

Department of Veterans Affairs

My HealtheVet Online Viewing PHR

Requirements Specification Document

Infrastructure & Interfaces Team



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12.9 Release

Version 1.0

Revision History

Date	Revision	Description	Author
5/29/2014	1.0	Technical Writer review, finalized and baselined for 12.9 release.	
04/15/2014	0.4	Updated References Section per Technical Writer Review comments.	
04/15/2014	0.3	Initial Technical Writer Review for Sprint 1 updates.	
04/14/2014	0.2	Initial draft for 12.9	
02/24/2013	0.1	Baselined to 0.1 for 12.9 Release. Matched document to template structure.	

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1. Introduction

My HealtheVet (MHV), a complex, high visibility program under the New Models of Care (NMOC) Initiative in the Department of Veterans Affairs (VA) Office of Information Technology (OIT), provides America's Veterans access to secure, current health and benefits information with the primary objective of improving their overall health. MHV, an eHealth portal (www.myhealth.va.gov), implements this goal. The program provides a web-based application for Veterans, their families, and healthcare providers to collaboratively optimize health care resources in a secure online environment, improving Veteran health care by enabling easy access to health information, online resources, and facilitates patient/health care provider interactions. MHV also gives the Veteran access to VA benefits, special programs, and health information and services. Providing the Veteran web-based tools to increase their knowledge about health conditions, manage their health records, and communicate with health care providers. MHV provides Veterans the ability to take a more proactive approach to managing their health and utilizing VA health services and benefits.

The MHV portal provides a secure environment where Veterans can self-register to create an account and maintain a free web-based Personal Health Record (PHR) accessible at all times from any computer with Internet access.

The VA stores important medical information which Veterans need to better manage their health. Unfortunately, some types of records and data remain unavailable to VA patients. My HealtheVet Online Viewing PHR (MHVON) consolidates VA patients' medical information currently stored across multiple isolated categories and combines them for accessible online viewing.

1.1. Purpose

The MHV team developed the MHVON project out of the need for Veterans and their families to be able to electronically access their medical documents via the MHV portal 24 hours a day, seven days per week. This reduces the demand on VA resources to answer Veterans' medical-related inquiries, which improves Veteran satisfaction and healthcare management by making VA patients' Online Viewing PHRs accessible, available, and portable. MHV provides Veterans with the ability to take a more proactive approach to managing their health and utilizing VA health services and benefits.

1.2. Scope

MHV 12.9 scope includes the below:

1. For MHV – HRA Integration:

- The Actor (Veteran) has successfully navigated through both the MHV homepage and Track Health page and met the preconditions and consented to share some of their MHV personal and self-entered information with HRA to pre-populate applicable sections of the HRA
- The Actor now leaves MHV and enters the Health Risk Assessment (HRA) in order to complete the healthliving assessment

2. For MHV BB CCD Direct

- The VA Continuity of Care Document (CCD) file is sent to one Direct address

3. For My Medications:

- ES1 My Medication Blue Button (BB) PDF and TXT
 - My Medications is incorporated into BB outputs
 - My Medications in BB output is downloaded and displayed
 - My Medications in BB output can be printed
- ES2 -BlueButton UI Modifications
 - The BB UI changes listed in US01 and US02 are incorporated into the Download My Selected Data page for each specific MHV account type (Premium, Advanced, and Basic)
- ES3 -Security Level Changes for MHV Allergies
 - MHV Allergies/Adverse Reactions will be made available to users with a MHV account with a security level of Advanced
 - MHV Allergies/Adverse Reactions will be made available to Advanced or Premium users by default anytime they select to view their VA medications list

1.3. Acronyms and Definitions

1.3.1. Acronyms

Please refer to the IdM Glossary for the Acronyms and Definitions located on the following links:

[http://\[REDACTED\]](http://[REDACTED])
[http://\[REDACTED\]](http://[REDACTED])
[REDACTED]

Acronym	Definition
AITC	Austin Information Technology Center
C&A	Certification and Accreditation
CCHIT	Commission of Health Information Technology
CDCO	Corporate Data Center Operations

