Form No. DTMB-3521 (Rev. 4/2012)
AUTHORITY: Act 431 of 1984
COMPLETION: Required
PENALTY: Contract change will not be executed unless form is filed

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 20
to
CONTRACT NO. 071B6200168
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Client Network Services, Inc. (CNSI) 702 King Farm Boulevard, 2nd Floor Rockville, MD 20850	John H. Cousins III	jee@cns-inc.com
	TELEPHONE	CONTRACTOR #, MAIL CODE
	(301) 634-4600	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR:	DTMB	John Spitzley	(517) 335-6612	spitzleyj1@michigan.gov
BUYER:	DTMB	Steve Motz	(517) 241-3215	motzs@michigan.gov

CONTRACT SUMMARY:

DESCRIPTION: **Medicaid Services Administration**

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL OPTIONS INCLUDED	CURRENT EXPIRATION DATE
March 14, 2006	September 30, 2011	Two One-Year	September 30, 2018
PAYMENT TERMS	F.O.B	SHIPPED	SHIPPED FROM
N/A	N/A	N/A	N/A
ALTERNATE PAYMENT OPTIONS:			AVAILABLE TO MiDEAL PARTICIPANTS
☐ P-card ☐ Direct Voucher (DV) ☐ Other			☐ YES ☒ NO
MINIMUM DELIVERY REQUIREMENTS:			
N/A			

DESCRIPTION OF CHANGE NOTICE:

OPTION EXERCISED:	EFFECTIVE DATE OF CHANGE:	EXPIRATION DATE:
☒ NO ☐ YES	November 12, 2013	September 30, 2018

The following Community Health Administrative Management Payment System (CHAMPS) initiatives have been approved by the Michigan Department of Community Health and their Statements of Work are incorporated into this contract: 1) Provider credentialing for NCPDP, University Provider Screening and Network Providers, 2) Healthcare Claims Attachment Phase II Planning (EDI Claims attachment), 3) Unique Health Plan ID (Planning), 4) Hospital/LTC – Cost Settlement (Planning), 5) New Coverage Add and Change Interface, 6) CHAMPS Operational Data Store (ODS) and 7) Member Portal.

All other terms, conditions, pricing and specifications remain unchanged.

Per Administrative Board Approval on March 25, 2014.

VALUE/COST OF CHANGE NOTICE:	$ 0.00
ESTIMATED AGGREGATE CONTRACT VALUE:	$ 381,392,904.00

FOR THE CONTRACTOR:	**FOR THE STATE:**
Client Network Services, Inc. (CNSI)	
Firm Name	Signature
	Kim Stephen, Director of the Bureau of Budget and Purchasing
Authorized Agent Signature	Name/Title
	Micigan Department of Community Health
Authorized Agent (Print or Type)	Enter Name of Agency
Date	Date

Provider Credentialing for NCPDP, University Providers, and Network Providers Statement of Work

Prepared For:

State of Michigan
Department of Community Health
400 South Pine Street
Lansing, Michigan 48909

Prepared By:

CNSI
6465 Millennium Drive, Suite 150
Lansing, MI 48917

June 17, 2013

Contents

Contents i
Figures ii
Tables ii
Section 1: Introduction 1
1.1 Regulatory and Business Drivers for Change 1
1.2 CNSI Capabilities 1
1.3 Proposed Project Organization 2
Section 2: Project Management, Methodology, Tools, and Technical Approach 4
2.1 Project Management Approach 4
2.2 Project Methodology 6
2.3 Project Management Tools 8
2.3.1 ReqTrace 8
2.3.2 As-One 9
2.4 Solution 10
2.4.1 Technical Overview 10
2.4.2 Functionality 11
2.5 Technical and Phased Approach Work Plan 11
2.5.1 iVision360 Iterative Design, Testing, and Documentation Approach 11
2.5.2 Phased Approach Work Plan 14
Section 3: General Assumptions 24
Section 4: Pricing 25

Figures

Figure 1. CNSI's Project Management and Quality Management Framework 4
Figure 2. As-One Collaboration and Improvement 9
Figure 3. Initial Project Work Plan 11
Figure 4. iVision360 Process Diagram 13
Figure 5. High-Level Project Phases and Activities 14

Tables

Table 1. SDLC Methodology Comparison 7
Table 2. CNSI Project Tools 8
Table 3. High-Level Activities and Milestones by Phase 15

Section 1: Introduction

CNSI is pleased to present this statement of work to enhance the Community Health Automated Medicaid Processing System (CHAMPS) to support the integration of licensure of hospital facilities, university-based facilities, nursing facilities, university providers, network providers, and pharmacy providers. CNSI proposes to complete the Provider Credentialing Project under a fixed-cost agreement.

1.1 Regulatory and Business Drivers for Change

Since CHAMPS' inception, its provider enrollment functions have been regularly upgraded to keep pace with such federal mandates as the Affordable Care Act (ACA) and the Committee on Operating Rules for Information Exchange® (CORE®). Most recently, CHAMPS has been upgraded to include real-time and batch integration with the national credentialing service, Lexis-Nexis.

Lexis-Nexis has proven to be very helpful in reducing the manual effort required to validate provider credentials submitted during enrollment. Integration with Lexis-Nexis provides the capability to rescreen enrolled providers in batch to ensure the ongoing validity of the credentials and, consequently, the provider's ongoing eligibility to render services to Michigan Medicaid beneficiaries.

The State of Michigan would like to augment CHAMPS to enhance existing workflows and business processes by integrating screening and validation of the licensure for hospital facilities, university-based facilities, nursing facilities, and pharmacies. These providers currently provide the relevant credentials during enrollment. Screening and validation are presently done through manual processes. This includes the National Counsel for Prescription Drug Programs (NCPDP) number assigned to pharmacies through the NCPDP and other organization-specific credential identifiers. The proposed enhancements will address following goals:

- Conduct real-time screening service during pre-enrollment for all credential types.
- Perform batch processing for monthly, periodic monitoring of license expirations and revocations.
- Send data to the data warehouse for reporting purposes.
- Generate reports for State staff business operations support.

