Department of Veterans Affairs

Mental Health eScreening
Server Manual

June 2015

Software Version 1.0

Revision History

Note: The revision history cycle begins once changes or enhancements are requested after the server manual has been baselined.

Date	Version	Description	Author
June 2015	1.0	Final document	Information Innovators Inc.
March 2014	0.1	Draft	Information Innovators Inc.

Artifact Rationale

The Server manual defines the scope and approach planned for the deployment of project deliverables. The plan includes information about system support, issue tracking, escalation processes, and roles and responsibilities that apply before, during, and after deployment. Its purpose is to provide clients, stakeholders and support personnel with a smooth transition to the new product or software. It should be structured appropriately, to reflect deployment planning for a single location or multiple locations, a single-phase deployment or a multiphase deployment, and should identify the requirements and responsible party for each process step.

The Project Management Accountability System (PMAS) Directive cites system deployment and operational planning and management as critical responsibilities of the Service Delivery and Engineering (SDE) organization.

Contents

1. Introduction

This document describes the plan to deploy and install the Mental Health eScreening (MHE) application, as managed through the Mental Health eScreening Assessments project. This document is a companion to the project management plan for this effort.

1.1. Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the Mental Health eScreening system will be deployed and installed. Appropriate communications planning should also be completed, as well as the training plan and rollout schedule.

1.2. Key Definitions

Deployment Design. Phase of the solution life cycle in which architectural design and implementation specifications are developed and tested. The preparation of plans and specifications necessary to implement the solution are part of the Deployment Design phase. At the end of the Deployment Design phase, a solution is ready for implementation in the production environment.

ESE and Product Development (as applicable, based on primary project ownership) are responsible for deployment design and complete release package specifications, including user and technical documentation, procurement, shipping, and training plans. Architectural design artifacts, release package specifics, and testing plans and results are vetted by FO and NDCP.

Implementation. Phase of the solution life cycle in which the newly designed or changed hardware, software, functionality, or process is installed into the production environment and activated. The specifications and plans created during Deployment Design steer the work that is performed during the Implementation phase.

FO, NDCP, and/or AITC are responsible for installation and the installation schedule, selection and validation of shipping locations/schedule, site readiness to support installation, acceptance of equipment using asset inventory processes, coordinating and providing training (working with ESE and Product Development if applicable), communication, and vetting changes through the field and FO management.

Release. Release baseline is defined as the product build (software and hardware specifications) along with the body of documents that support testing, installation, operations, training, and support of the product. Projects will determine the release baseline early in the development cycle. Baseline components enter change control once the project is approved for deployment.

ESE is responsible for release management, including certifying production readiness. ESE must validate that the project owner has provided an adequate release package. ESE also validates the release baseline. As defined by the VA Office of Information & Technology (OIT) Testing and Release checklist, the release package is the subset of documents that are provided to the field along with the product. The complete release package will be made available to FO at deployment.

1.3. Plan Overview

Deployment and installation of Mental Health eScreening (MHE) is planned as a phase rollout to five sites in VISN 22.

Deployment will be performed by VA and vendor team members with representatives from peer organizations, as needed. Installation will be performed by Triple-i team members, along with representatives from peer organizations. The installation may be performed by VASD IT or others.

1.4. Assumptions

The server manual is developed with the following assumptions:

- Prior to deployment and installation ESE, FO, NDCP and/or VASD IT understand this deployment and are aware of testing issues, design, and similar.
- CESAMH (Center for Excellence in Stress and Mental Health) will perform acceptance testing and verification of application readiness for deployment to VASD.
- VASD OIT will be notified of upcoming deployments early in the project life cycle, as indicated in the ESE project management process documentation.
- VASD OIT is responsible for hardware deployment and maintenance.
- Through the period of performance and optional periods, the contractor (Triple-i) is responsible for installing and maintain the application on the application server in the VASD data center.
- ESE Release Management will certify production readiness based upon the level of testing that has occurred prior to deployment. As part of the release baseline, this information will be identified in the release profile.
- The contractor will provide a training plan prior to deployment.

2. Roles and Responsibilities

Table 1: Deployment Roles and Responsibilities

Team	Phase / Role	Tasks	Project Phase
FO or Product Development (depending upon project ownership)	Deployment	Plan and schedule deployment (including orchestration with vendors)	See Schedule, Section 3.1
FO or Product Development (depending upon project ownership)	Deployment	Develop O&M Plan	“ “
FO	Deployment	Test for operational readiness	“ “
FO	Deployment	Execute deployment	“ “
FO/NDCP/AITC	Installation	Plan and schedule installation	“ “

Team	Phase / Role	Tasks	Project Phase
Regional PM/FIS/OPP PM	Installation	Ensure authority to operate and that certificate authority (CA)/security documentation is in place	“ “
Regional PM/FIS/OPP PM/	Installation	Validate through facility POC to ensure that IT equipment has been accepted using asset inventory processes	“ “
Regional PM/FIS/OPP PM/ Nat’l Education & Training	Installations	Coordinate training	“ “

3. Schedule

The deployment is planned as a phased rollout. This type of rollout is based on the requirements in the contract.