Acronym	Definition
CIO	Chief Information Officer
ERR	Enterprise Requirements Repository
FIPS	Federal Information Processing Standard
GUI	Graphical User Interface
HIM	Health Information Management
HIPAA	Health Insurance Portability and Accountability Act
HL7	Health Level Seven
HLA	HealthLiving Assessment
HRA	Health Risk Assessment
IdM	Identity Management
IPA	In-person authenticated
ISO	Information Security Officer
IT	Information Technology
MHV	MyHealtheVet
MPI	Master Patient Index
MVI	Master Veterans Index
NIST	National Institute of Standards and Technology
NwHIN	Nationwide Health Information Network
OIT	Office of Information & Technology
PEMS	Patient Education Management System
PMAS	Program Management Accountability System
ROI	Release of Information
RSD	Requirements Specification Document
SDLC	System Development Life Cycle
SQA	Software Quality Assurance
TES	Test Evaluation Summary
VA	Department of Veterans Affairs
VDD	Version Description Document
VHA	Veterans Health Administration
VLER	Virtual Lifetime Electronic Record

The above table contains acronyms and definitions.

1.3.2. Definitions

The table below provides definitions for terms relevant to the content presented in this document and other documents that define the MHV compliance to MVI.

Term	Definition
Accessibility	In software development, accessibility is a term used to describe the degree to which people with disabilities can use the features and functions of an application.
Business Rule	A business rule defines or constrains some aspect of the business. Business rules can apply to people, processes, corporate behavior, and computing systems in an organization and are put in place to help the organization achieve its goals.
Functional requirement	A functional requirement is a description of the behavior of a system or component of the system; a set of inputs, behavior, and output.
ICN	Internal Control Number used as an Enterprise Identifier
MHV eVault	MHV eVault is the MHV's data store for each user that constrains their personal health records. Self-entered goal data is stored in the MHV eVault.
Non-functional requirement	A non-functional requirement is criterion that can be used to determine how a system operates, rather than a specific behavior. Non-functional requirement categories include: usability, reliability, performance, supportability
ProPath	ProPath is the front-end tool to a VA process asset library containing information regarding standard processes. It provides critical links to the formal approved processes, artifacts, and templates.
Section 504	Section 508 of the Rehabilitation Act requires that no qualified individual with a disability in the United States shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under a program or activity receiving Federal financial assistance or conducted by any Executive agency or by the United States Postal Service.
Section 508	Section 508 of the Rehabilitation Act requires that when Federal agencies develop, procure, maintain, or use electronic and IT, they shall ensure that this technology allows individuals with disabilities, who are members of the public seeking information or services from a federal agency, to have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities.
Source ID	Used by MVI to correlate all systems. Typically consists of the submitting facility ID_unique ID for patient on that system. MHV will use the MHV_Profile_ID as the Source ID.
Usability	In software development, usability is a term used to describe the extent to which the application can be used by the target user population to achieve their goals with effectiveness, efficiency and satisfaction.

Term	Definition
User Story	A user story is a software development tool used to document an application's behavior as it responds to user input. In other words, it is used to capture a system's behavioral requirements by detailing all aspects of the functional requirements.

1.4. References

The following documents are available via SharePoint:

- Business Use Cases: [REDACTED]

For additional documents please refer to MHV TSPR site [REDACTED]

2. Overall Description

The following sections detail the overall specifications for the MHVON component of the MHV 12.9 release.

2.1. Accessibility Specifications

The MHV 12.9 release complies with all Section 508 requirements. The Veterans Health Administration (VHA) recognizes that these cross-cutting legal requirements apply across the Enterprise for all developed Electronic & Information Technology (IT). Enterprise-level requirements maintained by VHA Health IT, Software Engineering and Integration, and Enterprise Requirements Management ensure the compliance of these requirements.

2.2. Business Rules Specifications

The individual User Stories define the business rules specifications.

2.3. Design Constraints Specifications

Any proposed MHV solution needs to meet all VA and VHA Security, Health Information Management (HIM), Privacy, and Identity Management (IdM) guidelines.

Data from the MHV cannot flow back to the Master Patient Index (MPI), as the MPI serves as the authoritative source for patient identity traits.

A Veteran must authorize shared data when the in-person authenticated (IPA) Veteran authorizes the data transfer and the data becomes clearly marked as patient-entered.

2.4. Disaster Recovery Specifications

MHVON takes advantage of the Disaster Recovery Mechanism currently in place at the Corporate Data Center Operations (CDCO).

