stakeholders; output is used to refine, improve and/or change project management (e.g., plan(s), schedule, etc.) as necessary to meet the project's objectives.

Closing

This process group documents the formal acceptance and approval of the project's product and brings all aspects of the project to a close.

By continually improving our project management processes via lessons learned on previous projects, and through the proficiency and continuous education of our program and project managers, senior technical and engineering staffs, and senior and corporate management, CNSI is confident it has the right methodology and project framework in place. This ensures that a number of advantages are brought to fulfillment on this project:

- Project management philosophy is firmly entrenched with the entire project team inclusive of CNSI and DCH
- Project management is a core competency
- The entire project staff is focused on making the this project succeed
- Project management, quality management and cost management processes are fully integrated and their infrastructure is in place
- Effective reporting on project status is established throughout the project life cycle
- Both project and software development methodologies are well documented
- Project staff is provided comprehensive training
- Project information is communicated continuously to the right people at the right time
- The project is continuously monitored against performance
- Quality and delivery excellence are built in
- A deliverables review and approval process is in place

Through the process of developing the Project Management Plan, CNSI expects to collaborate with the DCH project management team to further customize CNSI's project management system to achieve success for the project.

2.2 Project Methodology

Our holistic approach to undertaking this project will be based on our proven Methodology as the overarching framework and bring an experienced team of program management, HIPAA subject matter experts, technical expertise and change management resources to support this planned undertaking.

The project methodology is a framework that facilitates the integration of our extensive system experience that is rooted in application implementations, methodologies and delivery tools. It provides the framework that allows us to deliver services to our clients consistently across our footprint, to gather continued enhancements for our supporting methodology and thereby provide continued value for our clients.

Our methodology is a combination of some of our best delivery assets into one integrated methodology. It provides:

- A scalable integrated collection of assets.
- Consistent level of detail and presentation.
- Support tailoring to scale, to provide a unique but consistent cost effective delivery approach for the State of Michigan.

Our methodology provides a consistent and flexible approach to address the following:

- The Manage work approach, which provides a single, consistent approach to managing our engagements. Within the Manage work approach is the Quality Management sub-work activity that provides the vehicle for verifying that deliverables and processes meet requirements. It is also the purpose of Quality Management to support continuous process improvement for the State of Michigan as well as the methodology.
- The Life Cycle work approach that address unique expertise while providing overall integration across the full HIPAA 5010 and EHR engagement life cycle.
- The flexibility to be adapted to meet the State of Michigan's unique requirements, while confirming that our experienced staff members follow our established practices.
- The ability to integrate additional application and technology specific requirements to further enhance the quality and speed of our delivery.

While no two engagements are the same, the State of Michigan expects us to deliver with a consistent and methodical approach. The proposed project methodology incorporates our staff's delivery experience with CHAMPS into a single integrated approach. It provides the structure for integrating our capabilities, while allowing individual project teams the flexibility to use client-mandated tools.

Our methodology abstracts the specifics of technologies and techniques. The right assembly of technologies, techniques and deliverable processes requires specific experience and expertise found in our staff. Time invested in an effective plan with clear objectives has repeatedly shown to be a key to effective execution. Our methodology provides a structured approach to the planning process. While this may appear to require more initial effort than desirable, experience has shown that following these processes will reduce the likelihood of planning mistakes, and result in lower risk and more cost effective rapid delivery.

Moreover, our methodology incorporates a consistent approach for identifying and then tracking and measuring the value derived from ongoing projects. Incorporated primarily in the project strategy and planning activity, are these activities which are based on our experience developing and delivering CHAMPS to the State of Michigan.

In undertaking this project, CNSI will employ its iVision360 system development life cycle (SDLC) methodology. In Figure 2-2, we present a graphic representation of our iVision360 standardized approach for DDI software development projects. This standardized approach, and the processes it contains, will form the baseline for the HIPAA 5010 and EHR project implementation approach we are proposing.

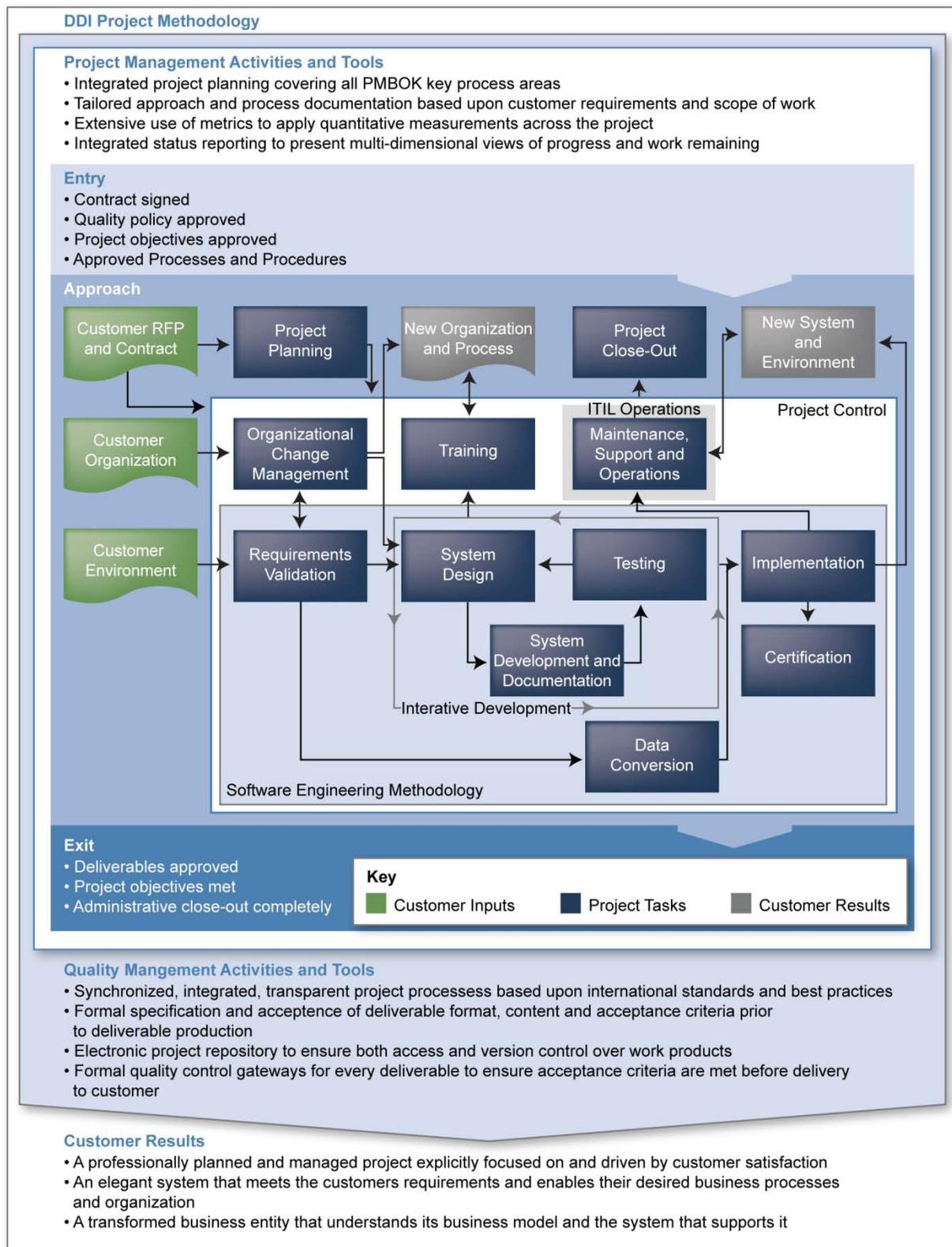


Figure 2-2. Methodology for the Project

As previously indicated, CNSI’s iVision360 is a unique blend of the waterfall methodology, iterative agile development, and rapid prototyping, and offers the following benefits:

- **User is at the Center.** Our primary motivation in developing iVision360 is to put the user at the center of the entire life cycle. Software projects succeed or fail largely from the level of understanding the developing organization has regarding the customer’s business rules, requirements, and needs. The more insight the developing organization can develop, the greater the quality and likelihood of success of the software project. Successful projects have high interaction with end users and it places the user at the center of the development life cycle. So every phase and task of iVision360 focuses on interaction and collaboration with the user community. We do this by implementing agile techniques and building working software in an iterative fashion with user validation periodic intervals.
- **Common Goals.** Users actively participate in design sessions with an integrated team of developers, analysts, and testers. This method avoids the pitfalls of waterfall development and test methods which leave, for example, test case refinement and execution until the full completion of development. In addition, it provides the team with a sense of purpose, goal, and drive to accomplish the end objective – software that meets the requirements.
- **Early and Often Testing.** It also provides an opportunity to test early and often so that the formal system and subsequent test phases are more likely to meet schedule expectations with a lower error discovery rate.
- **Prototyping to Reduce Complexity.** Prototypes are developed where necessary (if applicable on this project) to model and present complex interactions.

The collaborative and somewhat “free form nature” of iterative, agile development is balanced with the structure and baseline management features of the waterfall methodology. By introducing the baseline management features of waterfall, we minimize the risk of scope creep that is sometimes associated with iterative development. Moreover, implementing and integrating with our project management processes will provide integrated change, issue, and risk management processes. Figure 2-3 describes the key benefits of each industry standard methodology that are blended into iVision360.

Methodology	Key Benefits Blended into iVision360
Waterfall	<ul style="list-style-type: none"> ■ Baseline approval of requirements ■ Structured documents and customer approvals ■ Formalized testing
Iterative/Agile	<ul style="list-style-type: none"> ■ Frequent customer interaction ■ Decomposing work into small meaningful features that is presented in working software ■ Frequent course corrections ■ Sense of real progress ■ Early and frequent testing
Rapid prototyping	<ul style="list-style-type: none"> ■ Reduce risk by visualizing complex features ■ “Picture is worth a 1,000 words” ■ Immediate sense of progress
Extreme programming	<ul style="list-style-type: none"> ■ Teams formed between developing organization and customer ■ Sense of common vision and goal

Figure 2-3. SDLC Methodology Comparison

As with most methodologies, iVision360 organizes all of the tasks associated with building and testing software into major phases. These phases represent major bodies of work that must be accomplished to move systematically through the life cycle. Figure 2-4 describes the phases of iVision360.

