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State Term Contract
No. 80101507-21-STC
For
Information Technology Independent Verification and Validation Services

This Contract is between the State of Florida (State), Department of Management Services (Department), with offices at 4050 Esplanade Way, Tallahassee, FL 32399-0950, and Software Engineering Services (Contractor) with offices at 1311 Fort Crook Rd South Ste 100, Bellevue NE 68005, collectively referred to herein as the "Parties."

The Contractor submitted a Responsive Proposal to the Department's Request for Proposal (RFP) No. 21-80101507-RFP, Information Technology Independent Verification and Validation Services. After the evaluation of Proposals, the Department determined that the Contractor's Proposal is among those that are the most advantageous to the State and has decided to enter into this Contract.

Accordingly, the Parties agree as follows:

I. Initial Contract Term.

The Initial Contract Term shall be for three years. The Initial Contract Term shall begin on December 16, 2021, or on the last date it is signed by all Parties, whichever is later. The Contract shall expire on December 15, 2024, unless terminated earlier in accordance with the Special Contract Conditions.

II. Renewal Term.

Upon mutual written agreement, the Parties may renew this Contract, in whole or in part, for up to three (3) years, pursuant to Exhibit B, Special Contract Conditions.

III. Contract.

As used in this document, "Contract" (whether or not capitalized) shall, unless the context requires otherwise, include this document and all incorporated attachments and exhibits, which set forth the entire understanding of the Parties and supersedes all prior agreements. All modifications to this Contract must be in writing and signed by all Parties.

All attachments listed below are incorporated in their entirety into, and form part of, this Contract. The Contract documents shall have priority in the order listed:

a) Statement of Work, Exhibit A
b) Contractor's Submitted Cost Proposal, Exhibit F
c) Additional Special Contract Conditions, Exhibit G
d) Special Contract Conditions, Exhibit B

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e) Contract Exhibit C, Job Titles
f) Contract Exhibit D, (IT) IV&V Work Plan and Methodology
g) Contract Exhibit E, Contractor Performance Survey

IV. Contract Management.

Department's Contract Manager:
Frank Miller
Division of State Purchasing
Florida Department of Management Services
4050 Esplanade Way, Suite 360
Tallahassee, Florida 32399-0950
Telephone: (850) 488-8855
Email: Frank.miller@dms.fl.gov

Contractor's Contract Manager:
Brittany McNair
Software Engineering Services
1311 Fort Crook Rd South Ste 100
Bellevue, NE 68005
Telephone: (402) 502-1574
Email: bmcnair@sessolutions.com

IN WITNESS THEREOF, the Parties hereto have caused this Contract to be executed by their undersigned officials as duly authorized. This Contract is not valid and binding until signed and dated by the Parties.

Software Engineering Services	**STATE OF FLORIDA, DEPARTMENT OF MANAGEMENT SERVICES**
DocuSigned by: Brittany McNair DC2EA358598A421...	
Name: Brittany McNair	**Name: J. Todd Inman**
	Title: Secretary
12/9/2021 | 6:44 PM EST	
Date:	**Date:**

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e) Contract Exhibit C, Job Titles
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	Title: Secretary
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Date:	**Date:**

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Information Technology Independent Verification and Validation Services
EXHIBIT A
Statement of Work

A. Scope of Work

The Contractor shall provide information technology (IT) independent verification and validation (IV&V) services to Customers in accordance with this Statement of Work (SOW).

The Contractor shall provide the professional and technical staff necessary to perform the ((IT) IV&V services required by this Contract, and the staff shall have sufficient skill and experience to perform the services assigned to them.

All of the (IT) IV&V services to be furnished by the Contractor under the Contract shall meet the professional standard and quality that prevail among IT professionals in the same discipline and of similar knowledge and skill engaged in related work under the same or similar circumstances.

The Contractor shall maintain during the term of the Contract all licenses, permits, qualifications, insurance, and approvals of whatever nature that are legally required to perform the (IT) IV&V services.

B. Definition

IT Independent Verification and Validation (IT) IV&V) – A review of the project plans and other project artifacts by an independent third party. The primary objective of an (IT) IV&V Service is to provide an objective assessment of products and processes throughout the project management lifecycle. In addition, (IT) IV&V will facilitate early detection and correction of issues, enhance management insight into risks, and ensure compliance with project performance, schedule, and budget requirements. The (IT) IV&V entity must have no technical, managerial, or financial interest in the project and will not have any responsibility for, or participation in, any other aspect of the project.

C. Minimally Required Activities and Deliverables

The Contractor shall perform ongoing project (IT) IV&V monitoring activities and will review and validate issues, deficiencies, and risks identified with the project. Project monitoring activities include, but are not limited to:

1. Providing an independent, objective, third-party view of project efforts with the intent of protecting the Customer's interests.
2. Providing personnel, processes, approaches, and tools to perform (IT) IV&V services for Florida (IT) projects.
3. Performing assessments on both management processes and work products.
4. Providing objective observations and recommendations.
5. Assessing and reporting overall project performance, extrapolating future project progress and success, and identifying any possible impediments to successful project completion.
6. Examining all project artifacts and documents to evaluate the effectiveness of the project management controls, procedures, and methodology.
7. Assessing the effectiveness of project communication and Customer involvement.
8. Developing performance metrics that facilitate the tracking of progress and

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completion of project tasks and milestones.

9. Reviewing all project cost and expenditure documentation and making recommendations for efficient use of funds.
10. Validating identified risks and issues and proposed response(s) and assessing impact to the project progress or success.
11. Verifying and validating the quality of project work products (i.e., deliverables).
12. Reviewing Statements-of-Work, solicitations, and contracts to verify alignment between requirements and solicited or contracted terms.
13. Providing guidance and training on standards and best practices for project management.
14. Ensuring project teams follow the standards required by, the Florida Administrative Code, Florida Statutes, federal laws and rules, and others applicable standards.
15. Alerting project teams to change in the standards referenced in Section C. 14, above, and applying those changes to their monitoring process.
16. If additional specific requirements for any (IT) IV&V consulting services are needed, they will be determined by the Customer in a project-specific Statement of Work attached to a Request for Quote.

In addition to the activities listed above, the Contractor shall provide presentations and oral reports, attend meetings and events, perform records management and administrative responsibilities related to the Contract and maintain open and effective communication with the Customer's project manager, sponsor(s), and oversight entities.

The activities identified above (and others) are necessary to provide input into the deliverables below. The deliverables will be required in Statements of Work issued by Customers in Requests for Quotes (RFQ) (see Section C, Orders, and Section L, Requests for Quote, below, for additional information).

(IT) IV&V Management Plan	Develop an (IT) IV&V Management Plan to include: • A detailed description of how the (IT) IV&V Vendor plans to perform the (IT) IV&V services. This description must include methodologies, strategies, standards, and approaches employed by the (IT) IV&V Vendor for executing each of the (IT) IV&V activities within this Statement of Work. • An organizational structure which reflects, among other things, coordination activities among the (IT) IV&V Vendor, the Project Manager and team, the project sponsor, Customers, and any oversight entities involved in the project. • Description of resources assigned to (IT) IV&V activities, tasks, and deliverables. • Description of the deliverables to be produced as a result of the (IT) IV&V activities.
(IT) IV&V Schedule	• Develop an (IT) IV&V schedule.
(IT) IV&V Status Reports / Meetings	• Hold (IT) IV&V status meetings with (IT) IV&V team, project manager, and project sponsor. • Hold (IT) IV&V status meetings with oversight entities as requested by these entities.

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Initial Project Assessment Report	• Evaluate sufficiency of project scope and objectives, including alignment to legislative intent and its impact on Customer processes and services. • Review the Project Management Plan and the planned development of project's schedule, resources, tasks, structures, processes, and procedures, to assess the overall maturity of the project's planning. • Assess the project's organizational, governance, and communication processes. • Review the impact of any procurement requirements and deadlines.
Project Lessons Learned	• Document lessons learned throughout the project and provide a comprehensive report of lessons learned with recommendations for incorporation of best practices into future projects.
Weekly Project Assessment Updates	• Provide weekly updates (between Monthly Reports) to assess project status, project management strengths and deficiencies, schedule effectiveness and earned value measures and recommendations for correcting identified variances from best practices.
Monthly Project Assessment Reports	• Summarize the results of ongoing project monitoring and provide findings and recommendations for improvement of project management and processes.
Special Communication	• Special communication to all stakeholders will be generated immediately when the Contractor determines that circumstances exist that put the scope, budget, schedule, or viability of the project at significant risk as defined in the (IT) IV&V Management Plan.
Phase Gate Assessment Reports	• Describe project status and progress for the current phase of the project and plans for the upcoming phase. • Provide an analysis of the project's ability to meet future project milestones and deliverables and recommendations on project/Customer readiness to proceed to the next phase.

Verification and Validation of Project Deliverables	• Conduct verification and validation reviews of project deliverables. Deliverables may include, but are not limited to:
	  • Organizational Change Management Plan (includes any training plans)
	  • Requirements Documents (Business, Functional, and Technical)
	  • Requirements Traceability Matrix
	  • Data and Document Conversion / Migration Plan(s)
	  • Project Plan / Schedule
	  • Design Specifications
	  • Technical Architecture
	  • Coding standards / Style guides
	  • Quality Assurance and Test Strategy / Test Plan / Test procedures
	  • Customer acceptance criteria
	  • Security Plans
	  • Implementation / Cutover Plan
	  • Sustaining Engineering Plan
	  • Agency Project Management Status Reports
	  • Disaster Recovery Plan

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Review of Solicitation and Procurement Documentation	• Review of any solicitation, procurement, or contract documents to verify that, at a minimum, the evaluation criteria are clearly articulated and are consistent with project objectives and that the obligations of the Vendor, subcontractors, and external staff are clearly defined and aligned to facilitate success.

Customers may augment the minimally required activities and deliverables above with additional activities or deliverables as required by the project.

D. Orders

Customers will use an RFQ, in accordance with sections 287.056(2) and 287.0591(5), Florida Statutes (F.S.), when purchasing services under this Contract. The RFQ will include a term, service levels, educational qualifications, and experience needed. Customer will order services from the RFQ via a purchase order or the State of Florida Purchasing Card.

Contractor must be able to accept MyFloridaMarketPlace (MFMP) purchase orders. In accepting a purchase order, the Contractor recognizes its responsibility for all tasks and deliverables contained therein, warrants that it has fully informed itself of all relevant factors affecting accomplishment of the tasks and deliverables, and agrees to be fully accountable for the performance thereof.
Contractor should be able to accept the State of Florida Purchasing Card.

E. MFMP Electronic Invoicing

The Contractor may supply electronic invoices in lieu of paper-based invoices for those transactions processed through MFMP. Electronic invoices may be submitted to the Customer through one of the mechanisms as listed below:

1. Electronic Data Interchange (EDI). This standard establishes the data contents of the Invoice Transaction Set (810) for use within the context of an EDI environment. This transaction set can be used for invoicing via the Ariba Network (AN) for catalog and non-catalog goods and services.

2. Purchase Order Flip via Ariba Network (AN). This online process allows Contractors to submit invoices via the AN for catalog and non-catalog goods and services. The Contractor may create an invoice directly from its inbox in its AN account by simply "flipping" the purchase order into an invoice. This option does not require any special software or technical capabilities.

The Contractor warrants and represents that it is authorized and empowered to and hereby grants the State and the third-party provider of MFMP, a State contractor, the right and license to use, reproduce, transmit, distribute, and publicly display within MFMP. In addition, the Contractor warrants and represents that it is authorized and empowered to and hereby grants the State and the third-party provider the right and license to reproduce and display within MFMP the Contractor's trademarks, system marks, logos, trade dress, or other branding designation that identifies the products made available by the Contractor under the Contract.

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The Contractor will work with the MFMP management team to obtain specific requirements for the electronic invoicing if needed.

F. Contract Reporting

The Contractor shall provide the following reports associated with this Contract.

1. Contract Quarterly Sales Reports. The Contractor shall submit Quarterly Sales Reports to the Department's Contract Manager within 30 calendar days after the close of each State fiscal quarter. Quarterly reporting timeframes coincide with the State Fiscal Year as follows:

   Quarter 1 - (July-September) – due 30 calendar days after close of the period
   Quarter 2 - (October-December) – due 30 calendar days after close of the period
   Quarter 3 - (January-March) – due 30 calendar days after close of the period
   Quarter 4 - (April-June) – due 30 calendar days after close of the period

   The Contractor's first Quarterly Sales Report will be due 30 calendar days after the first full quarter following Contract execution. Reports must be submitted in MS Excel format and can be retrieved by accessing the following link at FL DMS Quarterly Sales Report Form. The report shall include all Customer sales received and associated with this Contract during the quarter. Initiation and submission of the Quarterly Sales Report is the responsibility of the Contractor without prompting or notification from the Department's Contract Manager. If no orders are received during the period, the Contractor must submit a report stating that there was no activity. If the Contractor fails to submit two consecutive quarterly sales reports, the Contract may be terminated, or the Department may choose to not renew the Contract.

2. Certified and Minority Business Enterprises Reports. Upon Customer request, the Contractor shall report to each Customer, spend with certified and other minority business enterprises in the provision of commodities or services related to the Customer orders. These reports shall include the period covered; the name, and Federal Employer Identification Number of each minority business enterprise utilized during the period; commodities and services provided by the minority business enterprise; and the amount paid to each minority business enterprise on behalf of the Customer.

3. Ad Hoc Sales Reports. The Department may require additional Contract sales information such as copies of purchase orders or ad hoc sales reports. The Contractor shall submit these documents and reports within the timeframe specified by the Department.

4. MFMP Transaction Fee Reports. The Contractor shall submit monthly MFMP Transaction Fee Reports to the Department. Reports are due 15 calendar days after the end of each month. Information on how to submit MFMP Transaction Fee Reports online can be located on the Transaction Fee and Reporting website. Assistance with the transaction fee reporting system is also available from the MFMP Customer Service Desk by email at feeprocessing@myfloridamarketplace.com or telephone at 866-FLA-EPRO (866-352-3776) from 8:00 a.m. to 6:00 p.m. Eastern Time.

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The Department may not consider renewal of a Contract or price adjustments if the Contractor is late on submitting required reports or for outstanding fees owed.

5. Quarterly Contractor Performance Reporting.
   Customers shall complete a Contractor Performance Survey (Exhibit E) for each Contractor on a Quarterly basis. Customers will submit the completed Contractor Performance Survey(s) by email to the Department Contract Manager no later than the due date indicated in Section F-1.

G. Deliverables and Financial Consequences

The following financial consequences will apply for the Contractor's non-performance of the provision of the Quarterly Sales Reports and the MFMP Transaction Fee Reports. The State reserves the right to withhold payment or implement other appropriate remedies, such as Contract termination or nonrenewal, when the Contractor has failed to comply with these provisions of the Contract. The Contractor and the Department agree that the financial consequences for non-performance are an estimate of damages which are difficult to ascertain and are not penalties.

The financial consequences will be paid via check or money order and made out to the Department of Management Services in U.S. dollars within thirty (30) calendar days after the required report submission date. These consequences are individually assessed for failures over each target period beginning with the first full month or quarter of the Contract and every month or quarter, respectively, thereafter.

Deliverables and Financial Consequences Chart

Deliverable	Performance Metric	Performance Due Date	Financial Consequence for Non-Performance (Per Calendar Day Late/Not Received by the Contract Manager)
Contractor will timely submit complete Quarterly Sales Reports	All Quarterly Sales Reports will be submitted timely with the required information	Reports are due on or before the 30th calendar day after the close of each State fiscal quarter	$250
Contractor will timely submit complete MFMP Transaction Fee Reports	All MFMP Transaction Fee Reports will be submitted timely with the required information	Reports are due on or before the 15th calendar day after the close of each month	$100

1. Service Level Agreement (SLA) Performance
   State agencies and eligible users may add SLA requirements and additional

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financial consequences in their statements of work for failing to meet performance requirements within any negotiated SLA or purchase order.

H. Business Review Meetings

Both the Department and Customer reserve the right to schedule business review meetings. The Department or Customer will provide the format for the Contractor's agenda. In the event the Department or Customer schedules a business review meeting, the Contractor shall submit the completed agenda to the Department or Customer for review and acceptance prior to the meeting. The Contractor shall address the agenda items and any of the Department's or Customer's additional concerns at the meeting. At a minimum, the agenda items may include:

- Contract compliance
- Savings report (in dollar amount and cost avoidance)
- Spend reports by Customer
- Recommendations for improved compliance and performance

Failure to comply with this section may result in the Contractor being placed on a Corrective Action Plan and possible termination of the Contract.

I. E-Verify

The Contractor (and its subcontractors) have an obligation to utilize the U.S. Department of Homeland Security's (DHS) E-Verify system for all newly hired employees. By executing this Contract, the Contractor certifies that it is registered with, and uses, the E-Verify system for all newly hired employees. The Contractor must obtain an affidavit from its subcontractors in accordance with paragraph (2)(b) of section 448.095, F.S., and maintain a copy of such affidavit for the duration of the Contract. In order to implement this provision, the Contractor shall provide a copy of its DHS Memorandum of Understanding (MOU) to the Department's Contract Manager within five (5) days of Contract execution.

This section serves as notice to the Contractor regarding the requirements of section 448.095, F.S., specifically sub-paragraph (2)(c)1, and the Department's obligation to terminate the Contract if it has a good faith belief that the Contractor has knowingly violated section 448.09(1), F.S. If terminated for such reason, the Contractor will not be eligible for award of a public contract for at least one (1) year after the date of such termination. The Department reserves the right to order the immediate termination of any contract between the Contractor and a subcontractor performing work on its behalf should the Department develop a good faith belief that the subcontractor has knowingly violated section 448.095(1), F.S

J. Ongoing Contractor Performance Measures

The State will use performance-reporting tools to measure the performance of the Contractor, including the Contractor Performance Survey (Exhibit E). Such measures assist the Department in ensuring that Contractors provide the best possible value to the State and its Customers. The Department reserves the right to modify the Contractor Performance Survey and introduce additional performance-reporting tools as they are

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developed, including online tools (e.g., tools within MFMP or on the Department's website).

K. Request for Quotes

1. Customers that require (IT) IV&V services will create a RFQ eQuote event in MFMP Sourcing. Pursuant to section 287.056, F.S., RFQs issued pursuant to this Contract do not constitute decisions or intended decisions subject to protest under section 120.57(3), F.S.

2. The Customer shall ensure that a request for quote is issued to all vendors on the Contract, or if there are more than twenty-five (25) Vendors on the Contact, to at least twenty-five (25) of the vendors.

3. The specific format of the RFQ is left to the discretion of the Customer's Contracting Officer. However, the Customer must include the following information, at a minimum, in each RFQ:

   a) Statement of Purpose / Need
   b) Statement of Work
   c) Project Tasks and Deliverables (see Section B, Minimally Required Activities and Deliverables, above, for additional information)
   d) Project Timeline
   e) List of Contractor Responsibilities
   f) Qualifications / Certifications of the Consultant(s)
   g) Method of Compensation
   h) Financial Consequences for Non-Performance
   i) Special Terms and Conditions

4. RFQ Pricing Models. Two (2) RFQ pricing models are available to Customers procuring services pursuant to this Contract:

   a) Hourly Rate Pricing. The Contractor shall provide services at an hourly rate price that does not exceed its hourly rate in this Contract. Contractor prices in this Contract are “not to exceed” prices and lower pricing may be negotiated by the Customer.

   b) Project-Based Pricing. A project-based pricing model may be used to accomplish goals and tasks that include more complex requirements. The Contractor shall multiply hourly rate prices, which do not exceed the hourly rate in this Contract, by the number of hours per task to determine each deliverable price.

      Customers who choose to use a project-based pricing model shall negotiate all pricing associated with the completion of each task and deliverable with the selected contractor.

      Project-based pricing should be fully detailed in the Customer’s Statement of Work. Customers requesting project-based pricing shall ask contractors

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submitting quotes for supporting information and/or documentation that will allow Customers to better understand the offer and thus more effectively negotiate pricing.

L. Contractor Security Clearance

Customers may designate certain duties and/or positions as positions of "special trust" because they involve special trust responsibilities, are located in sensitive locations, or have key capabilities with access to sensitive or confidential information. The designation of a special trust position or duties is at the sole discretion of the Customer. Contractor or Contractor's employees who, in the performance of this Contract, will be assigned to work in positions determined by the Customer to be positions of special trust, may be required to submit to background screening and be approved by the Customer to work on this Contract.

M. Contractor Employee Conduct

The Contractor's employees shall adhere to the standards of conduct prescribed in the Customer's personnel policy and procedure guidelines, particularly rules of conduct, security procedures, and any other applicable rules, regulations, policies and procedures of the Customer.

The Contractor shall ensure that the Contractor's employees wear attire suitable for the position, either a standard uniform or business casual dress.

N. Contractor's Ongoing Obligations

In addition to the Contractor's obligations under Section 5 of Contract Exhibit B, Special Contract Conditions, the Contractor shall have the ongoing obligation to stay informed of any changes to the law or rules that may affect the Contractor's conduct and performance under the Contract, including changes to Subtitle 60GG, Florida Administrative Code and ensure it is, at all times compliant with governing laws and rules.

O. Inspection of Documents

In accordance with section 216.1366, F.S., the Department is authorized to inspect the: (a) financial records, papers, and documents of the Contractor that are directly related to the performance of the Contract or the expenditure of state funds; and (b) programmatic records, papers, and documents of the Contractor which the Department determines are necessary to monitor the performance of the Contract or to ensure that the terms of the Contract are being met. The Contractor shall provide such records, papers, and documents requested by the Department within ten (10) business days after the request is made.

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Department of MANAGEMENT SERVICES
We serve those who serve Florida

EXHIBIT G

ADDITIONAL SPECIAL CONTRACT CONDITIONS

A. Special Contract Conditions revisions: the corresponding subsections of the Special Contract Conditions referenced below are replaced in their entirety with the following:

2.2 Renewal.
Upon written agreement, the Department and the Contractor may renew the Contract in whole or in part only as set forth in the Contract documents, and in accordance with section 287.057(14), F.S.

3.7 Transaction Fees.
The State of Florida, through the Department of Management Services, has instituted MyFloridaMarketPlace, a statewide eProcurement system pursuant to section 287.057(24), F.S. All payments issued by Customers to registered Vendors for purchases of commodities or contractual services will be assessed Transaction Fees as prescribed by rule 60A-1.031, F.A.C., or as may otherwise be established by law. Vendors must pay the Transaction Fees and agree to automatic deduction of the Transaction Fees when automatic deduction becomes available. Vendors will submit any monthly reports required pursuant to the rule. All such reports and payments will be subject to audit. Failure to comply with the payment of the Transaction Fees or reporting of transactions will constitute grounds for declaring the Vendor in default and subject the Vendor to exclusion from business with the State of Florida.

5.1 Conduct of Business.
The Contractor must comply with all laws, rules, codes, ordinances, and licensing requirements that are applicable to the conduct of its business, including those of federal, state, and local agencies having jurisdiction and authority. For example, the Contractor must comply with section 274A of the Immigration and Nationality Act, the Americans with Disabilities Act, Health Insurance Portability and Accountability Act, if applicable, and all prohibitions against discrimination on the basis of race, religion, sex, creed, national origin, handicap, marital status, or veteran's status. The provisions of subparagraphs 287.058(1)(a)-(c) and (g), F.S., are hereby incorporated by reference.

Nothing contained within this Contract shall be construed to prohibit the Contractor from disclosing information relevant to performance of the Contract or purchase order to members or staff of the Florida Senate or Florida House of Representatives.

Pursuant to section 287.057(26), F.S., the Contractor shall answer all questions of, and ensure a representative will be available to, a continuing oversight team.
The Contractor will comply with all applicable disclosure requirements set forth in section 286.101, F.S. In the event the Department of Financial Services issues the Contractor a final order determining a third or subsequent violation pursuant to section 286.101(7)(c), F.S., the

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Contractor shall immediately notify the Department and applicable Customers and shall be disqualified from Contract eligibility.

5.4 Convicted, Discriminatory, Antitrust Violator, and Suspended Vendor Lists.
In accordance with sections 287.133, 287.134, and 287.137, F.S., the Contractor is hereby informed of the provisions of sections 287.133(2)(a), 287.134(2)(a), and 287.137(2)(a), F.S. For purposes of this Contract, a person or affiliate who is on the Convicted Vendor List, the Discriminatory Vendor List, or the Antitrust Violator Vendor List may not perform work as a contractor, supplier, subcontractor, or consultant under the Contract. The Contractor must notify the Department if it or any of its suppliers, subcontractors, or consultants have been placed on the Convicted Vendor List, the Discriminatory Vendor List, or the Antitrust Violator Vendor List during the term of the Contract.

In accordance with section 287.1351, F.S., a vendor placed on the Suspended Vendor List may not enter into or renew a contract to provide any goods or services to an agency after its placement on the Suspended Vendor List.

A firm or individual placed on the Suspended Vendor List pursuant to section 287.1351, F.S., the Convicted Vendor List pursuant to section 287.133, F.S., the Antitrust Violator Vendor List pursuant to section 287.137, F.S., or the Discriminatory Vendor List pursuant to section 287.134, F.S., is immediately disqualified from Contract eligibility.

5.6 Cooperation with Inspector General and Records Retention.
Pursuant to section 20.055(5), F.S., the Contractor understands and will comply with its duty to cooperate with the Inspector General in any investigation, audit, inspection, review, or hearing. Upon request of the Inspector General or any other authorized State official, the Contractor must provide any information the Inspector General deems relevant. Such information may include, but will not be limited to, the Contractor's business or financial records, documents, or files of any type or form that refer to or relate to the Contract. The Contractor will retain such records for the longer of five years after the expiration or termination of the Contract, or the period required by the General Records Schedules maintained by the Florida Department of State, at the Department of State's Records Management website. The Contractor agrees to reimburse the State of Florida for the reasonable costs of investigation incurred by the Inspector General or other authorized State of Florida official for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the State of Florida which results in the suspension or debarment of the Contractor. Such costs will include but will not be limited to: salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor agrees to impose the same obligations to cooperate with the Inspector General and retain records on any subcontractors used to provide goods or services under the Contract.

8.1.1 Termination of Contract.
The Department may terminate the Contract for refusal by the Contractor to comply with this section by not allowing access to all public records, as defined in Chapter 119, F.S., made or received by the Contractor in conjunction with the Contract unless the records are exempt from s. 24(a) of Art. I of the State Constitution and section 119.071(1), F.S.

8.1.2 Statutory Notice.
Pursuant to section 119.0701(2)(a), F.S., for contracts for services with a contractor acting on behalf of a public agency, as defined in section 119.011(2), F.S., the following applies:

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IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE DEPARTMENT'S CUSTODIAN OF PUBLIC RECORDS AT PUBLICRECORDS@DMS.FL.GOV, (850) 487-1082 OR 4050 ESPLANADE WAY, SUITE 160, TALLAHASSEE, FLORIDA 32399-0950.

Pursuant to section 119.0701(2)(b), F.S., for contracts for services with a contractor acting on behalf of a public agency as defined in section 119.011(2), F.S., the Contractor shall:

(a) Keep and maintain public records required by the public agency to perform the service.

(b) Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure are not disclosed except as authorized by law for the duration of the Contract term and following the completion of the Contract if the Contractor does not transfer the records to the public agency.

(d) Upon completion of the Contract, transfer, at no cost, to the public agency all public records in possession of the Contractor or keep and maintain public records required by the public agency to perform the service. If the Contractor transfers all public records to the public agency upon completion of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

12.1 Performance or Compliance Audits.
The Department may conduct or have conducted performance and/or compliance audits of the Contractor and subcontractors as determined by the Department. The Department may conduct an audit and review all the Contractor's and subcontractors' data and records that directly relate to the Contract. To the extent necessary to verify the Contractor's fees and claims for payment under the Contract, the Contractor's agreements or contracts with subcontractors, partners, or agents of the Contractor, pertaining to the Contract, may be inspected by the Department upon fifteen (15) calendar days' notice, during normal working hours and in accordance with the Contractor's facility access procedures where facility access is required. Release statements from its subcontractors, partners, or agents are not required for the Department or its designee to conduct compliance and performance audits on any of the Contractor's contracts relating to this Contract. The Inspector General, in accordance with section 5.6, the State of Florida's Chief Financial Officer, and the Office of the Auditor General shall also have authority to perform audits and inspections.

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13.2 E-Verify.
The Contractor and its subcontractors have an obligation to utilize the U.S. Department of Homeland Security's (DHS) E-Verify system for all newly hired employees in accordance with section 448.095, F.S. By executing this Contract, the Contractor certifies that it is registered with, and uses, the E-Verify system for all newly hired employees in accordance with section 448.095, F.S. The Contractor must obtain an affidavit from its subcontractors in accordance with paragraph (2)(b) of section 448.095, F.S., and maintain a copy of such affidavit for the duration of the Contract. The Contractor shall provide a copy of its DHS Memorandum of Understanding (MOU) to the Department's Contract Manager within five days of Contract execution.

This section serves as notice to the Contractor regarding the requirements of section 448.095, F.S., specifically sub-paragraph (2)(c)1, and the Department's obligation to terminate the Contract if it has a good faith belief that the Contractor has knowingly violated section 448.09(1), F.S. If terminated for such reason, the Contractor will not be eligible for award of a public contract for at least one year after the date of such termination. The Department will promptly notify the Contractor and order the immediate termination of the contract between the Contractor and a subcontractor performing work on its behalf for this Contract should the Department have a good faith belief that the subcontractor has knowingly violated section 448.09(1), F.S.

B. Special Contract Conditions additions: the following subsection is added to the Special Contract Conditions:

12.3 Document Inspection.
In accordance with section 216.1366, F.S., the Department or a state agency is authorized to inspect the: (a) financial records, papers, and documents of the Contractor that are directly related to the performance of the Contract or the expenditure of state funds; and (b) programmatic records, papers, and documents of the Contractor which the Department or state agency determines are necessary to monitor the performance of the Contract or to ensure that the terms of the Contract are being met. The Contractor shall provide such records, papers, and documents requested by the Department or a state agency within 10 Business Days after the request is made.

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EXHIBIT B

SPECIAL CONTRACT CONDITIONS
JULY 1, 2019 VERSION

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In accordance with Rule 60A-1.002(7), F.A.C., Form PUR 1000 is included herein by reference but is superseded in its entirety by these Special Contract Conditions.

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SECTION 1. DEFINITION.

The following definition applies in addition to the definitions in Chapter 287, Florida Statutes (F.S.), and Rule Chapter 60A-1, Florida Administrative Code (F.A.C.):

1.1 Customer.
The agency or eligible user that purchases commodities or contractual services pursuant to the Contract.

SECTION 2. CONTRACT TERM AND TERMINATION.

2.1 Initial Term.
The initial term will begin on the date set forth in the Contract documents or on the date the Contract is signed by all Parties, whichever is later.

2.2 Renewal.
Upon written agreement, the Department and the Contractor may renew the Contract in whole or in part only as set forth in the Contract documents, and in accordance with section 287.057(13), F.S.

2.3 Suspension of Work and Termination.

2.3.1 Suspension of Work.
The Department may, at its sole discretion, suspend any or all activities under the Contract, at any time, when it is in the best interest of the State of Florida to do so. The Customer may suspend a resulting contract or purchase order, at any time, when in the best interest of the Customer to do so. The Department or Customer will provide the Contractor written notice outlining the particulars of the suspension. After receiving a suspension notice, the Contractor must comply with the notice and will cease the performance of the Contract or purchase order. Suspension of work will not entitle the Contractor to any additional compensation. The Contractor will not resume performance of the Contract or purchase order until so authorized by the Department.

2.3.2 Termination for Convenience.
The Contract may be terminated by the Department in whole or in part at any time, in the best interest of the State of Florida. If the Contract is terminated before performance is completed, the Contractor will be paid only for that work satisfactorily performed for which costs can be substantiated. Such payment, however, may not exceed an amount which is the same percentage of the Contract price as the amount of work satisfactorily performed. All work in progress will become the property of the Customer and will be turned over promptly by the Contractor.

2.3.3 Termination for Cause.
If the performance of the Contractor is not in compliance with the Contract requirements or the Contractor has defaulted, the Department may:

(a) immediately terminate the Contract;
(b) notify the Contractor of the noncompliance or default, require correction, and specify the date by which the correction must be completed before the Contract is terminated; or
(c) take other action deemed appropriate by the Department.

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SECTION 3. PAYMENT AND FEES.

3.1 Pricing.
The Contractor will not exceed the pricing set forth in the Contract documents.

3.2 Price Decreases.
The following price decrease terms will apply to the Contract:

3.2.1 Quantity Discounts. Contractor may offer additional discounts for one-time delivery of large single orders;

3.2.2 Preferred Pricing. The Contractor guarantees that the pricing indicated in this Contract is a maximum price. Additionally, Contractor's pricing will not exceed the pricing offered under comparable contracts. Comparable contracts are those that are similar in size, scope, and terms. In compliance with section 216.0113, F.S., Contractor must annually submit an affidavit from the Contractor's authorized representative attesting that the Contract complies with this clause.

3.2.3 Sales Promotions. In addition to decreasing prices for the balance of the Contract term due to a change in market conditions, the Contractor may conduct sales promotions involving price reductions for a specified lesser period. The Contractor must submit documentation identifying the proposed: (1) starting and ending dates of the promotion, (2) commodities or contractual services involved, and (3) promotional prices compared to then-authorized prices.

3.3 Payment Invoicing.
The Contractor will be paid upon submission of invoices to the Customer after delivery and acceptance of commodities or contractual services is confirmed by the Customer. Invoices must contain sufficient detail for an audit and contain the Contract Number and the Contractor's Federal Employer Identification Number.

3.4 Purchase Order.
A Customer may use purchase orders to buy commodities or contractual services pursuant to the Contract and, if applicable, the Contractor must provide commodities or contractual services pursuant to purchase orders. Purchase orders issued pursuant to the Contract must be received by the Contractor no later than the close of business on the last day of the Contract's term. The Contractor is required to accept timely purchase orders specifying delivery schedules that extend beyond the Contract term even when such extended delivery will occur after expiration of the Contract. Purchase orders shall be valid through their specified term and performance by the Contractor, and all terms and conditions of the Contract shall survive the termination or expiration of the Contract and apply to the Contractor's performance. The duration of purchase orders for recurring deliverables shall not exceed the expiration of the Contract by more than twelve months. Any purchase order terms and conditions conflicting with these Special Contract Conditions shall not become a part of the Contract.

3.5 Travel.
Travel expenses are not reimbursable unless specifically authorized by the Customer in writing and may be reimbursed only in accordance with section 112.061, F.S.

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3.6 Annual Appropriation.
Pursuant to section 287.0582, F.S., if the Contract binds the State of Florida or an agency for the purchase of services or tangible personal property for a period in excess of one fiscal year, the State of Florida's performance and obligation to pay under the Contract is contingent upon an annual appropriation by the Legislature.

3.7 Transaction Fees.
The State of Florida, through the Department of Management Services, has instituted MyFloridaMarketPlace, a statewide eProcurement system pursuant to section 287.057(22), F.S. All payments issued by Customers to registered Vendors for purchases of commodities or contractual services will be assessed Transaction Fees as prescribed by rule 60A-1.031, F.A.C., or as may otherwise be established by law. Vendors must pay the Transaction Fees and agree to automatic deduction of the Transaction Fees when automatic deduction becomes available. Vendors will submit any monthly reports required pursuant to the rule. All such reports and payments will be subject to audit. Failure to comply with the payment of the Transaction Fees or reporting of transactions will constitute grounds for declaring the Vendor in default and subject the Vendor to exclusion from business with the State of Florida.

3.8 Taxes.
Taxes, customs, and tariffs on commodities or contractual services purchased under the Contract will not be assessed against the Customer or Department unless authorized by Florida law.

3.9 Return of Funds.
Contractor will return any overpayments due to unearned funds or funds disallowed pursuant to the terms of the Contract that were disbursed to the Contractor. The Contractor must return any overpayment within forty (40) calendar days after either discovery by the Contractor, its independent auditor, or notification by the Department or Customer of the overpayment.

SECTION 4. CONTRACT MANAGEMENT.

4.1 Composition and Priority.
The Contractor agrees to provide commodities or contractual services to the Customer as specified in the Contract. Additionally, the terms of the Contract supersede the terms of all prior agreements between the Parties on this subject matter.

4.2 Notices.
All notices required under the Contract must be delivered to the designated Contract Manager in a manner identified by the Department.

4.3 Department's Contract Manager.
The Department's Contract Manager, who is primarily responsible for the Department's oversight of the Contract, will be identified in a separate writing to the Contractor upon Contract signing in the following format:

Department's Contract Manager Name

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Department's Name
Department's Physical Address
Department's Telephone #
Department's Email Address

If the Department changes the Contract Manager, the Department will notify the Contractor. Such a change does not require an amendment to the Contract.

4.4 Contractor's Contract Manager.
The Contractor's Contract Manager, who is primarily responsible for the Contractor's oversight of the Contract performance, will be identified in a separate writing to the Department upon Contract signing in the following format:

Contractor's Contract Manager Name
Contractor's Name
Contractor's Physical Address
Contractor's Telephone #
Contractor's Email Address

If the Contractor changes its Contract Manager, the Contractor will notify the Department. Such a change does not require an amendment to the Contract.

4.5 Diversity.

4.5.1 Office of Supplier Diversity.
The State of Florida supports its diverse business community by creating opportunities for woman-, veteran-, and minority-owned small business enterprises to participate in procurements and contracts. The Department encourages supplier diversity through certification of woman-, veteran-, and minority-owned small business enterprises and provides advocacy, outreach, and networking through regional business events. For additional information, please contact the Office of Supplier Diversity (OSD) at osdinfo@dms.myflorida.com.

4.5.2 Diversity Reporting.
Upon request, the Contractor will report to the Department its spend with business enterprises certified by the OSD. These reports must include the time period covered, the name and Federal Employer Identification Number of each business enterprise utilized during the period, commodities and contractual services provided by the business enterprise, and the amount paid to the business enterprise on behalf of each agency purchasing under the Contract.

4.6 RESPECT.
Subject to the agency determination provided for in section 413.036, F.S., the following statement applies:

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT ANY ARTICLES THAT ARE THE SUBJECT OF, OR REQUIRED TO CARRY OUT, THIS CONTRACT SHALL BE PURCHASED FROM A NONPROFIT AGENCY FOR THE BLIND OR FOR THE SEVERELY HANDICAPPED THAT IS QUALIFIED PURSUANT TO CHAPTER 413, FLORIDA STATUTES, IN THE SAME MANNER AND UNDER THE SAME PROCEDURES SET FORTH IN SECTION 413.036(1) AND (2), FLORIDA STATUTES;

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AND FOR PURPOSES OF THIS CONTRACT THE PERSON, FIRM, OR OTHER BUSINESS ENTITY CARRYING OUT THE PROVISIONS OF THIS CONTRACT SHALL BE DEEMED TO BE SUBSTITUTED FOR THE STATE AGENCY INSOFAR AS DEALINGS WITH SUCH QUALIFIED NONPROFIT AGENCY ARE CONCERNED.

Additional information about RESPECT and the commodities or contractual services it offers is available at https://www.respectofflorida.org.

4.7 PRIDE.
Subject to the agency determination provided for in sections 287.042(1) and 946.515, F.S., the following statement applies:

IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT ANY ARTICLES WHICH ARE THE SUBJECT OF, OR REQUIRED TO CARRY OUT, THIS CONTRACT SHALL BE PURCHASED FROM THE CORPORATION IDENTIFIED UNDER CHAPTER 946, F.S., IN THE SAME MANNER AND UNDER THE SAME PROCEDURES SET FORTH IN SECTION 946.515(2) AND (4), F.S.; AND FOR PURPOSES OF THIS CONTRACT THE PERSON, FIRM, OR OTHER BUSINESS ENTITY CARRYING OUT THE PROVISIONS OF THIS CONTRACT SHALL BE DEEMED TO BE SUBSTITUTED FOR THIS AGENCY INSOFAR AS DEALINGS WITH SUCH CORPORATION ARE CONCERNED.

Additional information about PRIDE and the commodities or contractual services it offers is available at https://www.pride-enterprises.org.

SECTION 5. COMPLIANCE WITH LAWS.

5.1 Conduct of Business.
The Contractor must comply with all laws, rules, codes, ordinances, and licensing requirements that are applicable to the conduct of its business, including those of federal, state, and local agencies having jurisdiction and authority. For example, the Contractor must comply with section 274A of the Immigration and Nationality Act, the Americans with Disabilities Act, Health Insurance Portability and Accountability Act, if applicable, and all prohibitions against discrimination on the basis of race, religion, sex, creed, national origin, handicap, marital status, or veteran's status. The provisions of subparagraphs 287.058(1)(a)-(c), and (g), F.S., are hereby incorporated by reference.

5.2 Dispute Resolution, Governing Law, and Venue.
Any dispute concerning performance of the Contract shall be decided by the Department's designated Contract Manager, who will reduce the decision to writing and serve a copy on the Contractor. The decision of the Contract Manager shall be final and conclusive. Exhaustion of this administrative remedy is an absolute condition precedent to the Contractor's ability to pursue legal action related to the Contract or any other form of dispute resolution. The laws of the State of Florida govern the Contract. The Parties submit to the jurisdiction of the courts of the State of Florida exclusively for any legal action related to the Contract. Further, the Contractor hereby waives all privileges and rights relating to venue it may have under Chapter 47, F.S., and all such venue privileges and rights it may have under any other statute, rule, or case law, including, but not limited to, those based on convenience. The Contractor hereby submits to venue in the county chosen by the Department.

5.3 Department of State Registration.

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Consistent with Title XXXVI, F.S., the Contractor and any subcontractors that assert status, other than a sole proprietor, must provide the Department with conclusive evidence of a certificate of status, not subject to qualification, if a Florida business entity, or of a certificate of authorization if a foreign business entity.

5.4 Suspended, Convicted, and Discriminatory Vendor Lists.
In accordance with sections 287.042, 287.133, and 287.134, F.S., an entity or affiliate who is on the Suspended Vendor List, Convicted Vendor List, or Discriminatory Vendor List may not perform work as a contractor, supplier, subcontractor, or consultant under the Contract. The Contractor must notify the Department if it or any of its suppliers, subcontractors, or consultants have been placed on the Suspended Vendor List, Convicted Vendor List, or Discriminatory Vendor List during the term of the Contract.

5.5 Scrutinized Companies - Termination by the Department.
The Department may, at its option, terminate the Contract if the Contractor is found to have submitted a false certification as provided under section 287.135(5), F.S., or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or been engaged in business operations in Cuba or Syria, or to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel.

5.6 Cooperation with Inspector General and Records Retention.
Pursuant to section 20.055(5), F.S., the Contractor understands and will comply with its duty to cooperate with the Inspector General in any investigation, audit, inspection, review, or hearing. Upon request of the Inspector General or any other authorized State official, the Contractor must provide any information the Inspector General deems relevant to the Contractor's integrity or responsibility. Such information may include, but will not be limited to, the Contractor's business or financial records, documents, or files of any type or form that refer to or relate to the Contract. The Contractor will retain such records for the longer of five years after the expiration of the Contract, or the period required by the General Records Schedules maintained by the Florida Department of State, at the Department of State’s Records Management website. The Contractor agrees to reimburse the State of Florida for the reasonable costs of investigation incurred by the Inspector General or other authorized State of Florida official for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the State of Florida which results in the suspension or debarment of the Contractor. Such costs will include but will not be limited to: salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor agrees to impose the same obligations to cooperate with the Inspector General and retain records on any subcontractors used to provide goods or services under the Contract.

SECTION 6. MISCELLANEOUS.

6.1 Subcontractors.
The Contractor will not subcontract any work under the Contract without prior written consent of the Department. The Contractor is fully responsible for satisfactory completion of all its subcontracted work. The Department supports diversity in its procurements and contracts, and requests that the Contractor offer subcontracting opportunities to certified woman-, veteran-, and minority-owned small businesses. The

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Contractor may contact the OSD at osdhelp@dms.myflorida.com for information on certified small business enterprises available for subcontracting opportunities.

6.2 Assignment.
The Contractor will not sell, assign, or transfer any of its rights, duties, or obligations under the Contract without the prior written consent of the Department. However, the Contractor may waive its right to receive payment and assign same upon notice to the Department. In the event of any assignment, the Contractor remains responsible for performance of the Contract, unless such responsibility is expressly waived by the Department. The Department may assign the Contract with prior written notice to the Contractor.

6.3 Independent Contractor.
The Contractor and its employees, agents, representatives, and subcontractors are independent contractors and not employees or agents of the State of Florida and are not entitled to State of Florida benefits. The Department and Customer will not be bound by any acts or conduct of the Contractor or its employees, agents, representatives, or subcontractors. The Contractor agrees to include this provision in all its subcontracts under the Contract.

6.4 Inspection and Acceptance of Commodities.

6.4.1 Risk of Loss.
Matters of inspection and acceptance are addressed in section 215.422, F.S. Until acceptance, risk of loss or damage will remain with the Contractor. The Contractor will be responsible for filing, processing, and collecting all damage claims. To assist the Contractor with damage claims, the Customer will: record any evidence of visible damage on all copies of the delivering carrier's bill of lading; report damages to the carrier and the Contractor; and provide the Contractor with a copy of the carrier's bill of lading and damage inspection report.

6.4.2 Rejected Commodities.
When a Customer rejects a commodity, Contractor will remove the commodity from the premises within ten (10) calendar days after notification of rejection, and the risk of loss will remain with the Contractor. Commodities not removed by the Contractor within ten (10) calendar days will be deemed abandoned by the Contractor, and the Customer will have the right to dispose of such commodities. Contractor will reimburse the Customer for costs and expenses incurred in storing or effecting removal or disposition of rejected commodities.

6.5 Safety Standards.
Performance of the Contract for all commodities or contractual services must comply with requirements of the Occupational Safety and Health Act and other applicable State of Florida and federal requirements.

6.6 Ombudsman.
A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this office are found in section 215.422, F.S., which include disseminating information relative to prompt payment and assisting contractors in receiving their payments in a timely manner from a Customer. The Vendor Ombudsman may be contacted at (850) 413-5516.

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6.7 Time is of the Essence.
Time is of the essence regarding every obligation of the Contractor under the Contract. Each obligation is deemed material, and a breach of any such obligation (including a breach resulting from untimely performance) is a material breach.

6.8 Waiver.
The delay or failure by the Department or the Customer to exercise or enforce any rights under the Contract will not constitute waiver of such rights.

6.9 Modification and Severability.
The Contract may only be modified by written agreement between the Department and the Contractor. Should a court determine any provision of the Contract is invalid, the remaining provisions will not be affected, and the rights and obligations of the Parties will be construed and enforced as if the Contract did not contain the provision held invalid.

6.10 Cooperative Purchasing.
Pursuant to their own governing laws, and subject to the agreement of the Contractor, governmental entities that are not Customers may make purchases under the terms and conditions contained herein, if agreed to by Contractor. Such purchases are independent of the Contract between the Department and the Contractor, and the Department is not a party to these transactions. Agencies seeking to make purchases under this Contract are required to follow the requirements of Rule 60A-1.045(5), F.A.C.

SECTION 7. LIABILITY AND INSURANCE.

7.1 Workers' Compensation Insurance.
The Contractor shall maintain workers' compensation insurance as required under the Florida Workers' Compensation Law or the workers' compensation law of another jurisdiction where applicable. The Contractor must require all subcontractors to similarly provide workers' compensation insurance for all of the latter's employees. In the event work is being performed by the Contractor under the Contract and any class of employees performing the work is not protected under Workers' Compensation statutes, the Contractor must provide, and cause each subcontractor to provide, adequate insurance satisfactory to the Department, for the protection of employees not otherwise protected.

7.2 General Liability Insurance.
The Contractor must secure and maintain Commercial General Liability Insurance, including bodily injury, property damage, products, personal and advertising injury, and completed operations. This insurance must provide coverage for all claims that may arise from performance of the Contract or completed operations, whether by the Contractor or anyone directly or indirectly employed by the Contractor. Such insurance must include the State of Florida as an additional insured for the entire length of the resulting contract. The Contractor is responsible for determining the minimum limits of liability necessary to provide reasonable financial protections to the Contractor and the State of Florida under the resulting contract.

7.3 Florida Authorized Insurers.

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All insurance shall be with insurers authorized and eligible to transact the applicable line of insurance business in the State of Florida. The Contractor shall provide Certification(s) of Insurance evidencing that all appropriate coverage is in place and showing the Department to be an additional insured.

7.4 Performance Bond.
Unless otherwise prohibited by law, the Department may require the Contractor to furnish, without additional cost to the Department, a performance bond or irrevocable letter of credit or other form of security for the satisfactory performance of work hereunder. The Department shall determine the type and amount of security.

7.5 Indemnification.
To the extent permitted by Florida law, the Contractor agrees to indemnify, defend, and hold the Customer and the State of Florida, its officers, employees, and agents harmless from all fines, claims, assessments, suits, judgments, or damages, including consequential, special, indirect, and punitive damages, including court costs and attorney's fees, arising from or relating to violation or infringement of a trademark, copyright, patent, trade secret, or intellectual property right or out of any acts, actions, breaches, neglect, or omissions of the Contractor, its employees, agents, subcontractors, assignees, or delegates related to the Contract, as well as for any determination arising out of or related to the Contract that the Contractor or Contractor's employees, agents, subcontractors, assignees, or delegates are not independent contractors in relation to the Customer. The Contract does not constitute a waiver of sovereign immunity or consent by the Customer or the State of Florida or its subdivisions to suit by third parties. Without limiting this indemnification, the Customer may provide the Contractor (1) written notice of any action or threatened action, (2) the opportunity to take over and settle or defend any such action at Contractor's sole expense, and (3) assistance in defending the action at Contractor's sole expense.

7.6 Limitation of Liability.
Unless otherwise specifically enumerated in the Contract or in the purchase order, neither the Department nor the Customer shall be liable for special, indirect, punitive, or consequential damages, including lost data or records (unless the Contract or purchase order requires the Contractor to back-up data or records), even if the Department or Customer has been advised that such damages are possible. Neither the Department nor the Customer shall be liable for lost profits, lost revenue, or lost institutional operating savings. The Department or Customer may, in addition to other remedies available to them at law or equity and upon notice to the Contractor, retain such monies from amounts due Contractor as may be necessary to satisfy any claim for damages, penalties, costs, and the like asserted by or against them. The State may set off any liability or other obligation of the Contractor or its affiliates to the State against any payments due the Contractor under any contract with the State.

SECTION 8. PUBLIC RECORDS, TRADE SECRETS, DOCUMENT MANAGEMENT, AND INTELLECTUAL PROPERTY.

8.1 Public Records.

8.1.1 Termination of Contract.

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The Department may terminate the Contract for refusal by the Contractor to comply with this section by not allowing access to all public records, as defined in Chapter 119, F. S., made or received by the Contractor in conjunction with the Contract.

8.1.2 Statutory Notice.
Pursuant to section 119.0701(2)(a), F.S., for contracts for services with a contractor acting on behalf of a public agency, as defined in section 119.011(2), F.S., the following applies:

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT THE TELEPHONE NUMBER, EMAIL ADDRESS, AND MAILING ADDRESS PROVIDED IN THE RESULTING CONTRACT OR PURCHASE ORDER.

Pursuant to section 119.0701(2)(b), F.S., for contracts for services with a contractor acting on behalf of a public agency as defined in section 119.011(2), F.S., the Contractor shall:

(a) Keep and maintain public records required by the public agency to perform the service.
(b) Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law.
(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure are not disclosed except as authorized by law for the duration of the Contract term and following the completion of the Contract if the Contractor does not transfer the records to the public agency.
(d) Upon completion of the Contract, transfer, at no cost, to the public agency all public records in possession of the Contractor or keep and maintain public records required by the public agency to perform the service. If the Contractor transfers all public records to the public agency upon completion of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

8.2 Protection of Trade Secrets or Otherwise Confidential Information.

8.2.1 Contractor Designation of Trade Secrets or Otherwise Confidential Information.
If the Contractor considers any portion of materials to be trade secret under section 688.002 or 812.081, F.S., or otherwise confidential under Florida or federal law, the Contractor must clearly designate that portion of the materials as trade secret or otherwise confidential when submitted to the Department. The Contractor will be

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responsible for responding to and resolving all claims for access to Contract-related materials it has designated trade secret or otherwise confidential.

8.2.2 Public Records Requests.
If the Department receives a public records request for materials designated by the Contractor as trade secret or otherwise confidential under Florida or federal law, the Contractor will be responsible for taking the appropriate legal action in response to the request. If the Contractor fails to take appropriate and timely action to protect the materials designated as trade secret or otherwise confidential, the Department will provide the materials to the requester.

8.2.3 Indemnification Related to Confidentiality of Materials.
The Contractor will protect, defend, indemnify, and hold harmless the Department for claims, costs, fines, and attorney's fees arising from or relating to its designation of materials as trade secret or otherwise confidential.

8.3 Document Management.
The Contractor must retain sufficient documentation to substantiate claims for payment under the Contract and all other records, electronic files, papers, and documents that were made in relation to this Contract. The Contractor must retain all documents related to the Contract for five (5) years after expiration of the Contract or, if longer, the period required by the General Records Schedules maintained by the Florida Department of State available at the Department of State's Records Management website.

8.4 Intellectual Property.

8.4.1 Ownership.
Unless specifically addressed otherwise in the Contract, the State of Florida shall be the owner of all intellectual property rights to all property created or developed in connection with the Contract.

8.4.2 Patentable Inventions or Discoveries.
Any inventions or discoveries developed in the course, or as a result, of services in connection with the Contract that are patentable pursuant to 35 U.S.C. § 101 are the sole property of the State of Florida. Contractor must inform the Customer of any inventions or discoveries developed or made through performance of the Contract, and such inventions or discoveries will be referred to the Florida Department of State for a determination on whether patent protection will be sought. The State of Florida will be the sole owner of all patents resulting from any invention or discovery made through performance of the Contract.

8.4.3 Copyrightable Works.
Contractor must notify the Department or State of Florida of any publications, artwork, or other copyrightable works developed in connection with the Contract. All copyrights created or developed through performance of the Contract are owned solely by the State of Florida.

SECTION 9. DATA SECURITY.

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The Contractor will maintain the security of State of Florida data including, but not limited to, maintaining a secure area around any displayed visible data and ensuring data is stored and secured when not in use. The Contractor and subcontractors will not perform any of the services from outside of the United States, and the Contractor will not allow any State of Florida data to be sent by any medium, transmitted, or accessed outside the United States due to Contractor's action or inaction. In the event of a security breach involving State of Florida data, the Contractor shall give notice to the Customer and the Department within one business day. "Security breach" for purposes of this section will refer to a confirmed event that compromises the confidentiality, integrity, or availability of data. Once a data breach has been contained, the Contractor must provide the Department with a post-incident report documenting all containment, eradication, and recovery measures taken. The Department reserves the right in its sole discretion to enlist a third party to audit Contractor's findings and produce an independent report, and the Contractor will fully cooperate with the third party. The Contractor will also comply with all HIPAA requirements and any other state and federal rules and regulations regarding security of information.

SECTION 10. GRATUITIES, LOBBYING, AND COMMUNICATIONS.

10.1 Gratuities.
The Contractor will not, in connection with this Contract, directly or indirectly (1) offer, give, or agree to give anything of value to anyone as consideration for any State of Florida officer's or employee's decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty, or (2) offer, give, or agree to give to anyone anything of value for the benefit of, or at the direction or request of, any State of Florida officer or employee.

10.2 Lobbying.
In accordance with sections 11.062 and 216.347, F.S., Contract funds are not to be used for the purpose of lobbying the Legislature, the judicial branch, or the Department. Pursuant to section 287.058(6), F.S., the Contract does not prohibit the Contractor from lobbying the executive or legislative branch concerning the scope of services, performance, term, or compensation regarding the Contract after the Contract is executed and during the Contract term.

10.3 Communications.

10.3.1 Contractor Communication or Disclosure.
The Contractor shall not make any public statements, press releases, publicity releases, or other similar communications concerning the Contract or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with the Contract, without first notifying the Customer's Contract Manager and securing the Customer's prior written consent.

10.3.2 Use of Customer Statements.
The Contractor shall not use any statement attributable to the Customer or its employees for the Contractor's promotions, press releases, publicity releases, marketing, corporate communications, or other similar communications, without first notifying the Customer's Contract Manager and securing the Customer's prior written consent.

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SECTION 11. CONTRACT MONITORING.

11.1 Performance Standards.
The Contractor agrees to perform all tasks and provide deliverables as set forth in the Contract. The Department and the Customer will be entitled at all times, upon request, to be advised as to the status of work being done by the Contractor and of the details thereof.

11.2 Performance Deficiencies and Financial Consequences of Non-Performance.

11.2.1 Proposal of Corrective Action Plan.
In addition to the processes set forth in the Contract (e.g., service level agreements), if the Department or Customer determines that there is a performance deficiency that requires correction by the Contractor, then the Department or Customer will notify the Contractor. The correction must be made within a time-frame specified by the Department or Customer. The Contractor must provide the Department or Customer with a corrective action plan describing how the Contractor will address all performance deficiencies identified by the Department or Customer.

11.2.2 Retainage for Unacceptable Corrective Action Plan or Plan Failure.
If the corrective action plan is unacceptable to the Department or Customer, or implementation of the plan fails to remedy the performance deficiencies, the Department or Customer will retain ten percent (10%) of the total invoice amount. The retainage will be withheld until the Contractor resolves the performance deficiencies. If the performance deficiencies are resolved, the Contractor may invoice the Department or Customer for the retained amount. If the Contractor fails to resolve the performance deficiencies, the retained amount will be forfeited to compensate the Department or Customer for the performance deficiencies.

11.3 Performance Delay.

11.3.1 Notification.
The Contractor will promptly notify the Department or Customer upon becoming aware of any circumstances that may reasonably be expected to jeopardize the timely and successful completion (or delivery) of any commodity or contractual service. The Contractor will use commercially reasonable efforts to avoid or minimize any delays in performance and will inform the Department or the Customer of the steps the Contractor is taking or will take to do so, and the projected actual completion (or delivery) time. If the Contractor believes a delay in performance by the Department or the Customer has caused or will cause the Contractor to be unable to perform its obligations on time, the Contractor will promptly so notify the Department and use commercially reasonable efforts to perform its obligations on time notwithstanding the Department’s delay.

11.3.2 Liquidated Damages.
The Contractor acknowledges that delayed performance will damage the DepartmentCustomer, but by their nature such damages are difficult to ascertain. Accordingly, the liquidated damages provisions stated in the Contract documents will apply. Liquidated damages are not intended to be a penalty and are solely intended to compensate for damages.

11.4 Force Majeure, Notice of Delay, and No Damages for Delay.

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The Contractor will not be responsible for delay resulting from its failure to perform if neither the fault nor the negligence of the Contractor or its employees or agents contributed to the delay, and the delay is due directly to fire, explosion, earthquake, windstorm, flood, radioactive or toxic chemical hazard, war, military hostilities, terrorism, civil emergency, embargo, riot, strike, violent civil unrest, or other similar cause wholly beyond the Contractor's reasonable control, or for any of the foregoing that affect subcontractors or suppliers if no alternate source of supply is available to the Contractor. The foregoing does not excuse delay which could have been avoided if the Contractor implemented any risk mitigation required by the Contract. In case of any delay the Contractor believes is excusable, the Contractor will notify the Department in writing of the delay or potential delay and describe the cause of the delay either (1) within ten (10) calendar days after the cause that created or will create the delay first arose, if the Contractor could reasonably foresee that a delay could occur as a result, or (2) if delay is not reasonably foreseeable, within five (5) calendar days after the date the Contractor first had reason to believe that a delay could result. The foregoing will constitute the Contractor's sole remedy or excuse with respect to delay. Providing notice in strict accordance with this paragraph is a condition precedent to such remedy. No claim for damages will be asserted by the Contractor. The Contractor will not be entitled to an increase in the Contract price or payment of any kind from the Department for direct, indirect, consequential, impact or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency, arising because of delay, disruption, interference, or hindrance from any cause whatsoever. If performance is suspended or delayed, in whole or in part, due to any of the causes described in this paragraph, after the causes have ceased to exist the Contractor will perform at no increased cost, unless the Department determines, in its sole discretion, that the delay will significantly impair the value of the Contract to the State of Florida or to Customers, in which case the Department may (1) accept allocated performance or deliveries from the Contractor, provided that the Contractor grants preferential treatment to Customers and the Department with respect to commodities or contractual services subjected to allocation, or (2) purchase from other sources (without recourse to and by the Contractor for the related costs and expenses) to replace all or part of the commodity or contractual services that are the subject of the delay, which purchases may be deducted from the Contract quantity, or (3) terminate the Contract in whole or in part.

SECTION 12. CONTRACT AUDITS.

12.1 Performance or Compliance Audits.
The Department may conduct or have conducted performance and/or compliance audits of the Contractor and subcontractors as determined by the Department. The Department may conduct an audit and review all the Contractor's and subcontractors' data and records that directly relate to the Contract. To the extent necessary to verify the Contractor's fees and claims for payment under the Contract, the Contractor's agreements or contracts with subcontractors, partners, or agents of the Contractor, pertaining to the Contract, may be inspected by the Department upon fifteen (15) calendar days' notice, during normal working hours and in accordance with the Contractor's facility access procedures where facility access is required. Release statements from its subcontractors, partners, or agents are not required for the Department or its designee to conduct compliance and performance audits on any of the Contractor's contracts relating to this Contract. The Inspector General, in accordance with section 5.6, the State of Florida's Chief Financial Officer, the Office of the Auditor General also have authority to perform audits and inspections.

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12.2 Payment Audit.
Records of costs incurred under terms of the Contract will be maintained in accordance with section 8.3 of these Special Contract Conditions. Records of costs incurred will include the Contractor's general accounting records, together with supporting documents and records of the Contractor and all subcontractors performing work, and all other records of the Contractor and subcontractors considered necessary by the Department, the State of Florida's Chief Financial Officer, or the Office of the Auditor General.

SECTION 13. BACKGROUND SCREENING AND SECURITY.

13.1 Background Check.
The Department or Customer may require the Contractor to conduct background checks of its employees, agents, representatives, and subcontractors as directed by the Department or Customer. The cost of the background checks will be borne by the Contractor. The Department or Customer may require the Contractor to exclude the Contractor's employees, agents, representatives, or subcontractors based on the background check results. In addition, the Contractor must ensure that all persons have a responsibility to self-report to the Contractor within three (3) calendar days any arrest for any disqualifying offense. The Contractor must notify the Contract Manager within twenty-four (24) hours of all details concerning any reported arrest. Upon the request of the Department or Customer, the Contractor will re-screen any of its employees, agents, representatives, and subcontractors during the term of the Contract.

13.2 E-Verify.
The Contractor must use the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired during the term of the Contract for the services specified in the Contract. The Contractor must also include a requirement in subcontracts that the subcontractor must utilize the E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term. In order to implement this provision, the Contractor must provide a copy of its DHS Memorandum of Understanding (MOU) to the Contract Manager within five (5) calendar days of Contract execution. If the Contractor is not enrolled in DHS E-Verify System, it will do so within five (5) calendar days of notice of Contract award and provide the Contract Manager a copy of its MOU within five (5) calendar days of Contract execution. The link to E-Verify is https://www.uscis.gov/e-verify. Upon each Contractor or subcontractor new hire, the Contractor must provide a statement within five (5) calendar days to the Contract Manager identifying the new hire with its E-Verify case number.

13.3 Disqualifying Offenses.
If at any time it is determined that a person has been found guilty of a misdemeanor or felony offense as a result of a trial or has entered a plea of guilty or nolo contendere, regardless of whether adjudication was withheld, within the last six (6) years from the date of the court's determination for the crimes listed below, or their equivalent in any jurisdiction, the Contractor is required to immediately remove that person from any position with access to State of Florida data or directly performing services under the Contract. The disqualifying offenses are as follows:

(a) Computer related crimes;
(b) Information technology crimes;

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(c) Fraudulent practices;
(d) False pretenses;
(e) Frauds;
(f) Credit card crimes;
(g) Forgery;
(h) Counterfeiting;
(i) Violations involving checks or drafts;
(j) Misuse of medical or personnel records; and
(k) Felony theft.

13.4 Confidentiality.
The Contractor must maintain confidentiality of all confidential data, files, and records related to the commodities or contractual services provided pursuant to the Contract and must comply with all state and federal laws, including, but not limited to sections 381.004, 384.29, 392.65, and 456.057, F.S. The Contractor's confidentiality procedures must be consistent with the most recent version of the Department security policies, protocols, and procedures. The Contractor must also comply with any applicable professional standards with respect to confidentiality of information.

SECTION 14. WARRANTY OF CONTRACTOR'S ABILITY TO PERFORM.

The Contractor warrants that, to the best of its knowledge, there is no pending or threatened action, proceeding, or investigation, or any other legal or financial condition, that would in any way prohibit, restrain, or diminish the Contractor's ability to satisfy its Contract obligations. The Contractor warrants that neither it nor any affiliate is currently on the Suspended Vendor List, Convicted Vendor List, or the Discriminatory Vendor List, or on any similar list maintained by any other state or the federal government. The Contractor shall immediately notify the Department in writing if its ability to perform is compromised in any manner during the term of the Contract.

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Information Technology Independent Verification and Validation Services
STC No. 80101507-21-STC
EXHIBIT C

JOB TITLE DESCRIPTIONS

This exhibit describes the core functional responsibilities of the personnel offered by the Contractor to provide services, in accordance with the terms of the Contract.

Principal

Functional Responsibilities:

- Providing executive level consultation services to the Customer
- Providing senior-level interface with the Customer and managing daily operations
- Organizing and directing the overall performance of the contract
- Possessing the authority to make binding decisions on behalf of the Contractor
- Formulating organizational strategy and directing major strategic initiatives
- Ensuring that goals and objectives are accomplished within budgetary parameters
- Developing and maintaining Customer relationships
- Assisting on large, complex, or multi-discipline engagements
- Allocating financial and human resources and material assets
- Formulating and enforcing work standards

Project Manager

Functional Responsibilities:

- Managing the day-to-day operations of the (IT) IV&V team
- Ensuring the quality and timely completion of deliverables
- Serve as the Contractor's authorized point of contact for assigned work
- Planning, directing, controlling, scheduling, coordinating, and organizing management of tasks
- Planning, organizing, and overseeing all subordinate work efforts
- Ensuring quality standards and work performance on projects
- Providing status reports clearly describing the status of the (IT) IV&V efforts
- Developing and maintaining working relationships with various Customers to ensure accuracy of information and consistency of (IT) IV&V activities and assessments
- Identifying areas of risk to cost, schedule, scope, and quality on the projects
- Providing recommendations on risk mitigation or contingency options
- Identifying and reporting deviations from plans or execution of those plans that may jeopardize the project(s)
- Ensuring all proper communications have been identified, documented, and are taking place
- Ensuring the timely performance and completion of all contractual obligations

Contract Manager

Functional Responsibilities:

- Providing responsibility and accountability for successful performance of the contract
- Planning and directing the project to ensure all contract tasks are completed with the estimated timeframes and budget.
- Managing business terms and conditions contracts
- Coordinating all resulting contract activities
- Monitoring the contractor's progress and performance to ensure services conform to the contract requirements
- Meeting with Customer staff in person or by phone at the request of Customer representatives to discuss issues pertinent to the contract

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- Resolving disputes in a timely manner
- Maintaining appropriate records

Senior IV&V Analyst

Functional Responsibilities:

- Applying consultative and technical expertise in fulfillment of contract deliverables and Statements of Work
- Participating as a senior team member providing high-level consulting services
- Planning, organizing, and executing project tasks in successful delivery of services
- Developing and defining strategic visions
- Applying a broad set of management skills and technical expertise as a project leader
- Providing solutions through analysis
- Directing subordinates in the completion of tasks orders
- Directing project activities in fulfillment of contract deliverables and Statements of Work
- Writing (IT) IV&V reports and presenting findings to Customer
- Conducting compliance review and assessment of planning, requirements, design, construction, testing, and implementation deliverables
- Evaluating assigned IT projects to determine application of industry best practices, assess project risks, and identify recommendations to optimize project performance
- Verifying products conform to technical and non-technical requirements

Junior IV&V Analyst

Functional Responsibilities:

- Serving as a member of a team performing mid-level assignments
- Providing solutions through analysis
- Writing (IT) IV&V reports
- Conducting compliance review and assessment of planning, requirements, design, construction, testing, and implementation deliverables
- Evaluating assigned IT projects to determine application of industry best practices, assess project risks, and identify recommendations to optimize project performance
- Verifying products conform to technical and non-technical requirements

Subject Matter Expert (SME)

Functional Responsibilities:

- Providing knowledge and recognized expertise in the specific subject area of the project
- Understanding and providing in-depth knowledge of the business processes of the project
- Providing consultative expertise in fulfillment of contract deliverables and Statements of Work
- Articulating and implementing best practices related to the subject area of project
- Applying expertise to support the project's vision and strategic direction

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Exhibit D
Information Technology Independent Verification and Validation Services Contract No. 80101507-21-STC

Work Plan and IV&V Methodology

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Introduction

SES takes the credibility of your IV&V team to the next level; we integrate best-of-breed practices into all oversight activities. Our corporate credentials independently attest to the effectiveness and maturity of our practices.

The table below is a summary description and acceptance of key requested IV&V services as presented in the SOW. It can be used as a cross-reference to IV&V solutions for the requirements in this proposal. In short, SES agrees to all SOW requirements.

SOW REFERENCE	SOW DESCRIPTION	SES RESPONSE
A – Scope of Work, Pg. 1	Provide professional and technical staff necessary to perform the IT IV&V services required by this Contract, and the staff shall have sufficient skill and experience to perform the services assigned to them.	**Agreed.** Refer to our Staff Qualifications section.
A – Scope of Work, Pg. 1	All IT IV&V services shall meet the professional standard and quality that prevail among IT professionals in the same discipline and of similar knowledge and skill in related work under the same or similar circumstances.	**Agreed.** Refer to our Staff Qualifications section, which details our skills, experience, and staff synergy. Also, refer to Quality Management below.
B – Scope of Work, Pg. 1	Definition of IV&V	**We agree with the definition.** Refer to our Method sub-sections below for the approach to fulfill it.

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SOW REFERENCE	SOW DESCRIPTION	SES RESPONSE
C – Scope of Work, pp. 1-2	Minimally Required Activities and Deliverables	**Agreed.** Our Method, Activities, and Deliverable's subsections below collectively demonstrate how we will meet or exceed all the listed work requirements and deliverables.
C – Scope of Work, pg. 2	Provide presentations and oral reports, attend meetings and events, perform administrative responsibilities related to the Contract, and maintain open and effective communication with Customer project manager, sponsor(s), and oversight entities.	**Agreed**. **Appendix A** includes a sample approach to accomplishing effective oversight of project communication that leads to better customer involvement. **Appendix B** is a sample of our specific schedule activities for the project and the contract. The Lifecycle Activities method below shows an integrated approach to attending meetings as an IV&V activity.
C – Scope of Work, pp. 2-3	Table of Deliverables	**Agreed.** The Method and Deliverables sections of this proposal describe and reference the following appendices: **Appendix A** is our sample IV&V Management Plan. **Appendix B** is our sample IV&V Schedule. **Appendices C and D** are our sample periodic reports of oversight, e.g., initial report, monthly or quarterly reports. **Appendix G** is our sample Lessons Learned report. **Appendix E** is our sample readiness or phase gate assessment. **Appendix H** is our sample IV&V Deliverable Report, which we have used throughout project lifecycles including procurement and pre-procurement Vendor deliverable reviews.

Table 1: SOW Requirements

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IV&V Method

This section first identifies the foundational elements which guide our method; then, we provide the lifecycle approach for project oversight, and highlight our additional valuable services that differentiate us from other service providers.

CMMI is the Cornerstone

SES is a CMMI Institute Partner and CMMI-DEV Level 3 appraised organization. Our unique integration of CMMI aligns with project objectives for solutions to State requirements, including achievement of federal certifications and standards if needed.

The Capability Maturity Model Integration (CMMI) is central to SES' IV&V method; it represents a comprehensive compilation encompassing the spectrum of project management, systems engineering, services establishment and delivery, and acquisition/ procurement best practices across the entire systems development lifecycle. Comprehensive checklists are applied with a deep understanding of expected project practices in our oversight implementation. The CMMI captures the clear majority ofpractices and tasks within IV&V oversight areas, which we then augment with specific practices from the Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) and other standards including those listed below. Also, we understand and agree to include compliance with standards as required in the Florida Administrative Code, Florida Statues, and federal requirements as needed.

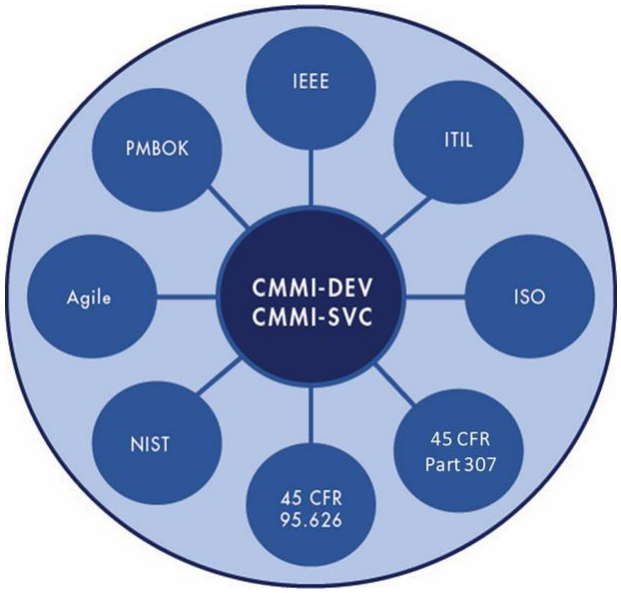

Figure 1: CMMI and Industry Best Practices

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Deep Corporate IV&V Experience

SES has been providing IV&V services on large scale information technology projects to various state government agencies since 2000; the list below summarizes our IV&V services work with state governments and agencies.

