Department of Veterans Affairs (VA):

Veterans Affairs Center for Innovation (VACI)

Executive Summary: Mental Health eScreening System and Assessment Program (MHE, 20388)



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# Introduction

The VA is interested in streamlining and simplifying the process of screening and assessing Veterans for services and support related to mental health issues. The VA has a robust process, including standardized paper screenings to screen for and documenting psychosocial and mental health functioning, however, it is limited by complex manual methods that must be performed by trained staff in a hospital setting. Scoring the forms packet and providing relevant timely feedback to Veterans is imperative. Results of screening must be manually entered into the electronic Clinical Patient Record System (CPRS), and Veterans Health Information Systems & Technology Architecture (VistA) for appropriate clinical documentation. Consequently, a large majority of Veterans are not getting timely support and services which includes screening for mental health symptoms at an initial visit and for monitoring of outcomes in their clinical record.

The Mental Health Intake and Assessment (eScreening) project will accelerate the process for enrolling patients into mental health care. The project will create and deploy a web-based intake form for mental health assessments to be used for returning Operation Enduring Free/Operation Iraqi Freedom (OEF/OIF) Veterans. The eScreening solution will provide 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, real-time alert to clinicians for evaluation and triage, and enable clinicians to do mental health screening in remote settings.

The Mental Health eScreening System will initially be piloted at the VA San Diego Healthcare System, to be designed and tested within the San Diego Mental Health, Primary Care, and Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn (OEF/OIF/OND) Care Management programs. Once tested and approved, the eScreening System will be optionally piloted in all of the other facilities in Veterans Integrated Service Network (VISN) 22 (i.e. Long Beach, Greater Los Angeles, Loma Linda, Las Vegas). Testing of the pilot is anticipated to include the participation of 40-50 clinicians and about 2,000 Veterans across all of the facilities.

## Purpose

The purpose of this document is to provide both a clinical and technical overview of the eScreening solution.

## Background

There are nearly 1.5 million Veterans of OEF/OIF/OND and an estimated 54% of these Veterans have enrolled in the VA Healthcare System. VISN 22 and VA San Diego Healthcare System (VASDHS) continue to lead the Nation in the number of returning combat Veterans, with approximately 260 newly returning Veterans enrolling for VASDHS per month. In response to this ever-growing Veteran population, the VA Center of Excellence for Stress and Mental Health (CESAMH) team formed a partnership with Service Wing Healthcare, Inc. and received funding from the VA Center for Innovation (VACI) to develop and implement an electronic version of the screening with the project “Technology Solution to Improve OEF/OIF Intake and Assessment Program” also referred to as “eScreening”. The eScreening Proof of Concept (PoC) application intended to integrate the Veterans Health Administration (VHA) national Clinical Reminders with other evidence-based psychosocial, medical, and mental health screening tools for the early identification of patient needs to ensure pertinent and directed healthcare. The eScreening PoC application was developed in October 2011. Activities in the first 15 months of the project included the testing and integration of the software with the VHA IT systems, as well as the paper-based screening of 798 Veterans (from March through November 2012) at the VA San Diego Healthcare System VASDHS to be used as a comparison group for eScreening. Version 1.0 of the software was finalized in December 2012. During the pilot 130 bugs, necessary modifications, and/or needed enhancements were identified and triaged, and Service Wing Healthcare completed a series of modifications and additions to the software that addressed most of these issues. This led to the release of Version 1.1 in September 2013, which is currently in use at the VASDHS.

## Scope

Using an agile methodology for the development and implementation of the eScreening application and enhancements, the development contract team (Triple-i) will deliver a mobile, cross-platform mental health eScreening application leveraging VA’s emerging mobile platforms, existing enterprise rules engines, and a web services infrastructure that is easily integrated into the VA environment. Triple-i will apply key usability design features, leveraging the iOS and HTML5 application development environment, taking advantage of all open source software and VA existing tools. All code developed will be published to the Open Source Electronic Health Record Agent (OSEHRA) repository at the end of this task.

Triple-i is also tasked with providing the necessary ancillary software, hardware, and associated licenses for customizing the client and server components, which will be installed at the San Diego Datacenter.