Phase	Major Activities	Key Artifacts
Planning	<ul style="list-style-type: none"> ■ Finalize plans for the project ■ Develop deliverable expectation documents ■ Establish project monitoring and control environment 	<ul style="list-style-type: none"> ■ Deliverable expectation documents for each formal deliverable ■ Project Management Plan/Software Development Plan ■ Project work breakdown structure (WBS) and schedule ■ Lessons learned
Orientation	<ul style="list-style-type: none"> ■ Train project team on processes and expectations ■ Set “rules of engagement” ■ Conduct kickoff meeting 	<ul style="list-style-type: none"> ■ Boot Camp Plan and report ■ Updated project schedule ■ Lessons learned
Requirements definition and analysis	<ul style="list-style-type: none"> ■ Conduct discovery period ■ Conduct preparation and establish schedule ■ Conduct requirements discovery and architecture reviews ■ Conduct Requirements Validation (RV) sessions ■ Ensure common understanding of requirements ■ Establish requirements traceability 	<ul style="list-style-type: none"> ■ Requirements validation document ■ Requirements traceability matrix ■ Initial use case listing ■ Lessons learned
System design and development	<ul style="list-style-type: none"> ■ Perform architecture development ■ Establish enterprise architecture alignment ■ Perform iteration planning ■ Perform iterative design, development, and testing ■ Conduct technical reviews ■ Perform source code management ■ Develop user manuals and online help 	<ul style="list-style-type: none"> ■ System architecture models ■ Iteration Plan ■ General system design document ■ Detailed system design documents ■ Interface design document ■ Software ready to test ■ Test plans ■ Test cases and procedures ■ Requirements traceability matrix ■ Lessons learned ■ User manual
Integration and system testing	<ul style="list-style-type: none"> ■ Perform systematic testing once iterative design and development is completed ■ Maintain requirements traceability ■ Develop test scenarios, cases, and data ■ Automate test cases where possible 	<ul style="list-style-type: none"> ■ Integration test results ■ System test results ■ Tested software ■ Automated test Cases ■ Acceptance test Cases ■ Requirements traceability matrix ■ Lessons learned
Conversion	<ul style="list-style-type: none"> ■ Begin the process from “day one” ■ Conduct proactive planning and analysis ■ Perform various steps in process: source identification, conversion analysis, data clean up, mapping and rules, execution, and validation 	<ul style="list-style-type: none"> ■ Conversion Plan ■ Conversion specifications ■ Data quality report ■ Conversion test validation ■ Converted data ■ Lessons learned
Acceptance testing	<ul style="list-style-type: none"> ■ Provide support while customer executes tests ■ Develop final requirements traceability matrix 	<ul style="list-style-type: none"> ■ Acceptance test results ■ Requirements traceability matrix ■ System documentation

Phase	Major Activities	Key Artifacts
Deployment and implementation	<ul style="list-style-type: none"> ■ Create bill of materials for management and tracking ■ Conduct operational readiness review ■ Work with the State to implement the system configuration ■ Follow checklist-driven processes ■ Perform post implementation review 	<ul style="list-style-type: none"> ■ Operational readiness checklists ■ Implementation checklists ■ Lessons learned
Training	<ul style="list-style-type: none"> ■ Plan early ■ Re-use existing training materials ■ Establish training environment ■ Conduct training sessions 	<ul style="list-style-type: none"> ■ Training materials ■ Training results ■ Lessons learned

Figure 2-4. iVision360 Phases and Artifacts

There are also supporting activities that cut across each of the phases described in Figure 2-4. These are described in Figure 2-5.

Supporting Task	Major Activities	Artifacts
Configuration management	<ul style="list-style-type: none"> ■ Support change management ■ Perform configuration identification, control, and status reporting ■ Provide baseline management 	<ul style="list-style-type: none"> ■ Configuration Management Plan ■ Configuration status reports ■ Release notes
Data model support	<ul style="list-style-type: none"> ■ Develop scripts to maintain standard data in the system's databases ■ Develop scripts to maintain the data structure for the system's databases 	<ul style="list-style-type: none"> ■ Data modification scripts ■ Schema modification scripts ■ Logical and physical data model ■ Data dictionary
System and data administration	<ul style="list-style-type: none"> ■ Maintain servers and configuration ■ Establish and maintain connectivity between sites ■ Manage database configurations ■ Lead performance improvement initiatives 	<ul style="list-style-type: none"> ■ Performance Testing Plan ■ Performance test results ■ System configuration information ■ Database configuration information

Figure 2-5. iVision360 Supporting Activities and Artifacts

2.3 Project Management Tools

Tools, properly applied within the methodology framework will reduce the time to project completion by providing predefined processes, templates, documents and training materials. More importantly, the use of appropriate tools helps reduce risk and increases the benefits from the project.

It is also important to note, that while we will utilize a complete toolset to reduce time to completion and mitigate risk, we are also open to using tools with which the State of Michigan has internal knowledge and experience.

Figure 2-6 depicts the tools CNSI will be utilizing on the project.

Tool	Purpose
ReqTrace	CNSI's requirements database used during RV sessions, design and test.
Microsoft Visio	Develop use case diagrams, technical architecture diagrams, and support process flows
Microsoft Office	Develop deliverables, presentations, and spreadsheet artifacts needed to support our deliverables
As-One	Repository for deliverables, presentations, and artifacts.

Figure 2-6. CNSI Project Tools

While Microsoft Visio and Microsoft Office are industry standard tools, the following provides additional information about ReqTrace and As-One.

ReqTrace

CNSI will use our ReqTrace database application for requirements analysis and validation.

During project initiation and requirements planning, ReqTrace will be loaded with the functional, technical, and support requirements. ReqTrace is CNSI's requirements management tool of choice that is being used in our MMIS projects. ReqTrace has the capability for storing several attributes for each requirement, revisions, notes, and comments.

CNSI began the use of ReqTrace with the CHAMPS project. The requirements validation processes used on the project as well as the use of ReqTrace resulted in the requirements validation phase being completed ahead of schedule.

As-One

Believing that continuous collaboration and information sharing are key factors to successful project execution, CNSI will use our web-based enterprise program management solution, As-One. As-One is designed to support team collaboration, knowledge management, and process improvement, as shown in Figure 2-7 As-One will provide a convenient repository for all program data, and will give DCH oversight personnel direct visibility into project performance.

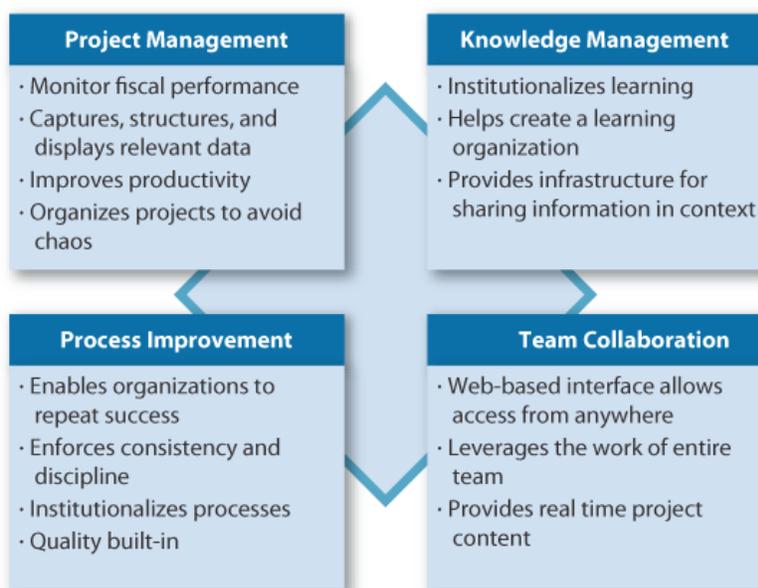


Figure 2-7. As-One fosters team collaboration and continuous process improvement

As-One is an “out-of-the-box” solution that supports CNSI’s program management philosophy – experienced People, managed Processes, and enabling Technology. As shown in Figure 2-7

As-One will allow CNSI and DCH users to share real-time data specific to the user’s authority and association. Using a web browser, each As-One user will enter the portal through a My Workspace page that will be customized to present a view of the most relevant information for that user. Users can always “drill down” to obtain supporting information, and this portal entry page can be customized any time, to reflect changing user priorities. As the state is familiar with the use of As-One, the following portals available within its workspace:

- Projects
- Actions
- Discrepancy Reports
- Metrics
- Contacts
- Discussion Groups
- Tasks/Resources
- Document/Knowledge Library
- Risks
- Events
- Change Logs
- Configuration Library
- Requirements Management

As-One’s Project Management functionality will allow team members to review many program and project issues and attributes, including:

- Task/Resource Scheduling
- Events
- Action Items
- Risk Items
- Configuration Management Library
- Defects/Discrepancies
- Requirements Traceability and Management
- Metrics Tracking and Analysis

The Team Collaboration function allows project and organizational mission critical information to remain centralized for collaboration and sharing. Everyday work-related items such as project documentation, meetings, reviews, quality assurance evaluations, defect reports, action items, and risk items can be reviewed and discussed in real-time. As-One integration with email provides the capability to automatically send critical notification to the right personnel, and the built-in discussion group permits remote collaboration on critical issues. As-One also provides the appropriate security controls for a collaborative environment, and requires check-in/check-out of critical work products.

The Knowledge Management function supports capture, categorization, and circulation of knowledge-based information. Team CNSI can capture and circulate best practices, lessons learned, process standards, and project documentation for sharing. Authorized team members can categorize this information by:

- Project Type
- Project Phase
- Labor Category, and
- Organization Defined Attributes.

As-One's workflow capability will allow responsible personnel to review and approve user-submitted best practices and process and procedure change recommendations prior to circulation. Through categorization, the knowledge is provided to the user in context based on the user's role, project type, project phase, and areas of interest.

Continuous Process Improvement functionality is built into As-One. The first step to improvement involves documentation and standardization on current processes. As-One assists with this process by providing team members access to the Team CNSI standard process documentation, checklists, and templates (for project tailoring) based on SEI CMMI, PMI, IEEE, EIA/ISO, and ITIL standards. As-One facilitates re-use, and promotes use of historical data for future project planning, estimation, and implementation. Metrics can also be automatically generated for use in project comparisons and quantitative process analysis.

As-One will serve as an accessible, single source repository for project data, and will allow for the capture and sharing of best practices, plans, schedules, performance metrics, lessons learned and other program attributes. As-One will help ensure continuous process improvement and visibility for DCH stakeholders. As-One is CNSI's tool for implementation of our management approach.

2.4 Technical and Phased Approach Work Plan

An initial work plan and timeline describing the tasks we envision for the proposed four phases and within each major activity that we propose to use for this project is presented in Figure 2-8 below. A detail description of the activities within each phase is presented in Section 2.4.1.

