**Alert Watch and Response Engine (AWARE)**

Implementation Plan and Checklist



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Prepared by Harris Corporation

CLINs  
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# Purpose

The purpose of this document is to define the resources, processes, and work elements necessary to implement the Alert Watch and Response Engine (AWARE) application at Veterans Affairs (VA) facilities.

# Project Description

The Computerized Patient Record System (CPRS) View Alerts package delivers notification of non-life threatening critical test results; however, it does not track whether providers take appropriate follow-up actions in response to the alerts. Currently, the only way to track follow-up actions on critical alerts is through manual review of individual patient records. The innovation Alerts, Watch and Response Engine (AWARE) will track and monitor follow-up actions and will identify certain critical lab and imaging test result alerts that lack timely follow-up. AWARE also consists of a web-based knowledge base editor and a quality measures reporting tool.

# Scope

The scope of this plan encompasses AWARE v1.0 and its related implementation activities.

The plan scope includes the following:

* Base period beta and pilot sites.
* Verify Implementation/Configuration of the AWARE application at each VA site.
* Technical Support for the AWARE application.
* Defect Monitoring and Tracking.
* Progress Reports updated and maintained on VA AWARE SharePoint (SP).

The plan scope does not include:

* Option period national implementation.
* Activities related to product development.
* Training activities.
* Maintenance of existing VistA systems or creation of new ones at VA sites.
* Any items not explicitly included above.

# Objectives

The objective for this implementation is to incorporate AWARE into the VA Medical Center beta and pilot sites. A Certificate of Installation and Notification of Product Readiness is issued following a successful test environment evaluation at each site. Upon VA approval, AWARE will be deployed to the site’s production environment and a Certification of Readiness for Clinical Use will be issued. An Implementation Evaluation Report will be submitted post implementation.

# Roles and Responsibilities

The Implementation Team consists of the VA Center for Innovation, Harris and its subcontractors. The respective teams below will provide support throughout the entire implementation. They will do the following:

* Provide implementation oversight and guidance
* Monitor overall implementation
* Facilitate Implementation kick-off and status meetings
* Administer Implementation SharePoint site
* Report implementation progress to Project Manager
* Serve as a focal point for implementation issues and risks
* Coordinate implementation activities with Project Manager and other team members
* Be proactive in assisting and guiding sites during implementation
* Conduct “train the trainer” activities to train users on how to use AWARE
* Collect feedback from users at each VA site

Table – Organizational Roles and Contacts

| **Organization** | **Role** | **Contact** |
| --- | --- | --- |
| Harris Corporation | Primary Contractor, Software Development, Testing, Installation | Blake Jan  bjan@harris.com  972-394-2699 |
| Astronaut | Subcontractor, Software Development, Testing, Installation | Ignacio Valdes  ivaldes1@gmail.com  713-249-2874 |
| UserWorks | Subcontractor, Usability Assessments, Design Support, User Feedback, Training | Dick Horst  dhorst@userworks.com  301-431-0500 x213 |
| VA Center for Innovation | VA Project Oversight, Beta Readiness Demonstration | Blake Henderson  Blake.Henderson@va.gov  404-797-5850 |
| DUS Support Services | Usability and Accessibility Compliance | Nancy Wilck  Nancy.Wilck@va.gov |
| Site 1: Charleston | Beta Testing  Capabilities, Functionality, Usability and Workflow Collection | Shirley Cooper  Shirley.Cooper@va.gov |
| Site 2: Long Beach | Pilot Testing | Jamie Newman  Jamie.Newman2@va.gov |

Table – Staff Roles and Responsibilities

| **Role** | **Responsibilities** | **Staff** |
| --- | --- | --- |
| AWARE POC | Verify users have completed training | VA PM |
| IT POC | Complete Implementation Checklist | TBD at each site |
| Implementation Manager | Send announcement, conduct review meetings. | To be filled by VA PM, Harris PM and Regionally, based on task to be completed |
| Harris PM | Coordinate deployment kickoff; coordinate with beta sites to verify readiness | Harris PM |
| Implementation Team | Provide implementation support  Maintain Issue Log Spreadsheet | Harris Technical Team |
| Installation Team | Install the AWARE product on site | Astronaut |

# Implementation Process

This implementation plan employs the following approach:

1. AWARE will be deployed to each site in a phased approach.
2. For each site, the Implementation Manager will –
   1. Send a Deployment Announcement Notice to Site, VISN and IT Support Point of Contacts (POC) approximately 2-4 weeks in advance of scheduled launch to inform them about expectations and next steps.
   2. Invite sites to a kick-off meeting for details and further instructions.
   3. Conduct “train the trainer” activities for a selected group of VA personnel who will in turn train AWARE users; provide training materials for user training.
   4. Collect user feedback from beta users
   5. Provide Implementation Support.
3. The AWARE POC will be instructed to make certain the recommended training for end users is complete.
4. The AWARE and IT POCs will be instructed to make certain that Pre-Implementation of the Site Checklist is completed.
5. The AWARE and IT POCs will be instructed to attend on the Go-Live call at the date and time required. The POCs will confirm that their site is configured and functioning as expected with AWARE.