# Technical Approach

Mental Health eScreening allows Veterans to complete mental health assessments while connected to the VA networks. It integrates with VistA in order to authenticate Veterans, pull some basic information needed to help them complete identification, demographics, service history, and assessment forms that would normally be handled on paper. The following sections will explain the system architecture and VistA integration, and then cover system operation.

## Key Definitions

Table : Key Definitions

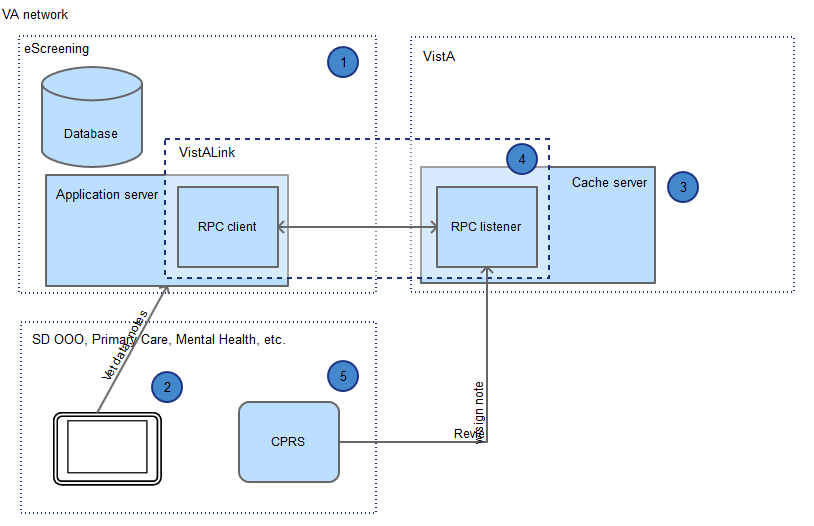
| Term | Definition |
| --- | --- |
| MHE | The Mental Health eScreening Assessment program, consisting of assessment and reporting capabilities. |
| Web server, application server | A component that hosts a web site/application, thereby making it available to web browsers. Can refer to the web server *application* itself, or the combination of the web server application and an operating system (and a physical computer). |
| Tablet | Any mobile device with a touch screen and a form factor between that of a mobile phone and a laptop computer. Typically 7-10” in diameter. MHE will be targeted to work on iPads, which are tablets. |
| Database server | A component that runs a database application that stores all the program data. Can refer to the database server *application* itself, or the combination of the database server application and an operating system (and a physical computer). |
| HTML5 | The newest version of HTML. HTML is the markup/layout technology that is the basis for web pages. The version number – 5 – is significant because HTML5 introduces a number of features that are not supported by older browsers, such as IE 9, Firefox 3, Chrome 7, et al. |

## Application Architecture and Interfaces

MHE consists of three principal capabilities: a WYSIWYG editor for designing assessments and note templates, an assessment runtime that works in any desktop or tablet web browser, and a web-based administrative dashboard that allows clinicians to monitor publish data to VistA/CPRS and generate reports. All three capabilities are based on open-source web technology. They are backed by an application server and database on the VA network that integrates with VistA.

The WYSIWYG editor and administrative dashboard are for VA staff and run within the VA network, behind the VA firewall. All communication between the clinician’s workstations and the eScreening server are securely encrypted and require network access in order to function.

Figure : Mental Health eScreening Architecture



Legend:

|  |  |
| --- | --- |
| ➊ | The eScreening system resides in the San Diego (SD) data center and consists of a web application, web services, and a database |
| ➋ | Clinicians and Veterans access authorized portions of the web application from VA facilities, such as the La Jolla primary care program location. |
| ➌ | eScreening reads limited patient identification and demographics data from VistA, and writes assessment results to VistA |
| ➍ | eScreening integrates with VistA via VistALink entirely on the VA network |
| ➎ | Staff use CPRS to view/sign assessment notes, maintain patient record |

The assessment runtime features the assessment forms themselves and an assessment dashboard for setting up and monitoring assessments, and can run inside or outside of the VA on a tablet or laptop computer web browser. All communications between the assessment runtime and the eScreening server are securely encrypted, and no patient data is stored on the device running the assessment. The assessment runtime is web-based and requires wireless access for tablets, and wireless or wired access for computers. Outside of VA facilities and where WIFI access is unavailable, eScreening requires mobile WIFI.