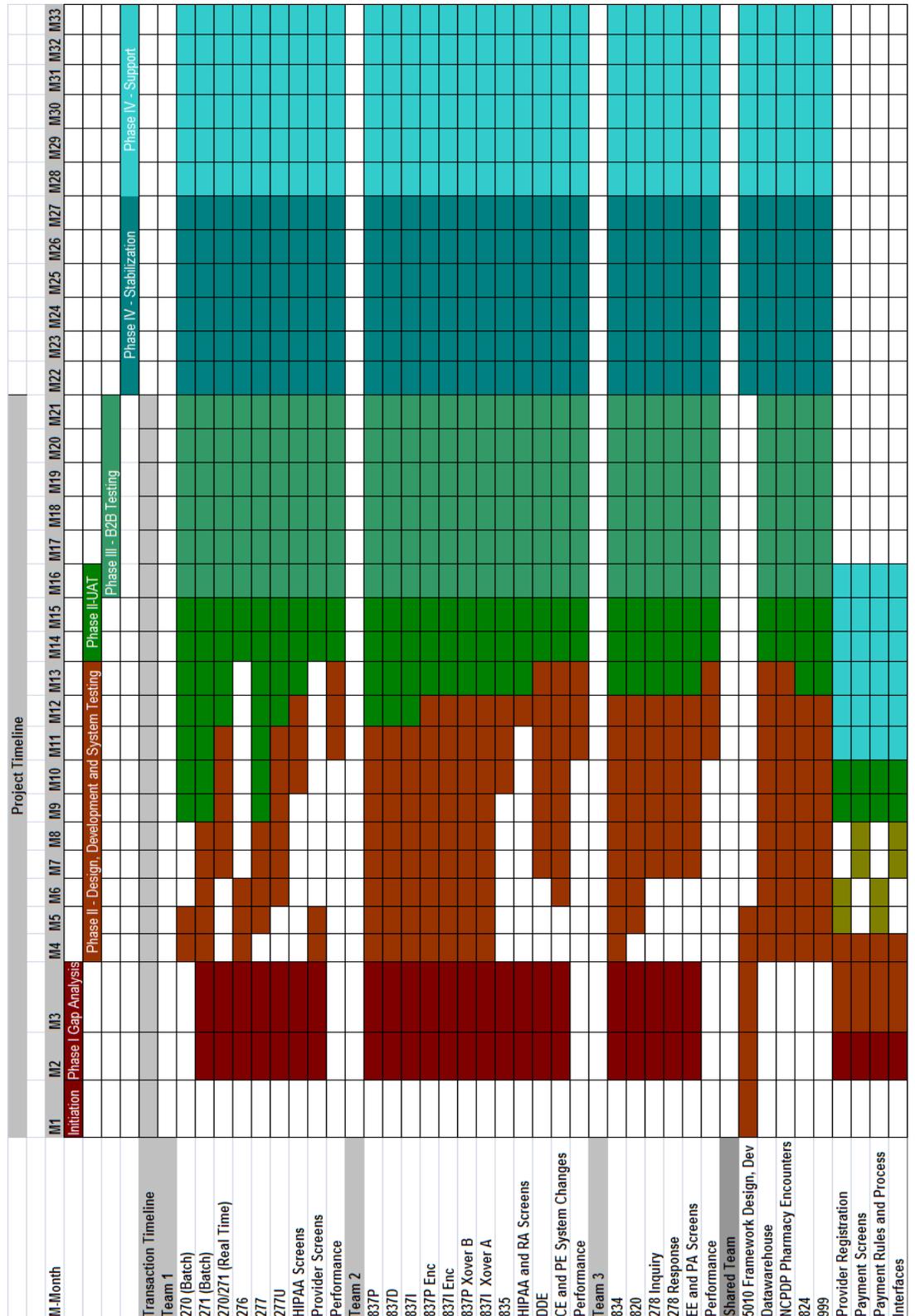


Figure 2-8. Initial Project Work Plan

Our work plan is structured to address the overall relationships of the numerous phases, activities and tasks required to complete the project and to make effective use of the professional resources needed to accomplish these phases to produce high quality products in a cost conscious manner. The essence of a successful project is planning. Proper planning requires developing a detailed, task-oriented approach. By reviewing our work plan, the state can obtain a clear and thorough understanding of our proposed technical approach to the project. CNSI proposes a four-phased approach to the implementation and roll out of HIPAA 5010 transactions, EHR integration and planning for ICD 10 enhancements. In addition, the timeline for undertaking the EHR Incentive Program Administration and Coordination tasks is also depicted. The following sections will further describe how CNSI will employ its iVision 360 methodology in our proposed iterative development, testing and documentation approach for the project.

iVision 360 Iterative Development, Testing and Documentation Approach

CNSI will engage in iterative analysis and design with State early on during phase I in order to begin early iterative development in Phase II. CNSI plans to iteratively produce deliverables during each phase. During phase I and II CNSI will provide an opportunity for State to review requirements, gap analysis and design documents as soon as a set of logical iterations are completed for a transaction. CNSI will expect initial sign off from State upon acceptance on iteration document scope. This will help cut down the time required for an overall document review and approval. The document to be reviewed at any time will have a much smaller scope and will help State to do a thorough review. At the end of all iterations for a phase an overall document will also be produced for a final delivery and acceptance to State.

Iteration/agile development and testing portion of iVision 360 methodology will be very visible in Phase II - Design and Base Code Customization for HIPAA 5010 Transaction Sets, System Integration and User Acceptance Testing. During this phase in parallel to creation of technical design specifications for a transaction, Developers and HIPAA SME (Team Lead) develops user stories for each transaction customization. As the design of a transaction is being completed, Team Lead plans the iterations to be conducted in order to complete the development. Development work is planned based on a 2-week iteration schedule. Developers develop internal design documentation prior to and during these 2-week iterations, which will feed the development of Phase II deliverables. Day one of iteration is reserved for the iteration startup activities, which include finalizing the internal design documentation for the iteration. The developer meets with the Data Modeling Team on day one of iteration to conduct a walkthrough of the required data model changes. The Data Modeling Team makes the required changes to the database schema and approves the physical model for coding.

During the internal design activities, the Team Lead, developers, and functional analyst conduct the planning of the user stories that will be developed in the iteration. This planning result is an outline of the tasks required to develop and test the story. Developers also develop internal unit test cases (for the tasks that may not be tested with automatic internal unit test code), which are required to test each story completely.

Coding begins once the internal design and pre-coding work is completed for the iteration. The developer writes internal unit test code in parallel to actual working code, updates screens and transactions to fit the physical model, and executes tests as they code. The developer builds code and tests incrementally, coordinates and communicates to the team in daily stand-up meetings regarding any issues holding up the development work, and moves continuously forward to develop and test the

assigned user stories. This entire approach ensures that the developers are not working in silos, and avoids the traditional approach of throwing the design documentation “over the fence” to the developers to begin coding, only to discover later that major rework is required halfway through the development process.

Developers then test the code against the internal auto unit code and manual internal unit test scripts, and as they reach the end of the iteration, they run the code against the functional scripts developed by the test team. Discrepancies are identified and corrected, and the developer re-tests to ensure that all discrepancies are corrected and closed before the iteration ends. Software code reviews of each transaction are scheduled and conducted on the last day of the iteration by developer peers, and the code is updated based on the reviews. When internal unit / functional testing and software code reviews are successfully completed for each iteration. The code is then promoted to the integration test stream. Once the coding and internal unit testing is completed for all user stories under a transaction, the code is released for functional testing.

Transaction functional testing is conducted in each team, under the guidance of the HIPAA SME. This testing includes a series of component integration and subsystem tests to verify the functionality of the individual transaction against the requirements and design for that transaction. Once every transaction has completed development, internal unit testing and functional testing, the code is released for System Testing.

During initial development iterations of transaction test team develops system test cases based on transaction specification. During System Testing, the test team executes system test cases to validate system results against requirements.

For 5010 implementation CNSI plans to engage test and development team early on to build regression test suite for critical transactions to help speed up testing and improve overall quality of implementation. CNSI understands the importance and sensitivity of 5010 implementation on an environment that is already in production with 4010A. During system testing, regression tests will be performed on individual transactions based on changes to a previously tested baseline. The intent of regression testing is to re-demonstrate that the CHAMPS system continues to meet the approved requirements after changes have been introduced to a previously tested transaction baseline.

As soon as Regression testing is completed for a transaction CNSI will deliver the code to UAT environment for acceptance testing to begin. We plan on engaging State much earlier than planned UAT phase in order to allow enough time for acceptance testing and reduce the risk of schedule slippage for UAT completion. CNSI will deploy system and regression tested 5010 transactions to UAT environment as they are completed during phase II.

As presented in our initial work plan and timeline (Figure 2-8), UAT will also have a fixed 3 months time line at the end of Phase II. B2B testing can be started half way through UAT. CNSI will work with State during Phase II to plan early start to B2B testing. CNSI will plan to develop critical transactions first to allow more time for UAT and B2B testing.

Similarly, to incorporate the EHR Incentive Program requirements into CHAMPS, CNSI proposes to enhance CHAMPS to support the system implementation aspects of the roll out of this EHR Incentive Program. Figure 2-9 provides an overview of the system capabilities to support the EHR Incentive program.

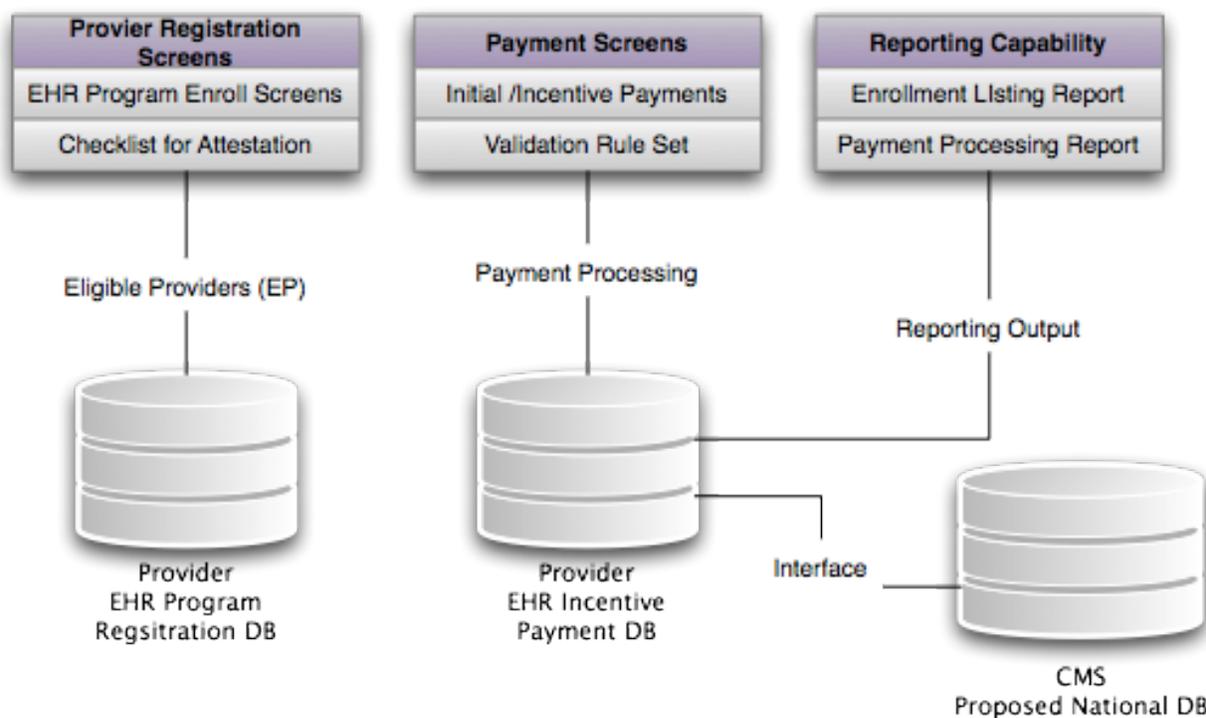


Figure 2-9. Expanded CHAMPS to Support EHR

The following section identifies the scope of the CHAMPS enhancements that will be addressed as a part of this effort.

- Eligibility

CHAMPS will implement a provider registration component to track and manage the eligible providers in the EHR incentive program. The system implementation of the provider registration will include the following capabilities

- Online screen(s) for the providers to enroll for this EHR program
- Online screen(s) checklist for providers to support the attestation process

- Payments

CHAMPS will implement a payment process to support the disbursement of the incentive payment. The system implementation will include the initial payment module and an event based (demonstration of the meaningful use) initiation of the subsequent incentive payments. The payment module will also implement series of validation rules to enforce CMS requirements such

as duplicate payments. The duplicate checks will be implemented across the proposed CMS database (duplicated/over web service) for previously paid providers in the national database.

- Financial Oversight

CHAMPS will provide a set of operational reports to monitor the health of the EHR Incentive program being rolled by the State of Michigan. The following are the list of reports being implemented.

- List of Enrolled Provider by Month

- Payments Processed by Provider by Time Period

Figure 2-10 presents a graphical overview of the processes that are part of the iVision 360 methodology employed on the project from Phase I through Phase IV.

