

Test Evaluation and Management Plan (TEMP)

MES-PMO-TST-004

Alabama Medicaid Enterprise Systems (MES)

Contract Number: NA

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1 Introduction

Medicaid Enterprise Systems (MES) – MES is the umbrella term for the Information Technology (IT) systems that support the mission of the Alabama Medicaid Agency (AMA). The MES includes, but is not limited to; the following systems:

- Alabama Medicaid Management Information System (AMMIS)
- Centralized Alabama Recipient Eligibility System (CARES)
- Electronic Visit Verification (EVV)

Alabama MES Modernization Program (AMMP) – AMMP is the overall effort to plan, manage, and govern a series of projects to improve and update the MES. AMMP will replace the current Alabama Medicaid Management Information System with a modernized system comprised of multiple modules and integrate them with Electronic Visit Verification and Centralized Alabama Recipient Eligibility System. The program includes the implementation of new modules such as Provider Management and Enterprise Data Services (EDS) (for better reporting), and a System Integrator (SI) vendor to ensure all Medicaid Enterprise Systems modules work together.

Medicaid Enterprise Systems Division - A division of the Alabama Medicaid Agency's Department of Information Systems and Technology (IST). The MES division is responsible for managing the Alabama MES Modernization Program. The MES Division's primary mission is to modernize the Agency's management information systems with the goal of improving our business processes and the services we provide to Alabama's recipients and providers.

Module - Each AMMP module will support a unique and separate business function such as managing providers or enrolling members. The implementation and integration of the following modules will be managed as separate projects:

- Enterprise Data Services
- Provider Management
- Claims Processing and Management Services
- Electronic Visit Verification
- CARES

All modules will share and exchange data through an integration framework that will be implemented and managed by the Systems Integrator.

Module Vendor - The Module Vendor is the software implementation services vendor responsible for implementing a module and supporting it after implementation.

System Integrator (SI) - The System Integrator is a vendor-provider of the technical solutions and services that allow individual module systems to safely share information with other module systems using a common set of data and security solutions. The SI will give system users secure access to the module systems.

Modular Electronic Visit Verification (MEVV) - The MEVV system will support the Alabama Medicaid Home and Community-Based Services (HCBS) program, providing services to Medicaid recipients who are at risk of needing care in a nursing home, hospital, or other institution. This program allows them to receive care in a community and/or home setting. The MEVV will be implemented and supported by a module vendor.

Enterprise Data Services (EDS) Module - The EDS module will be a structured and centralized collection of all Medicaid data. The EDS will include reporting, business intelligence and dashboard tools to support Centers for Medicare and Medicaid Services (CMS) reporting, Alabama Medicaid

Agency internal reporting and preparing data for analysis. These tools will provide reports and graphical representations of data that support Agency operations. The goal of the EDS is to provide the Agency with faster access to quality data to improve decision-making, problem resolution and ultimately improved healthcare outcomes for Medicaid recipients. The EDS module will be implemented and supported by a module vendor.

Provider Management Module - The Provider Management module will provide automated contracting, credentialing, and enrollment processes to help the Alabama Medicaid Agency manage providers and provider data. The Provider Management module will be implemented and supported by a module vendor.

Claims Processing and Management Services (CPMS) Module - The CPMS module provides automated claims processing for the Alabama Medicaid Agency. The CPMS module will also include all of the support functions necessary to operate a Medicaid claims processing system. For example, CPMS will include member management, financial management, Electronic Data Interchange (EDI) translation, third party liability, and claims processing. The CPMS module will be implemented and supported by a module vendor.

Cohort - A grouping of modules that will be implemented at the same time.

Program Management Office (PMO) – The Program Management Office falls under the Medicaid Enterprise Systems division and is responsible for the following focus areas:

- Program management support overseeing module projects, managing procurements, mitigating program / project risks and issues
- Medicaid Enterprise Architecture development and maintenance
- Requirements and Business Process Management
- Organizational Change Management

Enterprise Quality Program (EQP) - The Enterprise Quality Program is inclusive of the standards, regulations, best practices, sources, processes, groups and individuals purposed to produce the highest quality outcomes of products, services and customer satisfaction across the AMMP test arena in support of the quality management system for the modularity strategy. The TCOE will report directly to the EQP.