### Technical resources

#### Client software requirements are as follows:

###### Web browser

The application is served from a web server (see server software section above), but runs in part within a web browser on the client computer or mobile device.

The client portion of the application is composed of HTML5 and JavaScript, and will execute in any browser that supports HTML5 and JavaScript. The PWS requires that we deliver an HTML5-based solution:

* The eScreening application developed shall be designed to operate on the latest mobile iOS or equivalent operating system (OS) and be available in Hypertext Markup Language-5 (HTML-5) at the time of delivery, to ensure this application is OS agnostic.

The only browser versions that currently meaningfully support HTML5 well are IE

10+, Safari 6+, Chrome 8+, FF 4+, and Opera 11+. Therefore, it is required that one of these modern browser versions is installed on the client machine/device. It is also required that the browser’s JavaScript feature is enabled.

**Operating system**

The application will run in any operating system on any computer or mobile device that can run one of the supported web browsers (see above). This includes Windows, MacOS, and mobile-based operating systems like iOS (iPad) and Android.

#### Client hardware requirements are as follows:

There are no special hardware requirements. The client hardware requires only enough disk space and memory to run one of the supported browsers.

#### Server specifications are as follows:

##### Software

The MHE system is composed of a web application and a database on the server, and web browsers on the client.

The web application is accessed via a browser and consists of screens that the user can see, and web services that the user cannot see, but are still used by the browser to send/receive data transparently. The web application on the VA network accepts assessment data from users and stores it in the database (also on VA network), as well as making said assessment data available to clinicians for reporting and monitoring.

###### Application

The MHE application is a web application that is written in HTML5, JavaScript, and Java 7 (64b Oracle version). It is hosted on a web application server, and is accessed by web browsers on computers and tablets. The application is based on the Java servlet API, and must be run inside of a Java container server.

The application is configured by adding keys and values to properties and configuration files. Typical configuration entries include URLs and IP addresses that vary by installation, as well as options for how the system will run.

###### Supporting software

The application uses a number of common free/open source/VA supporting software products. It runs on any modern 64 bit operating system, and will be delivered on Windows Server 2012.

Table : Supporting Software

|  |  |
| --- | --- |
|  | Product |
| Framework | Java 7 64 bit Oracle VM[[1]](#footnote-1) |
| Web server | Apache Tomcat 7 servlet container |
| Database | MySQL 6.5 Community Edition |
| Operating system | Windows Server 2012 or 64 bit Linux[[2]](#footnote-2) with at least 16 GB of RAM and 750 GB of disk space partitioned.[[3]](#footnote-3) |
| Middleware | VA VistALink 1.6 |

###### Firewall

On the server, port 443 must be open in order for web browsers to communicate with the application.

Between the application server and VistA, the required ports must be open in order to the application server to perform relevant operations, including reading Veteran identity and demographic information, reading and closing open clinical reminders for a Veteran, and inserting assessment results and notes into the Veteran’s VistA record.

##### Hardware

The MHE server iron is a modern, rack-mount server that exceeds VA’s requirements for implementing eScreening in San Diego.

Table : MHE Server Hardware Specifications

|  | Product |
| --- | --- |
| Model | Dell PowerEdge R420 |
| Disk | 1.2 TB after RAID 10 |
| Memory | 16 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 |

#### VistA

The application integrates with VistA in order to exchange data with the Veteran record, including the following operations on behalf of a Veteran:

* Reading identification information
* Reading demographics information
* Reading and writing (e.g., closing or updating) active clinical reminders, health factors, and consults
* Inserting assessment results as clinical progress notes (to be reviewed within CPRS) in a manner that will trigger VistA to generate consults and clinical reminders

The application runs on the VA network. Veterans and VA staff access the application via web pages over VA networks. The application allows the staff to pull some limited data (e.g., ID an demographics, open clinical reminders), and update the Veteran’s record with the results of his/her eScreening session.

All communication between eScreening and VistA takes place behind VA firewalls via VA VistALink, a Remote Procedure Calls (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.

#### Network requirements are as follows:

The client component of the application requires access to the server component over HTTPS (encrypted web protocol.

##### Firewall

Port 443 to the server must be opened so that OEF/OIF/OND (OOO) clinicians and Veterans can access the site internally from inside SD VA facilities, and externally from outreach events.