2.5. Documentation Specifications

VA requires that Operating Units (Program Managers, Project Managers, Analysts) maintain, protect (when required), and distribute adequate documentation for VA information systems and

its constituent components to authorized personnel. Office of Information & Technology (OIT) system managers and the OIT Chief/Chief Information Officer (CIO) in conjunction with the Information Security Officer (ISO) must ensure that sufficient documentation is developed and maintained to formalize security and operational procedures for the Operating Unit's information systems.

2.5.1. Security Documentation Compliance Standards

Security Documentation Compliance Standards include the following:

- Mandatory control enhancements for MODERATE and HIGH-impact systems:
The Operating Unit includes documentation describing the functional properties of the security controls employed within the information system with sufficient detail to permit analysis and testing of the controls
- Mandatory control enhancements for HIGH-impact systems:
The Operating Unit includes documentation describing the design and implementation details of the security controls employed within the information system with sufficient detail to permit analysis and testing of the controls (including functional interfaces among control components)

2.5.2. VA Requirements for System Documentation

The minimum VA requirements for system documentation are as follows:

- System documentation must contain descriptions of the system hardware, software, policies, standards, procedures, and approvals related to the system life cycle and formalize the system's security controls
- VA requires that Operating Units ensure that sufficient documentation exists to provide an operating reference to effectively use software/hardware, and that formal security and operational procedures have been documented, including the adequate completion of Certification and Accreditation (C&A) processes. Documentation must include, but is not limited to, all documentation of the security planning, C&A process, and the configuration management of the hardware and software associated with the system.
- In addition, the Operating Unit must maintain supporting system development documentation, including:
 - 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

The ISO will conduct annual reviews of security documentation with system owners, system managers, and other OIT personnel.

VA requires that mechanism to control changes to system security documentation address revisions to all system security planning system documentation (such as, security plans and contingency plans). The system owner ensures that a table of changes describing the brief nature of significant changes requiring revision to the document.

2.5.3. Information System Documentation Compliance Standards

Information System Documentation compliance standards include the following:

- The aforementioned documentation for the information system and its constituent components must be made available, protected when required, and distributed to authorized personnel
- The Operating Unit's documentation/records must ensure that administrator and user guides include information on:
 - Configuring, installing, and operating the information system
 - Effectively using the system's security features
- The Operating Unit must maintain records/documents that show that the information system documentation control responsibility has been assigned and specific actions taken to ensure the implementation of this control
 - Records/documents will show that the Operating Unit consistently provides, protects, and distributes information system documentation on an ongoing basis
 - When anomalies or problems are encountered by the Operating Unit in the implementation of the information system documentation control, they should be documented, and the resulting information should be used to improve the control
 - If available from the vendor, the documentation should describe the functional properties of the security controls employed within the system with sufficient detail to permit analysis and testing of the controls
 - If available from the vendor, the documentation should describe the design and implementation details of the security controls employed within the system with sufficient detail to permit analysis and testing of the controls (including functional interfaces among control components)

2.5.4. Program Management Accountability System Documentation Compliance standards

Program Management Accountability System (PMAS) Documentation Compliance standards include the following:

- Regulatory PMAS is a standard that must be upheld throughout the duration of this project. According to the CIO, this process is intended to promote near-term visibility into troubled programs, allowing the department to take corrective actions earlier and avoid long-term project failures. PMAS is expected to improve oversight of IT projects through strict adherence to project milestones and imposing strong corrective measures if a project misses multiple milestones.
- Under PMAS, projects will be expected to deliver smaller, more frequent releases of new functionality to customers, meaning that all documentation associated with the product delivery must be completed, reviewed, and signed off
- Specific program resources and documentation are to be in place before development begins, and approved processes are to be used during the system development life cycle. This approach is intended to ensure that customers, project members, and vendors working on a project are aligned, made accountable, and have access to the resources necessary to succeed before work begins. For a program to be approved for investment under PMAS, the program must have an established customer sponsor, a qualified incremental program plan, requirements for three delivery milestones, and documented success criteria.