STATE	AGENCY	PROJECT ($)	PRIMARY FOCUS
Alabama 2005-2021	Alabama Medicaid Agency	MMIS and Eligibility and Enrollment ($220M)	• Modernize MMIS • Re-platforming to cloud • Modernize E&E system • Attestation and CMS Certification
Florida 2008-2012	Florida Department of Revenue	Florida Child Support Enforcement Automated Management System (CAMS) ($180M)	• Oversight of DDI • Incremental implementation of legacy modernization • Upgrade mainframe system • Upgrade stand-alone, outdated database management systems • Modernize with COTS
2019-Present	Florida Office of Attorney General	Florida IT Modernization Program (ITMP) ($13M)	• Convert legacy systems from IBM Notes to COTS product via system integrator • Modernize system to utilize cloud infrastructure
2020-Present	Florida Department of Law Enforcement	Florida Incident Based Reporting System ($9.5M)	Comply with FBI requirement to convert Uniform Crime Reporting from summary data to incident- based data
2020-Present	Florida Department of Law Enforcement	Criminal Justice Data Transparency ($7.5M)	Legislative mandate to provide criminal justice data to the public
2021-Present	Florida Department of Law Enforcement	Uniform Arrest Affidavit ($8M)	Legislative mandate to provide a Uniform Arrest Affidavit for all criminal justice agencies in the state
Iowa 2000-2005	Iowa Medicaid Enterprise	Implementation and support services for Iowa Medicaid Enterprise (IME)	• Project Management Office • IV&V • Performance Measures • Business Rules Extraction • Workflow Logical Definition

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STATE	AGENCY	PROJECT ($)	PRIMARY FOCUS
Kansas 2012-2017	Kansas Department of Health and Environment (KDHE) and Kansas Department of Children and Families	Kansas Eligibility Enforcement System (KEES) ($55M)	• Implement Self-Service Portal (SSP) for medical programs for Presumptive Eligibility (PE) and eligibility determination • Implement replacement of BPM Tracker of DCF Self-Service Portal for Non- Medical programs eligibility determination
2016-Present	Kansas Department of Health and Environment (KDHE)	Kansas Modular Medicaid System (KMMS) ($96M)	• Staged Implementation • Stage 1 CMS Certification • Stage 2 Modules DDI and testing • Cloud environment migration
Massachusetts 2013-2014	Massachusetts Health and Human Services	MassHealth and the Massachusetts Health Connector Health Insurance Exchange/ Integrated Eligibility System ($200M)	• DDI oversight • Lead User Acceptance Testing (UAT)
Minnesota 2013-2018	Minnesota Health Insurance Exchange and Department of Human Services	Minnesota Insurance Exchange (MNsure) and Eligibility and Enrollment System Modernization (ESM) ($24M)	• Incremental implementation • Programs supported: Cash, food, health care and childcare assistance; child support and child welfare; Long-term services, and supports; Licensing and provider management
2015-2018	Minnesota Department of Public Safety	Minnesota Licensing and Registration System (MNLARS) ($100M)	• Fully agile development • Convert legacy systems into desktop user interfaces
Missouri 2017-2019	Missouri HealthNet Division	Missouri Medicaid Management Information System (MMIS) ($10M)	• Modular Medicaid implementation • Compliance with federal mandates

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STATE	AGENCY	PROJECT ($)	PRIMARY FOCUS
New Mexico 2014 - 2015	New Mexico Human Services Department	New Mexico Health Insurance Exchange (HIX) ($24M)	• Implement health insurance exchange • Develop federal hub interface • Attestations
Texas **2015 - 2017**	Texas Department of Vehicle (DMV)	Texas DMV Licensing Administration Consumer Affairs and Enforcement (LACE) ($50M)	• DDI for modernized cloud-based system • Licensing; Compliance & Dealer Operations; Cash Sales, Seller Financing, Retail Installment Contracts and Repossession • Titling Vehicles; Sales Tax and Vehicle Inventory Tax; Lessors, Lease Facilitators and Leasing; Converter's Operations; Lemon Law Requirements and The Administrative Compliant Process
2011-2017	Texas Health & Human Services Commission (HHSC)	Texas Medicaid Management Information System (TMMIS) ($45M)	• DDI for complex, integrated MMIS modules • Compliance with federal mandates and certification requirements

Table 2: SES IV&V Services Work Summary

Both SES Corporate and our proposed staffing have extensive experience across a wide variety of IV&V government agencies. The table below highlights some segments of our experience.

IV&V AND AUDIT SERVICE	SES EXPERIENCE		STAFF EXPERIENCE
	# YEARS	# PROJECTS	
Mainframe replacement oversight	18	10	ALL
State project with federal sponsorship/oversight	22	6	Moudry, Sharma, Mandy, Smith
Goal to reduce project risk	20	14	ALL
Architecture best practices oversight	18	12	Sharma, Hoglund, Dabila
Security best practices oversight	18	11	Moudry, Sharma, Mandy, Smith, Hoglund

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Executive reporting and presentations	20	14	Moudry, Sharma, Mandy
Hybrid life cycle approach	11	4	ALL
Quality Assurance and Quality Control best practices	20	14	ALL
Implementation and Deployment Readiness	13	9	ALL
Org. Change Management & Training oversight	20	14	Moudry, Sharma, Mandy, Smith, Hoglund
Cloud Conversion and re-platforming	6	4	Dabila, Moudry, Sharma, Mandy, Hoglund
Test Management and Oversight	20	14	ALL

Table 3: SES Staff IV&V Experience

Current Customers

SES has supported a wide range of clients and industries. We are extremely proud of our 100% project success rate over two decades while serving over 50 state and federal agencies.

A diverse corporate background has allowed us to provide a wealth of IV&V oversight services to government agencies while also specializing in cybersecurity and process improvement assessments. Our unique blend of deep experience and client partnership stands to offer great benefit to the Florida IV&V Clients.

To demonstrate the considerable alignment between our current/previous engagements and this SOW, we have specified the similarities to each Past Performance cited. Each of these highly successful projects is inextricably tied to our capable resources. Therefore, each Past Performance also lists the resources proposed in our response that are involved with the project referenced.

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KANSAS MODULAR MEDICAID SYSTEM (KMMS) IV&V

Organization Name	Kansas Department of Health and Environment (KDHE) - Division of Health Care Finance (DHCF)
Start/End/Status	Initial Period: 12/2015 – 05/2019 Contract Extensions: 05/2019 – 03/2022
POC Name	Ms. Elizabeth Wolff
Title	Enterprise Systems Director
Phone	785-296-1319
e-mail	Elizabeth.wolff@ks.gov
Narrative description of the actual services provided	SES has partnered with Kansas Department of Health and Environment (KDHE) on the Kansas Modular Medicaid System (KMMS) project as Independent Verification and Validation service provider for the past 5 years. SES team coordinates, plans, collaborates, and communicates with Kansas Information Technology Office (KITO) and KDHE on the scope of KMMS project goals and objectives. KMMS is a true modular implementation where Kansas is modernizing their MMIS system in Stages. KMMS is following a hybrid approach where agile methodology and Commercial-off- the-Shelf (COTS) products such as SAS, Cerner Health Analytics, and Microsoft Dynamics are being integrated to modernize MMIS. As KMMS IV&V partner, SES is closely aligned with the State to ensure that operational readiness federal certification milestones are fully met.
Narrative description of the actual services provided	SES is to verify and validate that the State and their vendor partners in the development and implementation of their Eligibility and Enrollment (E&E) systems are following the CMS review process including use of suggested artifacts and provided templates to help the State prepare and successfully pass three major milestone reviews. SES is contracted to perform monthly reports and quarterly IV&V assessments and present an objective assessment of project "health" and key findings, and CMS MMIS Certification progress to the Director of the Enterprise Project Management Office (EPMO) of the Kansas Information Technology Office (KITO), the KEES Project Steering Committee, and the Federal CMS partner. The SES IV&V Team reviews the Project Schedule and Resource Allocation Plan to ensure the project is progressing as planned; adequate resources are available when needed; the project team is effective in addressing critical issues that could impact the schedule or resource use; managing requirements and planning, executing, monitoring, and reporting progress towards CMS

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	Certification of the KMMS Upgraded system.
Similarities to services requested in this RFP	The KMMS IV&V project is highly similar to the IV&V services requested by the State of Florida: 1. Large, complex multi-year projects. 2. Entire life cycles. 3. Includes technical, business, and management dimensions of the projects and organization. 4. Heavy emphasis on stakeholder management and organizational change. 5. Desire to reduce project risk from the start. 6. Requirement for effective communication and collaboration. 7. Teamwork between IV&V and FDLE project teams.
Proposed SES Staff involved in this effort	Raj Sharma, CSM Jim Moudry, CSQE Norm Mandy, PMP

FLORIDA DEPARTMENT OF LAW ENFORCEMENT IV&V

Organization Name	Florida Department of Law Enforcement (FDLE)
Start/End/Status	10/2020 - Present
POC Name	Ebony Tisby
Title	Executive Director
Phone	850-410-7978
e-mail	ebonytisby@fdle.state.fl.us
Narrative description of the actual services provided	SES was selected as the IV&V Contractor for the FL DLE projects to oversee FDLE initiatives to comply with FBI requirement to convert Uniform Crime Reporting from summary data to incident- based data; achieve legislative mandate to provide criminal justice data to the public; and to provide a Uniform Arrest Affidavit for all criminal justice agencies in the state. SES is contracted to deliver verification and validation services under an independent reporting relationship to FDLE to ensure objectivity. SES provides detailed, structured reports, including findings of deficiencies (when observed) and recommendations for their remediation to FDLE.

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	The full scope of work entails oversight of 42 separate task items that cover project management; quality management; requirements management; system design; and unit, system integration, and acceptance testing. Deliverables include a comprehensive Project Management Plan, an Initial Review Report, and Periodic (quarterly) Review Reports to the Criminal Justice Information Systems office. Monthly Management Presentations to the Executive Steering Committee and/ or the Project Steering Committee are also in the scope of work.
Similarities to services requested in this RFP	The FDLE IV&V project is highly similar to the IV&V services requested by the State: 1. Large, complex multi-year projects. 2. Entire life cycles. 3. Includes technical, business, and management dimensions of the projects and organization. 4. Heavy emphasis on stakeholder management and organizational change. 5. Desire to reduce project risk from the start. 6. Requirement for effective communication and collaboration. 7. Teamwork between IV&V and FDLE project teams.
Proposed SES Staff involved in this effort	All (100%) of the staff proposed are part of the SES IV&V team for the FDLE program. Your SES team has a high level of synergy!

FLORIDA IT MODERNIZATION PROGRAM INDEPENDENT VERIFICATION AND VALIDATION (FL ITMP IV&V)

Organization Name	Florida Office of Attorney General (OAG)
Start/End/Status	09/2019 - Present
Address	Office of the Attorney General, Department of Legal Affairs Collins Building 107 West Gaines Street Tallahassee, FL 32309
POC Name	Steven Ritacco
Title	IT Modernization Program Manager
Phone	850-414-3521

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e-mail	Steven.Ritacco@myfloridalegal.com
Narrative description of the actual services provided	SES was contracted by the Florida Office of Attorney General to provide collaborative oversight of their broad IT Modernization Project (ITMP) addressing numerous legacy systems within the agency. SES is providing the following services: a. Providing an independent, objective, third-party view of project efforts with the intent of protecting the State's interests. b. Providing recommendations to address concerns identified through observations. c. Assessing and reporting overall program performance, extrapolating future program progress and success, and identifying any possible impediments to successful program completion. d. Examining program deliverables and work products to evaluate the effectiveness of the program management controls, procedures and methodology. e. Developing performance metrics that facilitate the tracking of progress and completion of program tasks and milestones. f. Reviewing program Legislative Budget Requests for the future fiscal years. g. Identifying risks and assisting the Program in the development of mitigation plans to address those identified risks. h. Maintaining open and effective communication with the Program Director, Lead Program Manager, Sponsors, Executive Steering Committee, and oversight entities;
Similarities to services requested in this RFP	Our IV&V scope includes performing scheduled periodic IV&V reviews/assessments, including reviews of project management; stakeholder involvement; risks and issues and the entire SDLC. Our oversight includes the enterprise wide ITMP effort which assesses numerous key functions for the FL OAG.
Proposed SES Staff involved in this effort	Norm Mandy, PMP Raj Sharma, CSM Jim Moudry, CSQE

Unbiased and Independent Partner

SES will adhere to and honor reporting relationships, roles, and responsibilities. We will never divulge the contents of our Deliverables with any other entity unless directed to do so by you, the client, or your appointed Contract Manager representative.

- SES has no business relationship with any development vendors or other IV&V contractors. We have no conflicts of interest.

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- We understand that *we succeed only when you succeed*; our goal is to be your objective and independent partner.
- Our communication management plan defines responsibility of the IV&V team members and will be included in the IV&V Management Plan deliverable (sample is **Appendix A**)
- IV&V Project Manager will be the sole SES point of contact for the State IV&V Contract Manager, and for all persons in the role of Project Manager and above, which includes Directors, Steering Committees, etc.
- We will submit reports solely to the office(s) to whom the State directs us.

Turn Risk into Opportunity

A key IV&V objective and focus is to increase awareness of risk so that mitigation and other risk handling activity can be performed; but beyond that, to proactively identify opportunities to avoid risk in the future. Please refer to the opportunity assessments in **Appendix C** – Sample Initial IV&V Review Report to see how our assessment approach turns risk into opportunity.

Lifecycle Activities

The IV&V life cycle approach described here has evolved from our services work - both past and present. The graphic below encapsulates our IV&V life cycle from project initiation to project closure.

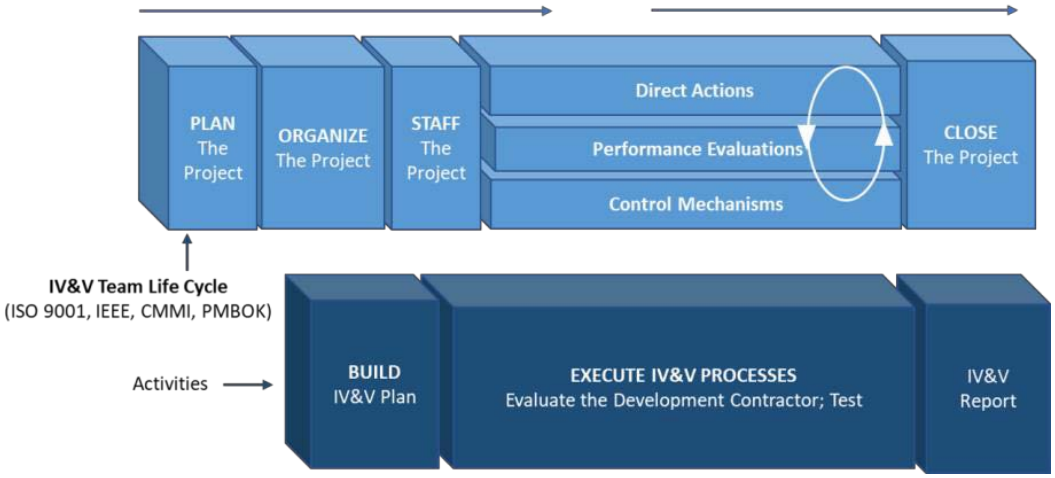

Figure 2: IV&V Life Cycle

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Project Startup

As with every project, the start-up activities are critical to perform tasks in an efficient manner and to achieve credible oversight objectives. The following table lists typical SES start-up activities. Refer to ***Appendices A*** and ***B*** for samples of our IV&V Management Plan and Work Plan Schedule, respectively. Refer to the table below for our initiation tasks.

SES IV&V INITIATION TASKS		
✔ Organize and conduct IV&V Kickoff ✔ Data & Documentation Setup ✔ Prepare IV&V Oversight Checklists ✔ Develop Deliverable Control procedure	✔ Tailor the Quality Management strategy ✔ Tailor the Communications Management strategy ✔ Tailor the Risk Management strategy ✔ Integrate management and control components into Program IV&V Plan	✔ Develop IV&V Work Plan (schedule) of work packages, dependencies and estimated dates and levels of effort ✔ Perform Vendor deliverable reviews ✔ Submit Program IV&V Work Plan for Approval

Table 4: SES IV&V Startup Tasks

Assess the Environment

This component consists primarily of an initial review of key documents, possibly accompanied by clarifying interviews, and represents the beginning of data collection and analysis for the first report deliverable.

Checklist Tailoring and Customization

Proposed SES staff are experts in tailoring the scope of oversight to the unique requirements in each RFQ. The SES PM will collaborate with the project team to tailor a complete core of oversight practices to meet the scope of work requirements for each project. The table below demonstrates how best practices, and our IV&V checklists offer robust oversight compliance. Our IV&V Team experience enables relevant and accurate interpretation of the best practices for the chosen framework. **Appendix F** contains a small sample from our project management oversight checklists.

Initial Reporting

We will provide the Initial Project Assessment Report according to the specific timelines in the Client RFQ. Our initial report is an in-depth assessment. Refer to **Appendix C** for a sample of our initial reporting.

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OVERSIGHT AREA	KEY IV&V CHECKLISTS	KEY CMMI PRACTICE AREAS
Planning	Procurement Feasibility Study	Planning, Supplier Agreement Management Planning, Decision Analysis & Resolution
Project Management	Project Sponsorship Management Assessment Project Management Business Process Engineering Risk Management Change Management Communication Management Configuration Management Estimating and Scheduling Personnel Project Organization Subcontractors and External Staff	Planning, Governance Planning, Monitor & Control Monitor & Control, Manage Performance & Measurement Technical Solution, Requirements Management Risk & Opportunity Management Requirements Management, Estimating Monitor and Control, Process Quality Assurance Configuration Management Estimating, Planning Planning, Monitor and Control Implementation Infrastructure, Planning Supplier Agreement Management, Monitor & Control
Quality Management	Quality Assurance Process Definition & Product Standards	Process Quality Assurance, Peer Review, Verification and Validation, Requirements Development and Management
Training	User Training and Documentation Developer Training & Documentation	Organizational Training Organizational Training
Requirements Management	Requirements Management Security Requirements Requirements Analysis Interface Requirements	Requirements Development & Management Technical Solution, Product Integration Requirements Development & Management Requirements Development & Management

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OVERSIGHT AREA	KEY IV&V CHECKLISTS	KEY CMMI PRACTICE AREAS
	Requirements Allocation and Specification	Requirements Development & Management
Operating Environment	System Hardware & Software Database Software System Capacity	Technical Solution, Product Integration Technical Solution, Product Integration Managing Performance & Measurement
Development Environment	Development Hardware & Software	Technical Solution, Product Integration
Software Development	Design Code Unit Test	Technical Solution, Product Integration Technical Solution, Product Integration Verification & Validation, Peer Reviews
System and Acceptance Test	System Integration Test Acceptance and Turnover Implementation	Verification & Validation Verification & Validation Configuration Management, Monitor & Control
Operations Oversight	Operational Change Tracking Customer/User Satisfaction Operational Goals Operational Documentation Ops. Processes and Activity	Configuration Management Service Delivery Management Managing Performance & Measurement Service Delivery Management, Product Integration Process Management, Managing Performance & Measurement

Table 5: Oversight Checklist Scope and Best Practice

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Project Execution

Figure 4: IV&V Process Summary, depicts primary inputs and outputs in the IV&V process. We will execute the process during each reporting deliverable phase. The three essential activities are: Data collection, analysis, and integrated analysis and reporting.

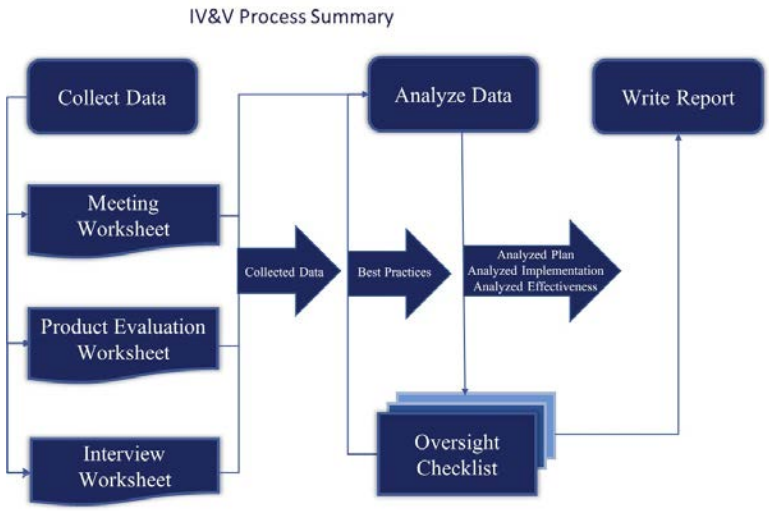

Figure 3: IV&V Process Summary

Reporting Cycle

SES IV&V Team will follow the reporting cadence specified in the SOW.
Appendix D is our sample Status Report.

Appendix H is our sample IV&V Deliverable Report. Please note that we review and analyze every Vendor Deliverable against standardized characteristics and criteria that can be organized into discrete areas such as the ones listed below. The specific format and content will be agreed to with the Client during the IV&V Project Startup phase:

- Overall product quality
- Alignment to project objectives
- Fidelity to State (and federal) requirements
- Compliance with certification requirements (if any)
- Adherence to the Project Plan

The end result is a repeatable, predictable, and structured analysis and reporting of Deliverable content.

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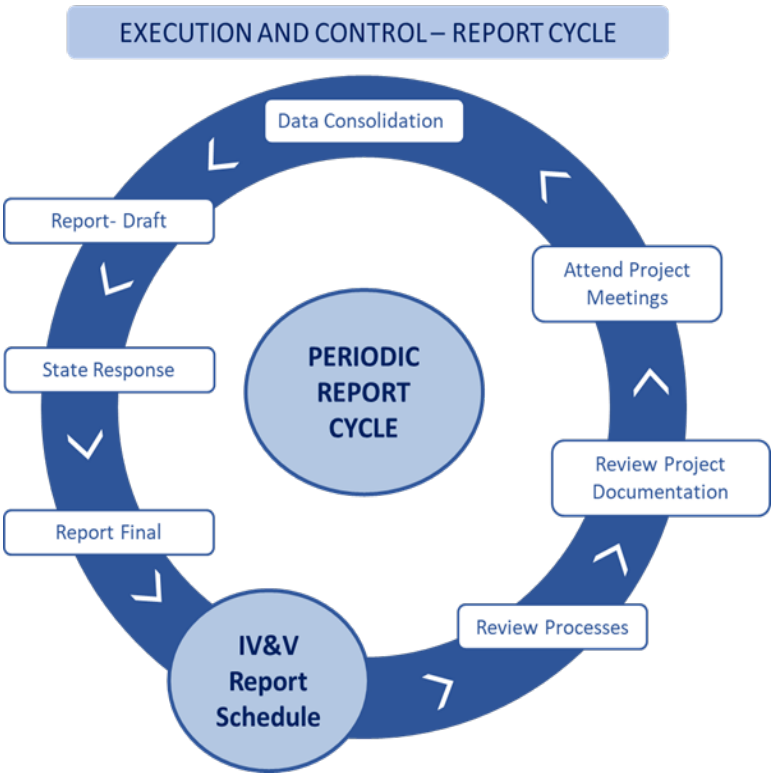

Figure 4: Reporting Cycle

Appendix E is a sample of our phase gate reporting to assist in determining the readiness to proceed to the next phase of the project, e.g., to move from User Testing to Implementation.

Risk Management Oversight

Successful risk management is a continuous, forward-looking process. Risk exists in all projects; because they are expected and identified, the logical focus becomes:

- Avoidance when feasible
- Mitigation when beneficial
- Acceptance when not cost-effective to manage (i.e., when cost to avoid or mitigate exceeds benefit)

Therefore, SES remains focused on integrated risk analysis and management throughout IV&V review reporting.

We strive for clear, documented risks with actionable recommendations that can be easily understood by project stakeholders. The next two tables below are a detailed crosswalk to highlight how documented IV&V risks align with the best practice in all SES reporting; the result is enhanced insight into process and product risk.

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ANALYSIS REQUIREMENT	SES REPORTING SOLUTION (NEXT TABLE)
What is good about the project's process; what is working well?	**A**
What about the project's process or technology needs improvement?	**B**
Is the project making measurable progress in this area?	**C**
Is the effort within the triple constraints of budget, scope, and schedule?	**D**
Are the appropriate documentation and other project artifacts accurate and up to date?	**E**

Table 6: Enhanced Insight - Sample IV&V Risk

Below is a redacted sample risk from another State government project. It demonstrates how we report and follow project risks and identifies each of the reporting solutions with the **bold blue letters** from the previous table.

IV&V Risk Number	{redacted}
Risk Title	Missing Business Continuity Plan
{redacted} will not be able to restore services to the widest extent possible in a minimum period in the event of a serious or prolonged interruption in services caused by factors beyond their control (e.g., natural disasters, man-made events). (**B**) If there is a need to recover from a disaster affecting services provided by the {redacted} Department to its customers, there is risk that… {redacted} (**D**) will experience avoidable delays in re-establishing full operations. The IV&V Team was unable to verify an approved, current plan for operational continuity. (**A**) The use of {redacted}, and the standards already implemented, support a viable operations continuity approach, but alone were not adequate.	
Mitigation Recommendation and ***Status This Reporting Period***	
1. (**E**) Establish and maintain an approved Continuity of Operations Plan (COOP), which includes the Data Backup Plan, Disaster Recovery Plan, and Emergency Mode of Operations Plan, to supplement the services contracted with {redacted}. (**C**) ***No Progress Observed.*** *Per {redacted}_Status_Report-20190701, the {redacted} Director, which is currently a vacant position is responsible for the Continuity of Operations (Business Continuity / Contingency). There was no planned date to fill the vacancy.*	

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2. (**E**) Define strategy for establishing business continuity to support business function priorities, relocation strategy, and alternate business site(s). (**C**) ***No Progress Observed***.
3. (**E**) Clearly define recovery activities responsibilities for each of the Point of Contacts (POC) identified in the recovery process. (**C**) ***No Progress Observed***.
4. Implement, train, and exercise the Plan. (**C**) ***No Progress Observed***.

The table below summarizes COOP planning gaps.

#	Expected Component in Continuity of Operations Plan	Plan Status
1	Disaster recovery team and personnel contact list	Largely/fully provided
2	Recovery operation procedures	Partially provided (COOP 2010)
3	Procedures to establish alternate site (includes voice/data communications, and mail)	Partially provided (COOP 2010)
4	Alternative site equipment support	Partially provided (COOP 2010)
5	Procedures: Replace destroyed computer equipment	No approved Plan
6	Procedures for off-site storage and retrieval of software, data, documentation, and vital records	Largely/fully provided
7	Logistics: Move staff, additional data, & documentation	Partially provided (COOP)
8	System backup schedule	Largely/fully provided
9	Restart/recovery continuity	Largely/fully provided
10	Emergency Mode of Operations Plan AKA COOP	Partially provided (COOP 2010)

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(C)

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Risk Exposure
This Reporting Period	Low	High	Immediate	MEDIUM
Previous Reporting Period	Low	High	Immediate	MEDIUM

Table 7: Sample IV&V Risk

Clients can expect the same level of attention to detail as we identify risks, explain the possible impact of the risk, and specify the recommended actions to remediate the risk. Our usage of color ratings and analysis ratings facilitate prioritization to aid the State in deciding on risk prioritization, mitigation, or acceptance.

The matrix below is a guide to assist in prioritizing a plan of action to mitigate the risk of failure in achieving one or more project objectives.

PROBABILITY OF OCCURRENCE	NEGLIGIBLE IMPACT	MARGINAL IMPACT	CRITICAL IMPACT	CATASTROPHIC IMPACT
70- 100%	Accept	Manage	Resolve	Resolve
40-70%	Accept	Monitor	Manage	Resolve
10-40%	Accept	Monitor	Manage	Manage
0-10%	Accept	Accept	Monitor	Monitor

Table 8: Plan of Action to Mitigate Risk

Program Performance and the SES Risk Metrics

An advantage of our methodology is the ease with which it lends itself to measuring project performance through risk analysis. For example, the following metric uses all SES-identified risks, their exposure ratings, and the number of risks; to produce a weighted composite. This metric is useful in watching temporal trends in the overall threat to the project achieving its objectives.

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Figure 5: Risk Composite Score Trend

We also track and report trends in risk exposure as shown in the next chart. Higher overall risk exposures suggest increased risk to project success when considering the project constraints of quality, cost, schedule, scope, and staffing. Again, we report specific recommendations to help guard against project risk.

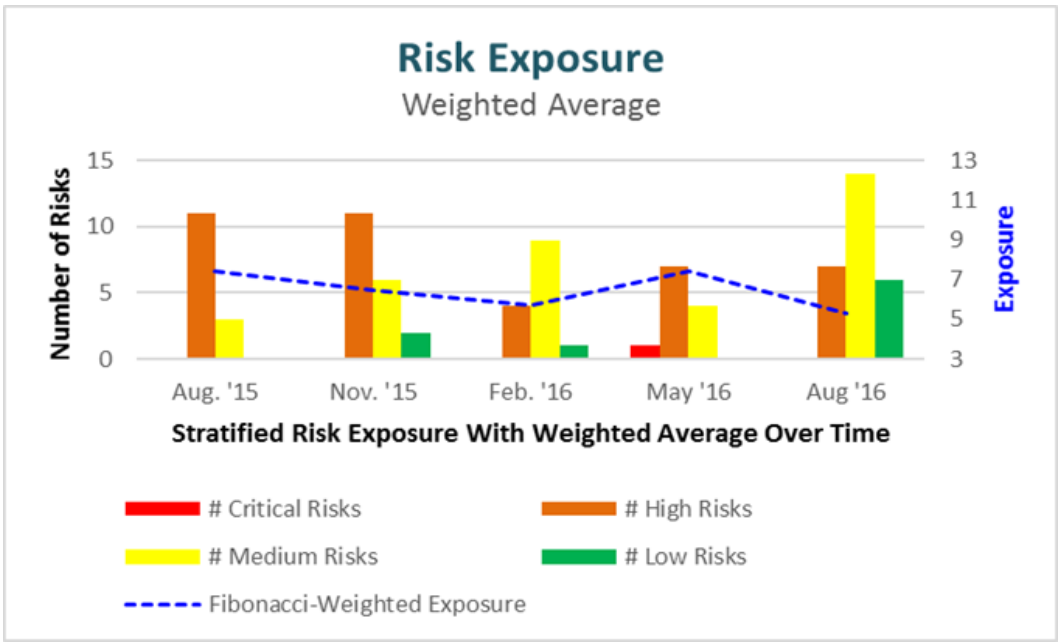

Figure 6: Risk Exposure

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The table below is a primary input into developing our risk metrics. It provides objective guidance to IV&V analysis as to your risk exposure.

RISK EXPOSURE	PROBABILITY OF RISK OCCURRENCE	IMPACT OF RISK OCCURRENCE	TIME CRITICALITY
CRITICAL	High	High	Immediate or Short Term
HIGH	High	High	Long Term
	High	Medium	Immediate or Short Term
	Medium	High	Immediate or Short Term
MEDIUM	High	Medium	Long Term
	High	Low	Immediate or Short Term or Long Term
	Medium	High	Long Term
	Medium	Medium	Immediate or Short Term
	Medium	Low	Immediate
	Low	High	Immediate
LOW	Medium	Low	Short Term or Long Term
	Low	High	Short Term or Long Term
	Low	Medium	Immediate or Short Term or Long Term
	Low	Low	Immediate or Short Term or Long Term

Table 9: Risk Metrics Input

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Risk Checklists

The table below shows a sample of the type of detailed checklist questions we employ to oversee comprehensive risk management:

TASK ITEM: **Risk Management**	Verify that the Project Risk Management Plan is created and being followed. Evaluate the project's risk management plans and procedures to verify that risks are identified and quantified and that mitigation plans are developed, communicated, implemented, monitored, and complete.
	Does the Project Management Plan, or documents referenced in the PMP, specify the Risk Management Plan for identifying, analyzing, and prioritizing risk factors? *Best Practice Reference:* IEEE STD 1058: 1998 IEEE Standard for Software Project Management Plans; Project Management Institute, A Guide to the Project Management Body of Knowledge/Project Risk Management, Edition 6, 2017
	Does the Risk Management Plan identify who is responsible for managing various areas of risk? *Best Practice Reference:* Project Management Institute, A Guide to the Project Management Body of Knowledge/Project Communication Management, Edition 6, 2017
	Does the risk response owner periodically report on the effectiveness of the risk response plan, any unanticipated effects, and any mid-course correction needed to mitigate the risk? *Best Practice Reference:* Project Management Institute, A Guide to the Project Management Body of Knowledge/Project Communication Management, Edition 6, 2017
	Are the Project and other affected groups and individuals included in the communications of project risks, risk management plans and the results of risk mitigation? *Best Practice Reference:* Project Management Institute, A Guide to the Project Management Body of Knowledge/Project Communication Management, Edition 6, 2017
	Does the Project identify information security risks and threats to the confidentiality, integrity, and availability of information? (Activities may include but not be limited to vulnerability and penetration testing, threat identification and characterization, and the prioritizing of external and internal security risks to the project) *Best Practice Reference*: FIPS 200, Minimum Security Requirements for Federal Information and Information Systems; ISO/IEC 27002: Clause 4: Risk Assessment and Treatment; NIST SP 800-53A Control RA-3 Risk Assessment

Table 10:Sample Risk Management Checklist Questions

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Issue Management Oversight

An Issue occurs when an event or situation is known to have occurred that could affect project success.

IV&V maintains an internal issue log as the essential tool to support management of its own Issues. The Issue Log enables proper tracking, escalation, and resolution of every issue identified.

After identifying an issue, IV&V tracks its life cycle primarily through the Issue Log (refer also to the Risk Management section above). Issues of sufficient impact and visibility will be presented in monthly IV&V status reporting.

Figure 7: Issues Management Life Cycle

The following table represents the relationship of the Issue Scoring Process and the resultant Issue Rating.

RATING	CHARACTERIZATION	RECOMMENDED ESCALATION
Critical	Profound negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: Executive Leadership From: PMO and or Project Manager(s)
High	Significant negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: PMO From: Project Manager and/or Business owner
Medium	Moderate negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: Project Manager / Business Owner From: Business owner / Issue Identifier
Low	Minor negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: Business Owner From: Issue Identifier

Table 11: Issue Scoring Process and Issue Rating

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Communication Management Oversight

The main objective of IV&V communication management is to foster effective stakeholder interaction and coordination. It depends on clearly defined communication media and requirements. The graphic at right depicts key areas of communications management.

Figure 8: Communication Plan

IV&V will partner with the State to enable communication with project team members, so they are proactively informed about activities throughout the life cycle. We anticipate cross-project communication that includes effective use of tools (e.g., calendars, status reports, and touchpoint meeting minutes).

IV&V works with communication points of contact provided by the Contract or Project Manager to tailor communications between us and each project team. The table below will be tailored during project startup to reflect management changes to processes.

COMMUNICATION TYPE	DESCRIPTION	RESPONSIBLE
Deliverables	Provide the IV&V Program Manager with a single project/module point of contact who will assign annual project Deliverable Reviews to IV&V	IV&V Project Manager
Documents	Provide access to all deliverables, versions, working documentation, reports, minutes, and other project artifacts; includes project repositories, work environments such as Development and QA; and tools used to establish and maintain information such as requirements and testing artifacts	IV&V PM coordinate w/ Client and Vendor PMs
Scheduled Meetings and Events	Provide access to calendars and invitations to meetings, demonstrations, milestone activities, and other project events within the IV&V scope of oversight	IV&V PM coordinate w/ Client and Vendor PMs
Agenda for IV&V Status Meetings	Provide the IV&V PM with requested agenda items at least 24 hours in advance	Client PMs

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COMMUNICATION TYPE	DESCRIPTION	RESPONSIBLE
IV&V Status Meetings/IV&V Interview	Coordinate Touchpoint meetings as directed	IV&V PM coordinate w/Client and Vendor PMs
Interviews	Schedule interviews at least 24 hours in advance with project team members to clarify data IV&V collected and/or confirm missing data	IV&V PM
Respond to IV&V Contract Manager	Respond to requests and inquires within one (1) business day unless otherwise agreed to.	IV&V PM
Contract Questions	Contract-related questions or concerns	IV&V PM, IV&V Contract Manager
Response to IV&V Reports	In the format provided by IV&V, create a single consolidated addendum of all comments and/ or corrections to errors of fact in Monthly IV&V Contractor Status Reports within 10 business days	Client Contract Manager, PMs
Contact Information	Provide project team member and other stakeholder names, titles, email addresses and phone numbers to facilitate appropriate IV&V communication channels including information on meetings and scheduling interviews	IV&V PM coordinate w/Client and Vendor PMs

Table 12: Key Communication Procedures

Quality Management Oversight

The SES quality oversight approach is based on the Capability Maturity Model Integration for Development (CMMI-DEV) v2.0. Specifically, the following practice areas are used as the basis of assessment (see also the Key CMMI Practice Areas table in the Project Startup section above):

- Peer Review
- Process Quality Assurance
- Requirements Development and Management
- Verification and Validation

The insight into process and product quality helps to facilitate early detection of project risk. Please refer to the Risk Management Oversight section above to learn more about our approach to assisting the Client in proactively managing project risk.

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Deliverable Quality Assurance

Deliverable quality assurance follows the process outlined in the diagram below.

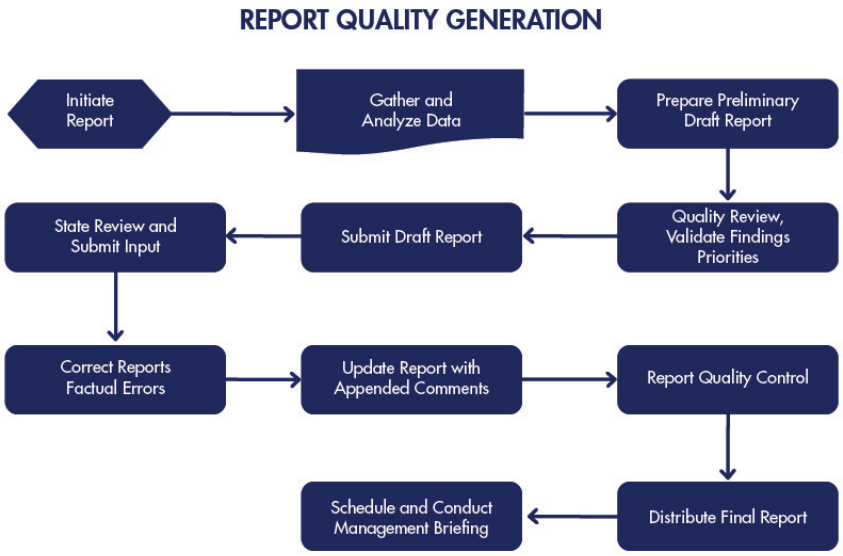

Figure 9: Deliverable Quality Assurance

To assure consistently high-quality deliverables, prior to submittal each SES deliverable is reviewed by at least three people as a part of peer review and quality assurance; the following is our proposed cycle for IV&V periodic review reporting:

IV&V Role	Deliverable QA Task
Project Manager	Initial draft report
Analysts	Section inputs
Project Manager	Consolidated draft
Program Manager	Peer review
Corporate QA	Final Review
Project Manager	Cleanup, reconcile inputs
Project Manager	Submit final report

Table 13: Deliverable QA Process

Other Tools in Our Toolkit

SES brings significant additional value to IV&V engagements through our experience with the areas outlined below. These additional capabilities will enable Florida IT projects to grow in process maturity and reduce overall risk, not only during the project lifecycle but also into the operations and maintenance period.

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Cybersecurity. SES cybersecurity services for state and federal clients provide in-depth understanding of all components within the NIST 800-53 standards. As a contractor supporting the United States Air Force for the last 15 years, SES is also subject to full compliance with Cybersecurity Maturity Model Certification (CMMC) requirements for our corporate operations. This background, combined with CISSP resident staff, ensures that our practical, hands on experience with cybersecurity regulations and compliance will align with modern expectations regarding safeguards to data integrity, confidentiality, and availability. SES offers CMMI Cybersecurity Model Platform consulting services which are separate from the IV&V services.

CMMI Training. SES provides formal and informal training on standards and best practices. We are a CMMI Partner and are authorized to provide training and consulting services to help reach your maturity goals and improve your projects and processes. We have deep experience, staff skill, and accreditation with the ISACA CMMI for Development and for Services; and experience training others on using the best practices to assess project management. Our CMMI consulting clients cover an array of industries and include the Internal Revenue Service, Union Pacific Railroad, Southwest Research Institute, and many, many more.

Performance Metrics. SES creates and develops performance metrics that facilitate understanding of IT project progress with respect to tasks and milestones. More so, we also collaborate with the Customer to tailor metrics for reporting in IV&V Deliverables. Please refer to the following additional resources in our proposal to understand how metrics can multiply Client insight of how the schedule, quality, and risk may be impacted:

- Risk Management section (above)
- Sample performance metrics at **Appendix I**
- Sample Initial IV&V Assessment Report at **Appendix C**
- Sample Monthly Assessment Report at **Appendix D**

Testing Oversight. The majority of our IV&V engagements have included oversight of IT project testing through the lifecycle. The following table is a sampling of our IV&V engagements and the associated environment tools with which we have experience.

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TOOL	SES ENGAGEMENT EXPERIENCE
JIRA	TXDMV IV&V
JAMA	TX LACE IV&V
SAP Business Objects	TX HHSC IV&V
Rally software	MNLARS IV&V
IBM Rational Suite	MN HIX IV&V
IBM Rational Functional Tester, IBM Rational Performance Tester, JIRA, Soap UI, LoadUI, IBM ClearQuest, IBM JAZZ Junit	MNsure and ESM/ISDS IV&V
IBM Rational Quality Manager, RequisitePro, IBM ClearQuest, Functional Tester, ClearCase, Freedom Scientific JAWS	KS KEES IV&V
Application Lifecycle Management	KS KMMS IV&V
JIRA	NMHIX IV&V
JIRA	FL ITMP IV&V

Table 14: Key IV&V Tools Experience

Deliverables

Our proposed team of SES employees have extensive experience in planning and producing all required Deliverables. We have provided acknowledgement of the requirements and a summary of our solution and experience in the following table.

SOW §C PP. 2-3 MINIMALLY REQUIRED DELIVERABLES	OUR CONCURRENCE	OUR SOLUTION IN THIS PROPOSAL (SECTION NAME IS LISTED HERE)
IV&V Management Plan	*Fully agree*	Project Startup, Appendix A
IV&V Schedule	*Fully agree*	Project Startup, Appendix B

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SOW §C PP. 2-3 MINIMALLY REQUIRED DELIVERABLES	OUR CONCURRENCE	OUR SOLUTION IN THIS PROPOSAL (SECTION NAME IS LISTED HERE)
IV&V Status Reports / Meetings	*Fully agree*	Reporting Cycle, Appendix D
Initial Project Assessment Report	*Fully agree*	Introduction, Initial Reporting, Appendix C
Project Lessons Learned	*Fully agree*	Introduction, Appendix G
Weekly Project Assessment Updates	*Fully agree*	We will provide the weekly status report on our activities, staffing, etc., according to the specific requirements in the Client RFQ.
Monthly Project Assessment Reports	*Fully agree*	Reporting Cycle, Appendix D
Special Communication	*Fully agree*	We will immediately initiate a Special Communication if/when analysis indicates significant change in project risk exposure for scope, budget, schedule, or viability.
Phase Gate Assessment Reports	*Fully agree*	Reporting Cycle, Appendix E
Verification and Validation of Project Deliverables	*Fully agree*	Introduction, Reporting Cycle, Appendix H
Review of Solicitation and Procurement Documentation	*Fully agree*	We will use the approach described in the IV&V Method of this proposal for both Vendor and Client deliverables, including procurement/ solicitation documents.

Table 15: Deliverables Acknowledgement

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Appendices

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Appendix A: Sample IV&V Management Plan

IV&V Project Plan

Version 2.0

Year 2 2 April 2019

Independent Verification and Validation Services

for

<Client>

RFP Number: <XYZ>
Deliverable Control Number: II.G.IN-1

Prepared by

Software Engineering Services
1311 Ft. Crook Road South, Suite 100
Bellevue, NE 68005

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DOCUMENT CONTROL

This is a controlled document. The control and release of this document is the responsibility of the document Owner.

Version control					
Document reference	IV&V PP	**Project**		<Client> and <Project>	
Version	2.0	**Date**	4/2/19	**Owner**	
Document title	IV&V Project Plan				

Version History				
Version	**Planned Date**	**Actual Date**	**Author**	**Version Description**
1.01	20190116	20190116		Tracked notes and comments
1.02	20190117	20190117		Consolidated draft
1.03	20190118	20190122		Peer review of draft
1.04	20190122	20190122		IV&V Draft submittal for <Client> review
-	20190205	20190205		Due date: comments on submittal to IV&V PM
1.06	20190206	20190206		Updates based on CMS and/or <Client> feedback
1.07	20190206	20190206		Peer review of final
1.1	20190207	20190207		IV&V PP updated (final)
1.2	20190319			Draft changes for year 2
1.3	20190325			PM changes for year 2
1.4	20190327			Peer review of draft
1.5	20190401			Final draft year 2
1.5	20190402			Submittal (NLT)
-	20190416			<Client> Addendum comments
2.0	20190418			Final submittal

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1.0 INTRODUCTION

The purpose of this document is to detail the Software Engineering Services (SES) plan to provide Independent Verification and Validation (IV&V) services for the <CLIENT> under contract RFP Number: <XYZ>.

This IV&V Project Plan (hereafter simply the "Plan") includes but is not limited to:

- A narrative of planned procedures for managing and controlling IV&V activity
- Oversight method including risk management approach
- Basic tools to be used by the IV&V team
- The IV&V project Work Plan (schedule of deliverables and supporting activity with estimated dates and key resources)

This update maintains the IV&V plan and establishes the schedule for Year 2 of the IV&V contract.

1.1 Supporting <Client>

To meet increasing customer service demands, manage growing caseloads, and improve automation of processes, the <Client> is transforming the Medicaid Management System using newer technologies. SES understands that the requirement for IV&V services on this contract comes from the Centers for Medicare and Medicaid Services (CMS); by extension, SES IV&V supports the <Client>, and is a partner in the Agency's success in executing and managing the <CLIENT> <PROJECT> and <PROJECT> program of modular projects.

IV&V formally began supporting <CLIENT> 1 April, 2018; the IV&V initial effort is for two years, ending 31 March 2020. The contract also provides for <CLIENT> to exercise up to three 1-year options, bringing the maximum contract time to five years.

1.2 Assumptions

A successful IV&V effort relies in part on effective stakeholder communication, especially between the IV&V team; <CLIENT>; CMS; and the Integration, PMO, and other module Vendors. It includes:

- State and Vendor use of the IV&V group email address <Client>.gov) as the focal point for day-to-day communications
- On-site and remote IV&V access to all artifacts, deliverables and other State and Vendor work products
- On-Site and remote IV&V access to project meetings, demos, and other events
- Willingness of project personnel to openly participate in IV&V data clarification interviews in an atmosphere of collegiality
- Ability of the IV&V PM to prioritize data collection efforts (meetings, documentation evaluations, and interviews), and make IV&V staff work assignments

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1.3 Constraints

None identified.

1.4 Risks

SES is performing continuous risk assessments and providing results in monthly IV&V status reporting. This Plan provides a summary description of SES risk management processes in the Methodology section.

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2.0 IV&V Approach and Methodology

2.1 Method Summary

The SES method uses a standardized, repeatable approach – efficient and designed to have minimal impact on daily project activities. It strongly supports the idea that IV&V activities should be unobtrusive to the project:

- Encompasses entire lifecycle
- Provides insight into process implementation and process effectiveness;
- Specifies project strengths to exploit;
- Defines shortfalls in project use of best practices;
- Describes project risks associated with weaknesses (forward-looking)
- Prescribes specific, actionable recommendations for improved performance and reduced project risk
- Focuses on outcomes and benefits
- Complies with 45 CFR IV&V regulations.

The SES approach *does not* require that <PROJECT> and <PROJECT> projects use a particular life cycle (e.g. agile; traditional life cycles). Our industry standard best practices apply equally well regardless of life cycle. Our Analysts are trained in the interpretation of best practice to the chosen <CLIENT> life cycle.

This Plan references a separate IV&V Work Plan (MS Project schedule with activities, dependencies, dates, and resources). We organize each phase around a deliverables-based breakdown of work.

We will update the Work Plan as needed and as requested to remain synchronized with the State and DDI schedules and, in any case, will always internally review and update IV&V scheduling at least quarterly.

The following table summarizes the relationship between IV&V PMBOK-based phases found in the Appendix A Work Plan, and the required CMS Medicaid Eligibility and Enrollment Toolkit (MEET) and Medicaid Enterprise Certification Toolkit (MECT) life cycles:

PMBOK PHASE	CMS PHASE	CMS REVIEW
Project Initiation	Initiation and Planning	-
Project Monitoring and Control	Initiation and Planning	Initiation Milestone review (R1)
Project Planning	Initiation and Planning	IV&V Progress Report(s)
Project Execution	Requirements, Design and Development,	IV&V Progress Report(s)

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PMBOK PHASE	CMS PHASE	CMS REVIEW
Project Monitoring and Control	Requirements, Design and Development,	Operational Milestone Reviews (R2)
Project Execution	Integration, Test, and Implementation	IV&V Progress Report(s)
Project Monitoring and Control	Integration, Test, and Implementation	Operational Milestone Reviews (R2)
Project Monitoring and Control	Operations and Maintenance	Post Operational Review(s) (R3) Certification Review (R3)
Project Closure	-	-

2.2 IV&V Process Overview

IV&V will continually assess <CLIENT> projects and their modules based on three fundamental questions:

- Is the project using documented processes/procedures?
- Is the project adhering to its processes/procedures?
- Are the processes/procedures effectively adhering to industry standards?

We use a checklist-based process, organized into oversight areas, to determine the application of best practices and to guide the data gathering and reporting process. We record results of collected data on internal worksheets (Appendix C). The IV&V Team gathers data from interviews with various project stakeholders, attendance at meetings, and evaluations of project documentation.

The diagram below summarizes the IV&V method with respective inputs and outputs; the three major execution activities are:

- Data collection: SES gathers data from in interviews, meetings, and evaluations of project deliverables and other artifacts.
- Analysis: Carefully assess available data to determine the application of best practice implementation and effectiveness.
- Reporting: The resulting Observations, Risks, and Findings are organized in the oversight area checklists and used as the primary input in writing deliverable reports. Our reports are a primary way we assist <CLIENT> and CMS to monitor and control project activity.

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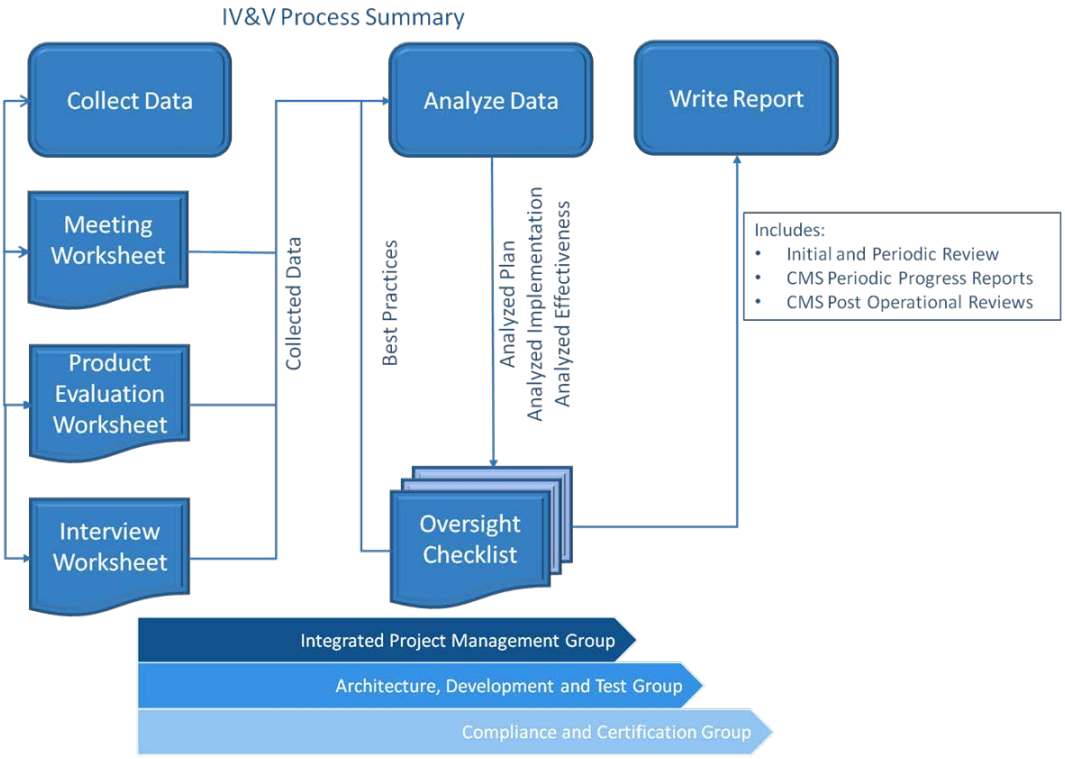

OVERSIGHT SCOPE

The collective set of questions in each Task Area, summarized in the table below, fully address the scope of oversight. Checklists may be modified during project execution to remain aligned to project requirements. For example, Task area questions may be updated to maintain compliance with CMS requirements.

Oversight Area	Task Area
CMS COMPLIANCE	Standards and Conditions
	Access and Delivery
	Integration and Utility
	Intermediary and Interface
	Information Architecture
	Eligibility and Enrollment (MEET)
PROJECT MANAGEMENT	Project Sponsorship

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Oversight Area	Task Area
	Management Assessment
	Project Management
	Business Process Engineering
	Risk Management
	Change Management
	Communication Management
	Configuration Management
	Estimating and Scheduling
	Personnel
	Project Organization
	Subcontractors and External Staff
	<CLIENT> MEDICAID AGENCY Oversight
QUALITY MANAGEMENT	Quality Assurance
	Process Definition and Product Standards
TRAINING	User Training and Documentation
	Developer Training and Documentation
REQUIREMENTS MANAGEMENT	Requirements Management
	Security Requirements
	Requirements Analysis
	Interface Requirements
	Requirements Allocation and Specification
	Reverse Engineering
OPERATING ENVIRONMENT	System Hardware

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Oversight Area	Task Area
	System Software
	Database Software
	System Capacity
DEVELOPMENT ENVIRONMENT	Development Hardware
	Development Software
SOFTWARE DEVELOPMENT	High Level Design
	Detailed Design
	Job Control
	Code
	Unit Test
SYSTEM AND ACCEPTANCE TESTING	System Integration Test
	Pilot Test
	Interface Test
	Acceptance and Turnover
DATA MANAGEMENT	Data Conversion
	Database Design
OPERATIONS OVERSIGHT	Operational Change Tracking
	Customer and User Operational Satisfaction
	Operational Goals
	Operational Documentation
	Operational Processes and Activity
Project Planning	Procurement
	Feasibility Studies

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2.3 Data Collection

Worksheets are the primary tool used to standardize our data collection. For each project activity, the IV&V Analyst:

1. *Prepares* by recording logistical information; researching and recording best practices contained in relevant Oversight Checklists; and reviewing any advance documentation such as agendas or meeting handouts.
2. *Performs* by reading/attending/interviewing as planned; and recording gathered data.
3. *Records results* through analysis of data against best practices, looking for adherence to documented process and effectiveness of practices.
4. *Stores* the finalized worksheet for audit purposes.

COLLECTION TOOLS

Consolidated data from worksheets become the basis of verifying best practice usage, identifying risks, and writing reports. Worksheets along with the oversight checklist practices they reference, provide an audit trail for IV&V reports.

Product Review Worksheet – The primary tool that IV&V analysts use to capture information when reviewing project deliverables and other key artifacts.

Project Meeting Worksheet – The primary tool that IV&V analysts use to capture information from each project meeting attended either in person or remotely.

Interview Worksheet – The primary tool that IV&V analysts use to capture information whenever conducting interviews with State and Vendor project staff.

OTHER TOOLS

SES SharePoint – We are maintaining a secure SharePoint site. It contains a separate space dedicated only to the <PROJECT>/<PROJECT> program; our own internal network administration team limits access only to IV&V and corporate team members based on the "need to know".

Issue and Risk Logs –The Logs are used to document, assign, track, and manage project issues and risk from IV&V's perspective. These risks will be included in IV&V reports.

2.4 Reporting

SES will generate all required deliverables as represented in our deliverables-based Work Plan. There are weekly and monthly reporting requirements, based on collaboration with <CLIENT> and CMS; refer to the Deliverables section and Appendices E and F for details.

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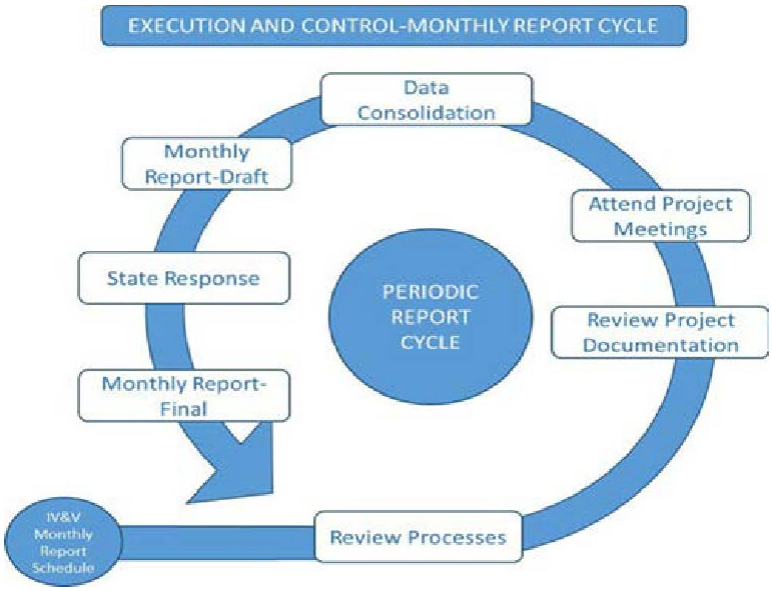
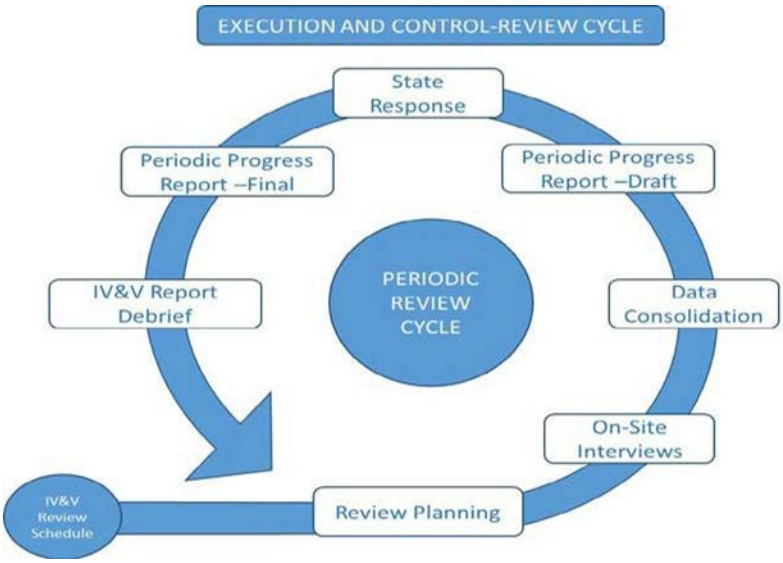
Report Cycle

The SES Team records collected data on internal worksheets; then gathers data from interviews with various project stakeholders, attendance at meetings, and evaluations of project documentation.



CMS REPORTING

IV&V includes quarterly CMS-defined progress reporting in monthly reporting, according to the MECL/MEELC as required for the <PROJECT>/<PROJECT> projects. The CMS life cycles specify IV&V reporting formats; sample reports are at Appendix C.



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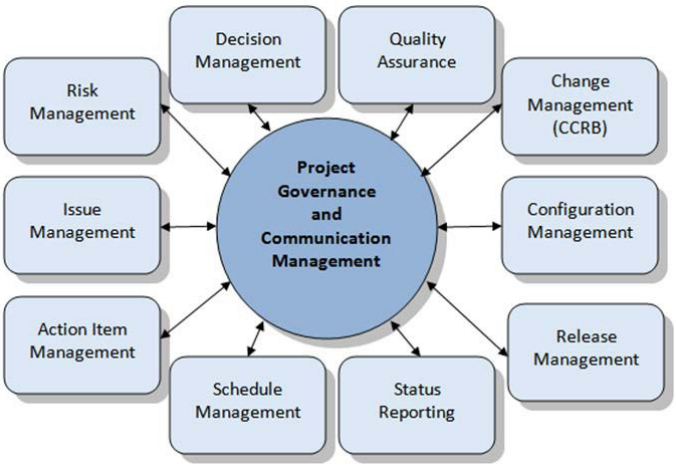
2.5 Communication Management

The main objective of IV&V communication management is to foster effective stakeholder interaction and coordination. It depends on clearly defined communication media and requirements. The graphic below depicts key areas of communications management including project governance.



2.5.1 Activity Coordination

IV&V strives to enable communication with project team members, so they are informed about activities throughout the life cycle. We anticipate cross-project communications that include effective use of tools (e.g. calendars, status reports, and touchpoint meeting minutes).

IV&V works with communication points of contact provided by the State Contract Manager for specific communications between the Medicaid <PROJECT> and <PROJECT> projects. The table below may be tailored during the project life cycle to reflect differences between <PROJECT> and <PROJECT>, and management changes to processes:

Communication Type	Description	Responsible
<PROJECT> and <PROJECT> Deliverables	Provide the IV&V Program Manager with a single project/module point of contact who will assign annual project Deliverable Reviews to IV&V	<CLIENT> IV&V Contract Manager
<PROJECT> and <PROJECT> Documents	Provide access to all deliverables, versions, working documentation, reports, minutes, and other project artifacts; includes project repositories, work environments such as Development and QA; and tools used to establish and maintain information such as requirements and testing artifacts	IV&V PM coordinate w/State and DDI Vendor PMs
OIT Meetings	Facilitate a monthly status meeting with IV&V to review and approve IV&V deliverables	Office of Information Technology

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Communication Type	Description	Responsible
Scheduled Meetings and Events	Provide access to calendars and invitations to meetings, demonstrations, milestone activities, and other project events within the IV&V scope of oversight	IV&V PM coordinate w/State and Vendor PMs
Agenda for IV&V Status Meetings	Provide the IV&V PM with requested agenda items at least 24 hours in advance	State PMs
IV&V Status Meetings	Coordinate Touchpoint meetings (<PROJECT>, <PROJECT>) the first and third Wednesdays of each month (may be changed)	IV&V PM coordinate w/State and Vendor PMs
Minutes from IV&V Status Meetings	Provide meeting minutes to reflect separation of action items, issues, etc. per stakeholder	IV&V PM
Interviews	Schedule interviews at least 24 hours in advance with project team members to clarify data IV&V collected and/or confirm missing data	IV&V PM
Respond to IV&V Contract Manager and CMS	Respond to requests and inquires within one (1) business day unless otherwise agreed to.	IV&V PM
Contract Questions	Contract-related questions or concerns	IV&V Program Manager, <CLIENT> IV&V Contract Manager
Response to IV&V Monthly Reports	In the format provided by IV&V, create a single consolidated addendum of all comments and/ or corrections to errors of fact in Monthly IV&V Contractor Status Reports within 10 business days	<CLIENT> Contract Manager, <CLIENT> PMs
Contact Information	Provide project team member and other stakeholder names, titles, email addresses and phone numbers to facilitate appropriate IV&V communication channels including information on meetings and scheduling interviews	IV&V PM coordinate w/State and Vendor PMs

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2.6 Risk Management

The purpose of Risk Management is to identify potential problems before they occur, so that risk-handling activities may be planned and implemented as needed across the project life–cycle, and to mitigate adverse impact to achieving project objectives.

Risk Management is (and must therefore be executed as) continuous, forward-looking, and a significant part of business and technical management processes.

To have an effective Risk Management program, our methodology is designed to:

- Address items that could endanger mission-critical objectives
- Provide continuous insight that can be acted upon to mitigate risks with critical impact across the project life cycles
- Encourage early and aggressive risk identification, and advocate for collaboration with all relevant stakeholders
- Create and establish an environment where the team can participate in free and open disclosure and discussion of risk

Within each project, there will be both internal and external risk areas. Key external risk areas include:

- Changes in Federal Rules
- State Budget Impacts

The following table lists expected Risk Management processes, tools, and templates:

CMMI® COMPLIANT RISK MANAGEMENT PROCESS	
SES Risk Management Process Description	
	Prepare for Risk Management Sub-process (RSKM SG1)
	Determine Risk Sources and Categories (SP 1.1)
	Define Risk Parameters (SP 1.2)
	Establish a Risk Management Strategy (SP 1.3)
	Identify and Analyze Risks Sub-Process (RSKM SG 2)
	Identify Risks (SP 2.1)
	Evaluate, Categorize and Prioritize Risks (SP 2.2)
	Mitigate Risks Sub-Process

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	Develop Risk Mitigation Plans Strategy (SP 3.1)
	Implement Risk Mitigation Plans (SP 3.2)
Risk Management Key Inputs and Outputs	
	Risk Register (Risk Log)
	Risk Questionnaire (Our best practice oversight standards)
	Short Risk Taxonomy (Our best practice oversight standards)
	Risk Summary Report (Our required deliverables, especially Monthly IV&V Status Reports)

IV&V will enter risks into one or more logs of issues and Risks, containing data along with associated mitigation recommendations and status developed for IV&V reporting.

When assigning risk exposure ratings for reporting purposes, we consider probability of occurrence and potential impact (either as identified in the potential project impact table below or in a similarly-defined rating scale).

- Risks of a critical or catastrophic nature that have a high probability of occurrence must be resolved immediately before proceeding further (Rating: Severe – Significant).
- Contingency plans are developed and maintained for “Manage” or “Monitor” level risks (Rating: Moderate – Controllable).
- “Accept” level risks are logged into the risk database; however, no immediate mitigation action is required (Rating: Low).
- Potential Project Impact (Consequence of Occurring).

Probability of Occurrence	Negligible Impact	Marginal Impact	Critical Impact	Catastrophic Impact
70- 100%	Accept	Manage	Resolve	Resolve
40-70%	Accept	Monitor	Manage	Resolve
10-40%	Accept	Monitor	Manage	Manage
0-10%	Accept	Accept	Monitor	Monitor

Guidance on Risk Exposure Response

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2.7 Issue Management

Definition of an Issue: A situation that is known to have occurred and that could affect IV&V project success.

IV&V maintains an internal issue log as the essential tool to support management of its own Issues. The Issue Log enables proper tracking, escalation, and resolution of every issue identified.

After identifying an issue, IV&V tracks its life cycle primarily through the Issue Log (refer also to the Risk Management section above). Issues of sufficient impact and visibility will be presented in monthly IV&V status reporting.

The following table represents the relationship of the Issue scoring process and the resultant Issue Rating.

Rating	Characterization	Recommended Escalation
Critical	Profound negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: CIO From: PMO and or Project Manager(s)
High	Significant negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: PMO From: Project Manager and/or Business owner
Medium	Moderate negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: Project Manager / Business Owner From: Business owner / Issue Identifier
Low	Minor negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project	To: Business Owner From: Issue Identifier

3.0 IV&V Staffing

The following table contains all staff expected to be engaged on the project. Table colors coincide with the Organizational Chart further below. All staff support both the <PROJECT> and <PROJECT> projects and modules.

Resource	Position	Staff Role
KEY STAFF		
	IV&V Project Manager/ Sr. IV&V Analyst	Full time on-site
	Sr. Functional/ Business Analyst	Full time on-site
	Program Manager	Part time off-/ on-site
	Sr. Tech Analyst/Architect	Part time off-/ on-site
	Lead Certification/ Eligibility SME	Part time off-/ on-site
	Account Executive	Part time off-/ on-site

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Resource	Position	Staff Role
PART-TIME SME AND SUPPORT STAFF		
	Sr. Consultant & Eligibility SME	Part time as needed
	Sr. Security and Test Analyst	Part time off-/ on-site
	MITA/ Medicaid Policy SME	Part time off-/ on-site

3.1 IV&V Organization

The organizational chart identifies the simple structure of our IV&V team and primary <CLIENT> reporting relationships:

REDACTED ORG. CHART

3.2 Staff Resumes

Following a[redacted] of each IV&V staff.

REDACTED RESUMES

4.0 IV&V Deliverables

IV&V Team uses the approach and methodology described above to collect, analyze, and store data needed to produce all contracted Deliverables. Each deliverable carries a unique Deliverable Control Number (DCN) to support sound management and tracking. IV&V will consistently use and reference deliverables with the DCNs in reporting, communications, and deliverable submission.

- The IV&V Work Plan at Appendix A includes a DCN reference field, and is a deliverables-based approach to our work
- Appendix B is a summary table of all contracted deliverables and is also cross-referenced to the same DCNs
- Appendices E and F are report templates developed for <CLIENT> weekly and monthly reporting, respectively

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APPENDIX A: IV&V WORK PLAN

The IV&V Work Plan is a separate document maintained in Microsoft Project (.MPP) format, regularly updated. The IV&V PM will export and distribute the most recent Work Plan in PDF format. An example of our IV&V Work Plan can be found in Appendix E: IV&V Work Plan Sample.

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APPENDIX B: DELIVERABLE CROSS-REFERENCE SUMMARY

Deliverable Control #	Deliverable Name	Phase	Frequency	Delivery Method
II.G.IN-1	IV&V Project Plan	Initiation	Semi-Annually	Narrative Plan, MS Proj. Sched.
II.G.PL-1	Initial Risk Assessment	Planning	Once	Monthly IV&V Report
II.G.PL-2	Initial Proj Mgmt Assess.	Planning	Once	Monthly IV&V Report
II.G.PL-3	Initial Proj. Req'ts Assess	Planning	Once	Monthly IV&V Report
II.G.PL-4	Initial Project Assessment	Planning	Once	Monthly IV&V Report
II.G.PL-5	Weekly IV&V Report	Planning, Execution	Weekly	Approved Wkly Rpt. Template
II.G.PL-6	Monthly IV&V Report	Planning, Execution	Monthly	Approved Monthly Report Template
II.G.PL-7	Eval. of RFPs & Contracts	Execution	Per event	Monthly IV&V Report
II.G.PL-8	Deliverable Forecast	Planning, Execution	Monthly	Monthly IV&V Report

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Deliverable Control #	Deliverable Name	Phase	Frequency	Delivery Method
II.G.PL-9	Interim Project Progress Report	Planning	Quarterly	Monthly IV&V Report
II.G.IM-1	Architecture Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-2	Code & s/w Dev. Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-3	Test Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-4	Training Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-5	Data Mgmt Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-6	Conversion Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-7	Ops. Oversight Review	Implementation	Monthly	Monthly IV&V Report
II.G.IM-8	Cert. Readiness Review	Implementation	Per CMS requirements	Monthly IV&V Report
II.G.IM-9	SLA/ Service Preparedness/ Service Delivery Review	Implementation	Monthly	Monthly IV&V Report

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Deliverable Control #	Deliverable Name	Phase	Frequency	Delivery Method
II.G.CL-1	Lessons Learned	Annually	Annually	Monthly IV&V Report
II.G.ON-1	Weekly IV&V Contractor Status Report	Ongoing	Weekly	Weekly IV&V Report
II.G.ON-2	Monthly IV&V Contractor Status Report	Ongoing	Monthly	Monthly IV&V Report
II.G.ON-3	Risk Assessment	Ongoing	Monthly	Monthly IV&V Report
II.G.ON-4	Project Mgmt. Assessment	Ongoing	Monthly	Monthly IV&V Report
II.G.ON-5	Project Req’ts Assessment	Ongoing	Monthly	Monthly IV&V Report
II.G.ON-6	Project Assessment	Ongoing	Monthly	Monthly IV&V Report
II.G.ON-7	Interim Project Progress Report	Planning	Quarterly	Monthly IV&V Report

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Appendix C: Deliverable Review Report Sample

An example of our Deliverable Review Report Sample can be found in Appendix F: Deliverable Review Sample.

