**Enterprise Letters**

**Requirements Specification Document**



**July 2015**

**Version 1.0**

**Department of Veterans Affairs**

Memorial Enterprise Letters i June 2015

Requirements Specification Document

**Revision History**

Note: The revision history cycle begins once changes or enhancements are requested after the

Requirements Specification Document has been baselined.

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| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 7/22/15 | 1.0 | Final version for approval |  |

**Artifact Rationale**

The Requirements Specification Document (RSD) records the results of the specification gathering processes carried out during the Requirements phase. The RSD is generally written by the functional analyst(s) and should provide the bulk of the information used to create the test plan and test scripts. It should be updated for each increment.

The level of detail contained in this RSD should be consistent with the size and scope of the project. It is not necessary to fill out any sections of this document that do not apply to the project. The resources necessary to create and maintain this document during the life cycle of a

large project should be acknowledged and clearly reflected in project schedules. Do not duplicate data that is already defined in another document or a section in this document; note in the section where the information can be found.

**Instructions**

|  |  |  |
| --- | --- | --- |
| **Activity** | **New Capability (1)** | **Feature Enhancement (2)** |
| **Field Deployment**  **(A)** | Yes | No |
| **Cloud/Web**  **Deployment (B)** | Yes | No |
| **Mobile Application**  **(C)** | No | No |

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**1. Introduction**

This Requirements Specifications Document (RSD) is developed for the Memorial Enterprise Letters (MEL) project which will deliver a Commercial Off-The-Shelf (COTS) customer engagement software solution to replace the current custom-coded Resolution Letters application. Resolution letters are generated in response to a request for a Department of Veterans Affairs (VA) Headstone, Marker, or Medallion. Currently, the Resolution Letters application utilizes an unapproved technology requiring the intervention of the Information Technology (IT) staff to make any additions, or changes, to the letter templates.

The MEL functionality, detailed in this RSD, refines and sets the specifications for the MEL

project as documented in the Business Requirements Document (BRD).

The MEL project is one step in the on-going process of implementing the Memorial Benefits Management System (MBMS) which modernizes National Cemetery Administration’s (NCA) mission-critical applications supporting NCA memorial and burial benefits delivery. The MEL solution positions NCA to have a single, modern, customer engagement application which can manage, process, and generate letters of various types across the entire memorials enterprise. Additional information can be found in the

Disambiguation: Throughout this document, the term “MEL solution” applies to the COTS product and all components needed for the “MEL project” to deliver the required functionality. As one of the first uses of the MEL solution, the current “Resolution Letters application” will be replaced in order for the MEL solution to generate resolution letters from resolution letter templates. (The capitalized term refers to the application and the lower case terms refer generically to the output created.) Resolution letter is a generic term used through this document to describe any correspondence NCA might share with a customer to assist with successful closure of their benefit request. To provide a consistent and equitable response to all customers, MEL will allow NCA the vehicle to communicate an approved and standard statement to advise customers with the steps they should follow for “resolution”.

**1.1. Purpose**

The purpose of the RSD document is to record and capture the initial set of epics and user stories that specify the features to be developed which will be the new MEL solution. The Acceptance Criteria Plan (ACP) will describe all of the deliverables that the NCA customer expects in the final MEL solution and will reference this RSD.

The targeted audiences for this RSD are the MEL project development team, stakeholders, business owners, and managerial authorities for the effort.

This RSD is based on Agile methodology for development and, as such, many of the details resulting from the specification gathering and refinement process will be recorded in Agile theme, epics, and user stories. For details on the Agile methodology and how it pertains to developing this RSD, please refer to Appendix B – Agile Methodology.

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**1.2. Scope**

The scope of the MEL project will be to include the automation of the up-front process of selecting various letter templates and performing and automated “mail merge” (populating letter variables with minimal manual intervention). The effort will also streamline the addition, deletion, and editing of letter templates, and include an automated report generation capability.

This MEL solution will be accomplished by interfacing with the Burial Operations Support System (BOSS) Enterprise database for information. In the case of the currently operating Resolution Letters application, information is stored in BOSS Enterprise database Automated Monument Application System (AMAS) Oracle tables. That information was transcribed from the 1330 Form application for benefits. Original Image-Documents are stored in the Feith Document Database (FDD) in TIF or PDF formats.

FDD is also a component of the BOSS Enterprise system. BOSS Enterprise is comprised of multiple capabilities, systems and interfaces including: BOSS and AMAS interfaces; the Monument Application Scanning System (MASS); Management & Decision Support System (MADSS); First Notice of Death (FNOD), Cemetery Kiosk system; and Nationwide Gravesite Locator (KNGL); Presidential Memorial Certificate (PMC); and Gravesite Assessment and Reporting (GAR). In short, BOSS is NCA’s electronic system for recording decedent burial information, storing supporting documents, eligibility research, interment schedules, and headstone, marker, and medallion data related to the interments. The term BOSS in this document refers to the BOSS Enterprise as a whole.

The required capabilities for the MEL solution, as it relates to resolution letters, are summarized below:

• **[CAP-1] Adhere to Enterprise Level and Non-Functional requirements**

o To ensure compatibility with the Enterprise and adherence to non-functional requirements such as performance, availability, and interfaces.

• **[CAP-2] Manage resolution letter templates**

o To provide the ability to add, edit, delete, print, and search for templates, as well as, tailor business rules for recommending templates and for attaching documents.

• **[CAP-3] Generate resolution letters with minimal manual intervention**

o To ensure the Case Managers and Site Supervisors have the ability to create, edit, delete, approve, return with remarks, delete, print, and save resolution letters with minimal manual intervention.

• **[CAP-4] Streamline and automate resolution letter printing**

o To ensure approved letters can be processed and forwarded to recipients properly and in a streamlined and automated fashion.

• **[CAP-5] Provide Management oversight of resolution letters**

o To ensure Site Supervisors, Team Leaders, and NCA Supervisors have the ability to review, edit, print, approve, return with remarks, and delete resolution letters.

• **[CAP-6] Collect and manage reporting statistics on resolution letter activities and success criteria**

o To ensure transparency and visibility to NCA Supervisors, Site Supervisors, Team Leaders, Case Managers, and other defined Stakeholders by providing auditing, accounting, status, and performance reporting capabilities.

• **[CAP-7] Build initial set of resolution letter templates**

o To ensure the current set of approximately 60 resolution letter templates, their associated business rules, and enclosures are created as part of this initial effort.

For additional information see:

**1.3. References**

The following documents have been used for the RSD:

Additional documents referenced in the creation of this RSD include:

• Section 508 checklists (1194.21, 1194.22, 1194.24, 1194.31 and 1194.41)

o

**2. Overall Description**

The functionality that will be developed supporting MEL solution will address the need for increased efficiency and improved customer service. NCA will have additional control through the use of editorial capabilities, which will eliminate the dependence on IT support for all creating, updating, and deleting of correspondence templates. NCA will receive accurate and timely statistical reports detailing the numbers of letters generated, site and user-specific letter activities, and location where letters were printed (e.g. locally or at a central facility). The letter

recipient, which may include the applicant, consignee, or cemetery, will benefit by receiving accurate, appropriate, and timely correspondence regarding their request or appeal for a Memorial Benefit.

**2.1. Accessibility Specifications**

Section 508 of the Rehabilitation Act of 1973, and the Rehabilitation Act Amendments of 1998, mandate that all software developed by federal agencies must allow access to, and use of, information and data by individuals with disabilities.

The Section 508 compliance status for all work will be conducted via approved vendors conducting self- certifications upon completion of compliance testing documentation. Compliance information will be required at the completion of each increment.

The MEL solution will ensure Section 508 Compliance with respect to requirements specified in the following checklists:

• [1194.21 Software applications and operating systems](http://www.ehealth.va.gov/508/terms/software_508_checklist.doc)

• [1194.22 Web-based intranet and internet information and applications](http://vaww.section508.va.gov/SECTION508/docs/1194_22_VASection508_web_checklist.doc)

• [1194.31 Functional performance criteria](http://vaww.section508.va.gov/SECTION508/docs/1194_31_VASection508_functional_checklist.doc)

• [1194.41 Information, documentation, and support](http://vaww.section508.va.gov/SECTION508/docs/1194_41_VASection508_documentation_checklist.doc)

Additional information can be accessed [here](http://www.ehealth.va.gov/508/resources_508.html) or as otherwise specified.

The coding standards, naming conventions, along with the standard set of class libraries in the Information Technology (IT) Technical Reference Model (TRM) will be used in this development effort.