Details of these activities will be maintained by the Implementation Manager and posted on the AWARE Implementation SharePoint website (http://vaww.oed.portal.va.gov/projects/aware/).

## Process for Reporting Implementation Issues

The following sections describe the process for reporting issues while in Testing and in Production.

### Testing

Support during AWARE testing in a site’s test account will be conducted as follows. Support will be available weekdays during business hours (9:00am – 5:00pm local time).

#### Meetings

Regular meetings will be held with the stakeholders and site testers. These meetings will enable Harris and VA to monitor testing progress, provide interactive assistance with the AWARE application, and work through any reported defects.

#### Testing Log

A log (spreadsheet) will be administered for each test site to (1) track progress against test cases, noting if a test case passes/fails, (2) record any defects that are discovered and track progress against those defects and (3) record any other items reported that are not directly related to a test case.

The log will consist of the following fields:

* Test Case
* P/F (Pass/Fail)
* Status
* Severity
* Priority
* Issue
* Notes
* Reporting User
* Assigned To
* Workaround (if applicable)
* Resolution
* TTR Defect #
* Defect Detection Phase
* Defect Injection Phase
* Fixed in Version

Additionally:

* The goal is to track each test case to a “Pass” status.
* The log will be shared with the test site and stakeholders during scheduled testing meetings or as requested. It will be stored and maintained on the Harris SharePoint repository and copied to the VA AWARE SharePoint repository.
* Harris will own and manage the log.

#### Defect / Issue Reporting

The primary method for reporting defects and issues is by email (awarespprt@gmail.com). Emails reporting defects and other issues need to contain enough information to complete the necessary fields in the log (see section 6.1.1.2).

The secondary method for reporting defects and issues is by phone (877-232-5177). As with reporting via email, the necessary information needs to be gathered. Phone reporting may occur during scheduled testing meetings.

Direct entry on the log by a reporting user is not an option.

A staff support schedule will be maintained by Harris and stored on the Harris SharePoint.

### Production

AWARE production support will be conducted as follows. Support will be available Monday through Friday from 6:00am to 9:00pm EST. A support response outside of these hours will be provided within four (4) hours after the item is reported.

#### Meetings

At VA’s discretion, regular meetings will be held with the stakeholders and site users to monitor performance, provide interactive assistance, and discuss any reported issues.

#### Production Log

A log (spreadsheet) will be administered to (1) record any defects that are discovered and track progress against those defects and (2) record and track any other items reported.

The log will consist of the following fields:

* Ticket #
* Date/Time
* Reported
* Status
* Severity
* Priority
* Issue
* Notes
* Service Desk Tier (1-3)
* Reporting User
* Assigned To
* Workaround (if applicable)
* Resolution
* Date/Time Resolved
* TTR Defect #
* Defect Detection Phase
* Defect Injection Phase
* Fixed in Version

Additionally:

* The goal is to track each test case to a “Pass” status.
* The log will be shared with the site and stakeholders during scheduled testing meetings or as requested. It will be stored and maintained on the Harris SharePoint repository and copied to the VA AWARE SharePoint repository.
* Harris will own and manage the log.

#### Defect/Issue Reporting

The primary method for reporting defects and issues is by email (awarespprt@gmail.com). Emails reporting defects and other issues need to contain enough information to complete the necessary fields in the log (see section 6.1.2.2).

The secondary method for reporting defects and issues issue is by phone (877-232-5177). As with reporting via email, the necessary information needs to be gathered.

Either reporting method is acceptable for after-hours (depending on the urgency of the issue) or high-priority issues.

Direct entry on the log by a reporting user is not an option.

A staff support schedule will be maintained by Harris and stored on the Harris SharePoint.

# Installation Process

The general installation process is as follows:

1. Obtain KIDS, Custom CPRS executable, AWARE CSP files, documentation from the VA FTP (File Transport Protocol) server and/or VA AWARE SP, download CSP gateway from the InterSystems site, and install IIS Web Server.
2. Install in test account using Installation Guide.
3. Receive feedback from test site users and administrators.
4. Perform any necessary updates to the installed product based on installation feedback.
5. Install in production account with limited number of users.
6. Receive feedback from limited number of users.
7. Make necessary changes from limited number of users.
8. Broaden the number of users and go to 6). Repeat process until all required Production users are installed.

The detailed installation process can be found in the AWARE VistA Installation, AWARE KIDS and CSP Installation, and AWARE Server Installation Guides.