VA clinicians and OOO Veterans will access the application from within waiting areas via VA wireless networks.

##### Domain Name System (DNS)

Internal and external DNS entries (e.g., escreening.va.gov) must be registered for the application based on the VA project manager’s choice of domain names.

#### Facility Specifics

The application server needs to be run within a data center environment that can support it, including providing power, cooling, and physical security. The server specifications are as follows:

Table : MHE Server Facilities Requirements

|  |  |
| --- | --- |
| Attribute | Specification |
| Form factor | 2U |
| Power | Dual hot plug 550W power supplies, 2 x 15 amp 10 ft. wall plug |

### Flow of data

In the eScreening process, VA staff first set up Veterans for eScreening. Veterans take the assessments and VA staff then publish the Veterans’ screening data back to VistA. All communication takes place over VA networks, and all data is encrypted in transit. The client uses the Veteran’s last name and last 4 SSN to pull some basic information about the Veteran and any open clinical reminders. No Protected health information (PHI) or Personally identifiable information (PII) will be stored on the eScreening devices.

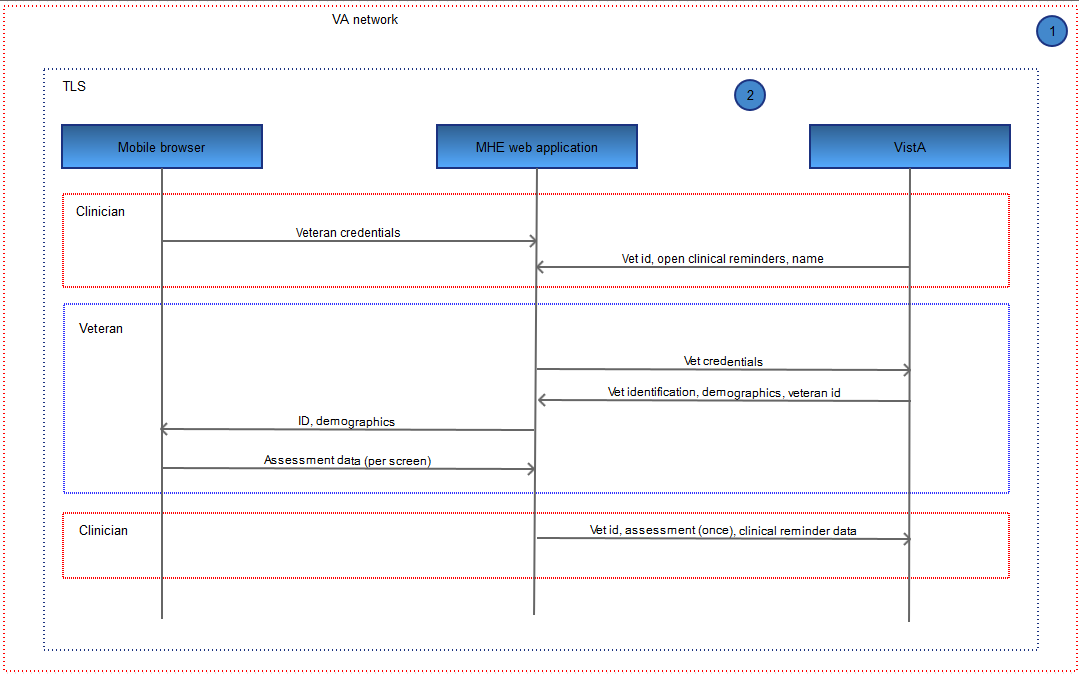
As each Veteran completes a page (or every five minutes, whichever comes first), the browser client pushes that screen’s assessment answers over an encrypted connection back to the MHE application server running on the VA network. The application mediates between the system user and VistA. The client never communicates directly with VistA; rather, the client talks to the MHE server on the VA network, and the MHE server talks to VistA (also on the VA network).

The MHE application only needs very basic Veteran data in order to function, as the following summary illustrates.