Checkpoints will be established to ensure that accessibility is incorporated from the earliest possible design, or acquisition phase, and successfully implemented throughout the project.

**2.2. Business Rules Specification**

The Business Rules are documented in the Epics and User Stories below in Section 2.6: Functional Specifications. Additional details and more specific business needs will be further documented in the Software Design Document (SDD).

**2.3. Design Constraints Specification**

MEL solution developers shall conform to technology standards as defined in the VA Technical

Reference Model (TRM).

The MEL solution will adhere to the following best business practices and compliancy as follows:

• Will be VA Handbook 6500, NIST 800-53 and FIPS 140-2 compliant.

• Will provide files in a format to allow the MEL solution to access and process the files.

The MEL solution will be accomplished by interfacing with Automated Monument Application

System (AMAS) for information. In the case of resolution letters specifically, information is

stored in AMAS that was submitted on the 1330 Form application, and is then stored in the record of correspondence in the FDD.

**2.4. Disaster Recovery Specification**

The MEL solution will handle Personal Identification Information (PII) and will require Recovery Time Objectives (RTO), and Recovery Point Objectives (RPO) associated with that data. The MEL solution is expected to be in an operational environment hosted within the Quantico Information Technology Center (QITC) which implements disaster recovery procedures and is therefore covered under their Disaster Recovery Plan. (NOTE: The final hosting location has not yet been determined.)

Servers are stood up at QITC, while the backup servers are located at the ITC Continuity of

Operations (COOP) facility in Culpeper, VA. For more details, refer to the “IT Contingency Plan

–QITC Version 3.2,” under Section 1.3 References. The location information for the primary and secondary servers is as follows:

VA Primary Facility Department of Veterans Affairs Service Delivery & Engineering

Quantico Information Technology Center

5101 Russell Road

Quantico, VA 22134

COOP Facility

Department of Veterans Affairs

Service Delivery & Engineering

Culpeper Information Technology Center

305 U.S. Avenue Building COOP Culpeper, VA 22701

**2.5. Documentation Specifications**

The COTS product selected for the MEL solution will include all of the required components necessary to conform to the documentation requirements mandated by PMAS and ProPath.

Documentation will potentially include but is not limited to:

• User manuals for software

• In-house application documentation (application requirements/program documentation, specifications/change control recommendations)

• Any vendor-supplied documentation

• Standard operating procedures

• Network diagrams and documentation on setups of routers and switches

• Software and hardware testing procedures and results

• System interconnection agreements

• Hardware replacement agreements

• Vendor maintenance agreements and maintenance records

As the MEL project evolves and functionality is added, changed, or deprecated, corresponding updates to the relevant documents above will be made by the vendor. It is also expected that all documentation will be posted to any appropriate SharePoint sites, shared folders or public sites, for ease of access by the vendor.

**2.6. Functional Specifications**

Functional requirements for the MEL solution will be documented in accordance with Agile methodology: the Business Needs will be addressed by one Theme (see Table 1), one or more Epic Stories, which are further broken down into one or more User Stories. The requirements listed below are intended to serve as an overview of the functionality that the MEL solution will provide. This RSD is written to maintain the requirements that were used for the original development of Resolution Letters application and to include enhancements to that development.

Please refer to the document for further details relating to Business Needs/Owner Requirements.

**Table 1: Theme**

|  |  |
| --- | --- |
| **IDENTIFIER** | **THEME** |
| 1.0 | As an NCA Supervisor, I need to provide VA employees with better tools so that the VA customers are served more efficiently and effectively. |

2.6.1.

**Manage Resolution Letter Templates**

The table below lists the user story and tasks needed to improve various functions of the resolution letter templates.

**Table 2: Epic 1.1**

|  |  |  |
| --- | --- | --- |
| **EPIC 1.1:** NCA needs to manage resolution letter templates | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.1.1 | As an Administrative User, I need the ability to add/edit/delete resolution letter templates so that the user does not have to contact IT support to make approved changes. | Able to add, delete, print, and edit resolution letter templates and associated default and mandatory enclosures 99% of the time as documented. |
| IDENTIFIER | TASK | |
| 1.1.2 | Create new custom resolution letter templates that use a combination of text, BOSS Enterprise database AMAS table data, and free form text fields. | |
| 1.1.3 | Provide the ability to add/edit/delete “boilerplate”- or standard text that can be reused without change in resolution letter templates | |
| 1.1.4 | Provide the ability to add/delete VA forms and other documents as default enclosures on a resolution letter template so that they are automatically printed as attachments for mailing to recipients. | |
| 1.1.5 | Provide the ability to associate the appropriate letterhead, reflective of the user who generated the resolution letter, individually and globally so that the recipient continues to receive correspondence from the same user with whom they have been communicating. | |
| 1.1.6 | Provide the ability to associate the appropriate VA logo with a resolution letter template, individually, and globally. | |
| 1.1.7 | Provide the ability to add/edit/delete custom signature blocks on a resolution letter template, individually, and globally. | |
| 1.1.8 | Provide the ability to easily search, navigate through, and find resolution letter templates. | |
| 1.1.9 | Provide the ability to restrict permission to limited persons, roles, or groups to resolution letter template customizations. | |
| 1.1.10 | Provide the ability to create/edit/delete business rules for recommending a resolution letter template using variable fields (e.g. AMAS status). | |
| 1.1.11 | Provide the ability to display a list of fields that are editable on each Letter template. | |
| 1.1.12 | Provide the ability to view or print a complete Letter template. | |

2.6.2.

**Generate Resolution Letters**

The table below lists the user story and tasks needed to continue automation of resolution letters.

**Table 3: Epic 1.2**

|  |  |  |
| --- | --- | --- |
| **EPIC 1.2:** NCA needs to generate resolution letters | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.2.1 | As a Memorial Program Service User, I need clear and accurate resolution letters to be generated with minimal involvement by me as possible. | Able to generate a correctly populated resolution letter from a template 99% of the time as documented by the  user. |
| IDENTIFIER | TASK | |
| 1.2.2 | Provide the ability for users to manage their own profile. | |
| 1.2.3 | Provide the ability to review and adjust the disposition for each case | |
| 1.2.4 | Create a list of applicable Resolution Letter templates for a case based on business rules. | |
| 1.2.5 | Provide the ability to generate the default system enclosures (generated from  AMAS table data) for the selected resolution letter template. | |
| 1.2.6 | Create a list of mandatory enclosures that are required to be manually added for the selected resolution letter template. An example is a copy of the submitted VA Form 1330 which can be found in Appendix F of the Memorial Enterprise Letters BRD. | |
| 1.2.7 | Provide the ability change the resolution letter template selected from a group selected. | |
| 1.2.8 | Provide the ability to generate a pre-populated resolution letter using the selected resolution letter template via information automatically populated from AMAS data. | |
| 1.2.9 | Provide the ability to customize free text paragraphs the resolution letter based on the case. | |
| 1.2.10 | Design a process that does not allow the case manager to edit the boilerplate text of the resolution letter template. | |
| 1.2.11 | Create a list of enclosures in each resolution letter template. | |
| 1.2.12 | Include as part of the resolution letter, an electronic record of all enclosures. | |
| 1.2.13 | Provide the ability to manually add mandatory and optional resolution letter template enclosures in addition to the template’s default enclosures. | |
| 1.2.14 | Provide the ability for the system to identify the correct letterhead based on the site location. | |
| 1.2.15 | Provide the ability to automatically assign the envelope return address based on the site address of the User | |

|  |  |  |
| --- | --- | --- |
| **EPIC 1.2:** NCA needs to generate resolution letters | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.2.16 | Provide User the ability to delete a resolution letter that was started in error. | |
| 1.2.17 | Provide User the ability to review, edit, print, and submit for approval the completed resolution letter. | |
| 1.2.18 | Provide User the ability to save the system generated resolution letter as a draft for processing at a later time. | |
| 1.2.19 | Provide user the ability to send a signed resolution letter to be printed (either locally or at the selected print and mail facility) and mailed to the recipient. (“Submit the signed resolution letter for printing and mailing.”) | |
| 1.2.20 | Provide the ability access resolution letter generation feature from  BOSS/AMAS if the suspense or denied code is selected. | |

2.6.3.

**Management Oversight**

The table below lists the user story and tasks needed to manage the ability to oversee the resolution letters process.