## Site Notification of Product Release

Following installation, the site will be notified by the Implementation Manager of product release to necessary staff such as Clinical Application Coordinators (CACs) Office of Information Technology (OIT) and other stakeholders involved in the process. This will occur via the following:

* Email distribution list
* Innovations wiki
* AWARE SharePoint: http://vaww.oed.portal.va.gov/projects/aware/
* Site announcements (see Appendix A and Appendix B)

# Implementation Tasks and Activities

Table - Implementation Tasks and Activities

| **Item** | **Description** | **Grouping** |
| --- | --- | --- |
|  | **PRIOR TO Test Account IMPLEMENTATION:** |  |
| 1 | (1) Site Privacy Threshold Assessment completed to determine if a Privacy Officer needs to be assigned. Assignment of Privacy Officer, if necessary.  (2) Receive Authority to Operate (ATO) | VA Site ISO |
| 2 | Communicate site participation to CPRS v30 team to make certain CPRS team is aware of site’s participation in AWARE. | VA PM |
| 3 | Obtain site ISO and VISN approved access for Harris developers and other users into the site. Pertains to application forms and paperwork to be completed; Background checks; Elevated Privileges Request. | VA Site ISO |
| 4 | Harris/Astronaut to provide the site with AWARE installation instructions, specific site configuration, user assignments, SQL site configuration parameters, IIS setup, how to start up MS SQL Reporting Services, how to configure and startup IIS web services, and the registration of all the DLLs used with the AWARE application on both the client workstations and the Windows/SQL Server machine. | VA Regional/Site IT |
| 5 | Receive/install hardware. Conduct analysis of site infrastructure and determine hardware configuration. Items include: (1) SQL installation and licensing; (2) Establish domain name for server and provide it to Harris; (3) Microsoft licensing; (4) URL names for the KB Editor, Alert Cache, and the QI Tool; (5) The AWARE web application must be hosted within the VA firewall at the site to minimize network permissions/access issues. | VA Regional/Site IT |
| 6 | Harris/Astronaut to prepare a list of VistA accesses needed for AWARE pre-installation. Examples are security keys, options, RPCs, etc. These need to be passed on to site for their test users. List must be vetted through ISO. | VA Site ISO / IT |
| 7 | Site and/or VISN network staff to provide Harris/Astronaut with Administrator access to complete any remaining system software configuration, including Windows Server/SQL Server and IIS. This is for online pre-installation, and continued post-installation efforts. | VA Site IT |
| 8 | Determine with site which labs are the most important to them for testing. Fecal Blood, PSAs, Mammograms, Abnormal Chest X-rays are options (these are the ones delivered). | VA Site Clinical |
| 9 | Site to provide VA team assignments for assistance with the Alert Cache Viewer. Define sample teams that can be assigned so that developers can exercise the app through this process. In addition to dummy providers, Harris needs teams defined where they see each other's alerts (surrogates as well). Need some nurses on the same team so can validate screening for them. | VA Site Clinical |
| 10 | Site to provide examples of listings of radiology exams and associated radiologies from the alerts tracking files. Just need a list of examples or copies from the tracking files. | VA Site Clinical |
| 11 | Site IT to provide Harris/Astronaut equivalent dummy VistA users (5 dummy clinicians) in the site’s test account with developer-specified VistA access for running the AWARE application. This is for online pre-installation and post-installation efforts. | VA Site IT |
| 12 | Site stakeholders to provide Harris/Astronaut with a list of site test users, including CACs, to get those users’ VistA access in the site test account completed before AWARE is turned on during installation. Also, users for interviews for training materials and actual training, as well as coordinate the training. | VA Site Clinical |
| 13 | Install application software online via CAG into site before on-site installation. This is for the VistA test instance and Windows/SQL Server machine. | VA Site IT |