2.6. Functional Specifications

The following details the functional specifications of the MHV 12.9 release:

1. MHV HRA Integration Technical User Story

a. [REDACTED]

2. MHV BB CCD Direct Technical Use Story

a. [REDACTED]

3. MRP My Medications Epic Stories

[REDACTED]
[REDACTED]
[REDACTED]

2.7. Graphical User Interface (GUI) Specifications

MHVON complies with VHA style guides and existing MHV requirements for cross-browser and cross platform compatibility. It complies with the GUI Specifications as outlined in the [REDACTED]

2.8. Multi-Divisional Specifications

The following sections detail the multi-divisional specifications for MHVON.

2.8.1. Interoperability (Executive Order Requirements)

In keeping with the President's Executive Order: *Promoting Quality and Efficient Healthcare in Federal Government Administered or Sponsored Healthcare Programs*, the VHA OHI must promote quality and efficient delivery of Healthcare through the use of Healthcare IT,

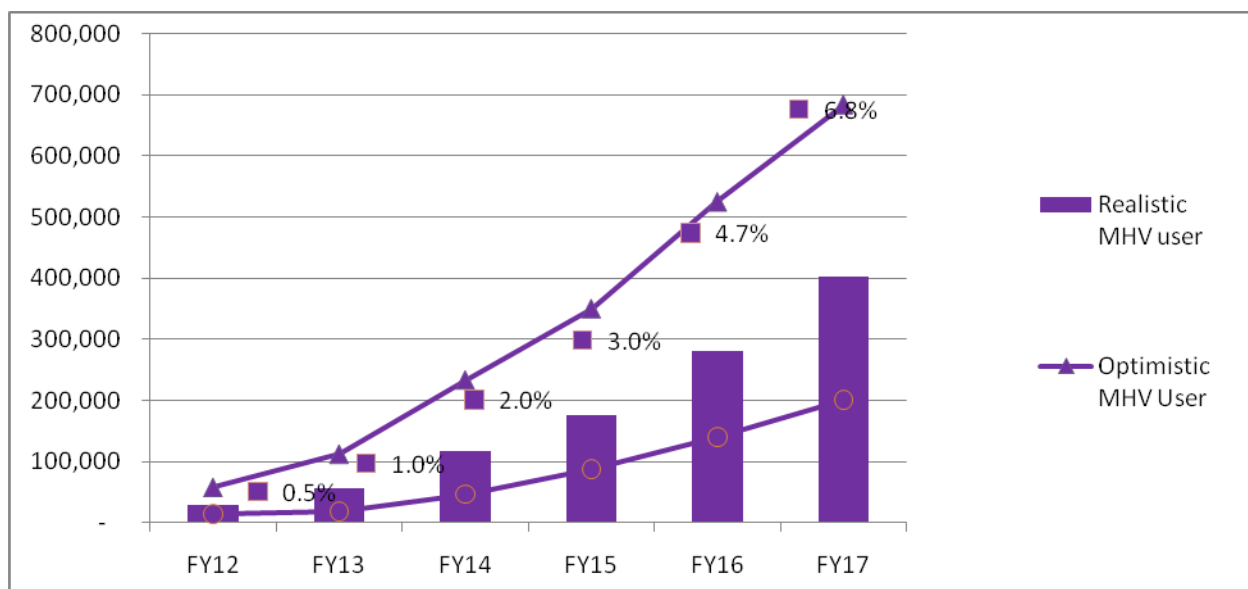
transparency regarding Healthcare quality and price, and incentives to promote the widespread adoption of health IT and quality of care. To support this mission to the greatest extent possible, any new IT system development or acquisition of commercial system shall:

1. Use interoperability standards recognized by the Secretary of Health and Human Services or the appropriate designated body at the time of the system update, acquisition, or implementation, in all relevant information technology systems.
2. Ensure interoperability with the Nationwide Health Information Network (NwHIN).
3. Comply with certification standards released through the Certification Commission of Health Information Technology (CCHIT).