**Table 4: Epic 1.3**

|  |  |  |
| --- | --- | --- |
| **EPIC 1.3:** NCA needs resolution letter management oversight | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.3.1 | As a NCA Supervisor, I need the ability to oversee resolution letters at any point in the resolution letter process so that quality assurance is met for every recipient. | Able to demonstrate requested changes at any point during the resolution process. |
| IDENTIFIER | TASK | |
| 1.3.2 | Provide NCA Supervisors the ability to review, edit, print, approve, return with remarks, delete, and save a resolution letter generated by the Case Manager after the Case Manager has submitted the letter for approval. | |
| 1.3.3 | Provide the ability to change the letterhead to a different site on a generated resolution letter. Case managers must be prohibited from doing so. | |
| 1.3.4 | Provide the ability to electronically sign the completed letter and submit the signed resolution letter for printing and mailing. | |
| 1.3.5 | Provide the ability to return the resolution letter to the Case Manager to submit the signed resolution letter for printing and mailing. | |
| 1.3.6 | Provide the ability to approve, return with remarks, or delete any completed resolution letter regardless of which site generated the letter. | |

|  |  |  |
| --- | --- | --- |
| **EPIC 1.3:** NCA needs resolution letter management oversight | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.3.7 | Provide the ability to create a resolution letter for any site. | |

2.6.4.

**Streamline and Automate Letter Printing**

The table below lists the user story and tasks needed to improve an existing process for the automation of the resolution letters printing.

**Table 5: Epic 1.4**

|  |  |  |
| --- | --- | --- |
| **EPIC 1.4:** NCA needs automation of the resolution letters printing. | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.4.1 | As a User, I need to have the ability to print resolution letters locally, or send  to a central print and mailing facility, so that the recipients are notified of the resolution of the request. | Able to print resolution letters to selected locations and confirm receipt of resolution letters by the central mailing facility. |
| IDENTIFIER | TASK | |
| 1.4.2 | Provide the ability to electronically submit the signed resolution letter along with appropriate enclosures to a selected Central Print and Mail facility. | |
| 1.4.3 | Provide the ability to enclose an image of a form, i.e., the VA Form 40-1330 (Appendix F, Memorial Enterprise Letters BRD) with the Monument ID if associated with the resolution letter. | |
| 1.4.4 | Provide Administrative Users the ability to print recipient’s name and address on the resolution letter so that, when folded and inserted within the standard windowed VA envelope (single-left), the name and address appears within the window thus eliminating the need for address labels, or typing, of the recipient’s mailing information on the envelope.  Envelope size(s) will be included in the Memorial Enterprise Letters System  Design Document (SDD) | |
| 1.4.5 | Provide the ability to prevent the resolution letter from being sent to a central print and mail facility if it has been printed locally. | |

2.6.5.

**Statistical Reporting**

The table below lists the user story and tasks needed to provide management with resolution letters usage data for reporting.

**Table 6: Epic 1.5**

|  |  |  |
| --- | --- | --- |
| **EPIC 1.5:** NCA needs statistical reporting about resolution letters | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.5.1 | As an NCA Supervisor, I need the ability to collect, review, and manage resolution letters sent so that reports can be prepared for oversight bodies. | Able to receive emailed reports with requested information. |
| IDENTIFIER | TASK | |
| 1.5.2 | Design daily reports showing the location from which resolution letters have been printed (central facility or locally) and how many were printed and/or sent to the central facility. | |
| 1.5.3 | Set up reports to be emailed daily at 0200 Eastern Standard Time to NCA Management. | |

2.6.6.

**Build Resolution Letter Templates**

MEL project developers will do the initial build of letter templates, letterheads, signature blocks, and default enclosures. The users will have the ability to build letter templates once the initial build is completed. The table below lists the user story and tasks needed to build all facets of letter templates:

**Table 7: Epic 1.6**

|  |  |  |
| --- | --- | --- |
| **EPIC 1.6:** Build resolution letter templates | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.6.1 | As an NCA Administrative User, I need the project team to build the initial resolution letter templates and allow users to then build additional resolution letter templates as needed, so that as changes to the business process or laws are made, the MEL solution remains in compliance. | Able to use pre-built resolution letter templates.  Able to build new templates. |
| IDENTIFIER | TASK | |
| 1.6.2 | Build the approximately 60 initial resolution letter templates currently in use. | |
| 1.6.3 | Build and apply the business rules associated with each resolution letter template currently in use. | |
| 1.6.4 | Apply the enclosures associated with each resolution letter templates currently in use. | |

|  |  |  |
| --- | --- | --- |
| **EPIC 1.6:** Build resolution letter templates | | |
| IDENTIFIER | USER STORY | ACCEPTANCE CRITERIA |
| 1.6.5 | Build and apply the business rules associated with each letterhead processing currently in use. | |
| 1.6.6 | Build and apply the business rules associated with each VA Logo processing currently in use. | |
| 1.6.7 | Build and apply the business rules associated with each signature block currently in use. | |

**2.8. Graphical User Interface (GUI) Specifications**

The Enterprise Letters project will comply with the standard VA Desktop interface and all VA Policies, including [Section 508](http://www.ehealth.va.gov/508/resources_508.html) requirements.

**2.9. Multi-Divisional Specifications**

Multi-divisional specifications do not apply to the MEL solution because it will not be operating in a Veterans Health Information Systems and Technology Architecture (VistA) health care environment.

**2.10. Performance Specifications**

The MEL solution performance specifications solution will execute performance, capacity, and independent testing of its product, and as part of Software Quality Assurance (SQA) analysis and testing. Recurring discussions with the Systems Engineering and Design Review (SEDR) workgroup are in progress to articulate requirements for performance and capacity transactions. The Memorial Enterprise Letters system will use Hewlett Packard (HP) Performance Lab testing tools (including LoadRunner) and services provided by the Enterprise Testing Services (ETS) group.

2.10.1.

**Performance**

The MEL solution will:

• have Service Level Agreement (SLA) of 95% uptime

• have fail over capability

• support at least 53 users of the AMAS system in Memorial Programs Service

• support the approximately 34 users involved in resolution letters processing

The MEL solution is not expected to impact the number of users but should reduce the time it takes to make available a new or modified letter template.

2.10.2.

**Capacity**

In accordance with Memorial standards, the MEL solution capacity will need to meet the following criteria, in addition to the criteria shown in the table below per the Memorial Enterprise Letters Business Requirements Document Section 8.2.

• The MEL solution shall support average letter sizes of 74kb, but not be limited to this average, as there are resolution letters that are larger and smaller in size.

• The MEL solution shall support the processing of 1150 resolution letters daily at a minimum.

**Table 8: Service Level Requirements (SLR) – Capacity**

|  |  |  |  |
| --- | --- | --- | --- |
| **EPIC 1.7:** In accordance with Memorial standards, MEL solution capacity will need to meet the following criteria. | | | |
| NONF ID | SLR Question | SLR Criteria | Description |
| 1.7.1 | How many users will be on the system hourly? | 50 | N/A |
| 1.7.2 | How many transactions will each average user perform each hour? | 14 | N/A |
| 1.7.3 | What are the anticipated peak user times during the day? | 0800-1600 Central  Time | Some users work 10 hours a day |
| 1.7.4 | What is the anticipated peak transaction load (when do you think that there will be the most transactions being performed on the system) during the day? | 0800-1600 Central  Time | Approx. 20 letters created during peak times. |
| 1.7.5 | How many new users will be added in one year? | 0 | Stable at 50. No growth or change is expected. When one user leaves, the position is backfilled. |
| 1.7.6 | How many more (if any) transactions will be added in one year? | 3-5 | Workstream vice users will be added for the next five years. (Multipliers 5-  10) |
| 1.7.7 | What kind of search capacity is required? | Application will not search for fields. | Users may sort by fields and site. |

2.10.3.

**Availability**

In accordance with Memorial standards, the MEL solution application availability will need to meet the criteria shown in the table below per, the Section 8.2.

**Table 9: Service Level Requirements (SLR) – Availability**

|  |  |  |  |
| --- | --- | --- | --- |
| **EPIC 1.8:** In accordance with Memorial standards, the MEL solution availability will need to meet the following criteria. | | | |
| NONF ID | SLR Question | SLR Criteria | Description |
| 1.8.1 | How much time should the system be available (and how much down time is acceptable due to incident [unexpected] outage)? | Mon-Sat 0700-  1900 ET | N/A |
| 1.8.2 | When should the system be available (what will be the core operating hours of the system)? | Mon-Sat 0700-  1900 ET | N/A |
| 1.8.3 | How soon should the system fully recover from an outage? (Includes Mean Time to Restore [MTRS]) | 2 hours | N/A |
| 1.8.4 | How much data will be restored when outage is recovered? | 99% | N/A |
| 1.8.5 | What time period should be considered for maintenance periods? | Saturday evening/Sunday morning | N/A |
| 1.8.6 | What standard time zone will the system operate in? | Central and  Eastern | N/A |

**2.11. Quality Attributes Specification**

The MEL project will follow ProPath guidelines, including quality reviews for requirements, design, code, test plans/cases/executions, and other document deliverables.

