

Department of Veterans Affairs
Virtual Lifetime Electronic Record (VLER) Core

Requirements Specification Document



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Revision History

Date	Revision	Description	Author
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1. Introduction

1.1 Purpose

The purpose of this Requirements Specification Document (RSD) is to record the results of the requirements gathering processes carried out for the VLER Core project. Included are paths to locate Business Requirements Documents (BRD), and the Backlog List, which drive the specification gathering processes. The VLER Core project uses the Agile development methodology, and as such, many of the details resulting from the specification gathering process are recorded in other documentation, specifically Agile Stories, including Epic, User, and Technical Stories. Because these details are already recorded in such documents, these artifacts are referenced, and the reader is asked to access these documents for the specification details.

Epic and User Stories are refined and developed within the framework of the Agile methodology, which is based on a series of three-week sprints. Within the Agile methodology, each business need documented in the VLER Core Backlog is mapped to one or more Epic, User, or Technical Stories, or Use Cases. Each Epic Story is broken down into the appropriate User Stories, which are then further developed into Technical Stories. In the Agile methodology, Use Cases are optional and only created when necessary.

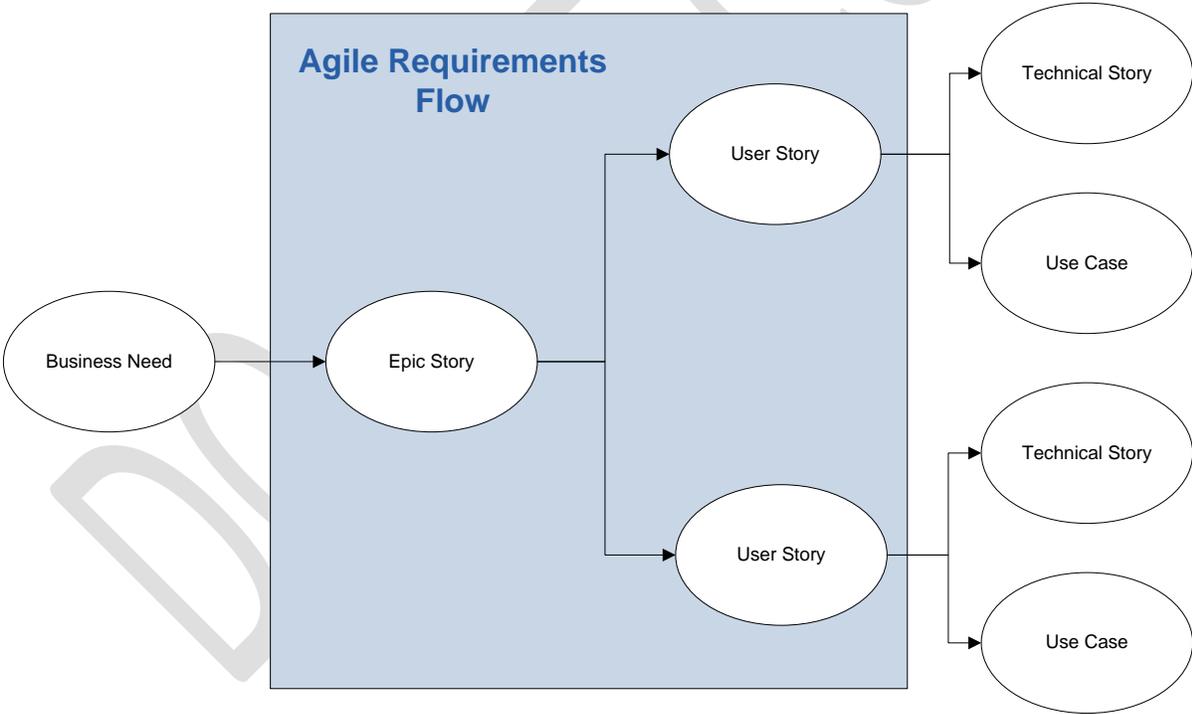


Figure 1-1: Agile Requirements Flow

1.1.1 Naming Conventions

The following naming conventions are used to track Agile artifacts as follows:

1.1.1.2 US001.01 – (name of User Story)

This alphanumeric indicates that it is a User Story. It is a part of the first Epic Story created within the project, and that this is the first User Story within the Epic Story.