The expected outcome of this project is to improve Michigan Medicaid provider data integrity through the implementation of expanded credential screening processes.

1.2 CNSI Capabilities

CNSI's approach to enhance CHAMPS to support the Provider Credentialing Project is based on its ongoing partnership with the Michigan Department of Community Health (MDCH) and the Department of Technology, Management & Budget (DTMB) and its extensive knowledge of CHAMPS design, implementation, and operation. As system developers and integrators, CNSI aligns its clients' business processes and information systems to provide access to the right information at the right time, enabling the achievement of their desired business results and creating enterprise value. CNSI will employ its extensive technological experience in the industry and incorporate its flexible tools and methodologies to

deliver quality results on time and within budget. CNSI completes jobs for clients by delivering on commitments with speed and purpose in accordance with the client's specifications and expectations.

CNSI will build upon its extensive knowledge gained from designing, developing, implementing, and operating CHAMPS for the State, as well as previous CHAMPS efforts, including the HIPAA 5010 compliance implementation, and the ongoing International Classification of Diseases, Tenth Edition (ICD-10), transition and remediation. CNSI's project team is composed of Medicaid subject matter experts (SMEs), who have the technical, business, and project management expertise to support this endeavor. The SMEs will collaborate with the State's business and technical personnel to develop a flexible and innovative solution to implementing provider credentialing services for the additional credential types and integrating them with CHAMPS.

CNSI's experience working on prior Medicaid health information technology (IT) initiatives has led to incorporating the following factors in developing this statement of work:

- **CNSI's in-depth, subject-matter expertise in provider credentialing**

  Starting with Michigan's early provider implementation, CNSI and the State have collaborated to ensure that the CHAMPS system remains on the forefront of modernization. The early provider implementation took Michigan from a highly manual, paper-based system to a paperless, provider self-service environment. The collaboration continued with the addition of Managed Care network provider enrollments, unique enrollment for providers applying for enhanced Medicaid incentive payments for the use of electronic health records, and home help providers. Most recently, the collaboration allowed CHAMPS to accommodate new ACA-related provider requirements and the implementation of the Lexis-Nexis credentialing services for core provider identifiers.

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

  CNSI's project teams have a wealth of experience with multiple Medicaid programs, which allows them to efficiently conduct the data-gathering and analysis activities for this initiative. Architects and SMEs who have worked with CHAMPS on a variety of Medicaid health IT initiatives are among the team members involved in this effort.

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

  CNSI is uniquely qualified to remain sensitive to the State's needs and constraints in defining the project's approach. The team will employ an orderly, structured, professional approach that is sufficiently flexible to respond to changes in requirements that evolve from additional understanding. Overall, CNSI has practical "hands-on" experience of what does and does not work.

1.3 Proposed Project Organization

CNSI believes this statement of work represents the best possible combination of architecture, technology, support, and experience to complete this project. The proposed team members are each the best possible candidates of their respective disciplines. The underlying logic behind identifying each member of this group is that:

- They share the same philosophical approach for undertaking this project – **the customer comes first.**
- They understand the values that each member brings to successfully implementing the project.
- They are committed to understanding and incorporating the State's requirements.
- They understand the necessary advanced technologies, business needs, and operational issues.

CNSI's primary objective is the successful implementation and completion of the project. Its team is fully dedicated to the Provider Credentialing Project and is confident in its ability to achieve that goal.

However, an effective project management plan cannot work with participation only by CNSI. As the customer, the State is the most important member of the project team. The customer must be actively engaged in the process at all levels. Implementation is only as good as the partnership established and maintained between all involved parties.

Section 2: Project Management, Methodology, Tools, and Technical Approach

This section presents CNSI's project management and technical approaches, methodology, tools, and phased work plan for accomplishing all activities required for the Provider Credentialing Project implementation. This section describes the scope of activities to be addressed throughout the project, from the initiation phase to final implementation, as well as the techniques and methodologies CNSI's project team will use.

The following subsections will contain a high-level description of CNSI's four-phased approach for this project. For each phase, the major activities and anticipated deliverables are presented, followed by a high-level description of the major milestones and approximate timelines.

2.1 Project Management Approach

The project's successful implementation relies on the framework and environment provided by project and quality management. Figure 1 shows CNSI's project and quality management framework and how the related activities interact with project tasks.