It will comply with the quality specifications set forth by the PMAS quality specifications.

It will provide NCA with accurate and timely statistical reports detailing the numbers of letters generated, site and user-specific resolution letter activities, and location where resolution letters were printed (e.g. locally or at a central facility).

The following types of testing will be performed to assess the quality of the MEL solution:

• Unit testing

• Integration / functional testing

• User Acceptance Testing (UAT)

• Section 508 testing

• Performance testing

Overall quality will be ensured through the weekly meetings of the Working Integrated Project Team (WIPT), reviewing test results, thorough progress reviews with the business customers/Subject Matter Experts (SME), and PMAS milestone reviews.

**2.12. Reliability Specifications**

The MEL solution must be available Monday through Saturday, 7:00 am to 7:00 pm EST with the exception of holidays. The entire Memorial Benefit Delivery System, is monitored at

multiple tiers, from application performance/tuning, hardware and infrastructure (CPU, memory, i/o), to network performance monitoring and control.

**2.13. Scope Integration**

The MEL solution will replace the current custom-coded Resolution Letter application to provide a single, modern, customer engagement application. Functionality will be added to automate the up-front process of selecting various letter templates and populate them with minimal manual intervention, streamline the addition, deletion, and editing of letter templates, and automate

report generation. NCA will have additional control through the use of editorial capabilities, which will eliminate the dependence on IT support addressing the need for increased efficiency and improved customer service.

A Burial Operations Support System (BOSS) application request is initiated by a validated customer from a National or State Veteran Cemetery. The process for entering a decedent into BOSS begins with a Record of Interment (ROI) input by cemetery personnel.

• **BOSS Technical Description** - BOSS uses a web-based Graphical User Interface (GUI) on the IBM p5/570 SMP VM frames with an Oracle 11g enterprise database. These systems utilize GigE SQL\*Net connections in a client server relationship between logical partitions and Virtual Machine (VMs) on the IBM pSeries SMP frames. This system will be migrated to an Oracle RAC configuration on the IBM p7/770 series SMP VM Frame

in 2nd quarter 2015. Implementation of Oracle GoldenGate (Active/Active) to the Disaster

Recovery (DR) facility will follow.

During the application request process, data on the decedent and the interment is collected and

the user schedules the interment and initiates the order process for the headstone or marker. Once all information has been captured correctly, the ROI is approved by NCA staff. Once approved, the interment is placed on the schedule and the order is forwarded to the Centralized Contracting Division (CCD). When CCD receives the marker request, they review the order, verify vendor information, and ship the order to the vendor for fulfillment.

This capability will be accomplished by interfacing with the Automated Monument Application System (AMAS) to obtain requests for headstones and markers, which are initiated by funeral homes when the decedent is to be buried in a private cemetery. The funeral homes, with the assistance of the decedent’s family, fill out VA Form 1330 *Application for Standard Government Headstone or Marker.* This form is faxed, or mailed, along with supporting documents (i.e., DD214 or other proof of eligibility) to the Memorial Program Service (MPS) office for processing. Once received by the MPS office, the form is scanned and bar-coded into the Management Application Scanning System (MASS) database. Information captured and imaged from the Form 1330 is manually entered into the BOSS/AMAS Enterprise database application by MPS agents. The MPS agent opens the Form 1330 image and simultaneously opens the AMAS application to enter the monument application information. Once information is entered into AMAS, an absolute path to the scanned file (via bar-code) is entered to capture the link between the AMAS record and the stored file. The case is then forwarded to an MPS Case

Manager for approval. The Case Manager reviews the case and ensures that the decedent is eligible to receive a marker or headstone, and that all relevant information has been verified. Once the Case Manager grants approval, the case is then forwarded to the Centralized Contracting Division (CCD) for processing. The process for the completion and delivery of the headstone/marker is the same as that for veterans being buried in a National Cemetery and is processed through BOSS.

• **AMAS Technical Description** - AMAS utilizes an IBM p5/570 SMP Frame platform and an Oracle 11g enterprise database which is common with the BOSS application. Systems dedicated to a development environment, enable BOSS/AMAS staff to expand system and site capabilities to meet an ever-increasing demand for services and leverage existing maintenance contracts and in-house expertise. This system will be migrated to an Oracle RAC configuration on the IBM p7/770 series SMP VM Frame in 2nd quarter

2015. Implementation of Oracle GoldenGate (Active/Active) to the DR facility will follow.

The Eligibility Office Automation System (EOAS) is a subcomponent of BOSS and is currently under Product Development (PD). This system supports the business functions of the Eligibility Office by providing features for faster eligibility determination, tracking of Eligibility Case history, automating the creation of essential documents and faxes, and by allowing the EOAS Users to view various status reports within the system. EOAS automatically creates a new Eligibility Case when a BOSS User approves a request for Veterans Management System (VMS) upon the successful creation of the new Eligibility Case, the electronic version of the VMS form is automatically generated, saved with the BOSS record, and sent to the Eligibility Office as an email attachment. EOAS allows the EOAS Users to create a new Eligibility Case manually when a request to verify the Veteran’s Military Service is received from outside of VA. EOAS allows EOAS Users to track contacts made with outside organizations when determining the eligibility for a burial benefit. The EOAS allows the EOAS Users to generate the appropriate fax cover sheets for the organization(s) while the EOAS automatically records the details pertaining to

each fax. When a response is received from an organization, EOAS allows the EOAS Users to record the communication details from the organization. The EOAS Users will repeat the request for information to the same or different organizations, until sufficient information is received to make the final decision on eligibility for burial.

When the Eligibility Office has received sufficient information necessary to determine the eligibility, the research on the Veteran’s eligibility is complete and the Eligibility Case can be closed. EOAS allows the EOAS User to review the Eligibility Case information and record the final decision. If the Veteran is not eligible, EOAS uses already stored data to generate an Eligibility Coordination Form (ECF) for Veteran Affairs Central Office (VACO) final approval or denial. After the signed ECF is received from VACO with the final decision, the EOAS User may associate the ECF document to the originating BOSS (or EOAS) Eligibility Case. The EOAS User then makes the final eligibility determination and closes the Eligibility Case.

**2.14. Security Specifications**

The Federal Information Processing Standard 199 (FIPS 199), *Standards for Security Categorization of Federal Information and Information Systems*, defines the security categories, security objectives, and impact levels to which National Institute of Standards and Technology (NIST) Special Publication (SP) 800-60 Volume 1 Revision 1, maps information types. A FIPS

199 analysis was completed for the proposed MEL solution and it has been determined that the security categorization is a ***MODERATE*** in accordance with FIPS 199. The tables below (Management, Operational, Technical, and Privacy controls) with the associated references, publications, and directives, are based on this categorization**.**