Appendix D: Risk and Issue Templates

template - Risk.docx

template - Issue.docx

Appendix E: Weekly IV&V Contractor Status Report Template

template - AL Medicaid Weekly IV

Appendix F: Monthly IV&V Contractor Status Report Sample

An example of our Monthly IV&V Contractor Status Report Sample can be found in Appendix G: IV&V Report Sample

Addendum 1: Deliverable review and Comment Form

Software Engineering Services

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Appendix B - Sample IV&V Schedule

ID	WBS	Task Name	Predecessors	Duration	Start	Finish
1	**1**	[redacted]		**475 days**	**Mon 7/3/17**	**Tue 4/30/19**
2	1.1	Project start date		0 days	Mon 4/2/18	Mon 4/2/18
3	**1.2**	**Project Start-Up**		**223 days**	**Mon 7/3/17**	**Fri 5/11/18**
4	1.2.1	Establish access to project repositories	2	5 days	Mon 4/2/18	Fri 4/6/18
5	1.2.2	Obtain required physical access	2	30 days	Mon 4/2/18	Fri 5/11/18
6	**1.2.3**	**IV&V Project Kickoff**		**198 days**	**Mon 7/3/17**	**Fri 4/6/18**
7	1.2.3.1	Develop kickoff presentation	2SS-5 days	5 days	Mon 4/2/18	Fri 4/6/18
8	1.2.3.2	Schedule meeting and attendees	2	10 days	Mon 7/3/17	Mon 7/17/17
9	1.2.3.3	Submit presentation	7	1 day	Tue 7/11/17	Tue 7/11/17
10	1.2.3.4	Conduct kickoff meeting	7,8,9	1 day	Tue 7/18/17	Tue 7/18/17
11	**1.3**	**Project Planning**		**12 days**	**Fri 7/14/17**	**Mon 7/31/17**
12	**1.3.1**	**IV&V Oversight Checklists**		**4 days**	**Tue 7/18/17**	**Fri 7/21/17**
13	1.3.1.1	Coordinate and Tailor Checklists	2SS+10 days	3 days	Tue 7/18/17	Thu 7/20/17
14	1.3.1.2	Finalize and Baseline Checklists	13	1 day	Fri 7/21/17	Fri 7/21/17
15	**1.3.2**	**IV&V Work Plan - Initial**		**12 days**	**Fri 7/14/17**	**Mon 7/31/17**
16	1.3.2.1	Draft the Initial Work Plan	2FF+13 days	5 days	Fri 7/14/17	Thu 7/20/17
17	1.3.2.2	Submit to DHS	16	1 day	Fri 7/21/17	Fri 7/21/17
18	1.3.2.3	DHS review/comment	17	5 days	Mon 7/24/17	Fri 7/28/17
19	1.3.2.4	Update/submit Initial Work Plan-Final	18	1 day	Mon 7/31/17	Mon 7/31/17
20	1.3.2.5	Deliverable milestone: IV&V Work Plan Approved	19	0 days	Mon 7/31/17	Mon 7/31/17
21	**1.3.3**	**IV&V Management Plan - Initial**		**12 days**	**Fri 7/14/17**	**Mon 7/31/17**
22	1.3.3.1	Draft the Initial Management Plan	2FF+13 days	5 days	Fri 7/14/17	Thu 7/20/17
23	1.3.3.2	Submit to DHS	22	1 day	Fri 7/21/17	Fri 7/21/17
24	1.3.3.3	DHS review/comment	23	5 days	Mon 7/24/17	Fri 7/28/17
25	1.3.3.4	Update/submit Initial Management Plan-Final	24	1 day	Mon 7/31/17	Mon 7/31/17
26	1.3.3.5	Deliverable milestone: IV&V Management Plan Approved	25	0 days	Mon 7/31/17	Mon 7/31/17
27	**1.3.4**	**IV&V Quality Assurance Plan - Initial**		**12 days**	**Fri 7/14/17**	**Mon 7/31/17**
28	1.3.4.1	Draft the Initial Quality Assurance Plan	2FF+13 days	5 days	Fri 7/14/17	Thu 7/20/17
29	1.3.4.2	Submit to DHS	28	1 day	Fri 7/21/17	Fri 7/21/17
30	1.3.4.3	DHS review/comment	29	5 days	Mon 7/24/17	Fri 7/28/17
31	1.3.4.4	Update/submit Initial Quality Assurance Plan-Final	30	1 day	Mon 7/31/17	Mon 7/31/17
32	1.3.4.5	Deliverable milestone: IV&V Quality Assurance Plan Approved	31	0 days	Mon 7/31/17	Mon 7/31/17
33	**1.4**	**Project Execution**	**11**	**475 days**	**Mon 7/3/17**	**Tue 4/30/19**
34	**1.4.1**	**IV&V Work Plan Quarterly Updates**		**216 days**	**Fri 9/15/17**	**Fri 7/13/18**
35	**1.4.1.1**	**IV&V Work Plan - Update #1**		**11 days**	**Fri 9/15/17**	**Mon 10/2/17**
36	1.4.1.1.1	Update the Work Plan	37SF-1 day	2 days	Fri 9/15/17	Tue 9/19/17
37	1.4.1.1.2	Submit to DHS	38SF-1 day	1 day	Wed 9/20/17	Thu 9/21/17
38	1.4.1.1.3	DHS review/comment	39FF-1 day	5 days	Fri 9/22/17	Thu 9/28/17
39	1.4.1.1.4	Update/submit Work Plan-Final	40FF	1 day	Fri 9/29/17	Mon 10/2/17
40	1.4.1.1.5	Deliverable milestone: IV&V Work Plan Approved		0 days	Mon 10/2/17	Mon 10/2/17
41	1.4.1.2	**IV&V Work Plan - Update #2**		10 days	Tue 1/2/18	Mon 1/15/18
42	1.4.1.3	**IV&V Work Plan - Update #3**		10 days	Mon 4/2/18	Fri 4/13/18
43	1.4.1.4	**IV&V Work Plan - Update #4**		10 days	Mon 7/2/18	Fri 7/13/18
44	**1.4.2**	**IV&V Management Plan Quarterly Updates**		**214 days**	**Tue 9/26/17**	**Fri 7/20/18**
45	**1.4.2.1**	**IV&V Management Plan - Update #1**		**10 days**	**Tue 9/26/17**	**Mon 10/9/17**
46	1.4.2.1.1	Update IV&V Management Plan	47SF-1 day	1 day	Tue 9/26/17	Wed 9/27/17
47	1.4.2.1.2	Submit to DHS	48SF-1 day	1 day	Thu 9/28/17	Fri 9/29/17
48	1.4.2.1.3	DHS review/comment	49FF-1 day	5 days	Mon 10/2/17	Fri 10/6/17
49	1.4.2.1.4	Update/submit Management Plan-Final	50FF	1 day	Mon 10/9/17	Mon 10/9/17
50	1.4.2.1.5	Deliverable milestone: IV&V Management Plan Approved	40FF+6 days	0 days	Mon 10/9/17	Mon 10/9/17
51	1.4.2.2	**IV&V Management Plan - Update #2**		10 days	Tue 1/9/18	Mon 1/22/18
52	1.4.2.3	**IV&V Management Plan - Update #3**		10 days	Mon 4/9/18	Fri 4/20/18
53	1.4.2.4	**IV&V Management Plan - Update #4**		10 days	Mon 7/9/18	Fri 7/20/18
54	**1.4.3**	**IV&V Quality Assurance Plan Quarterly Updates**		**215 days**	**Mon 10/2/17**	**Fri 7/27/18**
55	**1.4.3.1**	**IV&V Quality Assurance Plan - Update #1**		**10 days**	**Mon 10/2/17**	**Mon 10/16/17**
56	1.4.3.1.1	Update IV&V Quality Assurance Plan	57SF-1 day	1 day	Mon 10/2/17	Tue 10/3/17
57	1.4.3.1.2	Submit to DHS	58SF-1 day	1 day	Wed 10/4/17	Thu 10/5/17
58	1.4.3.1.3	DHS review/comment	59FF-1 day	5 days	Fri 10/6/17	Thu 10/12/17
59	1.4.3.1.4	Update/submit Quality Assurance Plan-Final	60FF	1 day	Fri 10/13/17	Mon 10/16/17
60	1.4.3.1.5	Deliverable milestone: IV&V Quality Assurance Plan Approved	40FF+6 days	0 days	Mon 10/16/17	Mon 10/16/17
61	1.4.3.2	**IV&V Quality Assurance Plan - Update #2**		10 days	Tue 1/16/18	Mon 1/29/18
62	1.4.3.3	**IV&V Quality Assurance Plan - Update #3**		10 days	Mon 4/16/18	Fri 4/27/18
63	1.4.3.4	**IV&V Quality Assurance Plan - Update #4**		10 days	Mon 7/16/18	Fri 7/27/18
64	**1.4.4**	**IV&V Weekly Project Assessment Reports**		**261 days**	**Mon 7/3/17**	**Wed 7/4/18**
65	**1.4.4.1**	**IV&V Weekly PAR #1**		**7 days**	**Mon 7/3/17**	**Wed 7/12/17**
66	1.4.4.1.1	Integrate new data	2	4 days	Mon 7/3/17	Fri 7/7/17
67	1.4.4.1.2	Draft the PAR	66FF	1 day	Fri 7/7/17	Fri 7/7/17

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
68	1.4.4.1.3	Submit to DHS	67	1 day	Mon 7/10/17	Mon 7/10/17
69	1.4.4.1.4	DHS review/comment	68	1 day	Tue 7/11/17	Tue 7/11/17
70	1.4.4.1.5	Update/submit PAR	69	1 day	Wed 7/12/17	Wed 7/12/17
71	1.4.4.1.6	Participate in weekly PAR review meeting	70FF	1 day	Wed 7/12/17	Wed 7/12/17
72	1.4.4.1.7	Deliverable milestone: IV&V Weekly PAR #1 Approved	70FF	0 days	Wed 7/12/17	Wed 7/12/17
73	1.4.4.2	**IV&V PAR #2**		7 days	Mon 7/10/17	Tue 7/18/17
74	1.4.4.3	**IV&V PAR #3**	73FS-2 days	7 days	Mon 7/17/17	Tue 7/25/17
75	1.4.4.4	**IV&V PAR #4**	74FS-2 days	7 days	Mon 7/24/17	Tue 8/1/17
76	1.4.4.5	**IV&V PAR #5**	75FS-2 days	7 days	Tue 8/1/17	Wed 8/9/17
77	1.4.4.6	**IV&V PAR #6**	76FS-2 days	7 days	Tue 8/8/17	Wed 8/16/17
78	1.4.4.7	**IV&V PAR #7**	77FS-2 days	7 days	Tue 8/15/17	Wed 8/23/17
79	1.4.4.8	**IV&V PAR #8**	78FS-2 days	7 days	Tue 8/22/17	Wed 8/30/17
80	1.4.4.9	**IV&V PAR #9**	79FS-2 days	6 days	Tue 8/29/17	Wed 9/6/17
81	1.4.4.10	**IV&V PAR #10**	80FS-1 day	6 days	Wed 9/6/17	Wed 9/13/17
82	1.4.4.11	**IV&V PAR #11**	81FS-2 days	7 days	Tue 9/12/17	Wed 9/20/17
83	1.4.4.12	**IV&V PAR #12**	82FS-2 days	7 days	Tue 9/19/17	Wed 9/27/17
84	1.4.4.13	**IV&V PAR #13**	83FS-2 days	7 days	Tue 9/26/17	Wed 10/4/17
85	1.4.4.14	**IV&V PAR #14**	84FS-2 days	7 days	Tue 10/3/17	Wed 10/11/17
86	1.4.4.15	**IV&V PAR #15**	85FS-2 days	7 days	Tue 10/10/17	Wed 10/18/17
87	1.4.4.16	**IV&V PAR #16**	86FS-2 days	7 days	Tue 10/17/17	Wed 10/25/17
88	1.4.4.17	**IV&V PAR #17**	87FS-2 days	7 days	Tue 10/24/17	Wed 11/1/17
89	1.4.4.18	**IV&V PAR #18**	88FS-2 days	7 days	Tue 10/31/17	Wed 11/8/17
90	1.4.4.19	**IV&V PAR #19**	89FS-2 days	7 days	Tue 11/7/17	Wed 11/15/17
91	1.4.4.20	**IV&V PAR #20**	90FS-2 days	7 days	Tue 11/14/17	Wed 11/22/17
92	1.4.4.21	**IV&V PAR #21**	91FS-2 days	7 days	Tue 11/21/17	Wed 11/29/17
93	1.4.4.22	**IV&V PAR #22**	92FS-2 days	7 days	Tue 11/28/17	Wed 12/6/17
94	1.4.4.23	**IV&V PAR #23**	93FS-2 days	7 days	Tue 12/5/17	Wed 12/13/17
95	1.4.4.24	**IV&V PAR #24**	94FS-2 days	7 days	Tue 12/12/17	Wed 12/20/17
96	1.4.4.25	**IV&V PAR #25**	95FS-2 days	7 days	Tue 12/19/17	Wed 12/27/17
97	1.4.4.26	**IV&V PAR #26**	96FS-2 days	7 days	Tue 12/26/17	Wed 1/3/18
98	1.4.4.27	**IV&V PAR #27**	97FS-2 days	7 days	Tue 1/2/18	Wed 1/10/18
99	1.4.4.28	**IV&V PAR #28**	98FS-2 days	7 days	Tue 1/9/18	Wed 1/17/18
100	1.4.4.29	**IV&V PAR #29**	99FS-2 days	7 days	Tue 1/16/18	Wed 1/24/18
101	1.4.4.30	**IV&V PAR #30**	100FS-2 days	7 days	Tue 1/23/18	Wed 1/31/18
102	1.4.4.31	**IV&V PAR #31**	101FS-2 days	7 days	Tue 1/30/18	Wed 2/7/18
103	1.4.4.32	**IV&V PAR #32**	102FS-2 days	7 days	Tue 2/6/18	Wed 2/14/18
104	1.4.4.33	**IV&V PAR #33**	103FS-2 days	7 days	Tue 2/13/18	Wed 2/21/18
105	1.4.4.34	**IV&V PAR #34**	104FS-2 days	7 days	Tue 2/20/18	Wed 2/28/18
106	1.4.4.35	**IV&V PAR #35**	105FS-2 days	7 days	Tue 2/27/18	Wed 3/7/18
107	1.4.4.36	**IV&V PAR #36**	106FS-2 days	7 days	Tue 3/6/18	Wed 3/14/18
108	1.4.4.37	**IV&V PAR #37**	107FS-2 days	7 days	Tue 3/13/18	Wed 3/21/18
109	1.4.4.38	**IV&V PAR #38**	108FS-2 days	7 days	Tue 3/20/18	Wed 3/28/18
110	1.4.4.39	**IV&V PAR #39**	109FS-2 days	7 days	Tue 3/27/18	Wed 4/4/18
111	1.4.4.40	**IV&V PAR #40**	110FS-2 days	7 days	Tue 4/3/18	Wed 4/11/18
112	1.4.4.41	**IV&V PAR #41**	111FS-2 days	7 days	Tue 4/10/18	Wed 4/18/18
113	1.4.4.42	**IV&V PAR #42**	112FS-2 days	7 days	Tue 4/17/18	Wed 4/25/18
114	1.4.4.43	**IV&V PAR #43**	113FS-2 days	7 days	Tue 4/24/18	Wed 5/2/18
115	1.4.4.44	**IV&V PAR #44**	114FS-2 days	7 days	Tue 5/1/18	Wed 5/9/18
116	1.4.4.45	**IV&V PAR #45**	115FS-2 days	7 days	Tue 5/8/18	Wed 5/16/18
117	1.4.4.46	**IV&V PAR #46**	116FS-2 days	7 days	Tue 5/15/18	Wed 5/23/18
118	1.4.4.47	**IV&V PAR #47**	117FS-2 days	7 days	Tue 5/22/18	Wed 5/30/18
119	1.4.4.48	**IV&V PAR #48**	118FS-2 days	7 days	Tue 5/29/18	Wed 6/6/18
120	1.4.4.49	**IV&V PAR #49**	119FS-2 days	7 days	Tue 6/5/18	Wed 6/13/18
121	1.4.4.50	**IV&V PAR #50**	120FS-2 days	7 days	Tue 6/12/18	Wed 6/20/18
122	1.4.4.51	**IV&V PAR #51**	121FS-2 days	7 days	Tue 6/19/18	Wed 6/27/18
123	1.4.4.52	**IV&V PAR #52**	122FS-2 days	7 days	Tue 6/26/18	Wed 7/4/18
124	**1.4.5**	**SSNRI-ITSD - Year 1**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
125	1.4.5.1	Start Date	2	1 day	Mon 7/3/17	Mon 7/3/17
126	1.4.5.2	End Date		1 day	Fri 6/29/18	Fri 6/29/18
127	**1.4.5.3**	**Task #8: Project Oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
128	**1.4.5.3.1**	**Project management oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
129	**1.4.5.3.1.1**	**Task #1: Participate in key meetings**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
130	1.4.5.3.1.1.1	Unscheduled key meetings		258 days	Mon 7/3/17	Fri 6/29/18
131	**1.4.5.3.1.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
132	1.4.5.3.1.2.1	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
133	**1.4.5.3.1.2.2**	**Code/Unit Test Results v1.0 Assessment**		**9 days**	**Thu 8/31/17**	**Wed 9/13/17**
134	1.4.5.3.1.2.2.1	Receive Deliverable		0 days	Thu 8/31/17	Thu 8/31/17
135	1.4.5.3.1.2.2.2	Perform and submit IV&V assessment	134	3 days	Thu 8/31/17	Tue 9/5/17
136	1.4.5.3.1.2.2.3	DHS review/comment	135	5 days	Wed 9/6/17	Tue 9/12/17

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
137	1.4.5.3.1.2.2.4	Update/submit final Assessment	136	1 day	Wed 9/13/17	Wed 9/13/17
138	1.4.5.3.1.2.2.5	Deliverable milestone: IV&V Assessment Approved	137	0 days	Wed 9/13/17	Wed 9/13/17
139	**1.4.5.3.1.2.3**	**System Test Results Assessment**		**9 days**	**Wed 9/20/17**	**Mon 10/2/17**
140	1.4.5.3.1.2.3.1	Receive Deliverable		0 days	Wed 9/20/17	Wed 9/20/17
141	1.4.5.3.1.2.3.2	Perform and submit IV&V assessment	140	3 days	Wed 9/20/17	Fri 9/22/17
142	1.4.5.3.1.2.3.3	DHS review/comment	141	5 days	Mon 9/25/17	Fri 9/29/17
143	1.4.5.3.1.2.3.4	Update/submit final Assessment	142	1 day	Mon 10/2/17	Mon 10/2/17
144	1.4.5.3.1.2.3.5	Deliverable milestone: IV&V Assessment Approved	143	0 days	Mon 10/2/17	Mon 10/2/17
145	**1.4.5.3.1.2.4**	**System Implementation Plan Assessment**		**9 days**	**Thu 11/2/17**	**Tue 11/14/17**
146	1.4.5.3.1.2.4.1	Receive Deliverable		0 days	Thu 11/2/17	Thu 11/2/17
147	1.4.5.3.1.2.4.2	Perform and submit IV&V assessment	146	3 days	Thu 11/2/17	Mon 11/6/17
148	1.4.5.3.1.2.4.3	DHS review/comment	147	5 days	Tue 11/7/17	Mon 11/13/17
149	1.4.5.3.1.2.4.4	Update/submit final Assessment	148	1 day	Tue 11/14/17	Tue 11/14/17
150	1.4.5.3.1.2.4.5	Deliverable milestone: IV&V Assessment Approved	149	0 days	Tue 11/14/17	Tue 11/14/17
151	**1.4.5.3.1.2.5**	**Updated Work Plan Assessment**		**9 days**	**Mon 11/6/17**	**Thu 11/16/17**
152	1.4.5.3.1.2.5.1	Receive Deliverable		0 days	Mon 11/6/17	Mon 11/6/17
153	1.4.5.3.1.2.5.2	Perform and submit IV&V assessment	152	3 days	Mon 11/6/17	Wed 11/8/17
154	1.4.5.3.1.2.5.3	DHS review/comment	153	5 days	Thu 11/9/17	Wed 11/15/17
155	1.4.5.3.1.2.5.4	Update/submit final Assessment	154	1 day	Thu 11/16/17	Thu 11/16/17
156	1.4.5.3.1.2.5.5	Deliverable milestone: IV&V Assessment Approved	155	0 days	Thu 11/16/17	Thu 11/16/17
157	1.4.5.3.1.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
158	**1.4.5.3.1.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
159	1.4.5.3.1.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
160	1.4.5.3.1.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
161	1.4.5.3.1.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
162	1.4.5.3.1.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
163	**1.4.5.3.1.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
164	1.4.5.3.1.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
165	1.4.5.3.1.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
166	1.4.5.3.1.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
167	1.4.5.3.1.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
168	1.4.5.3.1.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
169	1.4.5.3.1.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
170	1.4.5.3.1.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
171	1.4.5.3.1.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
172	1.4.5.3.1.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
173	1.4.5.3.1.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
174	**1.4.5.3.2**	**Modular development oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
175	**1.4.5.3.2.1**	**Task #1: Participate in key meetings**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
176	**1.4.5.3.2.1.1**	**SSNRI Workgroup meetings**		**100 days**	**Wed 8/2/17**	**Wed 12/20/17**
177	1.4.5.3.2.1.1.1	SSNRI Workgroup meeting		1 day	Wed 8/2/17	Wed 8/2/17
178	1.4.5.3.2.1.1.2	SSNRI Workgroup meeting		1 day	Wed 8/16/17	Wed 8/16/17
179	1.4.5.3.2.1.1.3	SSNRI Workgroup meeting		1 day	Wed 8/30/17	Wed 8/30/17
180	1.4.5.3.2.1.1.4	SSNRI Workgroup meeting		1 day	Wed 9/13/17	Wed 9/13/17
181	1.4.5.3.2.1.1.5	SSNRI Workgroup meeting		1 day	Wed 9/27/17	Wed 9/27/17
182	1.4.5.3.2.1.1.6	SSNRI Workgroup meeting		1 day	Wed 10/11/17	Wed 10/11/17
183	1.4.5.3.2.1.1.7	SSNRI Workgroup meeting		1 day	Wed 10/25/17	Wed 10/25/17
184	1.4.5.3.2.1.1.8	SSNRI Workgroup meeting		1 day	Wed 11/8/17	Wed 11/8/17
185	1.4.5.3.2.1.1.9	SSNRI Workgroup meeting		1 day	Wed 11/22/17	Wed 11/22/17
186	1.4.5.3.2.1.1.10	SSNRI Workgroup meeting		1 day	Wed 12/6/17	Wed 12/6/17
187	1.4.5.3.2.1.1.11	SSNRI Workgroup meeting		1 day	Wed 12/20/17	Wed 12/20/17
188	**1.4.5.3.2.1.2**	**SSNRI -ITSD Status Meetings**		**100 days**	**Thu 8/3/17**	**Thu 12/21/17**
189	1.4.5.3.2.1.2.1	SSNRI -ITSD Status Meeting		1 day	Thu 8/3/17	Thu 8/3/17
190	1.4.5.3.2.1.2.2	SSNRI -ITSD Status Meeting		1 day	Thu 8/17/17	Thu 8/17/17
191	1.4.5.3.2.1.2.3	SSNRI -ITSD Status Meeting		1 day	Thu 8/31/17	Thu 8/31/17
192	1.4.5.3.2.1.2.4	SSNRI -ITSD Status Meeting		1 day	Thu 9/14/17	Thu 9/14/17
193	1.4.5.3.2.1.2.5	SSNRI -ITSD Status Meeting		1 day	Thu 9/28/17	Thu 9/28/17
194	1.4.5.3.2.1.2.6	SSNRI -ITSD Status Meeting		1 day	Thu 10/12/17	Thu 10/12/17
195	1.4.5.3.2.1.2.7	SSNRI -ITSD Status Meeting		1 day	Thu 10/26/17	Thu 10/26/17
196	1.4.5.3.2.1.2.8	SSNRI -ITSD Status Meeting		1 day	Thu 11/9/17	Thu 11/9/17
197	1.4.5.3.2.1.2.9	SSNRI -ITSD Status Meeting		1 day	Wed 11/22/17	Wed 11/22/17
198	1.4.5.3.2.1.2.10	SSNRI -ITSD Status Meeting		1 day	Thu 12/7/17	Thu 12/7/17
199	1.4.5.3.2.1.2.11	SSNRI -ITSD Status Meeting		1 day	Thu 12/21/17	Thu 12/21/17
200	1.4.5.3.2.1.3	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
201	1.4.5.3.2.1.4	Unscheduled key meetings		258 days	Mon 7/3/17	Fri 6/29/18
202	**1.4.5.3.2.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
203	1.4.5.3.2.2.1	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
204	1.4.5.3.2.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
205	**1.4.5.3.2.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
206	1.4.5.3.2.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
207	1.4.5.3.2.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
208	1.4.5.3.2.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
209	1.4.5.3.2.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
210	**1.4.5.3.2.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
211	1.4.5.3.2.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
212	1.4.5.3.2.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
213	1.4.5.3.2.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
214	1.4.5.3.2.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
215	1.4.5.3.2.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
216	1.4.5.3.2.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
217	1.4.5.3.2.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
218	1.4.5.3.2.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
219	1.4.5.3.2.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
220	1.4.5.3.2.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
221	**1.4.5.4**	**Task #3: Assess project phase entry/exit readiness - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
222	1.4.5.4.1	Provide written phase readiness assessment		238 days	Tue 8/1/17	Fri 6/29/18
223	1.4.5.4.2	Participate in Readiness Assessment		238 days	Tue 8/1/17	Fri 6/29/18
224	**1.4.5.5**	**Task #4: Assess overall project health - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
225	1.4.5.5.1	Stakeholder consultation		238 days	Tue 8/1/17	Fri 6/29/18
226	1.4.5.5.2	Communicate with PMO and project managers		238 days	Tue 8/1/17	Fri 6/29/18
227	1.4.5.5.3	PMO collaboration for requirements prioritization		238 days	Tue 8/1/17	Fri 6/29/18
228	**1.4.6**	**SSNRI-Wipro Infocrossing - Year 1**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
229	1.4.6.1	Start Date	2	1 day	Mon 7/3/17	Mon 7/3/17
230	1.4.6.2	End Date		1 day	Fri 6/29/18	Fri 6/29/18
231	**1.4.6.3**	**Task #8: Project Oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
232	**1.4.6.3.1**	**Project management oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
233	**1.4.6.3.1.1**	**Task #1: Participate in key meetings**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
234	1.4.6.3.1.1.1	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
235	1.4.6.3.1.1.2	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
236	1.4.6.3.1.1.3	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
237	1.4.6.3.1.1.4	Unscheduled key meetings		258 days	Mon 7/3/17	Fri 6/29/18
238	**1.4.6.3.1.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
239	**1.4.6.3.1.2.1**	**Implementation Plan Assessment**		**9 days**	**Mon 11/6/17**	**Thu 11/16/17**
240	1.4.6.3.1.2.1.1	Receive Deliverable		0 days	Mon 11/6/17	Mon 11/6/17
241	1.4.6.3.1.2.1.2	Perform and submit IV&V assessment	240	3 days	Mon 11/6/17	Wed 11/8/17
242	1.4.6.3.1.2.1.3	DHS review/comment	241	5 days	Thu 11/9/17	Wed 11/15/17
243	1.4.6.3.1.2.1.4	Update/submit final Assessment	242	1 day	Thu 11/16/17	Thu 11/16/17
244	1.4.6.3.1.2.1.5	Deliverable milestone: IV&V Assessment Approved	243	0 days	Thu 11/16/17	Thu 11/16/17
245	**1.4.6.3.1.2.2**	**Updated Work Plan Assessment**		**9 days**	**Tue 12/5/17**	**Fri 12/15/17**
246	1.4.6.3.1.2.2.1	Receive Deliverable		0 days	Tue 12/5/17	Tue 12/5/17
247	1.4.6.3.1.2.2.2	Perform and submit IV&V assessment	246	3 days	Tue 12/5/17	Thu 12/7/17
248	1.4.6.3.1.2.2.3	DHS review/comment	247	5 days	Fri 12/8/17	Thu 12/14/17
249	1.4.6.3.1.2.2.4	Update/submit final Assessment	248	1 day	Fri 12/15/17	Fri 12/15/17
250	1.4.6.3.1.2.2.5	Deliverable milestone: IV&V Assessment Approved	249	0 days	Fri 12/15/17	Fri 12/15/17
251	1.4.6.3.1.2.3	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
252	1.4.6.3.1.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
253	**1.4.6.3.1.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
254	1.4.6.3.1.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
255	1.4.6.3.1.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
256	1.4.6.3.1.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
257	1.4.6.3.1.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
258	**1.4.6.3.1.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
259	1.4.6.3.1.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
260	1.4.6.3.1.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
261	1.4.6.3.1.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
262	1.4.6.3.1.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
263	1.4.6.3.1.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
264	1.4.6.3.1.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
265	1.4.6.3.1.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
266	1.4.6.3.1.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
267	1.4.6.3.1.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
268	1.4.6.3.1.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
269	**1.4.6.3.2**	**Modular development oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
270	**1.4.6.3.2.1**	**Task #1: Participate in key meetings**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
271	1.4.6.3.2.1.1	meeting name		258 days	Mon 7/3/17	Fri 6/29/18

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
272	1.4.6.3.2.1.2	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
273	1.4.6.3.2.1.3	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
274	1.4.6.3.2.1.4	Unscheduled key meetings		258 days	Mon 7/3/17	Fri 6/29/18
275	**1.4.6.3.2.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
276	**1.4.6.3.2.2.1**	**System Test Results Assessment**		**9 days**	**Tue 10/3/17**	**Fri 10/13/17**
277	1.4.6.3.2.2.1.1	Receive Deliverable		0 days	Tue 10/3/17	Tue 10/3/17
278	1.4.6.3.2.2.1.2	Perform and submit IV&V assessment	277	3 days	Tue 10/3/17	Thu 10/5/17
279	1.4.6.3.2.2.1.3	DHS review/comment	278	5 days	Fri 10/6/17	Thu 10/12/17
280	1.4.6.3.2.2.1.4	Update/submit final Assessment	279	1 day	Fri 10/13/17	Fri 10/13/17
281	1.4.6.3.2.2.1.5	Deliverable milestone: IV&V Assessment Approved	280	0 days	Fri 10/13/17	Fri 10/13/17
282	**1.4.6.3.2.2.2**	**CMS Test Results Assessment**		**9 days**	**Fri 12/1/17**	**Wed 12/13/17**
283	1.4.6.3.2.2.2.1	Receive Deliverable		0 days	Fri 12/1/17	Fri 12/1/17
284	1.4.6.3.2.2.2.2	Perform and submit IV&V assessment	283	3 days	Fri 12/1/17	Tue 12/5/17
285	1.4.6.3.2.2.2.3	DHS review/comment	284	5 days	Wed 12/6/17	Tue 12/12/17
286	1.4.6.3.2.2.2.4	Update/submit final Assessment	285	1 day	Wed 12/13/17	Wed 12/13/17
287	1.4.6.3.2.2.2.5	Deliverable milestone: IV&V Assessment Approved	286	0 days	Wed 12/13/17	Wed 12/13/17
288	1.4.6.3.2.2.3	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
289	1.4.6.3.2.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
290	**1.4.6.3.2.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
291	1.4.6.3.2.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
292	1.4.6.3.2.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
293	1.4.6.3.2.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
294	1.4.6.3.2.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
295	**1.4.6.3.2.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
296	1.4.6.3.2.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
297	1.4.6.3.2.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
298	1.4.6.3.2.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
299	1.4.6.3.2.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
300	1.4.6.3.2.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
301	1.4.6.3.2.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
302	1.4.6.3.2.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
303	1.4.6.3.2.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
304	1.4.6.3.2.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
305	1.4.6.3.2.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
306	**1.4.6.4**	**Task #3: Assess project phase entry/exit readiness - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
307	**1.4.6.4.1**	**Entry/Exit Assessment**		**9 days**	**Thu 12/21/17**	**Tue 1/2/18**
308	1.4.6.4.1.1	Receive Entry Exit Assessment		0 days	Thu 12/21/17	Thu 12/21/17
309	1.4.6.4.1.2	Perform and submit IV&V assessment	308	3 days	Thu 12/21/17	Mon 12/25/17
310	1.4.6.4.1.3	DHS review/comment	309	5 days	Tue 12/26/17	Mon 1/1/18
311	1.4.6.4.1.4	Update/submit final Assessment	310	1 day	Tue 1/2/18	Tue 1/2/18
312	1.4.6.4.1.5	Deliverable milestone: IV&V Assessment Approved	311	0 days	Tue 1/2/18	Tue 1/2/18
313	1.4.6.4.2	Provide written phase readiness assessment		238 days	Tue 8/1/17	Fri 6/29/18
314	1.4.6.4.3	Participate in Readiness Assessment		238 days	Tue 8/1/17	Fri 6/29/18
315	**1.4.6.5**	**Task #4: Assess overall project health - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
316	1.4.6.5.1	Stakeholder consultation		238 days	Tue 8/1/17	Fri 6/29/18
317	1.4.6.5.2	Communicate with PMO and project managers		238 days	Tue 8/1/17	Fri 6/29/18
318	1.4.6.5.3	PMO collaboration for requirements prioritization		238 days	Tue 8/1/17	Fri 6/29/18
319	**1.4.7**	**MMIS Data Center and Computer H/W Replacement - Year 1**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
320	1.4.7.1	Start Date	2	1 day	Mon 7/3/17	Mon 7/3/17
321	1.4.7.2	End Date		1 day	Fri 6/29/18	Fri 6/29/18
322	**1.4.7.3**	**Task #8: Project Oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
323	**1.4.7.3.1**	**Project management oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
324	**1.4.7.3.1.1**	**Task #1: Participate in key meetings**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
325	1.4.7.3.1.1.1	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
326	1.4.7.3.1.1.2	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
327	1.4.7.3.1.1.3	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
328	1.4.7.3.1.1.4	Unscheduled key meetings		258 days	Mon 7/3/17	Fri 6/29/18
329	**1.4.7.3.1.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
330	1.4.7.3.1.2.1	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
331	1.4.7.3.1.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
332	**1.4.7.3.1.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
333	1.4.7.3.1.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
334	1.4.7.3.1.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
335	1.4.7.3.1.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
336	1.4.7.3.1.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
337	**1.4.7.3.1.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
338	1.4.7.3.1.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
339	1.4.7.3.1.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
340	1.4.7.3.1.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
341	1.4.7.3.1.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
342	1.4.7.3.1.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
343	1.4.7.3.1.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
344	1.4.7.3.1.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
345	1.4.7.3.1.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
346	1.4.7.3.1.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
347	1.4.7.3.1.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
348	**1.4.7.3.2**	**Modular development oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
349	**1.4.7.3.2.1**	**Task #1: Participate in key meetings - Year 1**		**101 days**	**Wed 8/2/17**	**Thu 12/21/17**
350	**1.4.7.3.2.1.1**	**Data Center Migration and Computer Hardware Upgrade Status Meetings**		**101 days**	**Wed 8/2/17**	**Thu 12/21/17**
351	1.4.7.3.2.1.1.1	DCM Status Meeting		1 day	Wed 8/2/17	Wed 8/2/17
352	1.4.7.3.2.1.1.2	DCM Status Meeting		1 day	Wed 8/9/17	Wed 8/9/17
353	1.4.7.3.2.1.1.3	DCM Status Meeting		1 day	Wed 8/16/17	Wed 8/16/17
354	1.4.7.3.2.1.1.4	DCM Status Meeting		1 day	Wed 8/23/17	Wed 8/23/17
355	1.4.7.3.2.1.1.5	DCM Status Meeting		1 day	Wed 8/30/17	Wed 8/30/17
356	1.4.7.3.2.1.1.6	DCM Status Meeting		1 day	Wed 9/6/17	Wed 9/6/17
357	1.4.7.3.2.1.1.7	DCM Status Meeting		1 day	Wed 9/13/17	Wed 9/13/17
358	1.4.7.3.2.1.1.8	DCM Status Meeting		1 day	Wed 9/20/17	Wed 9/20/17
359	1.4.7.3.2.1.1.9	DCM Status Meeting		1 day	Wed 9/27/17	Wed 9/27/17
360	1.4.7.3.2.1.1.10	DCM Status Meeting		1 day	Wed 10/4/17	Wed 10/4/17
361	1.4.7.3.2.1.1.11	DCM Status Meeting		1 day	Wed 10/11/17	Wed 10/11/17
362	1.4.7.3.2.1.1.12	DCM Status Meeting		1 day	Wed 10/18/17	Wed 10/18/17
363	1.4.7.3.2.1.1.13	DCM Status Meeting		1 day	Wed 10/25/17	Wed 10/25/17
364	1.4.7.3.2.1.1.14	DCM Status Meeting		1 day	Wed 11/1/17	Wed 11/1/17
365	1.4.7.3.2.1.1.15	DCM Status Meeting		1 day	Wed 11/8/17	Wed 11/8/17
366	1.4.7.3.2.1.1.16	DCM Status Meeting		1 day	Wed 11/15/17	Wed 11/15/17
367	1.4.7.3.2.1.1.17	DCM Status Meeting		1 day	Wed 11/22/17	Wed 11/22/17
368	1.4.7.3.2.1.1.18	DCM Status Meeting		1 day	Wed 11/29/17	Wed 11/29/17
369	1.4.7.3.2.1.1.19	DCM Status Meeting		1 day	Thu 12/7/17	Thu 12/7/17
370	1.4.7.3.2.1.1.20	DCM Status Meeting		1 day	Thu 12/14/17	Thu 12/14/17
371	1.4.7.3.2.1.1.21	DCM Status Meeting		1 day	Thu 12/21/17	Thu 12/21/17
372	**1.4.7.3.2.1.2**	**DCM & H/W Upgrade Risk/Issue Assessment Meetin**		**85 days**	**Thu 8/17/17**	**Thu 12/14/17**
373	1.4.7.3.2.1.2.1	DCM & H/W Upgrade Risk/Issue Assessment Mtg		1 day	Thu 8/17/17	Thu 8/17/17
374	1.4.7.3.2.1.2.2	DCM & H/W Upgrade Risk/Issue Assessment Mtg		1 day	Thu 9/14/17	Thu 9/14/17
375	1.4.7.3.2.1.2.3	DCM & H/W Upgrade Risk/Issue Assessment Mtg		1 day	Thu 10/12/17	Thu 10/12/17
376	1.4.7.3.2.1.2.4	DCM & H/W Upgrade Risk/Issue Assessment Mtg		1 day	Thu 11/16/17	Thu 11/16/17
377	1.4.7.3.2.1.2.5	DCM & H/W Upgrade Risk/Issue Assessment Mtg		1 day	Thu 12/14/17	Thu 12/14/17
378	**1.4.7.3.2.2**	**Task #2: Review project artifacts - Year 1**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
379	**1.4.7.3.2.2.1**	**DCM Implementation Plan Assessment**		**9 days**	**Fri 9/22/17**	**Wed 10/4/17**
380	1.4.7.3.2.2.1.1	Receive Plan		0 days	Fri 9/22/17	Fri 9/22/17
381	1.4.7.3.2.2.1.2	Perform and submit IV&V assessment	380	3 days	Fri 9/22/17	Tue 9/26/17
382	1.4.7.3.2.2.1.3	DHS review/comment	381	5 days	Wed 9/27/17	Tue 10/3/17
383	1.4.7.3.2.2.1.4	Update/submit final Assessment	382	1 day	Wed 10/4/17	Wed 10/4/17
384	1.4.7.3.2.2.1.5	Deliverable milestone: IV&V Assessment Approved	383	0 days	Wed 10/4/17	Wed 10/4/17
385	**1.4.7.3.2.2.2**	**System Test Results Assessment**		**9 days**	**Thu 10/12/17**	**Tue 10/24/17**
386	1.4.7.3.2.2.2.1	Receive Deliverable		0 days	Thu 10/12/17	Thu 10/12/17
387	1.4.7.3.2.2.2.2	Perform and submit IV&V assessment	386	3 days	Thu 10/12/17	Mon 10/16/17
388	1.4.7.3.2.2.2.3	DHS review/comment	387	5 days	Tue 10/17/17	Mon 10/23/17
389	1.4.7.3.2.2.2.4	Update/submit final Assessment	388	1 day	Tue 10/24/17	Tue 10/24/17
390	1.4.7.3.2.2.2.5	Deliverable milestone: IV&V Assessment Approved	389	0 days	Tue 10/24/17	Tue 10/24/17
391	**1.4.7.3.2.2.3**	**Updated Impl. Plan Assessment**		**9 days**	**Mon 10/30/17**	**Thu 11/9/17**
392	1.4.7.3.2.2.3.1	Receive Plan		0 days	Mon 10/30/17	Mon 10/30/17
393	1.4.7.3.2.2.3.2	Perform and submit IV&V assessment	392	3 days	Mon 10/30/17	Wed 11/1/17
394	1.4.7.3.2.2.3.3	DHS review/comment	393	5 days	Thu 11/2/17	Wed 11/8/17
395	1.4.7.3.2.2.3.4	Update/submit final Assessment	394	1 day	Thu 11/9/17	Thu 11/9/17
396	1.4.7.3.2.2.3.5	Deliverable milestone: IV&V Assessment Approved	395	0 days	Thu 11/9/17	Thu 11/9/17
397	**1.4.7.3.2.2.4**	**Updated Sys. Business Process Docs Assessment**		**9 days**	**Wed 11/8/17**	**Mon 11/20/17**
398	1.4.7.3.2.2.4.1	Receive Plan		0 days	Wed 11/8/17	Wed 11/8/17
399	1.4.7.3.2.2.4.2	Perform and submit IV&V assessment	398	3 days	Wed 11/8/17	Fri 11/10/17
400	1.4.7.3.2.2.4.3	DHS review/comment	399	5 days	Mon 11/13/17	Fri 11/17/17
401	1.4.7.3.2.2.4.4	Update/submit final Assessment	400	1 day	Mon 11/20/17	Mon 11/20/17
402	1.4.7.3.2.2.4.5	Deliverable milestone: IV&V Assessment Approved	401	0 days	Mon 11/20/17	Mon 11/20/17
403	**1.4.7.3.2.2.5**	**UAT Results Assessment**		**9 days**	**Mon 12/18/17**	**Thu 12/28/17**
404	1.4.7.3.2.2.5.1	Receive Plan		0 days	Mon 12/18/17	Mon 12/18/17
405	1.4.7.3.2.2.5.2	Perform and submit IV&V assessment	404	3 days	Mon 12/18/17	Wed 12/20/17
406	1.4.7.3.2.2.5.3	DHS review/comment	405	5 days	Thu 12/21/17	Wed 12/27/17

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
407	1.4.7.3.2.2.5.4	Update/submit final Assessment	406	1 day	Thu 12/28/17	Thu 12/28/17
408	1.4.7.3.2.2.5.5	Deliverable milestone: IV&V Assessment Approved	407	0 days	Thu 12/28/17	Thu 12/28/17
409	**1.4.7.3.2.2.6**	**Updated Sys. Business Process Docs Assessment**		**9 days**	**Thu 12/21/17**	**Tue 1/2/18**
410	1.4.7.3.2.2.6.1	Receive Docs		0 days	Thu 12/21/17	Thu 12/21/17
411	1.4.7.3.2.2.6.2	Perform and submit IV&V assessment	410	3 days	Thu 12/21/17	Mon 12/25/17
412	1.4.7.3.2.2.6.3	DHS review/comment	411	5 days	Tue 12/26/17	Mon 1/1/18
413	1.4.7.3.2.2.6.4	Update/submit final Assessment	412	1 day	Tue 1/2/18	Tue 1/2/18
414	1.4.7.3.2.2.6.5	Deliverable milestone: IV&V Assessment Approved	413	0 days	Tue 1/2/18	Tue 1/2/18
415	1.4.7.3.2.2.7	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
416	1.4.7.3.2.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
417	**1.4.7.3.2.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
418	1.4.7.3.2.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
419	1.4.7.3.2.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
420	1.4.7.3.2.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
421	1.4.7.3.2.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
422	**1.4.7.3.2.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
423	1.4.7.3.2.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
424	1.4.7.3.2.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
425	1.4.7.3.2.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
426	1.4.7.3.2.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
427	1.4.7.3.2.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
428	1.4.7.3.2.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
429	1.4.7.3.2.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
430	1.4.7.3.2.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
431	1.4.7.3.2.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
432	1.4.7.3.2.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
433	**1.4.7.4**	**Task #3: Assess project phase entry/exit readiness - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
434	**1.4.7.4.1**	**Provide DCM Entry/Exit Assessment**		**9 days**	**Fri 8/18/17**	**Wed 8/30/17**
435	1.4.7.4.1.1	Receive Entry Exit Assessment		0 days	Fri 8/18/17	Fri 8/18/17
436	1.4.7.4.1.2	Perform and submit IV&V assessment	435	3 days	Fri 8/18/17	Tue 8/22/17
437	1.4.7.4.1.3	DHS review/comment	436	5 days	Wed 8/23/17	Tue 8/29/17
438	1.4.7.4.1.4	Update/submit final Assessment	437	1 day	Wed 8/30/17	Wed 8/30/17
439	1.4.7.4.1.5	Deliverable milestone: IV&V Assessment Approved	438	0 days	Wed 8/30/17	Wed 8/30/17
440	**1.4.7.4.2**	**Provide DCM Entry/Exit Assessment**		**9 days**	**Mon 10/16/17**	**Thu 10/26/17**
441	1.4.7.4.2.1	Receive Entry Exit Assessment		0 days	Mon 10/16/17	Mon 10/16/17
442	1.4.7.4.2.2	Perform and submit IV&V assessment	441	3 days	Mon 10/16/17	Wed 10/18/17
443	1.4.7.4.2.3	DHS review/comment	442	5 days	Thu 10/19/17	Wed 10/25/17
444	1.4.7.4.2.4	Update/submit final Assessment	443	1 day	Thu 10/26/17	Thu 10/26/17
445	1.4.7.4.2.5	Deliverable milestone: IV&V Assessment Approved	444	0 days	Thu 10/26/17	Thu 10/26/17
446	**1.4.7.4.3**	**Provide DCM Entry/Exit Assessment**		**9 days**	**Tue 12/19/17**	**Fri 12/29/17**
447	1.4.7.4.3.1	Receive Entry Exit Assessment		0 days	Tue 12/19/17	Tue 12/19/17
448	1.4.7.4.3.2	Perform and submit IV&V assessment	447	3 days	Tue 12/19/17	Thu 12/21/17
449	1.4.7.4.3.3	DHS review/comment	448	5 days	Fri 12/22/17	Thu 12/28/17
450	1.4.7.4.3.4	Update/submit final Assessment	449	1 day	Fri 12/29/17	Fri 12/29/17
451	1.4.7.4.3.5	Deliverable milestone: IV&V Assessment Approved	450	0 days	Fri 12/29/17	Fri 12/29/17
452	1.4.7.4.4	Participate in Readiness Assessments		238 days	Tue 8/1/17	Fri 6/29/18
453	**1.4.7.5**	**Task #4: Assess overall project health - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
454	1.4.7.5.1	Stakeholder consultation		238 days	Tue 8/1/17	Fri 6/29/18
455	1.4.7.5.2	Communicate with PMO and project managers		238 days	Tue 8/1/17	Fri 6/29/18
456	1.4.7.5.3	PMO collaboration for requirements prioritization		238 days	Tue 8/1/17	Fri 6/29/18
457	**1.4.8**	**Third Party Liability Policy Automation - Year 1**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
458	1.4.8.1	Start Date	2	1 day	Mon 7/3/17	Mon 7/3/17
459	1.4.8.2	End Date		1 day	Fri 6/29/18	Fri 6/29/18
460	**1.4.8.3**	**Task #8: Project Oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
461	**1.4.8.3.1**	**Project management oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
462	**1.4.8.3.1.1**	**Task #1: Participate in key meetings**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
463	1.4.8.3.1.1.1	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
464	1.4.8.3.1.1.2	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
465	1.4.8.3.1.1.3	meeting name		258 days	Mon 7/3/17	Fri 6/29/18
466	1.4.8.3.1.1.4	Unscheduled key meetings		258 days	Mon 7/3/17	Fri 6/29/18
467	**1.4.8.3.1.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
468	1.4.8.3.1.2.1	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
469	1.4.8.3.1.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
470	**1.4.8.3.1.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
471	1.4.8.3.1.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
472	1.4.8.3.1.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
473	1.4.8.3.1.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
474	1.4.8.3.1.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
475	**1.4.8.3.1.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
476	1.4.8.3.1.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
477	1.4.8.3.1.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
478	1.4.8.3.1.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
479	1.4.8.3.1.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
480	1.4.8.3.1.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
481	1.4.8.3.1.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
482	1.4.8.3.1.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
483	1.4.8.3.1.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18
484	1.4.8.3.1.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
485	1.4.8.3.1.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
486	**1.4.8.3.2**	**Modular development oversight**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
487	**1.4.8.3.2.1**	**Task #1: Participate in key meetings**		**125 days**	**Mon 7/3/17**	**Tue 12/26/17**
488	**1.4.8.3.2.1.1**	**TPL Policy Automation Bi-Weekly Status Meetings**		**125 days**	**Mon 7/3/17**	**Tue 12/26/17**
489	1.4.8.3.2.1.1.1	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 8/8/17	Tue 8/8/17
490	1.4.8.3.2.1.1.2	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 8/22/17	Tue 8/22/17
491	1.4.8.3.2.1.1.3	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 9/5/17	Tue 9/5/17
492	1.4.8.3.2.1.1.4	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 9/19/17	Tue 9/19/17
493	1.4.8.3.2.1.1.5	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 10/3/17	Tue 10/3/17
494	1.4.8.3.2.1.1.6	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 10/17/17	Tue 10/17/17
495	1.4.8.3.2.1.1.7	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 10/31/17	Tue 10/31/17
496	1.4.8.3.2.1.1.8	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 11/14/17	Tue 11/14/17
497	1.4.8.3.2.1.1.9	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 11/28/17	Tue 11/28/17
498	1.4.8.3.2.1.1.10	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 12/12/17	Tue 12/12/17
499	1.4.8.3.2.1.1.11	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Tue 12/26/17	Tue 12/26/17
500	1.4.8.3.2.1.1.12	TPL Policy Automation Bi-Weekly Status Meeting		1 day	Mon 7/3/17	Mon 7/3/17
501	**1.4.8.3.2.1.2**	**TPL Workgroup Conference Calls**		**100 days**	**Thu 8/3/17**	**Thu 12/21/17**
502	1.4.8.3.2.1.2.1	TPL Workgroup Conference Call		1 day	Thu 8/3/17	Thu 8/3/17
503	1.4.8.3.2.1.2.2	TPL Workgroup Conference Call		1 day	Thu 8/17/17	Thu 8/17/17
504	1.4.8.3.2.1.2.3	TPL Workgroup Conference Call		1 day	Thu 8/31/17	Thu 8/31/17
505	1.4.8.3.2.1.2.4	TPL Workgroup Conference Call		1 day	Thu 9/14/17	Thu 9/14/17
506	1.4.8.3.2.1.2.5	TPL Workgroup Conference Call		1 day	Thu 9/28/17	Thu 9/28/17
507	1.4.8.3.2.1.2.6	TPL Workgroup Conference Call		1 day	Thu 10/12/17	Thu 10/12/17
508	1.4.8.3.2.1.2.7	TPL Workgroup Conference Call		1 day	Thu 10/26/17	Thu 10/26/17
509	1.4.8.3.2.1.2.8	TPL Workgroup Conference Call		1 day	Thu 11/9/17	Thu 11/9/17
510	1.4.8.3.2.1.2.9	TPL Workgroup Conference Call		1 day	Wed 11/22/17	Wed 11/22/17
511	1.4.8.3.2.1.2.10	TPL Workgroup Conference Call		1 day	Thu 12/7/17	Thu 12/7/17
512	1.4.8.3.2.1.2.11	TPL Workgroup Conference Call		1 day	Thu 12/21/17	Thu 12/21/17
513	**1.4.8.3.2.2**	**Task #2: Review project artifacts**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
514	**1.4.8.3.2.2.1**	**Updated Sys. Business Process Docs Assessment**		**9 days**	**Tue 8/22/17**	**Fri 9/1/17**
515	1.4.8.3.2.2.1.1	Receive Docs		0 days	Tue 8/22/17	Tue 8/22/17
516	1.4.8.3.2.2.1.2	Perform and submit IV&V assessment	515	3 days	Tue 8/22/17	Thu 8/24/17
517	1.4.8.3.2.2.1.3	DHS review/comment	516	5 days	Fri 8/25/17	Thu 8/31/17
518	1.4.8.3.2.2.1.4	Update/submit final Assessment	517	1 day	Fri 9/1/17	Fri 9/1/17
519	1.4.8.3.2.2.1.5	Deliverable milestone: IV&V Assessment Approved	518	0 days	Fri 9/1/17	Fri 9/1/17
520	**1.4.8.3.2.2.2**	**Post Implementation Report Assessment**		**9 days**	**Tue 8/22/17**	**Fri 9/1/17**
521	1.4.8.3.2.2.2.1	Receive Deliverable		0 days	Tue 8/22/17	Tue 8/22/17
522	1.4.8.3.2.2.2.2	Perform and submit IV&V assessment	521	3 days	Tue 8/22/17	Thu 8/24/17
523	1.4.8.3.2.2.2.3	DHS review/comment	522	5 days	Fri 8/25/17	Thu 8/31/17
524	1.4.8.3.2.2.2.4	Update/submit final Assessment	523	1 day	Fri 9/1/17	Fri 9/1/17
525	1.4.8.3.2.2.2.5	Deliverable milestone: IV&V Assessment Approved	524	0 days	Fri 9/1/17	Fri 9/1/17
526	1.4.8.3.2.2.3	Analyze project documents/deliverables		258 days	Mon 7/3/17	Fri 6/29/18
527	1.4.8.3.2.3	Conduct interviews		258 days	Mon 7/3/17	Fri 6/29/18
528	**1.4.8.3.2.4**	**Analyze data**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
529	1.4.8.3.2.4.1	Assess already-established project risks		258 days	Mon 7/3/17	Fri 6/29/18
530	1.4.8.3.2.4.2	Identify new risks		258 days	Mon 7/3/17	Fri 6/29/18
531	1.4.8.3.2.4.3	Provide actionable recommendations for improvement		258 days	Mon 7/3/17	Fri 6/29/18
532	1.4.8.3.2.4.4	Complete Project Worksheets		258 days	Mon 7/3/17	Fri 6/29/18
533	**1.4.8.3.2.4.5**	**Assess control processes**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
534	1.4.8.3.2.4.5.1	Assess budget		258 days	Mon 7/3/17	Fri 6/29/18
535	1.4.8.3.2.4.5.2	Assess scope and change management		258 days	Mon 7/3/17	Fri 6/29/18
536	1.4.8.3.2.4.5.3	Assess schedule		258 days	Mon 7/3/17	Fri 6/29/18
537	1.4.8.3.2.4.5.4	Assess quality control		258 days	Mon 7/3/17	Fri 6/29/18
538	1.4.8.3.2.4.5.5	Assess risks and issues		258 days	Mon 7/3/17	Fri 6/29/18
539	1.4.8.3.2.4.5.6	Assess communication management		258 days	Mon 7/3/17	Fri 6/29/18
540	1.4.8.3.2.4.5.7	Assess stakeholder management		258 days	Mon 7/3/17	Fri 6/29/18
541	1.4.8.3.2.4.5.8	Assess staffing and resource management		258 days	Mon 7/3/17	Fri 6/29/18

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
542	1.4.8.3.2.4.5.9	Assess configuration management		258 days	Mon 7/3/17	Fri 6/29/18
543	1.4.8.3.2.4.5.10	Assess performance metrics		258 days	Mon 7/3/17	Fri 6/29/18
544	**1.4.8.4**	**Task #3: Assess project phase entry/exit readiness - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
545	**1.4.8.4.1**	**Entry/Exit Assessment**		**9 days**	**Thu 10/12/17**	**Tue 10/24/17**
546	1.4.8.4.1.1	Receive Deliverable		0 days	Thu 10/12/17	Thu 10/12/17
547	1.4.8.4.1.2	Perform and submit IV&V assessment	546	3 days	Thu 10/12/17	Mon 10/16/17
548	1.4.8.4.1.3	DHS review/comment	547	5 days	Tue 10/17/17	Mon 10/23/17
549	1.4.8.4.1.4	Update/submit final Assessment	548	1 day	Tue 10/24/17	Tue 10/24/17
550	1.4.8.4.1.5	Deliverable milestone: IV&V Assessment Approved	549	0 days	Tue 10/24/17	Tue 10/24/17
551	**1.4.8.4.2**	**Entry/Exit Assessment**		**9 days**	**Fri 10/13/17**	**Wed 10/25/17**
552	1.4.8.4.2.1	Receive Deliverable		0 days	Fri 10/13/17	Fri 10/13/17
553	1.4.8.4.2.2	Perform and submit IV&V assessment	552	3 days	Fri 10/13/17	Tue 10/17/17
554	1.4.8.4.2.3	DHS review/comment	553	5 days	Wed 10/18/17	Tue 10/24/17
555	1.4.8.4.2.4	Update/submit final Assessment	554	1 day	Wed 10/25/17	Wed 10/25/17
556	1.4.8.4.2.5	Deliverable milestone: IV&V Assessment Approved	555	0 days	Wed 10/25/17	Wed 10/25/17
557	1.4.8.4.3	Provide written phase readiness assessment		238 days	Tue 8/1/17	Fri 6/29/18
558	1.4.8.4.4	Participate in Readiness Assessment		238 days	Tue 8/1/17	Fri 6/29/18
559	**1.4.8.5**	**Task #4: Assess overall project health - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
560	1.4.8.5.1	Stakeholder consultation		238 days	Tue 8/1/17	Fri 6/29/18
561	1.4.8.5.2	Communicate with PMO and project managers		238 days	Tue 8/1/17	Fri 6/29/18
562	1.4.8.5.3	PMO collaboration for requirements prioritization		238 days	Tue 8/1/17	Fri 6/29/18
563	**1.4.9**	**PMO/Program activities - Year 1**		**475 days**	**Mon 7/3/17**	**Tue 4/30/19**
564	**1.4.9.1**	**PMO/Program Meetings**		**236 days**	**Wed 8/2/17**	**Thu 6/28/18**
565	**1.4.9.1.1**	**Steering Committee Meetings**		**235 days**	**Thu 8/3/17**	**Thu 6/28/18**
566	1.4.9.1.1.1	Steering Committee		1 day	Thu 8/3/17	Thu 8/3/17
567	1.4.9.1.1.2	Steering Committee		1 day	Thu 8/17/17	Thu 8/17/17
568	1.4.9.1.1.3	Steering Committee		1 day	Thu 8/31/17	Thu 8/31/17
569	1.4.9.1.1.4	Steering Committee		1 day	Thu 9/14/17	Thu 9/14/17
570	1.4.9.1.1.5	Steering Committee		1 day	Thu 9/28/17	Thu 9/28/17
571	1.4.9.1.1.6	Steering Committee		1 day	Thu 10/12/17	Thu 10/12/17
572	1.4.9.1.1.7	Steering Committee		1 day	Thu 10/26/17	Thu 10/26/17
573	1.4.9.1.1.8	Steering Committee		1 day	Thu 11/9/17	Thu 11/9/17
574	1.4.9.1.1.9	Steering Committee		1 day	Wed 11/22/17	Wed 11/22/17
575	1.4.9.1.1.10	Steering Committee		1 day	Thu 12/7/17	Thu 12/7/17
576	1.4.9.1.1.11	Steering Committee		1 day	Thu 12/21/17	Thu 12/21/17
577	1.4.9.1.1.12	Steering Committee		1 day	Thu 1/4/18	Thu 1/4/18
578	1.4.9.1.1.13	Steering Committee		1 day	Thu 1/18/18	Thu 1/18/18
579	1.4.9.1.1.14	Steering Committee		1 day	Thu 2/1/18	Thu 2/1/18
580	1.4.9.1.1.15	Steering Committee		1 day	Thu 2/15/18	Thu 2/15/18
581	1.4.9.1.1.16	Steering Committee		1 day	Thu 3/1/18	Thu 3/1/18
582	1.4.9.1.1.17	Steering Committee		1 day	Thu 3/15/18	Thu 3/15/18
583	1.4.9.1.1.18	Steering Committee		1 day	Thu 3/29/18	Thu 3/29/18
584	1.4.9.1.1.19	Steering Committee		1 day	Thu 4/12/18	Thu 4/12/18
585	1.4.9.1.1.20	Steering Committee		1 day	Thu 4/26/18	Thu 4/26/18
586	1.4.9.1.1.21	Steering Committee		1 day	Thu 5/3/18	Thu 5/3/18
587	1.4.9.1.1.22	Steering Committee		1 day	Thu 5/17/18	Thu 5/17/18
588	1.4.9.1.1.23	Steering Committee		1 day	Thu 5/31/18	Thu 5/31/18
589	1.4.9.1.1.24	Steering Committee		1 day	Thu 6/14/18	Thu 6/14/18
590	1.4.9.1.1.25	Steering Committee		1 day	Thu 6/28/18	Thu 6/28/18
591	**1.4.9.1.2**	**New Medicare Card Project All State Forum Calls w/CMS**		**100 days**	**Wed 8/2/17**	**Wed 12/20/17**
592	1.4.9.1.2.1	All State Forum Call		1 day	Wed 8/2/17	Wed 8/2/17
593	1.4.9.1.2.2	All State Forum Call		1 day	Wed 8/16/17	Wed 8/16/17
594	1.4.9.1.2.3	All State Forum Call		1 day	Wed 8/30/17	Wed 8/30/17
595	1.4.9.1.2.4	All State Forum Call		1 day	Wed 9/13/17	Wed 9/13/17
596	1.4.9.1.2.5	All State Forum Call		1 day	Wed 9/27/17	Wed 9/27/17
597	1.4.9.1.2.6	All State Forum Call		1 day	Wed 10/11/17	Wed 10/11/17
598	1.4.9.1.2.7	All State Forum Call		1 day	Wed 10/25/17	Wed 10/25/17
599	1.4.9.1.2.8	All State Forum Call		1 day	Wed 11/8/17	Wed 11/8/17
600	1.4.9.1.2.9	All State Forum Call		1 day	Wed 11/22/17	Wed 11/22/17
601	1.4.9.1.2.10	All State Forum Call		1 day	Wed 12/6/17	Wed 12/6/17
602	1.4.9.1.2.11	All State Forum Call		1 day	Wed 12/20/17	Wed 12/20/17
603	**1.4.9.2**	**Task #5: Assess State Medicaid Agency readiness**		**475 days**	**Mon 7/3/17**	**Tue 4/30/19**
604	1.4.9.2.1	Validate assessment/certification execution		238 days	Tue 8/1/17	Fri 6/29/18
605	1.4.9.2.2	Verify project compliance		238 days	Tue 8/1/17	Fri 6/29/18
606	**1.4.9.2.3**	**CMS Certification Progress Reports - Year 1**	**2**	**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
607	**1.4.9.2.3.1**	**SSNRI-ITSD Certification Progress Reports**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
608	1.4.9.2.3.1.1	SSNRI-ITSD Report #1 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
609	1.4.9.2.3.1.2	SSNRI-ITSD Report #2 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
610	**1.4.9.2.3.2**	**TPL Policy Automation Certification Progress Reports**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**

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ID	WBS	Task Name	Predecessors	Duration	Start	Finish
611	1.4.9.2.3.2.1	TPL Policy Automation Report #1 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
612	1.4.9.2.3.2.2	TPL Policy Automation Report #2 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
613	**1.4.9.2.3.3**	**MMIS Data Center & H/W Replacement Cert. Progress Reports**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
614	1.4.9.2.3.3.1	SSNRI-ITSD Report #1 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
615	1.4.9.2.3.3.2	SSNRI-ITSD Report #2 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
616	**1.4.9.2.3.4**	**SSNRI-Wipro Certification Progress Reports**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
617	1.4.9.2.3.4.1	SSNRI-Wipro Report #1 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
618	1.4.9.2.3.4.2	SSNRI-Wipro Report #2 (date TBD)	635SS	238 days	Tue 8/1/17	Fri 6/29/18
619	**1.4.9.2.4**	**Task #1: Participate in key meetings**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
620	1.4.9.2.4.1	CMS meetings (as scheduled)		238 days	Tue 8/1/17	Fri 6/29/18
621	1.4.9.2.4.2	Weekly PAR meetings		238 days	Tue 8/1/17	Fri 6/29/18
622	1.4.9.2.4.3	meeting name		238 days	Tue 8/1/17	Fri 6/29/18
623	1.4.9.2.4.4	meeting name		238 days	Tue 8/1/17	Fri 6/29/18
624	**1.4.9.2.5**	**Task #6: CMS progress reporting for BIS-EDW solutions - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
625	1.4.9.2.5.1	BIS-EDW Report #1 (before CMS cert. milestone review)		65 days	Tue 8/1/17	Tue 10/31/17
626	1.4.9.2.5.2	BIS-EDW Report #2 (before CMS cert. milestone review)	625	66 days	Wed 11/1/17	Wed 1/31/18
627	1.4.9.2.5.3	BIS-EDW Report #3 (before CMS cert. milestone review)	626	63 days	Thu 2/1/18	Mon 4/30/18
628	1.4.9.2.5.4	BIS-EDW Report #4 (before CMS cert. milestone review)	627	44 days	Tue 5/1/18	Fri 6/29/18
629	**1.4.9.2.6**	**Task #7: CMS Dashboard Reporting - Year 1**		**258 days**	**Mon 7/3/17**	**Fri 6/29/18**
630	1.4.9.2.6.1	Analyze and verify compliance		258 days	Mon 7/3/17	Fri 6/29/18
631	1.4.9.2.6.2	Update CMS Dashboard		258 days	Mon 7/3/17	Fri 6/29/18
632	**1.4.9.2.7**	**Task 11: Additional MMIS RFP initiation and planning - Year 1**		**455 days**	**Tue 8/1/17**	**Tue 4/30/19**
633	1.4.9.2.7.1	Evaluate applicable documentation		238 days	Tue 8/1/17	Fri 6/29/18
634	1.4.9.2.7.2	Prepare required CMS checklist portion		238 days	Tue 8/1/17	Fri 6/29/18
635	1.4.9.2.7.3	Prepare & submit Certification Progress Reports		238 days	Tue 8/1/17	Fri 6/29/18
636	1.4.9.2.7.4	Support follow-up requests for clarification	635	238 days	Tue 8/1/17	Tue 4/30/19
637	**1.4.9.3**	**Task #9: ITSD Project Manager Meetings - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
638	**1.4.9.3.1**	**Project Management Team Meetings**		**235 days**	**Thu 8/3/17**	**Thu 6/28/18**
639	1.4.9.3.1.1	PMT Weekly		1 day	Thu 8/3/17	Thu 8/3/17
640	1.4.9.3.1.2	PMT Weekly		1 day	Thu 8/10/17	Thu 8/10/17
641	1.4.9.3.1.3	PMT Weekly		1 day	Thu 8/17/17	Thu 8/17/17
642	1.4.9.3.1.4	PMT Weekly		1 day	Thu 8/24/17	Thu 8/24/17
643	1.4.9.3.1.5	PMT Weekly		1 day	Thu 8/31/17	Thu 8/31/17
644	1.4.9.3.1.6	PMT Weekly		1 day	Thu 9/7/17	Thu 9/7/17
645	1.4.9.3.1.7	PMT Weekly		1 day	Thu 9/14/17	Thu 9/14/17
646	1.4.9.3.1.8	PMT Weekly		1 day	Thu 9/21/17	Thu 9/21/17
647	1.4.9.3.1.9	PMT Weekly		1 day	Thu 9/28/17	Thu 9/28/17
648	1.4.9.3.1.10	PMT Weekly		1 day	Thu 10/5/17	Thu 10/5/17
649	1.4.9.3.1.11	PMT Weekly		1 day	Thu 10/12/17	Thu 10/12/17
650	1.4.9.3.1.12	PMT Weekly		1 day	Thu 10/19/17	Thu 10/19/17
651	1.4.9.3.1.13	PMT Weekly		1 day	Thu 10/26/17	Thu 10/26/17
652	1.4.9.3.1.14	PMT Weekly		1 day	Thu 11/2/17	Thu 11/2/17
653	1.4.9.3.1.15	PMT Weekly		1 day	Thu 11/9/17	Thu 11/9/17
654	1.4.9.3.1.16	PMT Weekly		1 day	Thu 11/16/17	Thu 11/16/17
655	1.4.9.3.1.17	PMT Weekly		1 day	Wed 11/22/17	Wed 11/22/17
656	1.4.9.3.1.18	PMT Weekly		1 day	Wed 11/29/17	Wed 11/29/17
657	1.4.9.3.1.19	PMT Weekly		1 day	Thu 12/7/17	Thu 12/7/17
658	1.4.9.3.1.20	PMT Weekly		1 day	Thu 12/14/17	Thu 12/14/17
659	1.4.9.3.1.21	PMT Weekly		1 day	Thu 12/21/17	Thu 12/21/17
660	1.4.9.3.1.22	PMT Weekly		1 day	Thu 1/4/18	Thu 1/4/18
661	1.4.9.3.1.23	PMT Weekly		1 day	Thu 1/11/18	Thu 1/11/18
662	1.4.9.3.1.24	PMT Weekly		1 day	Thu 1/18/18	Thu 1/18/18
663	1.4.9.3.1.25	PMT Weekly		1 day	Thu 1/25/18	Thu 1/25/18
664	1.4.9.3.1.26	PMT Weekly		1 day	Thu 2/1/18	Thu 2/1/18
665	1.4.9.3.1.27	PMT Weekly		1 day	Thu 2/15/18	Thu 2/15/18
666	1.4.9.3.1.28	PMT Weekly		1 day	Thu 3/1/18	Thu 3/1/18
667	1.4.9.3.1.29	PMT Weekly		1 day	Thu 3/15/18	Thu 3/15/18
668	1.4.9.3.1.30	PMT Weekly		1 day	Thu 3/29/18	Thu 3/29/18
669	1.4.9.3.1.31	PMT Weekly		1 day	Thu 4/5/18	Thu 4/5/18
670	1.4.9.3.1.32	PMT Weekly		1 day	Thu 4/12/18	Thu 4/12/18
671	1.4.9.3.1.33	PMT Weekly		1 day	Thu 4/19/18	Thu 4/19/18
672	1.4.9.3.1.34	PMT Weekly		1 day	Thu 4/26/18	Thu 4/26/18

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673	1.4.9.3.1.35	PMT Weekly		1 day	Thu 5/3/18	Thu 5/3/18
674	1.4.9.3.1.36	PMT Weekly		1 day	Thu 5/10/18	Thu 5/10/18
675	1.4.9.3.1.37	PMT Weekly		1 day	Thu 5/17/18	Thu 5/17/18
676	1.4.9.3.1.38	PMT Weekly		1 day	Thu 5/24/18	Thu 5/24/18
677	1.4.9.3.1.39	PMT Weekly		1 day	Thu 5/31/18	Thu 5/31/18
678	1.4.9.3.1.40	PMT Weekly		1 day	Thu 6/7/18	Thu 6/7/18
679	1.4.9.3.1.41	PMT Weekly		1 day	Thu 6/14/18	Thu 6/14/18
680	1.4.9.3.1.42	PMT Weekly		1 day	Thu 6/21/18	Thu 6/21/18
681	1.4.9.3.1.43	PMT Weekly		1 day	Thu 6/28/18	Thu 6/28/18
682	**1.4.9.3.2**	**IV&V PAR Discussions**		**235 days**	**Thu 8/3/17**	**Thu 6/28/18**
683	1.4.9.3.2.1	PAR #4 Discussion		1 day	Thu 8/3/17	Thu 8/3/17
684	1.4.9.3.2.2	PAR #5 Discussion		1 day	Thu 8/10/17	Thu 8/10/17
685	1.4.9.3.2.3	PAR #6 Discussion		1 day	Thu 8/17/17	Thu 8/17/17
686	1.4.9.3.2.4	PAR #7 Discussion		1 day	Thu 8/24/17	Thu 8/24/17
687	1.4.9.3.2.5	PAR #8 Discussion		1 day	Thu 8/31/17	Thu 8/31/17
688	1.4.9.3.2.6	PAR #9 Discussion		1 day	Thu 9/7/17	Thu 9/7/17
689	1.4.9.3.2.7	PAR #10 Discussion		1 day	Thu 9/14/17	Thu 9/14/17
690	1.4.9.3.2.8	PAR #11 Discussion		1 day	Thu 9/21/17	Thu 9/21/17
691	1.4.9.3.2.9	PAR #12 Discussion		1 day	Thu 9/28/17	Thu 9/28/17
692	1.4.9.3.2.10	PAR #13 Discussion		1 day	Thu 10/5/17	Thu 10/5/17
693	1.4.9.3.2.11	PAR #14 Discussion		1 day	Thu 10/12/17	Thu 10/12/17
694	1.4.9.3.2.12	PAR #15 Discussion		1 day	Thu 10/19/17	Thu 10/19/17
695	1.4.9.3.2.13	PAR #16 Discussion		1 day	Thu 10/26/17	Thu 10/26/17
696	1.4.9.3.2.14	PAR #17 Discussion		1 day	Thu 11/2/17	Thu 11/2/17
697	1.4.9.3.2.15	PAR #18 Discussion		1 day	Thu 11/9/17	Thu 11/9/17
698	1.4.9.3.2.16	PAR #19 Discussion		1 day	Thu 11/16/17	Thu 11/16/17
699	1.4.9.3.2.17	PAR #20 Discussion		1 day	Wed 11/22/17	Wed 11/22/17
700	1.4.9.3.2.18	PAR #21 Discussion		1 day	Wed 11/29/17	Wed 11/29/17
701	1.4.9.3.2.19	PAR #22 Discussion		1 day	Thu 12/7/17	Thu 12/7/17
702	1.4.9.3.2.20	PAR #23 Discussion		1 day	Thu 12/14/17	Thu 12/14/17
703	1.4.9.3.2.21	PAR #24 Discussion		1 day	Thu 12/21/17	Thu 12/21/17
704	1.4.9.3.2.22	PAR #25 Discussion		1 day	Thu 1/4/18	Thu 1/4/18
705	1.4.9.3.2.23	PAR #26 Discussion		1 day	Thu 1/11/18	Thu 1/11/18
706	1.4.9.3.2.24	PAR #27 Discussion		1 day	Thu 1/18/18	Thu 1/18/18
707	1.4.9.3.2.25	PAR #28 Discussion		1 day	Thu 1/25/18	Thu 1/25/18
708	1.4.9.3.2.26	PAR #29 Discussion		1 day	Thu 2/1/18	Thu 2/1/18
709	1.4.9.3.2.27	PAR #30 Discussion		1 day	Thu 2/15/18	Thu 2/15/18
710	1.4.9.3.2.28	PAR #31 Discussion		1 day	Thu 3/1/18	Thu 3/1/18
711	1.4.9.3.2.29	PAR #32 Discussion		1 day	Thu 3/15/18	Thu 3/15/18
712	1.4.9.3.2.30	PAR #33 Discussion		1 day	Thu 3/29/18	Thu 3/29/18
713	1.4.9.3.2.31	PAR #34 Discussion		1 day	Thu 4/5/18	Thu 4/5/18
714	1.4.9.3.2.32	PAR #35 Discussion		1 day	Thu 4/12/18	Thu 4/12/18
715	1.4.9.3.2.33	PAR #36 Discussion		1 day	Thu 4/19/18	Thu 4/19/18
716	1.4.9.3.2.34	PAR #37 Discussion		1 day	Thu 4/26/18	Thu 4/26/18
717	1.4.9.3.2.35	PAR #38 Discussion		1 day	Thu 5/3/18	Thu 5/3/18
718	1.4.9.3.2.36	PAR #39 Discussion		1 day	Thu 5/10/18	Thu 5/10/18
719	1.4.9.3.2.37	PAR #40 Discussion		1 day	Thu 5/17/18	Thu 5/17/18
720	1.4.9.3.2.38	PAR #41 Discussion		1 day	Thu 5/24/18	Thu 5/24/18
721	1.4.9.3.2.39	PAR #42 Discussion		1 day	Thu 5/31/18	Thu 5/31/18
722	1.4.9.3.2.40	PAR #43 Discussion		1 day	Thu 6/7/18	Thu 6/7/18
723	1.4.9.3.2.41	PAR #44 Discussion		1 day	Thu 6/14/18	Thu 6/14/18
724	1.4.9.3.2.42	PAR #45 Discussion		1 day	Thu 6/21/18	Thu 6/21/18
725	1.4.9.3.2.43	PAR #46 Discussion		1 day	Thu 6/28/18	Thu 6/28/18
726	**1.4.9.3.3**	**PMO Discussions**		**45 days**	**Thu 8/24/17**	**Thu 10/26/17**
727	1.4.9.3.3.1	PMO Discussion		1 day	Thu 8/24/17	Thu 8/24/17
728	1.4.9.3.3.2	PMO Discussion		1 day	Thu 9/28/17	Thu 9/28/17
729	1.4.9.3.3.3	PMO Discussion		1 day	Thu 10/26/17	Thu 10/26/17
730	1.4.9.3.4	Participate in OA-ITSD meetings		238 days	Tue 8/1/17	Fri 6/29/18
731	1.4.9.3.5	Participate in OA-ITSD / MME-PMO meetings		238 days	Tue 8/1/17	Fri 6/29/18
732	**1.4.9.4**	**Task #10: OA-ITSD / MME-PMO / Vendor meetings - Year 1**		**238 days**	**Tue 8/1/17**	**Fri 6/29/18**
733	1.4.9.4.1	Participate in meetings		238 days	Tue 8/1/17	Fri 6/29/18
734	1.4.9.4.2	Recommend SDLC improvements		238 days	Tue 8/1/17	Fri 6/29/18
735	1.4.9.4.3	Recommend management method improvements		238 days	Tue 8/1/17	Fri 6/29/18
736	1.5	**End MO MMIS IV&V Year 1**		0 days	Fri 6/29/18	Fri 6/29/18

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Appendix C – Sample Initial IV&V Assessment Report

<CLIENT>

<State> Incident Based Reporting System

IV&V Initial Project Report

FINAL Version 1.0
1 February 2021
IV&V Deliverable Identifier ABC-XYZ

Independent Verification and Validation Services

for

Client

<State>Incident Based Reporting System Project

State Term Contract No. XYZ
SOW No. 123

Prepared by

Software Engineering Services
1311 Ft. Crook Road South, Suite 100
Bellevue, NE 68005

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DOCUMENT CONTROL

This is a controlled document. The control and release of this document is the responsibility of the document Owner.