2.9. Performance Specifications

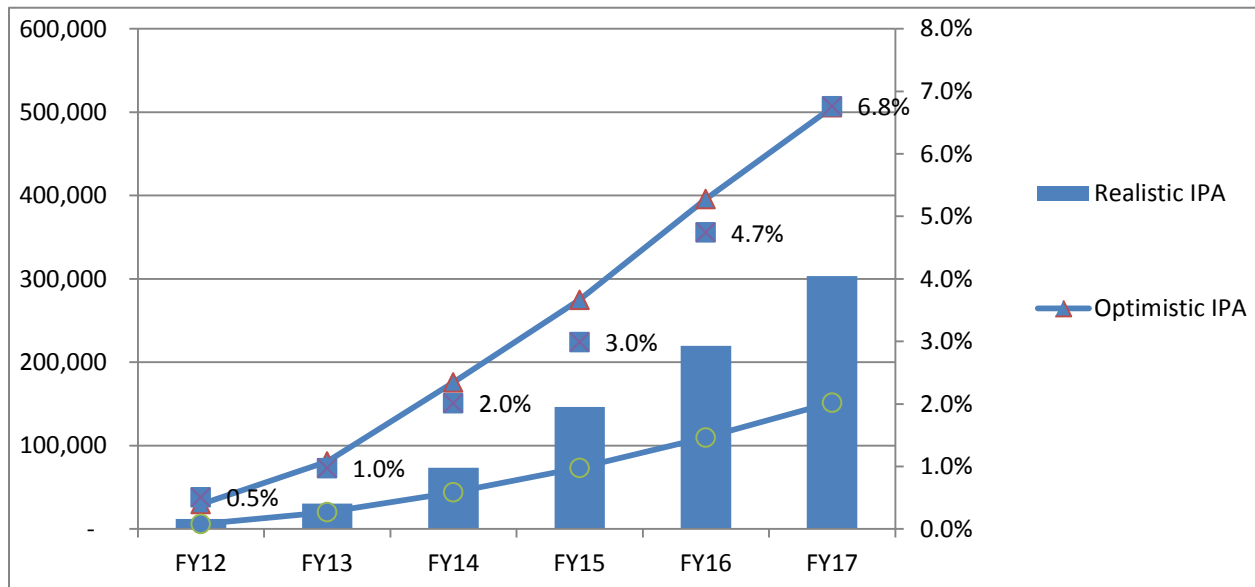
The figures below display projected significant increase in MHV and IPA usage from FY12 through FY17. This directly impacts the performance of MHV—Online View PHR since IPA users will view their PHR record via the MHV Web Portal interface.

Figure 1: Projected MHV Users FY12 to FY17



The above images show projected MHV Users FY12 to FY17.

Figure 2: Projected IPA Users FY12 to FY17



The above image displays projected IPA Users FY12 to FY17.

2.10. Quality Attributes Specifications

The Software Quality Assurance (SQA) team provides a suite of unit tests and repeatable system test cases as part of the SQA process. The Master Test Plan provides these details.

2.11. Reliability Specifications

Outcome	Measurement
The MHV functions according to stated business requirements.	Users can access the MHV 100% of the time.
The MHV has a user-centered and user-friendly design.	70% of users will rate the usability of the MHV favorably.

The above table details the reliability specifications for MHVON.

2.12. Scope Integration

MHVON has planned integration points with the following known projects. A description of project integration scope can be found in the project charter:

- eBenefits
- HRA
- VLER
- MHV PEMS (integrates DoD MHS Learn)
- My Recovery Plan

- eMove!
- Mobile Applications
- Veterans Health Library Computerized Patient Record System
- VHA Point of Service (Kiosks)
- Direct

For detailed information on scope of integration for particular modules please refer to the module's associated *Software Design Document*.

2.13. Security Specifications

The following sections list a subset of Enterprise Requirements of particular interest to the business community. Each project must address the requirements resulting from this work effort. If OIT cannot address these enterprise requirements, the Business Owners responsible for each area must engage in any waiver discussions prior to making any decisions. This section does not provide a comprehensive list of all enterprise requirements that can apply to this work effort, and should not preclude the technical community from reviewing all Enterprise requirements, and identifying others that should apply to this work effort as well.

The VA Enterprise Requirements Repository (ERR) contains Enterprise requirements. To gain access to the repository, contact VA OIT OED Enterprise Requirements Management.

2.13.1. Security Requirements

MHV 12.9 adheres to all VA security requirements. Based on Federal Information Processing Standard (FIPS) 199 and National Institute of Standards and Technology (NIST) SP 800-60, recommends Security Categorization as High due to the exchanging of patient data with partners outside of the VA.