**Table 10: Security Specification - Moderate Impact Controls**

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [AC-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-1) | ACCESS CONTROL POLICY AND PROCEDURES | AC-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-2) | ACCOUNT MANAGEMENT | AC-2 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-2%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-2%23enhancement-2)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-2%23enhancement-3)) ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-2%23enhancement-4)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-3) | ACCESS ENFORCEMENT | AC-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-4) | INFORMATION FLOW ENFORCEMENT | AC-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-5) | SEPARATION OF DUTIES | AC-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-6) | LEAST PRIVILEGE | AC-6 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-6%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-6%23enhancement-2)) ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-6%23enhancement-5)) ([9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-6%23enhancement-9)) ([10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-6%23enhancement-10)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [AC-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-7) | UNSUCCESSFUL LOGON ATTEMPTS | AC-7 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-8) | SYSTEM USE NOTIFICATION | AC-8 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-11) | SESSION LOCK | AC-11 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-11%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-12](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-12) | SESSION TERMINATION | AC-12 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-14](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-14) | PERMITTED ACTIONS WITHOUT IDENTIFICATION OR AUTHENTICATION | AC-14 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-17](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-17) | REMOTE ACCESS | AC-17 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-17%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-17%23enhancement-2)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-17%23enhancement-3)) ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-17%23enhancement-4)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-18](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-18) | WIRELESS ACCESS | AC-18 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-18%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-19](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-19) | ACCESS CONTROL FOR MOBILE DEVICES | AC-19 ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-19%23enhancement-5)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [AC-20](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-20) | USE OF EXTERNAL INFORMATION SYSTEMS | AC-20 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-20%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-20%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-21](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-21) | INFORMATION SHARING | AC-21 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AC-22](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AC-22) | PUBLICLY ACCESSIBLE CONTENT | AC-22 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AT-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AT-1) | SECURITY AWARENESS AND TRAINING POLICY AND PROCEDURES | AT-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AT-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AT-2) | SECURITY AWARENESS TRAINING | AT-2 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AT-2%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AT-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AT-3) | ROLE-BASED SECURITY TRAINING | AT-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AT-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AT-4) | SECURITY TRAINING RECORDS | AT-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-1) | AUDIT AND ACCOUNTABILITY POLICY AND PROCEDURES | AU-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [AU-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-2) | AUDIT EVENTS | AU-2 ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-2%23enhancement-3)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-3) | CONTENT OF AUDIT RECORDS | AU-3 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-3%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-4) | AUDIT STORAGE CAPACITY | AU-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-5) | RESPONSE TO AUDIT PROCESSING FAILURES | AU-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-6) | AUDIT REVIEW, ANALYSIS, AND REPORTING | AU-6 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-6%23enhancement-1)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-6%23enhancement-3)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-7) | AUDIT REDUCTION AND REPORT GENERATION | AU-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-7%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-8) | TIME STAMPS | AU-8 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-8%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-9) | PROTECTION OF AUDIT INFORMATION | AU-9 ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-9%23enhancement-4)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [AU-11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-11) | AUDIT RECORD RETENTION | AU-11 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [AU-12](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=AU-12) | AUDIT GENERATION | AU-12 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CA-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-1) | SECURITY ASSESSMENT AND AUTHORIZATION POLICY AND PROCEDURES | CA-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CA-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-2) | SECURITY ASSESSMENTS | CA-2 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-2%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CA-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-3) | SYSTEM INTERCONNECTIONS | CA-3 ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-3%23enhancement-5)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CA-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-5) | PLAN OF ACTION AND MILESTONES | CA-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CA-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-6) | SECURITY AUTHORIZATION | CA-6 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CA-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-7) | CONTINUOUS MONITORING | CA-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-7%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [CA-9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CA-9) | INTERNAL SYSTEM CONNECTIONS | CA-9 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-1) | CONFIGURATION MANAGEMENT POLICY AND PROCEDURES | CM-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-2) | BASELINE CONFIGURATION | CM-2 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-2%23enhancement-1)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-2%23enhancement-3)) ([7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-2%23enhancement-7)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-3) | CONFIGURATION CHANGE CONTROL | CM-3 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-3%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-4) | SECURITY IMPACT ANALYSIS | CM-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-5) | ACCESS RESTRICTIONS FOR CHANGE | CM-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-6) | CONFIGURATION SETTINGS | CM-6 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-7) | LEAST FUNCTIONALITY | CM-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-7%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-7%23enhancement-2)) ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-7%23enhancement-4)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [CM-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-8) | INFORMATION SYSTEM COMPONENT INVENTORY | CM-8 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-8%23enhancement-1)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-8%23enhancement-3)) ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-8%23enhancement-5)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-9) | CONFIGURATION MANAGEMENT PLAN | CM-9 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-10) | SOFTWARE USAGE RESTRICTIONS | CM-10 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CM-11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CM-11) | USER-INSTALLED SOFTWARE | CM-11 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-1) | CONTINGENCY PLANNING POLICY AND PROCEDURES | CP-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-2) | CONTINGENCY PLAN | CP-2 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-2%23enhancement-1)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-2%23enhancement-3)) ([8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-2%23enhancement-8)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-3) | CONTINGENCY TRAINING | CP-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-4) | CONTINGENCY PLAN TESTING | CP-4 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-4%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [CP-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-6) | ALTERNATE STORAGE SITE | CP-6 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-6%23enhancement-1)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-6%23enhancement-3)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-7) | ALTERNATE PROCESSING SITE | CP-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-7%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-7%23enhancement-2)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-7%23enhancement-3)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-8) | TELECOMMUNICATIONS SERVICES | CP-8 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-8%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-8%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-9) | INFORMATION SYSTEM BACKUP | CP-9 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-9%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [CP-10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-10) | INFORMATION SYSTEM RECOVERY AND RECONSTITUTION | CP-10 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=CP-10%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-1) | IDENTIFICATION AND AUTHENTICATION POLICY AND PROCEDURES | IA-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2) | IDENTIFICATION AND AUTHENTICATION (ORGANIZATIONAL USERS) | IA-2 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2%23enhancement-2)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2%23enhancement-3)) ([8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2%23enhancement-8)) ([11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2%23enhancement-11)) ([12](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-2%23enhancement-12)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-3) | DEVICE IDENTIFICATION AND AUTHENTICATION | IA-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [IA-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-4) | IDENTIFIER MANAGEMENT | IA-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-5) | AUTHENTICATOR MANAGEMENT | IA-5 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-5%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-5%23enhancement-2)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-5%23enhancement-3)) ([11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-5%23enhancement-11)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-6) | AUTHENTICATOR FEEDBACK | IA-6 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-7) | CRYPTOGRAPHIC MODULE AUTHENTICATION | IA-7 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IA-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-8) | IDENTIFICATION AND AUTHENTICATION (NON- ORGANIZATIONAL USERS) | IA-8 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-8%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-8%23enhancement-2)) ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-8%23enhancement-3)) ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IA-8%23enhancement-4)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-1) | INCIDENT RESPONSE POLICY AND PROCEDURES | IR-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-2) | INCIDENT RESPONSE TRAINING | IR-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-3) | INCIDENT RESPONSE TESTING | IR-3 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-3%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [IR-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-4) | INCIDENT HANDLING | IR-4 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-4%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-5) | INCIDENT MONITORING | IR-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-6) | INCIDENT REPORTING | IR-6 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-6%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-7) | INCIDENT RESPONSE ASSISTANCE | IR-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-7%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [IR-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=IR-8) | INCIDENT RESPONSE PLAN | IR-8 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MA-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-1) | SYSTEM MAINTENANCE POLICY AND PROCEDURES | MA-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MA-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-2) | CONTROLLED MAINTENANCE | MA-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MA-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-3) | MAINTENANCE TOOLS | MA-3 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-3%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-3%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [MA-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-4) | NONLOCAL MAINTENANCE | MA-4 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-4%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MA-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-5) | MAINTENANCE PERSONNEL | MA-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MA-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MA-6) | TIMELY MAINTENANCE | MA-6 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MP-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-1) | MEDIA PROTECTION POLICY AND PROCEDURES | MP-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MP-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-2) | MEDIA ACCESS | MP-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MP-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-3) | MEDIA MARKING | MP-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MP-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-4) | MEDIA STORAGE | MP-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MP-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-5) | MEDIA TRANSPORT | MP-5 ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-5%23enhancement-4)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [MP-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-6) | MEDIA SANITIZATION | MP-6 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [MP-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-7) | MEDIA USE | MP-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=MP-7%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-1) | PHYSICAL AND ENVIRONMENTAL PROTECTION POLICY AND PROCEDURES | PE-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-2) | PHYSICAL ACCESS AUTHORIZATIONS | PE-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-3) | PHYSICAL ACCESS CONTROL | PE-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-4) | ACCESS CONTROL FOR TRANSMISSION MEDIUM | PE-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-5) | ACCESS CONTROL FOR OUTPUT DEVICES | PE-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-6) | MONITORING PHYSICAL ACCESS | PE-6 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-6%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [PE-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-8) | VISITOR ACCESS RECORDS | PE-8 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-9) | POWER EQUIPMENT AND CABLING | PE-9 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-10) | EMERGENCY SHUTOFF | PE-10 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-11) | EMERGENCY POWER | PE-11 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-12](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-12) | EMERGENCY LIGHTING | PE-12 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-13](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-13) | FIRE PROTECTION | PE-13 ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-13%23enhancement-3)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-14](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-14) | TEMPERATURE AND HUMIDITY CONTROLS | PE-14 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-15](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-15) | WATER DAMAGE PROTECTION | PE-15 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [PE-16](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-16) | DELIVERY AND REMOVAL | PE-16 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PE-17](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PE-17) | ALTERNATE WORK SITE | PE-17 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PL-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PL-1) | SECURITY PLANNING POLICY AND PROCEDURES | PL-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PL-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PL-2) | SYSTEM SECURITY PLAN | PL-2 ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PL-2%23enhancement-3)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PL-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PL-4) | RULES OF BEHAVIOR | PL-4 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PL-4%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PL-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PL-8) | INFORMATION SECURITY ARCHITECTURE | PL-8 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-1) | PERSONNEL SECURITY POLICY AND PROCEDURES | PS-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-2) | POSITION RISK DESIGNATION | PS-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [PS-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-3) | PERSONNEL SCREENING | PS-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-4) | PERSONNEL TERMINATION | PS-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-5) | PERSONNEL TRANSFER | PS-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-6](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-6) | ACCESS AGREEMENTS | PS-6 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-7) | THIRD-PARTY PERSONNEL SECURITY | PS-7 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [PS-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=PS-8) | PERSONNEL SANCTIONS | PS-8 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [RA-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-1) | RISK ASSESSMENT POLICY AND PROCEDURES | RA-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [RA-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-2) | SECURITY CATEGORIZATION | RA-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [RA-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-3) | RISK ASSESSMENT | RA-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [RA-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-5) | VULNERABILITY SCANNING | RA-5 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-5%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-5%23enhancement-2)) ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=RA-5%23enhancement-5)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-1) | SYSTEM AND SERVICES ACQUISITION POLICY AND PROCEDURES | SA-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-2) | ALLOCATION OF RESOURCES | SA-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-3) | SYSTEM DEVELOPMENT LIFE CYCLE | SA-3 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-4) | ACQUISITION PROCESS | SA-4 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-4%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-4%23enhancement-2)) ([9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-4%23enhancement-9)) ([10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-4%23enhancement-10)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-5) | INFORMATION SYSTEM DOCUMENTATION | SA-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-8) | SECURITY ENGINEERING PRINCIPLES | SA-8 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [SA-9](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-9) | EXTERNAL INFORMATION SYSTEM SERVICES | SA-9 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-9%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-10) | DEVELOPER CONFIGURATION MANAGEMENT | SA-10 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SA-11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SA-11) | DEVELOPER SECURITY TESTING AND EVALUATION | SA-11 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-1) | SYSTEM AND COMMUNICATIONS PROTECTION POLICY AND PROCEDURES | SC-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-2) | APPLICATION PARTITIONING | SC-2 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-4) | INFORMATION IN SHARED RESOURCES | SC-4 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-5) | DENIAL OF SERVICE PROTECTION | SC-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-7) | BOUNDARY PROTECTION | SC-7 ([3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-7%23enhancement-3)) ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-7%23enhancement-4)) ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-7%23enhancement-5)) ([7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-7%23enhancement-7)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [SC-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-8) | TRANSMISSION CONFIDENTIALITY AND INTEGRITY | SC-8 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-8%23enhancement-1)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-10) | NETWORK DISCONNECT | SC-10 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-12](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-12) | CRYPTOGRAPHIC KEY ESTABLISHMENT AND MANAGEMENT | SC-12 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-13](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-13) | CRYPTOGRAPHIC PROTECTION | SC-13 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-15](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-15) | COLLABORATIVE COMPUTING DEVICES | SC-15 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-17](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-17) | PUBLIC KEY INFRASTRUCTURE CERTIFICATES | SC-17 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-18](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-18) | MOBILE CODE | SC-18 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-19](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-19) | VOICE OVER INTERNET PROTOCOL | SC-19 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [SC-20](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-20) | SECURE NAME / ADDRESS RESOLUTION SERVICE (AUTHORITATIVE SOURCE) | SC-20 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-21](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-21) | SECURE NAME / ADDRESS RESOLUTION SERVICE (RECURSIVE OR CACHING RESOLVER) | SC-21 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-22](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-22) | ARCHITECTURE AND PROVISIONING FOR NAME / ADDRESS RESOLUTION SERVICE | SC-22 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-23](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-23) | SESSION AUTHENTICITY | SC-23 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-28](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-28) | PROTECTION OF INFORMATION AT REST | SC-28 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SC-39](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SC-39) | PROCESS ISOLATION | SC-39 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-1) | SYSTEM AND INFORMATION INTEGRITY POLICY AND PROCEDURES | SI-1 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-2) | FLAW REMEDIATION | SI-2 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-2%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [SI-3](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-3) | MALICIOUS CODE PROTECTION | SI-3 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-3%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-3%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-4) | INFORMATION SYSTEM MONITORING | SI-4 ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-4%23enhancement-2)) ([4](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-4%23enhancement-4)) ([5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-4%23enhancement-5)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-5](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-5) | SECURITY ALERTS, ADVISORIES, AND DIRECTIVES | SI-5 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-7) | SOFTWARE, FIRMWARE, AND INFORMATION INTEGRITY | SI-7 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-7%23enhancement-1)) ([7](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-7%23enhancement-7)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-8](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-8) | SPAM PROTECTION | SI-8 ([1](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-8%23enhancement-1)) ([2](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-8%23enhancement-2)) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-10](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-10) | INFORMATION INPUT VALIDATION | SI-10 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-11](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-11) | ERROR HANDLING | SI-11 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| [SI-12](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-12) | INFORMATION HANDLING AND RETENTION | SI-12 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| Control  Number | Control Name | Moderate  Impact | VA Guidance |
| [SI-16](http://web.nvd.nist.gov/view/800-53/Rev4/control?controlName=SI-16) | MEMORY PROTECTION | SI-16 | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