Version control					
Document reference	ABC-123	**Project**		XYZ	
Version	1.0	**Date**	02/01/2021	**Owner**	Norman Mandy
Document title	Initial XYZ Project Report				

Version History				
Version	**Planned Date**	**Actual Date**	**Author**	**Version Description**
0.1	20210104	20210102	Norm Mandy	Draft Outline
0.2	20210105	20210105	Team input	Peer review, Verify requirements are met
0.3	20210108	20210110	Raj Sharma, Norm Mandy	Data integration and validation
0.4	20210111	20210114	Kath Hoglund	Peer review
0.5	-	-	-	(Not used)
0.6	-	-	-	(Not used)
0.7	20210114	20210114	Norm Mandy	Quality review updates
0.8	20210114	20210114	Norm Mandy	Clean Draft PDF submittal
0.8	20210128	20210129	Client	Client comments Addendum
0.9	20210201	20210201	Norm Mandy	Correct errors of fact
1.0	20210202		Norm Mandy	WORD archive as Read-Only
1.0	20210202		Norm Mandy	Submit Deliverable Approval Form and Final report

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1.0 EXECUTIVE SUMMARY

The purpose of the <State> Incident Based Reporting System (XYZ) project is to implement the <client>solutions for local and state XYZ agencies to comply with the Federal Bureau of Investigation's (FBI) deadline to convert Uniform Crime Reporting (UCR) from summary data to incident- based data. XYZ provides a mechanism to consolidate data collection for the National Incident- Based Reporting System (NIBRS), the National Use-of-Force data collection, the Law Enforcement Information Exchange (LInX), law enforcement employee counts, and <state> specific data elements from various law enforcement agencies to study multi- jurisdictional patterns and trends.

The purpose of this Initial IV&V Project Report (Report) is to provide an independent assessment of the status of each XYZ project activity detailed in the Statement of Work (SOW), based on an initial review conducted by Software Engineering Services (SES) of documentation received during the period 29 October through 31 December 2020.

The cutoff date for IV&V to receive data and assess it for this report was 31 December 2020. The Reader should be advised this is a “first look” at the XYZ project, which was already well underway. Additional <Client> clarifications and documents received after the reporting period may alter findings contained herein and be reflected in the next IV&V report, which is scheduled to be submitted in April 2021.

1.1 Snapshot of XYZ Health

The first table in this section characterizes XYZ health from the point of view of quality, schedule, scope, and staffing.

Refer to Section 2 below for summary reports of all IV&V-identified opportunities, risks, and issues. Refer to Section 3 below for detailed assessment of:

- Processes documented and observed in each assessment area
- Strengths and related opportunities
- Areas to improve and a full description of related opportunities, issues and/or risks
- Recommendation(s) to exploit opportunities, resolve issues, and mitigate risks

Appendix A describes the color ratings that appear in all tables.

Management Category	Project Status			
	Previous Report	This Report	Trend	Note
Quality	-		-	-
Schedule	-		-	-
Scope	-		-	-
Staffing	-		-	-

Table 1: XYZ Project Health Dashboard

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The table and chart below summarize the number of risks opened by IV&V this reporting period in each practice group.

Practice Group	Opportunity/ Risk Exposure			
	Low	Medium	High	Critical
Planning and Managing Work	0	5	4	0
Supporting Implementation	0	1	3	0
Improving Performance	0	2	0	0
Manage Business Resilience	0	1	1	0
Ensuring Quality	0	1	0	0
Product Development	0	0	0	0

Table 2: XYZ Project IV&V Opportunity/Risk Summary by Exposure and Practice Groups

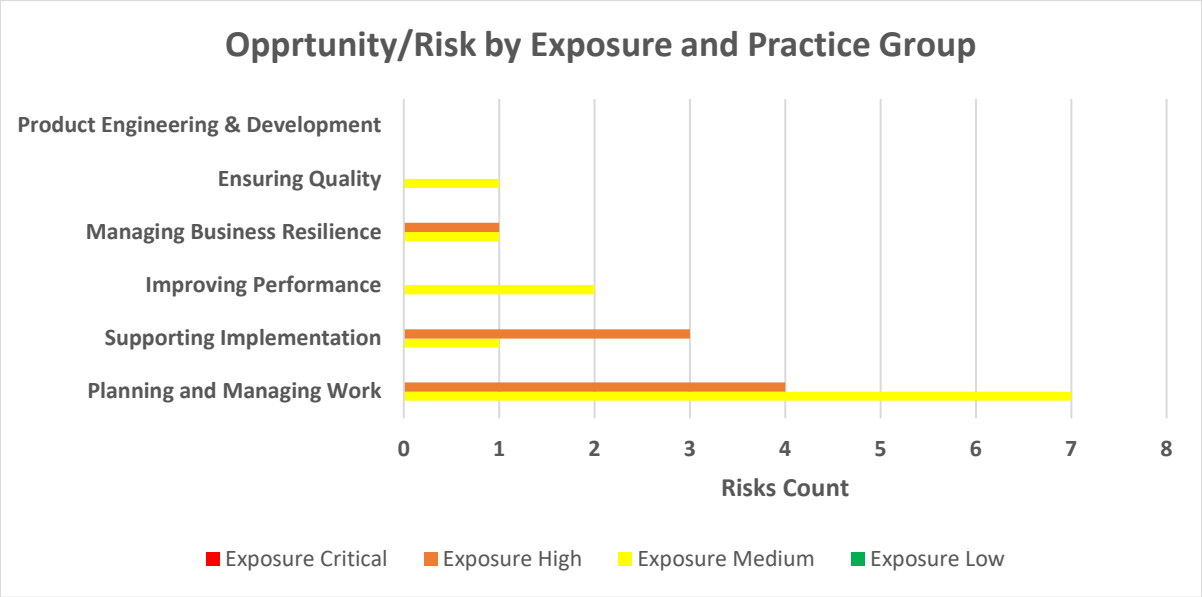

Chart 1: XYZ Project Summary by Exposure Level and Practice Group

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1.2 Navigating This Report

The table below maps report content to SOW requirements, thereby demonstrating full coverage of the required IV&V Task Items; this Report is organized around the six (6) Practice Groups in the leftmost column and reporting in each Group can be found by referring to the indicated sections.

Practice Group in this Report	Reporting Sections	SOW Task Areas	SOW Task Items
Planning and Managing	1.2, 2, 3.1	5.2 Project Management	IPM-5-6, IPM-8-15
Supporting Implementation	1.2, 2, 3.2	5.2 Project Management 5.3 Quality Management 5.4 Software Development	IPM-18 IPM-27 IPM-31, 33, 35
Improving Performance	1.2, 2, 3.3	5.2 Project Management	IPM-7, 9
Project Resilience	1.2, 2, 3.4	5.2 Project Management	IPM-13
Quality	1.2, 2, 3.5	5.3 Quality Management 5.4 Software Development 5.5 Sys. & Acceptance Testing	IPM-22 – IPM-27 IPM-23, 25-27 IPM-34 – IPM-42
Product Development	1.2, 2, 3.6	5.2 Project Management 5.4 Software Development 5.5 Sys. and Acceptance Test	IPM-20 – IPM-21 IPM-28 – IPM-33 IPM-34 – IPM-42

Table 3: SOW Task Items and Practice Groups

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1.3 Summary of Best Practice Usage

The summary table below characterizes project use of essential/ foundational best practices informed by observed issues, opportunities, and/or risks, and their impact on best practice use. Section 3 of this report explains in detail the strengths and areas to improve for each of the six (6) Practice Groups in the table. For each Practice Group there are three ratings, each of which responds to a question:

- Has the project team documented plans and procedures?
- Has the project team implemented the documented plans and procedures?
- Are project activities effectively aligned to best practices?

Best Practice Grouping →	Planning and Management (See Sec. 3.1)	Supporting Implementation (See Sec. 3.2)	Improving Performance (See Sec. 3.3)	Project Resilience (See Sec. 3.4)	Quality (See Sec. 3.5)	Product Development (See Sec. 3.6)
Practices are Documented						
Practices are Implemented						
Practices are Effective						

Table 4: Summary Assessment

Legend

Largely	Partially	Not	Not Assessed

1.4 IV&V Review Method

IV&V assessment begins with the IV&V SOW Task Items and task areas, and then maps back to best practices organized around six (6) Practice Groups; the assessment follows a strict, standardized approach as summarized in Appendix D.

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2.0 FINDINGS SUMMARY

The XYZ project practices are largely aligned with their plans and procedures, based on documentation available during this initial assessment period. There are opportunities to improve project documentation, implementation, and effectiveness that will reduce project risk.

2.1 Initial Project Report Opportunities Risks and Issues

Opportunity/ Risk/ Issue Originated January 2021				
Identifier Priority	**Title**	**No Progress Observed**	**Progress Observed**	**Closed**
FR00-PMW-01 MEDIUM	Establish thresholds that will trigger an impact analysis	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-02 MEDIUM	Resource Capacity and Availability Planning	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-03 MEDIUM	Expand Issue Log	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-04 MEDIUM	Expand Change Request Form and Change Log	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-05 HIGH	Missing resources in schedule	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-06 MEDIUM	Integration of DDI project work	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-07 HIGH	Tracking Actual vs. Planned task dates	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-08 MEDIUM	Expand the monthly status report	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-09 HIGH	Project Logs Updates	-	(N/A – All Risks are new in this Initial Report)	-
FR00-PMW-10 HIGH	Expand Deliverable Acceptance process	-	(N/A – All Risks are new in this Initial Report)	-
FR00-SI-01 MEDIUM	Items not placed under configuration management	-	(N/A – All Risks are new in this Initial Report)	-
FR00-SI-02 HIGH	Configuration baselines not developed	-	(N/A – All Risks are new in this Initial Report)	-
FR00-SI-03 HIGH	Configuration management of change to configuration items (CI's)	-	(N/A – All Risks are new in this Initial Report)	-

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Opportunity/ Risk/ Issue Originated January 2021				
Identifier Priority	**Title**	**No Progress Observed**	**Progress Observed**	**Closed**
FR00-SI-04 HIGH	Configuration audits	-	(N/A – All Risks are new in this Initial Report)	-
FR00-IP-01 MEDIUM	Performance measures for business objectives	-	(N/A – All Risks are new in this Initial Report)	-
FR00-MBR-01 MEDIUM	Opportunity Management	-	(N/A – All Risks are new in this Initial Report)	-
FR00-MBR-02 HIGH	Expand risk log template	-	(N/A – All Risks are new in this Initial Report)	-
FR00-EQ-01 HIGH	Plan and execute a peer review process	-	(N/A – All Risks are new in this Initial Report)	-

2.2 QR-01 Quarterly Review Report Opportunities Risks and Issues

Opportunity/ Risk/ Issue Originated April 2021				
Number/ Priority	**Title**	**No Progress Observed**	**Progress Observed**	**Closed**
R-xxx High	PLACEHOLDER FOR April 2021 REPORT SUMMARY			
I-xxx/ Medium				

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3.0 Detailed Assessment

This section presents strengths, issues, opportunities, and/ or risks in each area identified during the reporting period and discusses their potential impact on the project constraints of quality, schedule, and scope of work.

Future quarterly reporting will also update prior report opportunities, risks, and/or issues that are still in Open status.

The Reader should be advised this is a "first look" at the XYZ project that was already well underway. Additional <client> clarifications and documents received after the reporting period may alter findings contained herein and be reflected in the next quarterly report.

3.1 Planning and Managing

The table below summarizes IV&V assessment of practices to plan and manage.

Practice Area -->		Estimating	Planning	Monitoring and Controlling
Practices are Documented	*Previous Report*	-	-	-
	This Report	Largely	Largely	Largely
	Trend	-	-	-
Practices are Implemented	*Previous Report*	-	-	-
	This Report	Largely	Largely	Largely
	Trend	-	-	-
Practices are Effective	*Previous Report*	-	-	-
	This Report	Largely	Largely	Partially
	Trend	-	-	-

Table 5: Planning and Managing Assessments

Legend

Largely	Partially	Not	Not Assessed

ESTIMATING

- ***Current process:*** Review of *XYZ Schedule IV-B* demonstrate that project is following project management process as defined by <State> (<CLIENT>). Below are IV&V review observations:
- ***Strength:*** Aligns with industry best practices and forms the basis of project estimation, planning, and monitoring and control. Sections from *Schedule IV-B* listed below are evidence of strengths:
  - Benefits realization and Cost Benefit Analysis
  - Resources (people, software, hardware, etc.) Identified
  - Rationale for Solution Selection
  - Requirements analysis
  - Proposed project schedule

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- Funding changes are being managed and appropriate corrective actions taken as demonstrated by Issue # 19 managed in RAID Log and reported in Weekly Status report(s)

- ***AREA TO IMPROVE:*** Based on review of monthly and quarterly reports, IV&V recommends the following improvement opportunities for the project to consider:
  - Establish thresholds that will trigger an impact analysis. Refer to section Impact on Triple Constraint for details.
  - Expand and identify total cost of ownership of the solution. Refer to Section Impact on Triple Constraint for details.
  - Clearly define basis of estimates (BOE) for XYZ
- ***Additional observations***
  - Based on the review of XYZ Change Management plan and Change Request Form, it was not clear if there is a Change Control Board (CCB) to review submitted Change Request (CR) outside Executive and Project Steering Committees. If not, then XYZ can:
    - Consider establishing its own CCB to observe following benefits: Increased transparency around project changes; formalized mechanism for reporting bugs and other issues, standard process for resolving requested changes; increased confidence to project team and other stakeholders that requests are taken seriously; decision making that considers both granular and holistic views (business, technical, operational, financial) of the solution.
    - Revise, publish, and train users in updated Change Management process.
    - Plan, schedule, facilitate CCB meetings.
    - Maintain CCB Log.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

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IV&V Identifier	**FR00-PMW-01**
Title	Establish thresholds that will trigger an impact analysis

Risk/Opportunity Description

Funding changes were being managed and appropriate corrective actions taken as demonstrated by RAID Issue # 19; Weekly Status reporting was consistent. The Project can reduce the risk that significant changes are not adequately analyzed (for impacts to future planned activities, deliverables, milestones, and staffing, not flagged and properly analyzed) and that resources are wasted on over-analyzing lower-level changes.

Establishing thresholds may help <CLIENT> Executives and project steering committee consistently identify points to realign and re-prioritize requirements, functions, and features for design, develop, and implement (DDI).

Mitigation Recommendation and *Status This Reporting Period*

1. Define deviation thresholds that will require in-depth impact analysis and/or less analysis.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Short Term	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

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PLANNING

- ***CURRENT PROCESS:*** The *XYZ Project Plan V1.1*, 20200706 demonstrated the project was following project management process as defined by <State> (<CLIENT>). Below are IV&V review observations:
- ***STRENGTH:*** XYZ Project plan largely aligns with industry best practices and forms the basis of project planning. Project plan sections were evidence of planning strengths.
- ***AREA TO IMPROVE:*** Based on industry best practices, IV&V recommends the following improvements to the XYZ project plan:
    - Resource Capacity and Availability Planning
    - Expanded risk management to include opportunities (positive risks)
    - Expanded Issue Log
    - Enhanced Change Request process
    - Expanded Change Request Form and Change Log
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

IV&V Identifier	**FR00-PMW-02**
Title	Resource Capacity and Availability Planning

Risk/Opportunity Description

XYZ may realize opportunities and benefits by measuring and managing the system and personnel availabilities and capacities, which include: Reduced Resource Costs, ensuring resource availability and creating resource reserves, increased project Skills Inventory management, and identifying Skill Shortages ahead of time.

IT system and personnel resources have been identified in multiple project plans; however, it was not clear that measurement data or other planning efforts were used to ensure performance in the following areas:

- Information Technology (IT) system availability can/will meet established standards or thresholds; for example: system response time, downtime, and uptime.
- Proactive system activity planning based on project capacity; for example: moving planned testing to avoid scheduled unavailability periods.
- Personnel resources are planned such that particular skill sets are matched and made available to perform the work when needed.

Mitigation Recommendation and *Status This Reporting Period*

1. Establish measurable standards or thresholds for IT system capacity and availability.
2. Proactively plan IT resources and personnel skills to optimize availability per the schedule.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Short Term	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

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IV&V Identifier	**FR00-PMW-03**
Title	Expand Issue Log

Risk/Opportunity Description

The project has an opportunity to improve corrective actions on identified issues. Based on the review of XYZ Issue Log, IV&V recommends the following field additions:

1. Prioritization/Classification to better frame and understand the issue.
2. Implementation Plan and require: Stating the desired outcome; defining the objective(s) to achieve it; and documenting the action plan (steps, owners, due dates, etc.) to achieve the objective(s).
3. Issue Monitoring that requires tracking progress on each step, date, etc.
4. Add new field- Issue Lessons Learned, which will allow the project team to update their information about the whole issue management process, and update and revise their Issues Management Plan.

Mitigation Recommendation and *Status This Reporting Period*

1. Revise, publish, and train users in updated Issue Log use.
2. Deploy the Issue Log updates and monitor its implementation.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Immediate	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

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IV&V Identifier	**FR00-PMW-04**
Title	Expand Change Request Form and Change Log

Risk/Opportunity Description

Based on the review of XYZ Change Request Form and Change Log, updates to the Form can improve change request decision-making by understanding all impacts:

Change Request Form:

- Add new field- Priority (How important is the change? E.g., Circle high, medium, or low.)
- Add new field- Date Needed By (By what date must the change occur?)
- Add new field- Alternative and Recommendations (If there is another option, note it here, as well as any other recommendations related to the change and its impact.)
- Add new field- Risks (Any risks increased, created, and/or mitigated)
- Add new field- Comments (if there is a need to clarify or elaborate)

Change Log:

- To report change requests, fields for Change Type and Date Submitted.

Mitigation Recommendation and *Status This Reporting Period*

1. Revise, publish, and train users in updated Change Request Form and Change Log.
2. Deploy, and monitor implementation.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Immediate	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

MONITOR AND CONTROL

- ***CURRENT PROCESS:*** The *XYZ Project Plan V1.1* demonstrated the project is following project management process as defined by <State> (<CLIENT>). Below are IV&V review observations:
- ***STRENGTH:*** Aligns with industry best practices and forms the basis of project monitoring and control. Sections from *XYZ Project Plan* listed below are evidence of strengths:
  - Monthly reports have all basic mandated information needed by <CLIENT> Leadership.
  - Quarterly Report has KPI History in section 5A Division of State Technology (DST).
  - XYZ is generating and submitting monthly and quarterly status reports as per schedule.
- ***AREA TO IMPROVE:***
  - Specify resources in schedule
  - Integrate DDI dependencies into project schedule
  - Track actual vs. planned task dates
  - Expand the monthly status report

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- Meeting minutes and associated action items
- More consistent maintenance of project logs
- Deliverable acceptance checklist(s)
- Expand deliverable acceptance process

- ***Other observations***
  - Although <CLIENT> PM is generating various status reports, IV&V could not confirm the status is being reviewed with Project Sponsor(s) as defined in *XYZ Communication Plan V1.1* 20191206.
  - Review of *XYZ Deliverable Acceptance Plan v1.1*, 20200129 refers to various checklists, however, IV&V could not verify these checklists were being consistently used.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

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IV&V Identifier	FR00-PMW-05
Title	Missing resources in schedule

Risk/Opportunity Description

Although the MS Project schedule has task durations and effort hours estimates, the required level of effort for each task is allocated to one position or to an organization. There is a risk that staff will be unrealistically over-allocated that result in unforeseen schedule delays.

The tables below show resource allocation (for the months populated below) in XYZ scheduling for October 2020.

Resource	2020Q3	4th Quarter 2020			1st Quarter 2021			2nd Quarter 2021			3rd Quarter 2021		
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep
<CLIENT>	696	752	536	384	424	472	240	472	576	336	288	304	
PM											296	256	
GCOM	2,058h	1,364	552	536	528	696	680	464	384	344	312	192	
CJIS										112	64		

Mitigation Recommendation and *Status This Reporting Period*

1. Allocate all resources who will work on each task.
2. Monitor resource allocations to verify they are realistic and achievable.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Immediate	HIGH
Previous Reporting Period	-	-	-	N/A - New

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IV&V Identifier	FR00-PMW-06
Title	Integration of DDI project work

Risk/Opportunity Description

The MS Project schedule may need more touchpoints with DDI work such as Sprint, Epic, or Feature milestones. There is a risk that predecessor and successor dependencies between management and DDI work will not be tracked and managed, resulting in avoidable rollout delays. Examples of how this risk can be realized include:

- Failure to plan and execute timely training of new functionality
- Stakeholders who are not prepared to organizationally accept change accompanying new system features

Mitigation Recommendation and *Status This Reporting Period*

1. Engage broad representation of stakeholders in planning activity in the schedule.
2. Represent DDI planning, monitoring and control efforts in the overall project schedule; identify, track, and manage the related dependencies.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Short Term	MEDIUM
Previous Reporting Period	-	-	-	N/A - New

IV&V Identifier	FR00-PMW-07
Title	Tracking Actual vs. Planned task dates

Risk/Opportunity Description

The Project Plan described a plan to update the schedule weekly, and mark task completion. Current MS Project columns (fields) included Start, Finish, and Percent Complete to support the Plan. However, IV&V did not find that Actual Start and Finish fields were in use alongside the planned dates, or that schedule variance was being tracked.

Mitigation Recommendation and *Status This Reporting Period*

1. Current schedule risk from tasks behind schedule can be proactively spotted by including and populating the Actual Start field; corrective action can then be taken to either “crash” the activity to finish on time or adjust the schedule if needed whenever a task begins after its projected start date.
2. Future schedule risk can be mitigated by including and populating the Actual Finish field; then performing lessons learned when tasks or milestones finish late and using the root cause analysis to adjust and improve future scheduling (to avoid recurrence of late task completions).

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Short-Term	HIGH
Previous Reporting Period	-	-	-	N/A - New

DocuSign Envelope ID: E3D94597-0795-4470-88BD-2898B9F90D00

IV&V Identifier	FR00-PMW-08
Title	Expand the monthly status report

Risk/Opportunity Description

Current monthly status reports communicate project progress by informing whether the project is or is not on schedule, within budget, and achieving deliverable quality. Readers of the Reports will gain additional value if the report is expanded:

- Dashboard with graphics/charts and trending of basic reporting parameters (e.g., schedule) will convey project trends.
- Populating the "Variance Explanation/Comment" field for all variance trends will help emphasize positive trends.

Mitigation Recommendation and *Status This Reporting Period*

1. Add trending of basic reporting parameters to the report.
2. Train project managers (PM) to capture variance explanation/comment when the variation is positive. This may help project to take proactive measures to capitalize when the variance presents an opportunity.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Short-Term	MEDIUM
Previous Reporting Period	-	-	-	N/A - New

IV&V Identifier	FR00-PMW-09
Title	Project Logs Updates

Risk/Opportunity Description

Review of RAID Logs identified opportunities for areas of improvement in reporting (Ref: FR00-PMW-08) by tracking and analyzing:

- Which issues originated from the risk log
- Which action items originated to help resolve an issue or mitigate a risk
- Which risks and issues originated as a result of a change request
- The aging trends and priorities of risks and issues

The resulting information will increase visibility into project activity for stakeholder decisions.

Mitigation Recommendation and *Status This Reporting Period*

1. Maintain and verify RAID Logs as per schedule.
2. Update RAID to track and report relationships between issues, risks, action items.
3. Add dashboard to RAID Log template and use in management reporting, e.g., aging, and aging trend of risks, issues, action items; and priority reports for risks and issues.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Short-Term	HIGH
Previous Reporting Period	-	-	-	N/A - New

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IV&V Identifier	**FR00-PMW-10**
Title	Expand Deliverable Acceptance process

Risk/Opportunity Description

Review of *XYZ Deliverable Acceptance Plan v1.1* includes deliverable review process; however, it can be improved, resulting in rework minimized and deliverable quality improved:

- Adding steps to include analysis of the planned and completed peer reviews to identify potential areas of improvements to avoid and/or minimize rework.
- Ensure that deliverable(s) are compliant with the established Agreement(s). This may include things such as- performance (project & contractor), regulations (Federal & State), privacy & security, etc.
- Adding deliverable acceptance as a reporting dashboard (e.g., planned, approved, rejected, number of iterations prior to approval)

Mitigation Recommendation and *Status This Reporting Period*

1. Update Deliverable Acceptance process with recommendations.
2. Deploy and monitor implementation of revised process (e.g., with a dashboard or summary in monthly or quarterly reports).

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Short-Term	**HIGH**
Previous Reporting Period	-	-	-	N/A - New

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3.2 Supporting Implementation

The table below summarizes IV&V assessment of practices that support DDI activity that led to implementation.

	Practice Area -->	Decision Analysis and Resolution	Configuration Management
Practices are Documented	*Previous Report*	-	-
	This Report	**Largely**	**Partially**
	Trend	-	-
Practices are Implemented	*Previous Report*	-	-
	This Report	**Largely**	**Partially**
	Trend	-	-
Practices are Effective	*Previous Report*	-	-
	This Report	**Largely**	**Partially**
	Trend	-	-

Table 6: Supporting Implementation Assessment

Legend

Largely	Partially	Not	Not Assessed

Decision Analysis and Resolution

- ***CURRENT PROCESS:*** Project is using a decision log.
- ***STRENGTH:***
  - Decision log assists in analysis.

AREAS OF IMPROVEMENT: Develop rules to determine when to follow a formal DAR process, and criteria to use in evaluating alternatives.

- ***IMPACT ON TRIPLE CONSTRAINT:*** Below are the details of risk(s) and/or issue(s)

Configuration Management

- ***CURRENT PROCESS:*** The Customization Development Plan describes configuration management for source code management and project tracking. Deliverables and other key documentation are stored in Confluence.
- ***STRENGTH:*** The project used tools JIRA and Confluence which can help administer configuration management.
- ***AREAS OF IMPROVEMENT:***
  - Formalize a Configuration Management Plan
  - Place items under formal configuration management
  - Develop and execute configuration baseline and audit process
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

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IV&V Identifier	FR00-SI-01
Title	Items not placed under configuration management
Risk/Opportunity Description	
There is a risk that the integrity of project documents, hardware, and/or software will not be maintained. IV&V did not find evidence of a configuration items (CI) list; the project plan suite did not describe a plan for CI's, and the schedule did not plan for recurring CI control.	
Mitigation Recommendation and *Status This Reporting Period*	
1. Identify items to be placed under configuration management.	

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Immediate	MEDIUM
Previous Reporting Period	-	-	-	N/A - New

IV&V Identifier	FR00-SI-02
Title	Configuration baselines not developed
Risk/Opportunity Description	
The Customizations Development Plan presented tools to be used for baseline. However, IV&V did not find lists identified as baseline, which are needed both for internal DDI and for customer/ operational use. There is a risk that multiple versions of documents may exist but only one that is properly to be considered a baseline Item; that Items intended to be configuration-managed are missing; that Items not intended to be a part of configurations are present (and possibly malicious) within a configuration, etc.	
Mitigation Recommendation and *Status This Reporting Period*	
1. Develop, gain approval for, and maintain a listing of configuration items, to include hardware, software, and documents (e.g., deliverables, operational manuals, schedules). 2. Establish and maintain work product baselines that are published.	

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Immediate	HIGH
Previous Reporting Period	-	-	-	N/A - New

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IV&V Identifier	FR00-SI-03
Title	Configuration management of change to configuration items (CI's)
Risk/Opportunity Description	
The Customizations Development Plan identified the use of Confluence to manage project related documents, and key documents contained version histories; those were examples of good CM practices. However, in the absence of a Configuration Items list it was not clear that a CI change would be known to users of the Item. An example may include if there are two versions of the same document in two different locations, users may not know where to find the correct configuration item.	
Mitigation Recommendation and *Status This Reporting Period*	
1. Establish and maintain versions of baselines for all CI's so that all users will know whether an item is being configuration managed, and if so, to which baseline it belongs.	

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Immediate	**HIGH**
Previous Reporting Period	-	-	-	N/A - New

IV&V Identifier	FR00-SI-04
Title	Configuration audits
Risk/Opportunity Description	
IV&V did not find documentation to demonstrate a plan for auditing configurations. There is a risk that deficiencies within configurations of documents, software, and hardware will result in unneeded rework; lost or corrupt Items, system defects, etc.	
Mitigation Recommendation and *Status This Reporting Period*	
1. Audit configurations to maintain their integrity baseline and baseline change. 2. Maintain records (audit reports, configuration deficiencies that are tracked to closure).	

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Immediate	**HIGH**
Previous Reporting Period	-	-	-	N/A - New

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3.3 Improving Performance

The table below summarizes IV&V assessment of practices to measure and improve project performance.

	Practice Area -->	Managing Performance and Measurement
Practices are Documented	*Previous Report*	-
	This Report	Largely
	Trend	-
Practices are Implemented	*Previous Report*	-
	This Report	Largely
	Trend	-
Practices are Effective	*Previous Report*	-
	This Report	Partially
	Trend	-

Table 7: Improving Performance Assessment

Legend

Largely	Partially	Not	Not Assessed

Manage Performance and Measurement

- ***CURRENT PROCESS:*** Metrics are required in status reporting.
- ***STRENGTH:*** Consistent with GCOM SOW Deliverable Performance Measures; KPI's are reported.
- ***AREAS OF IMPROVEMENT:***
  - Demonstrated progress of achievement of business objectives needs to be included in performance measuring and reporting.
  - Metrics that are fully defined operationally.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

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IV&V Identifier	**FR00-IP-01**
Title	DDI performance measures for business objectives
Risk/Opportunity Description	
The XYZ project employed metrics in planning and reporting. Examples included: Vendor SOW Amendment #1 Deliverable Performance Measures, Yes/No status reporting on project constraints (e.g., budget, schedule, scope), and Key Performance Indicator (KPI) reporting. However, metrics were not identified to demonstrate progress in achieving business objectives. There is a risk that the project can show good results against existing metrics yet fail to meet business objectives.	
Mitigation Recommendation and *Status This Reporting Period*	
1. Identify select business objectives to be measured, e.g., from the Charter Section 2.2 – Business Objectives and/or the Schedule IV-B Section III-Success Criteria table. 2. Determine <CLIENT>-approved measure(s) that can demonstrate progress in meeting selected objectives. 3. Analyze data and use the measures to report progress to Project and Executive Steering Committees and include metrics in Monthly and/ or Quarterly reporting.	

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Long-Term	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

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3.4 Managing Business Resilience

The table below summarizes IV&V assessment of opportunity and risk management practices.

	Practice Area -->	Risk & Opportunity Management
Practices are Documented	*Previous Report*	-
	This Report	Largely
	Trend	-
Practices are Implemented	*Previous Report*	-
	This Report	Largely
	Trend	-
Practices are Effective	*Previous Report*	-
	This Report	Partially
	Trend	-

Table 8: Managing Business Resilience Assessment

Legend

Largely	Partially	Not	Not Assessed

Risk and Opportunity Management

- ***CURRENT PROCESS:*** Risk Management Plan
- ***STRENGTH:***
  - XYZ has maintained Risk Log that is reviewed monthly. Risk template has basic structure in place to help project "future-focused" in their management. This helps project to implement effective and continuous risk management throughout project lifecycle.
- ***AREAS OF IMPROVEMENT:***
  - Expand risk management to include opportunities
  - Expand risk log template
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

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IV&V Identifier	**FR00-MBR-01**
Title	Opportunity Management

Risk/Opportunity Description

XYZ Risk management plan outlines process, roles, and responsibilities, and other expected practices: <CLIENT> will gain additional value by expanding the practice to find opportunities, opportunity categories, and opportunity management capitalization strategies. It will assist project risk and opportunity quantification. The project may realize these benefits:

- Aids in identifying potential positive outcomes of risk
- Enhanced stakeholder communication

Mitigation Recommendation and *Status This Reporting Period*

1. Expand risk management plan and practice to identify, exploit, and report on opportunities that benefit the project.
2. Train and assist users on developing capitalization plans for opportunities.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Immediate	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

IV&V Identifier	**FR00-MBR-02**
Title	Expand risk log template

Risk/Opportunity Description

Risk management plan and risk log updates and implemented process changes can improve project risk management by: Updating risk priority assignment procedure, adding fields (columns) to the risk register, and using risks to reduce future project risk.

Mitigation Recommendation and *Status This Reporting Period*

Revise the Risk Management Plan and Risk Log and implement improvements:

1. Prioritize risks and opportunities according to their probability and impact of occurrence, at a minimum.
2. Add fields (columns) in the Risk Log: Trigger (event/situation that could cause the risk to occur); planned dates to accomplish each step for risks with mitigation strategies; and planned dates to review each entry in the Log.
3. Make efficient use of staff work on risk management by developing mitigation or capitalization strategies for items that can be successfully mitigated/exploited, offer the best return on resource investment, and whose exposure rating is the highest.
4. Cross feed lessons learned from the risk/opportunity efforts to improve future projects, e.g., via the <CLIENT> Program Management Office.

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	High	Medium	Short-Term	**HIGH**
Previous Reporting Period	-	-	-	N/A - New

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3.5 Ensuring Quality

The table below summarizes IV&V assessment of practices that contribute to product and process quality.

	Practice Area -->	Peer Reviews	Process Quality Assurance	Requirements Development & Management	Verification and Validation
Practices are Documented	*Previous Report*	-	-	-	-
	This Report	Largely	Largely	Largely	Largely
	Trend	-	-	-	-
Practices are Implemented	*Previous Report*	-	-	-	-
	This Report	Not Assessed	Partially	Not Assessed	Not Assessed
	Trend	-	-	-	-
Practices are Effective	*Previous Report*	-	-	-	-
	This Report	Not Assessed	Partially	Not Assessed	Not Assessed
	Trend	-	-	-	-

Table 9: Ensuring Quality Assessment

Legend

Largely	Partially	Not	Not Assessed

Peer Reviews

- ***CURRENT PROCESS:*** Processes for peer reviews were not identified.
- ***STRENGTH:*** Analysis is planned for a future report.
- ***AREAS OF IMPROVEMENT:***
  - Need to collect, track, analyze and report peer review data
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

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IV&V Identifier	FR00-EQ-01
Title	Plan and execute peer a review process
Risk/Opportunity Description	
IV&V examined *XYZ Quality Management Plan v1.1* and *Deliverable Acceptance Plan* but did not find a documented process to conduct, collect, track, analyze, and report peer review data. Peer reviews help ensure quality assurance activities are planned and performed throughout the project. The project has the opportunity to reduce rework time and cost by proactively peer-reviewing work products throughout the life cycle.	
Mitigation Recommendation and *Status This Reporting Period*	
1. Establish written requirements for product and process peer reviews through the life cycle. 2. Plan, schedule, and conduct peer reviews. 3. Collect, track, analyze, and report peer review data to continuously improve. 4. Take corrective action based on analysis of peer reviews to identify improvements.	

Risk Analysis	Probability of Occurrence	Impact of Occurrence	Time Criticality	Overall Exposure
This Reporting Period	Medium	Medium	Long-Term	**MEDIUM**
Previous Reporting Period	-	-	-	N/A - New

Process Quality Assurance

- ***CURRENT PROCESS:*** The *XYZ Quality Management plan* provided a framework for quality management. The *XYZ Solution Test Plan* delineated testing processes. Status reports indicated tests were completed.
- ***STRENGTH:***
  - The Quality Management Plan identified a quality management framework for items subject to quality management and designated areas of responsibility.
  - The XYZ Solution Test Plan largely documented expected content, including testing steps, target dates, and responsibilities.
- ***AREAS OF IMPROVEMENT:*** Expand Quality Management planning and execution beyond testing.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) follow.

Requirements Development and Management

- ***CURRENT PROCESS:*** Requirements are managed and developed in Jira. IV&V plans to assess this in a future report.
- ***STRENGTH:*** Use of automation tools for requirements development and management including requirements traceability (Jira).
- ***AREAS OF IMPROVEMENT:*** None this reporting period.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) are planned for a future report.

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Verification and Validation

- ***CURRENT PROCESS:*** XYZ has independent verification and validation vendor. Also, the Quality Management Plan that documented testing procedures and plans, which are a primary V&V activity, and the Deliverable Acceptance Plan. IV&V plans to report on <CLIENT>/GCOM testing planning and execution in a future report.
- ***STRENGTH:*** <CLIENT> testing activities workflow.
- ***AREAS OF IMPROVEMENT:*** None this reporting period.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) are planned for a future report.

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3.6 Product Engineering and Development

The table below summarizes IV&V assessment of practices to design, build, and deliver product solutions to requirements.

Practice Area -->		Technical Solutions	Product Integration
Practices are Documented	*Previous Report*	-	-
	This Report	Largely	Largely
	Trend	-	-
Practices are Implemented	*Previous Report*	-	-
	This Report	Largely	Largely
	Trend	-	-
Practices are Effective	*Previous Report*	-	-
	This Report	Not Assessed	Not Assessed
	Trend	-	-

Table 10: Design, Development, and Implementation (DDI) Assessment

Legend

Largely	Partially	Not	Not Assessed

Technical Solution

- ***CURRENT PROCESS:***
  - Development Plan
  - Customization Development Plan
  - Conformance Assertation
  - XML and XSD objects

  IV&V has requested additional documentation on the development procedures and is in the process of a deeper evaluation.
- ***STRENGTH:***
  - Technical planning documentation was consistent with the scope and objectives defined in the *SOW* and *Schedule IV-B*.
  - Clear and standardized documentation: The *Development Plan* and *Customization Development Plan* demonstrated an organized and standard approach to defining scope and technical methodology.
  - Compliance with industry standards and project expectations for NIEM: The *Conformance Assertion*, XML and XSD documentation demonstrated NIEM compliance, an industry standard defined in the SOW.
- ***AREAS OF IMPROVEMENT:*** None at this time.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) are planned for a future report.

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Product Integration

- **CURRENT PROCESS:**
  - Implementation Plans – multiple documents
  - <CLIENT> IEPD Master Documentation and attachments, including Conformance Assertation and XML and XSD objects
  - <State> CJIS Portal Interface Control Document

  IV&V has requested additional documentation on integration efforts and is in the process of a deeper evaluation.

- ***STRENGTH:***
  - Clear and standardized documentation:
    - The *<State> CJIS Portal Interface Control Document*, *Master Documentation* and attachments were consistent in format and content with each other and with the development planning documentation.
    - Implementation planning demonstrated an organized and standard approach to defining technical methodology. Implementation plans included dependencies and sequence numbers; task details and assignments were well described.
  - Clear and detailed guidance material: The *Master Documentation* and attachments helped provide assurance that the solution was usable and maintainable.
  - Compliance with industry standards and project expectations for NIEM: The Conformance Assertion, XML and XSD documentation demonstrated NIEM compliance, an industry standard and defined in the SOW.
- ***AREAS OF IMPROVEMENT:*** None at this time.
- ***IMPACT ON TRIPLE CONSTRAINT:*** Opportunities, risk(s) and/or issue(s) are planned for a future report.

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APPENDIX A: SCORING METHOD

DASHBOARD COLOR SCORING GUIDELINES

Score	Characterization	IV&V Scoring Guidelines
GREEN	***Meets Expected Standards***	▪ Largely compliant with established standards ▪ There is evidence that processes are largely used ▪ Largely achieves desired results ▪ There may be other practices to improve effectiveness ▪ There may be one or more Issues ▪ Any Issues collectively present Low/Medium Rating
YELLOW	***Partially Meets Expected Standards***	▪ Marginally meets expected standards ▪ Partially compliant with established standards ▪ There is evidence that the processes are only partially used ▪ Partially achieves desired results ▪ There are other practices to improve effectiveness ▪ At least one Issue; and/or Risks are collectively High Priority
RED	***Does Not Meet Expected Standards***	▪ Does not meet expected implementation standards ▪ Not compliant with established standards ▪ There is evidence that processes are not used ▪ Does not achieve desired results ▪ There are other practices to improve effectiveness ▪ There are Issues and Risks of collectively Critical Priority

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OPPORTUNITY/RISK COMPONENT DESCRIPTIONS

Probability of Occurrence

High	Highly confident the impact will occur	80% or greater certainty
Medium	Believes that the impact may occur	40% - 79% certainty
Low	Uncertain if the impact will occur	< 40% certainty

Impact of Occurrence

High	Major impact to quality, cost, and/or schedule
Medium	Significant impact to quality, cost, and/or schedule
Low	Measurable impact to quality, cost, and/or schedule

Time Criticality

Immediate	Could impact the project in the next two months
Short Term	Could impact the project in two to six months
Long Term	Could impact the project beyond six months

Exposure

Critical	Threatens existence of project if risk is realized. Requires executive or sponsor involvement to resolve.
High	Major impact to one or more project constraints (quality, cost, and schedule) if realized. May require executive or sponsor involvement to resolve/exploit.
Medium	Significant impact to at least one project constraint (quality, cost, and schedule) if realized. Can be mitigated/exploited without external assistance.
Low	Noticeable impact to at least one project constraint (quality, cost, and schedule) if realized. Can be mitigated/exploited without external assistance.

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Opportunity/Risk Exposure Definition Matrix

Risk Exposure	Probability of Risk Occurrence	Impact of Risk Occurrence	Time Criticality
CRITICAL	High	High	Immediate or Short Term
HIGH	High	High	Long Term
	High	Medium	Immediate or Short Term
	Medium	High	Immediate or Short Term
MEDIUM	High	Medium	Long Term
	High	Low	Immediate or Short Term or Long Term
	Medium	High	Long Term
	Medium	Medium	Immediate or Short Term
	Medium	Low	Immediate
	Low	High	Immediate
LOW	Medium	Low	Short Term or Long Term
	Low	High	Short Term or Long Term
	Low	Medium	Immediate or Short Term or Long Term
	Low	Low	Immediate or Short Term or Long Term

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APPENDIX B: CLOSED IV&V RISK AND ISSUES

No closed Risks and Issues (initial report)

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APPENDIX C: IV&V WORK COMPLETED

The following tables detail the documents reviewed and meetings attended during this initial reporting period (29 October through 31 December 2020).

WORK PRODUCTS
Title or Description
Monthly Logs
Project Steering Committee Agendas
Change Management Plan
Project Change Requests
Change Request Tracking Log
Charter
Project Organization
Communication Plan
Deliverable Acceptance Plan
Issue Management Plan
OCM Plan
Procurement Plan
Project Plan
Quality Management Plan
Testing activity flowchart
Requirements Traceability Matrix
Resource Plan
Risk Management Plan
Schedules
Project Scope
Operational Work Plans
Monthly and Quarterly Reports

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Customizations Development Plan
Defect Management and Resolution Plan
Implementation Plan
Maintenance Plan
Project Management Plan
Training Plan
Test Plan

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MEETINGS	
Title or Description	**Date**
On-Boarding	10/20/2020
Kickoff	11/20/2020
Project Documentation initial discussion: IV&V, Project Coordinator	01/05/2021
Initial Reports discussion	01/14/2021
Initial Reports Questions	01/22/2021

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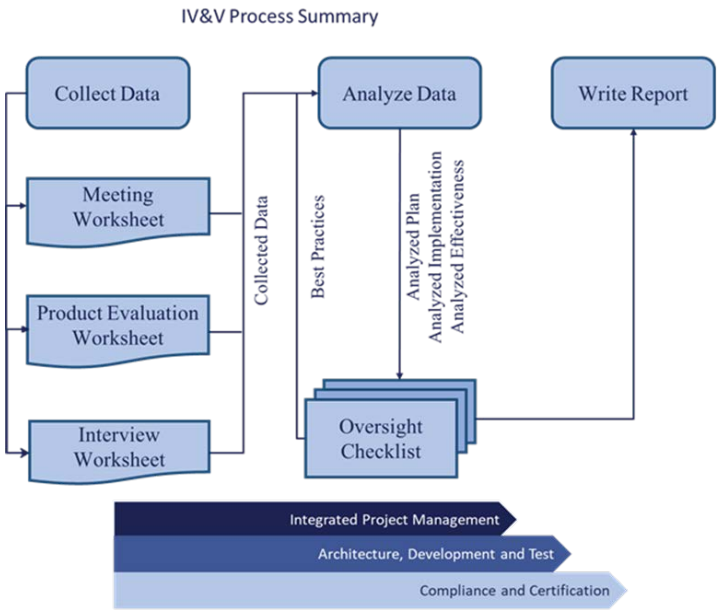
APPENDIX D: IV&V METHOD AND OTHER REFERENCES

The IV&V methodology is primarily focused on confirming strengths and proactive traits and identifying weaknesses, and/or problems that need to be corrected or that do not adhere to industry best practices. The IV&V Team analyzed each area to determine the application of best practices and to guide the data gathering process; then gathered data primarily from project documentation evaluations, with augmentation from meeting attendance when available, and from stakeholder interviews. See Appendix C for a complete listing of these activities.

Our examination is based on both requirements of the contract and industry best practices, including but not limited to the following:

- Project Management Body of Knowledge (PMBOK), Sixth Edition
- Capability Maturity Model Integration (CMMI), Version 2.0
- Information Technology Information Library (ITIL), Version 3.0
- Institute for Electrical and Electronic Engineers (IEEE) 730 2002 QSAP
- IEEE 830-1998
- IEEE 1016-2009
- IEEE 1058-1998
- IEEE 1074-2006
- IEEE 12207.0-1996
- IEEE 12207.1-1997
- IEEE 12207.2-1997
- IEEE 828-2012
- IEEE 829 1998
- IEEE 1008-1987
- IEEE 1012-2012
- IEEE 1063-2001



There may be instances where contractual requirements are met, but the project could nevertheless benefit from the implementation of additional best practices from the above standards. IV&V will specify applicable best practices in our findings and observations as needed.

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ADDENDUM 1: DRAFT SUBMITTAL COMMENTS AND RESOLUTION

Draft Reference (Section & Page)	<CLIENT> Comment	<CLIENT> Correction to Error of fact	IV&V Response
Section 3.1 FR00-PMW-01, Establish thresholds that will trigger an impact analysis, Page 13	The XYZ project does not calculate Earned Value. Decision #1 made on May 28, 2019 documents this decision.	-	-
Section 3.1 FR00-PMW-02, Resource Capacity and Availability Planning, Page 14	The PM sends updated schedules to our IT department weekly and the Projects Office holds biweekly meeting with the IT department to review plans and resources needed for upcoming tasks.	-	-
Section 3.1, Monitor and Control, Page 17: "Although <CLIENT> PM is generating various status reports, IV&V could not confirm the status is being reviewed with Project Sponsor(s) as defined in XYZ Communication Plan V1.1 20191206."	Section 3.1, Monitor and Control, Page 17: "Although <CLIENT> PM is generating various status reports, IV&V could not confirm the status is being reviewed with Project Sponsor(s) as defined in XYZ Communication Plan V1.1 20191206."	-	-

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Draft Reference (Section & Page)	<CLIENT> Comment	<CLIENT> Correction to Error of fact	IV&V Response
Section 3.1, FR00-PMW-07, Tracking Actual vs. Planned Task Dates, Page 19	Section 3.1, FR00-PMW-07, Tracking Actual vs. Planned Task Dates, Page 19	-	-
Section 3.1 FR00-PMW-09, Project Log Updates, Page 21	The current issue tracking log does reference the risk that it originated from. XYZ Issue #7 provides an example of this. Also, when applicable the Action Log correlates to the issue it in response to. See Action #5 for an example. The logs are all updated monthly per the schedule.	-	-

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[redacted] Modular Medicaid System [redacted]

Independent Verification & Validation (IV&V) Quarterly Report 17

(February 1, 2020 – April 30, 2020)

V1.0

May 21, 2020

Prepared by:

Software Engineering Services
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Document Control

This is a controlled document. The control and release of this document is the responsibility of the document owner.

Version control					
Document reference	[redacted]-IVV-QR-17	Project	[redacted] Modular Medicaid System [redacted]		
Version	1.0	Date	05-21-20	Owner	Jim Moudry
Document title	[redacted] IV&V Quarter 17 Report				

Version History			
Version	Date	Author	Comment
0.9	05/07/2020	Jim Moudry	Submittal for State Review and Comment
1.0	05/21/2020	Jim Moudry	Final incorporating State and DXC comments shown in Appendix F. - Updated Section 1.3.2 to show "three" new findings vs."two" new findings. - Corrected new finding numbers in Table 1.3.2.1. - Section 3.1: Within Finding F-M-17-01, separated the finding into two sub-findings: F-M-17-01.a for Quality of Test Cases and F-M-17-01.b for Quality of Software Delivered for Testing.

We have reviewed and agreed to the information described in this document and referenced attachments.

Monthly Status Report (MSR)-15 IV&V [redacted] Approval			
Name	Title	Date	Signature
Jim Moudry	IV&V Project Manager, SES	05/21/2020	Jim Moudry
Raj Sharma	Quality Management Office (QMO), SES	05/21/2020	Raj Sharma
	PMO Chair, [redacted]		

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1. Executive Summary

Software Engineering Services (SES) produced this *Quarterly Independent Verification and Validation (IV&V) Report on the* [redacted] *Modular Medicaid System Project* (hereafter abbreviated [redacted]) under contract for the [redacted] Independent Verification and Validation (IV&V) Services. IV&V is conducted on a limited basis with a report provided monthly and quarterly. IV&V is limited to document reviews and a one-week site visit each quarter to attend project meetings and interview project participants and stakeholders in the areas of Management, Development, Implementation, and Operations. During the course of this project, [redacted]. New findings, observations, and status updates to previous findings, will now use the term [redacted]. Findings and observations prior to the [redacted]. This IV&V observation period began on 1 February 2020 and continued with online review of documentation, meeting attendance over the telephone, and on-site visits through 30 April 2020. The review resulted in new findings and recommendations in the Project Implementation oversight area.

1.1 Overall Project Health

The overall project health (using Green, Yellow, Red color ratings) as of the data cutoff date, 30 April 2020, is shown below for the areas of Project Scope, Schedule, Cost, Staffing, and Quality.

Scope: RED

- As of the April 27,2020 Weekly Status Report, eight individual modules and the overall scope are red based on remaining CR hours exceeding individual module allocations and the 5,237-hour overall allocation by 2,060 hours.

Schedule: RED

- The 04/27/20 status report showed 17.03% late tasks (up from 13.43% last quarter) with the following modules reporting close to or over 10% late tasks:

Mod 1 CRM	17.69% ↔	Mod 5 FIN	19.36% ↑	Mod 9 (all)	14.92% ↑
Mod 1 CSSP	12.64% ↓	Mod 5 DB	14.02% ↑	Testing (All)	29.34% ↑
Mod 3 Prov	12.36% ↑	Mod 7[redacted]	16.46% ↓	Mod 5 TPL	9.35% ↑
Mod 4 PIUR	15.54% ↑	Mod 8 DWA	33.53% ↑	Mod 6 MC	8.70% ↓
				Mod 2 Claims	9.94% ↑

Contributing to these late task percentages are:

  - For Testing: [redacted] requested that development of UAT Test Cases be delayed to occur much closer to each UAT test iteration, rather than all up front up to one year or more prior to the start of a UAT test iteration. There are; however, other late testing tasks, such as delays in creation of SIT Test Cases and delays in test execution completion.
  - For Module 8: Although an official re-baseline has not accurred, [redacted] agreed to an entire re-planning of Module 8 activities.
  - For all Modules: Late tasks are offset to a small degree by tasks which have been executed earlier than planned. As of the 04/30/20 Late Tasks Report, overall early tasks were 2.23%.

- Based on previous SIT execution history, SIT 4 and 5 are in jeopardy of completing on time.

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Cost: GREEN

- Project is tracking and reporting against funding allocations.

Staffing: YELLOW

- Current staffing levels are not able to produce quality code on schedule, execute test cases, and resolve defects in a timely manner. For example, every test resource is overallocated in schedules.
- Recent [redacted] staff departures.

Quality: RED

- Defects being resolved are not keeping pace with the number of defects being introduced. Current DMI is less than 75%.
- SIT, Regression, and UAT test case failure rates for certain modules are high. Refer to Findings F-PI-15-01, F-PI-16-01, and F-PI-16-02.

Project health parameter trending is shown in Table 1.1.1.

Table 1.1.1: Overall Project Health Parameters Trending

	Health Parameters				
Quarter	Scope	Schedule	Cost	Staffing	Quality
QR1	GREEN	GREEN	GREEN	GREEN	GREEN
QR2	GREEN	YELLOW	GREEN	GREEN	YELLOW
QR3	GREEN	RED	GREEN	YELLOW	YELLOW
QR4	YELLOW	RED	GREEN	YELLOW	YELLOW
QR5	YELLOW	RED	GREEN	YELLOW	YELLOW
QR6	YELLOW	RED	GREEN	YELLOW	YELLOW
QR7	YELLOW	RED	GREEN	YELLOW	YELLOW
QR8	YELLOW	RED	GREEN	YELLOW	YELLOW
QR9	YELLOW	RED	GREEN	YELLOW	YELLOW
QR10	YELLOW	YELLOW	GREEN	YELLOW	YELLOW
QR11	YELLOW	RED	GREEN	YELLOW	YELLOW
QR12	YELLOW	YELLOW	GREEN	GREEN	YELLOW
QR13	RED	RED	GREEN	GREEN	YELLOW
QR14	GREEN	YELLOW	GREEN	GREEN	YELLOW
QR15	YELLOW	YELLOW	GREEN	GREEN	YELLOW
QR16	RED	YELLOW	GREEN	YELLOW	YELLOW
QR17	RED	RED	GREEN	YELLOW	RED

1.2 Findings and Recommendations Updates

This section presents the status of findings. The findings are the result of the review and analysis of project documents; interviews with project personnel; and attendance at project meetings. A finding is defined as a weakness, deficiency, anomaly, or omission that requires corrective action.

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Each finding has a reference number that includes a designator for Finding ("F"), the oversight area (e.g., "M" for Project Management, "S" for Project Scope, "PI" for Project Implementation), the report quarter identifier (e.g. 01, for Findings in Quarter 1), followed by a sequential two-digit number for the finding. Each finding includes a finding name, a description of the finding, and a background when applicable. Other components of the findings are:

- Risks – possible risks created by the findings
- Recommendations – remedies to close the finding
- References to industry standards – applicable industry standards used in support of the finding (See Section 2.2)
- Priority – ranking to identify whether a given finding in the report is Urgent, High, Medium, or of a Low priority
- Status Update – progress observed since the last report

1.3.1 Status of Previously Reported Findings

Table 1.3.1.1: QR-1 Findings

Finding Origination Date – 03.31.2016				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-01-01 High	Lack of an Effective Lessons Learned Process		Process developed and used to collect lessons learned.	✔
F-M-01-02 High	Lack of Status Update for Milestones Without Sub-tasks		Tables have been included in the Project Weekly Status Reports showing percent complete and estimated completion dates for milestones and some sub-tasks.	✔
F-M-01-03 Medium	Inadequate Decomposition of Schedule Tasks		The duration and hours per resource are down to within 80 hours. In addition, KITO has relaxed their requirement of no more than 80 hours on tasks.	✔

Table 1.3.1.2: QR-2 Findings

Finding Origination Date – 07.15.2016				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-02-01 High	Inadequate Scope of Quality Assurance (QA) Function		[redacted] plans to Extend scope of QA function to include evaluating quality work processes and work products against process descriptions, standards, procedures. Provide metrics on turnaround time on deliverables and identify areas for improvement.	✔

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Finding Origination Date – 07.15.2016				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
			Enhance on-boarding process to assign mentors among BAs and [redacted] to ensure consistent process. Provide feedback to project staff and managers on the results of QA activities. This role will not monitor third party QA processes. In Quarter 5, [redacted] began to implement a SharePoint workflow process for document review with the potential to gather metrics.	
F-M-02-02 High	Inadequate Visibility into COTS Products Being Developed		List of functionality and defects coming with each release being provided. Release notes after the release. Sprint reviews/demos now being provided.	✔

Table 1.3.1.3: QR-3 Findings

Finding Origination Date – 10.07.2016				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-03-01 High	Lack of Documented Actions Outside of RV Sessions		Action Items are identified in a log and the log is reviewed on at least a monthly basis in the Joint PMO meeting.	✔
F-M-03-02 High	Lack of Visibility Into and Reporting Against Mitigation Plans		[redacted] risks were recently updated. Risks are consistently reviewed and updated.	✔
F-M-03-03 Urgent	Lack of Visibility Into Project Critical Path		Weekly Status Reports now include an indication of what modules are on the critical path for Stage 1 and Stage 2.	✔
F-PI-03-01 High	Lack of Visibility Into Product Team System Test		The [redacted] Test Team does have some limited informal visibility into [redacted] Product Team testing.	✔
F-PI-03-02 Medium	Lack of Common Definition of Defect Severity Levels		The [redacted] Test Team has shared defect priority and timeline definitions with the [redacted] Product Team.	✔
F-PI-03-03 High	Lack of Formal Acceptance Criteria for Product From [redacted] Product Team and Subcontractors		The approach for acceptance of product from the [redacted] Product Team and subcontractors is not going to change.	✔

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Table 1.3.1.4: QR-4 Findings

Finding Origination Date – 01.31.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-04-01 High	Lack of Schedule Decomposition for Test Activities		Weekly test report shows burn-down charts for System Test (ST), System Integration Test (SIT), and User Acceptance Test (UAT).	✔
F-M-04-02 High	Lack of Risk Mitigation Plans		Risk mitigation plans have been attached to the appropriate risks in [redacted], although the plans lack detail.	✔
F-M-04-03 High	Lack of Common Understanding of Agile Touch Points for the State		Business function reviews implemented.	✔
F-M-04-04 High	Lack of Planned Accomplishments Not Started or Completed on Time		This information is available by reviewing the Microsoft Project plan; however, it is not being provided in any other summary form. Weekly project status report format and content will be changing.	✔
F-M-04-05 High	Lack of Planned Duration or Baseline Start		This information is available by reviewing the Microsoft Project plan; however, it is not being provided in any other summary form. Weekly project status report format and content will be changing.	✔
F-M-04-06 High	Lack of Color Rating for Completed Activities		This information is available by reviewing the Microsoft Project plan; however, it is not being provided in any other summary form. Weekly project status report format and content will be changing.	✔
F-S-04-01 High	Lack of Consistency in the Quality of Conducted Walkthroughs of BDD or DSD		[redacted] has reviewed their walkthrough process to ensure more level-setting between facilitator's and [redacted] participants.	✔

Table 1.3.1.5: QR-5 Findings

Finding Origination Date – 04.30.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-05-01 High	Lack of Detail in Mitigation Plans		Detailed mitigation plans have been developed for appropriate risks as defined in the Risk Management Plan.	✔

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Finding Origination Date – 04.30.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-05-02 Urgent	Lack of Decomposition of Data Conversion Activities in Project Schedule for both Stages 1 and 2		Data Conversion activities are included in Stage 1 and Stage 2 schedules.	✔
F-M-05-03 High	Lack of Sharing, Tracking, Monitoring, and Reporting Data Conversion Results		[redacted] has provided UAT plans that included resources and reporting for UAT.	✔
F-M-05-04 High	Absence of Both High-Level Training Roadmap and Granularity at Module Level		Information has been provided. This finding has been sufficiently remediated and is being closed.	✔
F-M-05-05 High	Lack of formal Mitigation Plan to Manage Behind-Schedule [redacted] CMS Certification Activities		Certification plan has been revised to show new stage 1 go-live dates and certification in two phases (for Stage 1 modules and for Stage 2 modules).	✔
F-M-05-06 High	Lack of Alignment of [redacted] CMS Certification Plan and Schedule With the Agreed Approach		A new finding regarding certification will be opened.	✔
F-M-05-07 High	Lack of Common Risk Rating Criteria for Use by all [redacted] vendors		Common understanding established, but very few risks identified.	✔

Table 1.3.1.6: QR-6 Findings

Finding Origination Date – 07.31.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-06-01 High	Lack of Access and Visibility Into Other Dependent Plans		Detailed project plans for these areas have been provided for Stages 1 and 2.	✔
F-M-06-02 Urgent	Absence of UAT Testing Training for [redacted] UAT Testing Team		Training provided to [redacted] UAT Team by [redacted] sufficiently remediated this finding.	✔
F-M-06-03 Urgent	Issues Management Process Not Being Followed Consistently		Much greater emphasis has been placed on entering, tracking, and reviewing issues.	✔

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Finding Origination Date – 07.31.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-06-04 Urgent	Absence of Planning, Coordination, and Communication for [redacted] UAT Test Environment Setup		This was resolved for Sage 1. Will close, monitor, and re-open for Stage 2, if required.	✔
F-M-06-05 Urgent	Weekly "Testing Status Report" Does Not Include [redacted] UAT Testing Status		Separate [redacted] UAT Test Status Report is being provided.	✔
F-M-06-06 Urgent	[redacted] Weekly "Testing Status Report" Template Needs Enhancement to Include Other Information About Testing Activities		Report meets State's needs.	✔
F-T-06-01 High	Absence of Configuration and Set-up Validation Checklist for Establishing UAT Test Environment at [redacted]		Duplicate of F-PI-07-01. Will include example from this finding there.	✔

Table 1.3.1.7: QR-7 Findings

Finding Origination Date – 10.31.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-07-01 Urgent	Lack of Approval Before Schedule Start and Completion Dates are Changed		Will close, but will monitor.	✔
F-M-07-02 Urgent	Lack of Requirements Traceability to CMS Certification Checklist Criteria		Stage 1 RTM has been submitted and has been approved by [redacted].	✔
F-M-07-03 Urgent	Lack of Clear Identification of Dependencies Across and Among all Modules (Stage 1 & 2) From a Holistic Perspective		Project Plans for all Stage 1 and 2 modules provided. Logic diagrams exist and are available in [redacted].	✔
F-U-07-01 High	Lack of Identification of Deliverable Review and Approval Parties		A review table was added to documents showing names of those who have reviewed the document.	✔

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Finding Origination Date – 10.31.17				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-PI-07-01 High	Lack of Implementation of Formal Migration/ Configuration Management Process Across Environments or Sub-systems		Updated CM Plan has been submitted and approved by [redacted]. DXC has placed release procedures, CMDB, and list of configurations (software, patches, web services, etc.) across environments on [redacted].	✔

Table 1.3.1.8: QR-8 Findings

Finding Origination Date – 01.31.18				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-08-01 Urgent	Time allocated for Stage 2 User Acceptance Testing (UAT) is likely inadequate.		This item is being tracked as a risk.	✔
F-M-08-02 Urgent	Certification planning and execution is inconsistent.		Updated R3 certification schedule published and evidence repository established.	✔
F-M-08-03 High	Lessons learned from Stage 1 project from requirements, planning, design, development, testing, and implementation appears to be missing from Stage 2 planning.		Lessons Learned have been analyzed by [redacted].	✔
F-M-08-04 Urgent	Stage 1 defect burn-down rate lagging.		Stage 1 is live.	✔
F-T-08-01 Urgent	Data available in All Claims Universe in Cerner has not been fully tested and/or accepted by [redacted] power users.		[redacted] has provided concurrence on all Universes.	✔
F-PI-08-01 Urgent	The detailed deployment plan for 3/12/2018 Go Live date does not include [redacted] needs.		Stage 1 is live.	✔
F-PI-08-02 High	A regression test suite should be created and packaged to run as an automated process whenever code is imported into the System Integration		[redacted] does not intend to develop an automated regression test suite.	✔

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Finding Origination Date – 01.31.18				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
	Test environment, whether a major or patch release.			

Table 1.3.1.9: QR-9 Findings

Finding Origination Date – 04.30.18				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
F-M-09-01 High	Overlap of SIT and UAT Activities in Stage 2 Implementation Schedule		Risk 52 is in place. This finding will be closed.	✔
F-M-09-02 High	Need Process for Distinct Transition of Defect Ownership from DDI to Operations		Updated Integrated Implementation Plan to be updated second quarter 2020. IV&V will then review to determine if this Finding can be closed.	
F-PI-09-01 High	Reports Created by Data Warehouse Module Need to Be Validated		Reports have been validated.	✔
F-PI-09-02 Medium	Training Needs to Include Real-Life, Role-Based Scenarios		Training plans for each module include role-based scenarios.	✔

Table 1.3.1.10: QR-10 Findings

Finding Origination Date – 07.31.18				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
N/A	N/A			

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Table 1.3.1.11: QR-11 Findings

Finding Origination Date – 10.31.18				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-11-01 High	Stage 2 Schedules Lack Time for Data and Environment Refreshes		Data and Environment refreshes were added to the Stage 2 schedule. IV&V will close and revisit when re-baselined schedule is released.	✔
F-M-11-02 High	Minimum Formal Transition and Knowledge Transfer Between [redacted] Resources		Overcome by events. Plan for transition and knowledge transfer exists.	✔
F-PI-11-01 Medium	Lack of Test Results in ALM for Accessibility Tests		Closed for Stage 1. [redacted] is considering the addition of Accessibility Test Results into ALM for Stage 2.	✔
F-PI-11-02 High	Stage 2 Testing Iterations Lack Defined Entry and Exit Criteria		Entry and Exit Criteria have been defined for Stage 2 SIT and UAT.	✔

Table 1.3.1.12: QR-12 Findings

Finding Origination Date – 1.31.19				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
F-M-12-01 Urgent	Lack of Defined RTM Impacts SIT & UAT Test Planning		Requirements traceability to test cases has been completed for SIT. The approach for UAT will be in the updated TEMP and the RTM will follow. If this becomes an issue for UAT, IV&V will open another finding.	✔
F-M-12-02 High	Lack of Single Point of Contact and Single Repository for Test Defects and Reporting		DEV test results are now being entered into ALM. Test results for Security, Accessibility, Conversion, etc. will continue to be captured outside of ALM. Each testing entity will continue to report their test results.	✔

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Table 1.3.1.13: QR-13 Findings

Finding Origination Date – 04-30-19				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
N/A	N/A			

Table 1.3.1.14: QR-14 Findings

Finding Origination Date – 07.31.19				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
N/A	N/A			

Table 1.3.1.15: QR-15 Findings

Finding Origination Date – 10.31.19				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
F-PI-15-01 Urgent	Downstream Impacts of Late Completion of SIT IT 2 Test Execution		15 additional test resources brought on to help rectify. SIT IT 2 did not meet the re-planned burndown schedule. Need to determine impacts, if any.	
F-PI-15-02 High	Downstream Impacts of Late SIT IT 3 Test Case Completion		Test case completion was adequate to allow SIT IT 3 to begin on time without any significant impacts.	✔

Table 1.3.1.16: QR-16 Findings

Finding Origination Date – 01.31.20				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
F-M-16-01 Urgent	Capacity Planning to Ensure SIT IT 5 Testing Schedule Can be Met		Test cases are shifting from SIT IT2 and SIT IT3 to SIT IT4 and SIT IT5. This is compounded by the number of unresolved failed defects that also need to be re-tested in later iterations. In addition, SIT IT5 is only	

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Finding Origination Date – 01.31.20				
Number/ Priority	**Finding Title**	**No Progress Observed**	**Progress Observed**	**Finding Closed**
			11 weeks in duration compared to the baseline schedule of 18 weeks for the other SIT iterations. SIT IT 5 is in serious risk of not being able to complete its test cases in the time frame scheduled, putting the project go-live in very serious jeopardy.	
F-PI-16-01 Urgent	Downstream Impacts of Late Completion of SIT IT 3 Test Execution		The completion date for SIT 3 has been extended to 6/12/20, pretty much matching IV&V's projection of 6/8/20. [redacted] has implemented some mitigation strategies to reduce the Test Execution Carry over from one SIT iteration to another. • Increased Testing Staff to increase test case throughput • Initiated BFA readiness and BFA audit processes to track BFA readiness throughout the SIT iteration Additional mitigation strategies being considered: • Test execution practices have focused on 1st pass testing versus test case close out, shifting the practice to focus on the resolution of lagging defects • Reviewing defect resolution practices to implement additional resolution meetings • Continue reviewing project practices to determine other opportunities available. SIT IT 3 still has some high failure rates and large number of blocked test cases.	
F-PI-16-02 Urgent	Upstream Activities Leading to High UAT IT 2 Defect Rate Which Could Impact Downstream Activities		The April 27, 2020 Weekly Status Report showed 92 test cases left to be executed, with 59 blocked by defects with 49 having defined fix dates. These are very high failure and blockage rates for UAT IT 2, potentially due to SIT IT 2 not being able to be completed prior to UAT IT 2. In addition, a large number of test cases and functionality that passed in SIT are now failing in UAT, indicating issues such as: environment configurations, system configurations, integrations, etc. between SIT and UAT. The result is that UAT IT 2 is not really performing UAT, but first-	

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Finding Origination Date – 01.31.20				
Number/ Priority	Finding Title	No Progress Observed	Progress Observed	Finding Closed
			time test of some functionality and user acceptance is not taking place.	

1.3.2 New Findings

IV&V has three new findings for Quarter 17.

Table 1.3.2.1: New QR-17 Findings

Number	Priority	Finding Title
F-M-17-01	Urgent	Inconsistent Software and Test Case Quality
F-M-17-02	Urgent	Lack of Progress in Defect Resolution and Management
F-M-17-03	Urgent	Overallocation of Resources in Project Schedules

1.3.3 IV&V Project Oversight Area Summaries

The scope of this report includes findings and recommendations for management, technical, implementation, and operations oversight activities. Each review report covers all relevant oversight activities with an emphasis on selected tasks that are important at the particular stage of the [redacted] Project.

The following table lists the oversight activities evaluated and their scoring (as defined in Section 2.1) for the reporting period. The primary focus of these activities is on the effectiveness of processes and procedures. A rating of 'Not Rated' indicates that these task items are not applicable at this point in the project life cycle.

Table 1.3.3: IV&V Project Oversight Area Summary Ratings

Task Number	Description	Rating of Task Item and Task Number
Management Oversight		
Task Item: Project Sponsorship		
QR 1.1	Assess and recommend improvement, as needed, to assure continuous executive stakeholder buy-in, participation, support and commitment, and that open pathways of communication exist among all stakeholders.	GREEN
Task Item: Management Assessment		

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Task Number	Description	Rating of Task Item and Task Number
QR 1.2	Verify and assess [redacted] project management and organization; verify that lines of reporting and responsibility provide adequate technical and managerial oversight of the project.	GREEN
QR 1.3	Evaluate [redacted] project progress, resources, budget, schedules, workflow, and reporting.	GREEN
QR 1.4	Assess coordination, communication, and management to verify agencies and departments are working interdependently with one another and following the [redacted] communication plan.	GREEN
Task Item: Project Management		
QR 1.5	Verify that a [redacted] Project Management Plan is created and being followed. Evaluate the project management plans and procedures to verify that they are developed, communicated, implemented, monitored, and complete.	GREEN
QR 1.6	Evaluate [redacted] project reporting plan and actual project reports to verify project status is accurately traced using project metrics.	YELLOW
QR 1.7	Evaluate compliance with the estimating and scheduling process of the [redacted] project to verify that the project budget and resources are adequate for the work-breakdown structure and schedule, and make recommendations for conformity.	YELLOW
Task Item: Time and Schedule Management		
QR 1.8	Review schedules to verify that adequate time and resources are assigned for planning, development, review, testing, and rework.	RED
QR 1.9	Verify milestones and completion dates are planned, monitored, and met.	RED
Task Item: Issue Management		
QR 1.10	Verify the existence and institutionalization of an appropriate [redacted] project issue tracking mechanism that documents issues as they arise, enables communication of issues to proper stakeholders, documents a mitigation strategy as appropriate, and tracks the issue to closure.	GREEN
Task Item: Risk Management		
QR 1.11	Verify that a [redacted] Project Risk Management Plan is created and being followed. Evaluate the projects risk management plans and procedures to verify that risks are identified and quantified and that mitigation plans are developed, communicated, implemented, monitored, and complete.	YELLOW
Task Item: Quality Assurance		
QR 1.12	Monitor the performance of QA by reviewing its processes and reports and performing spot checks of system documentation; assess findings and performance of the processes and reports.	RED
QR 1.13	Verify that QA has an appropriate level of independence; evaluate and make recommendations on the project's Quality Assurance plans, procedures, and organization.	YELLOW
Task Item: Organizational Change Management		

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Task Number	Description	Rating of Task Item and Task Number
QR 1.14	Verify that a [redacted] Organizational Change Management Plan is created and being followed. Evaluate the plans and procedures to verify they are developed, communicated, implemented, monitored, and complete; and that resistance to change is anticipated and prepared for.	GREEN
Task Item: Configuration Management		
QR 1.15	Verify that a Configuration Management Plan is created and being followed. Evaluate the configuration management plans and procedures to verify they are developed, communicated, implemented, monitored, and complete. Attend change control boards when appropriate.	YELLOW
Task Item: Communication Management		
QR 1.16	Verify that a [redacted] Communication Plan is created and being followed. Evaluate the communication plans and strategies to verify they support communications and work product sharing between all project stakeholders; and assess if communication plans and strategies are effective, implemented, monitored, and complete.	GREEN
Task Item: Staffing Management		
QR 1.17	Verify that a detailed Project Staffing Plan is documented. Verify that the required skill sets and the clarity of the description of roles and responsibilities are appropriate. Verify that the proposed staffing levels and skill sets in the Project Staffing Plan are appropriate. Monitor ongoing changes in project staffing needs and actual staffing changes to verify that they are consistent with the staffing plan. Monitor and assess the direct involvement of the [redacted] Project Management Organization in the management of the [redacted] Project.	YELLOW

Development Oversight		
Task Item: Requirements Traceability		
QR 2.1	Review and monitor the system traceability plan and processes of system requirements through design, code, test and training, verifying it is complete, being followed, and adheres to industry standards.	YELLOW
Task Item: Technical Review		
QR 2.2	Review and analyze all project system development products, including but not limited to requirements, design, training, and implementation documentation, and vendor developed source code for accuracy, completeness, use of the agreed upon methods and tools, application of formal configuration management and compliance with agreed upon or industry standards.	GREEN
QR 2.3	Verify that requirements and design specifications are well defined and understood by the system's users.	GREEN
Task Item: System Architecture/System Performance/System Capability		
QR 2.4	Evaluate the proposed system architecture, including hardware, licensed software, database, application languages, communications and other critical components to identify potential problems and risks in meeting the anticipated/contractually	YELLOW

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	required performance requirements of the system, but not limited to response time and maintainability.	
QR 2.5	Evaluate performance modeling/capacity planning and related volume and stress testing performed by the project.	YELLOW
Task Item: Testing		
QR 2.6	Monitor test execution and/or participate in test reviews.	YELLOW
QR 2.7	Review and evaluate all test plans, procedures, requirements, environment, tools, and execution for unit, integration, and pilot testing of system modules.	YELLOW
Task Item: System Development Management Process		
QR 2.8	Verify that the project implements appropriate processes for reviewing system development lifecycle products, resolving issues, and determining readiness to proceed from present phase to the next phase of the lifecycle.	YELLOW
Task Item: Interface Design and Development		
QR 2.9	Verify that proposed interfaces with [redacted] utilize appropriate hardware and software to adequately support data conversion and communications between the systems, and that appropriate processes for reviewing interface development are in place.	YELLOW

Implementation Oversight		
Task Item: Implementation Readiness		
QR 3.1	Review and evaluate Implementation Plan.	NOT YET
QR 3.2	Review and evaluate implementation execution against the implementation plan.	NOT YET
QR 3.3	Review and evaluate readiness assessments regarding the Implementation Plan being on schedule and prepared to transition to [redacted]; verify the assessments are being followed.	NOT YET
Task Item: Training		
QR 3.4	Verify User Training mechanisms are planned and executed, and verify they support knowledge transfer to productive use of the new system.	GREEN
QR 3.5	Verify that all training is given on time, and evaluated and monitored for effectiveness, with additional training provided as needed.	GREEN
QR 3.6	Monitor developer-developed training, and review user and maintenance and operations documentation to verify sufficient knowledge transfer for maintenance and operation of the new system.	NOT YET
Task Item: Data Conversion		
QR 3.7	Evaluate the proposed plans, procedures, and software for data conversion. Verify effective data conversion and data cleansing plans and process related to conversion to [redacted] data format are in place and being followed.	YELLOW
Task Item: Interface Testing		
QR 3.8	Evaluate interface testing plans and procedures for compliance with industry standards. Monitor test execution and/or participate in test reviews.	YELLOW

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Operations Oversight		
Task Item: Operational Change Tracking		
QR 4.1	Evaluate [redacted] change request and defect tracking processes.	GREEN
QR 4.2	Evaluate implementation of process activities, determine if processes are effective, and are being followed.	GREEN
Task Item: User Satisfaction		
QR 4.3	Evaluate user satisfaction with [redacted] to determine areas for improvement.	YELLOW
Task Item: Program Goals and Performance		
QR 4.4	Evaluate impact of [redacted] on program goals and performance standards.	NOT YET
Task Item: Plans and Processes		
QR 4.5	Evaluate operational plans and processes.	NOT YET
Task Item: Disaster Recovery		
QR 4.6	Evaluate implementation of the process activities including backup, disaster recovery, and day-to-day operations to verify the processes are being followed. (DR exercise only covered a sub-set of applications outlined in the DR Plan and did not involve [redacted] personnel.)	YELLOW

The objective of this report is to provide a point in time snapshot of the [redacted] Project, identify new findings, and update findings identified in previous reports. The point in time snapshot is a result of the analysis of project artifacts and activities observed from February 1, 2019 through April 30, 2020.