Veteran data flow:

* Web browser uses Veteran last name and last 4 to query MHE for Veteran id, demographics, service history, and clinical reminder data. Web browser sends assessment data to MHE one screen at a time.
* MHE uses Veteran credentials to look up data in VistA
  1. Identification (name, address, etc.)
  2. Demographics
  3. Service history
  4. Open clinical reminders

Figure : Clinician and Veteran Data Flow



Legend:

|  |  |
| --- | --- |
| ➊ | The eScreening application runs on the VA network |
| ➋ | All communication between system components is encrypted |

Clinician data flow:

* Web browser uses clinician credentials and Veteran last name + last 4 to query MHE for assessments and open clinical reminders, as well as to save assessment data to MHE
* MHE uses Veteran last name + last 4 to query VistA for open clinical reminders, and publish Veteran assessment data to VistA

## Assumptions and Constraints

Table : Operational Assumptions

| Type | Description |
| --- | --- |
| Security | VA will secure the tablets via an operating-system level password, MDM, and either a native (i.e., supervised mode) or 3rd party application-based kiosk mode. Staff will be able to unlock the tablets during operation or for maintenance, while Veterans will only be able to access the application. under development via unique credentials. Staff will maintain visual surveillance of Veterans using tablets. |
| WIFI access | The tablet will be able to access the web application via WIFI while using AirWatch. |
| Network access | The tablet will be able to access the web application over port 443. The application server will be able to access VistA. |
| VistA access | The application server on the VA network will be able to access the SD VistA system, including reading/writing data for a specified Veteran. |
| Administrative access | VA will provide RDP administrative access to the individuals responsible for maintaining the application server components (web server, etc.) |
| Tablet maintenance | VA will provide a means to update and charge the tablets when they are not in use. |

# Security Questions

**What apps are being used?**

The eScreening functionality utilizes the tablet web browser. No other tablet applications will be used.

**Have any developed apps gone through the appropriate processes?**

The development team is currently following all standard processes (usability, accessibility, patient safety, data standardization, security, etc.) and working towards VA acceptance on each.

**How will devices be secured?**

When not in use, the devices will be stored in locked charging cabinets. When in use, the devices will be secured by a combination of the operating system password, VA MDM software; VA-configured supervised guided (“kiosk”) mode, and application-level authentication and authorization security. VA staff will maintain visual surveillance of Veterans while engaged in eScreening. The process of assignment/registration of devices to VA staff participating in program is currently being developed.

The device OS will lock after a VA-prescribed period of inactivity, preventing Veterans from accessing the device itself without assistance from VA staff.

The web application will use authentication and authorization, preventing a Veteran from accessing another Veteran’s session. The Veteran’s session times out after 20 minutes of inactivity, preventing the Veteran from accessing the application without authenticating again as himself.

**How will data be scrubbed between users?**

No data is stored on the device. All data is transmitted as it is entered, screen-by-screen (or every 5 minutes, whichever comes first), and the Veteran’s session is terminated after completing the assigned assessments. No data is cached in the device browser; caching is expressly prevented through HTTP headers, and the VA-configured supervised mode settings will redundantly prevent caching.

**How do you lock the device down so users cannot use other functions of device?**

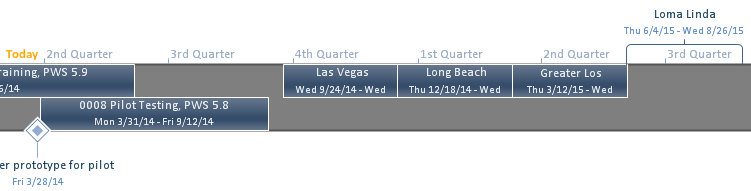
The kiosk mode runs from device startup to shutdown and will be configured by VA settings to only allow the Veteran to access (1) the MHE web application inside of (2) the web browser.

**Physical security of tablet when loaned to Veteran**  
A clinician sets up a Veteran on a tablet, and in OOO, mental health, and Aspire centers, then surveills the Veteran performing the assessment in order to prevent the Veteran from leaving the facility with the tablet (as well as help the Veteran with the assessment process). In the primary care center, the Veteran checks out a tablet in exchange for his/her ID card, but staff will not maintain visual surveillance.

# Schedule

The project enters a 6-month San Diego pilot at the end of March. Following acceptance testing by CESAMH and CESAMH-appointed users, 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 following timeline depicts the remaining tasks as relates to deployment within VA environments.