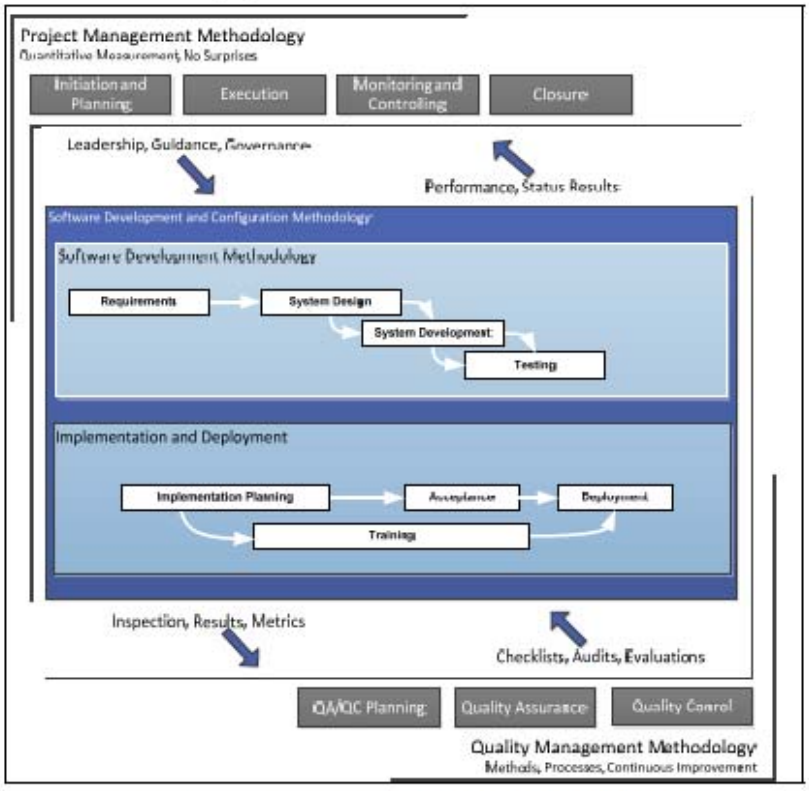

Figure 1. CNSI's Project Management and Quality Management Framework

Although all projects are unique, they share common components and processes. The generally accepted process groups defined by the *Project Management Body of Knowledge* (*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 required partners are identified.
- **Planning:** This process group refines the project objectives and scope and 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 while CNSI works with the customer to establish and baseline the project management plan. The project management plan is modified and updated as necessary over the course of the project. It is the culmination of the planning processes for scope definition and management, time (scheduling), staffing (human resources), communications, and risk management.
- **Executing:** This process group puts the project's plans into motion. This is where the bulk of the work for the project is performed.
- **Monitoring and Controlling:** This process group measures the performance of the project's executing activities and reports these performance results to project managers and stakeholders. Output is used to refine, improve, and/or change project management (including plans and schedules) 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.

CNSI is confident it has the correct methodology and project framework in place to successfully implement the Provider Credentialing Project modifications. CNSI continually improves its project management processes using lessons learned from previous projects and through the proficiency and continuous education of its program and project managers, senior technical and engineering staff, and senior and corporate management. This ensures a number of advantages:

- The project management philosophy is firmly entrenched within the entire project team, including MDCH and CNSI.
- Project management is a core competency.
- The project staff is focused on successfully implementing the project.
- Project management, quality management, and cost management processes are fully integrated and their infrastructure is in place.
- Effective project status reporting is established throughout the project life cycle.
- Project and software development methodologies are well documented.
- Project information is communicated continuously to the right people at the right time.
- The project is continuously monitored against performance.
- Excellence in quality and delivery are built-in.

- Deliverable review and approval processes are in place.

Through developing the project management plan, CNSI expects to collaborate with the MDCH project management team to further customize CNSI's project management system to successfully complete the implementation.

2.2 Project Methodology

CNSI's holistic approach for this project will use its proven methodology as the overarching framework and bring an experienced team of program managers, SMEs, technical experts, and change management resources to support this effort.

The project methodology is a framework that facilitates the integration of CNSI's extensive system experience, which is rooted in application implementations, methodologies, and delivery tools. This framework allows CNSI to deliver services to its clients consistently across its footprint and gather continued enhancements for its supporting methodology, thereby providing continued value for its clients.

CNSI's methodology is an integrated methodology that combines its best delivery assets. The methodology:

- Provides a scalable, integrated collection of assets.
- Provides a consistent level of detail and presentation.
- Supports tailoring to scale, which provides a unique, but consistent, cost-effective delivery approach.

CNSI's methodology approach consists of the following:

- The **Manage** work approach provides a single, consistent approach to managing CNSI's engagements. Within the Manage Approach is the Quality Management activity, which verifies that deliverables and processes meet requirements. The Quality Management activity also supports continuous process improvement, as well as the methodology.
- The **Life Cycle** work approach addresses unique expertise while providing overall integration across the full implementation life cycle.

CNSI's methodology has the flexibility to be adapted to meet MDCH's unique requirements while confirming that its experienced staff members follow established practices.

While no two engagements are the same, MDCH expects CNSI to deliver in a consistent, systematic approach. The proposed project methodology incorporates CNSI's staff's delivery experience into a single, integrated approach. It provides the structure for integrating CNSI's capabilities while allowing individual project teams the flexibility to use client-mandated tools. The right assembly of technologies, techniques, and deliverable processes requires the specific experience and expertise found in CNSI's staff.

Investing time to create an effective plan with clear objectives is integral to effective project execution. CNSI's methodology provides a structured approach to the planning process. While this may appear to require more initial effort than desired, experience has shown that following these processes reduces the likelihood of planning mistakes and results in lower risk and a more cost-effective, rapid delivery.

CNSI's methodology incorporates a consistent approach for identifying, tracking, and measuring the value derived from ongoing projects. CNSI's experience developing and delivering various client projects is incorporated into the project strategy and planning activities.

In undertaking this project, CNSI will employ its iVision360 system development life cycle (SDLC) methodology tailored for the Provider Credentialing Project:

- **User is at the Center:** CNSI's primary motivation in developing iVision360 is to put the user at the center of the project life cycle. Successful projects have high interaction with end users and place the user at the center of the project. Every phase and activity of iVision360 focuses on interaction and collaboration with the user community. CNSI does this by implementing agile techniques and building working software in an iterative fashion with user validation at periodic intervals.
- **Common Goals:** Users actively participate in configuration sessions with an integrated team of developers, analysts, and testers. This method avoids the pitfalls of waterfall methods. iVision360 provides the team with a sense of purpose, a goal, and the drive to accomplish the end objective: software that meets the requirements.
- **Early and Often Testing:** iVision360 provides an opportunity to test early and often so formal system test phases and subsequent test phases are more likely to meet schedule expectations with a lower error-discovery rate.

By introducing the baseline management features of waterfall, CNSI minimizes the risk of scope creep that is sometimes associated with iterative methods. Moreover, implementing and integrating with project management processes will provide integrated change, issue, and risk management. Table 1 describes the key benefits of each of the industry-standard methodologies that are blended into iVision360.

Table 1. SDLC Methodology Comparison

Methodology	Key Benefits Blended into iVision360
Waterfall	Baseline approval of requirements Structured documents and customer approvals Formalized testing
Iterative/Agile	Frequent customer interaction Decomposing work into small meaningful features that are presented in working software Frequent course corrections Sense of real progress Early and frequent testing
Extreme Programming	Teams formed between developing organization and customer Sense of common vision and goal

iVision360 has been adapted for the purposes of this project. The customized version is presented in *Section 2.5.1 iVision360 Iterative Design, Testing, and Documentation Approach*.