Medicaid Enterprise Architecture (MEA) - Medicaid Enterprise Architecture is the practice of enterprise analysis of an organization's technology, information, and business processes. MEA documents the organization's current and future-state technology, information and business processes and develops a plan to transition from the old to the new. It provides the processes and mechanisms that will assist with building and executing Alabama MES Modernization Program. MEA will assist in developing transformational strategies to bring together legacy and future-state business processes and technology in a format that focuses on desired business outcomes while supporting the transition to modern technologies.

Requirements and Business Process Management (RBPM) - Requirements and Business Process Management is the process of gathering and documenting business processes and requirements. RBPM supports the discovery, modeling, and analysis that ensures new automated solutions supports the business needs of the agency. The artifacts created by the RBPM team support Medicaid Enterprise Architecture MEA and will be utilized to create a roadmap to transition the Alabama Medicaid Agency from the current system state to the future system state.

Organizational Change Management (OCM) - Organizational Change Management is the process of helping an organization successfully transition from current to future systems. The OCM team works

to ensure the Agency and supporting workforce are prepared, trained, and equipped to work with the new systems and business processes.

Project Portfolio Management Office (PPMO) - The Project Portfolio Management Office is a division of the Department of Information Systems and Technology and is responsible for defining, monitoring, and enforcing the Agency's project management policies, standards, processes and procedures. The PPMO is a separate division and independent from the MES division.

Project Quality Assurance (PQA) – The Project Quality Assurance team is responsible for ensuring the Alabama MES Modernization Program and its projects are managed according to project management industry best practices and standards established by the Alabama Medicaid Agency Chief Information Officer and the expectations of the Centers for Medicare and Medicaid Services. The PQA team is within the Project Portfolio Management Office. The PQA team will summarize assessment results and report those results directly to the Chief Information Officer and the Alabama Medicaid Agency Executive Oversight Committee (EOC).

1.1 Module Introduction

Please provide a brief overview of your organization, not project level (project level details are to be demonstrated on the Detailed Test Plan) and solution relative to the module you are responsible for delivering to the Agency. Include solution types and components (ex: Software as a Service-SaaS, Platform as a Service-PaaS, and Infrastructure as a Service-IaaS):

1.2 Purpose

The purpose of this plan is to provide vendors a framework for use in documenting the current test approach or strategy for their organization. It also serves to level set Agency expectations of testing. This document identifies the test team methodology and approach of the process used to organize and coordinate testing of the < Insert Module Vendor System Here> solution.

This high-level test plan describes the strategies used to plan, organize and manage the testing effort of the vendor solution.

1.3 Scope

Vendors are required to add customized content to each of the sections contained within this template that adequately and accurately describes the following testing components:

- Test Objectives
- Methodology/ Approach
- Features and Functionality In Scope
- Features and Functionality Out of Scope
- Deliverables
- Test Guidelines and Standards
- Test Resource Requirements
- Centralized Test Management
- Vendor Test Management
- Test Tools
- Bug and Defect Management
- Quality Initiatives
- Milestones and Schedule

Vested audiences for this document include the module Project Manager, Quality Manager, Key Stakeholders, and Team Leads for whose support is needed to carry out the strategy.

Text displayed in red within a section indicates a response is required. If there is no applicable response, enter NA for the section.

Upon initial approval, the PMO Vendor will present the plan to the MES PMO for acceptance and, if applicable, payment authorization as per the standardized deliverable management and invoice process flow (**Section 1.4 Referenced Deliverables and Artifacts**).

1.4 Referenced Deliverables and Artifacts

Please enter any information pertaining to deliverables you have referenced within this document in this section. If there are no referenced documents, then enter N/A. Existing text (in black font) is inclusive with the document template.

The following deliverables and artifacts are cited in this document:

- MES-PMO-TST-004 Test Evaluation and Management Plan (TEMP)
- MES-PMO-TST-005 Detailed Test Plan
- MES-PMO-TST-006 Module Project Schedule
- MES-PMO-TST-007 Test Phase Acceptance (TPA)

2 Test Objectives

Please provide responses to each of the below paragraphs:

2.1 Primary Objective

The primary objective of testing the < Insert Module Vendor System Here> solution is:

< Insert Content Here>

2.2 Secondary Objective

A secondary objective of testing the < Insert Module Vendor System Here> solution is:

< Insert Content Here>

Note: Additional subsections may be added as needed to capture additional vendor objectives.