This section provides the schedule and milestones for the deployment. VACI provides the overall timeline parameters as agreed with the vendor and VASD OIT, Region 1 OIT, and CESAMH.

The rollout strategy is to deploy and perform user acceptance testing sequentially in each of five VISN 22 locations: San Diego, Las Vegas, Long Beach, Greater Los Angeles, and Loma Linda. This strategy was chosen by VACI to meet the requirements of achieving Full Operating Capability.

3.1. Timeline - ESE/FO

The project enters a 6-month San Diego pilot on 6/15/2015. Following acceptance testing by CESAMH and CESAMH-appointed users and , the system will be deployed at four additional sites. (Each additional deployment is an optional task in the contract and subject to approval by the VA COR/PM.) The project schedule is embedded here.

MHE_Project Schedule_2015-06-1

4. Site Readiness Assessment

This deployment occurs at the San Diego VA Medical Center. SD OIT is the physical recipient. The physical deployment is happening at the VASD data center.

The deployment includes a physical server, an application, and tablet computers. The physical server will be racked, powered, networked, and enabled for remote access by VA for vendor engineers. The application will be installed and configured to work on the physical server by the vendor over remote access. The network will be adjusted by VA so that the application running on the server is accessible over port 443 from WIFI-enabled devices within VASD primary care,

mental health, and OOO settings. The tablets will be configured by VA to include MDM and VPN software such that they are able to connect to the application over port 443.

VA SD IT will perform site readiness checklists as applicable.

4.1. Special Operational Requirements

The product has two special operational requirements: It must exchange data with VistA and it must operate via VPN over MIFI at OOO outreach settings.

Requirement	Description
VistA integration	The application pulls limited veteran information from VistA necessary for identifying the Veteran and allowing him or her to complete eScreening.
MIFI connectivity	The application requires remote connectivity to VA networks from tablet devices, to be achieved via VPN over MIFI.

With regard to VistA integration, all communication between eScreening and VistA takes place behind VA firewalls via VA VistALink, an RPC framework that is part of the OneVA architecture. The VistA RPC that eScreening makes are not new; rather, we have identified the RPC that CPRS makes and are simply reusing them as fits eScreening.

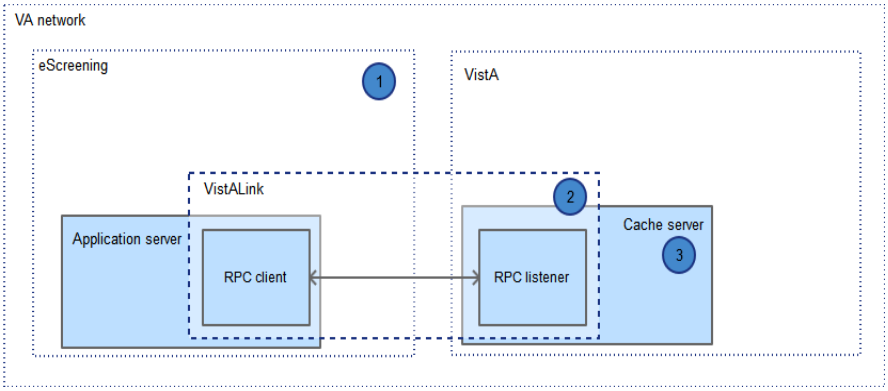

Figure 1 VistA integration

❶ The eScreening application uses the VistALink Java client library
❷ VistALink provides bi-directional communication between the client and the server
❸ The Cache (M) server runs the VistALink listener