2.3 Project Management Tools

Tools, when properly applied within the methodology framework, will reduce the time to complete a project by providing predefined processes, templates, documents, and training materials. More importantly, use of the appropriate tools will help reduce risk and increase efficiency.

CNSI will continue to use the tools already proven effective during the previous undertakings to reduce the time to complete the project and mitigate risk. Table 2 lists the tools CNSI will utilize for the project.

Table 2. CNSI Project Tools

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

Microsoft Visio and Microsoft Office are industry-standard tools. The following subsections provide additional information about ReqTrace and As-One.

2.3.1 ReqTrace

CNSI will use its ReqTrace web 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 being used in Medicaid management information system (MMIS) projects. ReqTrace provides the ability to trace requirements to use cases, related test cases, and results. The application can store requirements-related attributes, including revisions, notes, and comments.

CNSI began using ReqTrace during the implementation of CHAMPS. 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.

2.3.2 As-One

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

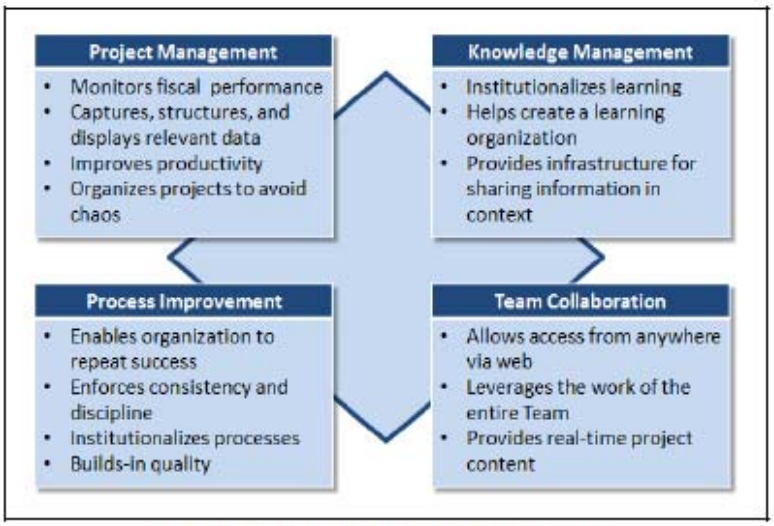

Figure 2. As-One Collaboration and Improvement

As-One is an "out-of-the-box" solution that supports CNSI's program management philosophy: experienced people, managed processes, and enabling technology.

As-One will allow CNSI users to share real-time data specific to the user's authority and association and is accessed via a standard web browser. CNSI's previous and ongoing projects with MDCH and DTMB use As-One. Training will be provided for team members new to the program.

2.4 Solution

This section will review CNSI's proposed Provider Credentialing Project, including technical and functional overviews.

2.4.1 Technical Overview

CHAMPS currently provides credential verification services through integration with Lexis-Nexis. Verification involves matching both the credential to be verified and the demographic information about the provider, including name, address, and other factors relevant to that credential. Credentials can be verified for both a national- and state-level credentials. The national provider identifier (NPI) is an example of a national-level identifier and the Michigan state-issued medical license is an example of a state-level identifier. Credential verification is accomplished in either real-time or periodic batch mode.

Credentialing requirements are contained in the provider permissions matrix. This matrix will require modification to support the newly identified credential types and to link them to the provider types and specialties where they will be required. Real-time services are invoked automatically through the Provider Enrollment Business Process Wizard when an applicant enters a credential requiring verification, such as the NPI. Real-time services can be invoked on-demand by the MDCH Provider Enrollment staff member assigned to review the application. Submitted credentials are also automatically verified in real-time one last time when the enrollment application is approved. After the provider has successfully enrolled in CHAMPS, real-time services may be invoked again if a new credential is added to the provider's record or if the effective dates for an existing credential are changed. For any discrepancy found in real-time processing, CHAMPS displays the appropriate error and action messaging to the user.

Periodic batch re-screening is also performed through integration between CHAMPS and Lexis-Nexis. All credentials that originally required verification are periodically reviewed to identify conditions, such as revocation and changes to the effective date span for the credential. CHAMPS produces reports that allow the State to follow-up and resolve any reported discrepancies.

The Provider Credentialing Project will expand the types of credentials verified to include the NCPDP number and other credentials, such as those issued to hospitals and university facilities. In addition to incorporating new credential types into the Lexis-Nexis validation process, the effort will require modification of the provider permission matrix and changes to the RuleIT® rules engine to expand the business rules necessary to correctly enroll providers with the new types of credentials.

Work will be required of CNSI's vendor, Lexis-Nexis, to incorporate any newly required credentials into the services they provide to CHAMPS.

The list of credentials to be included in this project will be defined in the requirements elicitation and validation activities. Beyond expanding the types of credentials verified through Lexis-Nexis, changes to CHAMPS may include screen and database changes to capture credentials not currently stored in the system.

Credentials already stored in CHAMPS, such as the NCPDP number, will require one-time batch validation to identify any pre-existing anomalies for manual resolution. This one-time process will be performed on implementation to ensure all current credentials are captured for revalidation.

2.4.2 Functionality

This project will expand existing real-time and batch credential verification to include verification of the NCPDP number, and additional identifiers to be recognized through requirements elicitation and verification.

2.5 Technical and Phased Approach Work Plan

CNSI has created an initial work plan and timeline for the Provider Credentialing Project. This work plan describes the expected major activities for the proposed project phases. This information is presented in Figure 3 below. A detailed description of the major activities within each phase is presented in *Section 2.5.2 Phased Approach Work Plan*.