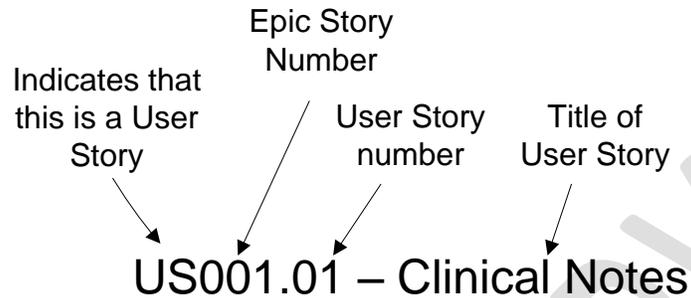


Figure 1-4: User Story Naming

1.1.2 Agile Requirements Workflow

Figure 1-5: Agile Requirements Workflow reflects the workflow for the development of Agile requirements within the VLER Core Software Engineering Team. Analysts will expand the Epic Stories into User, and Technical Stories (and Use Cases if necessary). The Analysts refine the User Stories and submit them to the Product Owners for formal review and approval. The VLER Core Software Engineering Team are the only approvers of Technical Stories and Use Cases. Analysts will update the Requirements Traceability Matrix (RTM) as Epic Stories, User Stories, Use Cases, and Technical Stories are approved. (2.6 Functional Specifications, contains locations for these deliverables.)