4.2. Deployment Topology

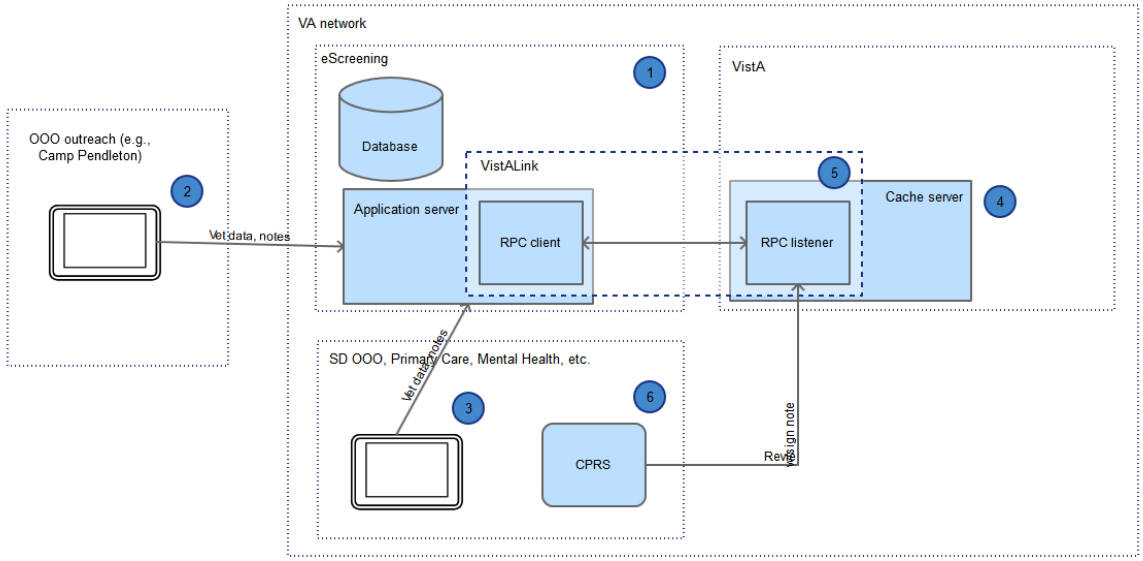

Figure 2 eScreening topology

❶ The eScreening system resides in the San Diego VA Medical Center and consists of a web application, web services, and a database
❷ Clinicians and Veterans access authorized portions of the web application from OOO outreach events over VPN
❸ Clinicians and Veterans access authorized portions of the web application from VA facilities, such as the La Jolla primary care program location.
❹ eScreening reads limited patient identification and demographics data from VistA, and writes assessment results to VistA
❺ eScreening integrates with VistA via VistALink entirely on the VA network
❻ Staff use CPRS to view/sign assessment notes, maintain patient record

The product will be deployed to San Diego within the period of performance, followed by Long Beach, Las Vegas, Greater Los Angeles, and Loma Linda as directed by the VA COR/PM.

4.3. Site Information (Locations, Deployment Recipients.)

The application will be deployed and acceptance tested from 6/2015 in the San Diego VA Medical Center. Upon customer acceptance and authorization from VA PM/COR, the application will be deployed in the following locations.

Location/recipient	Dependency
San Diego pilot	Accceptance testing and ATO
Las Vegas deployment	Accceptance testing and ATO
Long Beach deployment	Accceptance testing and ATO
Greater LA deployment	Accceptance testing and ATO
Loma Linda deployment	Accceptance testing and ATO

Figure 3 Locations and recipients

Acceptance testing will be performed using a VA PM/COR and CESAMH-approved UAT plan and scripts, and ascertained through the completion of a customer acceptance form.

4.4. Site Preparation

The following table describes preparation required by the site prior to deployment.

Site/Other	Problem/Change Needed	Features to Adapt/Modify to New Product	Actions/Steps	Owner
SD VAMC	AirFortress preventing WIFI access	Disable AirFortress	VA phasing out AF in October 2014.	VASD IT

Figure 4 Site preparation

4.5. Assessment of Deployment Readiness

The application is updated incrementally and tested as enhancements are added and defects are fixed. After a change set has been tested, it is promoted to a UAT environment for the Product Owner to test. If defects are discovered, Triple-i developers correct them, release the update, and the UAT is repeated. After the Product Owner's approval, the given change set is moved to a production-update staging area. After closing a sprint, all change sets from the production-update staging area are released into the Production environment of the pilot facility. SD OIT will manage hardware deployment and security, and network engineering.

5. Resources

Hardware, software, systems post-deployment support, and system support roles and responsibilities are defined in the Project OM Plan.

5.1. Facility Specifics

The following table lists facility-specific features required for deployment.

Site	Space/Room	Features Needed	Other
?	?	2U rack slot, 1100W power, adequate cooling, 1Gbps link	Site WIFI connectivity through to server

Figure 5 Facility-specific features

The server is a standard 2U rack mount server. Application clients need to be able to connect to the application running on the server over port 443 from over VA networks.

5.2. Hardware – ESE

MHE requires an application server and a tablet computer in order to operate. The application server is contractually required to have at least a single-core 32 bit or 64 bit processor, 2 GB of RAM and 750 GB of disk space. The vendor has provided a server with the following physical properties in support of this effort.