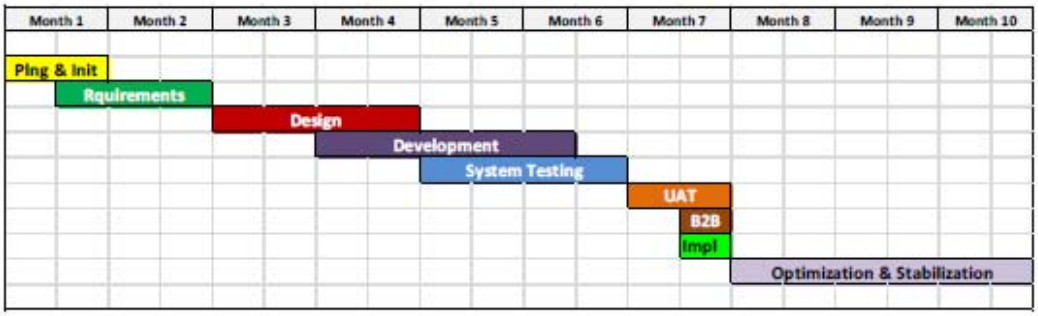

Figure 3. Initial Project Work Plan

CNSI structured this work plan to address the overall relationships of the phases and activities required to complete the project. It effectively uses the professional resources required to accomplish these phases and produce high-quality products in a cost-conscious manner.

The following subsections further describe how CNSI intends to accomplish the goals of this work plan by employing its iVision360 methodology.

2.5.1 iVision360 Iterative Design, Testing, and Documentation Approach

In this section, CNSI provides an outline of its iVision360 SDLC. The SDLC is a full-featured methodology that includes standard design and development processes. CNSI's SDLC processes have been adapted to address the specific needs of the project. This project will be divided into four phases and will be incorporated into a standard operational release.

CNSI will engage in iterative requirements analysis and design with the State at the beginning of each release. The State will be able to review requirements analysis and design documents as soon as a logical set of iterations are completed. CNSI expects initial State signoff upon acceptance of the iteration's document scope. This will help reduce the time required for document review and approval. Narrowing the document scope will assist the State in performing a thorough review. Once iterations are completed for a release, an overall document will be produced for a final delivery and acceptance to State.

The iterative/agile development and testing portion of the iVision360 methodology is visible in each release of design and coding. During this phase, technical design specifications for impacted functions and user stories are constructed in parallel by developers and SMEs. As the impacted function's design is completed, the Team Lead will plan the related development iterations.

Developers will build internal design documentation prior to, and during, the iterations. The beginning of each iteration is reserved for startup activities, including finalizing the internal design documentation. The developer meets with the data modeling team on the first day of an iteration to conduct a walkthrough of any required data model changes. The data modeling team makes the required changes to the database schema and approves the physical model for coding. Developers also develop iteration test cases (for the tasks that may not be tested with automatic internal iteration test code), which are required to test each story completely.

Coding begins when the internal design and pre-coding work is completed for the iteration. The developer will write internal iteration test scripts in parallel to actual working code and update screens and other system functions to fit the physical mode. The developer will execute the iteration test scripts as they complete sections of code. The codes will be built and tested incrementally. The developer will coordinate daily stand-up meetings and communicate any development issues.

This development approach ensures developers do not work in silos. It also avoids the traditional approach of throwing design documentation "over the fence" to developers to begin coding, only to discover later that major rework is required halfway through the development process.

Developers eventually test the code against internal auto-unit-code and manual internal iteration test scripts. As they reach the end of the iteration, they will run the code against functional scripts developed by the test team. Discrepancies are identified and corrected, and the developer retests to ensure all discrepancies are corrected and closed before the iteration ends. The developer will conduct a peer review of the impacted function's code on the last day of the iteration and then update the code based on the review. When developer iteration testing and software code reviews are successfully completed for the iteration, the code will be promoted to the integration test stream. The code will be released to the test team for system testing when coding and developer iteration testing is completed for all of an impacted functions user stories.

During initial development iterations, the test team will develop system test cases based on requirements specification. During system testing, the test team will execute system test cases to validate system results against requirements.

CNSI plans to engage the test and development teams early on to build the regression test suite for critical functions. This will help to speed up testing and improve overall quality of implementation. During system testing, if required, regression tests will be performed on impacted functions based on changes to a previously tested baseline. The intent of regression testing is to demonstrate that CHAMPS continues to meet all approved requirements after changes have been introduced to a previously tested baseline.

For the Provider Credentialing Project, CNSI will integrate the new features through the standard CHAMPS operational release process. As soon as system testing is completed for an activity, CNSI will deliver the code to the UAT environment for the targeted release. This effort will incorporate a standard four-week UAT with an overlapping two-week B2B period.

Figure 4 presents a graphical overview of the processes that are part of the iVision360 methodology.