Figure : The Project Pilot and Deployment Schedule



## Milestones and Dependencies

Table : Milestones and Dependencies for Deployments

|  |  |  |
| --- | --- | --- |
| Milestone | End date | Dependency |
| San Diego pilot | 9/12/14 | Acceptance testing and ATO |
| Las Vegas deployment | 12/17/14 | Acceptance testing and ATO |
| Long Beach deployment | 3/11/15 | Acceptance testing and ATO |
| Greater LA deployment | 6/3/15 | Acceptance testing and ATO |
| Loma Linda deployment | 8/26/15 | Acceptance testing and ATO |

# Appendices

## Appendix A. Management Tools and Systems

The following resources and repositories may be referenced for more information:

* [MHE Product Backlog and Acceptance Criteria](https://triplei.unfuddle.com)
* [Mental Health eScreening Demonstration Environment](http://54.235.74.13/escreeningdashboard-demo/)
* [Mental Health eScreening Innovation Sandbox Blog and Wiki](https://sandbox.vacloud.us/groups/orpt/)
* [Mental Health eScreening Innovation Pipeline Home Page](http://pipeline.vacloud.us/projects/277)

## Appendix B. Roles and Responsibilities

Table : Business Sponsor(s)

| Name | Role | Department/Company | Phone | E-Mail |
| --- | --- | --- | --- | --- |
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| Edward Hagood | Sr. Engineer / Developer, Sr. | Triple – I/Astronauts | 423-787-7000 | [ehagood.tpg@gmail.com](mailto:ehagood.tpg@gmail.com) |
| Ignacio Valdes | Sr. Engineer / Developer, Sr. | Triple – I/Astronauts | 301-770-1400 | [ivaldes1@gmail.com](mailto:ivaldes1@gmail.com) |

Table : MHE Project Team

| **Team** | **VA PM** | **Organization/Contractor** | **Contractor PM** |
| --- | --- | --- | --- |
| Mental Health eScreening Innovation Team | Clint Latimer  [clint.latimer@va.gov](mailto:clint.latimer@va.gov)  650-814-3660 | The Triple-I Corporation | Mike Roberts  [mroberts@iiinfo.com](mailto:mroberts@iiinfo.com)  513-218-8877  Amy Kouch  [akouch@iiinfo.com](mailto:akouch@iiinfo.com)  703-606-4183  PM Support:  Elizabeth Blackwell  [eblackwell@iiinfo.com](mailto:eblackwell@iiinfo.com)  703-436-4296 |
| PM Coordination Services for Innovation Deployment Team | Jason Carley  [jason.carley@va.gov](mailto:jason.carley@va.gov)  571-308-9048 | ProSphere Tek, PricewaterhouseCoopers (PwC) | Randy Rossnan  [RRossnan@Pro-Spheretek.com](mailto:RRossnan@Pro-Spheretek.com)  Monica Mohler  [monica.mohler@us.pwc.com](mailto:monica.mohler@us.pwc.com)  202-408-3712  PM Support:  Danielle (Pierce) Retland  [Danielle.pierce@va.gov](mailto:Danielle.pierce@va.gov)  202-408-5746 |
| Implementation Readiness Analysis and Review (IRAR) | N/A | ProSphere Tek, PricewaterhouseCoopers (PwC) | Ed Null  [eddie.null.jr@us.pwc.com](mailto:eddie.null.jr@us.pwc.com)  202-414-3719  Robert Snelling  [robert.snelling@us.pwc.com](mailto:robert.snelling@us.pwc.com)  205-496-5187 |
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| Testing | N/A | The Triple-I Corporation | Chuck Hichak  [chichak@iiinfo.com](mailto:chichak@iiinfo.com)  Roslyn Johnson  [rjohnson@clinovations.com](mailto:rjohnson@clinovations.com) |