3 Methodology/Approach

The AMMP has determined quality is related to product success in meeting or exceeding the goal of improving our business processes and the services we provide to Alabama's recipients and providers.

Effectiveness and quality-enriched test methodology/approach, strategy, test execution and measurement, including Key Performance Indicators (KPIs) as defined in the Test Evaluation and Management Plan (TEMP), are essential to meeting that goal.

To support and provide oversight to testing efforts required of module vendors housed under the AMMP umbrella, the AMMP will establish a team of experts in the field of testing, the Alabama Testing Center of Excellence (TCOE).

The TCOE will determine standardized testing processes with consideration and flexibility to accommodate differences in solution types and methodologies inherent to modular systems.

The TCOE will support Agency expectations from module vendors and will monitor all AMMP testing activities to ensure consistent program quality.

As a final measurement of quality, the TCOE will execute end-to-end testing before implementation as indicated in the Program Test Approach.

The next few sections are designed to capture your organization's current test approach, strategy, schedule, milestones and processes.

3.1 Vendor Test Approach

Please provide a brief, high level description of your organization's Test Approach:

3.2 Vendor Test Methodology

As of this document's first iteration date, specifics of program methodologies are yet to be determined. The Alabama TCOE will gather information from onboarding modules and work with the AMMP ETM, QM, MES EA, PMO and modular strategy teams to develop recommendations for end-to-end testing methodologies as we progress.

It is anticipated that each module vendor will bring established methodologies and practices with their proffered solution(s).

As the AMMP advances, variances in individual module project methodologies, including testing, will be considered in the roll up strategy for the overarching program, ultimately leading to standardization of an implementation methodology.

Please describe your organization's current methodology (Agile, Scrum, Waterfall, etc.) including combinations (hybrids), if applicable. Provide details such as frequencies, processes, interface requirements, pre-conditions, etc.:

3.3 Vendor Test Strategy

The Alabama TCOE test strategy is to utilize PPMO and industry standards in development of quality test processes. Effective planning is essential. Resource and time management will align with program test needs, determined by analysis of the program roadmap's concurrent DDI and operations efforts and integration weight. Staggered onboarding of resources will increase cost efficiencies. Meaningful communications and sign-offs with Agency and program teams on plans and test results, gate checks at key milestones, and self-audits to review and implement quality assurance and control measures will ensure our test approach is successful in implementation and customer satisfaction.

Please describe the strategy your test team will utilize to support your test approach and test objectives:

3.4 Vendor Test Roles and Responsibilities

Vendors are required to provide adequate staffing for coverage of testing needs for each respective module for the entirety of the vendor contract.

Please describe your organization’s test team. Include roles and responsibilities, primary and secondary locations, availability and hierarchy/organizational charts as applicable. Charts, tables or other graphics are acceptable. Include additional optional staffing resources:

Title	Role Description	Skillset/Experience	# of Positions	Availability	Location(s)

4 Vendor Features and Functionality In-Scope

Please list features and functionality (usage, implementation, other) determined in-scope for testing, defined per release. You may use the template below and add additional rows as needed, or you may insert an appended alternate format version.

Sample Table:

Release 1.0			
	Functional Area or Feature Description	High Level Feature/Functionality	Test Focus
1	Provider Enrollment		
1.1		Submit Application	
1.1.1			Medicaid ID issued after successful enrollment
1.1.2			FEIN number already exists

Vendor Table:

Release <Insert Release Number or ID Here>			
No.	Functional Area or Feature Description	High Level Feature/Functionality	Test Focus
1	<Complete this table>		
1.1			
1.1.1			

5 Vendor Features and Functionality Out of Scope

Please list features and functionality (usage, implementation, other) determined out of scope for testing by your test team. Identify how these items will be validated (if applicable).