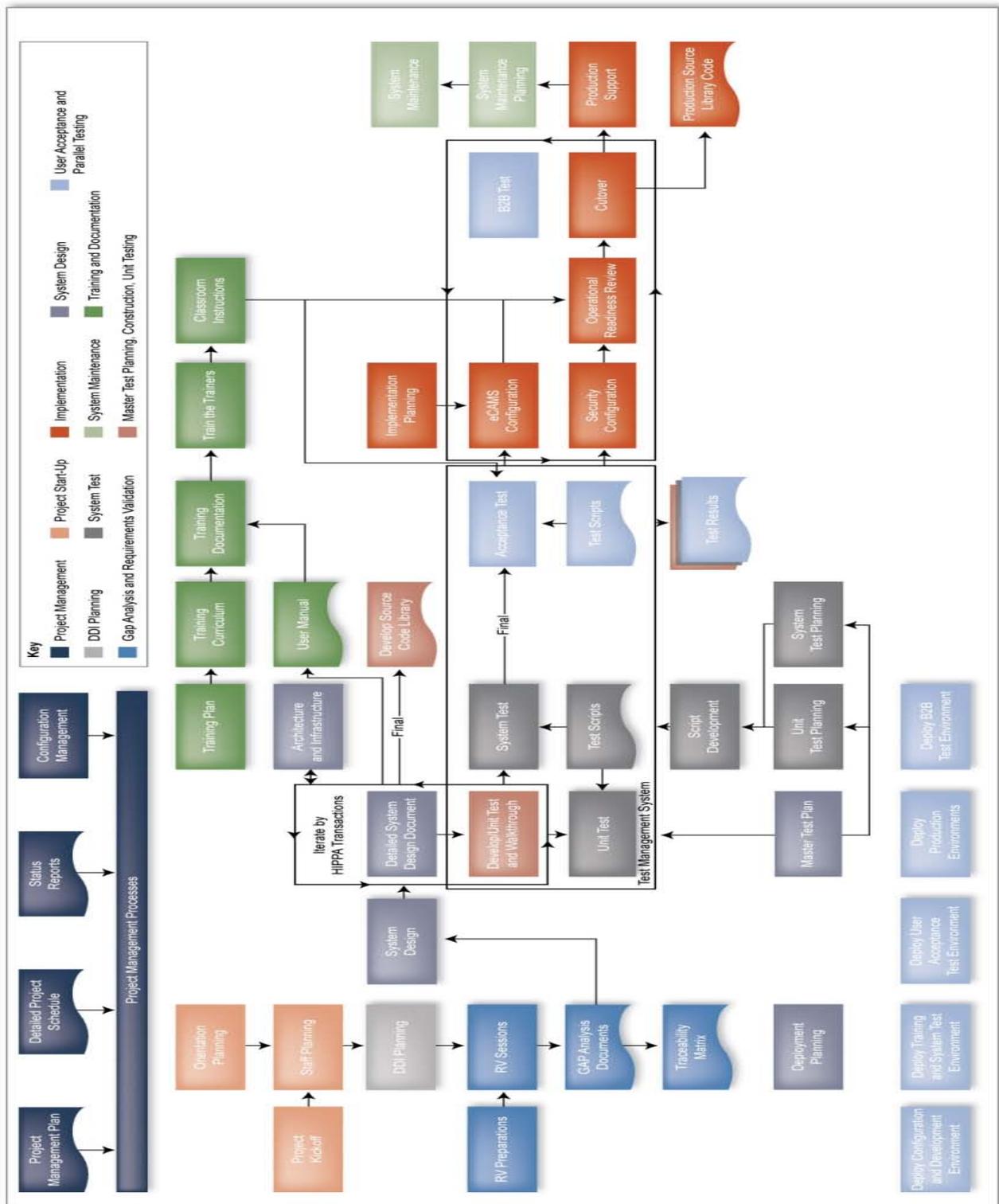


Figure 2-10. iVision 360 Process Diagram

2.4.1 Phased Approach Work Plan

As presented previously, CNSI proposes a four-phased approach to the implementation and roll out of HIPAA 5010 transactions, positioning for ICD 10 enhancements and integrating EHR requirements.

The four phases are as follows:

- **Phase I** – Gap Analysis and Functional Requirements
- **Phase II** – Design and Base Code Customization for HIPAA 5010 Transaction Sets System Integration, User Acceptance Testing and EHR Integration
- **Phase III** – Business to Business Testing and Production Deployment
- **Phase IV** – Post Production Stabilization and Support.

Figure 2-11 provides a high-level overview of the project phases with major activities and anticipated deliverables:

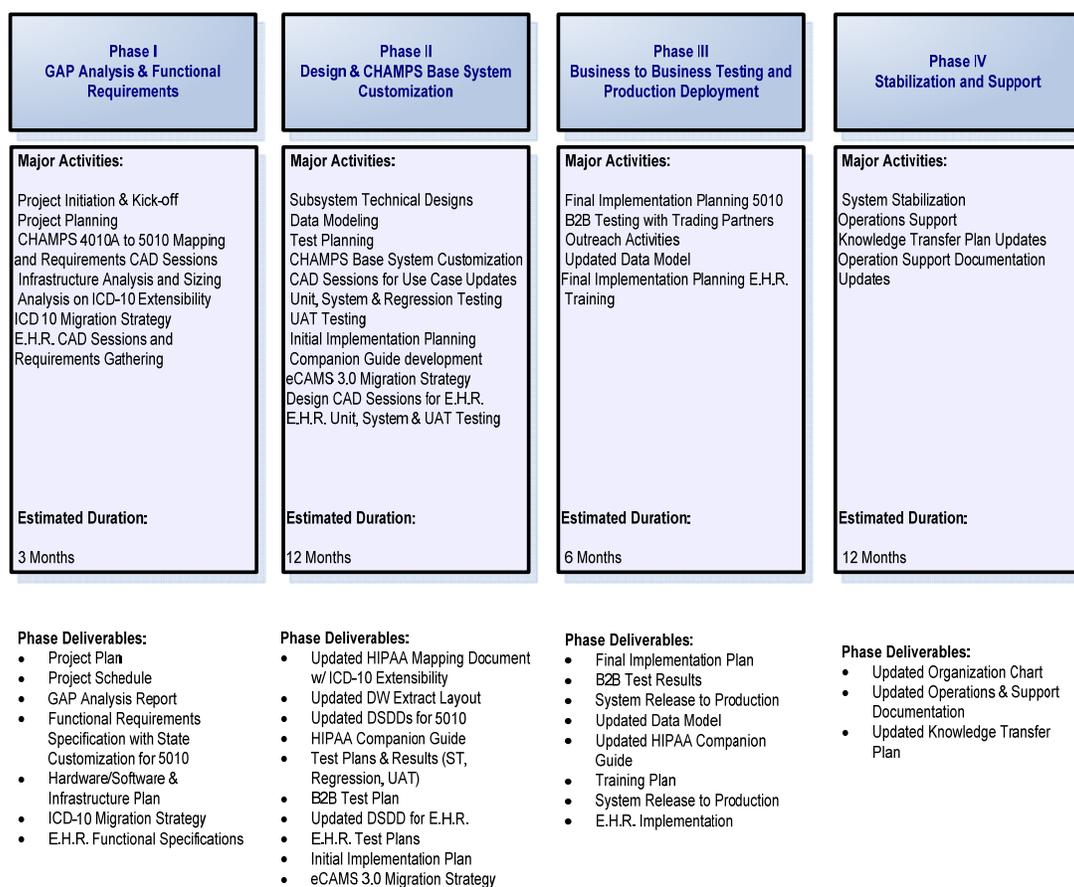


Figure 2-11. High-level Project Phases and Activities

As presented in the initial work plan schedule, it is anticipated there will be some overlap between Phase I and Phase II for beginning the 5010 project framework development early. There will also be an

overlap between Phase II and Phase III to allow B2B testing to start early. The detail of these overlaps will be further elaborated and agreed upon in Phase I as the Project Plan and Schedule are developed. A high-level overview of the overlap was presented in the previous paragraphs. The detail of these overlaps will be further elaborated and agreed upon in Phase I as the Project Plan and Schedule are finalized.

With every project, there are critical milestones and work products and deliverables that must be met in order to provide the inputs necessary to perform the next phase. Figure 2-12 further elaborates the key high-level milestones during the course of the proposed 33 months implementation plan and the expected deliverables.

Key Milestone	Description	Phases
Project Initiation	This will establish the project team structure and classification of the different stakeholders.	Phase I
Complete GAP 5010 Analysis	The high level gap analysis would ensure that the stakeholders are in sync with the 5010 implementation plan and identify any deviations from the base specification that require customization. This document would be input to the FRSD below.	Phase I
Completion of Functional Requirements Specification Document	Define the agreed upon 5010 functional specifications and framework for the ICD 10 code sets	Phase I
Hardware/ Software and Infrastructure Plan	This includes planning of all environments needed to support the project, including additional software and hardware required. Initial priority is to solidify Development and Test environments for implementing 5010 and supporting CHAMPS Production.	Phase I
ICD-10 Migration Strategy	This strategy is the foundation for incorporating ICD-10 code sets into future CHAMPS upgrades. This strategy will be implemented through a future project to adapt to ICD-10.	Phase I
Phase I Deliverables: <ul style="list-style-type: none"> ■ Project Plan ■ Project Schedule ■ GAP Analysis Report ■ Functional Requirements Specification with State Customization 		

Key Milestone	Description	Phases
<ul style="list-style-type: none"> ■ Hardware/Software & Infrastructure Plan ■ ICD-10 Migration Strategy 		
HIPAA Mapping Document with ICD-10 Extensibility	The technical design details for HIPAA transaction mapping required to implement 5010 in CHAMPS and ICD-10 Code Set.	Phase II
Updated Data Warehouse Extract Layout	A design for the new extract layout will be completed.	Phase II
Updated DSDD's	Update existing Functional DSDD's for each subsystem to be approved prior to start of UAT.	Phase II

Key Milestone	Description	Phases
Business to Business Test Plan	Strategy for testing inbound/outbound transactions with trading partners	Phase II
Initial HIPAA Companion Guide	Completion of the initial 5010 HIPAA Companion Guide	Phase II
Test Plans (System Test, Regression Test, User Acceptance Test)	Completion of plans at each phase of testing subject to development schedule.	Phase II
Test Results (System Test, Regression Test, User Acceptance Test)	Report of results at each phase of testing.	Phase II

Key Milestone	Description	Phases
Initial Implementation Plan	The initial plan for deploying 5010 into production. This will be finalized in the next phase.	Phase II
eCAMS 3.0 Migration Strategy	Milestone will identify steps to implement ICD-10 and enhanced capabilities for HL7, HIE, HIT, and Clinical Data Structure.	Phase II
Phase II Deliverables: <ul style="list-style-type: none"> ■ Updated HIPAA Mapping Document w/ ICD-10 Extensibility ■ Updated Data Model ■ Updated Data Warehouse Extract Layout ■ Updated DSDDs ■ Initial Implementation Plan ■ HIPAA Companion Guide ■ Test Plans & Results (ST, UAT, Regression) ■ B2B Test Plan ■ eCAMS 3.0 Migration Strategy (in preparation for ICD-10 planning) 		
Final Implementation Plan	Plan for deployment to Production.	Phase III
Business to Business Testing	The anticipated period of 6 months is going to run in parallel with the acceptance testing. The transactions will be rolled out in increments with a priority order defined.	Phase III

Key Milestone	Description	Phases
Updated Data Model	This milestone will expand on the existing CHAMPS data model to incorporate 5010 requirements.	Phase III
Roll Out of HIPAA 5010 in Production	Production roll out of 5010 Compliant System	Phase III
Completion of Training		
Phase III Deliverables: <ul style="list-style-type: none"> ■ Final Implementation Plan ■ B2B Test Results ■ Updated Data Model ■ Updated HIPAA Companion Guide ■ Training Plan ■ System Release to Production (actual delivery of the system – GO Live) 		
Post Production Support and Stabilization Period	The first 6 months are stabilization period.	Phase IV
Phase IV Deliverables: <ul style="list-style-type: none"> ■ Updated Organization Chart ■ Updated Operations & Support Documentation ■ Updated Knowledge Transfer Plan 		

Figure 2-12. High-Level Milestones

2.4.1.1 Phase Description

2.4.1.1.1 Phase I – Gap Analysis and Functional Requirements

Phase I includes Project Initiation and Kickoff, Project Planning and performing a gap analysis of the current implementation and the required 5010 and EHR changes as well as the development of an implementation strategy to be executed in Phase II.