**Table 11: Security Specifications - Privacy Controls**

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| **Control**  **ID** | **Privacy Control Name** | **VA Guidance** |
| **AP** | **Authority and Purpose** | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AP-1 | Authority to Collect | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AP-2 | Purpose Specification | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR | Accountability, Audit, and  Risk Management | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-1 | Governance and Privacy  Program | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-2 | Privacy Impact and Risk  Assessment | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-3 | Privacy Requirements for Contractors and Service Providers | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| **Control**  **ID** | **Privacy Control Name** | **VA Guidance** |
| AR-4 | Privacy Monitoring and  Auditing | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-5 | Privacy Awareness and  Training | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-6 | Privacy Reporting | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-7 | Privacy-Enhanced System  Design and Development | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| AR-8 | Accounting of Disclosures | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| **DI** | **Data Quality and Integrity** | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| DI-1 | Data Quality | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| DI-2 | Data Integrity and Data  Integrity Board | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| DM | Data Minimization and  Retention | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| DM-1 | Minimization of Personal Identification Information (PII) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| **Control**  **ID** | **Privacy Control Name** | **VA Guidance** |
| DM-2 | Data Retention and Disposal | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| DM-3 | Minimization of PII used in Testing, Training, and Research | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| **IP** | **Individual Participation and Redress** | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| IP-1 | Consent | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| IP-2 | Individual Access | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| IP-3 | Redress | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| IP-4 | Complaint Management | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| **SE** | **Security** | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| SE-1 | Inventory of Personal Identifiacation Information (PII) | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| SE-2 | Privacy Incident Response | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

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| **Control**  **ID** | **Privacy Control Name** | **VA Guidance** |
| **TR** | **Transparency** | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| TR-1 | Privacy Notice | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| TR-2 | System of Records Notices and Privacy Act Statements | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| TR-3 | Dissemination of Privacy  Program Information | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| **UL** | **Use Limitation** | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| UL-1 | Internal Use | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |
| UL-2 | Information Sharing with  Third Parties | VA Directive 6500, VA Handbook 6500, March 2015, Appendix C: (References), Appendix E: (VA System Privacy Controls), Appendix F: (VA System Security Controls). |

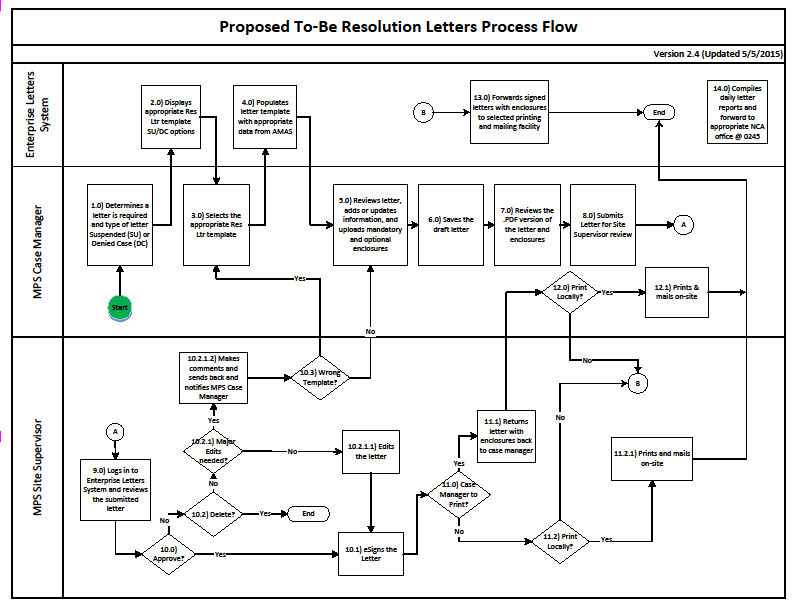
**2.15. System Features**

The System Features are listed below, but are not limited to these features.