Property	Value
Model	Dell PowerEdge R420
Disk	1.2 TB after RAID 10
Memory	64 GB
CPU	12 cores (1 processor, 6 physical, 6 virtual)
Form factor	2U
Power	Dual hot plug 550W power supplies, 2 x 15 amp 10 ft. wall plug

Figure 6 MHE server specifications

The application on the application server is accessed via tablet devices. The application can work on any tablet that has a browser with meaningful support of HTML5, including Internet Explorer 10+, Safari 6+, Chrome 8+, Firefox 4+ and Opera 11+, although VA has provided 600 Apple iPads for use by the eScreening program.

The following table describes hardware specifications required at each site prior to deployment.

Required Hardware	Model	Version	Configuration	Manufacturer	Other
Application server	R420	-	-	Dell	?
Tablets	iPad	?	?	Apple	?

Figure 7 Hardware specifications

Please see the Roles and Responsibilities table in Section 2 for details about who is responsible for preparing the site to meet these hardware specifications.

This system is not considered critical.

5.3. Software - ESE

The following table describes software specifications required at each site prior to deployment.

Table 2: Software Specifications

Required Software	Make	Version	Configuration	Manufacturer	Other
Operating system	Windows	2012+	Per VA	Microsoft	
Application server	Tomcat	7+	Per vendor	Apache Foundation	Open source
Database server	MySQL	6.5+ community edition	Per vendor	Oracle	Open source
Firewall	Built in	n/a	Port 443 inbound/outbound	Microsoft	
EHR	VistA	Current	Per VA	VA	

Please see the Roles and Responsibilities table in Section 2 above for details about who is responsible for preparing the site to meet these software specifications.

This system is not considered critical.

The hours of operation are the same as the hours of operation for Primary Care, Mental Health, and OOO program locations.

6. Documentation and Training

This section describes the products and processes planned to provide product documentation and training.

6.1. Documentation – ESE

The vendor and VA COR/PM are producing a release package containing documentation necessary to operate, support, and use the product.

Item	Description
Deployment guide	Detailed information on deploying the eScreening product
System administratration manual	Information on how to manage, operate and configure the system to interoperate with the existing IT infrastructure at the pilot sites.
Server manual	Details the technical information, server requirements, installation and administration to support the installed eScreening system.
User guide	Describes the eScreening application, usage scenarios and all of its functionality with screenshots and text.

Figure 8 eScreening release package documentation

These materials are in addition to training and other support deliverables described elsewhere in the current document.

6.1.1. Communications – ESE

The MHE communications plan is detailed in the table below.

Type of communication	Recipient	Method
Deployment	Program administrators, support	Mailing list
System downtime	Users, program administrators	Mailing list
Product updates	Users, program administrators	Mailing list
Operation problems	Program administrators, support	Mailing list
User change request	Program administrators, support	Mailing list

Figure 9 Communications plan

The preferred form of application deployments, scheduled downtime, updates, issues, and changes is email via dedicated mailing lists.

6.2. Training

The vendor will develop and execute a training plan to address the use, management, and administration of the eScreening system, including lesson plans, presentations, and training manuals.

Item	Description
Training plan	Schedule and objectives
Administrator training manual	Detailed steps for operating and supporting the eScreening system
Training materials	Presentations, Q&A, etc.

Figure 10 Training deliverables

Following COR approval of the training materials and as part of the pilot installation, the vendor will provide remote training for up to one-hundred users across multiple sessions, days and shifts.

Approval Signatures

This section is used to document the approval of the server manual during the Formal Review. The review should be conducted face to face where signatures can be obtained 'live' during the review, however the following forms of approval are acceptable:

- *Physical signature obtained in person or via fax*
- *Digital signature tied cryptographically to the signer*
- */es/ in the signature block, provided that a separate digitally signed e-mail indicating the signer's approval is provided and kept with the document Example provided below:*
  //es// _____

Signed: _____

Name Date

Title (Senior Manager from Service Delivery & Engineering)

Note: Delete all blue Instructional Text prior to final submission.

REVIEW DATE: *<date>*

SCRIBE: *<name>*

Signed: _____

Release Manager Date

Signed:_____

Program Manager Date

Signed: _____

Business Subject Matter Experts Representative Date

Signed: _____

Software Engineering Representative Date

Template Revision History

Date	Version	Description	Author
June 2015	n/a	No longer available in ProPath Artifact Library	n/a
February 2013	1.1	Updated formatting to ProPath documentation standards and edited for Section 508 conformance	Process Management
January 2013	1.0	Initial Version	PMAS Business Office