| 14 | Site IT staff shall assist with loading the AWARE KIDS build(s) into the site’s test server account per instructions provided to the site. | VA Site IT |
| 15 | Site to provide VistA security keys, menu options, FileMan access, etc. | VA Site IT |
| 16 | Site IT to provide pre-installation to Harris/Astronaut the access/verify codes to be used by the development team, and for all project team users by final installation. | VA Site IT |
| 17 | Site to provide CACs to re-factor Reminder Dialogs on the VA Innovations Sandbox and in the site’s test environment utilizing alert tracking directions provided by the KB Editor. | VA Site Clinical |
| 18 | Site IT staff to provide the Implementation Team with desktop client machines utilizing the Windows 7 operating system on the VA network behind the site’s firewall. This is for the Implementation Team’s use with pre-loaded CPRS v29 software and VistA session managers. It is needed for adding the enhanced AWARE CPRS v29 derived application with the AWARE DLL to those machines for running the AWARE application with its enhancements. If possible, site shall allow the developers’ laptops to be connected as client machines on the VA network with the same access to the test site during the on-site installation efforts. | VA Site IT |
| 19 | Site and/or VISN network VA support staff will assist Harris/Astronaut with any problems encountered with access/privileges/ports during online pre-installation system software configuration and installation/setup of the application software. | VA Regional/Site IT |
| 20 | Assistance by Site IT staff with AWARE client installations on the site user workstations, and with the assignment of specific VistA accesses that the developers identify. Instructions will be provided to the Site IT staff. This is needed by the time of the final installation and AWARE initiation efforts. | VA Site IT |
|  | **PRIOR TO Production Account IMPLEMENTATION:** |  |
|  | Considerations: |  |
| 1 | Determine where and how AWARE CPRS components will be employed for production use. Examples include:   * all workstations * by services (primary care, radiology) * specific workstation IPS (via SMS, host file, install shield, or individual user workstation installs)   See more in section 6.4 of the T4\_AWARE \_InstallGuide-Vista\_Prod document. | VA Regional/Site IT |
| 2 | Determine the parameterization best suited for each site’s use of AWARE in their environment. This can be by   * specific user * specific service(s) (i.e. Primary Care, Radiology, etc. including all teams in a service) * division (main hospital, satellite clinics, etc.) * system   This accounts for additional non-physician providers on the same team(s), such as nurses.  The parameterization refers to the   * VEFA PAT CHART CLOSEOUT parameter * VEFAALRE context options * use of Reminder Dialogs using TIU templates   More on parameterization can be found in sections 8.1, 8.2 and 8.3 of the T4\_AWARE \_InstallGuide-Vista\_Prod document. |  |
| 3 | Determine security key assignment in the Alert Cache Viewer in order to best utilize provider Alert Cache viewing for follow-up on patients within CPRS.  Determine Alert Cache Viewer and QI Report usage based on the provider workstations employed, and on the parameterization determined for Production consideration items 2 and 3 above.  Team usage for the Alert Cache Viewer should also be considered.  More can be found in sections 10.2 and 10.3 in the T4\_AWARE \_InstallGuide-Vista\_Prod document. |  |
|  | **DURING IMPLEMENTATION:** |  |
| 1 | Use preparation data for initiation of the AWARE application during onsite installation. | Harris/Astronaut & VA Site IT |
| 2 | Training with VA Staff serving as trainers to end users. | VA Site Clinical |
|  | **POST IMPLEMENTATION:** |  |
| 1 | Site IT to provide post-installation online access to developers and other support staff for review/testing/monitoring purposes, as well as any remaining training. | VA Site IT |
| 2 | Site IT to provide online access to developers for changing MS SQL Server reports as more test data is generated for review. | VA Site IT |