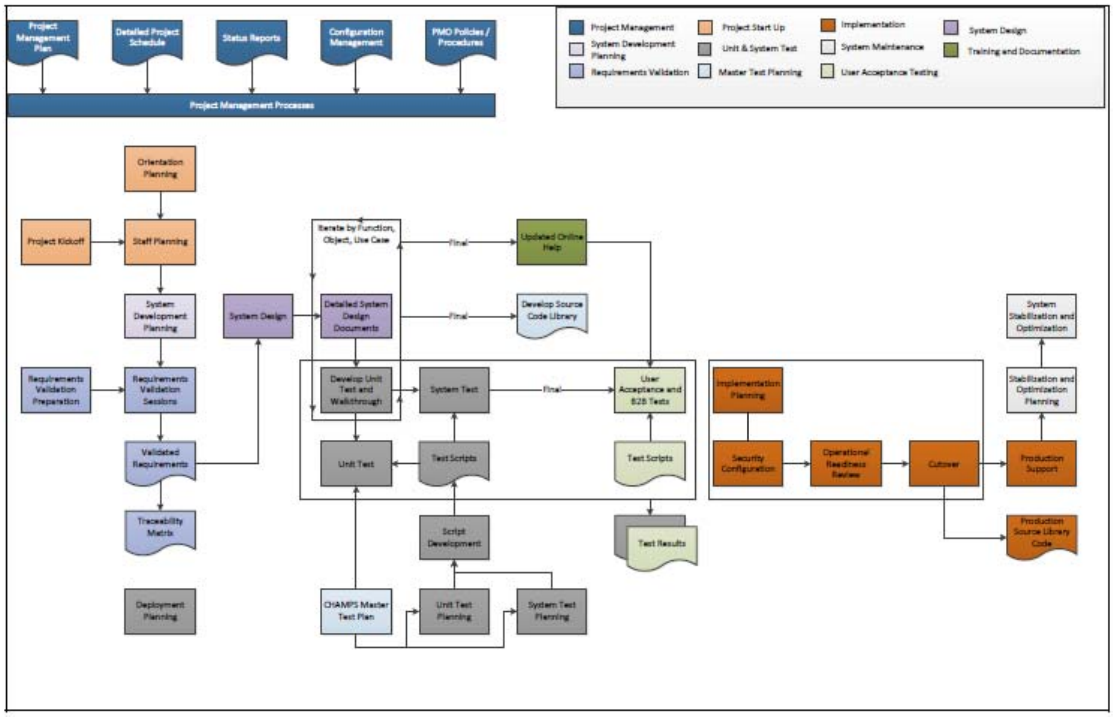

Figure 4. iVision360 Process Diagram

2.5.2 Phased Approach Work Plan

CNSI proposes an overlapping, four-phased approach to the Provider Credentialing Project, consisting of design, development, implementation, stabilization, and optimization activities.

The four phases are:

- **Phase I:** Initiation and Requirements
- **Phase II:** Design, Coding, and System Testing
- **Phase III:** UAT and Production Deployment
- **Phase IV:** Stabilization and Optimization

Figure 5 provides a high-level overview of the four phases, their major activities, and expected timelines.

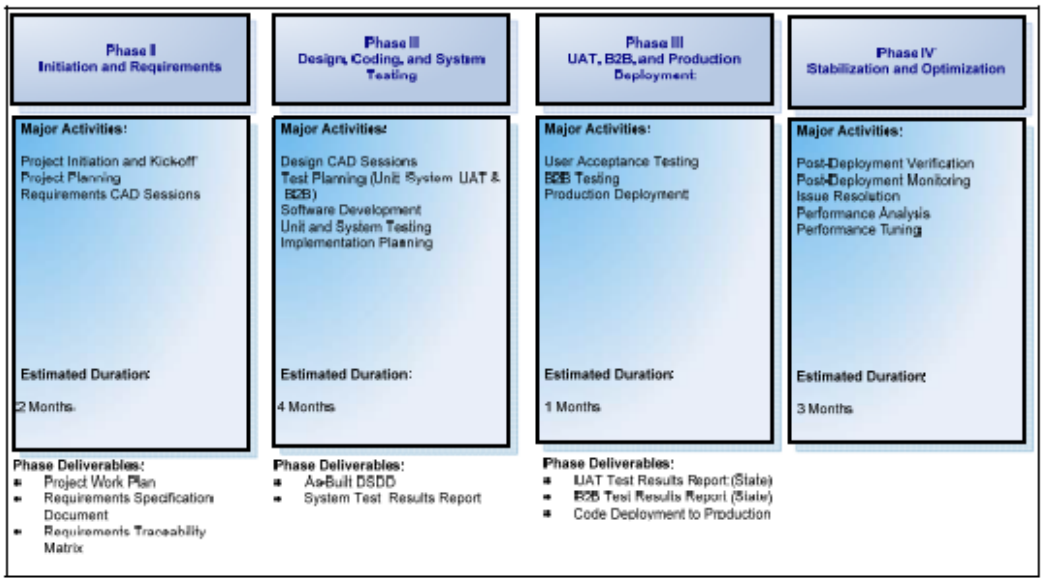

Figure 5. High-Level Project Phases and Activities

With every project, there are critical milestones to be met and work products and deliverables that must be developed and produced in order to provide the inputs necessary to perform the next phase. Table 3 elaborates on the key high-level milestones of the proposed implementation plan, along with the expected deliverables.

Table 3. High-Level Activities and Milestones by Phase

Major Activity	Description	Phase
Project Initiation	Establish the project team structure, key stakeholders, and operating guidelines for team activity throughout the course of the project.	Phase I
Project Planning	Establish project plans and schedules.	Phase I
Requirements Collaborative Application Development (CAD) Sessions	Conduct CAD sessions to elicit and validate requirements for the Provider Enrollment subsystem and changes to the interfaces with Lexis-Nexis.	Phase I
Phase I Deliverables • **Project Work Plan** • **Requirements Specification Document** • **Requirements Traceability Matrix**		
Design CAD Sessions	Conduct CAD sessions to document detailed system design changes for Provider Enrollment.	Phase II
Test Planning	Conduct detailed test planning for each phase of testing: unit, system, UAT, and B2B.	Phase II
Software Development	Software changes required to support the detailed functional design including: • Screens • Functionality (driven by use cases) • Data Models • Reports • Letters • Interfaces	Phase II
Unit and System Testing	Internal CNSI testing of developed functionality at the component, subsystem, and system level, including end-to-end (E2E) regression testing.	Phase II
Implementation Planning	Coordinate production installation of the system changes.	Phase II

Major Activity	Description	Phase
Phase II Deliverables • **As-Built Detailed System Design Document (DSDD)** • **System Test Results**		
UAT	MDCH testing of all system changes using formal UAT test scripts.	Phase III
B2B	Selected providers test new functionality in accordance with the B2B Test Plan.	Phase III
Production Deployment	CNSI and the State deploy the modifications in the MDCH production CHAMPS environment.	Phase III
Phase III Deliverables • **UAT Results Report (State Deliverable)** • **B2B Test Results Report (State Deliverable)** • **Code Deployment to Production**		
Post-Deployment Verification	Perform a sanity check of all system functions after code deployment to ensure all features function as designed.	Phase IV
Post-Deployment Monitoring	Overall monitoring of CHAMPS system health and performance after code deployment.	Phase IV
Issue Resolution	Identification of and plan-of-action to resolve issues should they arise after code deployment.	Phase IV
Performance Analysis	Measure and analyze post-deployment performance of the CHAMPS system in comparison to pre-deployment system performance.	Phase IV
Performance Tuning	Adjust system queries, database tables, and interfaces as needed to improve system processing and throughput.	Phase IV

2.5.2.1 Phase I – Initiation and Requirements

Activity 1: Project Initiation

During this activity, CNSI will collaborate with the State to identify the key business and technical team members who will participate in the Provider Credentialing Project. CNSI will conduct the formal project kickoff and provide orientation for the project effort.