**Table 12: System Features**

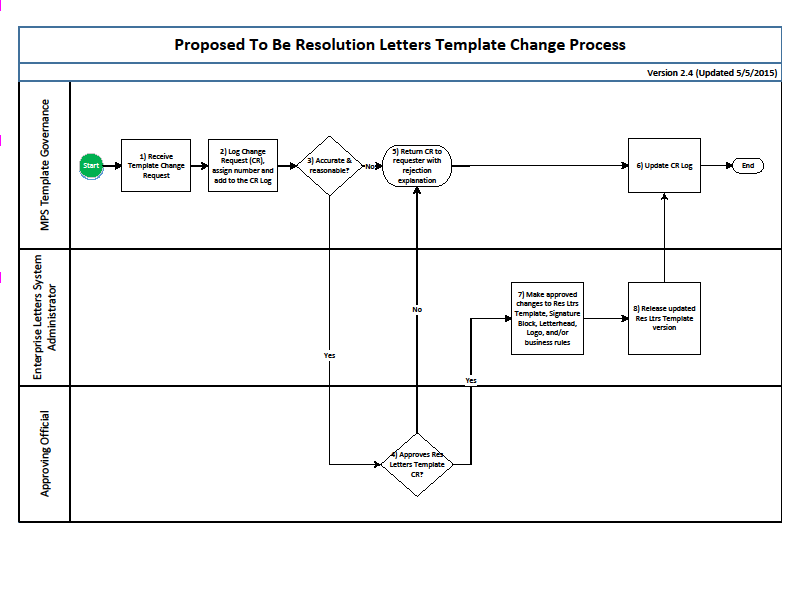
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| IDENTIFIER | Description | System Features |
| CAP-2 | Manage resolution letters template | • Create  • Edit  • Delete  • Approve  • Return with remarks  • Print  • Save  • Review  • Search  • Auditing  • Accounting  • Status  • Performance Reporting capabilities |
| CAP-3 | Generate resolution letters with minimal manual intervention |
| CAP-5 | Provide Management oversight of resolution letter |
| CAP-6 | Collect and manage solution statistics on resolution letter activities and success criteria |

The figure below provides a high-level view of the up-front resolution letter automation process portion of the proposed work flow.



**Figure 1: Proposed “To-Be” Resolution Letters Up-Front Automation High-Level Process**

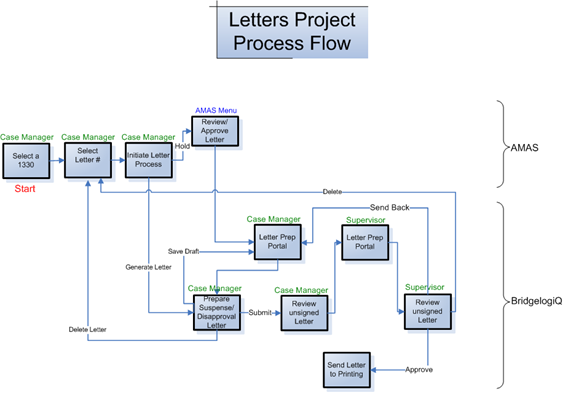
The figure below provides a high-level view of the resolution letters template editor portion of the work flow.



**Figure 2: Proposed “To-Be” resolution letters template editor High-Level Configuration**

**Control Process**

The figure below displays the current “as-is” resolution letters process flow. This information is obtained from the Resolution Letters Business Requirements Docutments (BRDs) dated March, and July, 2014.



**Figure 3: Current “As Is” Resolution Letters Process Flow**

**2.16. Usability Specifications**

• Performance measures – See *Performance Specification*

• Training – There are approximately 60 users that will need to be trained to include: (3) NCA Administrators; (3) NCA Supervisors; (3) Site Supervisors; and (3) Team Leads. The remaining users are Case Managers. (Note: the (3) NCA Administrators are also the (3) NCA Supervisors.)

All users will be trained as case managers. Each additional role will get specialized training for their respective role of team leader, site supervisor, NCA Supervisor, or NCA Administrator.

MEL solution usability will adhere to an industry recognized User Interface (UI) Best Practices Guideline or Style Guide. For example, first follow UI guidelines for the development platform. In instances where platform guidelines are not available, adhere to VA’s Best Practices Guidelines/Style Guide.

**3. Purchased Components**

Acquisitions or software required for this project will be identified in the SDD.

**3.1. Defect Source (Top 5)**

None

**4. Estimation**

The MEL project is ineligible to leverage VA’s Function Point Estimation (FPE) process for estimation because the FPE team does not do estimates for projects which are COTS and do not interface with VistA applications.

**5. Approval Signatures**

REVIEW DATE: July 22, 2015

SCRIBE:

Please sign above your name. Signed:

Date

Date

Date

Date

**Appendix A: Non-Functional Requirements**

**System Performance Reporting Requirements**

(Note: Each system developed by the Department of Veterans Affairs (VA) Office of Information and Technology (OI&T) must comply with the following mandatory requirements.)

1. The system shall have the ability to measure all performance metrics specified in the Non-Functional Requirements section of the Requirements Traceability Matrix (RTM). At a minimum, systems will have the ability to measure reporting requirements for

Responsiveness, Capacity, and Availability as defined in the non-functional requirements section of the RTM.

2. The system shall make the performance measurements available to the Information Technology (IT) Performance Dashboard to enable display of “actual” system metrics to customers and IT staff.

**Operational Environment Requirements**

1. The system’s response times and page load times shall be consistent with BOSS Enterprise standards.

2. The system’s maintenance, including maintenance of externally developed software incorporated into NCA Workflow application(s), shall be scheduled during off peak hours or in conjunction with relevant maintenance schedules.

3. The system shall provide information about response time degradation resulting from unscheduled system outages and other events that degrade system functionality and/or performance, which shall be disseminated to the user community within 30 minutes of the occurrence. The notification shall include the information described in the current Automated Notification Reporting (ANR) template maintained by the VA Service Desk.

The specific business impact must be noted in order for OI&T to provide accurate data in the service impact notice of the ANR.

4. The system shall provide a real-time monitoring solution to report agreed/identified critical system performance parameters.

5. The system shall adhere to critical business performance parameters such as transaction speed, response time for screen display/refresh, data retrieval, etc., in a manner that data capture can occur to support metric reporting and to support the OI&T performance dashboard display.

6. The system shall ensure notification of scheduled maintenance periods that require the service to be offline, or that may degrade system performance, shall be disseminated to the business user community a minimum of 48 hours prior to the scheduled event.

**Documentation Requirements**

1. The system’s training curriculum shall state the expected training time for primary users and secondary users to become proficient at using the Enterprise Letters application(s).

2. The system’s user manuals and training tools shall be developed. If they already exist, updates shall be made to them, as necessary, and they shall be delivered to all levels of users.

**Implementation Requirements**

1. Technical Help Desk support for the application shall be provided for users to obtain assistance with NCA Workflow application.

2. The system shall be designed to comply with the applicable approved Enterprise SLA.

**Data Protection/Back-up/Archive Requirements**

1. The system shall ensure a back-up and data recovery process is available for when the system is brought off-line for maintenance or technical issues/problems.

2. The system shall ensure data protection measures, such as back-up intervals and redundancy shall be consistent with systems categorized as routine (30 day restoration), mission essential (72 hour restoration), or mission critical (12 hour restoration).

Business owners are required to state the mission criticality of the IT services required in order to assist the planners and developers in determining best strategies for engineering an IT solution to meet their business objectives/needs. The business owner needs to state the criticality of the data and the impact to the business during a service disruption so appropriate technologies can be considered.

**Levels for Disaster Recovery**

|  |  |  |
| --- | --- | --- |
| Classification | Recovery Time Objective | Recovery Point Objective |
| Routine | 30 day restoration | TBD |
| Mission Essential | 72 hour restoration | 24 hours |
| Mission Critical | 12 hour restoration | 2 hours |

Recovery Time Objective (RTO) – RTO defines the maximum amount of time that a system resource can remain unavailable before there is an unacceptable impact on other system resources, supported mission/business processes, and the MTD.

