**Department of Veterans Affairs**

Mental Health eScreening

User Acceptance Test Plan



**July 2015**

Software Version 1.0

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Version | Description | Author |
| July 2015 | 1.1 | Final document. | Information Innovators Inc. |
| March 2014 | 1.0 | Initial document. | Information Innovators Inc. |

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# Introduction

This is a User Acceptance Test (UAT) Plan for the Mental Health eScreening (MHE) system. MHE will use Agile methodology and an open source solution to recreate a battery of already validated screening procedures which are in use at the VA, including the paper entry of screening information. MHE will also address VA requirements for improvement.

MHE will increase timely access to patient-centered care by providing:

* patient-directed screening,
* real-time scoring and chart note generation,
* individualized patient feedback,
* real-time push of clinical information to the VA electronic medical records system, and
* real-time alerts to clinicians for evaluation and triage.

## Purpose

The UAT is a formal test conducted by the end-users to determine whether the system satisfies its acceptance criteria; it enables the customer to determine whether to accept the system. The UAT Test Plan documents the project’s overall approach to testing and includes test content, strategy, criteria, and the UAT Procedures deliverable. Additionally, it specifies the test schedule and environment; staffing needs; and risks and constraints.

## Test Objectives

This plan supports the following objectives:

* 100% test coverage of the documented requirements
* Creation of relevant and user-validated test scenarios
* Maintenance and control of the test environment
* Support for User Acceptance Testing
* Establishment of a schedule for completion of testing
* Accuracy and completion of all required test artifacts

## Roles and Responsibilities

Table 1: Roles and Descriptions

| Role | Description |
| --- | --- |
| Information Innovators Inc. QA Team | • Create UAT Plan (this document) |
| Information Innovators Inc. Development Team | • Peer review UAT Plan  • Conduct Unit Tests |
| VA PM,  Information Innovators Inc. | • Solicit stakeholder/customer concurrence and  approval signatures |
| Stakeholders | • Provide concurrence and approval signatures |
| Information Innovators Inc. Test/Functional Analyst | • Create Test Cases  • Create ATO documentation as identified in Pro-Path  • Maintain and update RTM for all Test Cases |
| Information Innovators Inc.  Test Analysts and QA | • Create UAT Plan  • Provide Testing Documentation  • System Test Evaluation Summary  • Component Integration Test Evaluation Summary  • UAT/IOC Test Evaluation Summary  • SQA Review Checklist |
| Information Innovators Inc. QA Manager | • SQA findings and certification |
| On-site UAT Testers | • Perform UAT and document test results |

## Processes and References

The processes that guide the implementation of this UAT Plan are:

* Test Preparation
* Product Build
* Independent Test and Evaluation

The references that support implementation are:

* [ProPath](http://vaww.oed.oit.va.gov/process/propath)
* [Section 508 Office Web Page](http://vaww.vista.med.va.gov/508workgroup)
* [Privacy Impact Assessment - Privacy Service](http://www.privacy.va.gov/Privacy_Impact_Assessment.asp)

# Items to be Tested

The software build will be tested on both the dashboard and the tablet.

## Test Inclusions

This UAT will:

* exercise the functionality of the application using test data in a   
  controlled test environment in order to validate functionality, and
* evaluate the usability of the system.

## Test Exclusions

This UAT will not include:

* internal technical and functional code testing, or
* verification of the requirements defined in the detailed design specification.

# Test Approach

The Information Innovators Inc. (Triple-i) team will install a UAT-support sandbox at the San Diego VAMC, and create the UAT test cases. VA functional testers will execute the cases and document any issues found. Team Triple-i will maintain error logs of all defects reported during the UAT, and conduct weekly meetings to analyze the issues. Patches will be deployed as needed. The duration of UAT is expected to be approximately six months. Team Triple-i will provide a Defect Resolution Plan and a Defect / Bug Status Report within three weeks of the start of the Pilot Period and at the end of every sprint as required.

# Testing Techniques

### Section 508 Compliance Testing

Team Triple-i tests all code against the VA Section 508 Web Checklist to make sure that that the eScreening application meets 508 compliancy. Testing consists of 3 elements:

* Unit testing
* 508 compliance testing
* Regression testing

Unit testing consisted of component testing of each new element developed for that defect, 508 compliance testing of the new components, and regression testing to confirm that new developments did not introduce defects to previously developed software.

508 testing of each unit was conducted using NVDA and WAVE, two commonly used 508 compliance tools which are considered industry standard.

At the completion of each defect correction, Triple-i shall make delivery of any updates to code and/or documentation. Any defect correction shall be implemented for the affected code at all previous implementation sites.

# Test Criteria

## Pass/Fail Criteria

Pass or Fail criteria is directly available to the testers in the written steps of the test cases. If there is any uncertainty as to whether a test passes or fails, it should be marked Fail and an explanation written in the Comments section. In such cases, using the feedback, the QA team can re-write for increased clarity.

The following categories will be used to assess the potential impact of test incidents. A test incident is a deviation found during test execution, or a test execution that fails to meet expected criteria. The impact is the classification of a test incident according to its potential damage to the software, system, patient, personnel, or operating systems.

Pass Criteria:

A test is considered passed when both of these conditions are met:

•The functionality meets the requirements as defined, and

•Any test incident that has been found which did not meet the requirement during the course of testing has been addressed by being fixed and successfully tested.