The Security Categorization drives the initial set of minimal security controls required for the information system. The NIST SP 800-53 and VA Handbook 6500 address the minimum security control requirements.

2.13.2. Privacy Requirements

MHV 12.9 adheres to all VA Privacy requirements. A Privacy Act system of records notice must cover efforts that involve the collection and maintenance of individually identifiable information.

2.13.3. 508 Compliance Requirements

As stated in section 2.1 of this document, MHV 12.9 adheres to all Section 508 requirements.

2.13.4. Executive Order Requirements

MHV 12.9 adheres to all executive order requirements.

2.13.5. Identity Management Requirements

MHV 12.9 adheres to all Enterprise IdM requirements. These requirements apply to any application that adds, updates, or performs lookups on persons.

2.13.6. Infrastructure Requirements

Servers can be needed to support Project components, e.g. data sets.

In order for the non-VA provider to have access to the patient's electronic record, the provider must meet the following requirements:

- Completion of VHA privacy training in accordance with VHA Directive 1605-VHA Privacy Program
- Completion of applicable VA security training in accordance with VA Directive 6500 - Information Security Program
- Signed the National Rules of Behavior
- Potential background investigation before connecting to the VA network

2.14. System Features

System features are outlined in the user stories described in the [REDACTED] section.

2.15. Usability Specifications

MHVON adheres to the MHV Style Guide standards and global requirements including look and feel, browser compatibility, and other standard behavior such as paging, sorting, printing, and error messaging standards as documented in the [REDACTED]

3. Applicable Standards

MHVON maintains the following applicable standards, as covered in the following sections.

3.1. IdM

MHV 12.9 adheres to the Enterprise IdM. VHA recognizes these Enterprise requirements for all developed Electronic & IT products. These requirements apply to any application that adds, edits, or performs lookups on persons (patients, practitioners, employees, IT users) to systems within the VHA. To ensure that these requirements are met, they are addressed through the Enterprise-level requirements maintained by VHA Health IT, Software Engineering & Integration, and Enterprise Requirements Management.

3.2. Health Insurance Portability and Accountability Act Compliance

The system shall comply with Health Insurance Portability and Accountability Act (HIPAA).

3.3. Health Level Seven Messaging

The Health Level Seven (HL7) (VistA Messaging) package assists M-based applications conduct HL7 transactions. It enables the facilities to create, transmit, and receive HL7 messages over a variety of transport layers.

4. Interfaces

The Project Manager updates this document, and describes the interfaces the application will support, including adequate specificity, protocols, ports, and logical addresses to allow for software development and verification against the interface requirements. User, hardware, software, and communications interfaces should be included in this section.

4.1. Communications Interfaces

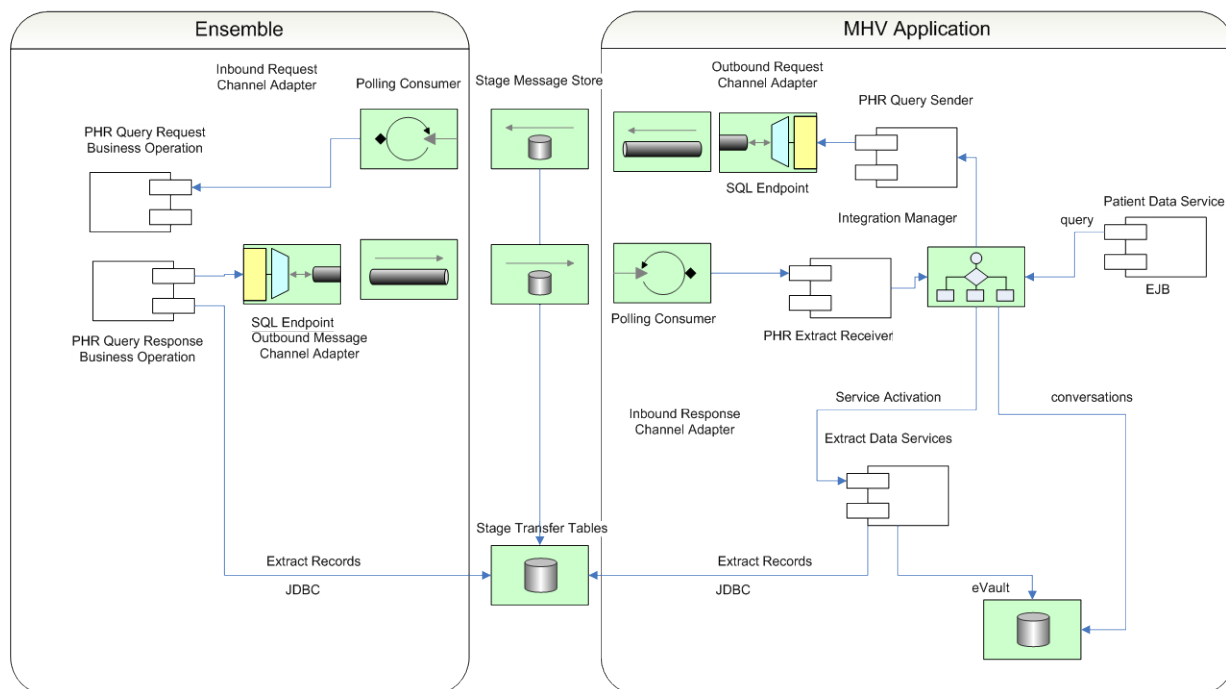
Communications Interfaces conform to the HL7 specifications as well as those specifications required by MHV & CPRS.