In addition to conducting the gap analysis and identifying the functional requirements CNSI plans to engage in laying the foundation for the 5010 implementation framework.

TASK 1 Project Initiation & Kickoff

Project Initiation is the creation of project by the Project Management that entails the definition of the project's purpose, primary and secondary goals, timeframe and timeline of when goals are expected to be met. The CNSI & State Project Management may add additional items to the project during the Project Initiation phase. The Project Initiation phase can also be used to determine the project's viability prior to committing the required staff, materials, and finances to the project.

Project Kickoff – The purpose of a Project Kickoff meeting is four fold.

1. Publicly state the beginning of the project
2. Outline the project goals as well as the individual roles and responsibilities of team members
3. Clarify the expectations of all parties; and
4. Create a commitment by all those who influence the project's outcome.

TASK 2 Project Planning

CNSI and the State management will work together to identify staff required to define requirements for the initiative. These teams identified will begin to familiarize themselves with the project scope and objectives. Norms for working with each other will be established and documented.

Purpose:

- Identify and assign team members
- Establish working relationship between CNSI's team and the State.
- Define state organizational impact.
- Review Statement of Work (SOW) with the State and identify anomalies.
- Define audit requirements.
- Define testing process.

TASK 3 Review SOW Requirements with Department Heads & State Leads

The objective of this task is to reaffirm our understanding of the requirements in the SOW and identify any additional areas that should be incorporated into the gap analysis. This will include meetings with department heads and state leads to review their understanding of the requirements.

Purpose:

- Conduct walkthrough of the planned requirement gathering approach.
- Identify and document the specific informational and functional requirements to be incorporated into the proposed HIPAA 5010 transaction sets. An example of the transaction sets that will be addressed include the following:
 - 277 Claim acknowledgments - the preferred transaction to acknowledge the validity and acceptability of the claims at the pre-processing stage.

- 999 Provides new functionality - allow a trading partner to report Implementation Guide constrained edits as well as edits against the base X12 standards
- 824 Application reporting transaction that can inform the submitter about application processing issues for various X12 transactions.
- 275 Not mandated transactions - however relevant for claim attachments associated with HIE infrastructure.
- Determine the extent to which future department functionality will be supported by adoption of HIPAA 5010 and ICD 10 standards to include:
 - Interchange Envelope Conformance and Acknowledgement.
 - TA1/TA3 Response
 - X12 Standard Conformances.
 - 997 Transaction Response
 - Implementation Guide Conformances.
 - 999 Transaction Response
 - Additional Validation and Processing.
 - 824/277 Transaction Response
- Identify preliminary modifications to be incorporated into CHAMPS to include:
 - More standardized front matter.
 - Industry needs not available in 4010A1.
 - Improved instructions for business situations that were causing problems in 4010A.
 - Added or Deleted code values and qualifiers.

TASK 4 Develop HIPAA 5010 Requirements and ICD 10 Extensibility

Document and present our understanding of the requirements that will be implemented.

Purpose:

- Prepare a comprehensive, annotated list of all specified HIPAA 5010 & ICD 10 requirements.
- Identify areas for modifications and customizations by comparing specific 5010 and ICD 10 requirements to the existing CHAMPS features and capabilities.
- Identify potential changes in the State's business procedures in adopting 5010 transaction sets.
- Identify required data model changes to support the migration to 5010 and ICD 10.
- Provide the basis for the gap analysis.

TASK 5 Formulate 5010 Implementation Framework

This task will define the framework and lay the foundation for the 5010 transaction requirements.

Purpose:

- Define inbound batch HIPAA transaction framework customization
 - Submission: Submission component customization to accept HIPAA 5010 Transaction set
 - Inbound Validation: Edifecs version upgrade to support both 4010A and 5010 file validation. Add capability to support 5010 specific acknowledgments
 - Inbound Translation: Gentran version upgrade to support both 4010A and 5010 file translation
 - Loading: Loading component customization to accept 5010 version changes e.g. addition/modification/removal of new HIPAA elements. Component customization to load both 4010A and 5010 HIPAA transaction sets from same or different provider(s)
- Define outbound batch HIPAA transaction framework customization
 - File Generation: Outbound file generation process customization to accommodate new/modified/deleted values of 5010 transactions. Component customization to create file for both 4010A and 5010 HIPAA transaction sets versions
 - Outbound Translation: Gentran version upgrade to support both 4010A and 5010 file translation
 - Outbound Validation: Edifecs version upgrade to support both 4010A and 5010 file validation
- Define real time eligibility transactions
 - WSDL Request, Response and corresponding Web services customization to support both 4010A and 5010 for real time Eligibility transactions (see Figure xx for description of the process)

TASK 6 Relate State 5010 & ICD 10 Requirements to CHAMPS Solution

This task will define the gaps and anomalies between the existing CHAPMS design to accommodate the implementation of the 5010 requirements.

Purpose:

- Identify specific state 5010 & ICD 10 requirements that are currently not met by CHAMPS.
- Identify specific state 5010 & ICD 10 requirements that could be more effectively met than they are currently by CHAMPS.
- Identify the limitations and constraints of the current CHAPMS production version in adapting to 5010 & ICD 10 transaction sets.

TASK 7 Completion of Functional Requirements Specification Document

Requirements Specification Document forms the base for the subsequent phases of the project. Collaborative Application Development (CAD) Sessions are held to:

- Validate the requirements identified during Gap Analysis
- Verify the feasibility of the requirements
- Define the scope of the requirements
- Arrive at a common ground on the assumptions for each and every requirement identified in the Gap Analysis
- Classify the requirements as functional and non-functional
- Group and classify the requirements under the respective subsystems
- Develop a Requirements Specification Document for all the subsystems

The Requirements Specification Document shall be reviewed and signed off by the respective State Team Leads and the State Management team. The Signed off Requirements Document shall be base lined. This base lined Requirements Specification Document shall be the foundation for the subsequent phases of the project. Any changes identified after the baseline of the Requirements Specification Document shall be deemed as a Change Order and shall follow the Change Order Process.

TASK 8 Identify Areas and Methods for CHAMPS Modification and Customization

In this task, the CHAPMS subsystems that need to be modified and customized are identified. Listed below are some of the transaction types that would be included in the review. Additional transaction types would be added to or deleted as a result of the Gap Analysis exercise.

Purpose:

- Identify the feasible range of technical, functional and informational improvements (modification and customization levels) to be applied to CHAMPS to address the following 5010 functionality:
 - 270 Eligibility Request
 - Clarified instructions for sending inquiries
 - Required alternate search options when member eligibility information is not found in the primary search function
 - Added support for 38 new Patient Service Type
 - 271 Eligibility response
 - Additional payer responses information
 - Clarified relationship between requested services types and response service types
 - Situational rules updates
 - 837 Health Care Claims (P,I,D)
 - Improved rules and instructions for reporting provider roles and use of NPI

- Proprietary provider IDs moved to payer info
- NPI and proprietary identifiers will still be supported for Atypical providers
- 837I Multi-functional segments for provider and diagnosis types separation
- 837P Anesthesia minutes
- 837 Enhanced functionality
 - Added support for ICD-10
 - Present on Admission indicator – (837 I)
 - Ambulance pick-up and drop-off locations
 - National health plan ID (to support when identifier is adopted)
 - Eliminating the ability to use the billing provider loop to identify clearinghouses, billing services
- 276/277 Health Care Claim Status
 - Subscriber and Dependent loop data enhanced consistency
 - Elimination of sensitive patient information
 - Added Pharmacy related data segments and the use of NCPDP Payment Reject Codes
 - Increased Claim Status segment
 - Improved inquiry tracking mechanisms for transaction entities
- 835 Remittance Advice
 - Eliminated codes marked “Not Advised”
 - Added the ability to report Health care medical policy via payer interface
 - Reporting the Remittance Delivery Method
 - Clearer instructions to report claim adjudication procedures
 - Reporting encounters
- 834 Health Plan Enrollment
 - Notation for code definition
 - Change updates and full file audit enhancements
 - Quantity segment additions
 - Reporting category loop addition
 - Member policy amount qualifiers addition
 - New Maintenance Reason Codes addition
 - ICD-10 support
 - Subscriber privacy options addition
- 820 Premium Payment
 - Premium Receiver’s Remittance Delivery Method addition
 - Outer Adjustment Loop addition
 - Service, Promotion, Allowance, or Charge Information Loop addition
 - RMR enhanced functionality

TASK 9 Define Additional Hardware Configuration Requirements

The additional hardware required supporting implementation of 5010 and ICD 10 codes will be identified and presented to the state.

Purpose:

- Identify the most appropriate operating environment to incorporate the implementation of 5010 & ICD 10.
- Conduct application and usage analysis to confirm initial hardware configuration upgrade needs.
- The proposed hardware for 5010 configuration requirements will be reviewed and finalized.
- Define additional hardware to refresh CHAMPS aging infrastructure as well as growth through ICD-10.
- Develop the hardware and software upgrade bill of material.

TASK 10 ICD 10 Migration Strategy

The strategy to incorporate ICD 10 code sets into the future CHAPMS upgrade is defined.

Purpose:

- Identify the foundation for incorporating ICD 10 code sets into future CHAMPS upgrades.

2.4.1.1.2 *Phase II – Design and Base Code Customization for HIPAA 5010 Transaction Sets System Integration, User Acceptance Testing and EHR Integration*

At this phase, the gaps between current and desired states are understood and documented. Phase II will focus on the creation of technical specifications for each transaction and the development of required system modifications that were identified in the GAP analysis. In addition to transactions development during this phase the following tasks will be performed. Figure 2-13 depicts a customization roadmap approach that could be adopted on this project.