Sample Table:

	Functional Area or Feature Description	High Level Feature/Functionality	Mitigation
1	Data Maintenance	SQL Server Backup	Managed by OIT
2	Data Maintenance	SQL Server Recovery	Managed by OIT
3	Performance	Load Test	Managed by ISO

Vendor Table:

	Functional Area or Feature Description	High Level Feature/Functionality	Mitigation
1	<Complete this table. If none, enter N/A>		
2			
3			

6 Vendor Risks and Contingencies

Please describe risks and contingencies identified by your organization related to testing:

7 Vendor Assumptions and Constraints

Please describe assumptions and constraints identified by your organization related to testing:

8 Vendor Deliverables

Specific deliverables are required of vendors during the AMMP. These deliverables fall into several basic categories: Documents, Test Cases / Bug Write-ups, Services/Activities, Gate Checks and Reports. There is a progression from one deliverable to the next. Each deliverable has its own dependencies, without which it is not possible to fully complete the deliverable.

The following is a matrix depicting deliverables that testing will use/produce, identified as of the time of this template submission:

Deliverables	Phase	Stage(s)	Sign-Off
Documents			
Test Evaluation and Management Plan (TEMP)	Initial Vendor Onboarding	NA	Yes
Implementation Plan	Initial Vendor Onboarding	NA	NA
Detailed Test Plan	Planning	Unit	
High Level Test Cases (HLTCs)	Planning	Unit	
Test Case / Bug Write-ups			
Test Phase Acceptance (TPA)	Execution	SIT, UAT, E2E	
Reports			
Release Notes	Environment Set Up	All	
Weekly Status Reports <ul style="list-style-type: none"> Summarize weekly testing activities, bug count, etc. 			
Daily Status Reports to ETM (via daily call) Summarize testing results per day (bugs found, bugs fixed, env. Availability (%), RGB etc), comments (issues etc),	All	All	
Stage Completion Reports. Report must contain the following: <ul style="list-style-type: none"> Total Test Cases, Number Executed, Number Passes/Fail, Number Yet to Execute, Number of Manual, Number of Automated Breakdown of bugs by Severity / Priority Discussion of Unresolved Risks and Schedule Progress 	Closure	SIT, UAT, E2E	
Test Final Report - Sign-Off	Closure	SIT, UAT, E2E	Yes
Services/Activities			

Requirements Analysis	Requirements Analysis	Unit	
Test Cases Extract	Design	SIT, UAT, E2E	
Test Meetings, including: <ul style="list-style-type: none"> • Query Register • HLTC WalkThroughs 	Requirements Analysis and Test Planning	SIT, UAT, E2E	
Test Stage-Gate Sign off (Go/No-Go)	Closure	SIT, UAT, E2E	Yes

A full list of test deliverables is available in **Appendix C. MES-PMO-TST-001-002 AMMP ETS Test Deliverables Table**.

9 AMMP Test Guidelines and Standards

The following is a partial listing of the standards that AMMP has identified to-date that will be followed when identifying and creating NEW test cases:

- Test Cases must be created based on stated requirements. In cases where these are not available, these procedures will be followed:
 - The test member must NOT make any assumptions
 - Test members will document missing requirements as a discussion point with the AMMP ETM to try to obtain a decision as to how the system should behave
 - If no decision is made within a reasonable timeframe, then testing suspension (for major issues) will occur until the issue is resolved (**Section 10.6 – Testing Suspension and Resumption Criteria**)
- Test members must verify test cases cover all areas of the system interface with each other correctly and that there are no gaps in the data flow (black-box integration)
- Test cases will be documented and stored in a common area accessible by all members of the vendor test team with visibility given to the AMMP ETM and other agency staff on request
- Valid inputs and outputs that will be used to test each function must be identified and documented in vendor test case scripts
- Test cases must include positive and negative test conditions and corresponding test data requirements
- Clear error messages must be given for rejected input
- The following items will be included when defining test conditions as applicable:
 - Required fields
 - Boundary values
 - Data types

- Each test condition and its corresponding data must have an expected result to determine if the function behaves as defined in the specification. Any variance from the expected result will be documented in the bug module
- Test case steps should start at a specific point and end at the same point (ex. “Log on as...” and “Log out”). This provides modularity and ease of maintenance
- Write each case to be executed standalone. It should not depend on another test case. Avoid including steps in a test case that have already been identified in another test case. In the test setup section you can refer to the test case that includes these steps
- Keep your test cases small. A typical test case might have 10 – 15 steps
- Make sure the test steps are clear and specific. For example a test case steps might look something like this:
 - Step1. Enter <user_id> in the User ID field
 - Step2. Enter <password> in the Password field

9.1 Vendor Test Guidelines and Standards

Please provide a narrative overview of your current, established test guidelines and standards:
(Prepared presentations, documents or other existing material may be substituted or appended)

10 AMMP Test Resource Requirements

AMMP has determined best practice is test members will have access control to an application/server (test bed(s) and environment(s) separate from any used by non-test members of AMMP or affiliated vendor teams). Test environments should mirror production environment (structure, obfuscated data, jobs and services schedules).