# Facility Installation Checklist

Table - Facility Installation Checklist

|  |  |
| --- | --- |
| **Facility Name:** |  |
| **Date:** |  |
| **Person Submitting:** |  |
| **Role:** |  |

|  |  | **Requirement** | **Complete ( √ )** |
| --- | --- | --- | --- |
| **LOCAL Test Account SYSTEM INSTALLATION** | | | |
| 1 | **Preparation** |  |  |
|  | 1.1 | Obtain location of KIDS build, custom CPRS, dll, Vista Test Account Installation Guide |  |
|  | 1.2 | Download KIDS build, custom CPRS, CSP files and both CSP and Vista Test Account Installation Guides from VA FTP server and/or VA AWARE SP |  |
|  | 1.3 | Download CSP Gateway from InterSystems site |  |
|  | 1.4 | Obtain VistA database IP and Cache SuperServer port number where CSP pages will be installed |  |
|  | 1.5 | If different than VistA database IP, obtain VistA application Server IP and VistA RPC broker port number |  |
|  | 1.6 | Obtain CSPSystem password (CSPSystem is a Cache User. Create one if it doesn’t exist) |  |
| 2 | **Supply contact information** |  |  |
|  | 2.1 | Ensure that appropriate staff has been supplied with the following: |  |
|  | 2.1.1 | Support contact information.  Primary Contact: awarespprt@gmail.com  Secondary Contact: 877-232-5177 |  |
|  | 2.1.2 | Meeting date for joint installation by local CAC and remote tertiary contractor |  |
|  | 2.1.3 | Site name |  |
|  | 2.1.4 | Identify beta users |  |
| 3 | **Installation** |  |  |
|  | 3.1 | Install SQL Server 2012 version including MS SQL Reporting Services |  |
|  | 3.2 | Install IIS Web Server |  |
|  | 3.3 | Install CSP Gateway and pages |  |
|  | 3.4 | Install KIDS build |  |
|  | 3.5 | Configuration of tracked laboratories and conditions |  |
|  | 3.6 | Load and Install base reminder dialogs |  |
| 4 | **Configure/Setup** |  |  |
|  | 4.1 | Configure QI tool, SQL Transporter, CSP applications |  |
|  | 4.2 | Configure/ Enable AWARE in VistA using CAC as KB Editor user. |  |
|  | 4.3 | Setup/Enable AWARE users in VistA |  |
|  | 4.4 | Configure custom CPRS shortcut to point to server and port. |  |
|  | 4.5 | Register AWARE .dll |  |
|  | 4.6 | Test Login and connection to the test server |  |
|  | 4.7 | Generate fictitious test Alert data |  |
|  | 4.8 | Test base reminder dialogs with fictitious data and fictitious conditions |  |
|  | 4.9 | Setup users for Alert Cache Viewer and QI tool |  |
|  | 4.10 | Test population of AlertCache Viewer/QI tool as pseudo physician provider and Safety Manager |  |
| 5 | **Operation** |  |  |
|  | 5.1 | Conduct rudimentary training for beta users |  |
|  | 5.2 | Users exercise the software |  |
| 6 | **Feedback** |  |  |
|  | 6.1 | Set up and publicize method for users to report issues |  |
|  | 6.2 | Participate in Post-Testing Survey |  |
| **LOCAL Production Account SYSTEM INSTALLATION** | | | |
| 1 | **Preparation** |  |  |
|  | 1.1 | Obtain location of KIDS build, custom CPRS, dll, Vista Production Account Installation Guide |  |
|  | 1.2 | Download KIDS build, custom CPRS, CSP files and both CSP and Vista Production Account Installation Guides from VA FTP server and/or VA AWARE SP |  |
|  | 1.3 | Download CSP Gateway from InterSystems site |  |
|  | 1.4 | Obtain VistA database IP and Cache SuperServer port number where CSP pages will be installed |  |
|  | 1.5 | If different than VistA database IP, obtain VistA application Server IP and VistA RPC broker port number |  |
|  | 1.6 | Obtain CSPSystem password (CSPSystem is a Cache User. Create one if it doesn’t exist) |  |
| 2 | **Supply contact information** |  |  |
|  | 2.1 | Ensure that appropriate staff has been supplied with the following: |  |
|  | 2.1.1 | Support contact information.  Primary Contact: awarespprt@gmail.com  Secondary Contact: 877-232-5177 |  |
|  | 2.1.2 | Meeting date for joint installation by local CAC and remote tertiary contractor. |  |
|  | 2.1.3 | Site name |  |
|  | 2.1.4 | Identify beta users |  |
| 3 | **Installation** |  |  |
|  | 3.1 | Install SQL Server 2012 version including MS SQL Reporting Services |  |
|  | 3.2 | Install IIS Web Server |  |
|  | 3.3 | Install CSP Gateway and pages |  |
|  | 3.4 | Install KIDS build |  |
|  | 3.5 | Configuration of tracked laboratories and conditions. |  |
|  | 3.6 | Load and Install site-customized reminder dialogs and site customized KB data from Test account. |  |
| 4 | **Configure/Setup** |  |  |
|  | 4.1 | Configure QI tool, SQL Transporter, CSP applications |  |
|  | 4.2 | Configure/ Enable AWARE in VistA using CAC as KB Editor user |  |
|  | 4.3 | Setup/Enable AWARE users in VistA |  |
|  | 4.4 | Configure custom CPRS shortcut to point to server and port |  |
|  | 4.5 | Register AWARE .dll |  |
|  | 4.6 | Test Login and connection to the test server |  |
|  | 4.7 | Setup users for Alert Cache Viewer and QI tool |  |
|  | 4.8 | View population of AlertCache Viewer/QI tool as physician provider and Safety Manager |  |
| 5 | **Operation** |  |  |
|  | 5.1 | Conduct rudimentary training for beta users |  |
|  | 5.2 | Users exercise the software |  |
| 6 | **Feedback** |  |  |
|  | 6.1 | Set up and publicize method for users to report issues |  |
|  | 6.2 | Participate in Post-Testing Survey |  |