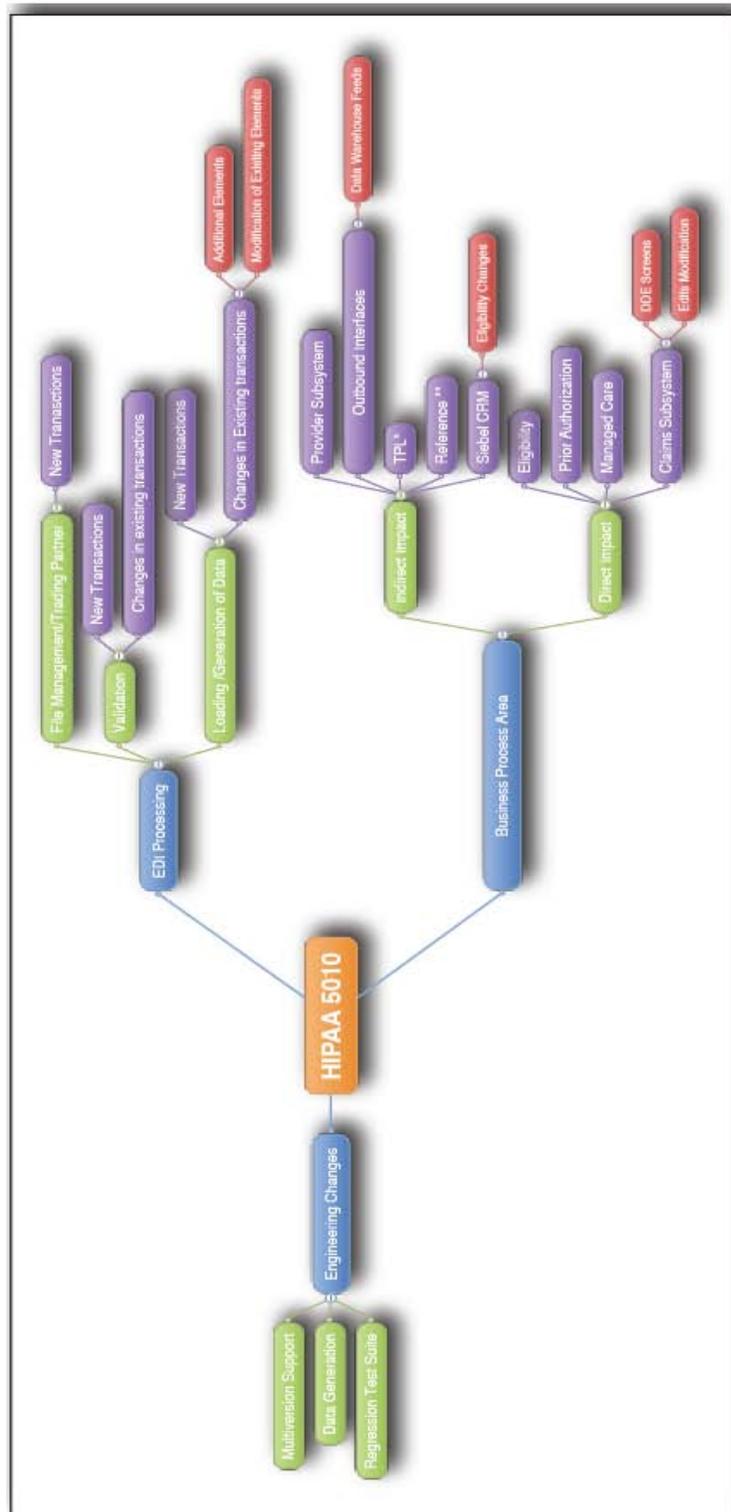


Figure 2-13. Customization Roadmap

TASK 1 Environments Setup and Configuration

This task involves identifying the environments needed to support Development and Testing of the HIPAA 5010 Customizations.

Purpose:

- Set-up of Hardware and Connectivity
- Configure System Test Environment
- Configure User Acceptance Test Environment
- Configure B2B Environment
- Set-up Configuration Management procedures

TASK 2 Subsystem Technical Designs

This task is the process for building the Subsystem Technical Designs which will be used as the basis for developing the HIPAA 5010 Customizations. This process involves detailed investigation and inspection of CHAMPS technical components in order to build a comprehensive technical design.

Purpose:

- Finalize Technical Design Constraints including
 - Maintain backwards compatibility with 4010A support
 - Incorporate use of State approved Business to Business testing tool
 - Minimize disruption of current production operations
 - Ensure extensibility to ICD-10 for future migration
- Translate functional requirements into technical designs for each subsystem
 - Perform mapping of GAP HIPAA elements to screen elements.
 - Perform mapping of GAP HIPAA elements to database elements.
 - Perform mapping of GAP HIPAA elements to RuleIT™ elements
 - Perform mapping of GAP HIPAA elements to Interface elements
 - Create Updated HIPAA Mapping Document with Design Constraints incorporated
 - Trading partner registration component customization to support 5010 transaction sets
- Perform detailed system design for each Subsystem based upon the requirements identified in the GAP Analysis.
 - Identify components to be customized:
 - Subsystem Java Code
 - Subsystem PL-SQL Packages
 - RuleIT Rules Engine
 - CHAMPS Interface Framework
 - Build detailed design document consisting of
 - Screen Modifications
 - Data Model Modifications

- Java Code Modifications
 - Subsystem PL-SQL Package Modifications
 - RuleIT Rules Engine Modifications
 - CHAMPS Interface Framework Modifications
 - CHAMPS customization to support B2B testing with Providers, Billing Agents and Clearing House
- Perform detailed system design for each COTS product change required based upon the GAP Analysis.
 - Perform mapping of GAP HIPAA elements to screen elements.
 - Perform mapping of GAP HIPAA elements to database elements.
 - Identify components to be customized:
 - Java Code
 - PL-SQL Packages
 - CHAMPS Interface Framework
 - Build detailed design document consisting of
 - Screen Modifications
 - Data Model Modifications
 - Java Code Modifications
 - PL-SQL Package Modifications
 - CHAMPS Interface Framework Modifications
 - Customization to accept NCPDP Pharmacy Encounter transactions

TASK 3 Data Modeling

A data model describes how data is represented and accessed. Data models formally define data elements and relationships among data elements for a domain of interest. Upon completion of the comparison analysis of 4010A and 5010, new data elements would be added / updated and an enhanced data model will be published.

Purpose:

- Customize CHAMPS data model to adhere to 5010 specification with extensibility to ICD-10 Code Sets
 - Perform comprehensive analysis of subsystem data model modifications
 - Create an optimized logical data model based on subsystem data models
 - Create a physical data model refined for performance considerations

TASK 4 Updated Data Warehouse Extract Layout

The current CHAMPS subsystem extracts are based on the baseline version of the data model. Upon completion of the design of incorporating 5010, an impact analysis will be completed to determine the data warehouse layout changes and an updated design document will be submitted to the data warehouse team.

Purpose:

- Update CHAMPS Data Warehouse Extract layout to reflect 5010 requirements
 - Map updated CHAMPS data model elements to Data Warehouse Extract layouts.
 - Update CHAMPS Data Warehouse Data Dictionary Documents.

TASK 5 CHAMPS Base System Customization

This task involves customization of the CHAMPS technical components using the technical toolsets and standards in place for the CHAMPS project. The modifications are performed and released through an iterative development process.

Purpose:

- Customize the CHAMPS base subsystem code and database to accommodate direct and indirect 5010 impact.
 - Direct Impact
 - Trading partner registration component customization to support 5010 transaction sets
 - Real Time Eligibility Inquiry - Make changes to WSDL Request, Response and corresponding Web services for 4010A and 5010 support.
 - Add/Modify 5010 attributes for Eligibility Inquiry screen changes.
 - Add/Modify 5010 attributes for Prior Authorization screen changes.
 - Add/Modify 5010 attributes for Claims Direct Data Entry (DDE) screen changes.
 - Customization to accommodate RuleIT and claims processing changes for 5010.
 - Add/Modify 5010 attributes for Contract Management screen changes.
 - Indirect Impact
 - Provider Enrollment customization to accommodate 5010 changes.
 - CRM sub system customization to accommodate eligibility 5010 changes.
 - Outbound interface customization for data warehouse feed.
 - Customization to accept Reference code set updates specific to 5010.
 - Conduct unit, system and user acceptance testing
 - Update HIPAA Implementation Guides to adhere to State 5010 Guidelines
 - Environment preparation for Business to Business Testing

TASK 6 Update DSDDs

CHAMPS As build Design Documents shall be updated in order to incorporate all the design gaps identified as a part of the Gap Analysis. As build Design Documents of all the subsystem that are affected will be updated accordingly.

Updates might include addition / deletion and modification of Use Cases, addition / deletion / modification of Main Flows, Alternate Flows, Business Rules, System Rules, Data Model and Screen Shots.

The updated As build Design Documents shall be reviewed and signed off by the respective State Team Leads before being base lined. The base lined DSDD will form the base for the developers to develop the system.

Once base lined any change made to the As build design document, shall be treated as a change order and will follow the formal change order process documented in the project plan.

Collaborative Application Development (CAD) are conducted to:

- Review the CHAMPS As build DSDD and identify the design changes needed in order to implement the new 5010 requirements
- Verify the feasibility of the new updated design
- Arrive at a simple alternative approaches for complex designs
- Update the Requirements Traceability Matrix
- Update the Use Cases and Business Rules
- Update the Screen Shots based on the new navigation required as a part of 5010 requirements implementation
- Arrive at a common ground on all the design parameters

TASK 7 HIPAA Companion Guide

Upon completion of Phase-1 of the project, team CNSI will work with state on updating the HIPAA companion guides. This Companion Guide to the ASC X12N Implementation Guides adopted under HIPAA (Health Insurance Portability Accountability Act) clarifies and specifies the data content when exchanging electronically with the Department of Community Health. Transmissions based on this companion document, used in tandem with the X12N Implementation Guides, are compliant with both X12 syntax and the Implementation Guides. This Companion Guide is intended to convey information that is within the framework of the ASC X12N Implementation Guides and MDCH specific data content requirements.

Purpose:

- Update HIPAA Companion Guides if required
- Identify transaction sets to be updated
- Update each section of the guide with the 5010 changes

- Perform cross checking of HIPAA Companion Guide with associated DSDD.
- Review updated guide with DCH personnel.
- Publish Updated HIPAA Companion Guide

TASK 8 Test Plans & Results (System Test, Regression, UAT)

Test Plans

Testing is an integral part of any system development process / methodology.

Testing is a process of validating and verifying that a system / application / product

- Meets the business and technical requirements
- Works as expected; and
- Can be implemented with the same characteristics

CNSI shall develop Test Plans (System / Integration, Regression & User Acceptance Test) in order to come up with a strategy to perform System/Integration testing, Regression Testing and User Acceptance Testing of the System being developed.

CNSI shall use ReqTrace to record all the Test Cases / Scripts. Detail Test Plan depicting all the Test Cases / Test Scripts can be obtained from ReqTrace at the beginning of Testing Phase.

System / Integration Test Plan shall detail the strategy used to test the developed system as a complete, integrated system to evaluate the system's compliance with its specified requirements.

Regression Test Plan shall detail the strategy used to assure that a bug fix has been successfully corrected based on the error that was found, while providing assurance that no other errors were introduced in the process of fixing the original problem.

User Acceptance Test Plan shall detail the strategy used to coordinate and help the State Users / End Users to verify the system developed as a complete, integrated system meets their expectation.

Test Planning involves

- Identification of Test Lead and Test members for System Testing / User Acceptance Testing
- Assignment of Test resource to the subsystems for System Testing / User Acceptance Testing
- Identification of Test Cases for Regression, System / Integration Testing
- Identification of Test Scripts for Regression, System / Integration Testing
- Development of System / Integration Test Plan
- Development of UAT Plan in coordination with State Team
- Approval of the System / Integration Test Plan / Cases by the State Team
- Approval of the UAT Plan / Test Cases / Scripts by Joint (both State / CNSI) Team

Test Results

CNSI shall create formal Test Result documents at the successful completion of all the testing. CNSI will have formal System / Integration Test Result and help the State in developing a formal User Acceptance Test Result.

Since Regression testing is an informal testing conducted in order to ensure a defect fix isn't breaking other part of the code, CNSI wouldn't be developing any formal Regression Test results.

System / Integration Test Results document shall document all the results of Individual Use Case, Business Rule , System Rule, Data Model and Integrated Use Cases Testing.

The test cases and test result shall be recorded in ReqTrace and reports shall be created and pulled from ReqTrace.

Acceptable Test Results shall from the exit criteria for the subsequent phases in this project.

Testing / Test Results phase involves:

- Performing System / Integration testing and recording the result of testing
- Performing User Acceptance testing and recording the result of testing
- Regression testing of failed Test Cases / Test Scripts
- Developing System / Integration Test Results
- Developing User Acceptance Test Results

TASK 9 B2B Test Plans

In this phase, test plans will be built for Business to Business Testing with CHAMPS Trading Partners.