MHV communication interfaces will comply as specified in the [REDACTED]

4.2. Hardware Interfaces

The hardware interfaces will comply as specified in the [REDACTED]

PHR Messaging Components Logical Diagram



The above image shows the PHR Messaging Components Logical Diagram.

4.3. Software Interfaces

The software interfaces will comply as specified in the [REDACTED]

4.4. User Interfaces

MHV 12.9 follows the principles of User Centered Design as the team values user experience as a valuable component of the requirements gathering process and should be an integral part of the iterative development cycle, inspiring design and development. Content and development should be applied to existing structural and architectural models, defined by existing taxonomy, site map and wireframe templates. Visual Design and Coding should adhere to standards that are defined by the [REDACTED]

5. Legal, Copyright, and Other Notices

MHVON shall follow VHA's Release of Information (ROI) regulations.

6. Purchased Components

MHVON will purchase no components.

6.1. Defect Source (TOP 5)

For the number of defects discovered by component, please refer MHV 12.9 Version Description Document (VDD) and the MHV 12.9 Test Evaluation Summary (TES) documents. These documents are located below:

[REDACTED]

7. User Class Characteristics

Intended users of the MHV will consist of the following:

- 1) Non-authenticated users.
- 2) Authenticated users who will be comprised of:
 - a) Registered User – Basic Account
 - b) Registered User – Advanced Account (Identity not authenticated)
 - c) Registered user – Premium Account (Identity Authenticated)

MHV employs user-friendly language and meets VA Handbook 6102 standards (e.g., 7th grade reading level).

8. Estimation

TBD

Project Software Functional Size and Size-Based Effort and Duration Estimate

Application

Item	A	B	C	D	E	Total
------	---	---	---	---	---	-------

Item	A	B	C	D	E	Total
Counted Function Points						
Estimated Scope Growth						
Estimated Size at Release						

Size-Based Effort Estimates	Labor Hours	Probability
Low-Effort Estimate – With indicated probability, project will consume no more than:		
High-Effort Estimate – With indicated probability, project will consume no more than:		

Size-Based Duration Estimates	Work Days	Probability
Low-Duration Estimate – With indicated probability, project will consume no more than:		
High-Duration Estimate -- With indicated probability, project will consume no more than:		

Figure 3: Cumulative Probability (“S-curve”) Chart

NA

9. Approval Signatures

The signatures below are an acknowledgement that the signatory understands and agrees to the purpose and content of this document.

REVIEW DATE:

SCRIBE:

Signed:

Date:



Program Manager, My HealthVet

Signed:

Date:



Director, V/CHIO

Business Owner

Appendix A Use Case Specification

MHV utilizes User Stories instead of Use Cases. The User Stories for MHV release 12.9 can be found at the SharePoint location below:

1. MHV HRA Integration Technical User Story

[REDACTED]

2. MHV BB CCD Direct Technical Use Story

[REDACTED]

3. MRP My Medications Epic Stories

[REDACTED]

[REDACTED]

[REDACTED]