2. Methods of Review

The IV&V methodology is primarily focused on identifying findings, weaknesses, and/or problems that need to be corrected or that do not adhere to industry best practices. However, the [redacted] project is also doing things well and these major strengths or proactive activities are identified in the report. The IV&V Team analyzed each oversight area to determine the application of best practices and to guide the data gathering process. The IV&V Team gathered data from interviews with various project stakeholders, attendance at meetings, and evaluations of project documentation. See Appendix C for a complete listing of these activities.

Our examination is based on both requirements of the contract and industry best practices, including but not limited to the following:

- [redacted] - Project Management Methodology (PMM) Release 2.3
- Project Management Body of Knowledge (PMBOK), Seventh Edition
- Capability Maturity Model Integration (CMMI), Version 2.0
- Information Technology Information Library (ITIL) Version 3.0
- Institute for Electrical and Electronic Engineers (IEEE) 730 2002 QSAP
- IEEE 830-1998
- IEEE 1016-2009
- IEEE 1058-1998
- IEEE 1074-2006
- IEEE 12207.0-1996
- IEEE 12207.1-1997
- IEEE 12207.2-1997

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- IEEE 828-2012
- IEEE 829 1998
- IEEE 1008-1987
- IEEE 1012-2012
- IEEE 1063-2001

There may be instances where [redacted] contractual requirements are met, but the project could nevertheless benefit from the implementation of additional best practices from the above standards. IV&V will specify applicable best practices in our findings and observations as needed.

2.1 IV&V Scoring

The IV&V process rates Task Numbers in four oversight areas (Management, Development, Implementation, and Operations). The process and criteria used for the scoring of overall health areas in Section 1.1 and for scoring of Oversight Area Tasks in Section 1.3.3 are outlined in Appendix A.

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3. Assessment Findings

The IV&V Findings, Recommendations, and assigned Priorities from the observations of the [redacted] project are presented in the remainder of this document. The IV&V Team will track the progress of the [redacted] project in addressing these findings and provide a status update at the end of each Quarterly Review Report. Each finding, sub-finding, and/or recommendation from the Quarterly Report is listed with its appropriate update.

Findings that contain multiple components will be closed when all components are fully addressed.

The IV&V Team assigned a priority to each finding based on an assessment of the degree and probability of impact, the likelihood of occurrence, and the time criticality of the finding in affecting the project. The prioritization criteria are defined in Appendix B.

This section includes newly opened findings, open findings from previous reporting periods, and findings that IV&V has closed during this reporting period. A status of all Findings is maintained in Appendix D. Findings that had been closed in prior reporting periods are located in Appendix E. In addition to findings with their associated recommendations, the IV&V Team has also identified project strengths and other recommendations and observations associated with the [redacted] project.

3.1 Project Management

Observations:

- Overall project late tasks percentage continues to increase (17.03% this quarter vs. 13.43% last quarter). Part of this increase is due to UAT test case creation activities being pushed out later in the schedule closer to actual UAT execution start dates and a new Module 8 schedule, that KDHE agreed to.
- It does not appear that resource availability (both hardware and people) were adequately considered in planning the SIT 2 test case execution burn-down schedule. An example is the number of paper claims remaining and lack of resources (scanner and people) to complete them within the revised SIT 2 schedule.
- BFA functionalities are to be available at staggered times during SIT IT 4 and SIT IT 5, rather than all being available at the start of testing. This makes it a challenge to plan, coordinate, monitor, manage, and report test progress.
- The ability to complete SIT IT 5 testing on schedule is in real jeopardy, given:
  - SIT IT 2 first pass execution has been extended for the third time. Now forecast to complete first pass testing for approximately 2,400 test cases 5 months behind original schedule for a total of 9 months.
  - SIT IT 3 first pass execution of approximately 2,100 test cases has been extended by 2 months for a total of 6 months.
  - SIT IT 4 will have approximately 2,200 test cases (includes approximately 500 MAR/T-MSIS test cases brought forward from SIT IT 5) for execution and is scheduled for 4 months.
  - SIT IT 5 will have approximately 2,000 test cases for execution and is scheduled for 2 ½ months.
- The chart below shows the overlap of SIT IT2, SIT IT3, SIT IT4, UAT IT2, and UAT IT 3 due to delays in completion of SIT IT 2 and SIT IT 3 due to defects and code not available.

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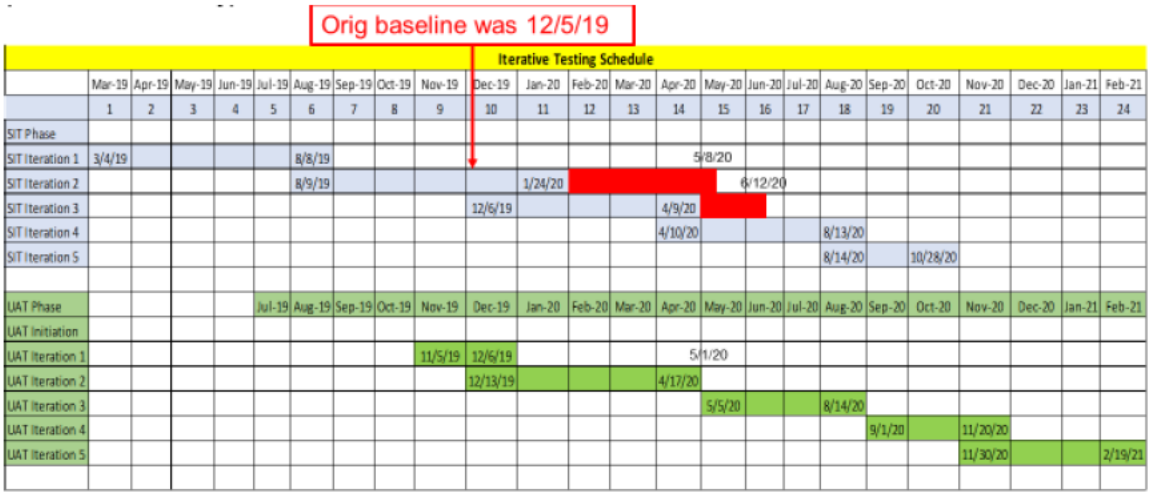

- During the IV&V April 2020 quarterly [redacted] expressed concern regarding the quality of certification artifacts. Examples: It does not appear the author had knowledge of [redacted] Claims processing as the inserted screenshots do not represent the [redacted] process. Steps are missing to show how to resolve the edits. Document information doesn't flow correctly and misses the mark.
- Consider consistent process implementation among module PMs for capturing, reporting and distributing meeting minutes and maintaining action item log/tracker. Some modules capture action items in an action item log; whereas, some capture them in meeting minutes making it more difficult to find and track status on the action items.
- The COVID-19 pandemic has impacted the ability to submit, review, and approve deliverables and implement new functionality in a timely manner. Example: Population health with [redacted] delayed.

Finding Number: F-M-09-02
Finding Name: Need Process and Plan for Transition of Defect Ownership from DDI/Product to Operations
Description: To minimize impacts on Stage 2 design and development activities, a process and plan needs to be in place for the transition of Stage 2 defect analysis and resolution from members of the [redacted] DDI and Product teams to the [redacted] Operations Team. The process needs to define responsibilities and the timeline for transition of responsibilities and activities to the Operations Team based on the number, type, and severity of defects being reported. Remaining defects found in Systems Integration Test (SIT) and User Acceptance Test (UAT) prior to production need to be re-examined for priority and impact, and new defects found after go-live, need to be triaged and prioritized by Production, not DDI. **Risks:** 1. Resource conflicts between Stage 2 defect resolution and Stage 2 design and development. 2. Potential delays in Stage 2 defect resolution impacting business operations.
Recommendation(s)
1. Establish process and plan for transition of defect ownership to Operations Team. 2. Establish DDI and Production defect triage teams with their respective focus and defect triage criteria.

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Reference(s) to Industry Standard			
Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas. Capability Maturity Model Integration for Services (CMMI-SVC) V1.3: Service System Transition (SST) process area.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	30 April 2018
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Progress Observed**
Status Update	**07/31/2018:** [redacted] to verify plan for Stage 1.5 and update as necessary for Stage 2. IV&V will then review. **10/26/2018:** The [redacted] RTM Manager and Implementation Manager will work together to develop iteration 1 of the Go Live plan. IV&V will then review to determine if this finding can be closed. **01/25/2019:** The [redacted] RTM Manager and Implementation Manager will work together to develop iteration 1 of the Go Live plan. IV&V will then review to determine if this finding can be closed. **04/26/2019:** Same status. **07/26/2019:** [redacted] RTM Manager and Implementation Manager will work together to develop iteration 1 of the Integrated Implementation Plan. IV&V will then review to determine if this finding can be closed. **10/31/2019:** Updated Integrated Implementation Plan to be updated first quarter 2020. IV&V will then review to determine if this Finding can be closed. **01/31/2020:** High-level overview of the Integrated Implementation Plan was presented. The updated Integrated Implementation Plan will be submitted the first quarter of 2020. IV&V will then review to determine if this Finding can be closed. **04/30/2020:** The updated Integrated Implementation Plan will be submitted the second quarter of 2020. IV&V will then review to determine if this Finding can be closed.		

Finding Number: F-M-16-01
Finding Name: Capacity Planning to Ensure SIT IT 5 Testing Schedule Can be Met
Description: As Business Function Areas (BFA) and test cases shift to later iterations, capacity to handle those test cases in later iterations needs to be ensured, particularly for SIT IT 5, which runs from 8/14/20 to 10/28/20 (approximately 2 ½ months) compared to SIT IT 3 and 4 , which are 4 months in duration. Additionally, the deferral of test cases and carry over of defects further reduces the capacity of SIT IT 5 to execute new test cases. As shown below, test case counts for SIT IT 4 and 5 continue to increase and with the compressed schedule of SIT 5, the number of test cases will make it very challenging to complete on time.

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Source/Date	SIT IT 3 (4-month duration)	SIT IT 4 (4-month duration)	SIT IT 5 (2 ½-month duration)	Total
[redacted] Dec 2019 Monthly Report	2,294	1,630	1,415	8,346
[redacted] Weekly Status Report 2020.01.06	2,294	1,642	1,431	8,369
[redacted] Weekly Status Report 2020.01.13	2,294	1,699	1,413	8,390
[redacted] Weekly Status Report 2020.01.20	2,297	1,726	1,402	8,400
[redacted] Weekly Status Report 2020.01.27	2,276	1,776	1,490	8,517

Given the actual average test case execution performance rate for SIT IT 2 and 3 through 01/24/2020 of approximately 88 test cases per week, the 1,490 test cases currently in SIT IT 5 would take approximately 16.9 weeks or 3.9 months to complete, exceeding the 2 ½ month period for SIT IT 5.

Risks:

1. Either SIT IT 5 will be extended or required functionality may be missing.
2. Impacts on conduct of UAT IT 4 and 5.
3. Larger number of defects remaining at go-live impacting go-live decision or operations.
4. End-user confidence issues and reliance on legacy system.

Recommendation(s)

1. Complete full analysis of test, resource, and schedule impacts of the slipped completion of SIT IT5 on downstream test iterations and implementation activities.
2. Mature and publish the BFA tracker to include items such as: size, complexity, and impact on number of test cases being deferred.
3. Ensure an accurate listing of functionality to be delivered at the start of SIT IT 5 for each module is provided along with planned dates and plan for functionality that will come some time during the test iteration.
4. Ensure adequate resources are provided to ensure timely remediation of defects to minimize impact on UAT IT 4 and 5 and End-to-End Testing.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas.

Priority	Impact		Finding Origination
Urgent	**Degree**	High	31 January 2020
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**No Progress Observed**

Status Update

01/31/2020: N/A-new finding.

04/30/2020: Test cases have been shifting to later SIT Iterations due to BFA movements, test cases deferred because of code unavailable, and blocked defects with fix dates in future iterations as shown below (with data taken from the "Overall SIT Test Case Design Status" slide of the weekly status reports as shown below:

Date	SIT IT2	SIT IT3	SIT IT 4	SIT IT 5	TOTAL

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12/30/19	2,579	2,294	1,621	1,416	7.910
2/3/20	2,549	2,276	1,799	1,521	8,145
3/2/20	2,442	2,178	1,900	1,606	8,126
3/30/20	2,423	2,098	1,726	1,775	8,448
4/27/20	2,417	2,093	1,653	1,995	8,584
Net Change	-162	-201	+32	+579	+674

As can be seen above, test cases are shifting from SIT IT2 and SIT IT3 to SIT IT4 and SIT IT5. This is compounded by the number of unresolved failed defects that also need to be re-tested in later iterations. In addition, SIT IT5 is only 11 weeks in duration compared to the baseline schedule of 18 weeks for the other SIT iterations. The realistic estimate for the SIT IT 5 test period based on historical data would range between 7.45 months (based on SIT IT2 completing 2,417 test cases in 9 months) and 5.73 months (based on SIT IT3 completing 2,094 test cases in 6 months), rather than the 2 ½ months scheduled. Given the historical test execution performance data, and the fact there are currently 1,995 test cases in SIT IT 5 (as of the 4/27/2020 Weekly Status Report), the number of test cases is likely to grow more, and that several new complex functions are being introduced with SIT IT5, SIT IT 5 is in serious risk of not being able to complete its test cases in the time frame scheduled, putting the project go-live in very serious jeopardy.

Finding Number: F-M-17-01

Finding Name: Inconsistent Software and Test Case Quality

Description: Quality of software and test case deliverables have been inconsistent throughout the project. This has had impacts on ability to complete software deliveries, documentation, defect resolution, and test execution on time. Examples are shown below

- F-M-17-01.a: Quality of Test Cases
  - In March 2020, the [redacted] Quality Assurance (QA) team reviewed 1,020 SIT IT4 test cases and identified 124 issues (12.2%). They also reviewed 451 SIT IT 3 test cases and identified 50 issues (12.0%). The issues found in UAT IT 2 test cases are summarized below:

Module	Design Steps	Requirements	Expected Results	Other	Total
1	46	4	48	8	100
2	17	1			18
3	2	1			3
5 TPL	1				1
5 DR	1				1
7		1			1
Total	57	7	38	8	124

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Details, to include test cases, applicable module, and descriptions of each issue may be found in the [redacted] Monthly QA Report for March 2020.

Similar quality issues with test cases may also be found in the [redacted] Monthly QA Reports for January and February 2020.

- F-M-17-01.b: Quality of Software Delivered for Testing

SIT IT2: Baseline schedule date for completion was 12/05/19. The 12/09/19 Weekly Status Report, the report closest to this baseline finish date, showed the following test case failure rates in SIT IT2. Failure rates above 30% are highlighted in pink. It should also be noted that, on this date, 1,157 of 2,628 test cases had not yet been run, and first pass for SIT IT2 is still not complete as of 04/40/20.

Module	Test Case Failure Rate
CRM	7.0%
CSSP	41.7%
Mod 2	24.2%
Mod 5 DR	12.5%
Mod 5 TPL	0%
Mod 6	51.6%
Mod 7	36.0%
Mod 9 UI	4.2%
Overall	21.7%

SIT IT3: Baseline schedule date for completion was 04/09/20. The 04/13/20 Weekly Status Report, the report closest to this baseline finish date, showed the following test case failure rates in SIT IT3. Failure rates above 30% are highlighted in pink. It should also be noted that, on this date, 79 of 2,362 test cases had not yet been run and 292 test cases were blocked due to defects. SIT IT 3 is still not complete as of 04/30/20.

Module	Test Case Failure Rate
CRM	2.0%
CSSP	35.1%
Mod 2	12.1%
Mod 3	17.3%
Mod 4	55.8%
Mod 5 DR	42.4%
Mod 5 FIN	6.3%
Mod 5 TPL	29.7%
Mod 6	4.2%
Mod 7	38.9%
Mod 9 UI	12.7%
Overall	23.5%

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SIT IT4: SIT IT 4 began on 04/10/20 and is scheduled for completion on 08/13/20. The 04/27/20 Weekly Status Report, showing the first two weeks of testing, showed the following test case failure rates in SIT IT4. Failure rates above 30% are highlighted in pink. It should also be noted that, as of this date, 1.033 of 2,199 test cases had not yet been run and another 771 test cases were blocked (176 due to defects and 595 from code not being available).

Module	Test Case Failure Rate
CRM	12.7%
CSSP	56.3%
Mod 2	26.3%
Mod 3	44.8%
Mod 5 DR	25.9%
Mod 5 FIN	All 128 test cases blocked
Mod 5 MAR/T-MSIS	64.0%
Mod 5 TPL	33.3%
Mod 6	All 131 test cases blocked
Mod 7	42.9%
Mod 9 UI	12.5%
Overall	37.2%

UAT IT1: Baseline schedule date for completion was 12/06/19. The 12/09/19 Weekly Status Report, the report closest to this baseline finish date, showed the following test case failure rates [redacted] in UAT IT 1. Failure rates above 30% are highlighted in pink.

Module	Test Case Failure Rate
CRM	12.5%
CSSP	57.1%
Mod 2	25.0%
Mod 5 TPL	18.2%
Mod 6	38.5%
Mod 7	28.8%
Overall	30.4%

UAT IT2: Baseline schedule date for completion is 05/01/20. The 04/27/20 Weekly Status Report, the report closest to this baseline finish date, showed the following test case failure rates in UAT IT2. Failure rates above 30% are highlighted in pink. It should also be noted that, on this date, 30 of 838 test cases had not yet been run and 87 test cases were blocked (64 due to defects and 23 due to incorrect or not available test data[redacted]
SIT IT 3 was not complete as of 04/30/20.

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Module	Test Case Failure Rate		
	[redacted]	[redacted]	Combined
CRM	33.3%	8.3	11.4
CSSP	42.4%	----	----
Mod 2	25.1%	15.4%	24.2%
Mod 5 DR	0%	----	----
Mod 5 TPL	15.4%	----	----
Mod 6	57.1%	----	----
Mod 7	61.4%	11.8%	50.0%
Overall	31.6%	12.5	29.1%

Risks:

1. Schedule impacts due to low quality and needed re-work.
2. Operational impacts due to reduced or incorrect functionality and increased work arounds.

Recommendation(s)

1. Enhance peer review process to involve appropriate reviewers, identify defects and correct them as early as possible.
2. Enhance unit and smoke testing processes with established exit criteria.
3. Implement and enforce acceptance criteria for accepting software into SIT.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN), Peer Review (PR), Product Integration (PI), Verification & Validation (VV), and Service Delivery and Management (SDM) practice areas.

Priority	Impact		Finding Origination
Urgent	Degree	High	30 April 2020
	Probability	High	Progress Indicator
	Time Criticality	Immediate	N/A
Status Update	New finding.		

Finding Number: F-M-17-02

Finding Name: Lack of Progress in Defect Resolution and Management

Description: Established defect resolution timelines have not been met on the project. The [redacted] schedule was based on a 16-day average defect resolution time, which has hovered in the 29 to 30-day range for the last six months, despite the addition of development and test staff to improve defect resolution turn-around.

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In addition, the Defect Management Index (DMI), a measure of the number of defects closed versus the number of defect open has been in the 56-72% range during the last six months. The DMI is dependent upon the ability to close defects as well as the quality of software (the introduction of defects).

Emphasis needs to be placed on timely triage, resolution, and re-test of defects and on improving the quality of software deliverables.

As of 04/30/2020, Defect aging for open defects is as shown below: Defect aging in excess of 30 days are highlighted in red font.

Team/Severity	Count of Defect ID	Average Age
AVRS	**15**	**31.93**
2-Major: No Workaround	1	8.00
4-Minor	13	32.46
5-Cosmetic	1	49.00
CRM	**8**	**21.63**
2-Major: No Workaround	1	107.00
4-Minor	7	9.43
DDI	**201**	**29.80**
2-Major: No Workaround	78	25.82
3-Major: With Workaround	18	17.28
4-Minor	95	34.67
5-Cosmetic	10	37.00
Product	**105**	**56.49**
2-Major: No Workaround	50	43.16
3-Major: With Workaround	11	51.27
4-Minor	34	70.97
5-Cosmetic	10	79.60
UI	**33**	**42.64**
2-Major: No Workaround	13	39.00
3-Major: With Workaround	1	11.00
4-Minor	15	45.33
5-Cosmetic	4	52.25
Grand Total	**362**	**38.62**

Risks:

1. Inability to keep up with defects, resolve them in a timely manner, and keep them from rolling over into later test iterations, resulting in schedule impacts.
2. Delayed go-live with significant number of defects still unresolved.
3. Operational impacts due to reduced or incorrectly working functionality and increased work arounds.
4. External stakeholders/users (MCOs, [redacted] Providers, etc.) resistant to adopting use of [redacted].

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Recommendation(s)			
1. Enhance defect triage, defect resolution, and defect re-test processes and include all applicable stakeholders.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN), Verification & Validation (VV), and Service Delivery and Management (SDM) practice areas.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	30 April 2020
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**N/A**
Status Update	New finding.		

Finding Number: F-M-17-03

Finding Name: Overallocation of Resources in Project Schedules

Description: Resources are overallocated in project schedules putting achievement of schedule activities and milestones based on these overallocations in jeopardy of being met on time.

The tables below show individual resource over-allocations (% in excess of 100% allocation) for each of the project schedules based on 04/30/20 schedules showing actuals as of 04/24/20. Overallocation up to 50% may be acceptable, but many overallocations exceed 100%, 200%, or even 1,000-2000%, which is not physically possible given that 24hrs/day x 7 days/ wk = 168 hrs, which is 320% overallocation based on 40 hrs/week. Resources are shown by labor category or by initials for their names.

[redacted] Certification Project Plan

		Overallocation								
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
1	Account Operations Mgr			108%	8%					
2	Tech Writer						143%			
3	PM			9%						
4	TFAL			9%			115%			
5	LE	1050%			14%	105%			30%	
6	TS	3000%	11%	112%	200%	151%	199%	622%	90%	66%

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[redacted] Stage 2 Data Conversion Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	BE	120%	29%	166%			
2	MC	101%	29%	63%	33%		
3	PS			66%	103%		
4	SS	101%	29%	63%	36%		
5	DR	214%	157%	230%	130%	51%	51%
6	PT	201%	129%	163%	190%	51%	51%
7	DG	71%					
8	CM	153%	52%	103%	60%		
9	JMC	124%		3%	17%		
10	JS	100%	100%	114%	114%	100%	

[redacted] Stage 2 Communication Project Plan

		Overallocation	
#	Resource	Q2 2020	Q3 2020
1	JM	152%	

[redacted] Stage 2 – Mod 9 UI- Implementation Project Plan

		Overallocation		
#	Resource	Q2 2020	Q3 2020	Q4 2020
1	RV	169%	67%	
2	RRB	53%	10%	10%
3	MC	100%	156%	33%
4	AK	137%	33%	33%
5	SR	123%	22%	
6	JH	200%		
7	RK	529%		
8	MV	300%	100%	100%
9	RK-1	167%		
10	VE	313%		
11	AKD	69%	50%	33%
12	RE	21%	33%	33%

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[redacted] Stage 2 Mod 1 Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
1	AG		28%			
2	ANJ	63%	61%			
3	IF	86%	100%			
4	LON	91%	203%	107%	11%	
5	RP		39%			
6	SG	51%	163%	10%		
7	SKG	82%	135%			
8	MZ	57%	46%			
9	IKR	246%				

[redacted] Stage 2 Mod 4 Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
2	TP	39%	284%	123%		
3	RRR	121%	132%	8%	3%	
4	RRB	458%	119%			
5	SBN	362%	110%	14%		39%
6	SN	417%	150%			
8	NP	20%				

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[redacted] Stage 2 Implementation Project Plan

		Overallocation								
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
1	TS	2956%	11%	112%	200%	151%	199%	622%	90%	66%
2	LE	970%			14%	105%			30%	
3	TFAL			9%			115%			
4	PM			9%						
5	Tech Writer						143%			
6	AO			108%	8%					
7	M1 BA						22%			
8	KB						914%			
9	UG						100%			
10	M4 SAS PI Case Management						118%			
11	Portals TFAL-Sr Developer						100%			
12	DR						100%			
13	M2 TFAL						19%			
14	Product Developer						28%			
15	M1 TFAL						100%			
16	M4 SAS PI TFAL						100%			
17	Member TFAL						100%			
18	Member Developer Member UI						28%			
19	Member Developer LTC						28%			
20	Member Developer EPSDT						28%			
21	Member Adv BA						22%			
22	MC Adv BA						42%			
23	Drug Rebate Developer						28%			
24	TPL Developer						28%			
25	Claims Developer Batch Interfaces						28%			
26	Claims Adv Dev Batch Pharmacy Gap						28%			
27	Claims Adv Dev Batch Gap						19%			
28	Claims Adv BA Pharmacy						28%			
29	Claims Adv BA Edits/Audits						28%			
30	EDMS Developer						28%			
31	Correspondence Developer						28%			
32	Connect Adv Developer						28%			
33	Portal Developer						128%			
34	Remittance Advice Adv Developer						28%			
35	KK						238%			
36	Account Business Analyst						400%			
37	Account Manager						1100%			
38	Account Operations Mgr						1400%			

[redacted] Stage 2 Mod 3 Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
1	BK (KJ)	92%	105%			
2	TB	134%	204%	3%	100%	153%
3	VT	481%	125%		18%	40%
4	RM	141%				73%

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[redacted] Stage 2 Mod 2 Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
1	R	114%	26%	14%	100%	47%
2	MM	44%	325%	103%	114%	105%
3	MS	150%	184%	167%	167%	167%
4	SRVN	146%	33%	33%		
5	MU	791%	114%	118%	183%	188%
6	SKD	80%	82%	103%	93%	200%
7	DD	160%	112%	80%		
8	BC	240%	117%	43%	14%	
9	CC	63%	78%	14%	47%	
10	MSP	340%	95%	6%	3%	
11	PG	506%		41%		
12	MM-1	137%	95%	28%		
13	RKN	115%				

[redacted] Stage 2 Mod 5 Dashboard Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
1	SK	85%	36%			
2	JF	366%	61%			
3	VM	12%	21%	32%		
4	DA	76%				
5	VP	1482%	2%	4%		
6	SA	154%				
7	JP	143%				
8	TR	73%				
9	AG	57%	51%			
10	RC	13%				

[redacted] Stage 2 Mod 5 DR Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
1	CP	198%	118%	135%	4%	45%
2	AM	119%	102%	104%	71%	126%
3	RM	63%	157%	67%	63%	160%

[redacted] Stage 2 Mod 5 MAR-TMSIS Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	FB	181%	143%	147%	13%	12%	
2	WG	154%	35%	39%	39%	35%	
3	MAR/T-MSIS Resource 4		8%				

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[redacted] Stage 2 Mod 5 Financial Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	AM	694%	391%	29%	39%	58%	58%
2	BH	171%	107%				
3	MS	543%	119%				
4	KS	524%	169%	129%	175%	138%	138%
5	R	104%	122%				
6	AS	712%	86%	105%		19%	19%
7	TT	539%	216%	188%	10%	138%	138%
8	NK	164%	98%				
9	MK	143%					
10	SC	375%	160%	93%		138%	138%
11	UG	147%	159%	53%	100%	39%	33%
12	CH	330%	117%	13%		19%	19%
13	EW	155%	75%				
14	VR	82%	122%				
15	RR	115%	62%				
16	EL	51%	80%				
17	MC	50%	80%				

[redacted] Stage 2 Mod 5 TPL Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	IJ	487%	86%		47%	53%	
2	AG	375%	114%				
3	LK	20%	3%	5%	5%	3%	

[redacted] Stage 2 Mod 6 Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	RL	133%	189%	263%			
2	MW	266%	188%	333%			
4	LK	20%	4%	13%	10%	7%	
5	AH	242%	266%	212%		4%	4%

[redacted] Stage 2 Mod 8 Implementation Project Plan

#	Resource	Overallocation					
		Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	R	193%	89%	110%	115%	32%	
2	BP	197%	111%	18%	185%	11%	
3	SC	250%			14%		
4	DPR	458%					
5	AB	212%					
6	VC	273%	65%	72%	41%	53%	31%

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[redacted] Stage 2 Mod 7 Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	JV	1600%	479%	554%	425%	396%	
2	LB	1400%	418%	421%	400%	325%	
3	MH	1000%	493%	468%	426%	396%	
4	RK	802%	516%	425%	400%	325%	
5	VM	523%	193%	100%	100%	25%	
6	MCV	1800%	225%	121%	100%	25%	
7	NJ	373%	109%	11%	200%	26%	
8	LB-1	6%	31%	8%	100%		
9	NS	1100%	424%	427%	402%	360%	
10	SM	270%	136%	100%	100%	25%	
11	TE	771%	209%	103%	100%	25%	
12	UG		305%		100%		
13	AK	420%	50%				
14	AN	332%	153%	100%	100%	25%	
15	CO	317%	107%	100%	100%	25%	
16	DC	490%	489%	467%	450%	384%	
17	NZ	17%					
18	ME	56%					
19	JS	343%	126%				

[redacted] Stage 2 Test Case Creation Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	PC	100%	17%				
2	MS	138%					
3	PS	34%					
4	MM	156%					
5	RD	149%					
6	AKP	141%					
7	BK	100%					
8	MP	27%					
9	SV	67%					
10	SF	10%					
11	RR	20%	17%				
12	KK	25%	4%				
13	S	4%					
14	NS	54%					
15	S-1	54%					
16	GS	4%					

[redacted] Stage 2 Mod 9 SD-OXI Implementation Project Plan

		Overallocation				
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
1	HS	128%	456%	9%	8%	
2	JH	119%	679%	9%	170%	16%
3	FRH	90%	761%	5%	23%	
4	GG	11%		5%	23%	
5	TG	201%				
6	JA	188%				
7	MS	200%	300%	100%	200%	100%

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[redacted] Stage 2 Mod 9 Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	CK	247%	266%				
2	NM	232%	119%				
3	JP	373%	231%	733%	42%		
4	RS	311%					
5	MG	18%	123%	100%	100%	100%	
6	TJ	292%	142%	158%	23%	109%	
7	JP		37%	30%			
8	AO	134%					
9	VG	379%	302%	176%	16%	17%	
10	RR	1250%	197%	113%	117%		
11	RL	200%	123%	100%	200%	100%	
12	GK	56%	175%	169%	70%	20%	
13	SP	175%					
14	BBP	728%	50%				
15	RM	316%	592%				
16	NM	1270%	135%	26%			
17	EH	112%	57%	73%			
18	DC	156%	297%	44%	21%	17%	
19	MP	261%	623%				
20	MM	200%					
21	SV	223%					
22	SA	135%					
23	S	1800%	811%				
24	MJ	106%					
25	DB	292%	97%	106%	105%	99%	
26	SK	126%	73%	271%	142%	1%	
27	RN	471%	357%				
28	SM	147%	21%	242%			
29	JN	331%	14%	43%	15%	15%	
30	KK	351%	23%	61%	29%	25%	
31	MR	26%	7%	11%	7%	7%	

[redacted] Stage 2 Test Case Creation UAT Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	15UAT Tester	14%	14%				
2	16UAT Tester	86%					
3	19UAT Tester	200%					
4	26UAT Tester	200%					
5	27UAT Tester	43%	43%				
6	28UAT Tester	43%	43%				
7	DE			43%			
8	AP			49%			
9	SA			71%			
10	BP			55%			

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[redacted] Stage 2 Test Case Execution Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	RD	423%	152%	140%			
2	MM	551%	166%	797%			
3	AKR	112%	67%	945%			
4	AKP	458%	133%	945%			
5	AV	348%	195%	939%			
6	EM	65%	29%				
7	SM	3650%					
8	NV	130%					
9	BK	3650%					
10	M	75%					
11	DP	85%					
12	M-1	563%	236%	47%			
13	S	138%	218%	47%			
14	3Tester	103%	24%				
15	A	151%		96%			
16	A-1	66%	128%				
17	S-1	107%					
18	S-2	252%	54%	62%			
19	S-3	861%	135%	69%			
20	V	203%	54%	62%			
21	K	361%	30%	118%			
22	P	154%		74%			
23	IG	131%					
24	SF	400%					
25	S-4	196%	17%				
26	A-2	341%	45%	3%			
27	JG	37%	3%	81%			
28	KK	86%	108%	36%			
29	RR	325%	61%	182%			
30	2Tester	102%					
31	4Tester	102%					
32	5Tester	125%	41%				
33	6Tester		128%	41%			
34	22Tester			76%			
35	8Tester		22%	158%			
36	9Tester		22%	158%			
37	10Tester		22%	158%			
38	A-3	175%	165%				
39	11Tester		30%	81%			
40	12Tester		9%	81%			
41	13Tester		13%	81%			
42	14Tester		14%				
43	15Tester			41%			
44	16Tester			41%			
45	17Tester			41%			
46	7Tester		54%	41%			
47	19Tester		21%				

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		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
48	PR	131%	202%	11%			
49	20Tester			52%			
50	21Tester			52%			
51	SB		155%				
52	RP		155%				
53	KKP		147%				
54	S-5	64%	16%				
55	HK	94%	4%				
56	PC	830%	63%				
57	A-4	93%	47%				
58	VK	900%	265%				
59	S-6	182%	74%				
60	C	54%	144%	118%			
61	N	124%	144%	118%			
62	R	145%	183%	118%			
63	NS	656%	18%				
64	MR	94%	4%				
65	MD	94%	4%				
66	PB	94%	4%				
67	VB	887%	10%				
68	SS	187%	24%				
69	SP	234%	6%				
70	JS	5%	117%				
71	RA	2%	117%				
72	SS-1	1000%	13%				
73	SR	168%					
74	KP	105%	141%				
75	P	140%					
76	R-1	526%					
77	P-1	188%	26%				
78	RG	111%	94%				
79	CPS	163%	118%				
80	P-2	115%	117%				
81	A-5		115%				
82	MK		152%				
83	S-7	269%					
84	V		119%				
85	M		117%				
86	S-8		117%				
87	P-3		113%				
88	S-9		181%				
89	K		118%				
90	S-10	66%	117%				
91	P-4		111%				
92	M-1	300%	100%				
93	VR	300%	100%				

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[redacted] Stage 2 Test Case Execution UAT Implementation Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	DE	242%	11%		86%		
2	JB	619%	363%	152%	78%		
3	SW	113%	11%		42%		
4	VZ	349%	56%	96%	102%		
5	CH	354%	153%	51%	185%		
6	JG	243%	71%	21%	185%		
7	PS	107%	71%	161%	48%		
8	AM	88%	37%	19%	48%		
9	CC	134%		105%	48%		
10	SO	200%		19%	19%		
11	SA	106%		104%	4%		
12	AP	116%	19%	117%	17%		
13	TD			117%	43%		
14	15Tester			26%	56%		
15	16Tester	5%	16%	26%	56%		
16	17Tester	17%	16%	22%	22%		
17	OC	337%			82%		
18	18Tester	17%	16%	22%	97%		
19	KKP	11%	11%	11%	11%		
20	PS	11%					
21	RN		24%				
22	VJ	9%					
23	VJ-1	69%					
24	SR	100%					
25	LO	30%					
26	PK	59%					
27	BS	69%	200%				
28	LH	50%					

[redacted] Stage 2 Training Project Plan

		Overallocation					
#	Resource	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
1	LC		54%		6%		
2	AR	1950%		16%	17%	332%	
3	MR	22%			32%	4%	
4	TG	230%	197%	67%	204%	355%	
5	TA	64%		3%	3%		
6	MO	1750%	4%	14%	24%	25%	
7	TW	329%	4%	114%			
8	MD	700%	4%	114%			
9	JB	707%	4%	14%			
10	TG	178%	4%	14%			

It should be noted that several resources are overallocated in more than one project schedule, resulting in a compounded impact for those resources.

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Risks:			
1. Inability to accomplish tasks and meet project schedules. 2. Competing priorities for resources overallocated among several project schedules. 3. Compromised work quality due to overloaded resources.			
Recommendation(s)			
1. Resolve resource overallocations and conduct resource leveling to establish realistic project schedule. 2. Realign task priorities based on resource availability. 3. Consider automation of activities where appropriate, such as regression testing, etc.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN), Estimation (EST), Monitor and Control (MC), and Service Delivery and Management (SDM) practice areas.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	30 April 2020
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**N/A**
Status Update	New finding.		

3.2 User Involvement

Observations:

- [redacted] and other affected parties should participate in the annual DR exercise.

3.3 Project Organization/Staffing

Observations:

- Assign a Configuration Manager role to oversee and manage configuration issues in areas such as environments (within and across), deployment, web services (pointed to correct sources and targets), and solutions/system configurations (such as table references, etc.).
- Key staff turnover at this stage of the project may have critical impacts on project schedule. (e.g. [redacted] Project Manager, PIUM and Mod 5 InSight Dashboard; and UAT Manager. [redacted] Managed Care Team Lead, and Mod 5 TPL and Interim Provider Team Lead)
- Current staffing levels with the Product, Operations, and DDI teams do not appear to be adequate to be able to produce quality code on time, develop and execute test cases, complete integrations, resolve defects, and design and implement required change orders on schedule and in a timely manner. Examples are the lack of Operations resources to support testing of paper claims, and Product and DDI staff to develop quality code and resolve defects in a timely manner.

3.4 Technology/Technical

Observations:

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- Synchronization of environment configurations remains a challenge. For example, UAT-C was pointing to wrong webservice that had not been reconfigured after SIT.
- Security Management Plan, Role Based Access Controls (RBAC) settings, Configuration Management Plan, DR/COOP Plans, and ServiceNow (Inventory of servers, services, and tools) should be updated regularly on a defined schedule.
- As [redacted] are working to create an RBAC baseline to be tested starting with UAT 3, the following should be considered:
  - User permission gaps in legacy should be reviewed to avoid them being inherited in Stage 2 RBAC.
  - Roles need to have appropriate levels of permissions in the system to perform their job functions and do not have extra permissions that their function does not need.
  - To support RBAC scalability, a pre-defined strategy/approach is needed to ensure that a user belonging to multiple roles does not their permissions changed or impacted by other roles.
- Need to share formal documentation with [redacted] about how various environments (UAT, Production like, and Production) are planned for capacity and scalability to meet [redacted] current and future needs.
- Conversion run time using Java Script Object Notation (JSON) files is taking much longer than expected. Slides added to [redacted] Weekly Status Report need to actually include action items planned to reduce conversion run times for each module, as appropriate.
  - Consider clearly identifying data conversion tasks within [redacted] Stage 2 Test Case Execution Implementation Project Plan to identify dependencies to assist in critical path.

3.5 Project Scope

Observations:

- Amendment 6 to the DDI contract incorporated a range of Change Orders (COs) and allowed for an additional 5,237 hrs. of Change Requests (CRs). As of April 27.2020, nine individual modules and the overall scope are red based on remaining CR hours exceeding individual module allocations and the 5,237-hour overall allocation by 2,060 hours.
- Approximately 28% of the requirements are non-functional and need to have appropriate evidence defined to show they have been satisfied.
- Module 8 Data Warehouse underwent a re-planning exercise, partly due to expanded scope.
- BFA core functionality is still being updated due to continued influx of change requests from KDHE and feedback from product walkthroughs. This is scheduled to complete in mid-August 2020.
- The chart below shows the increase in BFAs in SIT IT4 and SIT IT 5 from 03/05/20 to 04/08/20. This increase has impacts on completion of design documents, test planning and test cases, test execution, integrations and interfaces, and training documents, putting a huge strain on the schedule.

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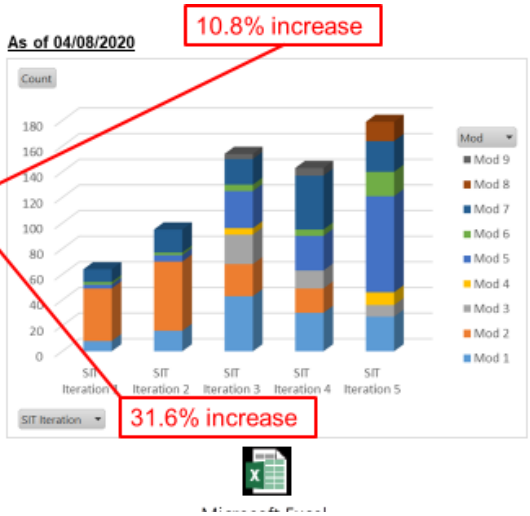
As of 04/08/2020

Row Labels	Mod 1	Mod 2	Mod 3	Mod 4	Mod 5	Mod 6	Mod 7	Mod 8	Mod 9	Total
SIT Iteration 1	8	41			3	2	10			64
SIT Iteration 2	16	54			5	2	18			95
SIT Iteration 3	43	25	23	5	29	5	20		4	154
SIT Iteration 4	30	19	14		27	5	42		6	143
SIT Iteration 5	27		9	10	75	19	24	15		179
Total	124	139	46	15	139	33	114	15	10	635

As of 03/05/2020

Row Labels	Mod 1	Mod 2	Mod 3	Mod 4	Mod 5	Mod 6	Mod 7	Mod 8	Mod 9	Total
SIT Iteration 1	8	41			3	2	10			64
SIT Iteration 2	16	54			5	2	18			95
SIT Iteration 3	44	25	23	5	29	5	23		4	158
SIT Iteration 4	29	8	13		28	6	33	7	5	129
SIT Iteration 5	15		9	10	73	18	3	8		136
Total	112	128	45	15	138	33	87	15	9	582



- Consider identifying/categorizing BFA's according to the origin of their sources such as CR's for [redacted] Request, CR's for Design Clarification/Refinement, CR's for Requirement Clarification/Refinement, CR's for Product, etc.

3.6 Project Oversight

Observations:

- Although late task percentages are being reported, the degree of impact, percentage of work incomplete, corrective actions needed, and trending of late tasks are not tracked or reported in the weekly status report, Joint PMO, or Team Leads meetings.
- Given the continued challenges with document quality (both payment-based contractual deliverables and non-payment-based documents), an emphasis should be placed on oversight of this quality control function.

3.7 Business Impact

Observations:

- The business impact (resource requirements and manhours) of satisfying Federal reporting requirements using the [redacted] need to be determined versus what those needs are under the current MMIS.
- In its *Medicaid Management Information System (MMIS) Re-procurement RFP*, [redacted] stated it plans to achieve a MITA maturity level 3 for seven (7) of the MITA Business Areas within the first thirty-six (36) months of the contract and continue to achieve higher maturity levels throughout the contract term. It is not evident there has been any interim assessments or reporting of progress toward these goals.
- Business performance goals and objectives need to be defined, collected, and reported for [redacted].

3.8 Cost-Benefit

Observations:

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- Identify indirect cost of identified workarounds for defects to business operations.
- Daily system performance information automatically generated for [redacted] staff needs to be analyzed to determine costs and benefits of [redacted].

3.9 Project Implementation

Observations:

- A report content and data validation process needs to be established with defined roles for the MAR and Federal reports, such as the CMS 64. This presents a challenge as some existing reports may not be accurate.
- Synchronization of environment configurations (both environment set-up and deployment) remains an area of high concern.
- SIT appears to be using a siloed approach in that interface files are being manually created and processed rather than using the automated interface process between modules.
- Mod 2 Claims policy parallel testing is testing the pricing engine and not the full modular functionality.
- Defect resolution time continues to exceed the 16 days which went into test planning. It is currently about 30 days.
- Defect resolution has not kept pace with defect detection, so the number of open defects continues to increase. This is reflected by the Defect Management Index (DMI) of less than 80%. The longer than planned time to resolve defects and defect resolution not keeping pace with defect detection may impact downstream testing and product quality.
- Consider populating the Defect Category under the Root Cause field in ALM at time of triage (rather than at time of closing the defect) and including in management reports to [redacted].
- Need to assess impact of existing work arounds on operations due to defects on Stage 2
- SIT IT2 first pass execution did not meet its re-planned completion date of 01/24/2020 and is now scheduled to complete 5/8/2020, approximately five months behind its baseline schedule date of 12/05/2019.
- [redacted] needs to plan how external files/interfaces are going to be tested and verified during end-to-end testing.
- [redacted] has little line of sight into integration and interface defects.
- Consider expanding both SIT and UAT defect triage team composition to include representation from [redacted] Operations, [redacted] Product, [redacted] DDI, [redacted] Testing, [redacted] Testing, [redacted] Technical, etc.
- Stage 1 showed that data cleanup was a much larger data conversion effort than planned. Stage 2 has adopted incremental data migrations and data loads; this creates unique challenges or risks that need to be accounted for such as:
    - Rowversion columns need to be added in every table
    - Last rowversion value needs to be preserved for every migrated table
    - Insert or update operation, the values in CreatedOn & ModifiedOn columns must be updated along with other set of columns of respective table
    - In case of a heavy transactional database (such as Mod 2 Claims), change data capture will shoot up memory utilization by the database due to redundant record logging
    - Overhead to maintain the distributor
- [redacted] operations may not be thoroughly reviewing test cases prior to sending to [redacted] for review. For example, claims test cases that were cancelled should have been caught by Operations.

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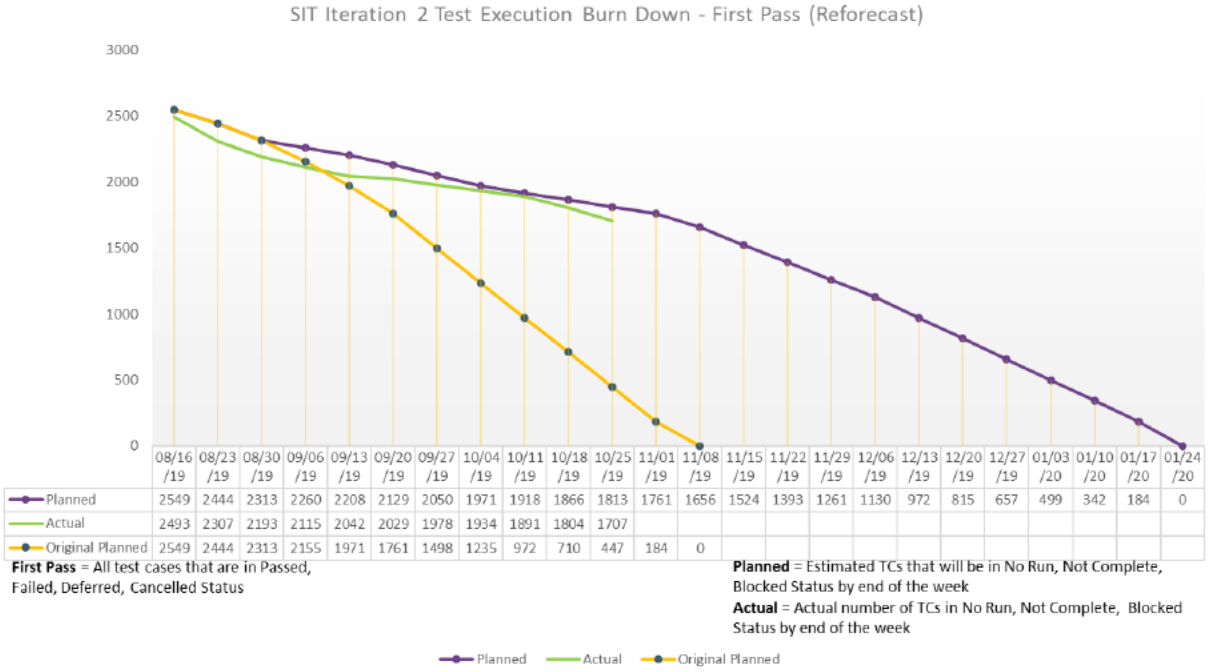
- [redacted] to consider reviewing UAT IT 3 TCs review comment log to analyze and group comments in common themes to develop an approach to mitigate in future UAT TCs.

Finding Number: F-PI-15-01

Finding Name: Downstream Impacts of Late Completion of SIT IT 2 Test Execution

Description: SIT IT 2 test execution is well behind schedule with seven defects blocking the ability to execute 651 test cases. Three of these defects were open a month ago on 9/25/19. The baseline schedule has SIT IT 2 completing on 11/08/2019. As of 10/25/2019, the baseline schedule and associated burn-down called for only 447 test cases remaining to be executed. Actual test execution has 1,707 test cases remaining. [redacted] has laid out a new test case execution burn-down schedule (shown below), which has SIT 2 execution completing on 01/24/2019, or 2 ½ months behind the baseline schedule.



	08/16/19	08/23/19	08/30/19	09/06/19	09/13/19	09/20/19	09/27/19	10/04/19	10/11/19	10/18/19	10/25/19	11/01/19	11/08/19	11/15/19	11/22/19	11/29/19	12/06/19	12/13/19	12/20/19	12/27/19	01/03/20	01/10/20	01/17/20	01/24/20
Planned	2549	2444	2313	2260	2208	2129	2050	1971	1918	1866	1813	1761	1656	1524	1393	1261	1130	972	815	657	499	342	184	0
Actual	2493	2307	2193	2115	2042	2029	1978	1934	1891	1804	1707													
Original Planned	2549	2444	2313	2155	1971	1761	1498	1235	972	710	447	184	0											

The testing iterations were set up to allow for the delivery and testing of certain functionality as it became available for testing in SIT before testing in the subsequent SIT and UAT iterations. This slip in SIT 2 completion needs to be analyzed for impacts on downstream testing as SIT 2 will now overlap SIT 3, UAT 1, and UAT 2, as shown below.

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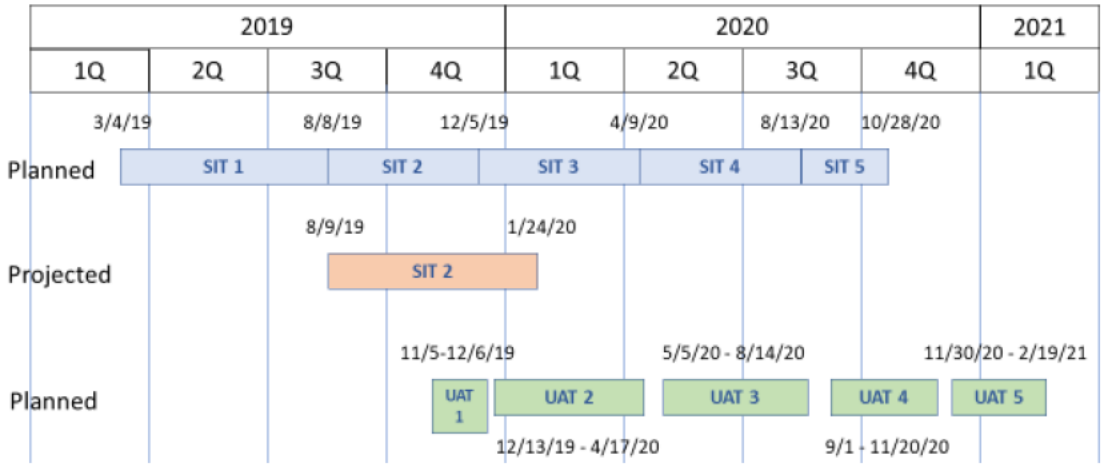

Risks:

1. Resource conflicts between SIT IT 2, UAT IT1, SIT IT3, and UAT IT2.
2. Incomplete testing in SIT IT 2 before starting UAT IT 2 may result in increased number of defects found in UAT further slowing down defect triage and resolution impacting downstream test execution.
3. Impacts on the ability to test planned functionality in downstream test iterations (SIT and UAT).
4. Slips to downstream test iterations with potential impact on Stage 2 go-live date.

Recommendation(s)

1. Complete full analysis of test, resource, and schedule impacts of the slipped completion of SIT IT2 on downstream test and implementation activities.
2. Provide a plan to go forward to ensure SIT iterations do not overlap their respective UAT iterations.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas.

Priority	Impact		Finding Origination
Urgent	**Degree**	High	31 October 2019
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Progress Observed**
Status Update	**01/31/2020:** [redacted] added 15 additional test resources to facilitate SIT IT 2 test execution and defect resolution; however, SIT 2 test execution still did not meet the revised completion schedule of 01/24/20 and there has been no significant difference in defect resolution times. SIT IT 2 test case burn-down through 01/24/2020, with 401 test cases remaining, is shown below:		

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The breakdown of the remaining 401 test cases is shown below.

Total Number of test cases remaining in ALM		**401**
TCs Pending Cancellation		95
Remaining TCs to be executed		**306**
TCs Blocked with Defects		184
Less than 1 week's worth.		
Remaining TCs that can be executed		**122**
Paper Claims — Dependent on [redacted] Operations.		76
Other TCs under execution		46
TCs with known Fix Dates	34.2%	63
TCs without known Fix Dates	65.8%	121

It appears that SIT IT 2 first pass execution will extend well beyond the re-planned finish date of 1/24/2020, making the overlap with SIT IT 3 and UAT IT 2 even greater. It also does not appear that availability of Operational staff and scanning hardware for execution of paper claims was adequately factored into the estimation of the SIT IT 2 test period.

The overlap of SIT IT 2 with SIT 3 and UAT 2 may be a contributing factor in the failure rates being seen in SIT 3 and UAT 2, since certain functionality and subsequent defect resolution (if needed) was not able to happen in SIT IT 2 prior to execution in SIT 3 and UAT 2.

IV&V will continue to monitor for additional impacts.

04/30/2020: As of the April 27, 2020 Weekly Status Report, these failure rates have improved and are now:

- CSSP: 36.1%

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- Mod 2: 9.1%
- DR: 0%
- Mod 6: 11.5%
- Mod 7: 13.4%
- Overall: 9.7%

SIT IT 2 is now not planned to complete first pass testing until 5/8/20, 15 weeks beyond the 1/24/20 re-planned date, and 21 weeks (5 months) beyond the original 12/05/19 baseline date. The April 27, 2020 Weekly Status Report shows the project has 91 test cases left to be executed, 37 test cases behind schedule to meet the new 5/8/20 SIT IT 2 first pass completion date. Of the remaining 91 test cases, 47 are blocked, leaving 44 test cases which can be executed. SIT IT 2 now overlaps SIT IT3, SIT IT4, UAT IT2, and the very start of UAT IT3, as shown below:

Orig baseline was 12/5/19

Iterative Testing Schedule

	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SIT Phase																								
SIT Iteration 1	3/4/19					8/8/19									5/8/20									
SIT Iteration 2						8/9/19					1/24/20					6/12/20								
SIT Iteration 3										12/6/19				4/9/20										
SIT Iteration 4														4/10/20				8/13/20						
SIT Iteration 5																		8/14/20		10/28/20				
UAT Phase					Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
UAT Initiation																								
UAT Iteration 1									11/5/19	12/6/19				5/1/20										
UAT Iteration 2										12/13/19				4/17/20										
UAT Iteration 3															5/5/20			8/14/20						
UAT Iteration 4																			9/1/20		11/20/20			
UAT Iteration 5																					11/30/20			2/19/21

[redacted] has implemented some mitigation strategies to reduce the Test Execution Carry over from one SIT iteration to another.

- Increased Testing Staff to increase test case throughput
- Initiated BFA readiness and BFA audit processes to track BFA readiness throughout the SIT iteration

Additional mitigation strategies being considered:

- Test execution practices have focused on 1st pass testing versus test case close out, shifting the practice to focus on the resolution of lagging defects
- Reviewing defect resolution practices to implement additional resolution meetings
- Continue reviewing project practices to determine other opportunities available.

The overlap of SIT IT 2 with SIT 3, UAT 2, and now SIT IT 4 appears to be a contributing factor in the failure rates being seen in SIT 3 and UAT 2, since certain functionality and subsequent defect resolution (if needed) was not able to happen in SIT IT 2 prior to execution in SIT 3 and UAT 2. The result is that UAT IT 2 is not really performing UAT, but first-time test of some functionality and user acceptance is not taking place.

IV&V will continue to monitor for further impacts.

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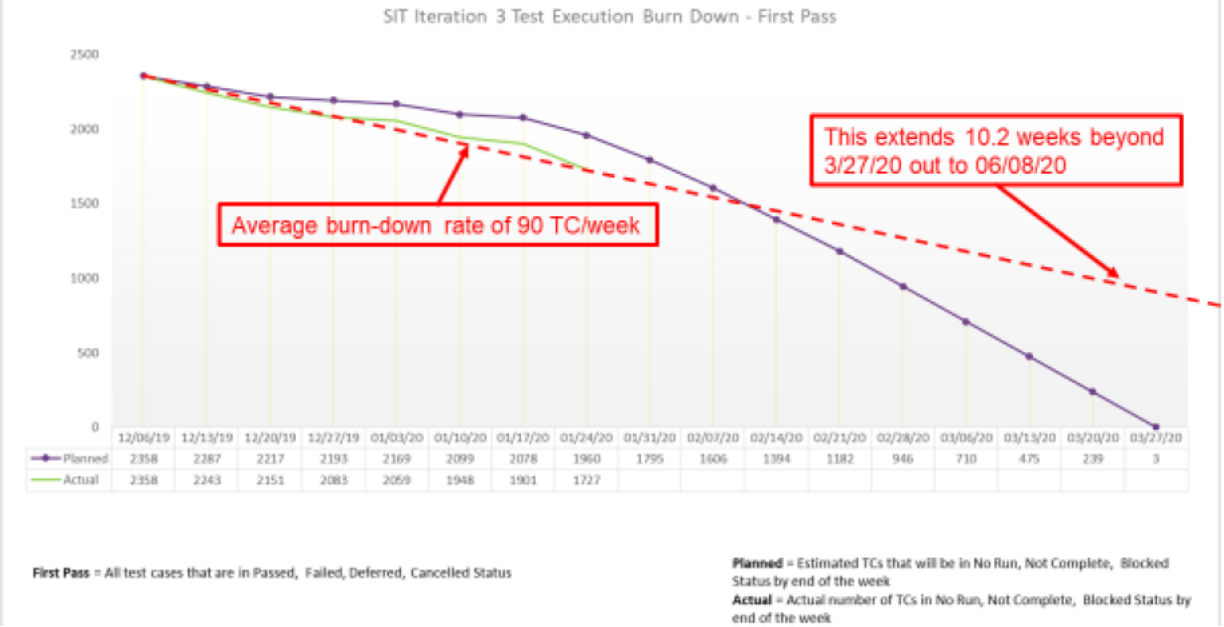
Finding Number: F-PI-16-01

Finding Name: Downstream Impacts of Late Completion of SIT IT 3 Test Execution

Description: At the 01/28/20 Team Leads Meeting, the following updated blocked test case information was reported for SIT IT3, which through Jan 24, 2020, is 7 weeks (or 43.75%) into execution:

	Blocked by Defect	Code Not Available	<Total>
Mod1:CSSP	371	16	387
Mod3:Provider	51		51
Mod5:Finance		34	34
Mod5:TPL	17	36	53
Mod6:MC		188	188
Mod7:KEES	93	131	224
Module 2: Claims Payment/Encounter Processing	25		25
<Total>	557	405	962
% of Total Test Cases:	23.6%	17.5%	40.7%

With 962 test cases blocked (40.7% of all test cases in SIT IT 3) and with an average test case execution rate to date of 90 test cases per week, it will take 19.2 weeks to complete the remaining 1,727 test cases or 10.2 weeks beyond the remaining 9 weeks for SIT IT 3 as shown below:



Risks:

1. Resource conflicts between SIT IT 3, UAT IT2, UAT IT3, and SIT IT4.
2. Incomplete testing in SIT IT 3 before starting UAT IT 3 may result in increased number of defects found in UAT further slowing down defect triage and resolution impacting downstream test execution.
3. Impacts on the ability to test planned functionality in downstream test iterations (SIT and UAT).
4. Larger number of defects remaining at go-live impacting go-live decision or operations.
5. Slips to downstream test iterations with potential impact on Stage 2 go-live date.

Recommendation(s)

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1. Complete full analysis of test, resource, and schedule impacts of the slipped completion of SIT IT3 on downstream test iterations and implementation activities.
2. Ensure an accurate listing of functionality to be delivered at the start of each test iteration for each module is provided along with planned dates and plan for functionality that will come some time during the test iteration.
3. Establish entrance and exit criteria for each SIT and UAT iteration.
4. Provide a plan to go forward to ensure SIT iterations do not overlap their respective UAT iterations.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas.

Priority	Impact		Finding Origination
Urgent	**Degree**	High	31 January 2020
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**N/A**

Status Update

01/31/2020: N/A-new finding.

04/30/2020: The completion date for SIT 3 has been extended to 6/12/20, pretty much matching IV&V's projection of 6/8/20. As of the April 27, 2020 Weekly Status Report, these failure rates are now:

- CSSP: 29.4%
- Mod 4: 50.0%
- DR: 36.4%
- TPL: 27.1%
- Mod 7: 31.9%
- Overall: 20.6%

As discussed in Observation 20190803, the January 27, 2020 Status Report showed a total of 928 Test Cases blocked, 525 by defect and 403 because of code not available. As of the February 3, 2020 Weekly Status Report this improved to a total of 493 blocked test cases (203 by defect and 290 by code not available). With the March 2, 2020 Weekly Status Report, there were 698 total blocked test cases (561 due to defects and 137 due to code not available).

Now, with the April 27, 2020 Weekly Status Report, there are 190blocked test cases (all due to defects) of which 108 have defined fix dates. 114test cases are available for testing. The summary of blocked test cases is shown below:

S2 - IT 3 Blocked By Module and Reason

		Blocked by Defect	<Total>
Mod1:CSSP	62	39 with defined fix dates	62
Mod2:Claims	40	All with defined fix dates	40
Mod3:Provider	14		14
Mod6:MC	26		26
Mod7:KEES	48	29 with defined fix dates	48
<Total>	190	108 total with defined fix dates	190

[redacted] has implemented some mitigation strategies to reduce the Test Execution Carry over from one SIT iteration to another.

- Increased Testing Staff to increase test case throughput

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	• Initiated BFA readiness and BFA audit processes to track BFA readiness throughout the SIT iteration Additional mitigation strategies being considered: • Test execution practices have focused on 1st pass testing versus test case close out, shifting the practice to focus on the resolution of lagging defects • Reviewing defect resolution practices to implement additional resolution meetings • Continue reviewing project practices to determine other opportunities available. SIT IT 3 still has some high failure rates and large number of blocked test cases. IV&V will continue to monitor for impacts to downstream test activities.

Finding Number: F-PI-16-02

Finding Name: Upstream Activities Leading to High UAT IT 2 Defect Rate Which Could Impact Downstream Activities

Description: As of 01/24/2020, six weeks into UAT IT 2 testing, 256 out of 516 test cases are blocked due to defects. 99 have been executed or in process of execution as of this date, leaving 161 left that can be executed unless blocking defects are fixed. As of 01/24/2020, only one defect that impacts one blocked test case has an estimated fix date. Additionally, UAT IT 2 has seen some high test case failure rates in the following modules:

Module	12/23/19	12/30/19	1/06/20	1/13/20	1/20/20	1/27/20
CSSP				81.8%	86.7%	88.2%
Claims	100%	100%	100%	100%	100%	46.7%
Managed Care	100%	100%	66.7%	79%	57.1%	57.1%
[redacted]	60%	60%	62.5%	70%	66.7%	71.0%
Overall	52.4%	52%	48.6%	58.5%	61.5%	60.4%

Contributing factors to these high failure rates could be:

1. Schedule driven, rather than readiness driven, testing
2. Lack of thorough upstream unit and smoke testing
3. Lack of acceptance criteria or vetting of product by module teams prior to deployment into SIT environments
4. Delay in completion of SIT IT 2 and the resultant overlap of SIT IT 2 and UAT IT 2, not allowing these problems to be found and potentially resolved in SIT prior to their execution in UAT

Risks:

1. Inability to resolve defects within the test iteration period causing impacts to downstream testing.
2. Added complexity in managing and aligning release and test environments.
3. Larger number of defects remaining at go-live impacting go-live decision or operations.
4. End-user confidence issues and reliance on legacy system.

Recommendation(s)

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1. Complete full root cause analysis and take appropriate actions to improve upstream activities to improve product quality and acceptance by module teams.
2. Establish entrance and exit criteria for each UAT iteration.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas.

Priority	Impact		Finding Origination
Urgent	**Degree**	High	31 January 2020
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**N/A**

Status Update

01/31/2020: N/A-new finding.

04/30/2020: As of the April 27, 2020 Weekly Status Report, these failure rates for [redacted] testing are now ([redacted] only is the first number, combined testing is the second number):

Module	1/27/20	2/24/20	3/30/20	4/27/20
CRM	0% / 0%	33.3% / 6.7%	33.3% / 18.5%	33.3% / 11.1%
CSSP	88.2%	66.7%	51.7%	42.4%
Mod 2	46.7% / 39.7%	23.3% / 25.6%	28.3% / 28.8%	25.1% / 24.2%
Mod 6	57.1%	57.1%	57.1%	57.1%
Mod 7	71.0% / 64.9%	55.8% / 54.9%	58.5% / 50.7%	61.4% / 50.0%
Overall	60.4% / 46.8%	38.1% / 36.4%	35.5% / 34.1%	31.5% / 29.1%

The March 2, 2020 Weekly Status Report showed 510 test cases left to be executed, extending the first pass test execution date 4 weeks to 05/01/2020. Of the 510 remaining test cases, 297 were blocked by defects with only 3 of those with a defined fix date.

The April 27, 2020 Weekly Status Report showed 92 test cases left to be executed, with 59 blocked by defects with 49 having defined fix dates.

These are very high failure and blockage rates for UAT IT 2, potentially due to SIT IT 2 not being able to be completed prior to UAT IT 2. In addition, a large number of test cases and functionality that passed in SIT are now failing in UAT, indicating issues such as: environment configurations, system configurations, integrations, etc. between SIT and UAT. The result is that UAT IT 2 is not really performing UAT, but first-time test of some functionality and user acceptance is not taking place. IV&V will continue to monitor.

3.10 Consistency Following State's Project Management Methodology

IV&V did not have any findings in this area. The project appears to be following the State's Project Management Methodology.

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3.11 Representative Sample of Project Deliverables

A complete list of documents that IV&V reviewed during this reporting period is found in Appendix C.

3.12 Other Findings or Observations

None.

3.13 Strengths and Proactive Measures

The IV&V Team notes the following items for which the [redacted] Project team has taken positive, proactive action and should be commended:

	Description of Strength
✓	Responsiveness to [redacted] requests, recommendations, communications, and reporting by the DXC Mod 8.
✓	Strong and timely communications between [redacted] test teams.
✓	During the COVID-19 work interruption period, the collaboration between the [redacted] test teams has solidified.
✓	Plan to increase frequency of [redacted] defect resolution meetings.

4. Risk Assessment and Issue Management

IV&V has identified the following risk this quarter.

Performance of RBAC testing starting in UAT IT3 may not provide adequate time to resolve permissions and access issues if RBAC is not appropriately designed and implemented to account for:

- Role explosion
- Security risk tolerance
- Scalability and dynamism

5. Recommendations for Improvement

IV&V has no further recommendations besides those previously identified in our findings.

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Appendix A: Oversight Task Area Scoring Process and Criteria

The IV&V process rates Task Numbers in four oversight areas (Management, Development, Implementation, and Operations).

All data collected will be integrated into a systematic rating schema. First, each Task Number for which there is sufficient observational data will be rated according to the criteria below and indicated in Section 1.3.3 of the Quarterly IV&V Report.

Oversight Area Score	Characterization	IV&V Scoring Guidelines
BLUE	Outstanding	▪ Processes exceed expected implementation standards. ▪ Processes are fully compliant with established standard(s). ▪ There is evidence that processes are consistently used. ▪ The processes effectively achieve desired results. ▪ No other practices are recommended to enhance effectiveness. ▪ There are no Findings associated with this process. ▪ Any risk(s) are collectively low priority.
GREEN	Good	▪ Processes meet expected implementation standards. ▪ Processes are largely compliant with established standard(s). ▪ There is evidence that processes are largely used. ▪ The processes largely achieve desired results. ▪ There may be other practices to enhance effectiveness. ▪ There may be one or more Findings associated with this Oversight Area. ▪ Any findings collectively do not present significant [redacted] risk.
YELLOW	Marginal	▪ Processes marginally meet expected implementation standards. ▪ Processes are partially compliant with established standard(s). ▪ There is evidence that the processes are only partially used. ▪ The processes do not achieve most desired results. ▪ There are other practices for effective implementation. ▪ Findings are associated with this Oversight Area. ▪ Findings collectively present significant [redacted] risk.
RED	Unsatisfactory	▪ Processes do not meet expected implementation standards.

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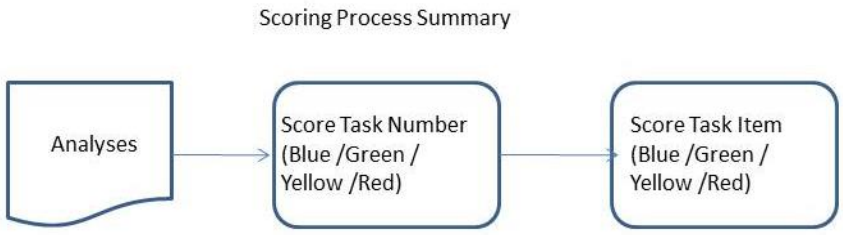
		▪ Processes are not compliant with established standard(s). ▪ There is evidence that the processes are not used. ▪ The processes do not achieve desired results. ▪ There are other practices for effective implementation. ▪ Findings are associated with this Oversight Area. ▪ Findings collectively present critical [redacted] risk.

Some Task Items are comprised of more than one Task Number. The IV&V Team will provide a Task Item aggregate rating based upon those Task Number ratings. A Task Item is rated:

- *Blue* when all its Task Number ratings are Blue
- *Green* when all its Task Number ratings are either Blue or Green
- *Yellow* when there is at least one Task Number rated Yellow and there are no Task Numbers with a Red rating
- *Red* when there is at least one Task Number rated Red

The process flow below summarizes the scoring methodology employed.



Any findings or recommendations identified are then associated with the focus areas or perspectives identified by the State in the IV&V Contract. Section 3 of the IV&V report summarizes findings into these focus areas:

- Project Management
- User Involvement
- Project Organization and Staffing
- Technical/Technology
- Project Scope
- Project Oversight
- Business Impact
- Cost-Benefit
- Project Implementation
- Consistency Following the State's Project Management Methodology
- Representative Sample of Project Deliverables

Finally, overall project health ratings are determined and provided in Section 1.1 for Scope, Schedule, Cost, Staffing, and Quality based on the following:

- Task Items ratings in each IV&V Oversight Area

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- Project lifecycle phase impact (objective and subjective evaluation)
- IV&V Finding(s) associated with each overall project health area
- Aging or timeliness in addressing IV&V Finding(s)
- Identified project risks associated with overall project health areas

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Appendix B: Prioritization Criteria

Priority for IV&V Findings

Overall Priority	Degree of Project Impact	Probability of Project Impact	Time Criticality
URGENT	High	High	Immediate or Short Term
HIGH	High	High	Long Term
	High	Medium	Immediate or Short Term
	Medium	High	Immediate or Short Term
MEDIUM	High	Medium	Long Term
	High	Low	Immediate or Short Term or Long Term
	Medium	High	Long Term
	Medium	Medium	Immediate or Short Term or Long Term
	Medium	Low	Immediate
	Low	High	Immediate
LOW	Medium	Low	Short Term or Long Term
	Low	High	Short Term or Long Term
	Low	Medium	Immediate or Short Term or Long Term
	Low	Low	Immediate or Short Term or Long Term

DEFINITIONS

Degree of Project Impact

High	Significant negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project.
Medium	Moderate negative impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project.

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Low	Minimal impact to cost, schedule, product quality, stakeholder acceptance, and/or other factors in the project.