Purpose:

- Identify all the changes that will be necessary in Trading Partner systems to capture and process the new data
- Build Test Plans for each Trading Partner specific to the transactions sets that are used in conjunction with CHAMPS

TASK 10 Initial Implementation Planning

In this phase, the initial Implementation Plan will be built based on the project schedule and inputs to the implementation plan. This task will require significant input from DCH in order to factor in Business considerations. In addition, dependencies with external Trading Partners and other agencies will be factored as appropriate. The Implementation plan will be designed to minimize impact to existing Production systems while minimizing risk to the implementation.

Purpose:

- Identify key participants for Implementation Planning
- Conduct Implementation Planning sessions for all subsystems.
- Build initial Implementation Calendar.
- Build initial Implementation Checklist.
- Conduct Implementation Planning Review sessions.
- Publish initial Implementation Plan and Checklist

TASK 11 eCAMS 3.0 Migration Strategy

In this phase, a strategy for migration to eCAMS 3.0 will be developed. The strategy will be built based on an assessment of the current CHAMPS base code and the plan for the eCAMS 3.0 base code. The strategy document will form the basis of a future decision to migrate to eCAMS 3.0.

Purpose:

- Assess current state of CHAMPS eCAMS base code.
- Assess current and planned state of eCAMS 3.0 base code.
- Perform GAP Analysis between CHAMPS eCAMS and eCAMS 3.0 base code.
- Document benefits and costs for migration to eCAMS 3.0.
- Build recommendations for eCAMS 3.0 migration path.

2.4.1.1.3 Phase III – Business-to-Business Testing and Production Deployment

This phase consists of two (2) major activities – Business-to-Business (B2B) Testing, and Production Deployment. Figure 2-14 depicts a representative approach CNSI will employ in undertaking the B2B testing.

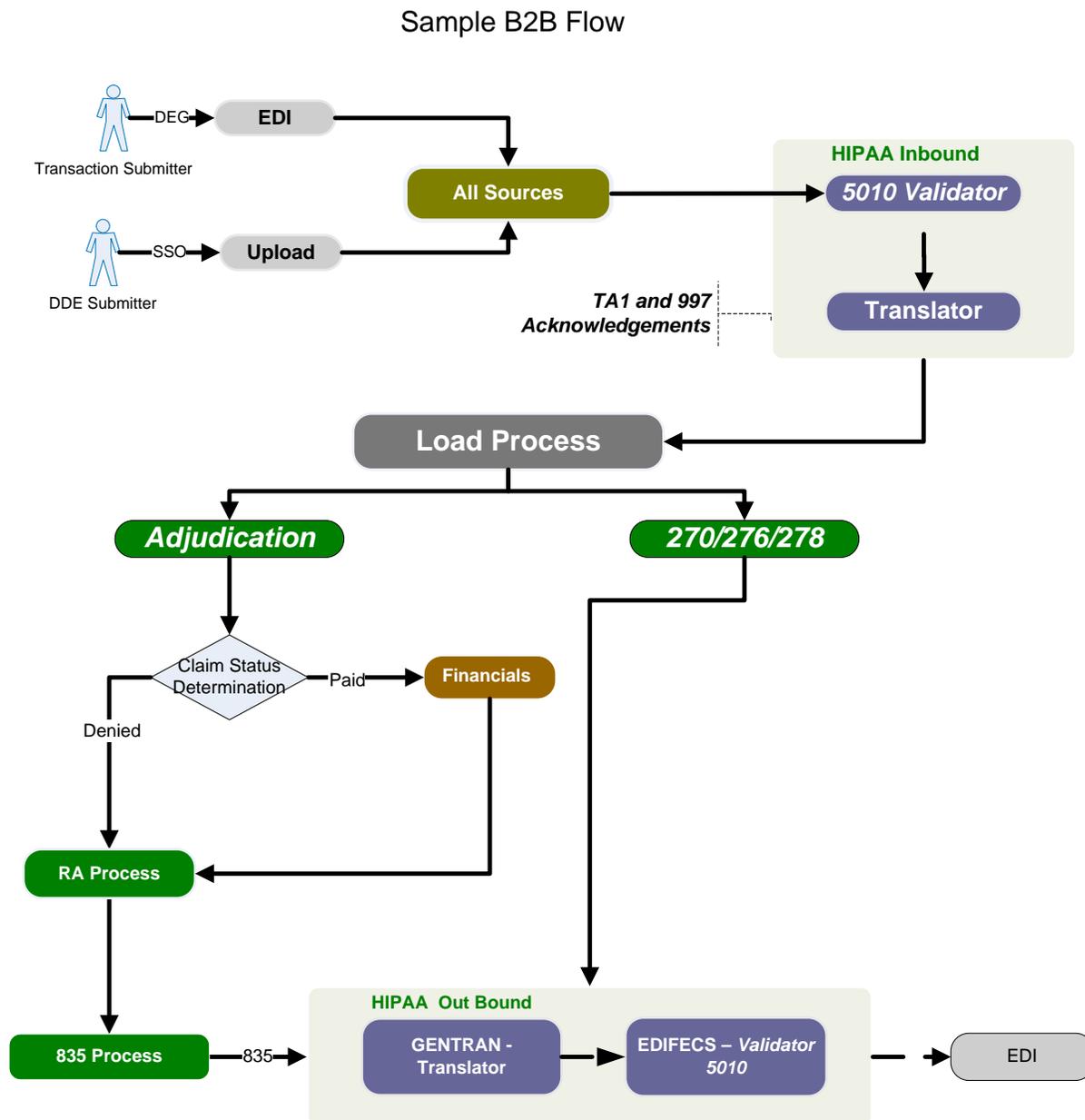


Figure 2-14. Sample B2B Testing Flow

Business to Business Testing

- CNSI will support and assist the business to business testing phase which will be led by the State.

Production Deployment

- In order to prepare for the Deployment, the Implementation Plan and Data Model will be finalized and published.
- The Production Deployment will be conducted according to the schedule and tasks laid out in the Implementation Plan.

TASK 1 Final Implementation Planning

In this phase, the Implementation Plan will be finalized based on the status of the project and the schedule.

- Conduct final Implementation Planning sessions for all subsystems.
- Build final Implementation Calendar.
- Build final Implementation Checklist.
- Conduct Implementation Planning Review sessions.
- Publish finalized Implementation Plan and Checklist

TASK 2 Publish Final Data Model

Once development activities complete, a final updated CHAMPS Data Model will be published.

- Finalize CHAMPS 5010 Data Model
 - Consolidate all updated Data Models from the Customization phase.
 - Perform final review of Data Model for consistency, normalization, and standardization.
 - Publish final Data Model

TASK 3 Business to Business Testing

This activity involves conducting and reporting the results of Business to Business Testing.

- The system will provide a capability for the Medicaid providers and their agents (submitters) whereby they can test all electronic transactions related to their conducting of Medicaid business with DCH.
- The B2B testing environment will have the capability to receive the files from providers submitted via the State Data Exchange Gateway (DEG).
- The files submitted by the providers in test mode will be processed in CHAMPS after performing the HIPAA validation.
- The system will provide the capability to track the test transactions.
- System will provide, on demand, reports of the progress of providers/submitters seeking certification.
- The current transaction receipt and delivery will be maintained thru the State's data exchange gateway.
- Upon successful completion of B2B testing the provider will be certified to submit 5010 transactions.

TASK 4 Create a Comprehensive Training Plan

It is anticipated that implementation of 5010 will require modifications to CHAMPS that result in changes to the way end users interact with the system. A training plan is intended to identify all parties affected by the changes and outline a plan to prepare them to efficiently transition to through the changes and utilize the system under the new design. The training plan will be a collaborative effort between CNSI, MDCH and MDIT to accomplish the following:

- Identifying key stakeholders including MDCH staff and providers.
- Determining the best delivery approaches for each stakeholder (e.g. combination of classroom, train the trainer, online training, etc.)
- Identify CNSI staff to provide training to the trainers and curriculum developers
- Create a training delivery schedule
- Obtain commitment of resources necessary to execute the training plan

TASK 5 Production Deployments

The Production Deployment will be conducted based on the finalized Implementation plan. The deployment will be a joint effort between CNSI, MDCH, and MDIT resources and will be led by CNSI.

- Production Deployment
 - Prepare Production Environment
 - Perform pre-requisite activities for deployment
 - Perform Database migration.
 - Deploy code packages.
 - Validate Production Installation
 - Release Production installation to user community

2.4.1.1.4 Phase IV Post Production Stabilization and Support

This Phase is anticipated to be a 12 month period and is broken into two distinct activities – stabilization, and support/continued operations.

Stabilization Activity

This is the task post production of the 5010 upgrade roll out. This is a period for 6 months. In this period there is monitoring and support to ensure a smooth transition for the billing agents and providers. This period exit criteria will be marked by a metric of production tickets as they pertain to processing and generation of the new transaction set. CNSI will also set up a monitoring and analytical reporting framework to measure the usage approach of 5010 transactions by the trading partner community. This will help to derive subsequent business process transformation as well as help for the transition to ICD 10 compliance.

Support and Continued Operations Activity

This task represents the period of support after stabilization. This will be for a period of 6 months. It will provide the support required to maintain continuity of operations and supporting ongoing validation and certification of trading partners with the 5010 transaction set. CNSI will continue to monitor and measure the usage approach of 5010 transactions by the trading partner community. This will help derive subsequent business process transformation as well as help with the transition to ICD 10 compliance.

In order to support the revised system operation, an updated Operations Organization Chart will be built and published. During this phase of operations, the Operations and Support Documentation will be updated to reflect the 5010 operational environment. Also, the Knowledge Transfer Plan will be updated to incorporate the additional skills and artifacts required for 5010.

TASK 1 Operations Support

For the duration of this phase, the CHAMPS Operations Team will support the Production system implemented in Phase 3 with the support of the CNSI dedicated 5010 resources that have been defined. The Operations Team will factor in the 5010 transaction requirements to ensure continuous operation of the system.

- Monitor, triage, and assign production OTRS tickets as they are reported.
- Manage OTRS tickets and report metrics to management.
- Perform updates to Production Schedules and Priorities as required.
- Perform Operational Reporting

TASK 2 Updated Organization Chart

In this task, the Operations Organization Chart will be updated to reflect changes needed to support HIPAA 5010 transactions.

- Review current Operations Organization Chart and Job Descriptions.
- Review 5010 Operational requirements.
- Update Operations Organization Chart to reflect additional staff and roles required to support HIPAA 5010.
- Publish updated Organization Chart.

TASK 3 Updated Operations & Support Documentation

In this task, the Operations documentation will be updated to reflect the HIPAA 5010 requirements.

- Review current Operations Manuals.
- Map new Operational Requirements to Operations Manual sections.

- Perform updates to Operations Manual sections
- Review Operational Support documentation to reflect changes in schedule, personnel, and responsibilities.

TASK 4 Updated Knowledge Transfer Plan

In this task, the CHAMPS Knowledge Transfer Plan will be updated to incorporate areas changed by the implementation of 5010. It is anticipated that State technical resources will be taking over system operations and support under the current Knowledge Transfer plan and will need some additional mentoring with regard to the changes implemented under 5010.

- Identify specific areas of Knowledge Transfer and State staff that are impacted by the changes.
- Create a schedule for shadowing specific to the support of HIPAA which shall mirror the previous Knowledge Transfer approach used in the initial implementation of CHAMPS.
- Execute the Knowledge Transfer strategy using CNSI subject matter expertise who will be functioning in an operations support capacity concurrent with Knowledge Transfer.