Fail Criteria:

A test in considered failed when either of these conditions is met:

•The functionality does not meet the requirement as defined, or

•A test incident that has been found during the course of testing has not been addressed by being fixed and successfully tested.

## Suspension and Resumption Criteria

Every effort will be made to continue testing when failures are found. Testing will be suspended if:

* Test accounts or variable items are unavailable or become unstable.
* A failure occurs that prevents the test from continuing or invalidates any additional testing to be performed, or corrupts the database.
* A defect is discovered that corrupts the data within the database in such a way that proceeding would cause severe damage to the test environment.
* The component being tested fails or a major component fails. A major component failure is one that can reasonably assume will result in other test case failures.

Testing will resume when the component or code has been repaired, rebuilt and versioned, unit tested, and undergone thorough system testing. If the cause of the suspension is due to either an unstable or unavailable test environment, testing will resume when the test environment becomes stable and/or available.

## Acceptance Criteria

The eScreening testing will satisfy the acceptance criteria when:

* All high and medium priority test cases and scripts have been successfully executed and the results recorded.
* No known high impact test incidents or defects are present.
* Low Impact Test Incidents are recorded but carry no implementation or usability constraints.

The Project Management team, along with key project stakeholders, will designate an acceptable time- frame for the resolution of the Medium Impact Test Incidents and the Low Impact Test Incidents.

# Test Deliverables

Table 2: Test Deliverables

| Test Deliverables | Responsible Party |
| --- | --- |
| UAT Plan | Triple-i Test Engineer and Technical Writer |
| Test Cases (UAT Procedures) | Triple-i Test Engineer and Technical Writer |
| Defect Resolution Plan | Triple-i Test Engineer and Technical Writer |
| Defect / Bug Status Report | Triple-i Test Engineer |

# Test Schedule

For Milestone completion dates, please refer to the latest project schedule on the vacloud at:  
vacloud.us/groups/20388

Table 3: Testing Milestones

|  |  |
| --- | --- |
| Testing Milestones | Responsible Party |
| Test Cases | Information Innovators Inc. |
| Unit / Integration Testing Completed | Information Innovators Inc. |
| System Test Completed | Information Innovators Inc. |
| Interim 508 Compliance Testing Completed | N/A |
| User Acceptance Test Completed | VA, Information Innovators Inc. |
| Product Documentation Completed | Information Innovators Inc. |

# Test Environment

The VA is responsible for configuring and maintaining the UAT environment. The test system should simulate the production environment as closely as possible, scaling down the concurrent access and database size, and so forth, if and where appropriate.

# Staffing

Table 4: Staffing Resources needed to plan, prepare, and execute UAT

| Testing Task | Quantity of Personnel Needed | Test Process |
| --- | --- | --- |
| Create the UAT Plan | 1 (Project & Technical Management Team) | Test Preparation |
| Establish the Test Environment | 1 (Project & Technical Management Team) | Test Preparation |
| Perform System Tests | 1 (Project & Technical Management Team) | Product Build |
| Establish and set up UAT testing sites | 1 (VA, Development team, & Project & Technical Management Team) | Test Site Preparation |
| Perform UAT tests at different sites | 1 (VA) | Product Build |

# 

# Risks and Constraints

All risks and constraints are documented in the CPMP and Risk Register. There are no specific risks or constraints associated with this UAT Plan.

# Attachment A - User Acceptance Test Procedures

The attached object contains the User Acceptance Test Procedures (Test Cases) to be used for pilot testing. The UAT Procedures.XLS is also posted on the vacloud as a separate document for convenience.



# Attachment B - Approval Signatures

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Signed: Date:

Elizabeth Floto, CESAMH MHE Project Manager

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Signed: Date:

Niloo Afari, PhD, Division Director, MHE Sponsor

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Signed: Date:

Clinton Latimer, VA MHE PM / COR

Template Revision History

| Date | Version | Description | Author |
| --- | --- | --- | --- |
| January 2015 | N/A | No longer available in the ProPath Artifact Library. | N/A |
| October 2013 | 1.11 | Converted to Microsoft Office 2007-2010 format | Process Management |
| July 09, 2012 | 1.10 | Added System Design Document to Section 1.2 -Test Objectives as an example | Process Management |
| January 03, 2012 | 1.9 | Updated Approval Signatures for Master Test Plan in Appendix a | Process Management |
| October 13, 2011 | 1.8 | Replaced references to Test and Certification with Independent Test and Evaluation. Replaced references to Certification and Accreditation with Assessment and Authorization. | Process Management |
| October 4, 2011 | 1.7 | Repaired link to Privacy Impact Assessment | Process Management |
| August 23, 2011 | 1.6 | Changed Operational Readiness Testing (ORT) to Operational Readiness Review (ORR) | Process Management |
| April 12, 2011 | 1.5 | Updated the Signatory Authorities in Appendix A in light of organizational changes | Process Management |
| February 2011 | 1.4 | Removed Testing Service Testing and Operational Readiness Testing; added Enterprise System Engineering Testing.  Changed Initial Operating Capability Testing to Initial Operating Capability Evaluation | Process Management |
| January 2011 | 1.3 | Repaired broken link in section 1.4 | Process Management Service |
| August 2010 | 1.2 | Removed OED from template | Process Management Service |
| December 2009 | 1.1 | Removed “This Page Intentionally Left Blank” pages. | OED Process Management Service |
| July 2009 | 1.0 | Initial ProPath release | OED Process Management Service |