Table : VA Mobile Health Compliance Points of Contact

| Name | Role | Department/Company | Phone | E-Mail |
| --- | --- | --- | --- | --- |
| Mary Lou Glazer | Change Manager | Web and Mobile Solutions | 631-406-9927 | [Marylou.glazer@va.gov](mailto:Marylou.glazer@va.gov) |
| Jeanie Scott | Patient Safety | VA Mobile Health Certification: Patient Safety | 518-449-0692 | [Jeannie.Scott@va.gov](mailto:Jeannie.Scott@va.gov) |
| Pamela Wright | Patient Safety | VA Mobile Health Certification: Patient Safety | 518-449-0285 | [Pamela.Wright5@va.gov](mailto:Pamela.Wright5@va.gov) |
| Nancy Wilck | Usability and User Interface | VA Mobile Health Certification: Usability/User Interface | 202-330-1818 | [Nancy.Wilck@va.gov](mailto:Nancy.Wilck@va.gov) |
| Margo Kabel | Usability | VA Mobile Health Certification: Usability | 202-443-5402 | [Margo.Kabel@va.gov](mailto:Margo.Kabel@va.gov) |
| Cathy Pak | IV&V Testing Team Manager | VA Mobile Health Certification: 508 Accessibility |  | [Catherine.Pak@va.gov](mailto:Catherine.Pak@va.gov) |
| Marisol Navas | Data and Terminology Standards Compliance | VA Mobile Health Certification: Data and Terminology Standards | 813-644-2171 | [Marisol.Navas@va.gov](mailto:Marisol.Navas@va.gov) |
| Joshua Tuscher | VA Branding | VA Mobile Health Certification: VA Branding | 202-461-7494 | [Joshua.Tuscher@va.gov](mailto:Joshua.Tuscher@va.gov) |
| Andrea Wilson | Patient Safety | VA Mobile Health Certification: Privacy and Application Data Security | 321-205-4305 | [Andrea.Wilson3@va.gov](mailto:Andrea.Wilson3@va.gov) |
| Christopher Shawn | Patient Safety | VA Mobile Health Certification: Privacy and Application Data Security | 518-449-0264 | [Christopher.Shawn2@va.gov](mailto:Christopher.Shawn2@va.gov) |
| Donald (DJ) Kachman | Data Security for GFE Devices | VA Mobile Health Certification: Data Security for GFE Devices | 269-317-5481 | Donald.Kachman@va.gov |

## Appendix C. Site Information

The project will be piloted in VISN 22 medical centers starting with San Diego and preceded by optional tasks 1-4. The team still needs to identify the SMEs and clinical leads at the pilot sites. The team also needs to develop a Work Breakdown Structure (WBS), Risk Management Plan (RMP), and Communications Plan for this implementation project. One of the complexities that will need to be accounted for during the planning period included the need to work with OI&T to standup new servers and IT infrastructure to support the application.

Table : List of Sites

| **Pilot Site (VA Medical Centers)** | **Points of Contact** | | |
| --- | --- | --- | --- |
| **Name** | **Position** | **Primary Email and Phone** |
| **VA San Diego Healthcare System** | | | |
| OI&T | Darryel Simmons | Facility CIO | [Darryel.Simmons@va.gov](mailto:Darryel.Simmons@va.gov)  858-523-8104 |
| VHA | Michael Kilmer  [Michael.Kilmer@va.gov](mailto:Michael.Kilmer@va.gov)  202-461-5538 | Business Sponsor/VHA Care Management and Social Work Services Chief Consultant | [Michael.Kilmer@va.gov](mailto:Michael.Kilmer@va.gov)  202-461-5538 |
| VHA | Dr. Niloofar Afari | Psychologist | [Niloofar.Afari@va.gov](mailto:Niloofar.Afari@va.gov)  858-249-9806 |
| VHA | James Pittman | Social Worker | [James.Pittman@va.gov](mailto:James.Pittman@va.gov)  858-518-6982 |
| VHA | Elizabeth Floto | VA CESAMH | [Elizabeth.Floto@va.gov](mailto:Elizabeth.Floto@va.gov)  858-552-8585 x2950 |
| Security | TBD | TBD | TBD |
| **VA Greater Los Angeles Healthcare System** | | | |
| OI&T | TBD | TBD | TBD |
| VHA | TBD | TBD | TBD |
| Security | TBD | TBD | TBD |
| **VA Loma Linda Healthcare System** | | | |
| OI&T | TBD | TBD | TBD |
| VHA | TBD | TBD | TBD |
| Security | TBD | TBD | TBD |
| **VA Long Beach Healthcare System** | | | |
| OI&T | TBD | TBD | TBD |
| VHA | TBD | TBD | TBD |
| Security | TBD | TBD | TBD |
| **VA Southern Nevada Healthcare System** | | | |
| OI&T | TBD | TBD | TBD |
| VHA | TBD | TBD | TBD |
| Security | TBD | TBD | TBD |
| **Region 1 Sacramento Data Center** | | | |
| OI&T | Wilma Gonce | R1 Applications Service Line Manager | [Wilma.Gonce@va.gov](mailto:Wilma.Gonce@va.gov)  360-566-7489 |
| OI&T | Kevin DeZorzi | Division Chief R1 Field Development | [Kevin.DeZorzi@va.gov](mailto:Kevin.DeZorzi@va.gov)  602-290-8015 |
| OI&T | William “Andy” McCarthy | R1 Support | [William.McCarthy@va.gov](mailto:William.McCarthy@va.gov)  774-826-1137 |