The major milestones associated with this activity are:

- Participating team members from the State are identified.
- Project kickoff meeting is conducted and project kickoff is completed.

Activity 2 - Project Planning

During this activity, CNSI will develop the project schedule to track and monitor the progress of the Member Portal project. The project schedule outlines the list of all the activities that are needed by CNSI to fulfill the needs of the Member Portal project. CNSI will also take the responsibility of integrating DCH and DTMB tasks in the project schedule to make sure all the dependencies are identified and tracked accordingly. Once the integrated schedule is reviewed and approved by all the relevant stakeholders, it is baselined.

The milestone associated with this activity includes:

- Integrated Project Schedule.

Activity 3 – Requirements CAD Sessions

The goals of the Provider Credentialing Project have been defined at a high-level within this statement of work. During this activity, CNSI will host CAD sessions to elicit and validate functional and technical requirements. The CAD sessions will include the State and CNSI functional and technical SMEs. CNSI will compare the validated requirements with current CHAMPS functionality and technical architecture to determine the impact of the new requirements across all CHAMPS subsystems, including system aspects, such as:

- New and modified screens.
- Functionality (use cases).
- Data models.
- Reports.
- Letters.
- Interfaces.

During these sessions, CNSI and the State will collaborate to determine which credentials, in addition to the NCPDP number, will be included. This will result in a requirements specification document which will provide a clear, concise, and final definition of each requirement. The finalized requirements will be used during the design and development activities in Phase II.

The major milestones associated with this activity are:

- Functional requirements specification document is delivered.
- Approved requirements have been loaded into ReqTrace.

2.5.2.2 Phase II – Design, Coding, and System Testing

Activity 1 – Design CAD Sessions

During this activity, CNSI will host CAD sessions to produce detailed design artifacts. Sessions will be organized and scheduled per requirements for the affected CHAMPS subsystem and the solution's technical architecture. CAD sessions will include State and CNSI functional and technical SMEs. Using the existing CHAMPS design and the requirements specification document as a starting point, session participants will identify and document required design changes including system aspects such as:

- Screens
- Functionality (use cases)
- Data Models
- Reports
- Letters
- Interfaces

This will result in final, revised design artifacts, including use cases and data models, which will be the basis for the development of changes to system functions. During this activity, the specific changes needed in the provider permission matrix will be identified. CNSI will submit the completed design artifacts to the appropriate State decision-maker shortly after the completion of the CAD session. The State decision-maker will formally approve the design artifacts via signature on an approval form, similar to the existing CHAMPS enhancement approval process. This approval indicates that design is final and development can begin. CNSI will submit a final, as-built DSDD for MDCH approval upon completion of all design sessions.

The major milestone associated with this activity is the delivery of the as-built DSDDs.

Activity 2 - Development

During this activity, CNSI codes the software changes required to support the updated detailed functional and technical design. Development is performed through a series of bi-weekly development iterations, as previously described. Development includes the coding changes as defined in the as-built DSDDs for CHAMPS, including system aspects, such as:

- Screens
- Functionality (use cases)
- Data Models
- Reports
- Letters
- Interfaces

During this activity, CNSI will also apply the modifications to the provider permission matrix and load it into the development environment. At the conclusion of each development iteration, the code will be delivered to the CNSI Test Team.

The major milestone associated with this activity is that all development iterations are completed.

Activity 3 – Test Planning

During this activity, CNSI collaborates with the State to prepare test scenarios and scripts for each phase of testing, including system testing and UAT. The system test scenarios and scripts are prepared by the CNSI Test Lead. UAT and B2B test scenarios and scripts are prepared by the State. For the Provider Credentialing Project, there is significant interaction with Lexis-Nexis and new types of providers will be going through enrollment using the newly added credentials. Testing with Lexis-Nexis is expected to occur throughout all phases of testing. Testing with providers will be deferred to the B2B test period.

Milestones associated with this activity include:

- System test preparation is completed
- UAT preparation is completed (State).
- B2B preparation is completed (State)

Activity 4 – Implementation Planning

During this activity, CNSI collaborates with the State, the State's data warehouse vendor, and Lexis-Nexis to coordinate the timing of the production installation of the system changes. The Provider Credentialing Project will be incorporated into the regular CHAMPS release operational release implementation schedule. Implementation planning activities will focus on targeting the operational release that will include this initiative and integrating the new features into the release.

The major milestone associated with this activity is identification of the operational releases where the software will be deployed.

Activity 5 – Unit/System Testing

During this activity, CNSI tests the developed functionality at the component, subsystem, and system level, including E2E regression testing. System testing will be aligned with the selected operational releases where the code will be deployed. Testing for this project will focus on ensuring that the provider permission matrix is functioning as designed and that Lexis-Nexis is correctly validating the newly added credentials.

Milestones associated with this activity include:

- System test results report is delivered.
- Code is deployed to UAT environment.
- UAT begins.

2.4.2.3 Phase III – UAT and Production Deployment

Activity 1 – User Acceptance Testing (UAT)

During this activity, CNSI provides support to MDCH staff who will conduct UAT using State-developed test scenarios and scripts. UAT testing will be aligned with the selected operational releases where the code will be deployed. As with system testing, UAT for this project will focus on ensuring that the provider permission matrix is functioning as designed and that Lexis-Nexis is correctly validating the newly added credentials.