## Site Readiness Checklist

Table - Site Readiness Checklist

| **Certification/acceptance criteria** | **Date Accomplished** | **Accomplished By** | **Comments/Notes** |
| --- | --- | --- | --- |
| **1. Pre-implementation** |  |  |  |
| 1. Kick-off Meeting |  |  |  |
| 1. Security access for Harris personnel |  |  |  |
| 1. Delivery of Installation Guides |  |  |  |
| 1. Established VistA test account for Harris users |  |  |  |
| 1. Obtain PIA for using AWARE at site |  |  |  |
|  | | | |
| **2. Hardware Deployment:** |  |  |  |
| 1. Received all hardware |  |  |  |
| 1. Installed hardware and server software |  |  |  |
| 1. Obtained software licensing, including SQL |  |  |  |
|  | | | |
| **3. Software Deployment** |  |  |  |
| 1. Received product from Harris |  |  |  |
| 1. Installed product in Test VistA account |  |  |  |
| 1. Installed product in Production VistA account Including site-customized Knowledge Base and re-factored Reminder Dialogs for site customization |  |  |  |
|  | | | |
| **4. Hardware Validation:** |  |  |  |
| 1. Workstations operational in Test account |  |  |  |
| 1. Workstations operational in Production account |  |  |  |
| 1. All equipment functionally (i.e., AWARE Windows Server, any Terminal Server with Shared drive) tested in Test account (Use information in appropriate Installation Guides) |  |  |  |
| 1. All equipment functionally (i.e., AWARE Windows Server, any Terminal Server with Shared drive) tested in Production account (Use information in appropriate Installation Guides) |  |  |  |
| **5. Installation:** |  |  |  |
| 1. Product installed and tested on the AWARE Windows Server/SQL Server database for the Test account |  |  |  |
| 1. Server back-ups tested |  |  |  |
| 1. Workstations used for local training tested |  |  |  |
| 1. Security set-up tested |  |  |  |
| 1. All equipment connected to workstations tested |  |  |  |
| 1. Web server tested |  |  |  |
| 1. CSP Gateway tested |  |  |  |
| 1. Product Installation Guide tasks completed |  |  |  |
| 1. Accessibility Compliance testing completed (for Beta site) |  |  |  |
| 1. Usability testing completed (for Beta site) |  |  |  |
| 1. Product installed and tested on the AWARE Windows Server/SQL Server database for the Production account |  |  |  |
| **6. Site has received the following product manuals:** |  |  |  |
| 1. AWARE User Guides |  |  |  |
|  | | | |
| **7. All scheduled training has occurred:** |  |  |  |
| 1. “Train the Trainer” Training or Self-guided Web Training |  |  |  |
| 1. Local staff training (conducted by VA trainers, i.e., CACS) |  |  |  |
| 1. Other Product training has been received or was requested |  |  |  |
|  | | | |
| **8. Product validation in Test account has been completed.** |  |  |  |
| 1. Validation test cases run |  |  |  |
| 1. Validation test report submitted |  |  |  |
|  | | | |
| **9. Communication:** |  |  |  |
| 1. Staff not directly involved with implementation has been notified of the date for going live |  |  |  |
| 1. Others within the organization have been notified of the go-live date (other departments not directly involved in the software change- e.g. team members like the nursing department) |  |  |  |
| 1. Beta test users have been identified and provided instructions |  |  |  |
| 1. Product exercise commences in Production account |  |  |  |

# Implementation Schedule

## Implementation Scheduling Factors

Implementation scheduling depends on a combination of factors:

* VISN/Site commitment – Management actively supports and is engaged with the project.
* Site resources – Adequate qualified staff commit to accomplishing the effort.

Site Readiness – Completion of the Site Readiness Certification, if indicated.

Impact of the following:

* Federal holidays
* Heavy leave usage during holidays
* The Joint Commission or other accreditation and/or regulatory compliance activities
* Circumstances due to natural disasters, significant network and/or system problems (failure or corruption), fire, war, domestic bio-terrorism, etc.

Note that some implementation tasks in Table 8 may start earlier than the dates indicated below in Table 6.

Table - Implementation Schedule

|  |  |  |
| --- | --- | --- |
| **Site** | **Begin** | **End** |
| Site 1 | Test: 6/23/2014  Production: 8/28/2014 | Test: 6/27/2014  Production: 9/5/2014 |
| Site 2 | Test: 9/29/2014  Production: 10/27/2014 | Test: 10/3/2014  Production: 10/31/2014 |

# Risks

AWARE has identified the following potential risks associated with the implementation. The risks are described in terms of potential impact, response activities, and contingency plans. Risks are maintained in the master Harris Risk Log located in the Harris SharePoint site. This log will contain the most current risk information.

## Technical Defects

Table - Technical Defects

|  |  |
| --- | --- |
| Description | AWARE may contain latent defects in the software and/or components that interface with VistA |
| Potential Impact | A defect can potentially create a patient safety issue. Additionally, any change to VistA has the potential to corrupt patient data and/or adversely affect multiple VistA applications. |
| Response | **Mitigate:**   1. VA management decided to use a phased implementation. The Implementation Team will monitor for defects and determine their severity. 2. The *Implementation Team* will convene weekly conference calls with representatives from VA management and other stakeholders to review implementation status and determine if the problems (if any) are acceptable or if they warrant a rollback of the AWARE Class 3 application. 3. Closely monitor technical issue found during Beta Deployment with product support. Make certain that development team is available to provide either a bug fix(es) or future scheduled enhancements. |
| Contingency | The discovery of a defect will trigger the actions listed below.  **Acceptable Defects:**   1. Information about the defect will be disseminated at the weekly status meetings. Information about the defect may be posted on the SharePoint Site if appropriate. (Note: The Implementation Manager may send a notice via e-mail if there is a sense of urgency to allay fears about the true seriousness of a defect.) 2. Field Operations will contact appropriate IT Support personnel to advise them of the problem and to offer appropriate workarounds, as warranted. 3. The Project Manager will log the defect for future consideration, but otherwise the implementation will proceed as if no defect was discovered.   **Unacceptable Defects:**   1. The Project Manager will notify the Business Owner (or his/her delegate) 2. Field Operations will send a blanket “cease and desist” notice to the appropriate site IT Support personnel. 3. This implementation will terminate and be rolled back if appropriate. 4. The Project Manager will initiate efforts to re-plan and/or repair the defects. Note: These efforts are outside the scope of this implementation plan. |