The AMMP TCOE will execute End-to-End test scenarios on vendor-provided and supported test beds and environments. To support this approach, analysis of resource requirements for each vendor is needed.

10.1 Vendor Test Resource Requirements

Please identify hardware, software and other requirements needed to test your solution. Some components are added as suggestions. Add/delete rows or suggested content as needed:

10.2 Vendor Testing Client Hardware

The following hardware must exist per tester:	
Component(s)	Requirement(s)
CPU	
Memory	
HD	
Network Access	
Printers	

10.3 Vendor Testing Client Software

The following software must exist per tester:	
Component(s)	Requirement(s)
Operating System	

Browser Capabilities	
Other Software or Application Access (MS Office, Google Docs, etc.)	

10.4 Vendor – Other Requirements

The following must exist per tester:	
Component(s)	Requirement(s)
User Credential	Enrolled as valid member of user group XXX
License	
Other	Other Details

11 AMMP Centralized Test Management

The benefits of procuring established, proven solutions demands flexibility across multi-module vendors differing test management practices, methodologies and tools. Oversight for this new, modular world demands aggregation of key test criteria and outputs so that the AMMP has a clear, overarching picture of test efforts across the program and implementation of automated testing at identified opportunities.

Some of the major benefits of a centralized program-level test management system and test automation include:

- Provides a consistent, repeatable process for requirements analysis, test planning, integrated test run schedules, holistic results analysis, management of defects and change management, and project status analysis
- Built-in Traceability – bugs are traced back to tests and tests are traced back to requirements in one centralized location
- Gap analysis in test process and reporting easily performed
- Results are aggregated to a central repository, creating an accurate audit trail for analysis
- Provides data input and results consistency and accuracy
- Ensures no deviation from the expected results
- Provides a more effective and centralized test case documentation and maintenance

To stand up this centralized test management approach, the following requirements have been identified to-date:

- Extracts of vendor test cases is required (**Appendix D. Test Cases Extract Template**)
- Validation of executed tests, bugs and defects management, and traceability to requirements

11.1 Vendor Requirements Traceability

Please describe your organization's methodology used for requirement traceability:

- End-to-End test scenarios will be conducted by the TCOE on a dedicated environment provided and supported by each module vendor
- Module vendors are required to collaborate with the TCOE in configuration and validation of end-to-end environment test bed and test requirements, version and source control and verification, and schedule

11.2 Vendor Test Environment Point of Contact

Please list Point of Contact (POC) information for your module for end-to-end test environment requirements:

Test Bed and Environment Vendor Coordinator(s)			
Name	Title	Location	Contact Information (Phone, Email)

11.3 AMMP Test Daily Touchpoint

A Review Team comprised of the AMMP ETM, QM, TCOE, PMO and MES leads will ensure maximum efficiency of the implementation and testing teams for the AMMP through close collaboration of all involved parties. This will be achieved through testing progress review and bug review meetings and reports.

Daily touchpoints with all vendor test leads and the ETM will include the following topics:

1. Current test effort status vs. planned (Ahead/Behind/On Schedule)
2. Progress of tasks planned for previous week
3. Raised bug statuses
4. Classification and Prioritization of valid bugs
5. Content and timescale for releases into test
6. Tasks planned for the next week, including tasks carried over from previous weeks
7. Issues which may affect the performance or progression of testing
8. Any Other Business (AOB)

The attendees at this daily touchpoint will be:

- Deborah Hall – AMMP Enterprise Test Manager
- Sandy Plotzker – AMMP Quality Manager
- To Be Determined – PMO Lead
- To Be Determined – TCOE Test lead
- <Insert Lead Name> Vendor Test Team Lead
- <Insert Lead Name> - Vendor DevOps Lead
- <Insert Lead Name> - Vendor Other Lead <update as needed>
- Other Medicaid Agency Staff as identified