The major milestone associated with this activity is that the State publishes the UAT Results Report.

Activity 2 –Business-to-Business Testing (B2B)

During this activity, CNSI deploys the code to the B2B environment and provides support to the State in conducting external B2B testing. A small number of providers having the new types of credentials will exercise the end-user interface for enrollment and maintenance request functions.The selected providers will have new types of credentials to test the functionality developed through the Provider Credentialing Project. B2B testing will be aligned with the selected operational releases where the code will be deployed.

The major milestone associated with this activity is that the State publishes the B2B Test Results Report.

Activity 3 – Production Deployment

During this activity, CNSI and the State, its data warehouse vendor, and Lexis-Nexis collaborate to execute the implementation plan. The finalized code will be merged into the selected regular operational release. CNSI deploys the release to the production environment where it is available for use by MDCH.

The major milestones associated with this activity include:

- Code is deployed to production.
- Stabilization and optimization begins.

2.4.2.4 Phase IV – Stabilization and Optimization

Activity 1 – Post-Deployment Verification

This activity involves verifying the correct installation and operation for all system components. During this activity, CNSI performs a sanity check of all system functions after code deployment, to ensure all features function as designed.

Purpose:

- Verify Screen Operation
- Verify Interfaces Operation
- Verify Database-to-Database (DB2DB) Jobs Operation
- Verify Data Warehouse Extract Operation

- Verify all Production Job Schedules:
  - Interface Schedules
  - DB2DB Job Schedules
  - Data Warehouse Extract Schedules

Activity 2 – Post-Deployment Monitoring

This activity involves monitoring the system in the months after the application upgrade has gone live.

Purpose:

- Monitor System Performance Metrics:
  - Application Screen Performance
  - Database Performance
  - Application Queues Performance
  - Interface Performance
  - DB2DB Job Performance
  - Data Warehouse Extract Performance
  - Reports Performance

Activity 3 – Issue Resolution

This activity involves evaluating issues reported in the 90-day period. Issues will be logged and processed according to the CHAMPS operations incident management, application support, change management, and release management processes. Issues that require system changes will be planned for software releases based on priority and will be assigned to CHAMPS operations releases in accordance with the approved schedule.

Purpose:

- Incident Management:
  - OTRS Ticket Entry
  - OTRS Ticket Triage
  - OTRS Ticket Analysis
  - OTRS Ticket Disposition Determination (Defect, Enhancement, Request for Change (RFC), or Closure)
- Application Support:
  - Iterative Development
  - System Testing
  - RFC Creation and Testing

- Change Management:
  - CQ Entry
  - CQ Analysis
  - CQ Planning:
    - Change Log Estimation and Approval
    - Code Promotion
    - RFC Deployment
- Release Management:
  - Release Planning
  - Release Assignment
  - Release Deployment

Activity 4 – Performance Analysis

This activity is the process for analyzing the performance of CHAMPS after the Provider Credentialing Project changes have gone live. Various operational reports and monitoring tools will be used to assess the performance of the system and identify opportunities for improvement.

Purpose:

- Operational Reports:
  - Identify any processes performing below benchmarks.
- Monitoring Tools:
  - Identify any servers with metrics outside normal operating ranges.
  - Identify any slow running queries.
  - Identify heavily used web pages.
  - Identify heavily used transactions.

Activity 5 – Performance Tuning

After all processes, servers, and queries where performance issues are identified, the Application Support and Infrastructure Teams will construct a remediation plan. The remediation plan will identify the changes to be made, the timeline for the changes, and the deployment plan either through software release, RFC, or maintenance outage in the case of server changes.

Purpose:

- Application Support:
  - Perform process tuning in the development environment.
  - Plan software changes for software releases per the CHAMPS operations release schedule.

  - Tuning changes are released and deployed according to the CHAMPS operations change management and release management processes.
  - If the Application Support Team requires infrastructure changes, they will request the changes through the CHAMPS operations RFC process.
- Infrastructure Support: Perform server tuning in lower environments.

Deploy configuration changes to production during monthly planned maintenance outages. Emergency maintenance outages may be requested if performance issues are severe and business-impact is high. In that case, the emergency outage will be planned based on CHAMPS service-level agreements in order to minimize business impacts.

CNSI will support this effort with the following deliverables:

- Operational Reports
- Performance Reports
- Issue Resolution Plan

Section 3: General Assumptions

This statement of work is presented based on the following assumptions:

1. The credentials to be verified through this endeavor are limited to those credentials available through Lexis-Nexis to which the State does not already subscribe. NCPDP number is an example of this type of a credential present in Lexis-Nexus at this time. If credentials outside of Lexis-Nexis purview are required, a change order will be required to fund the necessary Lexis-Nexis development.
2. The Optum Data Warehouse organization is responsible for making changes to the State's data warehouse to accept any new data elements resulting from the Provider Credentialing Project.
3. The solution developed for the Provider Credentialing Project will meet all applicable State technical and security standards.
4. The solution developed for the Provider Credentialing Project will not require any update to the CHAMPS operations or disaster recovery documentation.
5. The solution developed for the Provider Credentialing Project will not require new hardware or changes to the State's infrastructure.

Section 4: Pricing

This section presents CNSI's fixed-price, overall labor cost for completing the Provider Credentialing Project. The cost was derived based on the expected effort required, as presented in our initial work plan, composed of the four phases depicted in Figure 5. The total fixed-price labor cost for the Provider Credentialing Project is $3,000,000. Additional estimated Lexis-Nexis licensing cost is estimated at $520,000. Twelve months of ongoing screening is estimated at $60,000. The total estimated cost including 12 months of screening is $3,580,000.

CHAMPS Operational Data Store Project Statement of Work

Prepared For:

State of Michigan
Department of Community Health
400 South Pine Street
Lansing, Michigan 48909

Prepared By:

CNSI
6465 Millennium Drive, Suite 150
Lansing, MI 48917

June 5, 2013