3. General Assumptions

1. The labor effort and timeline assessments are qualified estimates at this point of time based on CNSI understanding of the Michigan Medicaid program and the current operational system.
2. The implementation estimate for cost and effort is for accommodation of changes in CHAMPS. The changes required to support other external systems are not included.
3. CNSI assumes that the project start date would be April 2010 for meeting the compliance dates. Any shift from this start date will result in additional schedule risk and potential cost impact.
4. CNSI has provided staff support hours in areas where CNSI may not be directly responsible for an explicit deliverable.
5. CHAMPS Is being extended to accommodate ICD-10. However, the assessment to policy impact and its subsequent implementation is not part of this effort.
6. CNSI will provide support for both 4010A and 5010 transactions concurrently in production. However a single provider / billing entity can only submit the transaction in one version. As the provider / billing entity transitions from the 4010A transactions to 5010 transactions, the entity would be able to submit sets of transactions in 4010 and 5010. For example the provider can be 5010 compliant with 270/271 transaction but may continue to submit 837 transactions in the 4010A version. However the provider cannot submit 837 transactions in 4010A and expect the 835 transaction to be in 5010 transaction or vice versa.
7. CNSI anticipates that the ICD 10 policy impact changes in the claims adjudication rules and other processes will be identified by the state in 2011 for a compliance date of October 2013.
8. DEG customization to support 5010 for both inbound and outbound is the responsibility of the state technical department (DIT).
9. eCAMS 2.0 will remain the CHAMPS system platform for incorporating HIPAA 5010 and ICD-10 extensibility.
10. eCAMS 3.0 will be made available to the state upon release by CNSI. However, the rollout and implementation cost for eCAMS 3.0 are not part of this proposal.
11. CMS proposed rules are currently in the draft stage and are subject to modification.
12. The determination of eligible providers is done outside the system in terms of enforcing rules like the percentage of Medicaid population served by the provider.
13. The payment processing will utilize the gross adjustment screens.
14. The interface to the proposed CMS database assumes the structure of the database is available before the start of the design / development phase.

4. Proposed Project Cost

This section of our proposal presents our fixed price cost estimate for completing this project. The cost was derived based on the expected effort required as presented in our initial work plan on page 24, and is composed of the four phases depicted in Figure 4-1. Within each phase, we present the major activities, and the planned deliverables. The total cost for the labor effort required to complete the four phases defined for the project is \$19,900,000.

However, to comply with the state requirement to maintain our Right Sizing III rates, we are offering the state an overall price discount representing the cost difference between the current blended rate of \$137.14 and the proposed project blended rate of \$146.76. This price discount represents an overall reduction of \$1,300,000.

Therefore, while maintaining our blended rate of \$146.76, the overall cost for undertaking this project after applying the discount is \$18,600,000.

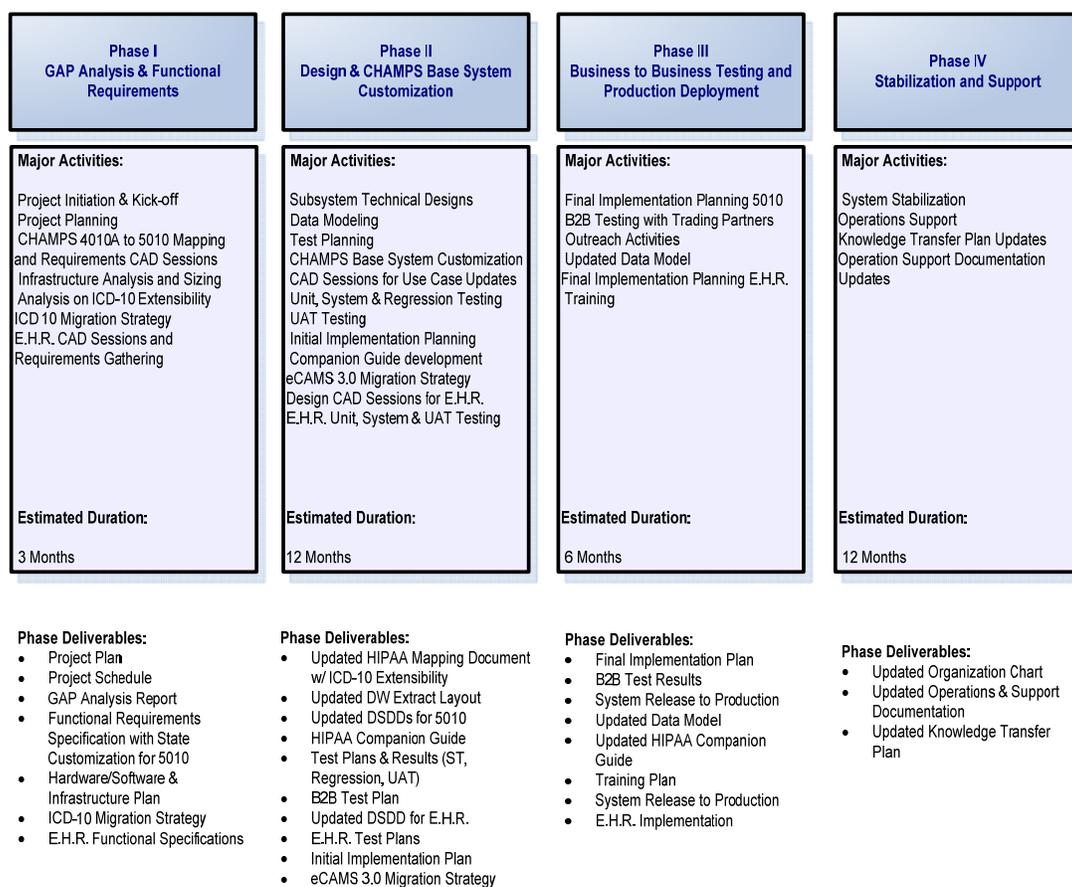


Figure 4-1 Project Deliverables by Phase

To incorporate the Electronic Health Record Incentive Payment Administration and Coordination tasks into the current CHAMPS system, we have estimated that the effort for completing these tasks would cost \$1,067,200. That cost has been factored into the overall project cost of \$18,600,000 and does not represent an additional charge to the state. EHR activities and deliverables have been also defined in the four phases of the project.

The Labor Category Rates depicted in Figure 4-2 represent a blended rate of \$146.76 per hour. This rate includes CNSI direct labor plus facilities costs and other indirect costs such as travel and general administrative line items.

Labor Category	Cost Per Hour
B2B Transition Lead	\$170
Senior Architect	\$185
Junior Architect	&170
Lead Developer	\$170
CM Engineer	\$130
D.O. (Encounter) Developer	\$130
Database Admin	\$160
Data Warehouse	\$140
Development Mgr	\$185
Edifecs	\$130
Functional Analyst	\$130
Gentran	\$140
HIPAA Lead	\$170
ICD 10 Specialist	\$170
JAVA	\$140
PLSQL	\$140
Project Manager	\$220
Subject Matter Expert	\$200
Sys Admin	\$130
Tester	\$100

Figure 4-2 Labor Category Rates

To assist the state in its effort to upgrade and augment the existing hardware and software to support the development, implementation, operation and allowing for future system expansion needs for the HIPAA 5010 and ICD-10 initiatives, we have provided a high level description of the required hardware platform to support the multiple proposed environments.

The proposed hardware configuration presented is based on the requirement for a deployment, test, staging and production environment as presented in Figure 4-3. During Task 9 in Phase I, a detailed review of the required hardware will be undertaken and final recommendation for hardware procurement with anticipated cost presented.



Figure 4-3. CHAMPS Required Environments for the 5010 Project

In addition, Figure 4-4 presents a high-level schematic diagram of the hardware configuration that would be required to support the project, while Figure 4-6 presents the anticipated software required to support the HIPAA 5010 implementation.

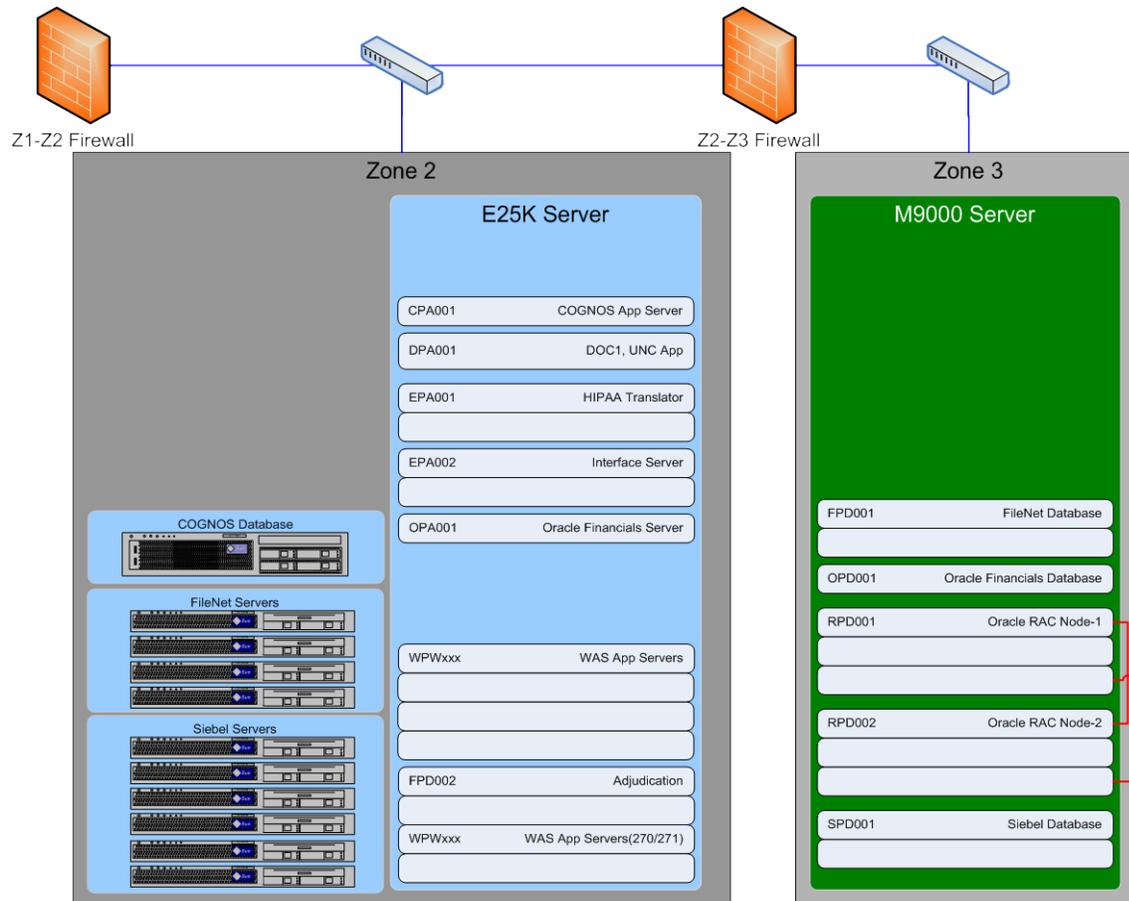


Figure 4-4 Production/Staging Hardware Reconfigurations

Software
■ IBM WebSphere
■ IBM Clear Case
■ IBM Clear Quest
■ Oracle RAC
■ Gentran
■ Edifecs Spec Builder + X-Engine
■ Toad
■ Erwin

Figure 4-6 Required Software for HIPAA 5010 Implementation