11.4 AMMP Knowledge Transfer Requirement

Testing of the AMMP end-to-end requires knowledge transfer from each solution vendor to TCOE and other AMMP test members. Within 3 weeks of onboarding, vendors are required to provide knowledge transfer of their solution to these individuals. The methodology can include:

- User guide documentation
- System technical documentation
- Web-based training material
- 1-page user tips and tricks
- Formal introductory presentations

After initial knowledge transfer is performed, ongoing support will be needed to answer questions, provide clarification of deviation from expected system behavior and other troubleshooting needs.

11.5 Vendor Knowledge Transfer Resources

Please complete the following Staff and Resource Training table. Additional rows may be added/deleted as needed. Suggested Resource Types may be modified, added or deleted:

Resource Type	Resource Title/Description	#	Who/What/Where	Preferred Contact Information
Vendor Manager				
Project Management				
QA Management	Testing Supervisor			
Analysts	Business Analyst			
Test Team Testers and Lead	<Insert>			

Development and Support Team	Programmers			
	Technical Support			
	Network Support			
	DB Administrator			
	Release Coordinator			
Training and Use Groups	Training and Use Groups			
User Guide	Web-Based Training Site	www.thisismytraininglocation.com	Trainingsitesupport@email.com	
System Design Document				
Technical Specification Document				

11.6 AMMP Test Team Partners

The AMMP is complex and ever-evolving. The Agency recognizes collaborating with established Alabama Medicaid departments and relative business partners is essential for development and/or implementation of your module solution(s).

Minimally, the Agency expects cooperative collaboration and communication between your organization’s test and development team to the AMMP ETM, the TCOE, PMO Vendor, the Alabama ISO, DGO and MES. Communication guidelines are specified in the program **Communication Plan**.

11.7 Vendor Test Team Partners

Please describe additional individuals, entities, agencies or partners you anticipate engaging to ensure successful testing outcomes:

12 Vendor Test Management

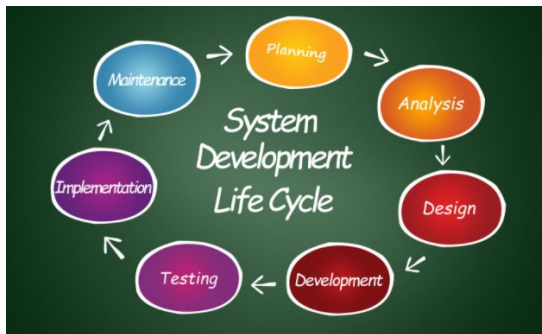
The following sections are designed to capture vendors' current test processes and procedures across the test life cycle.

12.1 Conventional Life Cycles

The Agency recognizes unique challenges and benefits exist for this modular approach to modernization of the MMIS. As vendors onboard the AMMP, there is potential for variances in development (test and implementation) methodologies, including release and test processes and procedures. The assumption is your solution or service delivered to the AMMP is successfully tested and in operation. Hence, the emphasis for testing under the AMMP umbrella will focus on modifications and enhancements needed for implementation specific to Alabama's requirements, integration/interfaces with other modules, and upgrade (enhancement) validations.

The Alabama TCOE will require industry recognized Systems Development Life Cycle (SDLC) phases to be factored into test planning, however, the traditional Software Testing Life Cycle (STLC) may or may not serve as a One-Size-Fits-All process model for our modular, cloud-based solutions.

Industry recognized Systems Development Life Cycle¹:



In contrast, an example of a SaaS Development Lifecycle² is:



¹ Svitia Systems

² SaaSTesting

12.2 Vendor Test Life Cycle/Phases

As a module vendor under the AMMP umbrella, you are required to submit a **Detailed Test Plan** for each planned release. This plan must be reviewed and approved prior to version changes, deployment or initiating testing. This requirement may be modified at the Agency's discretion upon request, in consideration of variance in development and release methodologies and project impact analysis.

Please describe the established test phases, stages and types (Ex. Unit, System) currently defined by your organization. Graphics may be used. Include details such as inclusion or exclusion criteria, and analytical processes:

12.3 Vendor Test Development and Execution Cycles Entrance Acceptance Exit Criteria

Vendors are required to develop/update existing test scripts, execute test cases and document results of test runs to validate your solution meets the AMMP requirements.