Probability of Project Impact

High	Highly confident the negative impact will occur (>80% certainty).
Medium	Somewhat confident the negative impact will occur (>50% certainty).
Low	Uncertain if the negative impact will occur (<50% certainty).

Time Criticality

Immediate	Finding impacts the project now, or will impact the project or require resources within the next two months.
Short Term	Finding will impact the project within the next six months.
Long Term	Finding will impact the project at a future date greater than six months.

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Appendix C: Work Completed This Reporting Period

Meetings Attended	
Meeting(s)	**Date of Activity**
[redacted] Project Joint [redacted] PMO	Feb 1 – April 30, 2020
[redacted] Project Steering Committee	Feb 1 – April 30, 2020
[redacted] Project State Team Leads	Feb 1 – April 30, 2020
[redacted] Technical Architecture Meetings	Feb 1 – April 30, 2020
[redacted] Risks and Issues Review Meetings	Feb 1 – April 30, 2020
[redacted] Test Meetings	Feb 1 – April 30, 2020
Business Analysis & Claims Team Weekly Meetings	Feb 1 – April 30, 2020

Interviews Conducted	
Interview	**Date of Activity**
[redacted] Module 1 CSSP and CRM Team Interview	April 13, 2020
[redacted] Module 2 Claims and Encounters Team Interview	April 13, 2020
[redacted] Steering Committee Interview	April 13, 2020
[redacted] Module 5 InSight Dashboard Interview	April 13, 2020
[redacted] Module 5 T-MSIS Interview	April 13, 2020
[redacted] Module 7 [redacted] Team Interview	April 13, 2020
[redacted] Module 5 Financial Interview	April 14, 2020
[redacted] Module 5 MAR Team Interview	April 14, 2020
[redacted] Mod 3 Provider Management Team Interview	April 14, 2020
[redacted] Module 4 PIUM Interview	April 14, 2020
[redacted] PMO and IV&V Findings Review	April 15, 2020
[redacted] Module 1 CSSP Interview	April 15, 2020
[redacted] Module 1 CRM Interview	April 15, 2020
[redacted] Module 2 Claims Interview	April 15, 2020
[redacted] Module 3 Provider Interview	April 15, 2020
[redacted] Module 4 PIUR Interview	April 15, 2020
[redacted] Module 5 Finance Interview	April 15, 2020
[redacted] Module 5 MAR/T-MSIS Interview	April 15, 2020
[redacted] Mod 5 Drug Rebate Interview	April 15, 2020
[redacted] Mod 5 Insight Dashboard Interview	April 15, 2020

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Interviews Conducted	
Interview	**Date of Activity**
[redacted] Mod 6 Managed Care Interview	April 15, 2020
[redacted] Module 7 [redacted] Interview	April 15, 2020
[redacted] Module 8 DWA Interview	April 15, 2020
[redacted] Technical and Security Team Interview	April 15, 2020
[redacted] Stage 2 Conversions Interview	April 15, 2020
[redacted] ST, SIT, UAT & Regression Testing Interview	April 15, 2020
[redacted] Conversion Team Interview	April 15, 2020
[redacted] Module 5 TPL Team Interview	April 16, 2020
[redacted] Test and QA Team Interview	April 16, 2020
[redacted] Module 5 Drug Rebate Interview	April 16, 2020
[redacted] Module 5 TPL Team Interview	April 16, 2020
[redacted] Module 6 Managed Care Team Interview	April 16, 2020
[redacted] Technical Team Interview	April 16, 2020

Documents Reviewed
[redacted] Project Steering Committee Agendas and Minutes (Feb 1 – April 30, 2020)
[redacted] Weekly Status Reports (Feb 1 – April 30, 2020)
[redacted] Project Joint PMO Meeting Agendas and Minutes (Feb 1 – April 30, 2020)
[redacted] Project State Team Leads Meeting Agendas and Minutes (Feb 1 – April 30, 2020)
[redacted] RFP
QA Monthly Reports (January, February, and March 2020)
[redacted] Decision Tracking Log
[redacted] Issues Log (Feb 1 – April 30, 2020)
[redacted] Risks Log (Feb 1 – April 30, 2020)
[redacted] Configuration Management Plan
[redacted] Project Management Plan
[redacted] Test and Evaluation Management Plan
[redacted] UAT Plan
[redacted] Stage 2 Implementation Project Plan (schedule)
[redacted] Risk Management Plan
[redacted] Security Management Plan Stage 2 v1.2

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Documents Reviewed
NIST 800-53 Risk Assessment and Gap Analysis for [redacted]
Enterprise Data Warehouse (EDW) Communication Plan
CMS Guidance: Overview of Data Quality Top Priority Issues

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Appendix D: Findings Log

Quarter-01 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-01-01	Lack of an Effective Lessons Learned Process	Lessons Learned process established and lessons learned captured.	03-31-16	Closed 07-15-16
F-M-01-02	Lack of Status Updates for Milestones Without Sub-tasks	N/A	03-31-16	Closed 10-31-17
F-M-01-03	Inadequate Decomposition of Schedule Tasks	Decomposition of tasks is aligned with [redacted] requirements.	03-31-16	Closed 07-15-16

Quarter-02 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-02-01	Inadequate Scope of Quality Assurance (QA) Function	[redacted] plans to Extend scope of QA function to include evaluating quality work processes and work products against process descriptions, standards, procedures. Provide metrics on turnaround time on deliverables and identify areas for improvement. Enhance on-boarding process to assign mentors among BAs and TFALs to ensure consistent process. Provide feedback to project staff and managers on the results of QA activities. This role will not monitor third party QA processes. In Quarter 5, [redacted] to implement a SharePoint workflow process for document review with the potential to gather metrics.	07-15-16	Closed 10-31-17

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-02-02	Inadequate Visibility into COTS Products Being Developed	List of functionality and defects coming with each release being provided. Release notes after the release. Sprint reviews/demos now being provided.	07-15-16	Closed 04-30-2018

Quarter-03 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-03-01	Lack of Documented Actions Outside of RV Sessions	Action Items are identified in a log and the log is reviewed on at least a monthly basis in the Joint PMO meeting.	10-07-16	Closed 04-21-17
F-M-03-02	Lack of Visibility Into and Reporting Against Mitigation Plans	Risks are being consistently reviewed and updated.	10-07-16	Closed 04-30-2018
F-M-03-03	Lack of Visibility Into Project Critical Path	Weekly Status Reports now include an indication of what modules are on the critical path for Stage 1 and Stage 2.	10-07-16	Closed 10-31-17
F-PI-03-01	Lack of Visibility Into Product Team System Test	Test Reports being provided.	10-07-16	Closed 07-24-2017
F-PI-03-02	Lack of Common Definition of Defect Severity Levels	Common Defect Severity Levels defined.	10-07-16	Closed 07-24-2017
F-PI-03-03	Lack of Formal Acceptance Criteria for Product From [redacted] Product Team and Subcontractors	N/A	10-07-16	Closed 01-31-2018

Quarter-04 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-04-01	Lack of Schedule Decomposition for Test Activities	Weekly test report shows burn-down charts for ST, SIT, and UAT.	01-13-2017	Closed 10-31-2017

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-04-02	Lack of Risk Mitigation Plans	Risk mitigation plans have been attached to the appropriate risks in [redacted], although the plans lack detail.	01-13-2017	Closed 04-21-17
F-M-04-03	Lack of Common Understanding of Agile Touch Points for the State	Functional area reviews implemented.	01-13-2017	Closed 07-31-18
F-M-04-04	Lack of Planned Accomplishments Not Started or Completed on Time	Separate report available on [redacted].	01-13-2017	Closed 07-24-2017
F-M-04-05	Lack of Planned Duration or Baseline Start	Status Report will be changed.	01-13-2017	Closed 07-24-2017
F-M-04-06	Lack of Color Rating for Completed Activities	Status Report will be changed.	01-13-2017	Closed 07-24-2017
F-S-04-01	Lack of Consistency in the Quality of Conducted Walkthroughs of BDD or DSD	[redacted] has reviewed their walkthrough process to ensure more level-setting between facilitator's and [redacted] participants.	01-13-2017	Closed 10-31-2017

Quarter-05 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-05-01	Lack of Detail in Mitigation Plans	Detailed mitigation plans being provided as required by the Risk Management Plan.	04-21-2017	Closed 01-25-19
F-M-05-02	Lack of Decomposition of Data Conversion Activities in Project Schedule	Data Conversion activities are included in Stage 1 and Stage 2 schedules.	04-21-2017	Closed 01-31-18
F-M-05-03	Lack of Sharing, Tracking, Monitoring, and Reporting Data Conversion Results	[redacted] has provided UAT plans that included resources and reporting for UAT.	04-21-2017	Closed 10-31-2017
F-M-05-04	Lack of Appropriate Level of Schedule Decomposition, Team Resources, Training, and Reporting for UAT	CCR-13 transferred responsibility to [redacted] and UAT Plans defined.	04-21-2017	Closed 07-24-2017

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-05-05	Absence of Both High-Level Training Roadmap and Granularity at Module Level	Certification plan has been revised to show new stage 1 go-live dates and certification in two phases (for Stage 1 modules and for Stage 2 modules).	04-21-2017	Closed 10-31-2017
F-M-05-06	Lack of Focused Support to Define and Manage Behind-Schedule [redacted] CMS Certification Activities	A new finding regarding certification will be opened.	04-21-2017	Closed 01-31-18
F-M-05-07	Lack of Decomposition and Alignment of [redacted] Certification Project Plan 2017.01.23 With Agreed-upon Certification Approach	Common understanding established, but very few risks identified.	04-21-2017	Closed 01-31-18

Quarter-06 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-06-01	Lack of Access and Visibility Into Other Dependent Plans	Detailed project plans for these areas have been provided for Stages 1 and 2.	07-24-2017	Closed 10-31-2017
F-M-06-02	Absence of UAT Testing Training for [redacted] UAT Testing Team	Training provided to [redacted] UAT Team by Cognosante sufficiently remediated this finding.	07-24-2017	Closed 10-31-2017
F-M-06-03	Issues Management Process Not Being Followed Consistently	Much greater emphasis has been placed on entering, tracking, and reviewing issues.	07-24-2017	Closed 10-31-2017
F-M-06-04	Absence of Planning, Coordination, and Communication for [redacted] UAT Test Environment Setup	This was resolved for Sage 1. Will close, monitor, and re-open for Stage 2, if required.	07-24-2017	Closed 10-31-2017
F-M-06-05	Weekly "Testing Status Report" Does Not Include [redacted] UAT Testing Status	Separate [redacted] UAT Test Status Report is being provided.	07-24-2017	Closed 10-31-2017
F-M-06-06	[redacted] Weekly "Testing Status Report" Template Needs Enhancement to Include Other Information About Testing Activities	Report meets State's needs.	07-24-2017	Closed 01-31-18

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-T-06-01	Absence of Configuration and Set-up Validation Checklist for Establishing UAT Test Environment at [redacted]	Duplicate of F-PI-07-01. Will include example from this finding there.	07-24-2017	Closed 01-31-18

Quarter-07 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-07-01	Lack of Approval Before Schedule Start and Completion Dates are Changed	Will close, but will monitor.	10-31-17	Closed 01-31-18
F-M-07-02	Lack of Requirements Traceability to CMS Certification Checklist Criteria	RTM submitted by [redacted] [redacted]E.	10-31-17	Closed 01-25-19
F-M-07-03	Lack of Clear Identification of Dependencies Across and Among all Modules (Stage 1 & 2) From a Holistic Perspective	Project Plans for all Stage 1 and 2 modules provided. Logic diagrams have been developed.	10-31-17	Closed 04-30-18
F-U-07-01	Lack of Identification of Deliverable Review and Approval Parties	Review table has been added to deliverables.	10-31-17	Closed 04-30-18
F-PI-07-01	Lack of Implementation of Formal Migration/Configuration Management Process Across Environments or Sub-systems	Updated CM Plan was submitted and approved by [redacted] placed release procedures, CMDB, and list of configurations (software, patches, web services, etc.) across environments on [redacted].	10-31-17	Closed 07-26-19

Quarter-08 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-08-01	Time allocated for Stage 2 User Acceptance Testing (UAT) is likely inadequate.	Risk 52 opened.	01-31-18	Closed 07-31-18

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-08-02	Certification planning and execution is inconsistent.	Updated R3 certification schedule published and evidence repository established.	01-31-18	Closed 10-26-18
F-M-08-03	Lessons learned from Stage 1 project from requirements, planning, design, development, testing, and implementation appears to be missing from Stage 2 planning.	Lessons Learned have been analyzed by [redacted]	01-31-18	Closed 10-26-18
F-M-08-04	Stage 1 defect burn-down rate lagging.	Stage 1 went live.	01-31-18	Closed 04-30-18
F-T-08-01	Data available in All Claims Universe in [redacted] has not been fully tested and/or accepted by [redacted] power users.	[redacted]	01-31-18	Closed 10-26-18
F-PI-08-01	The detailed deployment plan for 3/12/2018 Go Live date does not include [redacted]eeds.	Stage 1 went live.	01-31-18	Closed 04-30-18
F-PI-08-02	A regression test suite should be created and packaged to run as an automated process whenever code is imported into the System Integration Test environment, whether a major or patch release.	[redacted] does not intend to develop an automated regression test suite.	01-31-18	Closed 04-30-18

Quarter-09 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-09-01	Overlap of SIT and UAT Activities in Stage 2 Implementation Schedule	Risk 52 opened.	04-30-18	Closed 07-31-18
F-M-09-02	Need Process for Distinct Transition of Defect Ownership from DDI to Operations	N/A	04-30-18	Progress Observed
F-PI-09-01	Reports Created by Data Warehouse Module Need to Be Validated	Data Warehouse reports validated by [redacted]	04-30-18	Closed 10-26-18
F-PI-09-02	Training Needs to Include Real-Life, Role-Based Scenarios	Module training plans include specific role-based scenarios.	04-30-18	Closed 01-25-19

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Quarter-10 Findings:

No new findings for Quarter 10.

Quarter-11 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-11-01	Stage 2 Schedules Lack Time for Data and Environment Refreshes	Data and Environment refreshes were added to the Stage 2 schedule. IV&V will close and revisit when re-baselined schedule is released.	10-26-18	Closed 04-26-19
F-M-11-02	Minimum Formal Transition and Knowledge Transfer Between [redacted] Resources	Overcome by events. Plan for transition and knowledge transfer exists.	10-26-18	Closed 04-26-19
F-PI-11-01	Lack of Test Results in ALM for Accessibility Tests	Closed for Stage 1. [redacted] considering the addition of Accessibility Test Results into ALM for Stage 2.	10-26-18	Closed 01-25-19
F-PI-11-02	Stage 2 Testing Iterations Lack Defined Entry and Exit Criteria	Entry and Exit Criteria defined.	10-26-18	Closed 07-26-19

Quarter-12 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-12-01	Lack of Defined RTM Impacts SIT & UAT Test Planning	Requirements traceability to test cases has been completed for SIT. The approach for UAT will be in the updated TEMP and the RTM will follow. If this becomes an issue for UAT, IV&V will open another finding.	01-25-19	Closed 04-26-19

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-12-02	Lack of Single Point of Contact and Single Repository for Test Defects and Reporting	DEV test results are now being entered into ALM. Test results for Security, Accessibility, Conversion, etc. will continue to be captured outside of ALM. Each testing entity will continue to report their test results. [redacted] has agreed to this approach.	01-25-19	Closed 04-26-19

Quarter-13 Findings:

No new findings for Quarter 13.

Quarter-14 Findings:

No new findings for Quarter 14.

Quarter-15 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-PI-15-01	Downstream Impacts of Late Completion of SIT IT 2 Test Execution	N/A	10-31-19	Progress Observed
F-PI-15-02	Downstream Impacts of Late SIT IT 3 Test Case Completion	Test case completion was adequate to allow SIT IT 3 to begin on time without any significant impacts. This Finding is being closed.	10-31-19	Closed 01-31-20

Quarter-16 Findings:

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Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-16-01	Capacity Planning to Ensure SIT IT 5 Testing Schedule Can be Met	N/A	01-31-20	Progress Observed
F-PI-16-01	Downstream Impacts of Late Completion of SIT IT 3 Test Execution	N/A	01-31-20	Progress Observed
F-PI-16-02	Upstream Activities Leading to High UAT IT 2 Defect Rate Which Could Impact Downstream Activities	N/A	01-31-20	Progress Observed

Quarter-17 Findings:

Finding Log				
Finding #	**Finding Name**	**Resolution**	**Finding Origination**	**Status or Date Closed**
F-M-17-01	Inconsistent Software and Document Deliverables Quality	N/A	04-30-20	New
F-M-17-02	Lack of Progress in Defect Resolution and Management	N/A	04-30-20	New
F-M-17-03	Overallocation of Resources in Project Schedules	N/A	04-30-20	New

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Appendix E: Closed Findings

Closed Quarter 1: 03-31-2016:

None. First Quarterly Report.

Closed Quarter 2: 07-15-2016:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-01-01	Management	High	Lack of an Effective Lessons Learned Process	X
F-M-01-03	Management	High	Inadequate Decomposition of Schedule Tasks	X

Finding Number: F-M-01-01			
Finding Name: Lack of an Effective Lessons Learned Process			
Description: It is not evident that lessons learned and best practice examples are formally gathered and shared on an on-going basis and not just at the end of the project. The State requirement (for itself and contractors) is to collect lessons learned at the end of the project, but not at other points prior to project completion. **Risks:** 1. Lessons learned forgotten and not captured or shared 2. Mistakes may be repeated and successes may not be repeated 3. Opportunities for risk identification and process improvement may be missed			
Recommendation(s)			
1. Develop a process to gather lessons learned, best practices, or work product examples at periodic intervals throughout the project lifecycle 2. Establish a way to collect and store lessons learned, best practices, and work product examples in a repository that is easily accessible and searchable for project staff 3. Establish a process that requires projects to review lessons learned prior to their initiation and at various points throughout their lifecycle			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Integrated Project Management (IPM), Project Monitoring and Control (PMC), and Organizational Process Focus (OPF) process areas.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	31 March 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Short term	**Closed**
Status Update	**07/15/2016:** Regular lessons learned have been scheduled at transitions between major tasks (RV sessions, design), transitions in phases, and major deliverables (BDD, DSD). Formal lessons learned sessions were conducted		

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	following the completion of Phase 1 RV sessions and the move to VPC. Lessons learned were captured on a standard lessons learned template and stored on [redacted] This finding has been sufficiently remediated and is being closed.

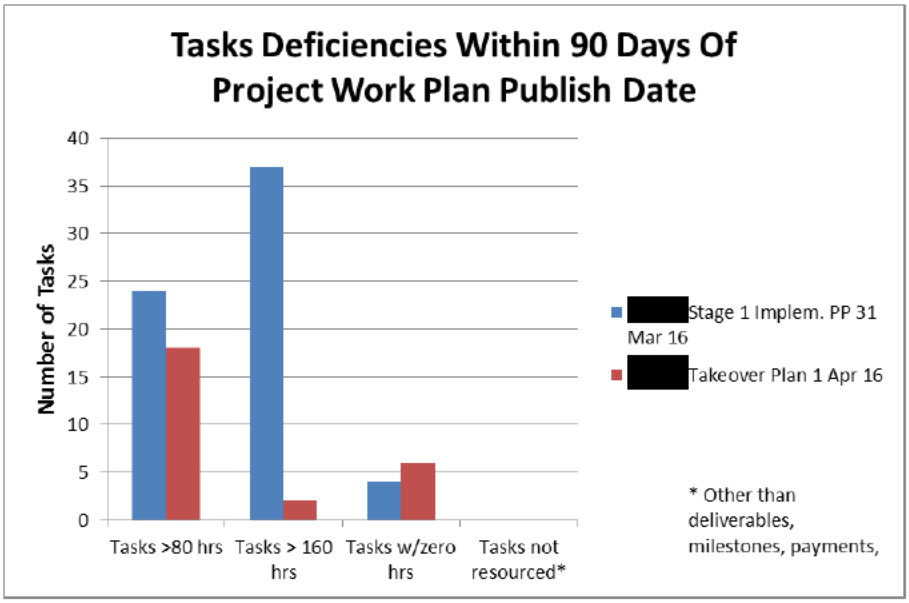
Finding Number: F-M-01-03

Finding Name: Inadequate Decomposition of Schedule Tasks

Description: Level of effort for scheduled tasks within the next 90 days exceeds best practice guidelines – including tasks that significantly exceed guidelines. For example, Security Architecture tasks 1101 and 1102 of the Stage I Implementation Project Plan (31 March 2016) are 360 hours each. Task 1460 for test case creation is 544 hours. Levels of effort that large are difficult to accurately estimate and track.

The graphic below shows tasks within the next 90 days in the Implementation and Takeover Plans with effort greater than 80 hours.

Risks:



1. Tasks may not have been broken down to enough detail to ensure accurate estimates
2. Unable to track task completion status with enough granularity to determine if dates will be met
3. Task completion and schedule delays

Recommendation(s)

1. Decompose larger tasks in project schedules down to manageable tasks of 40-80 hours effort wherever possible

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP) and Integrated Project Management (IPM) process areas.

Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
Medium	Degree	Medium	31 March 2016
	Probability	Medium	Progress Indicator
	Time Criticality	Short-term	Closed

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Status Update	**07/15/16:** Because of the large size of the teams on certain tasks (e.g. RV sessions) it is difficult to get the effort down to 40-80 hours. Instead, the focus has been on getting the duration and hours per resource down to within 80 hours. In addition, [redacted] has relaxed their requirement of no more than 80 hours on tasks. Some of the tasks have been broken into "Part 1", "Part 2", etc. which is not very descriptive, but specificity is being added to these tasks as they become closer. This finding has been sufficiently remediated and is being closed.

Closed Quarter 3: 10-07-2016:

None.

Closed Quarter 4: 01-13-2017:

None.

Closed Quarter 5: 04-28-2017:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-03-01	Management	High	Lack of Documented Actions Outside of RV Sessions	X
F-M-04-02	Management	High	Lack of Risk Mitigation Plans	X

Finding Number: F-M-03-01
Finding Name: Lack of Documented Actions Outside of RV Sessions
Description: Action items (in addition to those generated in RV sessions) need to be documented formally, have an individual assigned to work the AI, have an assigned due date, and be actively reviewed and tracked. This way, assigned actions will not be lost and can be followed up on to ensure accountability in a timely manner. Example: RFP to Product to Module 3 (Provider) Requirements mapping which took an extended period of time to produce. **Risks:** 1. Ability to make timely decisions and reviews 2. Incomplete or inconsistent understanding of outstanding actions or decisions 3. Impact to other project activities and project schedule
Recommendation(s)
1. Include such action items into the existing action item log and regularly review status
Reference(s) to Industry Standard
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Monitoring and Control (PMC) and Integrated Project Management (IPM) process areas.

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Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	7 Oct 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/13/17:** Although an action item log exists in [redacted], it has not been updated since Oct 9 and it does not include action items from all meetings. In addition, meeting minutes may include action items, but they are not tracked in the next meeting. No progress observed. **04/28/17:** The action item log in [redacted] is now reviewed and updated on a regular basis. It is not possible to determine if all actions items from all meetings is included in the log. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-04-02			
Finding Name: Lack of Risk Mitigation Plans			
Description: Risks in [redacted] identify where a mitigation plan is required, as appropriate; but there are no mitigation plans attached to the risks in iTRACE. **Risks:** 1. Risks may be realized. 2. Impact to other project activities and project schedule 3. Increased project surprises and crisis management			
Recommendation(s)			
1. Perform a thorough risk review including next steps. 2. Define risk mitigation plans where required and assign owners to the risk. 3. Attach risk mitigation plans to the associated risk in [redacted]. 4. Actively work and track to risk mitigation plans. 5. Report progress against risk mitigation plans.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), and Risk Management (RSKM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	20 January 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/28/17:** Risk mitigation plans have been attached to the appropriate risks [redacted], although the plans lack detail. Another finding will be open regarding the level of detail of the risk mitigation plans, but this finding has been sufficiently remediated and is being closed.		

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Closed Quarter 6: 07-24-2017:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-PI-03-01	Project Implementation	High	Lack of Visibility Into Product Team System Test	X
F-PI-03-02	Project Implementation	Medium	Lack of Common Definition of Defect Severity Levels	X
F-M-04-04	Management	High	Lack of Planned Accomplishments Not Started or Completed on Time	X
F-M-04-05	Management	High	Lack of Planned Duration or Baseline Start	X
F-M-04-06	Management	High	Lack of Color Rating for Completed Activities	X
F-M-05-04	Management	High	Absence of Both High-Level Training Roadmap and Granularity at Module Level	X

Finding Number: F-PI-03-01			
Finding Name: Lack of Visibility Into Product Team System Test			
Description: Little visibility is provided into system test conducted by the [redacted] Product Team. This includes the quality of code, the functionality or test cases being executed, and the results of those tests. **Risks:** 1. Increase in rework and defect remediation 2. Inability to identify risks based on system test results 3. Functionality required by the State for each release not being addressed 4. Impact to other project activities and project schedule			
Recommendation(s)			
1. Provide insight into system test cases being conducted and results of testing by the [redacted] Project Team			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Monitoring and Control (PMC), Verification (VER), and Validation (VAL) process areas. IEEE 29119-2-2013. IEEE 829-2008 Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	7 Oct 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/13/2017:** The [redacted] Test Team does have some limited visibility into [redacted] Product Team testing on an informal basis.		

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	04/21/2017: [redacted] has provided some information on their testing status in the weekly project status reports. **07/24/2017:** [redacted] has provided a separate weekly test report that provides more detail regarding System Test. This finding has been sufficiently remediated and is being closed.

Finding Number: F-PI-03-02			
Finding Name: Lack of Common Definition of Defect Severity Levels			
Description: An inconsistency may exist in defect severity definitions between various teams, such as [redacted] Project team, and the State QA Vendor. A common definition needs to exist to ensure clarity and consistency in reported defects so that proper prioritization is applied to remediation efforts. **Risks:** 1. Incorrect prioritization of defect triage and remediation activities 2. Critical functionality not being provided 3. Impact to other project activities and project schedule			
Recommendation(s)			
1. Establish a common set of definitions for defect severity levels for use by the [redacted], and State QA Vendor and ensure all are trained in the definitions.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Verification (VER), and Validation (VAL) and Risk Management (RSKM) process areas. IEEE 29119-2-2013, IEEE 829-2008 Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Medium	**Degree**	Medium	7 Oct 2016
	Probability	Medium	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/13/2017:** The [redacted] Product Team. **04/21/2017:** [redacted] teams are all using common defect prioritization definitions as they are all using ALM; however, SAS is using JIRA which has different defect severity definitions. **07/24/2017:** All entities are using common defect severity levels. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-04-04
Finding Name: Lack of Planned Accomplishments Not Started or Completed on Time
Description: [redacted] Weekly Status Reports include sections on "Accomplishments This Period" and "Activities Next Period", which are good, but provide no information on what should have been

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accomplished the previous week or what should be taking place the following week. To provide better insight into progress, Weekly Status Report should include a section for "Planned Accomplishments This Period Not Started or Not Completed on Time".

Risks:

1. Project team may not understand true project status and risks
2. Impact to other project activities and project schedule
3. Increased project surprises and crisis management
4. Makes planning for State SME's availability and preparation challenging

Recommendation(s)

1. Include section in KMMS Weekly Status Report for "Planned Accomplishments This Period Not Started or Not Completed on Time".

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), and Risk Management (RSKM) process areas.
Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
High	Degree	Medium	20 January 2017
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**04/21/2017:** This information is available by reviewing the Microsoft Project plan; however, it is not being provided in any other summary form. **07/24/2017:** [redacted] producing a Late Last Week – Current and Next Week's Tasks Report which is being stored in [redacted]. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-04-05

Finding Name: Lack of Planned Duration or Baseline Start

Description: [redacted] Weekly Status Report, Section 3, Progress to Schedule indicates "Percent Complete", "Baseline Complete", "Forecast Complete", and "Actual Complete". It is difficult to determine if a task is on schedule or the risk of completing a task on schedule without knowing the Baseline Start and/or Duration of that task. To provide project participants and leadership with a better idea of how items are progressing against the schedule, consider adding a column for "Baseline Start" or "Duration" so a better determination can be made of the likelihood that the baseline and/or forecast completion date will be met.

Risks:

1. Project team may not understand true project status and risks
2. Impact to other project activities and project schedule
3. Increased project surprises and crisis management

Recommendation(s)

1. For the tasks in the [redacted] Weekly Status Report Section 3 Progress to Schedule, add a column for "Baseline Start" or "Duration".

Reference(s) to Industry Standard

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Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP) and Project Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	20 January 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/21/2017:** This information is available by reviewing the Microsoft Project plan; however, it is not being provided in any other summary form. **07/24/2017:** The Weekly Status Report format and content is changing. This finding will be closed.		

Finding Number: F-M-04-06
Finding Name: Lack of Color Rating for Completed Activities
Description: Once activities in Section 3 Progress to Schedule in the [redacted] Weekly Status Report are completed, any previous color rating associated with the task is removed. This removes a historical record of the performance of that particular activity and why subsequent activities may be color rated the way they are. Items that are completed should retain their color rating to show the variation in the completion date and not have the color rating go away. This will be helpful in determining the reason behind the current status of dependent tasks. **Risks:** 1. Project team may not understand true project status 2. Impact to other project activities and project schedule
Recommendation(s)
1. Retain color ratings for completed tasks in Section 3 Progress to Schedule in the [redacted] Weekly Status Report.
Reference(s) to Industry Standard
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP) and Project Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	20 January 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/21/2017:** This information is available by reviewing the Microsoft Project plan; however, it is not being provided in any other summary form. **07/24/2017:** Completed deliverable activities drop off the weekly status report shortly after having been completed. The Weekly Status Report format and content is changing. This finding will be closed.		

Finding Number: F-M-05-04

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Finding Name: Absence of Both High-Level Training Roadmap and Granularity at Module Level			
Description: There is need to establish a [redacted] Wide training roadmap that ties all the modules and also identifies any dependencies, as well as activities that might be on the critical path to go-live for each Stage. Additionally, the schedule identified within each module User Training Plan must be aligned with training activities listed in Stage specific Implementation Schedule(s). **Risks:** 1. Missing training goals, learning objectives, and strategy 2. Impact on curriculum architect design and development strategy 3. Missing post training User evaluation and feedback mechanism			
Recommendation(s)			
1. Provide [redacted] wide training roadmap and how modules are tied together. 2. Establish a distinct [redacted] enterprise wide training plan and schedule. 3. Establish mechanism to be followed to receive User feedback on delivered training. 4. Establish how post training evaluation will be captured, analyzed and corrective actions taken.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Organizational Training (OT) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	21 April 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**07/24/2017:** Information has been provided. This finding has been sufficiently remediated and is being closed.		

Closed Quarter 7: 10-31-2017:

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Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-01-02	Management	H	Lack of Status Updates for Milestones Without Sub-tasks	X
F-M-02-01	Management	H	Inadequate Scope of Quality Assurance (QA) Function	X
F-M-03-03	Management	U	Lack of Visibility Into Project Critical Path	X
F-M-04-01	Management	H	Lack of Schedule Decomposition for Test Activities	X
F-S-04-01	Project Scope	H	Lack of Consistency in the Quality of Conducted Walkthroughs of BDD or DSD	X
F-M-05-02	Management	U	Lack of Decomposition of Data Conversion Activities in Project Schedule	X
F-M-05-03	Management	H	Lack of Appropriate Level of Schedule Decomposition, Team Resources, Training, and Reporting for UAT	X
F-M-05-05	Management	H	Lack of formal Mitigation Plan to Manage Behind-Schedule [redacted] CMS Certification Activities	X
F-M-06-01	Management	H	Lack of Access and Visibility Into Other Dependent Plans	X
F-M-06-02	Management	U	Absence of UAT Testing Training for [redacted] UAT Testing Team	X
F-M-06-03	Management	U	Issues Management Process Not Being Followed Consistently	X
F-M-06-04	Management	U	Absence of Planning, Coordination, and Communication for [redacted] UAT Test Environment Setup	X
F-M-06-05	Management	U	Weekly "Testing Status Report" Does Not Include [redacted] UAT Testing Status	X

Finding Number: F-M-01-02

Finding Name: Lack of Status Updates for Milestones Without Sub-tasks

Description: It is not evident that percent completion is provided on an incremental basis for all milestones without sub-tasks in the schedule(s). IV&V noted that milestone activities that do not have any sub-tasks associated with them only indicate 0% or 100% complete. This does not provide a means to predict progress in meeting the milestone or to determine whether or not the milestone will be met on schedule.

Risks:

1. Milestone dates may not be met without previous indications that the date was in jeopardy
2. Impact to other project activities and project schedule
3. Incomplete and/or inaccurate project progress status reported

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4. Increased project surprises and crisis management			
Recommendation(s)			
1. Collect status updates and enter incremental progress toward milestones in status reports and in the schedule			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Monitoring and Control (PMC) and Integrated Project Management (IPM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	31 March 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**07/15/2016:** Much of the DDI Team interaction with other teams - Infrastructure team (VPC), vendors, and Product limit status progress points to milestones, which somewhat limits the tracking/reporting specificity. Going forward, the work being completed by Product is a COTS product; traditional task progress is not being supplied to the DDI team nor tracked in the schedules. To facilitate the transfer of the Release content the Product team will supply to the DDI team a list of functionality/content in each release and will also interact, periodically through the development cycle, with the DDI team to ensure we have an understanding of the content being supplied, supplying documentation as it is available. Since the Product is being developed using an Agile approach, they will report if there is any change in the Sprints content, so the DDI team can appropriately plan for any such changes. As a COTS product, full content will be delivered with full documentation upon release. As part of risk mitigation for Risk #13 (IVV-Q1-1), the [redacted] PMO will work closely with the Product team to trace requirements to functionality in each release for reporting and mitigation as appropriate. **10/20/2016:** [redacted] received a list of functionality in the first Product release and has mapped to BDD content and to requirements. This will be provided to the State. **01/13/2017:** The State has not received a mapping of requirements to releases. No progress observed this reporting period. **04/21/2017:** A spreadsheet with features and requirements for major releases has been provided and weekly status reports include a table with construct milestones and tasks showing percent complete and estimated completion dates. **07/27/2017:** Construct tables in weekly status reports now include some tasks under milestones. **10/31/2017:** The format of the Weekly Status Report has changed, but the report includes some tables showing percent complete and estimated completion dates for milestones and some sub-tasks. This finding has been sufficiently remediated and is being closed.		

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Finding Number: F-M-02-01			
Finding Name: Inadequate Scope of Quality Assurance (QA) Function			
Description: The [redacted] Quality Management Plan, V1.0 dated 05-27-16, defines quality scope limited to document maintenance and contract performance monitoring. However, it does not include an important aspect of quality, the objective evaluation and reporting of adherence to management and software development lifecycle processes as within the scope of the quality function. **Risks:** 1. Limited scope or coverage of Quality Assurance has the potential to negatively affect the quality of deliverables. 2. Potential of impact on schedule. 3. Possible re-work on deliverables. 4. Ineffective or inefficient processes not being improved.			
Recommendation(s)			
1. Consider expanding scope or coverage of QA. 2. Further analysis might lead to including the following in QA scope: a. Objectively evaluating performed processes and work products against applicable process descriptions, standards, and procedures. b. Identifying and documenting noncompliance issues. c. Providing feedback to project staff and managers on the results of quality assurance activities. d. Ensuring that noncompliance issues are addressed. 3. Consider monitoring third party QA processes.			
Reference(s) to Industry Standard			
1. CMMI-DEV v1.3; Process and Product Quality (PPQA), and Project Planning (PP) process areas 2. Project Management Institute, A Guide to the Project Management Body of Knowledge, Edition 5, 2012			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	15 July 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Short term	**Closed**
Status Update	**10/20/2016:** [redacted] to extend the scope of QA function to include evaluating quality work processes and work products against process descriptions, standards, procedures. Provide metrics on turnaround time on deliverables and identify areas for improvement. Enhance on-boarding process to assign mentors among BAs and TFALs to ensure consistent process. Provide feedback to project staff and managers on the results of QA activities. This role will not monitor third party QA processes. **01/13/2017:** No QA metrics have been reported and no further progress observed this reporting period. **04/21/2017:** [redacted] begun to implement a SharePoint workflow for document review that can gather metrics regarding review time turnarounds. **07/27/2017:** SharePoint workflow for document review has been implemented. Metrics have not yet been collected.		

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	10/31/2017: [redacted] to Extend scope of QA function to include evaluating quality work processes and work products against process descriptions, standards, procedures. Provide metrics on turnaround time on deliverables and identify areas for improvement. Enhance on-boarding process to assign mentors among BAs and TFALs to ensure consistent process. Provide feedback to project staff and managers on the results of QA activities. This role will not monitor third party QA processes. In Quarter 5, DXC began to implement a SharePoint workflow process for document review with the potential to gather metrics. This finding has been sufficiently remediated and is being closed.

Finding Number: F-M-03-03			
Finding Name: Lack of Visibility Into Project Critical Path			
Description: Little visibility is provided into the critical path of the project without going into the Microsoft Project Schedule. Weekly status reports only state that Module 1 and Module 4 are on the critical path with no other detail. It would be beneficial to project leadership to include a graphical representation summarizing major activities/milestones on the critical path. **Risks:** 1. Ability to make timely decisions 2. Impact to other project activities and project schedule 3. Lack of visibility of the impact of activity/milestone schedule slips to the overall project schedule			
Recommendation(s)			
1. Include graphical representation of critical path in weekly and monthly status reports			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Monitoring and Control (PMC), Risk Management (RSKM), and Integrated Project Management (IPM) process areas. IEEE 16085-2006. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	7 Oct 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/13/2017:** Weekly Status Reports now include construction tables with high-level tasks with a column to indicate if the task is on the critical path. [redacted] hey would look at additional ways to identify critical path. **04/21/2017:** Weekly Status Reports now include construction tables with high-level tasks with a column to indicate if the task is on the critical path, and critical path has shifted as appropriate. **07/27/2017:** Weekly Status Reports continue to show construction tables indicating tasks on the critical path, but do not show which document deliverables are on the critical path.		

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	10/31/2017: Weekly status reports now show gaant charts for Stage 1 and Stage 2 that indicate which modules are on the critical path. This finding has been sufficiently remediated and is being closed.

Finding Number: F-M-04-01			
Finding Name: Lack of Schedule Decomposition for Test Activities			
Description: Test activities in the schedule are high-level and lack the details necessary to properly plan resources for testing or to be able to adequately track progress against. **Risks:** 1. Milestone dates may not be met without previous indications that the date was in jeopardy 2. Impact to other project activities and project schedule 3. Incomplete and/or inaccurate project progress status reported 4. Increased project surprises and crisis management			
Recommendation(s)			
1. Further breakdown ST, SIT, and UAT test activities in the schedule for all modules. 2. Plan resources accordingly and track progress against the decomposed test activities.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), and Integrated Project Management (IPM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	20 January 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/21/2017:** The test schedule in the Implementation Project Plan has not been further broken down and the [redacted] area does not utilize a more detailed schedule to track their activities. No progress observed. **07/27/2017:** Weekly Test Reports include test case burn-down charts for ST, SIT, and UAT. **10/31/2017:** This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-05-02
Finding Name: Lack of Decomposition of Data Conversion Activities in Project Schedule
Description: Data Conversion activities in the schedule are high-level and lack the details necessary to properly plan resources or to be able to adequately track progress against. **Risks:** 1. Milestone dates may not be met without previous indications that the date was in jeopardy 2. Impact to other project activities and project schedule 3. Incomplete and/or inaccurate project progress status reported 4. Increased project surprises and crisis management 5. Quality and integrity issues with converted data

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Recommendation(s)			
1. Align Stage 1 and 2 Implementation Project Schedule with Data Conversion plan. 2. Provide details for Data Conversion tasks to resolve identified data issues and corrective action plans. 3. Review data quality and integrity of converted data regularly in Joint PMO, Team Leads, and other meetings as appropriate.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Technical Solution (TS) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	21 April 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**No Progress Observed**
Status Update	**07/27/2017:** No progress observed. **10/31/2017:** A detailed project plan for Stage 1 conversion activities is in place. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-05-03			
Finding Name: Lack of Appropriate Level of Schedule Decomposition, Team Resources, Training, and Reporting for UAT			
Description: UAT activities in the schedule are high-level and lack the details necessary to properly plan resources, activities to train UAT testers, or adequately track and report progress against. **Risks:** 1. Milestone dates may not be met without previous indications that the date was in jeopardy 2. Impact to other project activities and project schedule 3. Incomplete and/or inaccurate UAT and overall project progress status reported 4. Increased UAT surprises and increased risks			
Recommendation(s)			
1. Provide details for UAT plan and schedule loaded with resources.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Validation (VAL) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	21 April 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed.**
Status Update	**07/27/2017:** With CCR-13, UAT responsibility shifted to [redacted] has provided UAT plans that included resources and reporting for UAT. **10/31/2017:** This finding has been sufficiently remediated and is being closed.		

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Finding Number: F-M-05-05

Finding Name: Lack of formal Mitigation Plan to Manage Behind-Schedule [redacted] CMS Certification Activities

Description: There are a significant number (29+) of certification tasks that are late per [redacted] Certification Project Plan 2017.01.23.mpp.

ID	Task Name	% Complete	Work	Text19	Flag11	Duration	Start	Finish
0	MMIS Modernization and Fiscal Agent Operations Takeover Services Reprocurement Project - Phase II Certification	12%	12,290.92 h		No	892.78 d	Wed 6/1/16	Mon 12/30/19
2	Planning	77%	1,235.95 h		No	211.85 d	Wed 6/1/16	Fri 4/7/17
9	Certification Review Repository	84%	199.78 h		No	84.5 d	Mon 9/19/16	Tue 1/24/17
42	a [redacted]	65%	315.5 h		No	130.9 d	Tue 9/27/16	Fri 4/7/17
53	Certification Training	39%	191.08 h		No	61.75 d	Thu 12/1/16	Fri 3/3/17
63	Execution	0%	10,919.83 h		No	845.01 d	Wed 8/3/16	Mon 12/23/19
64	Stage 1 Certification	0%	4,013 h		No	482.04 d	Wed 8/3/16	Thu 7/12/18
65	Stage 1 Certification Artifacts and Products	0%	1,090 h		No	284.28 d	Wed 8/3/16	Mon 9/25/17
66	Certification Design	0%	224 h		No	142.7 d	Wed 8/3/16	Thu 3/2/17
67	DW Analytics MOD 8 Certification Design	0%	32 h		No	142.7 d	Wed 8/3/16	Thu 3/2/17
73	PI-UR MOD 4 Certification Design	0%	32 h		No	134.81 d	Tue 8/9/16	Fri 2/24/17
79	CSS Portal MOD 1 Certification Design	0%	32 h		No	100.3 d	Wed 9/28/16	Fri 2/24/17
85	Provider Mgmt MOD 3 Certification Design	0%	32 h		No	114.1 d	Thu 9/8/16	Fri 2/24/17
91	Dashboard MOD 5 Certification Design	0%	32 h		No	124.95 d	Tue 8/23/16	Fri 2/24/17
97	Security Certification Design	0%	20 h		No	76.63 d	Tue 11/1/16	Fri 2/24/17
103	SOA Certification Design	0%	44 h		No	80.58 d	Wed 10/26/16	Fri 2/24/17
109	Certification Construct	0%	380 h		No	57.76 d	Fri 2/24/17	Thu 5/18/17
110	DW Analytics MOD 8 Certification Construct	0%	55 h		No	19.88 d	Thu 3/2/17	Thu 3/30/17
116	PI-UR MOD 4 Certification Construct	0%	55 h		No	20 d	Wed 3/29/17	Wed 4/26/17
122	CSS Portal MOD 1 Certification Construct	0%	64 h		No	25 d	Fri 2/24/17	Mon 4/3/17
128	Provider Mgmt MOD 3 Certification Construct	0%	55 h		No	20 d	Fri 2/24/17	Fri 3/24/17
140	Security Certification Construct	0%	39 h		No	20 d	Fri 2/24/17	Fri 3/24/17
146	SOA Certification Construct	0%	57 h		No	20 d	Wed 4/5/17	Wed 5/3/17
195	Stage 1 Certifications Quarterly Checklist reports	0%	816 h		No	149.25 d	Tue 2/28/17	Tue 10/3/17
196	Certification Checklist Report 1 Stage 1 Qrt 1	0%	272 h		No	24.38 d	Tue 2/28/17	Tue 4/4/17
414	Stage 2 Implementation Certifications	0%	6,906.83 h		No	675.4 d	Tue 4/11/17	Mon 12/23/19
415	Stage 2 Certification Artifacts and Products	0%	1,825 h		No	476.64 d	Tue 4/11/17	Wed 3/13/19
416	Certification Design Stage 2	0%	450 h		No	171.86 d	Tue 4/11/17	Tue 12/19/17

However, there is no published mitigation plan to manage and take corrective action to resolve the late tasks. Additionally, [redacted] Certification Project Plan 2017.01.23.mpp was last updated on Jan 23, 2017. The CMS Certification schedule has several resources (some no longer with [redacted] project) that are over allocated as shown below.

Resource Name	Work	Role	Group
[redacted]	1,062.7 h	Account Cert Bus Analyst	Certification
	1,062.7 h	Account Cert Info Analyst	Certification
	129.8 h	Client Project Mgr Assistant	Client
	655 h	IV&V	Client
	359.97 h	Test Lead	Test
	3,383.27 h	Certification Manager	Certification
	179.88 h	Client Project Mgr	Client
	141.97 h	M3/M6 Functional PM	M3,M6
	133.97 h	Testing Mgr	Test
	359.97 h	Test Lead	Test
	253.28 h	Project Manager	PMO
	109.97 h	M5 Function PM	M5

Risks:

1. Missing due dates for CMS Certification

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2. Potential impact on business, operations, and funding 3. Miss scheduling and coordination deadlines with CMS for review activities			
Recommendation(s)			
1. Provide details mitigation plan to get back CMS Certification activities on schedule and report on them regularly. 2. Align CMS Certification activities with agreed approach with project CMS Regional Representative. 3. Establish schedule to update/maintain and report against the approved Certification Schedule. 4. Review status of mitigation plan regularly in Joint PMO and Team Leads meetings as appropriate.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Risk Management (RSKM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	21 April 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**07/27/2017:** No progress observed. **10/31/2017:** Certification plan has been revised to show new stage 1 go-live dates and certification in two phases (for Stage 1 modules and for Stage 2 modules). This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-06-01			
Finding Name: Lack of Access and Visibility Into Other Dependent Plans			
Description: [redacted] Stage 1 and 2 Implementation Project Plans list a significant number of tasks as milestones leading to the assumption that there are other dependent project plans and schedules (such as Testing, CMS Certification, Training, [redacted] UAT Test environment setup, etc.) with details behind these milestone tasks. However, [redacted] PMO and other non [redacted] stakeholders do not have access to these plans. This results in a lack of clarity about the basis on which estimated due dates for these milestones were arrived at. There is also no visibility into how the progress towards these milestones is being tracked and reported. **Risks:** 1. Estimated due dates for these milestones may be incorrect 2. Milestone dates may not be met without previous indications that the date was in jeopardy 3. Impact to other project activities and overall project schedule 4. Incomplete and/or inaccurate project progress status reported 5. Increased project surprises and crisis management			
Recommendation(s)			
1. Provide access to these dependent plans 2. Provide visibility into how the Stage 1 and 2 [redacted] Implementation Project Plans are tied with these dependent plans			
Reference(s) to Industry Standard			

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Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC) and Integrated Project Management (IPM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017:** Detailed project plans for these areas have been provided for Stage 1. Detailed plans for Stage 2 need to be completed. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-06-02			
Finding Name: Absence of UAT Testing Training [redacted] UAT Testing Team			
Description: Review of high-level Training roadmap "Training Dates 2017-0516" does not list any planned training for [redacted] UAT Testers. [redacted] did provide orientation on various tools used to execute UAT Testing, such as [redacted] and ALM. Both the [redacted] QA teams developed their own UAT tester training. This has the potential of a disconnect and lack of common understanding between the [redacted] UAT teams about UAT testing entry criteria, testing strategy, scope, coverage, execution, exit criteria, defect logging, capturing and reporting. This could impact the accuracy of UAT Test results and status reports. **Risks:** 1. Incorrect identification between incident and defect 2. UAT testers may not follow required or desired UAT Testing process 3. Disconnect between [redacted] UAT testing teams on scope and coverage 4. Impact to other testing and project activities and overall project schedule 5. Incomplete and/or inaccurate UAT testing progress status reported 6. Increased risk to go-live			
Recommendation(s)			
1. Establish and provide common UAT Training to testers for both [redacted] 2. Establish formal touch points between [redacted] to identify identified issues, concerns, and lessons learned			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Organizational Training (OT) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017:** Training provided to [redacted] sufficiently remediated this finding. This finding is being closed.		

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Finding Number: F-M-06-03			
Finding Name: Issues Management Process Not Being Followed Consistently			
Description: Review of issues raised by the [redacted] team indicates that established issues management process is not being followed in all cases. In order for the appropriate engagement and corrective action to be taken, senior leadership needs to be involved for appropriate action to occur. This approach creates a bottle neck impacting the project's ability to deliver and support on-going activities in a timely manner. **Risks:** 1. Delay in actions to be taken 2. Impact to other project activities and overall project schedule 3. Increased risk to go-live			
Recommendation(s)			
1. Establish, follow, and monitor issues log for all project areas at all levels 2. Provide refresher orientation on issues management process			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project and Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017:** Much greater emphasis has been placed on entering, tracking, and reviewing issues. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-06-04
Finding Name: Absence of Planning, Coordination, and Communication for [redacted] UAT Test Environment Setup
Description: There is an absence of formal planning, coordination, and communication documentation [redacted] teams with respect to establishment of the [redacted] UAT Test environment. **Risks:** 1. Missing identification of key stakeholders on both [redacted] teams 2. Missing in identification of capacity and availability of key stakeholders to perform various activities 3. Delay in starting and completing UAT Testing 4. Impact to other project activities and overall project schedule 5. Increased risk to go-live
Recommendation(s)
1. Establish, revise, follow, and monitor other sub-plans such as UAT environment setup plan 2. Establish, publish, and communicate UAT environment plan and schedule as needed 3. PMO to consider to monitor and report status on progress and issues of such sub-plans

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Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project and Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017:** This was resolved for Sage 1. Will close, monitor, and re-open for Stage 2, if required.		

Finding Number: F-M-06-05			
Finding Name: Weekly "Testing Status Report" Does Not Include [redacted] UAT Testing Status			
Description: The [redacted] published weekly "Testing Status Report" does not include [redacted] UAT activities planned, executed, and status of [redacted] UAT Team testing. This approach doesn't give complete or holistic status of testing activities by all (including [redacted]). **Risks:** 1. Incorrect status on the progress reported, especially on UAT testing 2. Impact to other project activities and overall project schedule 3. Increased risk to go-live			
Recommendation(s)			
1. Revise weekly "Testing Status Report" to include section on [redacted] Testing activities			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project and Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017:** A separate [redacted] UAT Status Report is being provided. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-S-04-01
Finding Name: Lack of Consistency in Quality of Conducted Walkthroughs of BDD or DSD
Description: There are formal walkthroughs scheduled for BDD and DSD. However, there is variation in the effectiveness of these walkthrough sessions due to: • Absence of a clear definition of purpose of each session • Inconsistency in level of preparation for the sessions • Inconsistency in the level of knowledge about COTS products among participants

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<table>
<tr><td colspan="4">• Lack of holistic or overall enterprise view of the solution
Risks:
1. Impact on inability to provide needed clarifications
2. BDD and DSD may remain incomplete
3. Impact to other project activities and project schedule</td></tr>
<tr><td colspan="4">Recommendation(s)</td></tr>
<tr><td colspan="4">1. Send out walkthrough agenda along with invitations with clearly defined purpose and objectives to achieve
2. Capture, analyze and report on walkthrough data such as preparation, conduct, and post action items.</td></tr>
<tr><td colspan="4">Reference(s) to Industry Standard</td></tr>
<tr><td colspan="4">Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Verification (VER) and Validation (VAL) process areas.
Project Management Institute Project Management Body of Knowledge, Fifth Edition.</td></tr>
<tr><td rowspan="4">Priority</td><td colspan="2">Impact</td><td>Finding Origination</td></tr>
<tr><td>Degree</td><td>Medium</td><td>20 January 2017</td></tr>
<tr><td rowspan="2">High</td><td>Probability</td><td>High</td><td>Progress Indicator</td></tr>
<tr><td>Time Criticality</td><td>Immediate</td><td>Closed</td></tr>
<tr><td>Status Update</td><td colspan="3">04/21/2017: [redacted] is reviewing their walkthrough process to ensure more level-setting between facilitator's and [redacted] participants.
07/27/2017: [redacted] continues to evaluate their walkthrough process.
10/31/2017: [redacted] has reviewed their walkthrough process to ensure more level-setting between facilitator's and [redacted] participants. This finding has been sufficiently remediated and is being closed.</td></tr>
</table>

Closed Quarter 8: 01-31-2018:

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Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-PI-03-03	Project Implementation	H	Lack of Formal Acceptance Criteria for Product From the [redacted] Product Team and Subcontractors	X
F-M-05-02	Management	U	Lack of Decomposition of Data Conversion Activities in Project Schedule for both Stages 1 and 2	X
F-M-05-06	Management	H	Lack of Alignment of [redacted] CMS Certification Plan and Schedule With the Agreed Approach	X
F-M-05-07	Management	H	Lack of Common Risk Rating Criteria for Use by all [redacted] vendors	X
F-M-06-06	Management	U	[redacted] Weekly "Testing Status Report" Template Needs Enhancement to Include Other Information About Testing Activities	X
F-T-06-01	Technical	H	Absence of Configuration and Set-up Validation Checklist for Establishing UAT Test Environment at [redacted]	X
F-M-07-01	Management	U	Lack of Approval Before Schedule Start and Completion Dates are Changed	X

Finding Number: F-PI-03-03

Finding Name: Lack of Formal Acceptance Criteria for Product From [redacted] Product Team and Subcontractors

Description: Formal criterion for acceptance of product from [redacted] Product Team Subcontractors needs to be established with the [redacted] Project Team to ensure the quality of products being received.

Risks:

1. Unacceptable code quality
2. Increase in defect triage and remediation and rework activities
3. Impact to other project activities and project schedule

Recommendation(s)

1. Establish a formal set of acceptance criteria for product developed or provided by the [redacted] Team and Subcontractors.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Verification (VER), and Validation (VAL), and Risk Management (RSKM) process areas.

IEEE 29119-2-2013.

IEEE 829-2008

Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
High	Degree	High	7 Oct 2016
	Probability	Medium	Progress Indicator

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	Time Criticality	Immediate	Closed
Status Update	**01/13/2017:** Product is accepted by the [redacted] Team when the Product Team says it is ready. Not aware of having to satisfy any acceptance criteria. **04/21/2017:** No progress observed. **07/27/2017:** No progress observed. **10/31/2017:** [redacted] in place a formal acceptance process for deliverables such as BDD, DSD; however, similar process needs to be established for other kind of deliverables such as product releases, modules, etc. **01/31/2018:** [redacted] delivery employs an Agile delivery method, integrated into our non-product DDI modules. Each Product release includes Release Notes and documentation for DDI to rely upon for our Configuration. As such, we evolve our Configuration together, and look to Unit Testing, String Testing, System Integration Testing, Regression Testing, Penetration Testing, and Performance testing to validate our Integrated [redacted] Testing, with the resultant tracking and resolution of defects, translates to the quality delivery of the final integrated [redacted] solution as a whole has quality criteria for delivery to [redacted] IV&V will close this finding.		

Finding Number: F-M-05-02
Finding Name: Lack of Decomposition of Data Conversion Activities in Project Schedule
Description: Data Conversion activities in the schedule are high-level and lack the details necessary to properly plan resources or to be able to adequately track progress against. **Risks:** 6. Milestone dates may not be met without previous indications that the date was in jeopardy 7. Impact to other project activities and project schedule 8. Incomplete and/or inaccurate project progress status reported 9. Increased project surprises and crisis management 10. Quality and integrity issues with converted data
Recommendation(s)
4. Align Stage 1 and 2 Implementation Project Schedule with Data Conversion plan. 5. Provide details for Data Conversion tasks to resolve identified data issues and corrective action plans. 6. Review data quality and integrity of converted data regularly in Joint PMO, Team Leads, and other meetings as appropriate.
Reference(s) to Industry Standard
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Technical Solution (TS) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.

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Priority	Impact		Finding Origination
Urgent	Degree	High	21 April 2017
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**07/27/2017:** No progress observed. **10/31/2017:** No progress observed. **01/31/2018:** Data conversion activities have been included in Stage 1 and 2 schedules.		

Finding Number: F-M-05-06			
Finding Name: Lack of Alignment of [redacted] CMS Certification Plan and Schedule With the Agreed-Upon Approach			
Description: The [redacted] Certification Management Plan V2, Approved 2016.10.26, is not in line with the proposed approach and tools to be used. Similarly, the [redacted] Certification Project Plan 2017.01.23.mpp was last updated on Jan 23, 2017. Additionally, both the plan and schedule need to be aligned with the agreed approach and strategy for [redacted] Certification as per the meeting held on April 12, 2017 with all [redacted] Stakeholders - CMS, [redacted], State PMO, and IV&V Representatives. **Risks:** 1. Missing due dates for CMS Certification			
Recommendation(s)			
1. Align both Certification Plan and Schedule with agreed upon approach. 2. Review status of mitigation plans regularly in Joint PMO and Team Leads meetings.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Risk Management (RSKM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	Degree	Medium	21 April 2017
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**07/27/2017:** The Certification Schedule is in the process of being revised to align with the new certification approach. **10/31/2017:** Certification plan has been revised to show new stage 1 go-live dates and certification in two phases (for Stage 1 modules and for Stage 2 modules). Plan and schedule in process of being finalized for Stage 2. **01/31/2018:** This finding will be closed and a new finding regarding certification will be opened.		

Finding Number: F-M-05-07
Finding Name: Lack of Common Risk Rating Criteria for Use by all [redacted] Vendors

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Description: There is a need to establish a common definition of risk impact, probability, and severity across all such as [redacted] to ensure that risk ratings are understood and interpreted equally by all. Common guidance for risk management strategy (i.e., at what level should mitigation plans and contingency plans be in place) also needs to be established for use by all Vendors. **Risks:** 1. Incorrect risk rating 2. Incorrect interpretation of the severity of risk on project 3. Missing critical tasks and deliverables			
Recommendation(s)			
1. Establish and publish common definition for risk impact, probability, and severity. 2. Establish and publish a common risk mitigation strategy.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Risk Management (RSKM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	21 April 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**07/27/2017:** No progress observed. **10/31/2017:** No risks from vendors are provided in the project risk register, so it is unknown if they use the same risk rating parameters. No progress observed. **01/31/2018:** Common understanding established, but very few risks identified. This finding will be closed.		

Finding Number: F-M-06-06
Finding Name: [redacted] Weekly "Testing Status Report" Template Needs Enhancement to Include Other Information About Testing Activities.
Description: After review of the [redacted] weekly "Testing Status Report" in light of industry best practices and the CMS Expedited Life Cycle (XLC) Test Summary Report template, there is the need to enhance [redacted] "Testing Status Report" template. This enhanced testing status report template may provide additional information to provide complete testing status. **Risks:** 1. Incomplete testing status 2. Impact to other project activities and overall project schedule 3. Increased risk to go-live
Recommendation(s)
1. Revise weekly "Testing Status Report" template to include sections such as Testing Scope; Testing Assumptions and Constraints; Testing Risks; Testing Environment(s); Exit Criteria for each testing type; and Summary or Conclusions.
Reference(s) to Industry Standard

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Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Verification (VER) and Validation (VAL) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017:** Finding is under consideration. **01/31/2018:** The report meets State needs. This finding is being closed.		

Finding Number: F-T-06-01
Finding Name: Absence of Configuration and Set-up Validation Checklist for Establishing UAT Test Environment at [redacted]
Description: During establishment of [redacted] Test environment, various issues were identified, such as system configuration, URL's, firewall settings, and Identification and access to sub-systems (applications and legacy), to name a few. Review of these issues regarding establishment of a stable [redacted] Test environment raised by the [redacted] Testing team with the DXC team demonstrates that there is a need to establish and use a validation checklist that will ensure that [redacted] Test team is fully functional to perform UAT Testing as needed. Absence of a UAT environment validation checklist is causing further delay in UAT Test execution by the [redacted] team. **Risks:** 1. [redacted] Testing delayed 2. Impact to other testing and project activities and overall project schedule 3. Increased risk to go-live
Recommendation(s)
1. Establish and use UAT environment setup and configuration validation checklist
Reference(s) to Industry Standard
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Technical Solution (TS), Product Integration (PI), Validation (VAL) and Project Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	27 July 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**10/31/2017**: [redacted] a process and checklist for environment setup and configuration. **01/31/2018**: Duplicate of F-PI-07-01. Will include example from this finding in F-PI-07-01.		

Finding Number: F-M-07-01
Finding Name: Lack of Approval Before Schedule Start and Completion Dates are Changed

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Description: Several task start and completion dates in the baselined schedules have changed without prior discussion or approval to these changes. **Risks:** 1. Inability to meet schedule 2. Status reported against incorrect schedule dates			
Recommendation(s)			
1. Discontinue to practice of unilaterally changing task start and completion dates in the schedule. 2. Discuss and obtain [redacted] before changing task start and completion dates and establish a new schedule baseline.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP) and Project Monitoring and Control (PMC) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	31 October 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/31/2018:** Issue brought to management's attention and has not happened since. This finding has been sufficiently remediated and is being closed.		

Closed Quarter 9: 04-30-2018:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-02-02	Management	H	Lack of Formal Acceptance Criteria for Product From the [redacted] Product Team and Subcontractors	X
F-M-0302	Management	U	Lack of Decomposition of Data Conversion Activities in Project Schedule for both Stages 1 and 2	X
F-M-07-03	Management	H	Lack of Alignment of [redacted] CMS Certification Plan and Schedule With the Agreed Approach	X
F-U-07-01	User Involvement	H	Lack of Common Risk Rating Criteria for Use by all [redacted] vendors	X
F-M-08-04	Management	U	[redacted] Weekly "Testing Status Report" Template Needs Enhancement to Include Other Information About Testing Activities	X
F-PI-08-01	Project Implementation	H	Absence of Configuration and Set-up Validation Checklist for Establishing UAT Test Environment at [redacted]	X
F-PI-08-02	Project Implementation	U	Lack of Approval Before Schedule Start and Completion Dates are Changed	X

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Finding Number: F-M-02-02			
Finding Name: Inadequate Visibility into The HPE COTS Products Being Developed			
Description: [redacted] Stage 1 Implementation Plan does not identify tasks for planning, monitoring, and reporting activities related to products being developed by the [redacted] Product team. As this is new development based on [redacted] and not an existing mature COTS product, the State should have greater insight into product development. The State should be provided with release plans showing schedule, planned content/requirements being addressed, and requirements backlog for each release. Status updates should also be provided to the State showing when actual content is in jeopardy of not meeting planned content for a given release, and a detailed analysis of the impact on the backlog and schedule for future releases. If any requirement is being assigned to a future release/iteration, the State should be part of the decision-making team making decisions based on a complete detailed impact analysis. The project should also include tasks to provide the State a prototype demonstration of functionality for each iteration, so that when a product is released, there are no major surprises. **Risks:** 1. Product design and functionality may not align with State requirements and needs. 2. Potential of impact on schedule. 3. Possible re-work.			
Recommendation(s)			
1. Consider including development task details for [redacted] product in the [redacted] Implementation Project Plan. 2. Monitor and report against [redacted] tasks.			
Reference(s) to Industry Standard			
1. CMMI-DEV v1.3; Project Planning (PP) and Project Monitoring and Control (PMC) process areas 2. Project Management Institute, A Guide to the Project Management Body of Knowledge, Edition 5, 2012			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	15 July 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Short term	**Closed**
Status Update	**10/20/2016:** A table with Construction/Development tasks for each module has been added to the weekly status report. **01/13/2017:** No further progress this reporting period. **04/21/2017:** Tables with Construct tasks in the weekly status report include % complete, last week's estimated completion date, this week's estimated completion date, and actual completion date. **07/27/2017:** No further progress this reporting period. **10/31/2017:** Weekly status reports include tables for each module showing dates for milestones and some sub-tasks. State Product Owners are being assigned for each module to allow for more visibility into product development. **01/31/2018:** List of functionality and defects coming with each release being provided. Release notes after the release. Sprint reviews/demos now being provided.		

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	04/30/2018: List of functionality and defects coming with each release being provided. Release notes after the release. Sprint reviews/demos now being provided. This finding has been sufficiently remediated and is being closed.

Finding Number: F-M-03-02			
Finding Name: Lack of Visibility Into and Reporting Against Mitigation Plans			
Description: Little visibility is provided into mitigation activities and status of mitigation plans for risks, issues, or corrective actions to return to or improve schedule. Weekly status reports state that mitigation activities are in progress for certain items, but do not go into detail on what the mitigation steps or progress against those mitigation steps/plans are. **Risks:** 1. Ability to make timely decisions 2. Uncertainty that mitigation steps/plan is appropriate or may need to be revised to better address the risk or issue 3. Uncertainty that mitigation is progressing in an effective manner 4. Impact to other project activities and project schedule			
Recommendation(s)			
1. Provide details on mitigation steps/plan and status in logs and reports			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Monitoring and Control (PMC), Risk Management (RSKM), and Integrated Project Management (IPM) process areas. IEEE 16085-2006. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	7 Oct 2016
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/13/2017:** High level risks in [redacted] that mitigation plans are required, but mitigation plans are not attached to those risks. In addition, weekly status reports have not added any more detail regarding mitigation plans than when this finding was written. No progress observed. **04/21/2017:** Mitigation plans are attached to risks [redacted], but have little detail and weekly status reports have not added any more detail regarding mitigation plans than when this finding was written. **07/27/2017:** No progress this reporting period. **10/31/2017:** No progress this reporting period. **01/31/2018:** [redacted] were recently updated. IV&V will monitor to ensure they are consistently reviewed and updated. **04/30/2018:** Risks are being consistently reviewed and updated. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-07-03

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Finding Name: Lack of Clear Identification of Dependencies Across and Among all Modules (Stage 1 & 2) From a Holistic Perspective			
Description: Stage 1 and 2 Implementation schedules identify dependencies from either a project management or technical perspective; however, it inconsistently identifies dependencies to support other parameters, such as business, data, operations, and the ability to perform end-to-end testing for Stage 1 modules and across both Stage 1 and 2 modules. **Risks:** 1. Inability to truly ensure that when Stage 1 modules go-live they function/operate as intended or planned 2. Impact on implementing cutover plan for Stage 1 modules 3. Impact on Operations Teams readiness to support Stage 1 go-live activities 4. Delay in Stage 1 go-live timeline 5. Delayed certification [redacted] and delayed State funding			
Recommendation(s)			
1. Establish complete Stage 1 and 2 Schedules with all dependencies identified 2. Establish a complete traceability matrix			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Technical Solution (TS), Product Integration (PI) and Requirements Management (REQM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	31 October 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/31/2018:** Project Plans for all Stage 1 and 2 modules provided. The Module 9 Plan is being updated to make it more structured and easier to read. Logic diagrams appear to exist, but are not [redacted]. **04/30/2018**: Project Plans for all Stage 1 and 2 modules provided. Logic diagrams have been developed. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-U-07-01
Finding Name: Lack of Identification of Deliverable Review and Approval Parties
Description: Incomplete or outdated content of some DSDs may indicate the lack of a thorough review by the Operations Team. Current DSDs do not include any indication of what parties reviewed and provided sign-off on the DSD. **Risks:** 1. Inaccurate or incomplete design documentation leading to incorrect or incomplete system functionality that does not meet State requirements and needs. 2. Delayed schedule to correct design and construction.
Recommendation(s)
1. Include a section in DSD documents that lists those who reviewed and provided their approval of the document (the PM, TFAL, QA, Operations, State Team Lead, State PM, etc.)

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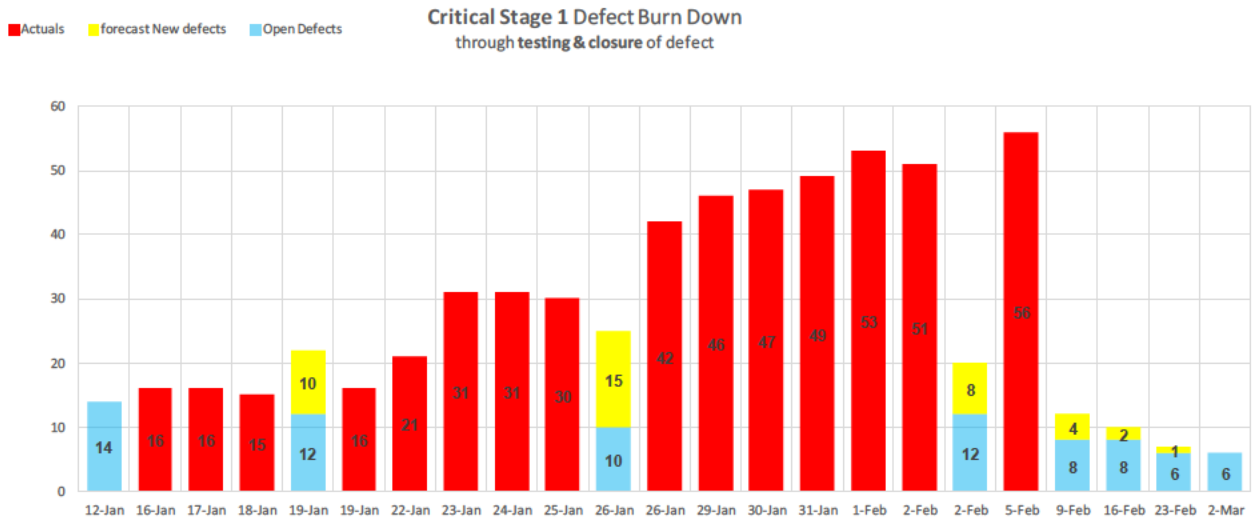
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP) and Technical Solution (TS) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	High	31 October 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/31/2018:** A review table to be added to documents showing names of those who have reviewed the document. **04/30/2018:** Review table has been added to deliverables. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-08-04

Finding Name: Stage 1 defect burn-down rate lagging.

Description: The defect burn-down rate for Stage 1 does not appear adequate to support a March 12, 2018 go-live that will meet the criteria of no Severity Level 2 defects and limited Severity Level 3 defects subject to negotiation. Defect burn-down data over the last several weeks indicates that the defect rate is going up and limited time exists to deploy defect fixes into patch releases with enough time to retest and verify corrections prior to the March 12, 2018 go-live date.

Burn-down chart from Feb 5 is shown below



The summary of open Severity Level 2 and 3 defects as of Feb 5, 2018 is shown below.

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Open High Severity Defects – Categorized by the Defect Impact – External – Provider/Internal – Provider Business Ops / Non-Provider

Stage 1 Defect Impact Summary - All Open High Severity Defects									
Count of Defect ID	Column Labels								
Severity	1/31/2018	2/2/2018	2/5/2018	2/7/2018	2/19/2018	(blank)	2/6/2018	2/14/2018	Grand Total
External - Provider Facing									
2-Major: No Workaround			8	3	1	2		1	15
3-Major: With Workaround			1			2			3
Internal - Provider Business Ops									
2-Major: No Workaround		2	5	2	4	6			19
3-Major: With Workaround					1	6	1		8
Non-Provider									
2-Major: No Workaround				2					2
3-Major: With Workaround	1		2	3		2	1		9
Grand Total	1	2	16	10	6	18	2	1	56

As shown in the yellow shaded area above, 2 provider facing and 6 internal facing Severity Level 2 defects are not scheduled for any patch at this time. [redacted] still has a significant portion of end-to-end tests to run and more Severity Level 2 and 3 defects will most likely be found during that testing. In addition to the Severity Level 2 defects with no workarounds, the impacts of the Severity Level 3 defect workarounds to business need to be assessed to determine if they are acceptable. There is a good risk that the State may either have to accept some significant defects in order to go-live on March 12, 2018, or delay go-live.

Risks:

1. Significant defects at go-live.
2. Potential business impacts.
3. Potential delay in go-live date.

Recommendation(s)

1. Review defect burn-down and defect fix schedules and provide status to the State on a daily basis.
2. Assess impacts on the business of current and newly identified defects and relay this information daily.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), Verification (VER), Validation (VAL), and Risk Management (RSKM) process areas.

Project Management Institute Project Management Body of Knowledge, Sixth Edition.

Priority	Impact		Finding Origination
Urgent	Degree	High	31 January 2018
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	04/30/2018: Stage 1 is live. This finding is being closed.		

Finding Number: F-PI-08-01
Finding Name: The detailed deployment plan for 3/12/2018 Go Live date does not [redacted] needs.
Description: A Deployment Approach Document was distributed in mid-January with request for input and approval and an explanation that a detailed Deployment Plan would be distributed shortly. Two dry runs have been scheduled to walk through the detailed deployment plan, but that deployment appears to be missing details about communication needs [redacted] (metrics and communication schedule) at Go Live.

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Risks:

1. [redacted] and project leadership will not have access to information expected during the critical hours and days following Go Live.
2. Web site and application metrics that [redacted] to see will not be captured.
3. Scrambling after Go Live to provide requested information will increase stress and risk of quality assurance problems in resulting communications.

Recommendation(s)

1. [redacted] find out what information they and project leadership want and expect to see at Go Live.
2. [redacted] add details to the detailed deployment plan for communications (content and milestones) to project leadership.
3. [redacted] input and sign off on the detailed deployment plan.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Technical Solution (TS), Product Integration (PI) and Requirements Management (REQM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
Urgent	Degree	High	31 January 2018
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**04/30/2018:** Stage 1 is live. This finding is being closed.		

Finding Number: F-PI-08-02

Finding Name: A regression test suite should be created and packaged to run as an automated process whenever code is imported into the System Integration Test environment, whether a major or patch release.

Description: Regression testing ensures that previously developed and tested software still performs as expected changed or interfaced with other software. This could include changes resulting from software releases, patches, or configuration changes. Designing a regression test plan that includes automated test suites of a selected number of test cases that cover maximum functionality and then comparing the results against known exit criteria will take time to create but will improve quality of code introduced into downstream environments and reduce introduction of defects to code that previously passed tests.

Risks:

1. Introduction of defects to functionality that previously passed tests.
2. Delay in finding introduced defects.
3. Missed defects in previously tested application code.

Recommendation(s)

1. Create regression test plan that includes automated test suites.
2. Identify already-run test cases that can be automated for regression testing.
3. Build automated test suites over time to reduce impact on testing resources.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Technical Solution (TS), Product Integration (PI) and Requirements Management (REQM) process areas.