## Uncertainty of the Experience Level of the Staff

Table - Uncertainty of the Experience Level of the Staff

|  |  |
| --- | --- |
| Description | There is no guarantee that staff available for the update and configuration of the software has the skill set and experience required for a timely, efficient and successful implementation of the new AWARE application. |
| Potential Impact | (a) Delay in the VA IT POC installing the AWARE application in the timeframe window provided.  (b) AWARE POC unavailable to configure the new AWARE application when it is implemented and attend the Implementation conference calls. |
| Response | **Mitigate:** Increase remote support. Train VA users prior to implementation.  **Accept:** Remote verification of successful implementation. |
| Contingency | Contact the implementation team to resolve any issues. |

## Loss of Local Site Trainer Knowledge

Table - Loss of Local Site Trainer Knowledge

|  |  |
| --- | --- |
| Description | The train the trainer training sessions were completed well before the application is available for the trainers to train the Users and there is no training instance for trainers to refresh there memory/skills. Trainers could forget critical information, which would lead to a significant number of questions and increased calls. |
| Potential Impact | End Users will not be as familiar with the new functionalities of AWARE as expected and may cause disappointment/dissatisfaction with the new application. May cause increased calls to the help desk because of lack of education |
| Response | **Accept:** It is recognized that a training instance is needed but cannot be provided at this time but is being considered for the future. Sustainable training for the near future  **Mitigate:** Training materials are provided. Weekly support calls are scheduled after implementation to answer questions and help sites implement the application |
| Contingency | Provide a site experiencing difficulty implementing the application with implementation team remote training or assistance. |

## Loss of Staffing/Resources

Table - Loss of Staffing/Resources

|  |  |
| --- | --- |
| Description | A loss of staffing and/or other resources within the implementation team and/or sites could arise for many different reasons, such as changing priorities, staff attrition, illness, end-of-year vacations, and/or inability of the project team to obtain managerial commitment for the duration of this project. |
| Potential Impact | The impact to this implementation will depend on the loss sustained. If a replacement for a lost resource can be found and brought up to speed quickly, the impact to this implementation will be minimal. If the lost resource cannot be found in a timely manner, the duties of that lost resource will not be performed, resulting in potential implementation delays. |
| Response | **Accept:** Although the *Project Manager* will be endeavor to identify a replacement for the lost resource(s), it is recognized and accepted that a loss of staffing and/or resources could result in the loss of key duties, which will negatively affect the team’s ability to complete the project as scheduled. |
| Contingency | A loss of critical resource(s) will trigger the following actions:   * The VA *Project Manager* will endeavor to replace the lost resource, preferably before the resource is lost. * The *Project Manager* may escalate issues to management and to the *Business Owner* (if needed). * The *Implementation Manager* will convene a conference call with the Implementation Team to determine an appropriate course of action. Possible outcomes of this call could include:   1. Termination – if the loss is severe and/or affects patient safety, this implementation will be terminated in accordance with the plans for Unacceptable Defects.   2. Pause – if there is an expectation that the lost resource can be replaced in a reasonable amount of time, the implementation will be paused and the schedule automatically delayed until the resource is found. Monitoring and product support will continue to be provided if these resources are available.   3. Continuance – if the loss is minor and/or is not expected to have an impact, implementation will continue as if nothing happened. Note: A minor loss has the potential to become more significant.   **NOTE**: Resources at the site level (such as IT) can have an equal (if not greater) impact on the success of this implementation. Although the implementation team’s ability to respond will be limited by organizational structure, a loss at the site will be treated as a loss within the implementation team for the purposes of this implementation. |