Maximum Tolerable Downtime (MTD) - The MTD represents the total amount of time the system owner/authorizing official is willing to accept for a mission/business process outage or disruption and includes all impact considerations.

Recovery Point Objective (RPO) - The RPO represents the point in time, prior to a disruption or system outage, to which mission/business process data can be recovered (given the most recent backup copy of the data) after an outage.

**Data Quality/Assurance Requirements**

The system shall provide a monitoring process to ensure that data is accurate and up-to-date and provides accurate alerts for malfunctions while minimizing false alarms.

**User Access/Security Requirements**

The system shall meet all VA Security, Privacy, and Identity Management requirements including VA Handbook 6500 (see the Enterprise Requirements section of the RTM).

**Usability/User Interface Requirements**

The system shall adhere to good User Interface/User Centered Design (UI/UCD) principles as outlined in the Usability Appendix of the BRD.

**Conceptual Integrity**

The system shall provide standards based messaging and middleware infrastructure needed to support NCA deployment.

**Availability**

1. The system shall not be unavailable due to an unplanned outage or planned outages that exceed the defined maintenance window will not exceed 8.76 hours per year and will not exceed 43.8 minutes per month (99.9% availability).

2. The system shall be available 12 hours a day, six days a week, with an uptime of 99.9%

during that period.

3. The system updates and scheduled maintenance shall occur between Saturday evening and Sunday afternoon.

**Interoperability**

1. The system shall be heterogeneous and agnostic for operating systems and code bases.

2. The system shall allow for a remote access solution.

**Manageability**

1. The system shall provide data related to maintenance events, both routine and exceptional, including key metadata:

• Predicted routine work

• Occurrences where maintenance is completed, including restart from down time

• Identity of the organization performing maintenance

• User performing maintenance (if available)

• Identity of the system

• Date/time, physical location

• Systems impacted

• Does it affect patient care

• Non-urgent or emergent

2. The system shall provide audit capabilities for system access and usage with settings that are configurable to support internal and external audits based on federal and NCA mandates.

**Performance**

1. The system shall recognize, report, and retransmit data lost, with less than 0-1% chance of incomplete records.

2. The system shall provide data (for data within the system) transactions (e.g., capture, search, request for data) within .5 seconds.

3. The system’s mouse or key-based UI controls, e.g., menus, checkboxes shall provide instantaneous responsiveness (<90ms).

4. The system’s part-screen refreshes after user action, shall complete within a pro-rated interval between 200 ms and 1200 ms times a percentage of the screen area being refreshed. For example, a component 10% of the screen area would refresh in (1200 –

200) \* 0.10 + 200 = 300 ms.

**Reliability**

1. The system shall provide the following 99.9% reliability with less than 2 failures per month.

**Security**

The system shall provide management of electronic attestation of information including the retention of the signature of attestation (or certificate of authenticity) associated with incoming or outgoing information.

**Supportability**

2. The system shall provide alerts (that extend beyond system messages to external systems like mobile devices) for malfunctions, while preventing false alarms for local, regional, and national evaluations in real time.

3. The system shall provide reports on performance metrics as specified in the on a bi- weekly basis.

4. The system shall provide national, regional, and local reports on performance metrics.

5. The system shall provide performance metrics (from request for information to receipt of information on the screen) monitored by the system and system administrators so they know what the user experience is like without users having to call them and tell them the system is running very slow.

6. The system shall provide the ability for NCA staff to create standard and ad-hoc reports of usage, bandwidth, response time, login time, and other variables with a verification process for measuring the capabilities of the system in standard file formats such as Comma Separated Values [CSV], Portable Document Format [PDF], or Excel.

7. The system shall provide the ability to view system statistics (e.g., information on the specific network environment) and identify areas that are having issues or are beyond capacity, in near-real-time (to be quantified at a later time).

8. The system shall be designed to comply with the applicable approved Enterprise SLAs.

9. The system shall provide the ability to set thresholds and notification type (e.g., email or text alerts) when alerting the user about response time degradation and unscheduled outages.

**Usability**

1. The system shall include user prompts and screen help to guide use of the solution.

**Appendix B – Agile Methodology**

Agile methodology is an alternative to traditional sequential project management (e.g., Waterfall), typically used in software development. It helps teams respond to unpredictability through incremental, iterative work cadences, known as sprints. A sprint is the basic unit of development in Scrum.

Sprints last between one week and one month, and are a “time-boxed,” restricted to a specific duration, effort of a constant length. Each sprint is preceded by a planning meeting where the tasks for the sprint are identified and an estimated commitment for the sprint goal is made; and followed by a review or retrospective meeting where the progress is reviewed and lessons for the next sprint are identified. During each sprint, the team creates finished portions of a product. The set of features that go into a sprint come from the product backlog, which is an ordered list of requirements. Backlog items selected to go into the sprint, called the sprint goals, are determined during the sprint planning meeting.

Memorial Enterprise Letters requirement artifacts will be refined and developed within the framework of the Agile methodology. Within the Agile methodology, each business need documented in the Memorial Enterprise backlog will be mapped to one or more Epic Stories. Each Epic Story will be broken down into appropriate User Stories, which will then be further developed into Technical Stories and Use Cases (if necessary). Finally, a Test Case will be developed for each of the defined User Stories. Please see Figure 4 and Figure 5 below for illustrations of these processes.

**Agile Requirements**

**Flow**

Technical Story

User Story

Test Case

Use Case

Business Need

Epic Story

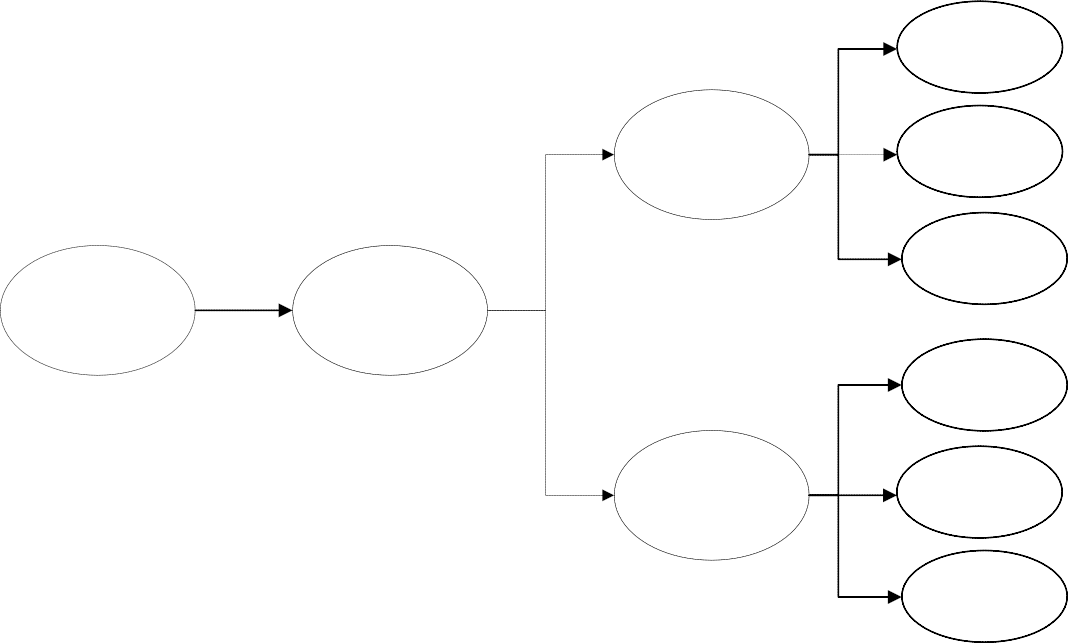
Technical Story

User Story

Test Case

Use Case

**Figure 4: Agile Requirements Flow**



Start

Develop Epic Story (includes list of all User Stories)

Epic Story Approved by Product Owner

Upload Epic Story to SharePoint

Update Requirements Traceability Matrix

Develop

User Story

User Story Approved by Product Owner

Upload User Story to SharePoint

Update Requirements Traceability Matrix

Develop Technical Story or Use Case

If document is necessary, otherwise omit this and the next step

Technical Story or Use Case Approved Internally

Upload document to SharePoint

Update Requirements Traceability Matrix

Develop

Test Case

Test Case Approved Internally

Upload document to SharePoint

Update Requirements Traceability Matrix

End

**Figure 5: Agile Requirements Workflow**