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Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	31 January 2018
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/30/2018:** [redacted] intend to develop an automated regression test suite. This finding is being closed.		

Closed Quarter 10: 07-31-2018:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-04-03	Management	H	Lack of Common Understanding of Agile Touch Points for the State	X
F-M-08-01	Management	U	Time allocated for Stage 2 User Acceptance Testing (UAT) is likely inadequate.	X
F-M-09-01	Management	H	Overlap of SIT and UAT Activities in Stage 2 Implementation Schedule	X

Finding Number: F-M-04-03
Finding Name: Lack of Common Understanding of Agile Touch Points for the State
Description: Because of the COTS concept and the use of Agile by [redacted] product and does not understand where it makes sense for the State team to make interfaces with the process to obtain status and product information/demonstrations. The [redacted] come together to define and document what the agile methodology for the project is and to define interface points in the agile methodology where the State can be provided information regarding development status, content of upcoming releases, and demonstration of released functionality. **Risks:** 1. Missed schedules and RFP scope 2. Incomplete functionality 3. Rework 4. Missed continuous feedback to [redacted] of agile methodology
Recommendation(s)
1. Meet to discuss the agile lifecycle and methodology. 2. Determine appropriate points in the process to provide information to the State. 3. Actively work and track to the development schedule(s). 4. Provide release plan/schedule and content/RFP scope for each release to the State. 5. Report progress against the plans. 6. Provide timely demonstrations of product for each release.
Reference(s) to Industry Standard

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Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Technical Solution (TS), Product Integration (PI), and Requirements Management (REQM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	Medium	20 January 2017
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/21/2017:** [redacted] of features to be expected in the final releases for Stage 1; however, it is still not clear what the interaction points are and what data can be provided to the State at what points in time. **07/27/2017:** No further progress observed. **10/31/2017:** State Product Owners are being identified in order to provide more insight into product sprint activities and [redacted] team leads. **01/31/2018:** Sprint reviews started. **04/30/2018:** Sprint reviews started, but need to include additional information identifying requirements being addressed for that and the next sprint. **07/31/2018:** Business Function reviews include additional information identifying requirements being addressed for that and the next sprint. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-08-01
Finding Name: Time allocated for Stage 2 User Acceptance Testing (UAT) is likely inadequate.
Description: The Stage 2 schedule timeline has an overlap of System Integration Testing (SIT) and User Acceptance Testing (UAT), with both ending at the same time. The UAT period for Stage 2 is 5 months, or almost two months shorter than it was for Stage 1 UAT, even though Stage 2 UAT is bigger and more complex and will require many more test cases (approximately 600 test cases in Stage 2 compared to 93 in Stage 1 and 24 end-to-end test suites in Stage 2 compared to three huge test suites in Stage 1). **Risks:** 1. UAT will be further reduced as schedule is compacted. 2. Delay in completing Stage 2 UAT may require schedule changes, delaying modules from anticipated Go Live. 3. Stage 2 modules may go live with incomplete UAT results, questionable quality, and/or lack of complete requirements coverage. 4. Defect resolution may occur after Go Live.
Recommendation(s)
1. DXC Project Management staff should [redacted] to arrive at a realistic UAT test plan and associated milestones to ensure UAT starts and progresses on schedule. 2. Publish schedule and functionality within each release and patch to enable analysis and planning prior to receipt of code for testing.

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Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Technical Solution (TS), Product Integration (PI) and Requirements Management (REQM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	31 January 2018
	Probability	High	**Progress Indicator**
	Time Criticality	Short-term	**Closed**
Status Update	**04/30/2018:** Test schedule was updated and is being reviewed by IV&V. **07/31/2018:** Risk 52 is in place. This finding will be closed.		

Finding Number: F-M-09-01			
Finding Name: Overlap of SIT and UAT Activities in Stage 2 Implementation Schedule			
Description: Stage 2 implementation project plan shows System Integration Testing (SIT) in three iterations starting March 1, 2019 and going through February 28, 20. It also shows User Acceptance Test in three iterations starting September 1, 2018 and going through February 28, 2020 and End-to-End testing going from March 1, 2020 through April 30, 2020. This schedule therefore, has SIT and UAT overlapping six months, from September 1, 2019 through February 2020. The schedule also assumes all defect fixes for iterations are delivered in business days. Given the number of defects found during Stage 1 and turn-around for those defects, the much greater size and complexity of Stage 2, the large overlap of SIT and UAT, the five day defect turnaround assumption for Stage 2, and the short 2 month end-to-end testing period ending just weeks prior to go-live; the probability of meeting the test and implementation schedule for Stage 2 with acceptable quality is low. **Risks:** 1. Increased complexity of planning, executing, and re-planning development, test, system configuration, and defect management activities. 2. Increased probability of missed test and deployment schedules. 3. Reduced quality of product components and integrated system.			
Recommendation(s)			
1. Conduct thorough analysis to determine if sufficient time is allotted for defect resolution and execution of thorough end-to-end system and user acceptance testing. 2. Ensure timely, open com[redacted]esters throughout the test planning, execution, and defect prioritization and resolution process.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	High	30 April 2018
	Probability	High	**Progress Indicator**
	Time Criticality	Long-Term	**Closed**
Status Update	**07/31/2018:** Risk 52 is in place. This finding will be closed.		

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Closed Quarter 11: 10-31-2018:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-08-02	Management	U	Certification planning and execution is inconsistent.	X
F-M-08-03	Management	H	Lessons learned from Stage 1 project from requirements, planning, design, development, testing, and implementation appears to be missing from Stage 2 planning.	X
F-T-08-01	Technical	U	Data available in All Claims Universe in Cerner has not been fully tested and/or accepted [redacted] users.	X
F-PI-09-01	Project Implementation	H	Reports Created by Data Warehouse Module Need to Be Validated	X

Finding Number: F-M-08-02			
Finding Name: Certification planning and execution is inconsistent.			
Description: The [redacted] Certification Management Plan was last updated in October 2016 and it, and the [redacted] Certification Project Plan are out of date. Staff turnover, technology issues, and staff availability have had impacts in this area, and agreement on levels of effort and significant milestone dates is still pending. **Risks:** 1. Unrealistic expectations for schedules for IV&V and/or federal certification. 2. Delays in certification will delay state funding.			
Recommendation(s)			
1. Update [redacted] Certification Management plan and related [redacted] Certification Project Plan.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Risk Management (RSKM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	31 January 2018
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/30/2018:** Stage 1 R2 certification dates have been established and checklists are being reviewed. IV&V is in the process of reviewing the newly published Stage 2 certification plan. Should complete Stage 2 certification plan by the end of May.		

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	07/31/2018: [redacted] updated R3 schedule and provide updated evidence repository. IV&V will then review. 10/31/2018: R3 schedule published, checklists and evidence files provided, and IV&V has completed review of artifacts and checklists. This finding is being closed.

Finding Number: F-M-08-03

Finding Name: Lessons learned from Stage 1 project from planning, design, development, testing, and implementation appear to be missing from Stage 2 planning.

Description: Lessons learned documentation was created in [redacted] for all modules EXCEPT Mod 8 (Data Warehouse) have not been updated since 2016. Significant evolution in DSD creation, Sprint reviews, UAT triage sessions, conversion documentation and review, etc. has occurred during Stage 1.

Risks:

1. Wasted time and effort and increased frustration required to work through issues already addressed.
2. Reduced quality of artifacts, documents, and applications produced.

Recommendation(s)

1. Provide opportunities to staff working on Stage 1 to brainstorm on top lessons learned, providing staff to document those lessons.
2. Provide the list of lessons learned to the various Project Managers and Team Leads for consideration about effect on Stage 2 work.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Technical Solution (TS), Product Integration (PI) and Requirements Management (REQM) process areas.
Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
High	Degree	Medium	31 January 2018
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**04/30/2018:** Lessons Learned are being collected [redacted] together to determine what should be applied for Stage 2. **07/31/2018:** [redacted] Lessons Learned to determine which can/should be implemented in Stage 2 and provided the list to [redacted] 10/31/2018: Lessons Learned analyzed and [redacted] recommendations to [redacted] to implement. [redacted] and provided comment back [redacted] This finding is being closed.		

Finding Number: F-T-08-01

Finding Name: Data available in All Claims Universe in Cerner has not been fully tested and/or accepted by KDHE power users.

Description: Previous Mod 8 acceptance by [redacted] data warehouse and the legacy data reporting. Data

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warehouse power users in [redacted] little success in validating other claims data. Concerns over potential duplicate claim amounts, lack of transparency in logic [redacted] in creating the All Claims Universe, and lack of user experience and skill in utilizing [redacted].

Risks:

1. A significant cost will be incurred to extend the current Truven contract providing access to legacy reporting beyond the current 6/30/2018 expiration date.
2. Power users at [redacted] to respond to requests for data and information.
3. Reports provided by the agency will be incorrect.

Recommendation(s)

1. Involve KDHE power users in testing the [redacted], with daily discussions of findings and questions.
2. Walk through Cerner logic in creating the All Claims [redacted] experts.
3. Develop detailed acceptance criteria for All Claims [redacted], and who will sign off on each criteria item.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Technical Solution (TS), Product Integration (PI) and Requirements Management (REQM) process areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
Urgent	Degree	High	31 January 2018
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**04/30/2018:** [redacted]. IV&V will then review results. **07/31/2018:** [redacted]. 10/31/2018: [redacted]. This finding is being closed.		

Finding Number: F-PI-09-01

Finding Name: Reports Created by Data Warehouse Module Need to Be Validated

Description: Testing of Data Warehouse reports prior to go-live of the system was very limited:

- Too many reports from current system that have not been [redacted]
- Some reports cannot be replicated due to [redacted]
- [redacted].
- Expand training not only on how to use tool but also how the data is being utilized in Universe so that associations can be understood and evaluate impact on reports [redacted]
  - Data quality is bad due to data load and other reasons. Examples of fields with bad data include: Expenditures, amount paid, and account receivables.
  - Finance tables don't work or are inaccurate

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- Mod 5 Finance DSD:
  - Lists 2 reports now, but shows incorrect report design (Older quarterly reports are dropped instead of rollover in new report- negative adjustments are dropped and expect to go to Change Control Board for approval).
  - School expenditure is manually entering the data from 288+ school districts although automatic updates are an RFP Requirement; however, [redacted] in the DSD.

Risks:

1. Wasted time and effort and increased frustration required to perform rework.
2. Inaccurate or incomplete reports.
3. Inability to meet reporting requirements.

Recommendation(s)

1. Compare reports to current reports (both standard and ad-hoc) being generated by Legacy system and RFP Requirements.
2. [redacted] of reports.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Requirements Development & Management (RDM) and Validation & Verification (VV) practice areas.

Priority	Impact		Finding Origination
High	Degree	Medium	30 April 2018
	Probability	High	Progress Indicator
	Time Criticality	Short-Term	Progress Observed
Status Update	07/31/2018: [redacted].		
	10/31/2018: [redacted]. This finding is being closed.		

Closed Quarter 12: 01-31-2019:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-05-01	Management	H	Lack of Detail in Mitigation Plans	X
F-M-07-02	Management	U	Lack of Requirements Traceability to CMS Certification Checklist Criteria	X
F-PI-09-02	Project Implementation	M	Training Needs to Include Real-Life, Role-Based Scenarios	X
F-PI-11-01	Project Implementation	M	Lack of Test Results in ALM for Accessibility Tests	X

Finding Number: F-M-05-01

Finding Name: Lack of Detail in Mitigation Plans

Description: The [redacted] Management Plan, Section 2.5 describes items to be included in risk mitigation or risk action plans. According to this section, risk mitigation plans are to describe the actions

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in terms of resources, timing, and tasks. It further defines things to consider, such as: plan steps, plan objectives, resources required, success criteria, triggers, and plan monitoring. The risk mitigation plans for [redacted] not include these items and are, in many cases, very generic. Similarly, mitigation plans for impediments and issues should include detail to include action steps, owner of each step, and due dates and should have status reported in the Weekly Project Status Reports.

Risks:

1. Risks will not be properly mitigated
2. Impact to other project activities and project schedule

Recommendation(s)

1. Provide details for risk mitigation plans as defined in [redacted] Risk Management Plan.
2. Provide details for impediment and issue action plans.
3. Review status of mitigation plans regularly in Joint PMO and Team Leads meetings.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP), Project Monitoring and Control (PMC), Integrated Project Management (IPM), and Risk Management (RSKM) process areas.

Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
High	Degree	Medium	21 April 2017
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed

Status Update

07/27/2017: No progress observed.

10/31/2017: No progress observed.

01/31/2018: [redacted] verify if adequate detail has been added.

04/30/2018: [redacted] Risk Management Plan for potential changes.

07/31/2018: [redacted] risk mitigation plans and Risk Management Plan and make necessary revisions to bring them into alignment.

10/26/2018: [redacted] the Risk Management Plan and is now reviewing open risks and making necessary revisions to bring risk mitigation plans into alignment with the plan. Further, [redacted] emphasis on creating detailed plans as new risks are identified.

01/25/2019: [redacted] to include detailed mitigation plans where required by the Risk Management Plan. This Finding has been sufficiently remediated and is being closed.

Finding Number: F-M-07-02

Finding Name: Lack of Requirements Traceability to CMS Certification Checklist Criteria

Description: The current version of the Requirements Traceability Matrix (RTM) is distributed across different applications such as [redacted], ALM, etc. This makes traceability a challenge and puts burden on stakeholders such [redacted] QA, IV&V, [redacted] (Interface, Certification), and CMS. Current version also increases risk of missing requirements, design decisions, and other updates throughout project

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lifecycle. Hence, it is highly recommended that a comprehensive RTM is established to help the project to plan with confidence and get activities accomplished on time.

Additionally, the RTM needs to tie [redacted] to the CMS certification criteria and appropriate CMS certification checklists. A traceability matrix tracing the [redacted] requirements to sections of DSDs, [redacted] Stage 1 or Stage 2 implementation, CMS certification criteria numbers, and CMS Module Certification Checklists needs to be established to enable proper planning and tracking of certification progress and status.

Risks:

1. Missed traceability from requirements to product release
2. Inability to determine what [redacted] is being addressed in what [redacted] module and how that related to specific certification criteria contained in what specific certification checklist
3. Delayed certification of [redacted] and delayed State funding

Recommendation(s)

1. Establish a complete traceability matrix
2. Use the traceability matrix to complete appropriate certification criteria on the appropriate certification checklists and submit the appropriate checklists for review.

Reference(s) to Industry Standard

Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Project Planning (PP) and Requirements Management (REQM) process areas.

Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
Urgent	Degree	High	31 October 2017
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	**01/31/2018:** RFP requirements included in CMS Certification Checklists. IV&V will verify accuracy. **04/30/2018:** RFP requirements included in all CMS Checklists, except Access and Delivery. **07/31/2018:** [redacted] at how traceability can be shown from requirements to design to test and back. May not be an easy way to do for Stage 1 R3. **10/26/2018:** An approved RTM is required to close this Finding. The RTM is a required Appendix B artifact for certification. **01/25/2019:** [redacted]. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-PI-09-02

Finding Name: Training Needs to Include Real-Life, Role-Based Scenarios

Description: Training provided was scripted with pre- selected examples with limited real-life, role-based scenarios, information about data models, universes, and data references/associations. Examples are provided below:

- CRM Training modules (Customer Services, Grievances, Appeals, etc.)
  - Training was all same irrespective of the module

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- Training material was generic and minimum focus was given to specific areas such as- Grievances, Appeals, and State Fair Hearing
- Provider Training
  - Not much feedback from Providers
  - Mostly online training
- Training needs to be provided by user roles, such as:
  - Data analysts
  - Universe builder
  - Reports builder

Risks:

1. End-user unable or slow to adopt use of new system.

Recommendation(s)

1. Provide role-based training with real-life scenarios.
2. Expand training not only on how to use tool but also how the data is being utilized in Universe so that associations can be understood and evaluate impact on reports.
3. Engage with end-users, such as Providers, to develop training materials and manage their expectations.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Organizational Training (OT), and Planning (PLAV) practice areas.
Project Management Institute Project Management Body of Knowledge, Fifth Edition.

Priority	Impact		Finding Origination
Medium	Degree	Medium	30 April 2018
	Probability	Medium	Progress Indicator
	Time Criticality	Long-Term	Closed
Status Update	**07/31/2018:** On 7/30 the [redacted] met with Operations and presented the plan to perform task analysis activities and create training materials according to functional areas. **10/26/2018:** IV&V will review to see if this item is considered in the Stage 1 lessons learned or accounted for in the MTP DED. If so, this item may be closed. **01/25/2019:** Module training plans include specific role-based scenarios. This Finding has been sufficiently remediated and is being closed.		

Finding Number: F-PI-11-01

Finding Name: Lack of Test Results in ALM for Accessibility Tests

Description: Accessibility tests conducted for Stage 1 only showed "run" for test results in ALM, and did not have test reports attached in ALM. This gives the State no insight into accessibility test results and risks involved. No accessibility testing is planned for Stage 1.5. For Stage 2, the State will need access to specific accessibility test results to determine which items need fixes and which items are allowable to go into production. Consider the Voluntary Product Accessibility Templates (VPATs) provided for COTS and developed products, and provide a sign-off on accessibility.

Risks:

1. Inability to assess accessibility results, determine risks and mitigations, and provide State sign-off.

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2. Non-compliance with accessibility standards.			
Recommendation(s)			
1. Provide and make accessible accessibility test results/reports to the State.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration (CMMI) V2.0: Verification & Validation (VV) practice area. Capability Maturity Model Integration for Services (CMMI-SVC) v1.3: Service System Transition (SST) process area.			
Priority	**Impact**		**Finding Origination**
Medium	**Degree**	High	26 October 2018
	Probability	Medium	**Progress Indicator**
	Time Criticality	Long-term	**Closed**
Status Update	**01/25/2019:** Closed for Stage 1. [redacted] the addition of Accessibility Test Results into ALM for Stage 2.		

Closed Quarter 13: 04-26-2019:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-M-11-01	Management	High	Stage 2 Schedules Lack Time for Data and Environment Refreshes	X
F-M-11-02	Management	High	Minimum Formal Transition and Knowledge Transfer [redacted]	X
F-M-12-01	Management	Urgent	Lack of Defined Stage 2 RTM Impacts SIT & UAT Test Planning	X
F-M-12-02	Management	High	Lack of Single Point of Contact and Single Repository for Test Defects and Reporting	X

Finding Number: F-M-11-01
Finding Name: Stage 2 Schedules Lack Time for Data and Environment Refreshes
Description: Stage 2 schedules do not include any time for data and environment refreshes prior to entering UAT test and end-to-end test phases. Stage 1 included periods for refreshes. **Risks:** 1. Inaccurate test results and additional defects. 2. Delayed schedule.
Recommendation(s)
1. Add tasks in schedules to accomplish data and environment refreshes prior to each phase of testing.
Reference(s) to Industry Standard
Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification and Validation (VV) practice areas. Capability Maturity Model Integration for Services (CMMI-SVC) v1.3: Service System Transition (SST) process area.

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Priority	Impact		Finding Origination
High	Degree	High	26 October 2018
	Probability	Medium	Progress Indicator
	Time Criticality	Short-term	Closed
Status Update	**01/25/2019:** Tasks for data and environment refreshes have been added to schedules. IV&V to verify adequacy. **04/26/2019:** Data and Environment refreshes were added to the Stage 2 schedule. IV&V will close and revisit when the re-baselined schedule is released.		

Finding Number: F-M-11-02			
Finding Name: Minimum Formal Transition and Knowledge Transfer [redacted]			
Description: It has been noted that there is no evidence of formal knowledge transfer and transition planning at [redacted] such as project managers change. This impacts future activities at all levels- starting at module(s). Examples: The latest Module 8 DWA PM didn't have information on the lessons learned from Stage 1 and decisions made prior to him coming in this role. The new [redacted] manager repeated several times in a risk review meeting the fourth week of October that he did not have a whole lot of background on the risks identified on the project. **Risks:** 1. Potential of repeating mistakes made in Stage 1. 2. Delayed schedule. 3. Risk and uncertainty about decisions made earlier and to be made in future due to lack of information.			
Recommendation(s)			
1. Implement formal knowledge transfer plan.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) practice area			
Priority	**Impact**		**Finding Origination**
High	**Degree**	High	26 October 2018
	Probability	Medium	**Progress Indicator**
	Time Criticality	Short-term	**Closed**
Status Update	**01/25/2019:** No updates were provided this quarter. **04/26/2019:** Overcome by events. Plan for transition and knowledge transfer exists. This finding has been sufficiently remediated and is being closed.		

Finding Number: F-M-12-01
Finding Name: Lack of Defined Stage 2 RTM Impacts SIT & UAT Test Planning
Description: System Integration Test (SIT) iteration 1 is scheduled to start on 3/4/19; however, not all requirements are mapped to Test Cases (TCs) and Test Cases are not mapped to requirements. This represents a risk to the project and to the test scope and schedule that loading and mapping of requirements to Test Cases will take place in a timeframe to ensure all requirements are included in TCs

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and, if not, that TCs can be modified or developed to cover gaps and ensure testing addresses all requirements and stays on schedule, particularly for SIT 1. Additionally, the existence of an RTM will enhance TC management activities, such as planning for TC development, optimization of testing necessary, and elimination of duplicate TCs and defect leakage. **Risks:** 1. Missed test coverage of requirements and functionality 2. Increased test schedule and overall schedule 3. Delayed certification of Stage 2			
Recommendation(s)			
1. Establish a complete traceability matrix 2. Use the traceability matrix for test case development and test activities.			
Reference(s) to Industry Standard			
Capability Maturity Model Integration (CMMI) V2.1: Planning (PLAN) and Requirements Development & Management (RDM) practice areas. Project Management Institute Project Management Body of Knowledge, Sixth Edition.			
Priority	**Impact**		**Finding Origination**
Urgent	**Degree**	High	25 January 2019
	Probability	High	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**04/26/2019:** Requirements traceability to test cases has been completed for SIT. The approach for UAT will be in the updated TEMP and the RTM will follow. IV&V Will close this finding. If this becomes an issue for UAT, IV&V will open another finding.		

Finding Number: F-M-12-02
Finding Name: Lack of Single Point of Contact and Single Repository for Test Defects and Reporting
Description: Testing responsibilities and reporting are distributed among different teams (such as Data Warehouse, Conversion, Security, Accessibility, ST, SIT, Regression, UAT, etc.) rather than having one owner for the status reporting of all testing and one place for recording of defects for all types of testing. This will ensure unified reporting with a single source of truth. **Risks:** 1. Incomplete, inaccurate, and/or inconsistent reporting of test status and defects 2. Inability to evaluate impact of defects and their severity of defects on other modules 3. Negative impact on schedule due to risks 1 and 2
Recommendation(s)
1. Establish a single point of contact for and a unified report with defined metrics for all types of testing. 2. Make ALM the source for capture and reporting of results for all testing.
Reference(s) to Industry Standard
Capability Maturity Model Integration (CMMI) V2.0: Planning (PP), Monitoring and Control (MC), and Verification & Validation (VV) practice areas. Project Management Institute Project Management Body of Knowledge, Fifth Edition.

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Priority	Impact		Finding Origination
High	Degree	Medium	25 January 2019
	Probability	High	Progress Indicator
	Time Criticality	Short	Closed
Status Update	04/26/2019: Development test results are now being entered into ALM. Test results for Security, Accessibility, Conversion, etc. will continue to be captured outside of ALM. Each testing entity will continue to report their test results. [redacted] This finding has been sufficiently remediated and is being closed.		

Closed Quarter 14: 07-26-2019:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-PI-07-01	Project Implementation	High	Lack of Implementation of Formal Migration/Configuration Management Process Across Environments, Sub-systems, or Applications	X
F-PI-11-02	Project Implementation	High	Stage 2 Testing Iterations Lack Defined Entry and Exit Criteria	X

Finding Number: F-PI-07-01

Finding Name: Lack of Implementation of Formal Migration/Configuration Management Process Across Environments, Sub-systems, or Applications

Description: Inconsistencies, such as Oracle application configuration settings between server and client, demonstrate that the migration or configuration management process is not being consistently applied across different environments, sub-systems, or applications. There have been several instances of product releases deployed where reference tables were not updated. This may also reflect that there is either an absence or lack of enforcement of verification processes.

Additionally, during [redacted] Test environment, various issues were identified, such as system configuration, URL's, firewall settings, and Identification and access to sub-systems (applications and legacy), to name a few. Review of these issues regarding establishment of a stable [redacted] Absence of a UAT environment validation checklist is causing further delay in UAT Test execution by the [redacted].

Risks:

1. Inconsistent configurations of environments, sub-systems, and applications
2. Increase in incorrect defect identification
3. Impact to other project activities and project schedule

Recommendation(s)

1. Establish a formal verification process to ensure that appropriate steps were followed while environments, sub-systems and applications are being established or configured.

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Reference(s) to Industry Standard			
Capability Maturity Model Integration for Development (CMMI-DEV) v1.3: Verification (VER), and Validation (VAL), and Risk Management (RSKM) process areas. IEEE 29119-2-2013. IEEE 829-2008 Project Management Institute Project Management Body of Knowledge, Sixth Edition.			
Priority	**Impact**		**Finding Origination**
High	**Degree**	High	31 Oct 2017
	Probability	Medium	**Progress Indicator**
	Time Criticality	Immediate	**Closed**
Status Update	**01/31/2018:** Will continue to monitor. **04/30/2018:** [redacted]. This continues to be a topic discussed at weekly Technical meetings. **07/31/2018:** [redacted] by 09/30/18. IV&V will then review. **10/26/2018:** Once the updated CM plan has been delivered and approved [redacted], IV&V will review and consider closing this finding. **01/25/2019:** Updated CM Plan has been submitted and approved by [redacted] release procedures, CMDB, and list of configurations (software, patches, web services, etc.) across environments. **04/26/2019:** Updated CM Plan has been submitted and approved by [redacted] release procedures, CMDB, and list of configurations (software, patches, web services, etc.) across environments [redacted]. IV&V working to get access to these items. **07/26/2019:** This Finding has been sufficiently remediated and is being closed.		

Finding Number: F-PI-11-02		
Finding Name: Stage 2 Testing Iterations Lack Defined Entry and Exit Criteria		
Description: Entry and Exit criteria for product releases moving across ST, SIT, and UAT need to be clearly defined and followed. This includes all COTS products, including [redacted] etc. Such entry and exit criteria would allow the project to determine test iteration completion, readiness to enter the next test iteration, and allow better visibility into testing status. **Risks:** 1. Incorrect reported testing status. 2. Delayed schedule.		
Recommendation(s)		
1. Establish and publish testing iteration entry and exit criteria.		
Reference(s) to Industry Standard		
Capability Maturity Model Integration (CMMI) V2.0: Verification and Validation (VV) practice area		
Priority	**Impact**	**Finding Origination**

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High	**Degree**	High	26 October 2018
	Probability	Medium	**Progress Indicator**
	Time Criticality	Short-term	**Closed.**
Status Update	**01/25/2019:** Being discussed to be added to test plans. **04/26/2019:** IV&V will review to see if this is covered in updated TEMP and re-baselined plans that are now being developed. **07/26/2019:** Entrance and Exit criteria have been defined. This Finding has been sufficiently remediated and is being closed.		

Closed Quarter 15: 10-31-2019:

None.

Closed Quarter 16: 01-31-2020:

Finding Number	Oversight Area	Priority	Finding Title	Finding Closed
F-PI-15-02	Project Implementation	High	Downstream Impacts of Late SIT IT 3 Test Case Completion	X

Finding Number: F-PI-15-02
Finding Name: Downstream Impacts of Late SIT IT 3 Test Case Completion
Description: Completion of test cases for SIT Iteration (IT) 3 is behind schedule. As of 10/25/2019, SIT IT 3 test case completions were 555 behind the planned burn-down. As shown below, if test case completion continues at the burn-down rate averaged up to 10/25, the completion date will be 12/24/2019, approximately 5.3 weeks beyond the planned 11/15 completion date. If burn-down is accomplished at the planned rate starting on 10/25, test cases will be completed on 11/26/19 (approximately 1.6 weeks beyond the planned 11/14/19 completion date). Either of these completion dates puts the planned start of SIT IT3 test execution on 12/06/19 in jeopardy

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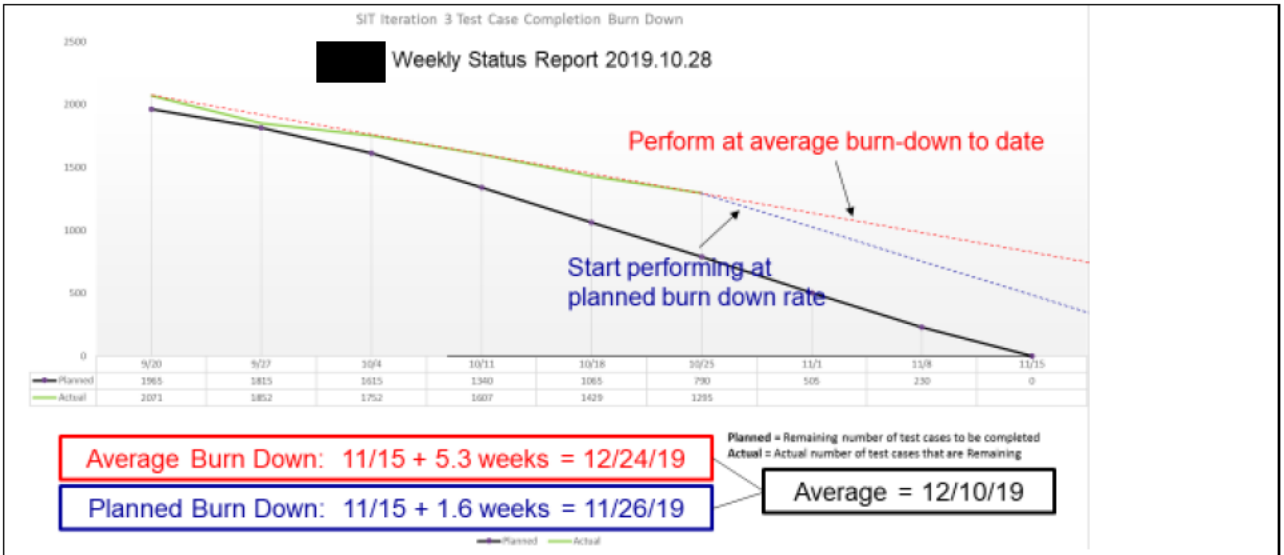

Risks:

1. Test case quality may not be acceptable due to short time to review the test cases prior to start of test.
2. SIT IT3 test case creation may not support planned start of SIT IT 3 on 12/06/19 resulting in a slip to the start of SIT IT 3, which could impact downstream testing dates (both SIT and UAT).

Recommendation(s)

1. Complete an analysis to determine how to complete SIT IT 3 test cases on time and impacts if test case completion cannot be completed on time.
2. Provide test cases for review in small chunks as they are completed and not in mass quantities near the end of test case completion.
3. Develop a plan for SIT IT 3 test case development and subsequent SIT and UAT test execution.

Reference(s) to Industry Standard

Capability Maturity Model Integration (CMMI) V2.0: Planning (PLAN) and Verification & Validation (VV) practice areas.

Priority	Impact		Finding Origination
High	Degree	Medium	31 October 2019
	Probability	High	Progress Indicator
	Time Criticality	Immediate	Closed
Status Update	01/31/2020: Test case completion was adequate to allow SIT IT 3 to begin on time without any significant impacts. This Finding is being closed.		

Closed Quarter 17: 04-30-2020:

None.

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Appendix F: State Response to Draft Quarterly Report

[redacted] Response to Quarter 17 Draft Report:

Section 1.3.2 indicates that there were two new findings, but three are listed in the chart. Two of them have the same identification number. Additionally, when these new findings are discussed in detail in section 3.1, these ID numbers have an 'r' behind them. What does the 'r' stand for?

[redacted]

We have some feedback on the new findings section:

1.3.2 New Findings

IV&V has **two** new findings for Quarter 17.

Table 1.3.2.1: New QR-17 Findings

Number	Priority	Finding Title
F-M-17-01	Urgent	Inconsistent Software and Test Case Quality [redacted]
F-M-17-02	Urgent	Lack of Progress in Defect Resolution and Management

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Number	Priority	Finding Title
		We agree with the finding and are tracking this with issue 157. [redacted]
F-M-17-02	Urgent	Overallocation of Resources in Project Schedules [redacted]

[redacted]

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Appendix E - Sample Readiness

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	Critical Path Item	Success Criteria	Workaround/ Contingency Plan	Planned Start Date	Planned End Date	Responsible Party	Health Score	Rating Criteria	Comments/Corrective Action	Status
1-Issues							**Red**	1+ Red = Red 0 Red but 1+ Yellow = Yellow		
1.1	**Project Issues**	All critical Steering Committee and High/Medium priority issues are closed or deferred. If the resolution changes the design, the design is complete and signed-off.	Assess each open issue on a case-by-case basis. Employ acceptable work around or contingency plan.				Green	Green = 0 issues or acceptable workarounds Red = 1+ Emergency or High		Completed
1.2	**Schedule Issues**	-All critical Steering Committee and High/Medium priority issues are closed or deferred. If the resolution changes the design, the design is complete and signed-off. -Implementation strategy and timeline for Fleet and Surplus is documented and finalized	See Above				**Red**			In Progress - Behind Schedule
1.3	**Budget Issues**	All critical Steering Committee and High/Medium priority issues are closed or deferred. If the resolution changes the design, the design is complete and signed-off.	See Above				Green	See Above	-Finalize hosting price with GTA -Provide budget documentation to Sherrie Southern	In Progress - On Schedule
1.4	**Business Objectives Issues**	All critical Steering Committee and High/Medium priority issues are closed or deferred. If the resolution changes the design, the design is complete and signed-off.	See Above				Yellow	See Above	-Communicate/distribute Go-Live definition document (completed 2006/11/30) -Understand Stakeholder's expectations -Address next step/phase based on expectations	In Progress - On Schedule
1.5	**Organizational Readiness Issues**	-All critical Steering Committee and High/Medium priority issues are closed or deferred. If the resolution changes the design, the design is complete and signed-off.	See Above				**Red**	See Above		
1.6	**Tech/Security Issues**	See Item 1.1 Above	See Above				Green	See Above		Completed
1.7	**Upgrade Issues**	See Item 1.1 Above	See Above				Green	See Above		Completed
1.8	**Other Issues**	See Item 1.1 Above	See Above				Green	See Above		Completed
2-Risks										
2.1	**Project Risks**	All critical risks are closed or mitigation strategies have been implemented.						Yellow = no mitigation OR no work around. Red = do not have either mitigation or work around		
2.1.1								See above		
2.1.2								See above		
2.1.3								See above		
2.1.4								See above		
2.1.5								See above		
3-Application Readiness								1+ Red = Red 0 Red but 1+ Yellow = Yellow		
3.1	**Functional Test**	-All functional scripts completed successfully; -Functional testing conducted in all environments; -Success criteria documented								
3.2	**User Acceptance / Regression Testing (module 1)**	-UAT agency testers identified and scheduled -UAT Test Scripts identified -Successful pass of all UAT Test Scripts -No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects	Assess each function not successfully tested and determine if acceptable workaround can be employed				**Red**	Yellow = Medium without work around or low with no target completion date. Red = 1+ Emerg or High and/or less than 90% test cond passed	Business Owner must sign-off/accept UAT	In Progress - Behind Schedule

	Critical Path Item	Success Criteria	Workaround/ Contingency Plan	Planned Start Date	Planned End Date	Responsible Party	Health Score	Rating Criteria	Comments/Corrective Action	Status
3.2.1										
	User Acceptance / Regression Testing (module 2)	-UAT agency testers identified and scheduled -UAT Test Scripts identified -Successful pass of all UAT Test Scripts -No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects	Same as above				Red		Business Owner must sign-off/accept UAT	Not Started - Behind Schedule
3.3	**Functions**									
	Workflow	-Workflow successfully tested -No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects -Business Owner signed-off on application functionality					Green			In Progress - On Schedule
	Reports	-All Reports successfully completed -No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects -Reports are ready for migration. -Business Owner signed-off on application functionality					Yellow			In Progress - On Schedule
	Screens	-All Screens developed -No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects -Business Owner signed-off on application functionality					Green			In Progress - On Schedule
3.4	**Security**	-100% of end-user security configured in **X** environment. -No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects						Yellow = Medium without work around or low with no target completion date. More than 1 in a module - Red OR <90% configured		
3.4.1	**System Security Plan**	-Security Plan developed and approved								
3.8	**Defects**	-No outstanding Severity Level 1 and/or 2 Defects -Workarounds in place for all Severity level 3 and/or 4 Defects -Target completion date identified for all level 3 and/or 4 Defects	Assess each Defect not successfully tested and determine if acceptable workaround can be employed					Yellow = Medium without work around or low with no target completion date. More than 1 in a module - Red		
3.9	**Decommission Legacy System(s)**	-List of decommission apps/ functions completed and approved -Agreement with legacy vendor in place -Migration procedures created -Legacy environment shut down -Backups of legacy systems taken								
4-Technical Infrastructure Readiness							Green	1+ Red = Red 0 Red but 1+ Yellow = Yellow		
4.1	**Hardware**									
4.1.1	Web Servers	-Production servers installed, tested, and stable -Production servers available during scheduled hours					Green	Green = Pass Yellow = at Risk - list reasons Red = Fail		Completed

	Critical Path Item	Success Criteria	Workaround/ Contingency Plan	Planned Start Date	Planned End Date	Responsible Party	Health Score	Rating Criteria	Comments/Corrective Action	Status
4.1.2	Application Servers	-Application servers installed, tested, and stable -Application servers available during scheduled hours					Green	See Above		Completed
4.1.3	Infrastructure Hosting	-Operational Readiness Checklist complete and accepted by Business Owner; -System performance meets success metrics; -Final configuration documented and changes to CSP accepted by Business Owner/CIO								
4.2	**Software**									
4.2.1	Additional Software	All required additional software identified, installed and tested					Yellow	See Above		In Progress - On Schedule
4.2.2	Patches & Fixes	-Software patched to most current version - Post production patches and/or fixes scheduled					Green	See Above		Completed
5-Third Party Readiness							**Red**	1+ Red = Red 0 Red but 1+ Yellow = Yellow		
5.1	**Inbound Interfaces (may need to add sections for Outbound as well)**									
5.1.1		1 - Technical Test Complete 2 - Functional Test Complete 3 - Third Party Confirmation Received 4 - Rollback procedures and communications prepared and discussed					**Red**	- X tests conducted successfully - sign-off from external partner - fewer than X data errors		In Progress - Behind Schedule
5.1.1.1		MOU executed between ___ and ___ for ongoing maintenance and support issues								
5.1.2		1 - Technical Test Complete 2 - Functional Test Complete 3 - Third Party Confirmation Received 4 - Rollback procedures and communications prepared and discussed					**Red**	See Above		In Progress - Behind Schedule
5.1.2.1		MOU executed between ___ and ___ for ongoing maintenance and support issues								
5.2	**Overall Connectivity**	1 - Connectivity to 3rd parties established	N/A				Green	See Above		Completed
6-Training								1+ Red = Red 0 Red but 1+ Yellow = Yellow		
6.1	**Training**	-Training Fixes completed for on-line materials; -SME review completed -Published and available online -End Users Identified -Communications sent to end users -Surveys completed					Yellow	Yellow = Survey results unclear Red = sessions not executed or survey results show dissatisfaction		In Progress - Behind Schedule
6.1.1	Instructor-Led Training	-Document and Accept the training approach. - Training scheduled; - Training conducted; - X% of students successfully utilizing application (or passed course test, etc.)	Conduct make-up training sessions post go-live				**Red**	Yellow = Survey results unclear or 80 - 90% key users attended Red = <80% key users attended or sessions not executed or survey results show dissatisfaction		

	Critical Path Item	Success Criteria	Workaround/ Contingency Plan	Planned Start Date	Planned End Date	Responsible Party	Health Score	Rating Criteria	Comments/Corrective Action	Status
6.3	**Ongoing Training Support**	-Responsibility for support assigned -Handoff conducted								
7-Operational Readiness								1+ Red = Red 0 Red but 1+ Yellow = Yellow		
7.1	**Operations Test**									
7.1.1	Help Desk	-Help Desk Staff have been identified and trained -Knowledge Transfer plans completed and scheduled for sign-off -Help desk tools identified and in-place -Transition date from temporary to full-time staff set	Project team to provide support on temporary basis				**Red**	Green = Pass Yellow = at Risk - list reasons Red = Fail		In Progress - Behind Schedule
7.1.1.1	GETS Help Desk (if applicable)	-Instructions have been provided to GETS Help Desk personnel; -Excalation processes defined and documented; -								
7.1.2	System Supportability	-Documentation exists for systems operations, maintenance, and support -Application support staff trained -Staff can operate and maintain system -Processes are in place for new development and configuration change requests -Schedules for delivered patches and fixes are in place					**Red**	See Above		
7.1.3	System Recoverability	-Documentation exists for back-up, recovery, and error procedures -Areas that encounter errors have been documented -The infrastructure is recoverable and the staff has adequately performed and tested the procedure X times					**Red**	See Above		
7.2	**System Administration**	-Admin role and responsibility documented; -Admin(s) assigned; -User coordinators trained; -New user processes documented and communicated					Yellow			
7.3	**Deployment Test**									
7.3.1	Deployment Plan	A detailed deployment plan has been documented, communicated and activities scheduled	N/A					See Above		
7.3.2	Test Moves to Production	-Minimum of **X** test moves have been conducted -Upgraded environment adequately tested -Last Test Move (including all upgrade deployment activities) completed in **X** days or less -Deployment tasks timed and migration calendar prepared	Increase go-live window					See Above		

	Critical Path Item	Success Criteria	Workaround/ Contingency Plan	Planned Start Date	Planned End Date	Responsible Party	Health Score	Rating Criteria	Comments/Corrective Action	Status
7.3.3	Ready for Final Move to Production	-Technical staff required on site or remote access identified and scheduled -Functional staff required on site or remote access identified and scheduled -Communication procedures and on-call roster developed and communicated -Facilities and equipment available for upgrade weekend(s) (no power or equipment outages scheduled)					**Red**	See Above		
7.3.4	Configuration	-Configuration items complete -Migration scripts prepared and adequately tested -Manual configuration tasks identified and timing known	N/A					See Above		
7.3.5	Security	-Security set-up complete -Migration scripts prepared and adequately tested -Manual security tasks identified and timing known	N/A					See Above		
7.3.6	Data Conversion	-Scrub of data complete and accepted by Business Owner -Migration scripts prepared and adequately tested (X times) -Manual conversion tasks identified and timing known -Record rejects process defined and ownership assigned								
7.3.7	Data Archival	-Archival strategy for production environment complete and sign-off obtained								
7.4	**Deployment Verification Test**									
7.4.1	System	-	N/A					See Above		
7.4.2	Configuration / Set up	-Interfaces are installed -Configurations are migrated -Development objects are migrated -Security is migrated / set up	N/A					See Above		
7.4.3	Functionality	-Identify transactions to be entered using live production data -Interfaces function properly -Configurations function properly -Development objects function properly -Security functions properly	N/A					See Above		
7.4.4	Data	-Conversions are complete -Data is reconciled	Determine which, if any, conversions can be performed after go-live.					See Above		
8-Organizational Readiness								1+ Red = Red 0 Red but 1+ Yellow = Yellow		
8.1	**Agencies/End Users**									
8.1.1	Policies and Procedures	-Policies and procedures defined, documented and communicated -New policies are incorporated into training	N/A					Green = Pass Yellow = at Risk - list reasons Red = Fail		
8.1.2	User Readiness Assessment	-All application and customer support personnel in place; -Communications plan executed; -End-user groups established; -Contingency strategies in place for user issues	N/A					Yellow = 75 - 85% sign-off Red = <75%		

	Critical Path Item	Success Criteria	Workaround/ Contingency Plan	Planned Start Date	Planned End Date	Responsible Party	Health Score	Rating Criteria	Comments/Corrective Action	Status
8.1.3	After go-live Stabilization Meetings	-Schedule after go-live stabilization check-in meetings -Set up bridge line -Communicate to Users logistics	N/A					Green = Pass Yellow = at Risk - list reasons Red = Fail		
8.2	**Functional Hand-off Meetings**	All Functional hand-off meetings have occurred								
8.3	**Communications**									
8.3.1	Executive Communications	Communications prepared for Identified stakeholders regarding project/go-live: -1 month prior to go-live -2 weeks prior to go-live -Day before go-live -Go-live day	N/A					See Above		
8.3.2	End User Communications	Communications and procedures for enforcing freezes are complete (i.e., new vendors, PO's, Chartfield values, vouchers, development).	N/A					See Above		
8.3.3	External Communications	3rd Party interface owners (internal and external) notified of schedule	N/A					See Above		
8.4	**Data Exception Process**	FSS staff provided exception handling procedures								
8.5	**Go-Live Contingency Plan**									
8.5.1	Organizational Budgets	-Contract costs for extending legacy defined; -Extension of implementation vendor calculated; -Other cost impacts defined	N/A					See Above		
8.5.2	Interfaces		N/A					See Above		
8.5.3	Communications	Go-No-Go communications prepared for all impacted audiences (Project Team, Agencies, External Users, etc.)	N/A					See Above		
Overall								Green = go forward with upgrade; Red = cease upgrade		

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Appendix F: Sample IV&V Project Management Checklists

Task Item: Project Sponsorship

IVV-2.1	**Assess and recommend improvement, as needed, to assure continuous executive stakeholder buy-in, participation, support and commitment, and that open pathways of communication exist among all stakeholders.**	
2.1.1	Has the Project Management Team identified the internal and external stakeholders?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN) and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.1.2	Are business cases, project goals, objectives, and expected outcomes documented and supported by executive stakeholders?	CMMI Development (CMMI-DEV, V2.0), Estimating (EST), Planning (PLAN) and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Management Assessment

IVV-2.2	**Verify and assess the project's management and organization; verify that lines of reporting and responsibility provide adequate technical and managerial oversight of the project.**	
2.2.1	Has an organization chart been published depicting project reporting relationships?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN) and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.2.2	Have project team member roles and responsibilities been assigned and documented?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN) and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Management Assessment

IVV-2.3	**Assess coordination, communication, and management to verify agencies and departments are working interdependently with one another and following the communication plan.**	
2.3.1	Are departments and agencies sharing information via information retrieval systems, efficient communications, and information distribution methods?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), Configuration Management (CM), and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.3.2	Are the working interfaces and interactions among relevant stakeholders internal and external to the project planned and managed to ensure the quality and integrity of the entire Project?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), Technical Solution (TS), Product Integration (PI), and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Project Management

IVV-2.4	**Evaluate project progress, resources, budget, schedules, workflow, and reporting**	
2.4.1	Does the project have the tools and equipment needed to perform project activities?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.4.2	Does a Project schedule exist with all activities, milestones, dates, estimated hours, and resources by task loaded into project management software?	CMMI Development (CMMI-DEV, V2.0), Estimating (EST), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Project Management

IVV-2.5	**Verify that a Project Management Plan is created and being followed. Evaluate the project management plans and procedures to verify that they are developed, communicated, implemented, monitored, and complete.**	
2.5.1	Does the Project Management Plan exist?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project Integration Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.5.2	Does the Project Management Plan include generic plan information including: a summary of the Project's purpose, scope, and objectives; a description of any constraints or assumptions on which the Project is based; a list of Project deliverables; a summary of the Project's schedule and budget; and the methods for updating, reviewing and disseminating the PMP?	IEEE STD 1058: 1998: IEEE Standard for Software Project Management Plans CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project Integration Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Project Management

IVV-2.6	**Evaluate project reporting plan and actual project reports to verify project status is accurately traced using project metrics.**	
2.6.1	Does the PMP, or documents referenced within the PMP, describe the metrics, reporting mechanisms, and control procedures necessary to measure, report, and control the requirements, schedule, budget, resources, and quality of the work processes and products?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), Monitor and Control (MC), and Managing Performance and Measurement (MPM) IEEE STD 1058: 1998 IEEE Standard for Software Project Management Plans PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.6.2	Is the project performing variance analysis encompassing cost, schedule, scope, quality, and risk areas?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), Risk and Opportunity Management (RSK), Peer Reviews (PR), Process Quality Assurance (PQA), Monitor and Control (MC), and Managing Performance and Measurement (MPM) IEEE STD 1058: 1998 IEEE Standard for Software Project Management Plans PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		

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Effectiveness Rating		

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Task Item: Project Management

IVV-2.7	**Evaluate compliance with the estimating and scheduling process of the project to verify that the project budget and resources are adequate for the work-breakdown structure and schedule, and make recommendations for conformity.**	
2.7.1	Does the Schedule Management Plan exist?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), Monitor and Control (MC), and Managing Performance and Measurement (MPM) IEEE STD 1058: 1998 IEEE Standard for Software Project Management Plans PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.7.2	Is the project following a process for making scheduled and as-needed updates to the schedule management plan?	CMMI Development (CMMI-DEV, V2.0), Planning (PLAN), and Monitor and Control (MC) IEEE STD 1058: 1998 IEEE Standard for Software Project Management Plans PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Project Management

IVV-2.8	**Review schedules to verify that adequate time and resources are assigned for planning, development, review, testing, and rework.**	
2.8.1	Have adequate time and resources been allotted for Project planning?	Information Technology Reform Act: Clinger Cohen Act 1996 – IT Capital Planning CMMI Development (CMMI-DEV, V2.0), Estimating (EST), and Planning (PLAN) PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.8.2	Have adequate time and resources been allotted for Project development?	Information Technology Reform Act: Clinger Cohen Act 1996 – IT Capital Planning CMMI Development (CMMI-DEV, V2.0), Estimating (EST), and Planning (PLAN) PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Project Management

IVV-2.9	**Verify milestones and completion dates are planned, monitored, and met.**	
2.9.1	Does the master project schedule exist and reflect and/or include project milestones and completions dates for each project phase?	CMMI Development, (CMMI-DEV, V2.0), Planning (PLAN), Monitor and Control (MC), and Managing Performance and Measurement (MPM) PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.9.2	Are milestone and completion dates supported by an industry accepted mathematical analysis tool, such as Critical Path Method, Graphical Evaluation and Review Technique, or Program Evaluation and Review Technique?	CMMI Development, (CMMI-DEV, V2.0), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project Time Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Issue Management

IVV-2.10	**Verify the existence and institutionalization of an appropriate project issue tracking mechanism that documents issues as they arise, enables communication of issues to proper stakeholders, documents a mitigation strategy as appropriate, and tracks the issue to closure.**	
2.10.1	Does a documented procedure exist for managing Project issues/problems?	CMMI Development, (CMMI-DEV, V2.0), Process Asset Development (PAD), Planning (PLAN), Causal Analysis and Resolution (CAR), and Monitor and Control (MC) PMBOK 6th Edition / Project Communication Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.10.2	Does the issue/problem management process include a description of corrective action taken to resolve the reported issue/problem?	CMMI Development, (CMMI-DEV, V2.0), Planning (PLAN), Causal Analysis and Resolution (CAR), and Monitor and Control (MC) PMBOK 6th Edition / Project Communication Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Risk Management

IVV-2.11	**Verify that a Project Risk Management Plan is created and being followed. Evaluate the projects risk management plans and procedures to verify that risks are identified and quantified and that mitigation plans are developed, communicated, implemented, monitored, and complete.**	
2.11.1	Does the PMP, or documents referenced with the PMP, specify the Risk Management Plan for identifying, analyzing, and prioritizing risk factors?	CMMI Development, (CMMI-DEV, V2.0), Risk and Opportunity Management (RSK) PMBOK 6th Edition / Project Risk Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.11.2	Does the project Risk Management Plan include documentation of the results of the risk identification and quantification processes?	CMMI Development, (CMMI-DEV, V2.0), Risk and Opportunity Management (RSK) PMBOK 6th Edition / Project Risk Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Organizational Change Management

IVV-2.14	**Verify that an Organizational Change Management Plan is created and being followed. Evaluate the plans and procedures to verify they are developed, communicated, implemented, monitored, and complete; and that resistance to change is anticipated and prepared for.**	
2.14.1	Does the Organizational Change Management Plan exist?	CMMI Development, (CMMI-DEV, V2.0), Process Management (PCM), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project HR Management, Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.14.3	Does the Organizational Change Management Plan identify the activities in which stakeholders will participate to sustain collective Project action?	CMMI Development, (CMMI-DEV, V2.0), Process Management (PCM), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project HR Management, Project Stakeholder Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Configuration Management

IVV-2.15	**Verify that a Configuration Management Plan is created and being followed. Evaluate the configuration management plans and procedures to verify they are developed, communicated, implemented, monitored, and complete. Attend change control boards when appropriate.**	
2.15.1	Does the Configuration Management Plan identify a baseline of items to include under the configuration process?	IEEE 1012-2012 / Configuration Management V&V, CMMI Development, (CMMI-DEV, V2.0), Configuration Management (CM) PMBOK 6th Edition / Project Scope Management, Project Integration Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.15.6	Does the Configuration Management Plan define change request procedures?	IEEE 1012-2012 / Configuration Management V&V, CMMI Development, (CMMI-DEV, V2.0), Configuration Management (CM) PMBOK 6th Edition / Project Scope Management, Project Integration Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Communication Management

IVV-2.16	**Verify that a Communication Plan is created and being followed. Evaluate the communication plans and strategies to verify they support communications and work product sharing between all project stakeholders; and assess if communication plans and strategies are effective, implemented, monitored, and complete.**	
2.16.1	Does the Communication Plan define a filing structure for gathering and storing various types of information?	CMMI Development, (CMMI-DEV, V2.0), Planning (PLAN), and Monitor and Control (MC) PMBOK 6th Edition / Project Communication Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.16.2	Does the Communication Plan define the types of information that will be distributed by the project, its partners, and stakeholders, and to whom and how they will be distributed?	CMMI Development, (CMMI-DEV, V2.0), Planning (PLAN), Monitor and Control (MC), and Managing Performance and Measurement (MPM) PMBOK 6th Edition / Project Communication Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		

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Task Item: Staffing Management

IVV-2.17	**Verify that a detailed Project Staffing Plan is documented. Verify that the required skill sets and the clarity of the description of roles and responsibilities are appropriate. Verify that the proposed staffing levels and skill sets in the Project Staffing Plan are appropriate. Monitor ongoing changes in project staffing needs and actual staffing changes to verify that they are consistent with the staffing plan. Monitor and assess the direct involvement of the Project Management Organization in the management of the project.**	
2.17.2	Does the staffing plan include the plans for acquiring the staff, the number of staff required, and the duration of need for each phase of the project?	IEEE 1012-2012: Supply Planning CMMI Development, (CMMI-DEV, V2.0), Estimating (EST), Planning (PLAN), Monitor and Control (MC), and Managing Performance and Measurement (MPM) PMBOK 6th Edition / Project Communication Management, Project HR Management
	Results	**Finding/Recommendation**
Process Rating		
Effectiveness Rating		
2.17.3	Does the staffing plan include the skills, knowledge, training, and experience of personnel?	IEEE 1012-2012: Supply Planning CMMI Development, (CMMI-DEV, V2.0), Estimating (EST), Planning (PLAN), Monitor and Control (MC), and Managing Performance and Measurement (MPM) PMBOK 6th Edition / Project Communication Management, Project HR Management
	Results	**Finding/Recommendation**
Process Rating		

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Effectiveness Rating		

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SECURITY ASSESSMENT CHECKLISTSAMPLE

Security Management Oversight IV&V Checklist	**Task Item:**	**SM**
	Date Issued/Last Revised:	**04.30.2020**
	Prepared By:	**Project Manager**

Task Item: SM-6 SECURITY REQUIREMENTS	**Evaluate and make recommendations project policies and procedures for ensuring that the system is secure and that the privacy of client data is maintained.**							
	Assessment of the Process				**Assessment of Effectiveness**			
	RED	**YELLOW**	**GREEN**	**BLUE**	**RED**	**YELLOW**	**GREEN**	**BLUE**
SM-6.1	Does the Project provide for management of safety, security, privacy and other critical requirements of the software products or services? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Program Management (PM) Family and System and Services Acquisition (SA) Family.*							
	Results				**Finding/Recommendation**			
AOP Rating:	**Sources:**							
AOE Rating:								

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SM-6.2	Does the project have security policies (rules for need-to-know and access to information at each project organization level)? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Program Management (PM) Family*.	
	Results	**Finding/Recommendation**
AOP Rating: **Sources:**		
AOE Rating:		
SM-6.3	Do Project characteristics include safety or security considerations in the operational environment? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Assessment and Authorization (CA) Family*	
	Results	**Finding/Recommendation**
AOP Rating: **Sources:**		
AOE Rating:		
SM-6.4	Do the security access procedures include security controls on the system to ensure the hardware and software components are protected from unauthorized use, modification, and disclosures, and to verify the accountability of the authorized users? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and*	

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	Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Access Controls (AC) Family and Audit and Accountability (AU) Family	
	Results	**Finding/Recommendation**
AOP Rating: **Sources:**		

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Task Item: SM-8 SECURITY REQUIREMENTS	**Evaluate the project's security and risk analysis.**							
	Assessment of the Process				**Assessment of Effectiveness**			
	RED	**YELLOW**	**GREEN**	**BLUE**	**RED**	**YELLOW**	**GREEN**	**BLUE**
SM-8.1	Does the Project utilize tools such as checklists, flowcharts, interviews, questionnaires, and testing to identify information security risks and threats to the confidentiality, integrity, and availability of information? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Risk Assessment (RA) Family*							
	Results				**Finding/Recommendation**			
AOP Rating:	**Sources:**							
AOE Rating:								
SM-8.2	Has adequate time been allotted to conduct Information Security Risk Analysis activities, such as vulnerability and penetration testing, threat identification and characterization, and the prioritizing of external and internal security risks to the project? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and*							

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	Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Risk Assessment (RA) Family	
	Results	**Finding/Recommendation**
AOP Rating:	Not evaluated this period. **Sources:**	
AOE Rating:		
SM-8.3	Has the project developed and documented a security planning policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and Procedures to facilitate the implementation of the security planning policy and associated security planning controls? *National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Planning (PL) Family*	
	Results	**Finding/Recommendation**
AOP Rating:	Not evaluated this period. **Sources:**	
AOE Rating:		

Task Item: **SM-9** **SECURITY REQUIREMENTS**	**Verify that processes and equipment are in place to back up client and project data and files and archive them safely at appropriate intervals.**

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	Assessment of the Process				Assessment of Effectiveness			
	RED	**YELLOW**	**GREEN**	**BLUE**	**RED**	**YELLOW**	**GREEN**	**BLUE**
SM-9.1	Does the Disaster Recovery Plan include identification of the disaster recovery team and a contact list; recovery operation procedures; procedures for establishing an alternative site including voice and data communications and mail., and support equipment; plans for replacement of computer equipment; procedures for storage and retrieval of software, data, documentation, and vital records off-site; and logistics of moving staff, data, documentation, etc.? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Contingency Planning Family*.							
	Results				**Finding/Recommendation**			
AOP Rating: **Sources:**								
AOE Rating:								
SM-9.2	Does the Disaster Recovery Plan describe the establishment of a system backup schedule? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Contingency Planning (CP) Family*							
	Results				**Finding/Recommendation**			
AOP Rating: **Sources:**								

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AOE Rating:		
SM-9.3	Does the Disaster Recovery Plan describe procedures for restart/recovery and continuity of operations? *Best Practice Reference*: *International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Contingency Planning Family*	
	Results	**Finding/Recommendation**
AOP Rating:	**Sources:**	
AOE Rating:		
SM-9.4	Does the Disaster Recovery Plan describe equipment support; plans for replacement of computer equipment; procedures for storage and retrieval of software, data, documentation, and vital records off-site; and logistics of moving staff, data and documentation? *Best Practice Reference: International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 27001:2013; National Institute of Standards and Technology (NIST) Special Publication 800-53 Rev 4, Security and Privacy Controls for Federal Information Systems and Organizations, Contingency Planning (CP) Family.*	
	Results	**Finding/Recommendation**
AOP Rating:	**Sources:**	
AOE Rating:		

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Appendix G – Sample Lessons Learned/Closure Report

Project Lessons Learned

30 June 2018

Submitted by

Software Engineering
S E R V I C E S

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Lesson Learned Name	**Integration Touch Points Not Fully Verified**
Lesson Learned Number	**LL-10**
IV&V Oversight Area(s)	**Development**
PMBOK Knowledge Area(s)	**Project Integration Management, Scope Management, Time Management, Quality Management, Human Resource Management**
Project Phase(s)	**Project Preparation, BluePrint, Realization**
ITN Topic(s)	**Requirements, Design and Testing**

Problem and Impact: The Project Team did not adequately verify the data integrity and accuracy of integration touch points among process areas early enough in the project life cycle to be fully effective. Touch points should have been addressed during development and design, not delayed until the implementation phase of the project.

Integration touch points were addressed at the end of the Joint Application Development (JAD) sessions; however, there was insufficient time allotted to perform the tasks of verifying their integrity and accuracy. Later during functional design, integration touch points were not individually addressed.

Failure to address points at which process areas met negatively impacted integration testing; the test team was able to pass only 2032 of 2669 scripts (76%) for UAT. End-to-end testing was also not performed as expected during User Acceptance Testing (UAT) due to time constraints.

Resolution and Benefits: The problem was partially resolved. The Compliance Process area reviewed the JAD Session Reports for the Financial, Establishment, and Case Process areas. In addition, the Compliance Process personnel attended 3 Integration Meetings held by the Vendor. At the end of the JAD Sessions, attendees met on a Saturday as a consolidated team to identify the integration points, update the process flows, and write system requirements.

During the functional design meetings, there were Business Process Owners that discussed integration points as an add-on to the meetings. During Integration Testing, all expected test scenarios were not successfully executed. End-to-end testing was executed during Cycle-3 of Integration Testing, where 16 test scenarios were executed to validate touch points but using simulated data instead of production data. During User Acceptance Testing, the testers for Network also used simulated data instead of production data for interfaces and did a manual hand-off to the associated business process areas. The true test for verifying the data for integrity and accuracy between business process areas at the points of integration was at Go-Live.

Lesson Learned and Recommendations: Create tasks and allow time in the Project Schedule to identify, review, and verify data, integrity, and accuracy of the requirements and functional design for the integration touch points between business process areas. Identify integration touch points between business process areas during the requirements gathering sessions to ensure that the requirements are written to the satisfaction of each business process area where touch points exist. Include a separate review of the functional specifications that integrate between business process areas in the Business Blueprint. In the Master Test Plan, identify a strategy for testing the integration touch points between process areas for both Integration Testing and User Acceptance Testing. Conduct end-to-end testing using production data prior to Go-Live.

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Lesson Learned Name	**Insufficient Knowledge Transfer Activities**
Lesson Learned Number	**LL-16**
IV&V Oversight Area(s)	**Implementation**
PMBOK Knowledge Area(s)	**Human Resource Management**
Project Phase(s)	**Business BluePrint, Realization, Final Prep, Go Live and Support**
ITN Topic(s)	**Training**

Problem and Impact: Knowledge Transfer activities were not sufficient to ensure staff readiness for post Go-Live operational support.

Knowledge Transfer (KT) sessions were a way for DEPARTMENT participants to gain job-relevant knowledge and skills. KT started early in the Business Blueprint phase of the project. There were 7 KT cycles. The goals of KT as stated in the Knowledge Transfer Plan included enabling DEPARTMENT participants with new knowledge and skills that would sustain business transformation after the consultants leave; and reducing or mitigating project risk through joint ownership and accountability.

The vendor mentor and DEPARTMENT participants jointly established planned activities and performance goals. But as the vendor's focus turned to Integration Testing and User Acceptance Testing, KT teams failed to reach their goals. Incomplete KT activities were carried forward to the next cycle. Adjustments were made to DEPARTMENT and the vendor partnerships due to the testing activities. Continuity of knowledge was lost as DEPARTMENT changed participants' midway, either because a participant had departed or was moved to another team. The vendor also changed mentors as resources rolled off the project. The DEPARTMENT participants also did not get sufficient hands-on involvement. The Mentor and DEPARTMENT participants were also matrixed to other project activities including Cutover and Go-Live.

Resolution and Benefits: The Project team met after the end of all 7 KT cycles to resolve concerns. The vendor Project Manager suggested identifying key areas where immediate Knowledge Transfer sessions were necessary. KT continued even after the formal end of KT activities. KT was also included in CM300 Amendment 5 contract. In Attachment O, Scope of Work for Operations and Maintenance, Task #2.2.23, Knowledge Transfer, stated that this task dealt with transfer of project information to department staff and other Operations and Maintenance partners, including communication and documentation of specific skills and unique knowledge required to operate, maintain and enhance the PROJECT system.

Lesson Learned and Recommendations: IV&V observed that project leadership support dropped towards the end of the Realization phase of the project. This was evident in the lack of mid-cycle progress reports and insufficient KT activities. Providing continuous project leadership support would serve to underline the importance of KT activities in providing post Go-Live operational support and motivate the participants.

IV&V recommends the following for a thorough and beneficial Knowledge Transfer:

1. Complete knowledge transfer activities prior to Go-Live
2. Provide continuous project leadership support, including adequate prioritization and resorting so that KT activities are not pushed aside
3. Provide hands-on involvement by having participants perform project activities to limit project risk and improve success of outcomes
4. Hold the KT team accountable for their progress
5. Select participants who will be available for the duration of the project as well as the post-production effort

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Lesson Learned Name	**Project Pilot Planning**
Lesson Learned Number	**LL-17**
IV&V Oversight Area(s)	**Implementation**
PMBOK Knowledge Area(s)	**Project Integration Management, Human Resource Management, Time Management**
Project Phase(s)	**Realization, Go Live**
ITN Topic(s)	**Implementation**

Problem and Impact: The Pilot Phase of the State project proved challenging as it related to integration of the SAP systems and the Pilot organization. According to Appendix D of the B211- Rollout Strategy Plan, the Pilot Preparation period was planned as a mechanism to convert the PROJECT Phase I and STATE production systems; during that period, all cases, members and associated data were to be converted to and verified in the new SAP PROJECT. However, a complete exercising of the PROJECT did not happen during pilot. The 175 planned scenarios were incomplete in their coverage of PROJECT processes; indeed, there was no process area whose functionality was completely represented in the scenario set. Noteworthy functions for which there were significant gaps included Establishment and Reporting process areas, and the Payer Coupon, and VRU File interfaces. One missing requirement was a drilldown capability in querying functionality; it resulted in an unknown interaction of PROJECT modules, and an associated issue when work flows were executed that were unintended for certain business scenarios. Further, of the 175 planned Pilot scenarios, only 108 were executed. Thus, there were significant gaps in the scope of end-to-end integrated system testing as the Pilot concluded and the project team prepared for the Go Live. Of the functionality that was tested, the project team was unable to resolve one-third (168 of 509) of the identified defects as Pilot was winding down.

Resolution and Benefits: The project team tested a subset of PROJECT functionality, and – with no specific, quantified exit criteria based on functionality satisfactorily completed – was able to exit the pilot phase. The Project Team resolved approximately 67% of the identified Pilot defects prior to Go Live

Lesson Learned and Recommendations: The lessons learned from this issue include:

1. Ensure the Pilot includes testing the end-to-end integration of all impacted systems.
2. Construct pilot plans and test scripts in coordination with business partners and build a detailed Pilot schedule with resourced activities that demonstrates complete coverage of Pilot scenario execution, validation, and reporting.
3. Establish specific exit criteria for system piloting and perform scope verification to ensure that all requirements have been included in the delivered system.
4. Resolve defects as soon as possible – preferably prior to implementation – to improve product effectiveness upon implementation.

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Lesson Learned Name	**Integration of Training with Project Processes**
Lesson Learned Number	**LL-18**
IV&V Oversight Area(s)	**Implementation**
PMBOK Knowledge Area(s)	**Project Integration Management, Communications Management**
Project Phase(s)	**Go Live and Support**
ITN Topic(s)	**Communications, Deliverables, Design, Staff, Training**

Problem and Impact: There were a large number of changes needed to the training materials due to a variety of activities and outcomes, including project change requests, defects, and trainer comments received. The PROJECT Training team was not consistently receiving the Impact Analysis (IA) of Change Requests (CR) in order to assess the impact to training. More so, the Support Request for Change process did not allow adequate time to complete the IA for the CR, and to make the updates to the training once the CR had completed User Acceptance Testing (UAT). Constant changes in Interstate Initiating, Order Entry, and other functional areas that were in flux made it difficult to pinpoint the impact to training.

The PROJECT vendor, Vendor Consulting, was tasked with updates to training materials pertaining to change requests, defects and User Productivity Kit (UPK) simulations, while Operational Procedures and Training (OPT) staff handled other changes. None of the training materials were stored on the project shared drive, but were housed on the vendor document repository, Vendor's eRoom. It was anticipated that the OPT staff would take responsibility for updating all training materials once Vendor staff had off-boarded, and the training materials would be migrated from the eRoom at the end of the warranty period. However, without a thorough Knowledge Transfer and configuration management process, OPT staff may not be equipped with the skills and artifacts necessary to successfully maintain the training materials.

Resolution and Benefits: The Training Manager planned to attend the meetings associated with change requests to ensure that the training impact was assessed. In order to maximize the time allotted in the Support Request for Change process, training staff suggested (1) identifying the courses and procedures to be updated prior to UAT, and (2) revising the training materials once the functional specifications were updated.

Lesson Learned and Recommendations: It is suggested that the time allotted in the Support Request for Change process for updating training materials and conducting training is extended because as little as 1 day was scheduled for training updates. Additionally, conducting a thorough Knowledge Transfer for OPT staff to gain the knowledge necessary to maintain the training materials - particularly the specialized skills associated with the Computer Based Training (CBT)/UPK simulations - may prove beneficial. Lastly, the facilitation of a complete document migration from the vendor document depository to the project's secure FileHold document repository would ensure that staff is supplied with the comprehensive archive of training materials.

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Lesson Learned Name	**Project Implementation Planning**
Lesson Learned Number	**LL-19**
IV&V Oversight Area(s)	**Implementation**
PMBOK Knowledge Area(s)	**Project Integration Management, Human Resource Management, Time Management**
Project Phase(s)	**Project Preparation, Realization, Go Live**
ITN Topic(s)	**Implementation**

Problem and Impact: The State Project experienced difficulties and setbacks during project implementation and Go Live. Changes to the implementation date, along with the incompletion of both the testing and Pilot phases, contributed to the difficulties; the project's inability to resolve the large number of defects from those earlier phases of the project before Go-Live led to a predictably large number of production defects. The Public Assistance interface that went into production precipitated significant issues. Also, external partners were not ready for early Go-Live. For all of those reasons, functionality was phased in whenever it was ready instead of via the Big Bang approach as defined in the B211 – Rollout Strategy Plan deliverable.

But the roots of the implementation planning problems extended back to well before the B211 was written; in fact, the problems trace to the very beginning of the PROJECT Phase II effort, for which there was never established a requirement that either Vendor or DEPARTMENT would develop a formal implementation plan. That deficiency was identified as an IV&V finding during the first year of the Project, on 31 March 2009. It took the Project Team more than two years to resolve the deficiency and by that time the project was well into its Integration Testing activities.

These setbacks impacted the business ability to properly notify customers and stakeholders of the impending changes, resulting in frustrations for citizens and unclear role responsibilities for the Operations and Maintenance (O&M) teams downstream.

Resolution and Benefits: At least in part as a response to the IV&V finding – No Project Implementation Plan, DEPARTMENT approved and baseline an Implementation Plan on 17 June 2011. The State Project Team worked through the issues as they occurred.
There was a significant number of workarounds in place for functionality that went into production at Go-Live. Because of lack of testing of the batch schedule either in UAT or Pilot, the project struggled but persevered with batch job issues. The defects and change requests from earlier phases of the project had to be prioritized and scheduled by business. Untested functionality was tested and released into production post Go-Live; Vendor resources were resolving UAT and production defects in parallel, working on change requests, and modifying Functional Specifications.
As an additional response to the missing production functionality, the role of the Vendor evolved to include O&M Task Order work.

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Lesson Learned and Recommendations: The lessons learned going forth is to ensure that there is a schedule with a well-defined expectation for developing and publishing a plan to implement the various parts of the project. Recommendations to avoid this issue from occurring include:

1. Create and follow an implementation plan with integrated, resourced work packages in the project schedule early in the project to increase awareness and planning.
2. Assess the implementation impact to customers and stakeholders and plan appropriately to reduce negative outcome during deployment and scheduling.
3. Timely communicate and obtain buy-in for deployment plans and temporary work-around solutions from stakeholders.
4. Adequately project and plan for impact to operations and maintenance teams to minimize cost increases.

Lesson Learned Name	**Customer and User Satisfaction Metrics Needed**
Lesson Learned Number	**LL-20**
IV&V Oversight Area(s)	**Operations**
PMBOK Knowledge Area(s)	**Project Integration Management, Communications Management**
Project Phase(s)	**Project Preparation, Go Live and Support**
ITN Topic(s)	**Evaluation Methodology, Staff, Workforce Transition, Quality Assurance, Communications**

Problem and Impact: There were no defined metrics from the STATE system for customer and user satisfaction; the metrics were needed to determine gaps between the STATE system and PROJECT Phase II system. Project staff cited that differences between the processing on each system resulted in metrics that were not directly comparable. However, without baseline historical data from the old system, it was difficult to quantitatively determine the impact of the new system to quality and productivity, and thus to identify areas for improvement.

Resolution and Benefits: The project team solicited PROJECT Phase II user satisfaction metrics via the PROJECT Annual Survey that was distributed to all employees. The PROJECT Annual Survey employed the use of questions regarding organizational change management, communications, implementation, training, work units, and supervisors while also allowing respondents to utilize free text responses. The project team indicated the possibility of using the same questions in a subsequent survey once the PROJECT Phase II system was fully deployed. Utilizing consistent survey questions to assess user satisfaction at determined checkpoints held the promise of capturing PROJECT Phase II metrics at various intervals during its life cycle that will later be necessary for direct comparison.

Lesson Learned and Recommendations: Determine how baseline metrics will be captured from the old system and define corresponding measurements on the new system that will be directly comparable. System latency, response times, the elapsed time to complete tasks, and other indicators of system performance should be assessed. The resulting metrics should be analyzed to ascertain the effect of the new system on users and customers. Validation of PROJECT key goals, including more expedient processes and maximized automation, will necessitate the analysis of baseline and existing metrics.