Development

Requirements Analysis -> Test Suites -> Test Cases -> Test Steps -> Expected Results ->Pre-requisites

Execute

Run Test Case -> Document/Verify Execution -> Document Results -> Report Results

Please describe your organization's current Test Management Process. Describe how your team identifies, validates, creates and organizes comprehensive test scripts and processes. Include entry, acceptance and exit criteria for each test stage; pass/fail criteria; and process for moving to next test stage:

12.4 Vendor Test Tasks and Activities

Regardless of development methodology, the Alabama TCOE will require planning, documentation and sign off (where indicated) for industry recognized high level tasks and activities associated with ALL stages of testing, as indicated in the **Program Test Approach** document.

Please describe your organization's test team's current tasks, activities and gate checks (Sign Offs):

12.5 Vendor Test Environment and Management

As a module vendor under the AMMP umbrella, you are required to verify solutions and upgrades prior to implementation.

Please describe current test environments, configuration considerations and integration/interface points, tools and processes for test environment management, including automation tools and processes:

12.6 AMMP Testing Suspension and Resumption Criteria

Suspension – User Acceptance Testing, End-to-End Testing and pre- and post- implementation testing will be suspended for one or more affected modules when a significant bug(s) is discovered. A bug report will be filed in the applicable vendor Bug Tracking System and AMMP Test Case Management and Defect Tracking tool and development and product management will be notified. To suspend testing, the bug must be:

- Significant (show stopper)
- Reproducible
- Clearly defined
- Without known/feasible workaround

After fixing the bug, development will follow the drop criteria (**Release Management Plan**) to provide its latest drop to testing. At that time, the test team will regress the bug. If the bug fix is validated, testing of the module(s) will resume.

Additional suspension criteria may include:

- Testing resources are unavailable (e.g. network failure, computer failure...)
- Consistent instability of solution or hosted server (constant crashing of the application)
- Large rewrite of a critical core module

Resumption - Testing is resumed when sufficient functionality of the failed modules is regained. If any major (large re-write or high-priority) issues are still outstanding, then an implementation risk must be created and signed off as acceptable by the AMMP Risk Manager.

12.7 Vendor Testing Suspension and Resumption Criteria

Please describe your organization's policies and procedures for Testing Suspension and Resumption Criteria for unit and/or System Integration Testing stages:

13 Vendor Test Tools

Please provide a description of tools used by your organization in test management.

14 Vendor Bug and Defect Management

The AMMP will require reporting of bugs and defects found during **all** testing stages. Vendors are required to describe comprehensive bug and defect management details in a separate document, **Test Change and Defect Management Plan**, hence references in this document relate to high level test-impact and methodologies only.

Please describe your organization's test team bug and defect management process in-line with testing life cycles.

15 Vendor Quality Initiatives

Module vendors are expected to bring or implement effective quality initiatives with implementation of give solution(s). Preventative, not reactive, standard processes and procedures will be required by the Agency to promote customer confidence and satisfaction in the AMMP product and/or service delivery.

Please describe Quality Initiatives of your organization's test-focused area:

15.1 Vendor Quality Controls

The Alabama TCOE will review and/or monitor each module vendor's test processes, self-checks, testing performance and outcomes, to align with the AMMP quality expectations as defined in Key Performance Indicators (KPIs) (**Appendix E. Key Performance Indicators KPIs**). Program level analysis of bug and defect reports identified in various test phases and environments by individual modules will be conducted to identify opportunities for process improvement.

Please describe your organization's current Quality Control model, standards and tools:

15.2 Vendor Quality Assurance

The Agency requires scheduled reports of testing outcomes, bugs and defects, risks and issues from module vendors. The Alabama TCOE strives to identify quality checkpoints early in the process timeline to meet the preventative, not reactive, actionable processes acceptable to the Agency.

Please describe your organization's Quality Assurance processes, tools and objectives:

15.3 Vendor Quality Innovation

The Alabama TCOE will analyze measurements and processes at each phase of the program development lifecycle to identify opportunities for increase in quality of products and services, test requirements and standards for the program as a whole.