Table : Site Status

| **Pilot Site (VA Medical Centers, VAMCs)** | **Status** | **Next Steps and Timeline** |
| --- | --- | --- |
| **VA San Diego Healthcare System** | The key clinical stakeholders have identified and engaged local IT support, Clinical Application Coordinator representation and Regional Support.  Michael Kilmer has been identified as the business owner. The Innovation Coordinator is working to engage him.  The project was scheduled to enter a six-month pilot phase at the San Diego VA Medical Center (VAMC) at the end of March 2014, at which time CESAMH was to perform detailed acceptance testing. Due to concerns related to device security (i.e., network access and physical security) and local IT requirements (i.e., server configuration), deployment to the site has been delayed.  The delay is multi-faceted; the server that was delivered in January had to have the OS downgraded to version 2012 (from 2012 R2). Access to the server was not provided to the development team until April 18, 2014.  The development team is currently moving forward with enhancements to the MHE prototype. The Innovation Coordinator is attempting to garner support by circulating a Risk Based Decision Memorandum, which was developed as a mitigation response for the security concerns that were raised. The team is currently waiting for the test account to be updated per the CAC resource to avoid re-work.  An Information Security Officer and Privacy Officer still need to be identified. | Development work in the MHE Sandbox environment for Sprint 16 is to be completed by 6/9/14 |
| **VA Southern Nevada Healthcare System** | Due to concerns related to the manipulation of the VA Southern Nevada Healthcare System’s workflow; the Innovation Coordinator is considering executing the VA Long Beach Healthcare System site. The execution of the VISN 22 options is pending successful completion of Pilot Testing at VA San Diego Healthcare Systems. | TBD |
| **VA Long Beach Healthcare System** | TBD | TBD |
| **VA Greater Los Angeles Healthcare System** | TBD | TBD |
| **VA Loma Linda Healthcare System** | TBD | TBD |
| **Region 1 Sacramento Data Center** | The Region 1 Applications Service Line Manager has identified a POC and both are engaged on supporting the deployment of MHE | TBD |

## Appendix D. Acronyms

Table : Acronyms

| **Acronym** | **Term** |
| --- | --- |
| CESAMH | VA Center of Excellence Stress and Mental Health |
| CPRS | Computerized Patient Record System |
| DNS | Domain Name System |
| IRAR | Implementation Readiness Analysis and Review |
| MHE | Mental Health eScreening |
| OEF | Operation Enduring Freedom |
| OIF | Operation Iraqi Freedom |
| OND | Operation New Dawn |
| OOO | OEF/OIF/OND |
| OSEHRA | Open Source Electronic Health Record Agent |
| PHI | Protected health information |
| PII | Personally identifiable information |
| PoC | Proof of Concept |
| RPC | Remote Procedure Calls |
| SD | San Diego |
| VA | Department of Veterans Affairs |
| VACI | Veterans Affairs Center Innovation |
| VASDHS | VA San Diego Healthcare System |
| VHA | Veterans Health Administration |
| VISN | Veterans Integrated Service Network |
| VistA | Veterans Health Information Systems and Technology Architecture |

1. Not tested on other Java VM. [↑](#footnote-ref-1)
2. The pilot server will use SD IT’s preferred operating system, Windows Server 2012. [↑](#footnote-ref-2)
3. 1.2 TB of disk space and 16 GB of RAM will be provided on the pilot server. [↑](#footnote-ref-3)