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IV&V Deliverable Observation Report MMIS Interface Redesign Technical Review

IV&V Deliverable Observation Report (Medicaid Management Information System Interface- Redesign)

[redacted] and
Integrated Service Delivery System (ISDS)
Independent Verification and Validation

[redacted]

State [redacted]

Version 1.0
July 10, 2017

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0.9	New	07-05-17	Moudry		Initial Report
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1. Introduction

Task Item 1.1.10 under the IV&V Project Management/Deliverables, for the [redacted] Independent Verification and Validation (IV&V) Services Contract, states that, "If desired and requested by the Project Team, Agency, and Department, Software Engineering Services (SES) as the IV&V Service Provider will prepare and deliver a one-time, focused, specific Deliverable Observation Report (DOR) to the IV&V Contract Manager (for delivery to the State Project, etc.,), presenting an analysis of a prescribed deliverable or other task not specifically referenced by this scope of work. Accordingly, [redacted] requested that Software Engineering Services (SES), the IV&V Contractor, perform a focused evaluation on the technical design of the Medicaid Management System (MMIS) Interface Redesign Project under the [redacted] program portfolio. This report provides the results of that evaluation.

The MMIS Redesign Project is divided into four (4) tracks and this report will address each of those four tracks. As the work is on-going, IV&V team has identified some potential queries in this report (yellow highlighted) to guide the project the kind of information still needed to provide holistic technical review.

2. Evaluation Standards and Questions

To produce this "Observation Report", IV&V Team had followed the approach of reviewing technical documentation shared by MMIS Interface Redesign project team and follow-up question and answer session between IV&V and the project team. The review focused on IEEE architectural standards, MITA 3.0, and the CMS Seven Conditions and Standards. IV&V used the following standards to conduct its evaluation of the MMIS Interface high-level design for each of the four tracks of the project:

- IEEE 1074 Standard for Developing Software Life Cycle Processes;
- IEEE 12207 Standard for Information Technology – Software Life cycle processes Implementation Considerations
- MITA 3.0
- Seven Conditions and Standards for CMS Enhanced Funding Requirements
- CMS Guidance for Exchange and Medicaid Information Technology IT Systems
- NIEM 3.2
- [redacted] State Accessibility /Standards/Guidelines

IV&V addressed the following areas and questions in its review of the MMIS Interface Design Project.

Software Development Life Cycle Management plans and Project Management. (Reference IEEE 1074 and IEEE 12207)

- Does the project documentation demonstrate that a Software Life Cycle Process was selected for the project?

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- Does the Project Management documentation demonstrate planning for: resources, documentation, metrics/evaluation, system transition if necessary, and training, risk management, task management and evaluation of improvement needs?
- Do the processes include management and business oversight and sign off?

SDLM Architectural documentation. (Reference IEEE 1074 and IEEE 12207.2)

- Does the Software Design Description Document list scope, identification, system overview, document overview, referenced documents, system-wide design decisions, system architectural design, system components, concept of execution, interface design, interface identification and diagrams, (project-unique identifier of interface), requirements traceability, maintenance and retirement?

Modularity Standard.

- Does the Design Description Document demonstrate the uses of a modular, flexible approach to systems development, including the use of open interfaces and exposed Application Programming Interfaces (API)?
- Is there a separation of standardized business rule definitions from core programming; and are standardized business rule definitions available in both human and machine-readable formats?
- Does the Design Description Document demonstrate a commitment to a formal system development methodology and an open, reusable system architecture?

MITA Conditions.

- Does the Design Description Document demonstrate that the state is aligning to and is increasingly advancing in MITA maturity for business, architecture, and data?

Industry Standards Condition.

- Do the Design Description Documents ensure alignment with, and incorporation of, industry standards to include?
  - The Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards;
  - Accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws.
  - Standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.

Leverage Condition.

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- Does the Design Description Document demonstrate that the State solutions promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States. IE: Multi-state efforts; Availability to other states for re-user; Open source, cloud based commercial products; Minimum Customization to transfer solutions; Transition/Retirement of a duplicative system.

Business Results Condition.

- Does the Design Description Document support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.

Reporting Condition.

- Solutions should produce transaction data, reports, and performance information that contributes to program evaluation, continuous improvement in business operations, transparency and accountability.

Interoperability Condition.

- Systems must ensure seamless coordination and integration with the Exchanges (whether run by the state or federal government), and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.

3. Evaluation Results, Observations and Remaining Questions

3.1 [redacted]-MMIS Interface Redesign: Tracks 1 and 2

Program/SDLC Phase: Requirements Gathering, Design

Evaluation Summary: The [redacted]-MMIS Interface Redesign documents and processes demonstrate that the project uses System Development Lifecycle methodologies, actively manages the project and is able to trace the technical redesign changes to the business requirements. The project takes steps to advance the state towards MITA maturity.

IV&V raised a number of observation/questions - none are ‘show- stoppers’. Items highlighted in yellow need to be followed up on.

Product Evaluation Results/Observations/Findings:	
1	**SD 1.1 Software Development Life Cycle Management plans and Project**

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Management.
Does the project documentation demonstrate that a Software Life Cycle Process was selected for the project? Does the Project Management documentation demonstrate planning for: resources, documentation, metrics/evaluation, system transition if necessary, and training, risk management, task management and evaluation of improvement needs? Do the processes include management and business oversight and sign off? IEEE 1074, IEEE 12207

Evaluation:A formal Software Lifecycle Process was not identified; however, the documents and processes illustrate standard adherence to a waterfall methodology, including requirements gathering, design, testing and implementation.

The 'Project Plan -[redacted]-MMIS Interface Redesign' document provides full project scope, overview and controls. The supporting documentation in SharePoint demonstrates planning for resource allocation, risk management, task management and improvement processes. The project management processes include management and business oversight and sign off. It does not include training.

There are two areas of observation that require further examination or later follow-up: the maintenance of systems documentation, and the identification and gathering of metrics to evaluate the project.

Results/Observations:

SD 1.1.1 Documentation

- It is not clear how the documentation is managed over time. IEEE 12207 (sect 6.1)

  The SharePoint working directories contain large amounts of documentation but can be duplicative in part, rewritten into other documents, or no longer in synch with each other. It is sometimes not clear which documents represent the final artifacts of the design planning and implementation. This is indicative of potential opportunity to improve on the configuration management practice communication, training, and enforcement.

- The technical architecture documentation indicates that missing design documentation (for ActiveVOS, and for eligibility business rules) was a constraint on this project.

Does the documentation for the re-architecture differ from the documentation for the original interface? How does it ensure that it is retrievable in the future? IE:

1. Is the final and referential documentation for the re-architecture identified and readily accessible by current and future business and technical staff?
2. Is it distinguishable from working documents or dated/old documents?
3. Is it in a secured, official location that will be maintained into the future?
4. Are there standards for each type of documentation? (Examples: standard templates, standard naming conventions, standard storage locations, standards for

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maintenance requirements.)

⇒ State Team Input

The documentation for the technical integration had to be redeveloped because part of the integration was developed by [redacted], a vendor who left the project. The documentation was incomplete and the team decided to make a clean break and start over.

Documentation tracking and retrieving

- Documentation is in SharePoint. BA documents stay in the project SharePoint site, by project.
- There is not a single repository solution for the BA and Technical documentation. Project Managers and team members identify the most recent and relevant documentation based on the most recent project that made changes to those documents. SharePoint is searchable.
- Being able to track and retrieve the correct and relevant system documentation is a known issue.

Documentation Standards

- The state is moving towards standardization. It has identified templates for the software architecture documentation and for the business analyst requirements. This is a process. Standards have not been identified for supporting documentation.
- The technical documentation includes UML modeling. UML is platform independent and models can include: structure, behavior and interaction diagrams.
- There are no document naming standards.

[redacted]

SD 1.1.2 Metrics

Metrics have not been defined for the business impact of the project. Some technical performance metrics have been defined for Phase I and II.

⇒ State Team Input

The state is having discussions about identifying metrics.

[redacted] The measures identification is critical to collect, monitor and report on the improvements introduced by the redesigned interface to satisfy business needs.

The items highlighted for 1.1.1 and 1.1.2 need follow up.

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	Sources: (1) Project Plan [redacted]-MMIS Interface Redesign (2) Documentation that was copied to a SharePoint site. These items include defect documentation, architectural solutions, business requirements, testing requirements, business and technical specifications, task lists, priority lists, communication processes, status reports, meeting presentations and minutes.
2	**SD 1.2 SDLM Architectural documentation.** **Does the Software Design Description Document list scope, identification, system overview, document overview, referenced documents, system-wide design decisions, system architectural design, system components, concept of execution, interface design, interface identification and diagrams, (project-unique identifier of interface), requirements traceability, maintenance and retirement? Best practices reference: IEEE 12207.2, IEEE 1074** **Evaluation:** The 'Software Architecture Document Project – [redacted] to MMIS Interface Re-architecture' meets most of the high-level documentation requirements in SD 1.2. The document covers technical design scope, system overview, document overview, system wide design decisions, system architectural design, system components, concept of execution (including training), interface design, high level diagrams, requirements traceability and some maintenance and retirement. There are observation areas that require further examination or later follow-up: database design, maintenance and retirement; services and web service design documentation; and maintenance and evaluation metrics. **Results/Observations:** **SD 1.2.1 Database Design; Maintenance and Retirement** The database section of the Software Architecture document has not been updated. The re-design will utilize database tables. • Are there additions, changes or deletions of database tables for this implementation? • Is there a database design document for table or view changes? • Will/should the USL [redacted] views that are currently being utilized be retired when the new processes no longer use them? • Is there a communication plan to notify EIS users of any database table or database view changes? ⇒ State Team Input In progress: The changes to the database design will be in the next version of technical documentation. [redacted] **SD 1.2.2 Services and Web Services Design**

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	The documentation is not yet available for: how the web services are being exposed, the choice to use WSDLS, and for accompanying WSDLS. ⇒ State Team Input In progress. There will be a WebSphere Service Registry and Repository (WSRR). [redacted] **SD 1.2.3 Maintenance and Evaluation Metrics** 1.2.3.1 Effectiveness of Web Clusters: Are performance load metrics being gathered in prod? (Documentation was for non-prod environments.) ⇒ State Input There is a companion plan to gather and monitor production performance. 1.2.3.2 Effectiveness of changes: Were metrics identified and evaluated for the impact/improvement to the database reads? ⇒ State Input [redacted] The items highlighted in 1.2.1, 1.2.3, and 1.2.3 need follow up. **Sources:** (1) Software Architecture Document Project – [redacted] to MMIS Interface Re-architecture 1/3/2017, last updated 5/2/2017 (2) Business Requirements_FC.doc (3) [redacted] – [redacted] Web Services v6.22.doc (IBM Technical Spec) (4) [redacted] UC053 Event Trigger and Web Service Design – [redacted] PM867.doc (5) Multiple: [redacted] [redacted] UC### MMIS Web Service Design (6) Multiple: UC (Functional Design – Use Case Statements) (7) Performance_Enhancement_Tasks_Summary.doc (8) [redacted] to MMIS InterfaceMessageMapinx.xlsm (9) [redacted]-10790 Updated Design Document.doc (event trigger and web service design) (10) MMIS_Interface-IL_processflow.pdf
3	**SD 2.1. Modularity Standard.** **2.1.1 Does the Design Description Document demonstrate the uses of a modular, flexible approach to systems development, including the use of open interfaces and**

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exposed Application Programming Interfaces (API)?

2.1.1 **Evaluation**: The redesign meets the condition.

The software architecture document demonstrates that modularity is a key architectural component to the existing architecture and it is being enhanced with the redesign of the interface. The infrastructure is being enhanced with new web service clusters, and the integration level is being broken into more module components. New components include [redacted] web services to extract [redacted] data. The Web services are being exposed for internal state use.

2.1.2 Is there a separation of standardized business rule definitions from core programming; and are standardized business rule definitions available in both human and machine-readable formats?

2.1.2 **Evaluation**: The redesign meets this condition for portions of the redesign.

The process for the [redacted] portions of the web services separates the business rules definitions via the [redacted] DROOLS rules engine.

The remaining portions of the integration layer, mostly the MMIS side of the interface does not use a rules engine.

2.1.3 Does the Design Description Document demonstrate a commitment to a formal system development methodology and an open, reusable system architecture?

2.1.3 **Evaluation**: The redesign meets this condition.

The Project Plan, the [redacted] to MMIS Interface Re-Architecture document and the supporting documents and processes, demonstrate a commitment to a modified waterfall approach. The approach includes:

- The linear portion of an incremental waterfall framework (investigation, requirements gathering, design coding, testing, implementation, operations), formal sign-offs and project management.
- Swift and incremental installations for small fixes.

2.1 Overall Evaluation:

The design continues to bring the state forward into MITA compliance with meeting the modularity condition.

Results/Observations:

[redacted]

Sources:

(1) Project Plan [redacted]-MMIS Interface Redesign

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	(2) Software Architecture Document Project – [redacted] to MMIS Interface Re-Architecture (3) SharePoint project site: Multiple working documents (4) [redacted] – [redacted] Web Services v6.22
4	**SD 2.2. MITA Conditions. Does the Design Description Document demonstrate that the state is aligning to and is increasingly advancing in MITA maturity for business, architecture, and data?** **Evaluation:** Yes, for the business architecture. The business architecture advances with this change in that, with the increased system performance and therefore reduced failures, the business is more efficient and can more accurately process eligibility and claims. (MITA Part I, Chapter 5) Yes, for the technical architecture. The full scope of the redesign, from increasing the web services infrastructure to modifying the interface to be web services, improves the reliability of the messaging and advances the state in the MITA condition for modularity and Interoperability. (MITA Part III, Chapter 7) **Results/Observations:** The state only partially meets the MITS 2.2 condition because data architecture is not advancing with this change. (MITA Part II, Chapter 6) • The fields that pass between MMIS and [redacted] do not cross reference or use NIEM data naming convention standards. (This is same as an observation cited in the MITA 2.3 Industry Standard Condition.) • Advancing for the data model requires the enterprise to coordinate and identify core data to model into the MITA mandated conceptual and logical data models. This project has not facilitated the development of the models. It is possible that the fields that pass between MMIS and [redacted] could be a starting point to identify and map some of the core enterprise data. **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) Software Architecture Document Project – [redacted] to MMIS Interface Re-Architecture (3) [redacted] *multi docs* Web Service Design Document.
5	**SD 2.3 Industry Standards Condition – Do the Design Description Documents ensure alignment with, and incorporation of, industry standards?** **2.3.1 The Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards;** 2.3.1 **Evaluation**: The redesign meets this condition.

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- The [redacted] Architecture document illustrates the new Web Clusters are part of the current infrastructure, within firewalls. The review assumes the original infrastructure security processes and approvals are in place.
- There are no changes to data and login access. The review assumes the original data login and data access security processes and approvals are in place.
- The Software Architecture document addresses the security of the new web services, indicating the use of secure HTTP and TLS V 1.2 encryption.

2.3.2 Accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws.

2.3.2 **Evaluation:** The redesign project partially meets this condition. Formal Adoption of Accessibility Standards are not yet adopted.

Most of the supporting documents appear to meet the 508 and [redacted] recommendations that make a document more accessible. A number of charts required intervention in order for the contrast to meet accessibility requirements. This suggests that the standards are not being used uniformly.

Note: Because this is an internal interface, the interface process and web services were not evaluated for accessibility.

2.3.3 Standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.

2.3.3 **Evaluation:** The redesign project partially meets this condition.

1104 Requires HHS to adopt a single set of operating rules, 1561 calls on the secretary to develop the interoperable security standards and protocols for enrollment. The HHS secretary addresses the standards and protocols in CMS Guidance for Exchange and Medicaid Information Technology IT Systems. The chief recommendation is that states use NIEM to facilitate the enrollment process and common data exchanges. NIEM standards are based on XML and standard terms, definitions and formats for data elements.

While the services that have been reviewed are using XML, they are not using or cross referencing NIEM data elements. There is no crosswalk to an alternative [redacted] State Standard.

Results/Observations:

The MEC-MMIS interface only partially meets the MITA industry standards conditions listed because the project is not yet formally implementing accessibility

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	standards, and the project is not using NIEM data element standards. **References:** (1) [redacted] – [redacted] Web Services v 6.22.doc (2) Performance_Enhancement_Tasks Summar.doc (3) Software Architecture Document Project – [redacted] to MMIS Interface Re-Design (4) [redacted] Architecture.vsd (5) [redacted] *multi docs* Web Service Design Documents (6) [redacted] to MMIS InterfaceMessageMapinx.xlsm
6	**SD 2.4 Leverage Condition – Does the Design Description Document demonstrate that the State solutions promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States. IE: Multi-state efforts; Availability to other states for re-user; Open source, cloud based commercial products; Minimum Customization to transfer solutions; Transition/Retirement of a duplicative system.** **Evaluation:** As this is an internal interface, it is not being evaluated for sharing, leverage and reuse within and among state systems.
7	**SD 2.5 Business Results Condition – Does the Design Description Document support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.** **Evaluation:** Yes, the changes identified in all four phases are intended to improve the accuracy and timeliness of processing eligibility and billing processes. **Results/Observations:** None. **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) Software Architecture Document Project – [redacted] to MMIS Interface Re-Architecture (3) SharePoint project site: Multiple working documents
8	**SD 2.6 Reporting Condition – Solutions should produce transaction data, reports, and performance information that contributes to program evaluation, continuous improvement in business operations, transparency and accountability.** **Evaluation:** There were no report specifications identified in the software architecture document or the supporting documents at this time that would contribute to program evaluation, improve business operations, transparency and/or accountability. ⇒ State Team Input The state is having discussions about identifying metrics. **Results/Observations:**

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	[redacted] (This is the same as finding in 1.2) **Sources:** **(1)** Software Architecture Document Project – [redacted] to MMIS Interface RE-architecture **(2)** Multiple SharePoint directories with supporting documentation
9	**Interoperability Condition – Systems must ensure seamless coordination and integration with the Exchanges (whether run by the state or federal government), and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.** **Evaluation:** The project meets this requirement. The entire [redacted]-MMIS Interface Redesign is directed at ensuring the [redacted] and MMIS Systems integrate more accurately and more quickly. **Results/Observations:** None. **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign 2) Software Architecture Document Project – [redacted] to MMIS Interface Re-Architecture

3.2 [redacted]-MMIS Interface Redesign: Track 3

Program/SDLC Phase: Requirements Gathering, Design

Evaluation Summary: This review is of Track 3 Fixes for the [redacted]-MMIS Interface (Redesign). It is to be read in conjunction with Tracks 1 and 2, so as not to repeat the architectural and system design findings that are at a higher level.

IV&V raised a number of observation/questions - none are 'show- stoppers'. Items highlighted in yellow need to be followed up on.

Product Evaluation Results/Observations/Findings:	
1	**SD 1.1 Software Development Life Cycle Management plans and Project Management.** **Does the project documentation demonstrate that a Software Life Cycle Process was selected for the project? Does the Project Management documentation demonstrate planning for: resources, documentation, metrics/evaluation, system transition if necessary, and training, risk management, task management and evaluation of improvement needs? Do the processes include management and business oversight and sign off? Best practices reference: IEEE 1074, IEEE 12207**

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	Evaluation: Yes, this portion of the re-design is using small, iterative processes to fix issues. Defects are tracked, grouped, prioritized and moved through the life cycle as fixes are completed. Business Requirements, Functional Specs, Use Case Statements, and Test Scenarios appear to use template and are therefore standardized. There are naming conventions to the document names. The remaining Life Cycle Management plans and Project Management is addressed in the high-level review. See Track I and Track II review. **Results/Observations:** None. **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) Documentation that was copied to a SharePoint site. Deliverables/Fixes/*. These items include defect documentation, architectural solutions, business requirements, testing requirements, business and technical specifications, task lists, priority lists, communication processes, status reports, meeting presentations and minutes
2	**SD 1.2 SDLM Architectural documentation.** **Does the Software Design Description Document list scope, identification, system overview, document overview, referenced documents, system-wide design decisions, system architectural design, system components, concept of execution, interface design, interface identification and diagrams, (project-unique identifier of interface), requirements traceability, maintenance and retirement? Best practices reference: IEEE 12207, IEEE 1074** **Evaluation:** Track 3 is the implementation of the architecture and redesign reviewed in Tracks 1 and 2. The architectural findings will not be repeated in this section. **Results/Observations:** Refer Section 3.1 above for details of the IV&V review for Tracks 1 and 2. **Sources:** 1) Project Plan [redacted]-MMIS Interface Redesign (2) Documentation that was copied to a SharePoint site. Deliverables/Fixes/*. These items include defect documentation, architectural solutions, business requirements, testing requirements, business and technical specifications, task lists, priority lists, communication processes, status reports, meeting presentations and minutes
3	**SD 2.1. Modularity Standard.** **2.1.1 Does the Design Description Document demonstrate the uses of a modular, flexible approach to systems development, including the use of open interfaces and exposed Application Programming Interfaces (API)?**

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	2.1.1 Evaluation: Track 3 fixes are the implementation of the API messages and services. As such, they are part of a modular, flexible approach. **2.1.2 Is there a separation of standardized business rule definitions from core programming; and are standardized business rule definitions available in both human and machine-readable formats?** **2.1.2 Evaluation:** There is separation of business rules from core programming for the [redacted] portion of the data collection but not for the MMIS portion of data collection. **2.1.3 Does the Design Description Document demonstrate a commitment to a formal system development methodology and an open, reusable system architecture?** 2.1.3 **Evaluation:** The supporting documents and the supporting processes {development and testing processes, formal sign-offs, and the project management task documents -- in the SharePoint site}, demonstrate a commitment to a formal system development methodology. This project demonstrates a commitment to an open, reusable system architecture. **2.1 Overall Evaluation** The Track 3 Fixes project meets the MITA condition of modularity. **Results/Observations:** None. **Sources:** (1) Project Plan [redacted] MMIS Interface Redesign (2) Software Architecture Document Project – [redacted] to MMIS Interface Re-Architecture (3) SharePoint project site: Multiple working documents (4) [redacted] – [redacted] Web Services v6.22 (5) [redacted] to MMIS InterfaceMessageMapinx.xlsm
4	**SD 2.2. MITA Conditions. Does the Design Description Document demonstrate that the state is aligning to and is increasingly advancing in MITA maturity for business, architecture, and data?** **Evaluation:** Track 3 fixes are the implementation of the API messages and services. As such, the observations for Tracks 1 and 2 are the same observations and will not be repeated here. **Results/Observations:** Refer Section 3.1 above for details of Tracks 1 and 2 IV&V review.

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	Sources: (1) Project Plan [redacted]-MMIS Interface Redesign (2) Software Architecture Document Project – [redacted] to MMIS Interface Re-Architecture (3) [redacted] *multi docs* Web Service Design Document.
5	**SD 2.3 Industry Standards Condition – Does the Design Description Document Ensures alignment with, and incorporation of, industry standards?** **2.3.1 The Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards;** 2.3.1 **Evaluation**: Yes, this was addressed in the Track 1 and Track 2 review. The systems architecture design includes firewalls and secure transmittal of the services. **2.3.2 Accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws.** **2.3.2 Evaluation:** Note: As this is an internal interface, the interface process and web services were not evaluated for accessibility. Most of the documents appear to meet the 508 and [redacted] recommendations that make a document more accessible. There is no documentation that indicates the accessibility checks are a formal part of the process. **2.3.3**, **Standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.** 2.3.3 **Evaluation:** Track 3 fixes are the implementation of the API messages and services. As such, the observations for Track 1 and Track 2 are the same observations and will not be repeated here. **Results/Observations:** The [redacted]-MMIS interfaces only partially meet the MITA industry standards conditions listed because the project is not yet formally implementing accessibility standards, and the project is not using NIEM data element standards. **Sources:** (1) [redacted] to MMIS InterfaceMessageMapinx.xlsm (2) [redacted] – [redacted] Web Services v 6.22.doc (3) Performance_Enhancement_Tasks Summar.doc

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	(4) Software Architecture Document Project – [redacted] to MMIS Interface Re-Design (5) [redacted] *multi docs* Web Service Design Documents
6	**SD 2.4 Leverage Condition – Does the Design Description Document demonstrate that the State solutions promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States. IE: Multi-state efforts; Availability to other states for re-use; Open source, cloud based commercial products; Minimum Customization to transfer solutions; Transition/Retirement of a duplicative system** **Evaluation:** As this is an internal interface, it is not being evaluated for sharing, leverage and reuse within and among state systems. Results/Observations: None. **Sources: N/A**
7	**SD 2.5 Business Results Condition – Does the Design Description Document support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.** **Evaluation:** Track 3 of the project meets this requirement. The project identifies and fixes the interfaces problems that are causing data mismatches between the [redacted] MMIS and the [redacted] Exchange. **Results/Observations:** None. **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) [redacted] to MMIS Interface Redesign Kickoff.ppt (3) Fixes/Business Requirements/*Multiple documents* (4) Fixes/Functional Spec-*-Use Cases
8	**SD 2.6 Reporting Condition – Solutions should produce transaction data, reports, and performance information that contributes to program evaluation, continuous improvement in business operations, transparency and accountability.** **Evaluation:** There were no report specifications identified in the supporting documents that would contribute to program evaluation, improve business operations, transparency and/or accountability. **Results/Observations:** [redacted] **Sources:** SharePoint Directories Deliverables/Fixes/*multiple directories and documents*
9	**Interoperability Condition – Systems must ensure seamless coordination and**

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	integration with the Exchanges (whether run by the state or federal government), and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services. **Evaluation:** Track 3 of the project meets this requirement. The project identifies and fixes the interfaces problems that are causing data mismatches between the [redacted] MMIS and the [redacted] Exchange. **Results/Observations:** None. **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) [redacted] to MMIS Interface Redesign Kickoff.ppt (3) Fixes/Business Requirements/*Multiple documents* (4) Fixes/Functional Spec-e-Use Cases

3.3 [redacted]-MMIS Interface Redesign: Track 4

Program/SDLC Phase: Requirements Gathering, Design

Evaluation Summary: This review is of Track 4- [redacted] Premium Fixes under the [redacted]-MMIS Interface (Redesign) project.

This is a newly added track; the system and software design documentation has not been updated.

IV&V raised a number of observation/questions - none are 'stoppers'. Items highlighted in yellow need to be followed up on.

	Product Evaluation Results/Observations/Findings:
1	**SD 1.1 Software Development Life Cycle Management plans and Project Management.** **Does the project documentation demonstrate that a Software Life Cycle Process was selected for the project? Does the Project Management documentation demonstrate planning for: resources, documentation, metrics/evaluation, system transition if necessary, and training, risk management, task management and evaluation of improvement needs? Do the processes include management and business oversight and sign off? Best practices reference: IEEE 1074, IEEE 12207** **Evaluation:** The Task lists and the SharePoint directory documents demonstrate a Software Development Life Cycle of planning, analysis, design, testing and implementation, but a cycle is not specifically identified.

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	Many of the project management items are referenced in the supporting documents. EG: resources, documentation, task management, business sign off. Documentation standards are not identified, but the documentation demonstrates some documents are using documentation standards: o The Business Requirements and the Functional Specs Use Case Statements use a standard template. o The Test Scenarios use a standard naming convention. **Results/Observations:** **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) SharePoint/Status Reports/* (2) Deliverables/[redacted] Premiums/Business Requirements/BusinessRequirements_FC (3) Deliverables/[redacted] Premiums/Business Requirements/Functional Spec Req Use Cases/* (4) Deliverables/[redacted] Premiums/Business Requirements/Testing Screen Shots/* (5) Project Tools/TaskList-Track4[redacted]Premiums.xls (6) Project Tools/Project_Resources.xls (7) Project Tools/Interface Redesign 2016-2017 Tasks.xls (8) [redacted] To MMIS Interface Message Mapping.xls
2	**SD 1.2 SDLM Architectural documentation.** **Does the Software Design Description Document list scope, identification, system overview, document overview, referenced documents, system-wide design decisions, system architectural design, system components, concept of execution, interface design, interface identification and diagrams, (project-unique identifier of interface), requirements traceability, maintenance and retirement? Best practices reference: IEEE 12207, IEEE 1074** **Evaluation:** An architectural system and software design was not identified. **Results/Observations:**

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	[redacted] **Sources:** (1) Project Plan [redacted]-MMIS Interface Redesign (2) SharePoint/Status Reports/* (3) Deliverables/[redacted] Premiums/Business Requirements/BusinessRequirements_FC (4) Deliverables/[redacted] Premiums/Business Requirements/Functional Spec Req Use Cases/* (5) Deliverables/[redacted] Premiums/Business Requirements/Testing Screen Shots/* (6) Project Tools/TaskList-Track4[redacted]Premiums.xls (7) Project Tools/Project_Resources.xls (8) Project Tools/Interface Redesign 2016-2017 Tasks.xls (9) [redacted] To MMIS Interface Message Mapping.xls
3	**SD 2.1. Modularity Standard.** **a) Does the Design Description Document demonstrate the uses of a modular, flexible approach to systems development, including the use of open interfaces and exposed Application Programming Interfaces (API)?** **b) Is there a separation of standardized business rule definitions from core programming; and are standardized business rule definitions available in both human and machine-readable formats?** **c) Does the Design Description Document demonstrate a commitment to a formal system development methodology and an open, reusable system architecture?** **Evaluation:** Design documentation has not been identified. **Results/Observations:** [redacted] **Sources:** SharePoint Directories: Deliverables/*multiple documents*
4	**SD 2.2. MITA Conditions. Does the Design Description Document demonstrate that the state is aligning to and is increasingly advancing in MITA maturity for business, architecture, and data?** **Evaluation:** Design documentation has not been identified. **Results/Observations:** [redacted]

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	Sources: SharePoint Directories: Deliverables/*multiple documents*
5	**SD 2.3 Industry Standards Condition – Does the Design Description Document Ensures alignment with, and incorporation of, industry standards?** **2.3 named standards:** **(a) The Health Insurance Portability and Accountability Act of 1996 (HIPAA) security, privacy and transaction standards;** **(b) accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal Civil Rights laws.** **(c) standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act.** **Evaluation:** Design documentation has not been identified. **Results/Observations:** [redacted] **Sources:** SharePoint Directories: Deliverables/*multiple documents*
6	**SD 2.4 Leverage Condition – Does the Design Description Document demonstrate that the State solutions promote sharing, leverage, and reuse of Medicaid technologies and systems within and among States. IE: Multi-state efforts; Availability to other states for re-user; Open source, cloud based commercial products; Minimum Customization to transfer solutions; Transition/Retirement of a duplicative system** **Evaluation:** As this is an internal interface, it is not being evaluated for sharing, leverage and reuse within and among state systems. **Results/Observations:** None. **Sources: N/A**
7	**SD 2.5 Business Results Condition – Does the Design Description Document support accurate and timely processing of claims (including claims of eligibility), adjudications, and effective communications with providers, beneficiaries, and the public.** **Evaluation:** Track 4 meets this requirement. Although the design documentation has not been completed, it is evident from the task lists that this Track will improve the accuracy and timely processing for [redacted] billing.

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	Results/Observations: None **Sources:** Project Tools/TaskList-Track4[redacted]Premiums.
8	**SD 2.6 Reporting Condition – Solutions should produce transaction data, reports, and performance information that contributes to program evaluation, continuous improvement in business operations, transparency and accountability.** **Evaluation:** Design documentation has not been identified. **Results/Observations:** [redacted] **Sources:** SharePoint Directories: Deliverables/*multiple documents*
9	**Interoperability Condition – Systems must ensure seamless coordination and integration with the Exchanges (whether run by the state or federal government), and allow interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services.** **Evaluation:** The project meets this requirement. Track 4 is directed at the [redacted] and MMIS Systems integrate more accurately for premium billing. **Results/Observations:** None. **Sources:** SharePoint Directories: Deliverables/*multiple documents*

4. Global Considerations

In this section IV&V team has identified practices if incorporated by the MMIS Interface Redesign project may aid the project to satisfy desired business goals and objectives.

- In absence of current technical documentation, there is potential of interfaces missing or not delivering required functionality and put excessive constraint on the system/sub-system
- If Technical documentation standards and conventions are not followed, it may increase chances to misinterpret by different users hence high probability of re-work
- Impact testing criteria and methods hence not meeting requirements
- In absence of standard configuration management practices, it enhances uncertainty ability to deliver project as per plan
- Impact supporting documentation such as User guides/manuals, Operational Support manuals, and training increasing overhead for operational support activities or team
- Database may not meet required performance thresholds hence not adding or delivering business value

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Appendix A: Acronym List

Acronym/Term	Description
ACA	Federal Patient Protection and Affordable Care Act
ACF FNS	Children & Families Food Nutrition Services
API	Application Programming Interfaces
BA	Business Analyst
CCIIO	Center for Consumer Information and Insurance Oversight
CMS	Center for Medicare and Medicaid Services
DOR	Deliverable Observation Report
Drools	Drools is a Business Rules Management System (BRMS) solution
HHS	Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
HTTP	Hypertext Transfer Protocol
IEEE	Institute of Electrical and Electronics Engineering
ISDS	Integrated Service Delivery System
IV&V	Independent Verification and Validation
[redacted]	[redacted]
[redacted]	[redacted] Eligibility Technology System
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information Systems
[redacted]	[redacted] Health Insurance Exchange
[redacted]	[redacted] Health Insurance Exchange
NIEM	National Information Exchange Model
OCSE	Office of Child Support Enforcement
SDD	System Design Document
SDLC	Software Development Life Cycle
SDLM	Software Development Lifecycle Management
SES	Software Engineering Services
TLS	Transport Layer Security
UI	User Interface
UML	Unified Modeling Language
USL	User Services Layer
VOS	Virtual Object System
WSDL	Web Services Description Language
XML	Extensible Markup Language

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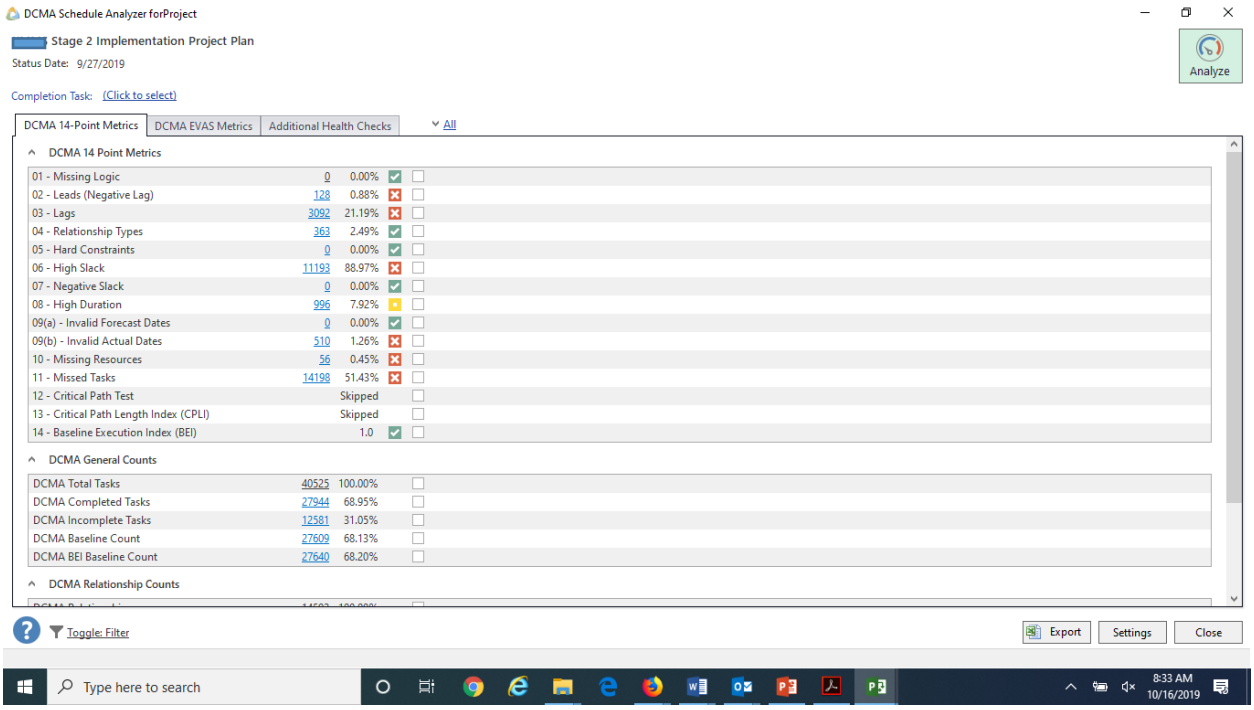
APPENDIX I – Sample Performance and Health Metrics

Project Schedule Analyzer



Example of Explanation for the 02- Leads (Negative Lag) is provided in report as appropriate-

Counts and calculates the percentage of Predecessor relationships on Incomplete Tasks that have a Lead (negative lag) value.

In Microsoft Project, a Predecessor relationship can be of several types including Finish-Start (FS), Finish-Finish (FF), Start-Start (SS) and Start-Finish (SF). Each of these relationships can further be qualified to include a Lead time (i.e. an overlap between tasks). An example of a Lead (sometimes called negative lag) in a predecessor would be “FS-10d”.

According to DCMA, schedules that have Leads (negative lag) between tasks are more difficult to analyze from a critical path perspective and can lead to distortions in the Total Slack calculations.

Count:	Number of **Predecessor** relationships on **Incomplete Tasks** that have a **Lead** (negative lag)
% Calculation:	% of **Predecessor** relationships on **Incomplete Tasks** that have a **Lead** (negative lag)
Target:	Zero percent (0%) No Predecessor relationships should have Leads (negative lags)

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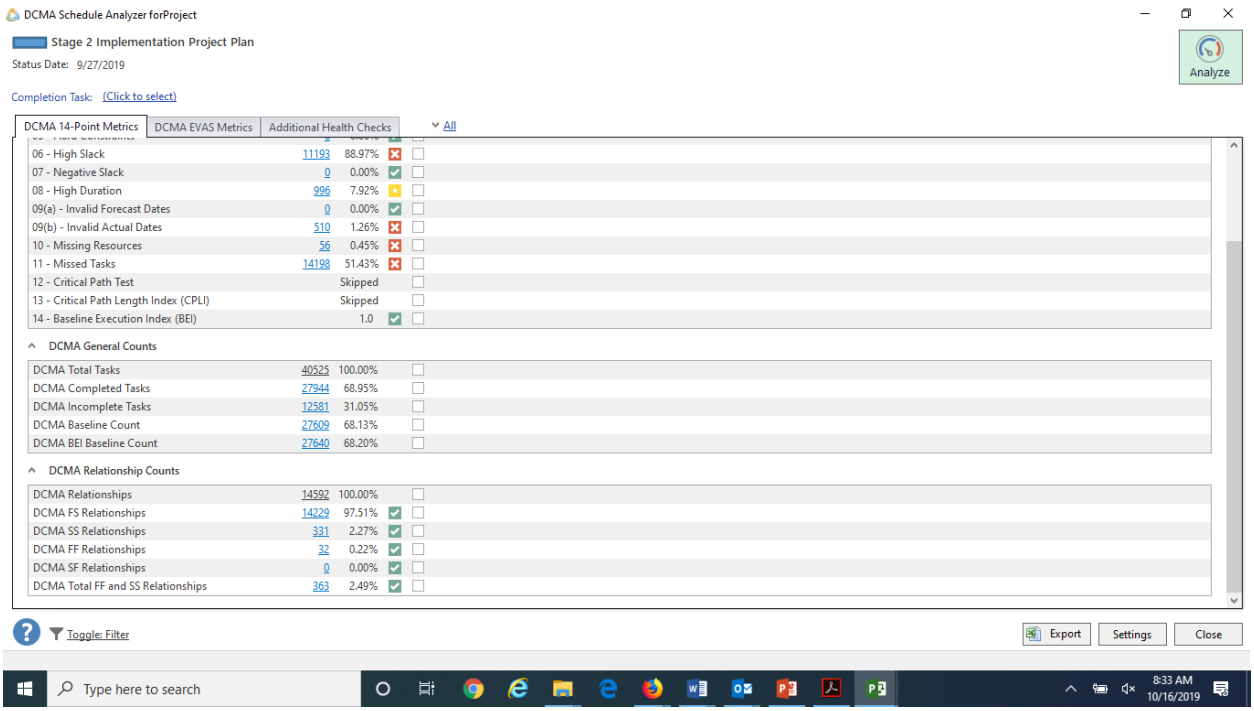
Default Thresholds:	☑ 0% ☒ Greater than 0%

This also has impact to other activities such as-

- Active Tasks
- Non-Summary
- Non-Milestone (Baseline Duration > 0)
- Not identified as Level of Effort (LOE)
- Not identified as a Schedule Margin (SM) Task
- Not Complete (Actual Finish = NA)

In our report, we write it in a format that make sense to project team. Additionally, we create trending over period of time to show how their actuals are performing over a period of time as they update schedules weekly.



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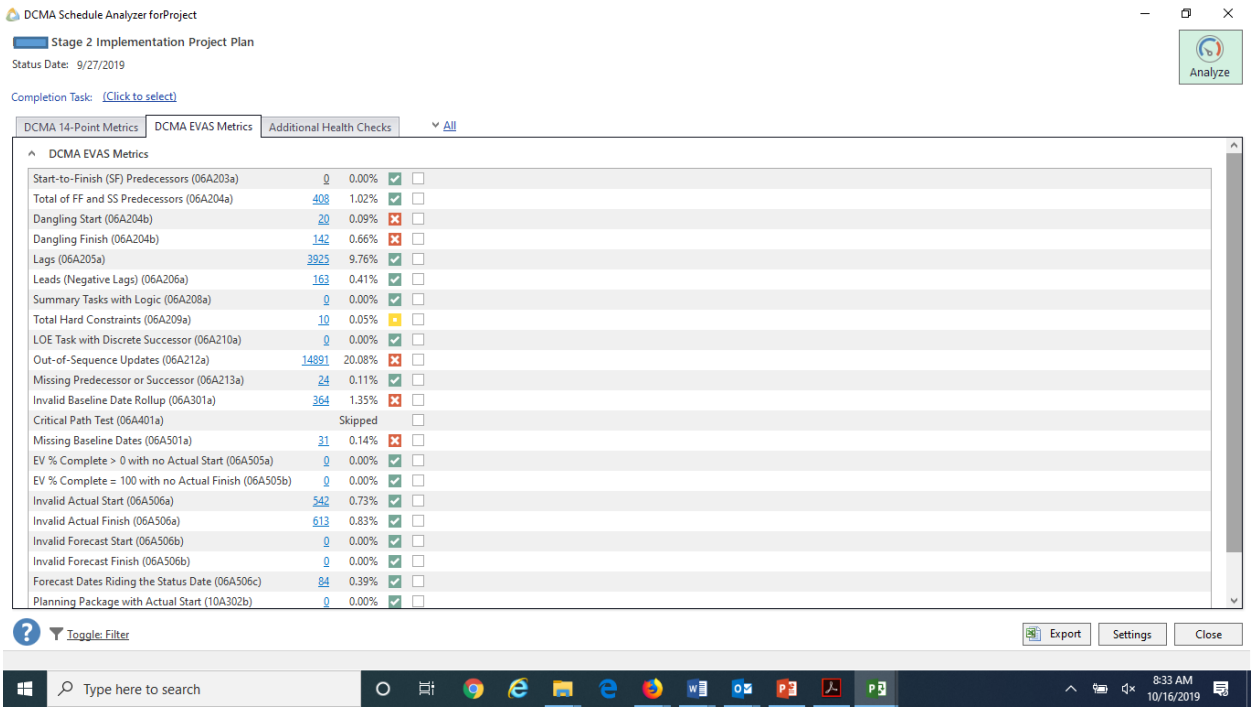

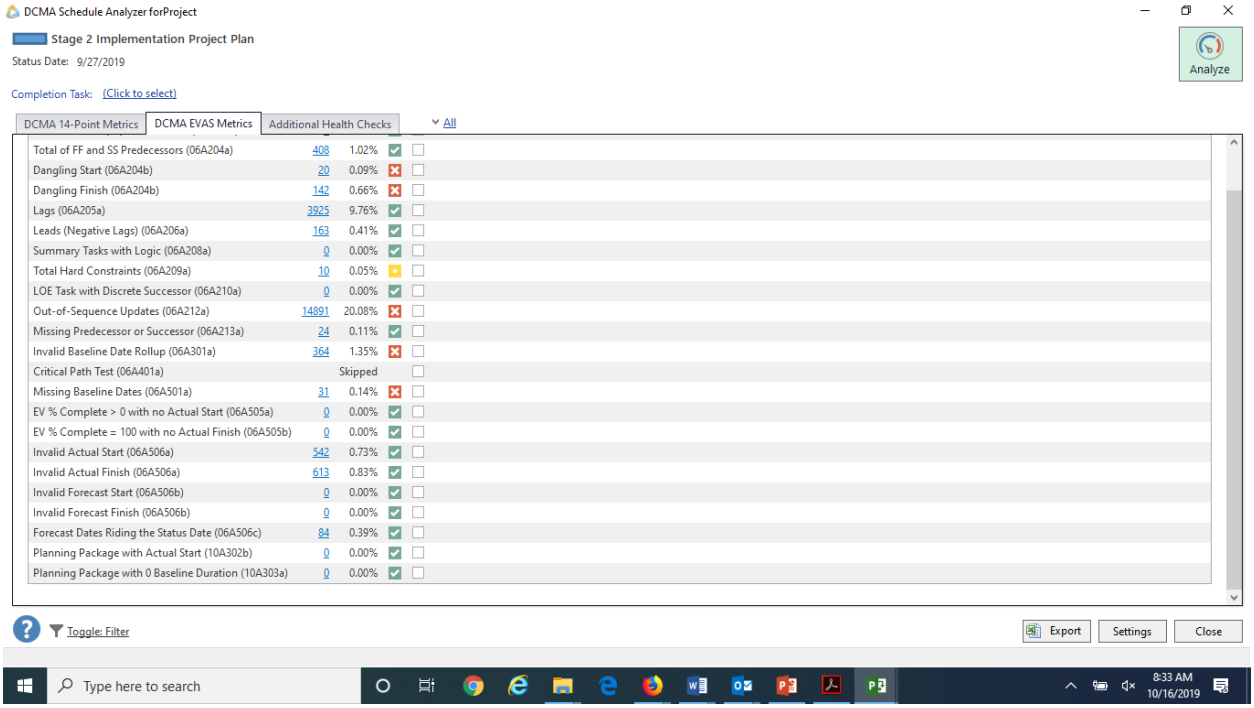

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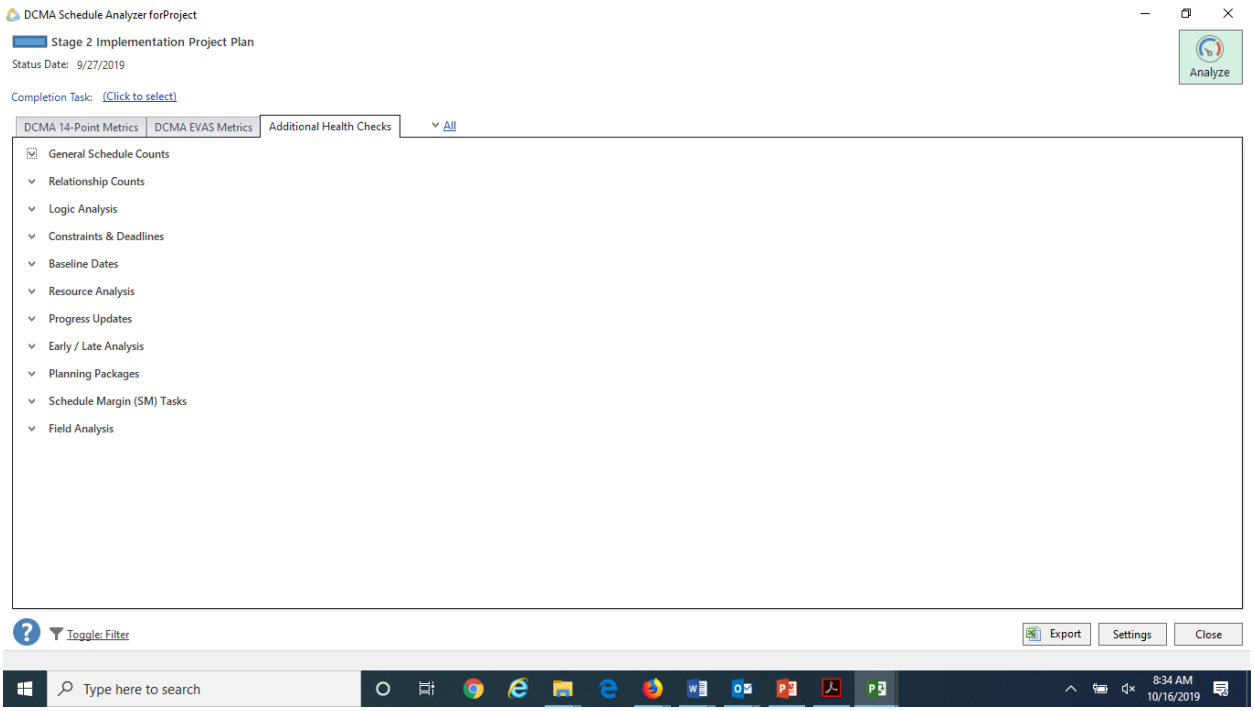

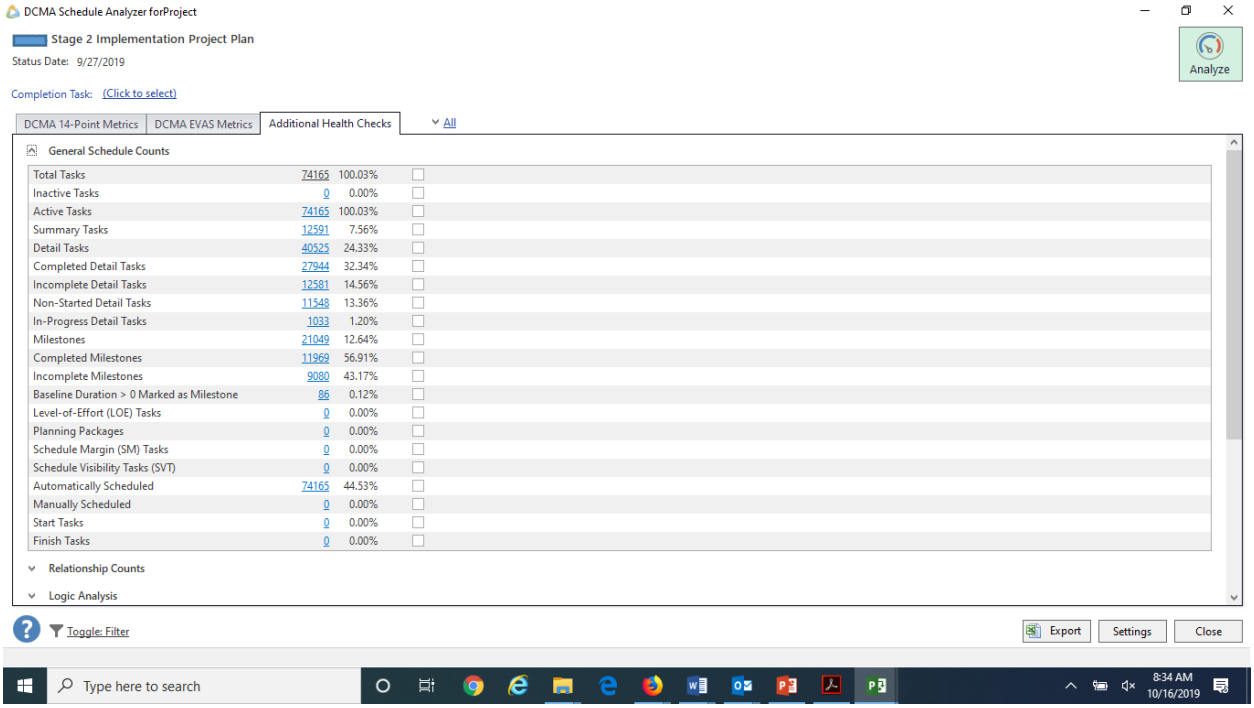

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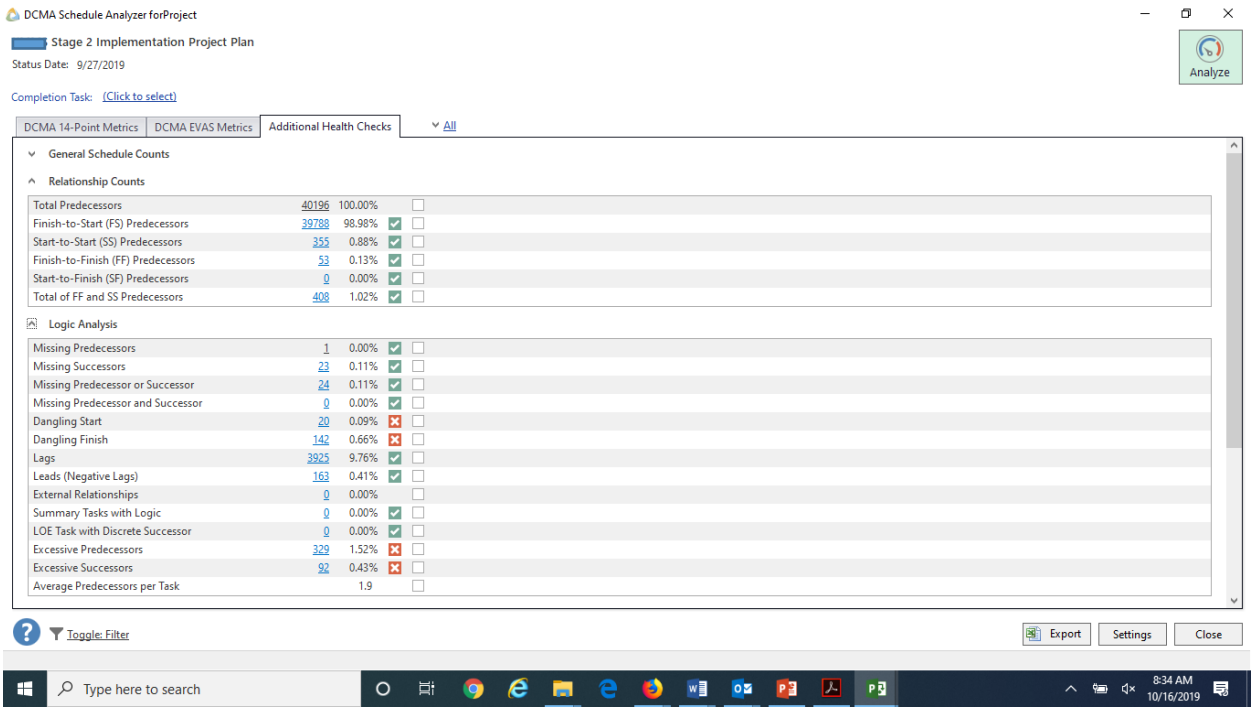

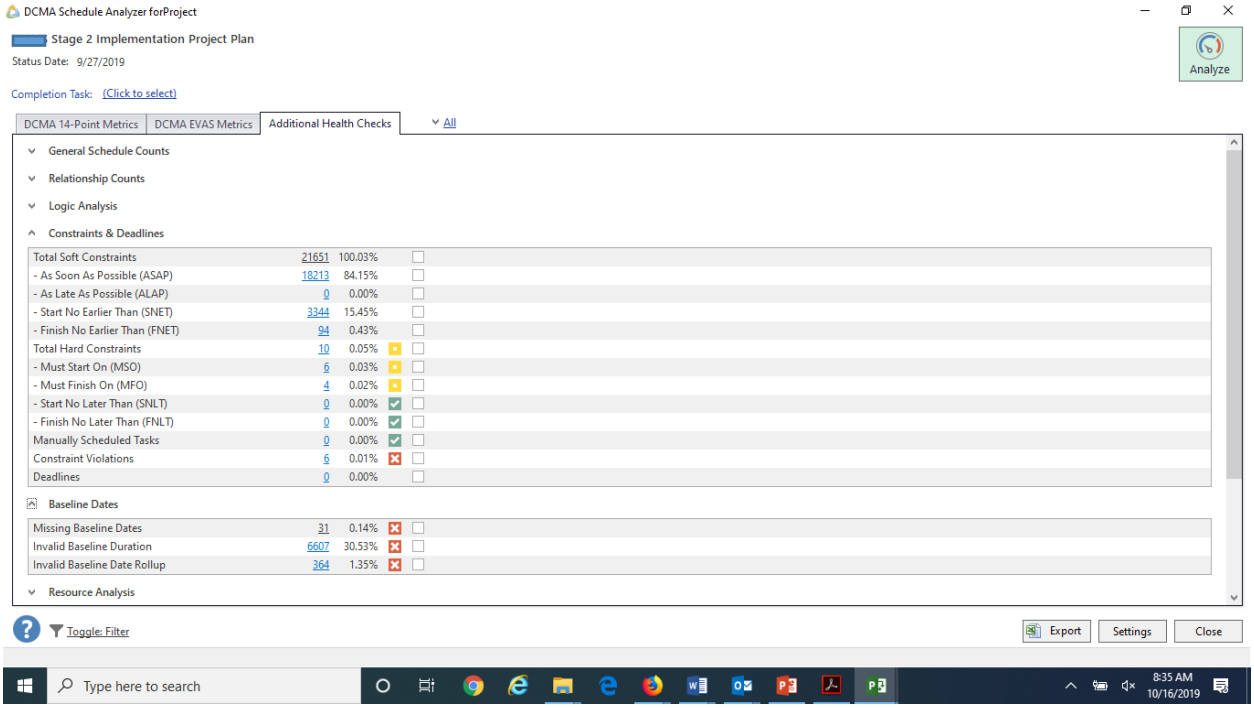

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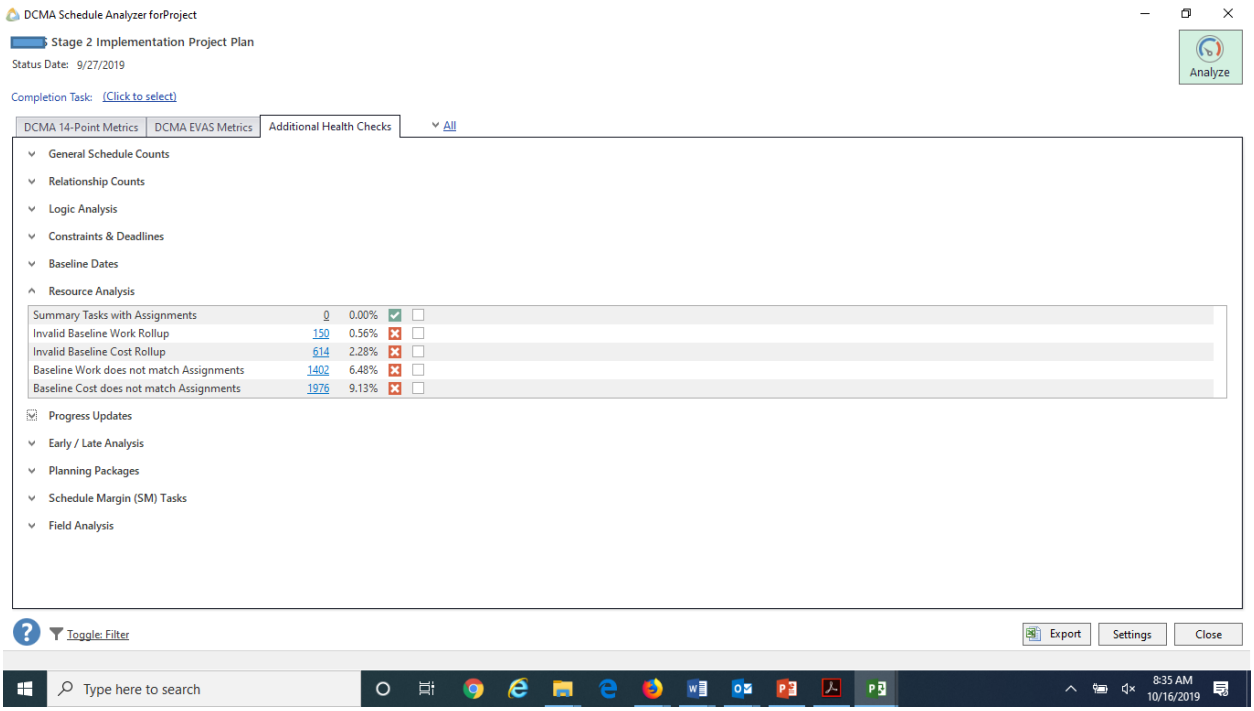

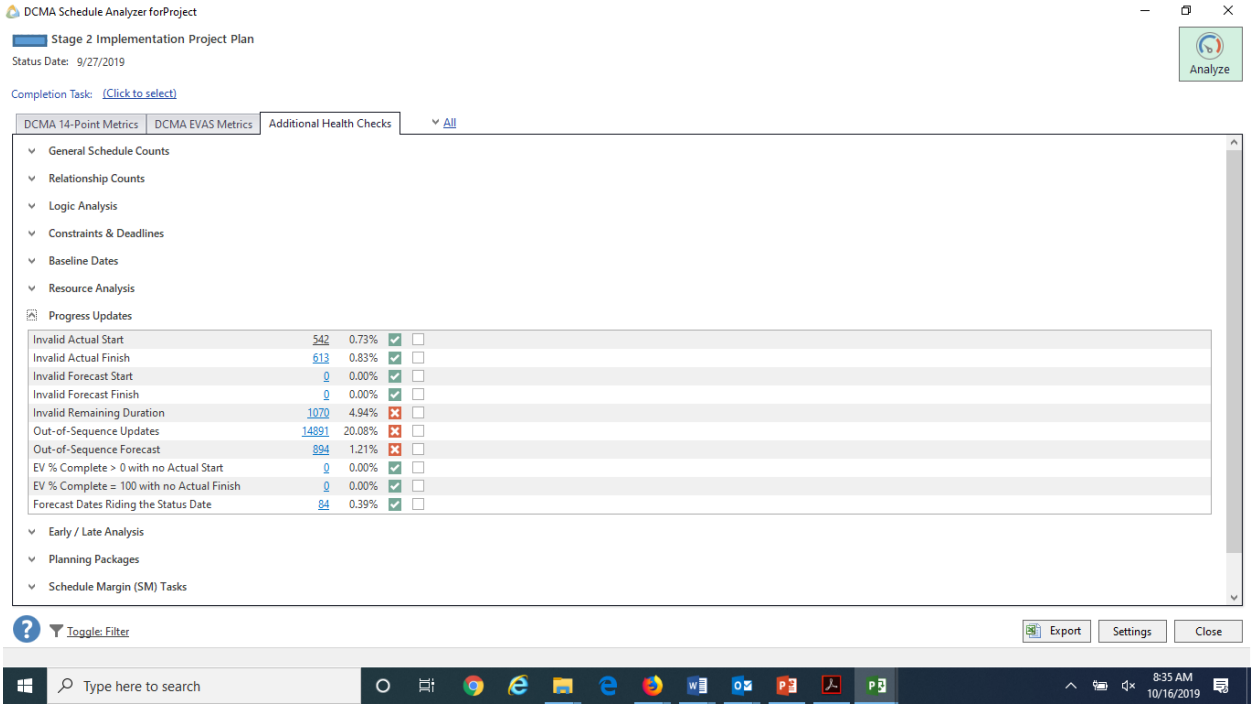

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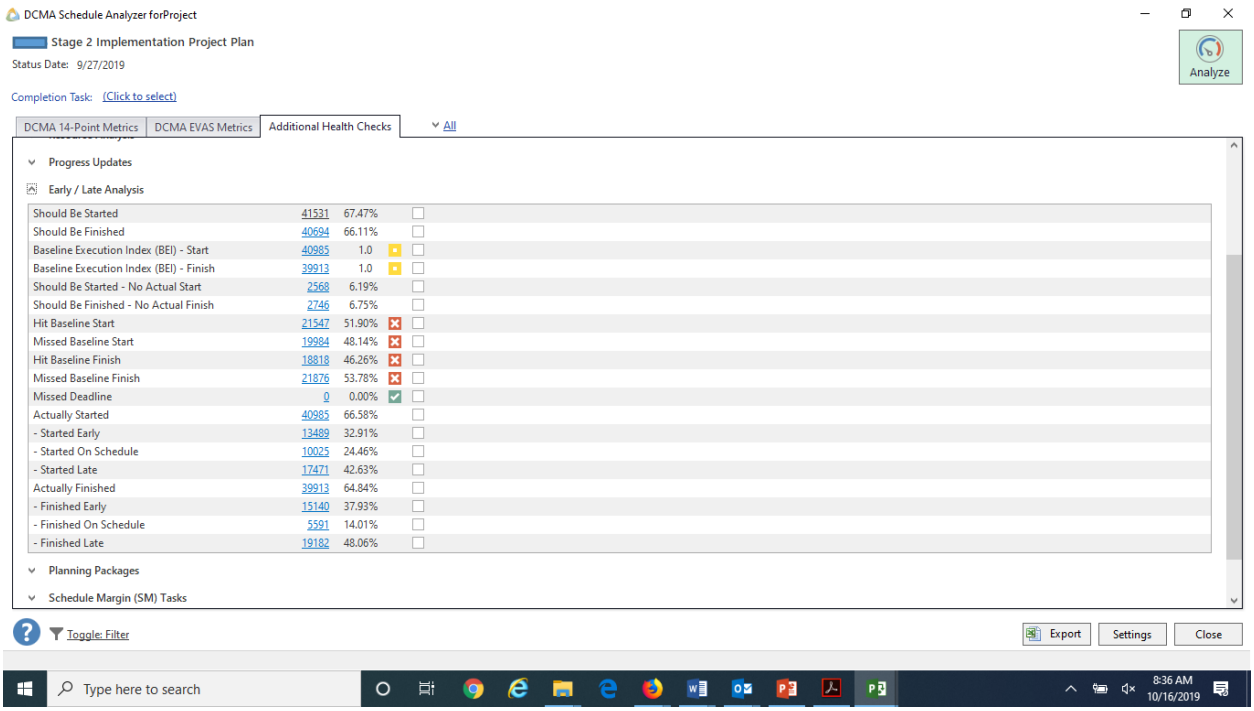

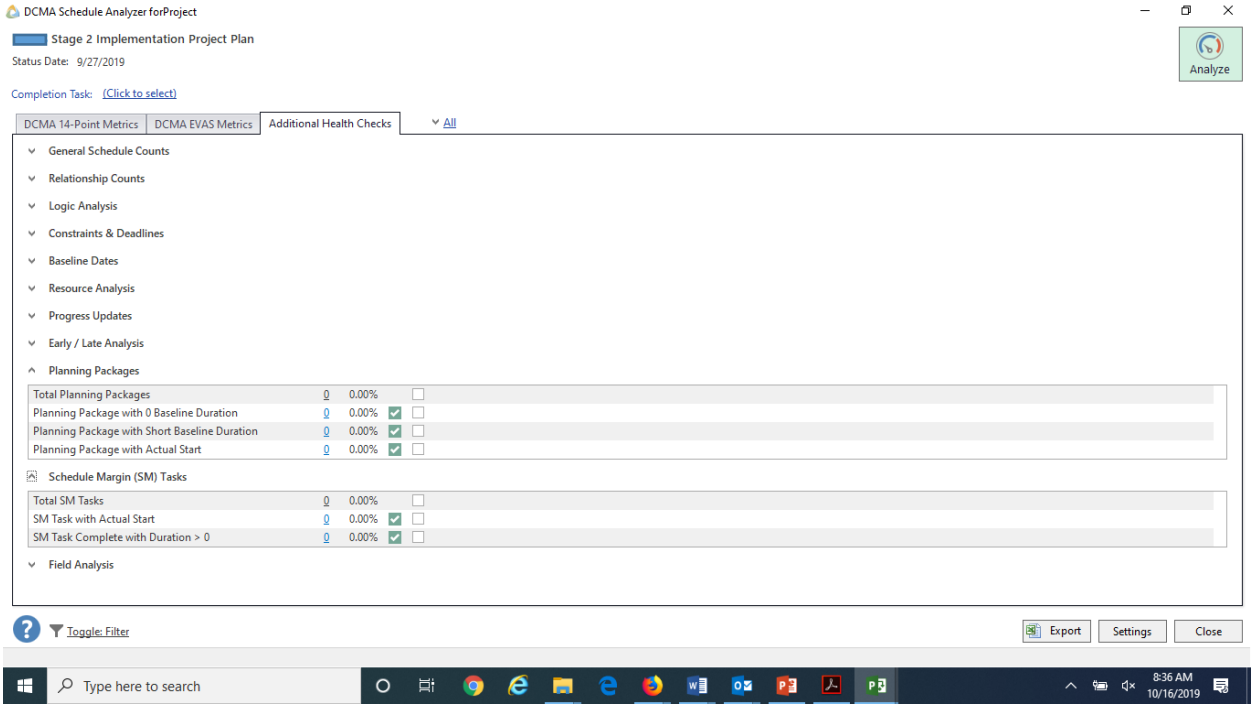

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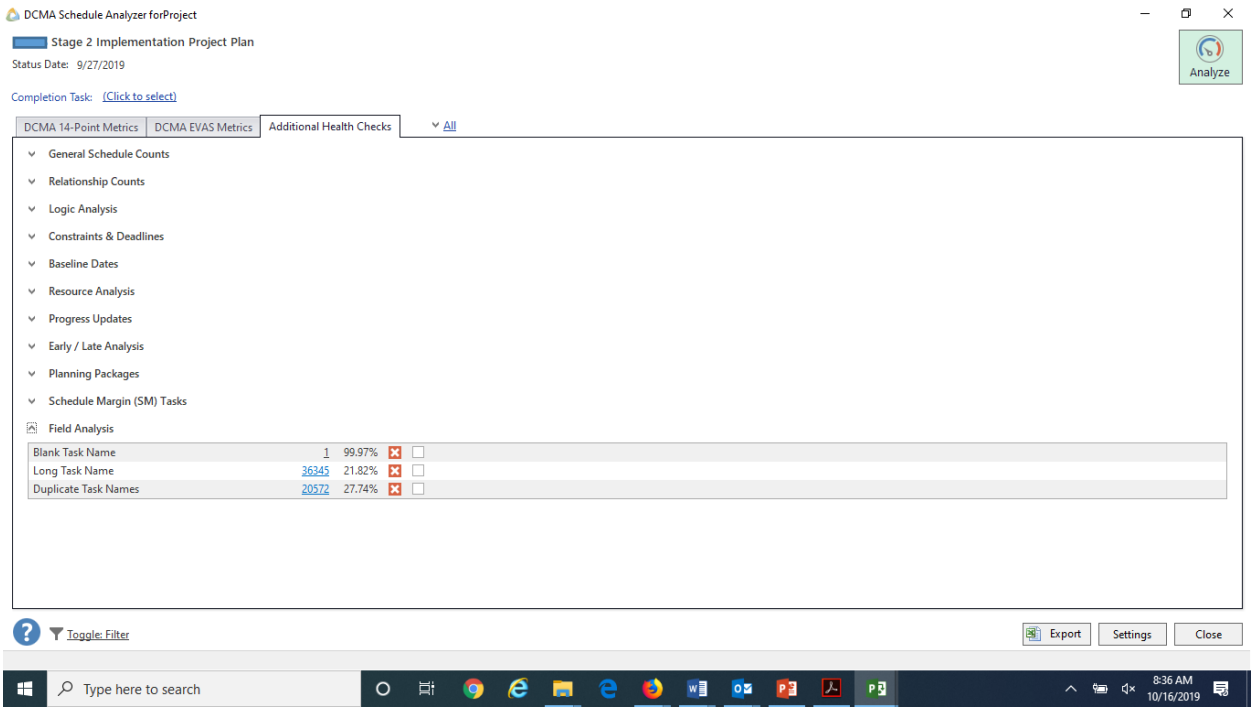

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Information Technology Independent Verification and Validation Services
Contract No. 80101507-21-STC

Exhibit E
Contractor Performance Survey

Note: This is an example of the questions contained in the Contractor Performance Survey. The actual survey will be provided in electronic form.

Customers shall complete this Contractor Performance Survey for each Contractor on a quarterly basis. Customers will electronically submit the completed Contractor Performance Survey(s) to the Department's Contract Manager no later than the due date indicated in Section F-1 of Attachment A--Statement of Work.

Contractor's Name:_____ Quarter:_____

Purchase Order (PO) Number:_____

PO Total $ Amount:_____

PO Starting Date:_____ Ending Date:_____

Please review the attached Rating Definitions and provide your opinion by rating the following:

Quality of Service	
1. Effectiveness performing tasks	4 ❒ 3 ❒ 2 ❒ 1 ❒
2. Quality and completeness of work	4 ❒ 3 ❒ 2 ❒ 1 ❒
Cost Control	
3. Accurately estimated and controlled costs to complete work	4 ❒ 3 ❒ 2 ❒ 1 ❒
4. Submitted, timely, accurate & complete invoices	4 ❒ 3 ❒ 2 ❒ 1 ❒
Timeliness of Performance	
5. Adherence to delivery schedule (major tasks, milestones)	4 ❒ 3 ❒ 2 ❒ 1 ❒
6. Timely, current & complete reporting, tracking and documentation	4 ❒ 3 ❒ 2 ❒ 1 ❒
Business Relations	
7. Effectively communicated with Customer management and staff	4 ❒ 3 ❒ 2 ❒ 1 ❒
8. Contractor staff was professional, cooperative and flexible	4 ❒ 3 ❒ 2 ❒ 1 ❒
Customer Satisfaction	
9. Overall Satisfaction with Contractor	4 ❒ 3 ❒ 2 ❒ 1 ❒

Comments: (Please use additional page if necessary.)

_____

_____

Agency:_____ Division/Section/Unit:_____

Rater's Printed Name:_____ Title:_____

Rater's Signature:_____ Date:_____

Phone Number:_____ Email Address:_____

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Information Technology Independent Verification and Validation Services
Contract No. 80101507-21-STC

Exhibit E
Contractor Performance Survey

Rating Definitions

Excellent ★★★★ (4)

- There are no quality problems.
- There are no cost issues.
- There are no delays.
- Responses to inquiries, technical, service, and administrative issues are effective and responsive.

Average ★★★ (3)

- Non-conformances do not impact achievement of contract requirements.
- Cost issues do not impact achievement of contract requirements.
- Delays do not impact achievement of contract requirements.
- Responses to inquiries, technical, service, and administrative issues are usually effective and responsive.

Below Average ★★ (2)

- Non-conformances require minor Customer resources to ensure achievement of contract requirements.
- Cost issues require minor Customer resources to ensure achievement of contract requirements.
- Delays require minor Customer resources to ensure achievement of contract requirements.
- Responses to inquiries, technical, service, and administrative issues are somewhat effective and responsive.

Poor ★ (1)

- Non-conformances are compromising the achievement of contract requirements.
- Cost issues are compromising performance of contract requirements.
- Delays are compromising the achievement of contract requirements.
- Responses to inquiries, technical, service, and administrative issues are not effective and responsive.

Scoring: Ratings will be averaged together and then rounded to achieve the Overall Contractor Performance Rating.