## Schedule

Table - Schedule

|  |  |
| --- | --- |
| Description | The uncertainty of the availability and commitment of resources to the established/published schedule as well as heavy vacation time |
| Potential Impact | Delay in the expected scheduled progression of each Wave implementation as well as the overall end date of the established/published schedule |
| Response | **Accept:** Although the *Project Manager* and *Implementation Manager* will endeavor to identify potential schedule issues and address prior to becoming problematic, it is recognized and accepted that a change in schedule may occur which could result in an update to the established/published schedule. The intent will be to use all resources available for a result to complete the project at the scheduled end date. |
| Contingency | The project has the following built-in contingencies:   * The schedule has allowed an additional 15 days for installation * There is an established Implementation team to help with local configuration to increase the chance of an efficient successful installation * Weekly support meetings * Clear communication of the schedule and expectations |

# Project-Related Links and References

Site links:

**VA SharePoint**: <http://vaww.oed.portal.va.gov/projects/aware/>

Project-related reference documents:

* Training Plan
* Master Test Plan
* User Interface Document
* CPRS Integration Specification
* Installation Guides
* Issue Log Spreadsheet
* Site Certification Checklist
* Site Implementation Checklist
* Facility Implementation Checklist

# Appendix A – Example Deployment Announcement

## Alert Watch and Response Engine (AWARE)

The Computerized Patient Record System (CPRS) View Alerts package delivers notification of non-life threatening critical test results; however, it does not track whether providers take appropriate follow-up actions in response to the alerts. Currently, the only way to track follow-up actions on critical alerts is through manual review of individual patient records. The innovation Alerts, Watch and Response Engine (AWARE) will track and monitor follow-up actions and will identify certain critical lab and imaging test result alerts that lack timely follow-up. AWARE also consists of a web-based knowledge base editor and a quality measures reporting tool.

The Implementation Checklist in Section 9 is a tool to help guide the site through the implementation. Please pay particular attention to the Checklist. There are time sensitive action items identified.

The AWARE Point of Contact (POC) is responsible to make certain that AWARE end users at their facility are trained. Role-based training materials are available here.

Support will be provided as outlined below:

* Weekly support calls to answer any questions or concerns are on <day> at <time>, XXX-XXX-XXXX. Phone lines may be limited so please meet in an office or conference room to attend the call whenever possible. Alternatively, AWARE POCs may gather the questions or concerns from their users and attend the call as their representative.
* Submit an Issue - send an e-mail to Steve Greenacre (jgreenac@harris.com) or call 877-232-5177.
* Complete technical support is available at 877-232-5177.

An Implementation kick-off meeting will be held on <day>, <date>, 2014 at <time> 1-XXX-XXX-XXXX Code (xxxxxxx#). A meeting invitation will be sent to the AWARE POC for distribution to the appropriate audience. The kick-off meeting will explain everything in detail and give you the opportunity to ask questions. AWARE POCs please invite the following people to the kick-off meeting:

* IT
* Site Administrator
* CAC’s

If you have other questions regarding the AWARE project, contact:

Steve Greenacre ([jgreenac@harris.com](mailto:jgreenac@harris.com)) or call 877-232-5177.

# Appendix B – Example Kick-off Meeting E-mail to POC

The Alert Watch and Response Engine (AWARE) Team is pleased to announce that AWARE v1.0 will be deployed to your site on <Date>. In preparation for your implementation, you are invited to join us for a series of support calls for the next several weeks. Our first call will be a kick-off to describe the implementation process and answer any questions that you may have. Subsequent calls will focus on the support of your implementation, as well as give you an opportunity to ask questions and share concerns.

The kick-off call is scheduled for <Day>, <Date> at <Time> EDT (2:00p CDT, 11:00a MDT, 10a PDT), 1-XXX-XXX-XXXX, access code xxxxx#. Subsequent calls will be held on Mondays at 1:00 EDT.

**Kick-off Agenda:**

* Attendance (Implementation Manager)
* Announcements/Opening Remarks (Project Manager and/or Implementation Manager)
* Implementation Overview (Implementation Manager)
  + Welcome to the AWARE application.
    - Documents
    - Identify Admin Users – Provide list
  + Schedule (Milestones)
    - Outage
    - AWARE Configuration High-Level Configuration Details
  + Training Requirements
    - The AWARE Point of Contact (POC) is responsible to make certain that AWARE end users at their facility are trained
    - Role-based training/Train-the-Trainer is available
    - Training materials available at NEED LINK.
* Communication
  + AWARE POC make sure that your facility is aware of the upcoming changes
  + SharePoint Website http://vaww.oed.portal.va.gov/projects/aware/
* Support
  + IT: Submit Remedy Ticket
  + Weekly Call each <day> at <time> 1-XXX-XXX-XXXX Code (xxxxxxx#).
* Q&A

Attachments:

* Implementation Checklist

# Approval Signatures

The following members of the governing IPT are required to sign. Please annotate signature blocks accordingly.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Signed: Date:  
Blake Henderson   
Project Manager  
Innovation Coordinator

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Signed: Date:  
Brian Stevenson   
Contracting Officer’s Representative  
Innovation Coordinator  
VHA OIA Innovation