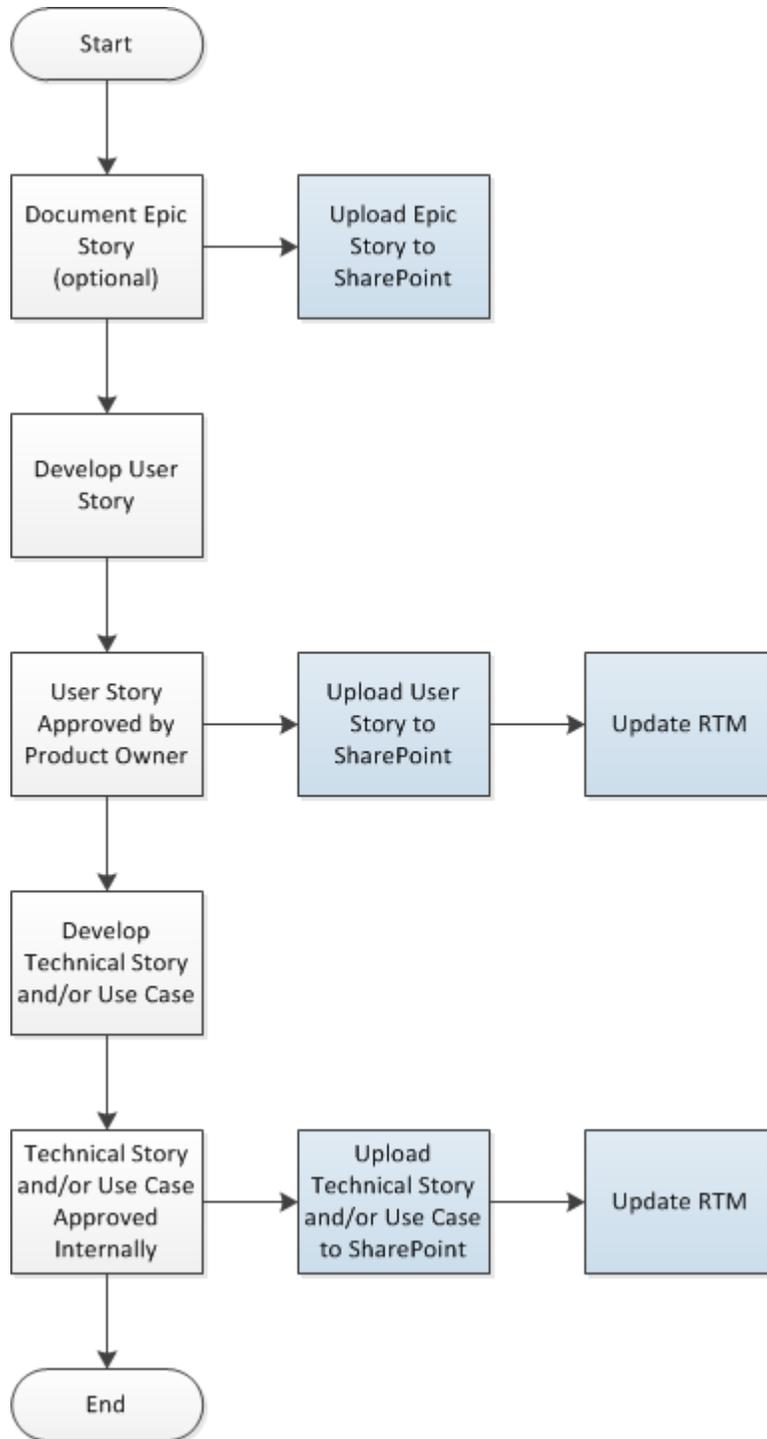


Figure 1-5: Agile Requirements Workflow

1.2 Scope

The VLER Core systems are primarily middleware. VLER Data Access Services (DAS) is used to transport clinical and non-clinical information between Producer and Consumer applications.

Core Authorization is used to authorize disclosure preferences for health information sharing. The VLER Core project implements an infrastructure and architecture for secure electronic sharing of medical, benefits, and administrative information between Veterans Health Administration (VHA) and Veterans Benefits Administration (VBA) and Department of Defense (DoD) systems, Department of Veterans Affairs (VA) and DoD clinicians, benefits staff members, and other consumers of Veterans Capability Area (VCA) 2 and VCA 3 information.

NOTE: VCAs are defined as follows:

- VCA 1 – Enables the exchange of available health information needed for clinical encounter of a Service member or Veteran
- VCA 2 – Expands upon the VCA 1 health information exchange to include the complete set of available health information (i.e., the longitudinal health record) and additional non-clinical administrative data required to facilitate the processing of disability claims for a Service member or Veteran
- VCA 3 – Enables the exchange of the information needed to efficiently deliver benefits services to Service members, Veterans, and their designees such as housing, insurance, education, and memorials
- VCA 4 – Provides a single access portal to health and benefits services information.

1.3 Acronyms and Definitions

1.3.1 Acronyms

For a full list of acronyms used in this document, see Appendix A - Acronyms.

1.3.2 Definitions

None at present.

1.4 References

The following documents were either used in the creation of this RSD or are referenced to avoid having to maintain identical information in two locations:

- VLER Core BRD
- VLER DAS System Design Document (SDD)
- VLER DAS Backlog
- Epic, User, Technical Stories, Use Cases and RTM locations (see 2.6 Functional Specifications for details)

NOTE: These documents are found on the [VLER Core SharePoint](#).

2. Overall Specifications

2.1 Accessibility Specifications

VLER Core consists of middleware; therefore, Accessibility Specifications do not pertain to VLER Core software deliverables (no graphical user interface). All VLER Core documentation follows 508 compliance requirements.

2.2 Business Rules Specifications

Business Rules are documented in the User Stories.

2.3 Design Constraints Specifications

Design Constraints are documented in technical specification documentation such as Technical Stories, Technical Use Cases, and supplemental technical documentation.

2.4 Disaster Recovery Specifications

The disaster recovery plan is managed by the Austin Information Technology Center (AITC) and Health Data Repository (HDR) teams.