Each module vendor is required to participate in continuous process improvement activities such as Lessons Learned, audits and metrics reporting to support program quality innovations.

Please describe activities, models, tools and other resources currently used to monitor and improve quality across your organization's testing efforts:

16 Projected Test Schedule Timeline and Milestones

Please provide a high-level schedule of your planned releases for testing and implementation, identified milestones, scheduled start date and update with actual date as needed. You may append this information from an existing source or complete the table below. Suggested text in 'red' in the below table may be edited or deleted as needed.

#	Milestone Name	Scheduled Date	Actual Date
1	<i>Unit Testing Started</i>	-- / -- / --	-- / -- / --
2	<i>Unit Testing Completed</i>	-- / -- / --	-- / -- / --
3	<i>Go-No Go Stage Gate Check</i>	-- / -- / --	-- / -- / --
4	<i>System Testing Started</i>	-- / -- / --	-- / -- / --
5	<i>System Testing Completed</i>	-- / -- / --	-- / -- / --
6	<i>QA and Beta Testing Started</i>	-- / -- / --	-- / -- / --
7	<i>QA and Beta Testing Complete</i>	-- / -- / --	-- / -- / --
8	<i>User Acceptance Testing Completed</i>	-- / -- / --	-- / -- / --
9	<i>Release into Production and Post-Production</i>	-- / -- / --	-- / -- / --

17 Appendices

17.1 Appendix A. Acronyms/Glossary

For a complete list of Acronyms and Glossary of Terms, please reference the [MES Acronyms and Glossary](#).

17.2 Appendix B. Applicable Project, Federal, State, or Industry Standards

Update this section as appropriate.

This appendix contains applicable project, federal, state or industry standards.

- N/A

17.3 Appendix C. Test Deliverables Table

For a complete list of test deliverables identified to-date, please reference the [MES-PMO-TST-001-002 AMMP ETS Test Deliverable Table](#).

17.4 Appendix D. Test Cases Extract Template

For details required for extraction of vendor test cases, please reference [MES-PMO-TST-007-005 Test Cases Extract Template](#)

17.5 Appendix E. Key Performance Indicators (KPIs)

For more details on AMMP ETS KPIs, please reference [MES-PMO-TST-001-005 AMMP ETS Test KPIs](#)

18 Deliverable Comment Log

Please complete the Deliverable Comment Log as part of the DED review. A sample row is found above No. 1. You may leave this sample in your completed log. All reviewers will enter one or more comments. If you have no comments, please specify "No comments" in the Comment field, include your name and your Agency Group (such as PPMO).



Project		Deliverable No.		Deliverable Title		Ver No.	Submission Date		Return Comments by	Recommendation	
MES		PMO-TST-001-004		Test Approach Template		0.1	03/18/2021		04/01/2021		
*Type: NC -Non-Compliance, R -Required, Q -Question, R/C -Recommendation/Cosmetic Recommendation: A -Accept, CA -Conditional Approval, R -Reject											
Document Information			Reviewer(s) Section					Vendor Section			
No.	Section	Page No.	Identifier	Comment	Type*	Name	Agency Group	Vendor Resolution	Resolution Date	Acceptance Date	
	1.1	3	Paragraph 2; First sentence	Enter your comment here for the Section/Page/Identifier. For example: Missing words at the end of the sentence – add words needed to complete it.	R	First Last	IV&V	Inserted "specific text added would go here" in the paragraph	XX/XX/2020		
1	16			Milestones should contain an action verb.... I see some have it but some don't. Recommend (for example) changing "Unit Testing" to 'Unit Testing Started'.	R/C	Andrea Cathey	PPMO/PQA	Revised as indicated	04/01/2021	4/2/21	

Project		Deliverable No.		Deliverable Title		Ver No.	Submission Date		Return Comments by		Recommendation	
MES		PMO-TST-001-004		Test Approach Template		0.1	03/18/2021		04/01/2021			
*Type: NC -Non-Compliance, R -Required, Q -Question, R/C -Recommendation/Cosmetic Recommendation: A -Accept, CA -Conditional Approval, R -Reject												
		Document Information			Reviewer(s) Section				Vendor Section			
No.	Section	Page No.	Identifier	Comment		Type*	Name	Agency Group	Vendor Resolution	Resolution Date	Acceptance Date	