2.5 Documentation Specifications

VLER Core publishes Release Notes and Installation Instructions for each release. Core Authorization also publishes a User Guide. These documents can be found in the following locations:

NOTE: VLER Core SharePoint Location: Implementation

2.6 Functional Specifications

2.6.1 Business Needs/Backlog

VLER Core documents Business Needs in a Prioritized Backlog. The backlog is a list of User Stories prioritized by the Product Owner.

NOTE: VLER Core SharePoint location: Requirements > Backlog

Core Authorization SharePoint Location: Shared Documents > Increments > Backlog

2.6.2 Epic Stories

Epic stories are a high-level description of a group of business requirements, which combine to deliver a business project or initiative. They contain a high-level overview of the requested feature.

NOTE: VLER Core SharePoint location: Requirements > Epic Stories

Core Authorization SharePoint Location: Shared Documents > Increments > Increment [number] > User Stories > Epic Stories

2.6.3 User Stories

User Stories describe business requirements that allow for elaboration and clarification of the business need. User stories can be derived from the epic story or may stand alone. User Stories contain brief compliance and user acceptance criteria that tell the development team what is expected.

NOTE: VLER Core SharePoint location: Requirements > User Stories

Core Authorization SharePoint Location: Shared Documents > Increments > Increment [number] > User Stories

2.6.4 Use Cases

Use Cases describe business requirements that are overarching and technical in nature. The technical nature can describe system behavior or a process flow. Use Cases can apply to one or more User Stories.

NOTE: VLER Core SharePoint location: Requirements > Use Cases

Core Authorization SharePoint Location: Shared Documents > Increments > Increment [number] > User Stories > Use Cases

2.6.5 Technical Stories

Technical stories describe work that the technical team needs to complete and are not visible to the business. Technical requirements can be the technical specification or detail behind a user story or a standalone item that the technical team needs to execute that does not relate directly to a user story.

NOTE: VLER Core SharePoint location: Requirements > Technical Stories

Core Authorization SharePoint Location: Shared Documents > Increments > Increment [number] > User Stories > Technical Stories

2.6.6 Requirements Traceability Matrix

The RTM maps the Business Requirements, Epic Stories, User Stories, Technical Stories, Use Cases, Software Design Document, and Test Cases together to ensure that requirements are met through the development lifecycle. The RTM also documents which requirements are associated with a particular release or increment of software as it is developed and tested.

NOTE: VLER Core SharePoint location: Requirements > RTM

Core Authorization SharePoint Location: Shared Documents > Increments > Increment [number] > Final > Requirements

2.6.7 Data Mapping File

The Data Mapping File is a spreadsheet that provides a detailed, one-to-one mapping of data elements between a Producer domain and a Consumer domain, e.g. between DoD Appointments and VA Appointments.

NOTE: VLER Core SharePoint location: Requirements > Data Mapping Files

2.7 Graphical User Interface (GUI) Specifications

VLER Core consists of middleware and GUI specifications are out of scope for this document.

2.8 Multi-Divisional Specifications

VLER Core consists of middleware; therefore, Multi-Divisional Specifications do not pertain to VLER Core software deliverables (no GUI). The multi-divisional specifications are managed through the GUI and are outside the scope of VLER Core.

2.9 Performance Specifications

Performance specifications will be documented in Agile artifacts.

2.10 Quality Attributes Specifications

Acceptance Criteria in User Stories and Technical Stories constitute the quality specifications.

2.11 Reliability Specifications

2.11.1 Uptime Monitoring

HDR manages uptime monitoring for VLER Core.

AITC manages uptime monitoring for Core Authorization using Introscope and DBInsight.

2.11.2 Fault Tolerance

HDR manages fault tolerance for VLER Core.

AITC manages fault tolerance for Core Authorization using Introscope and DBInsight.

2.11.3 Maintenance

HDR and AITC manage and perform maintenance for VLER Core.

AITC manages and performs maintenance for Core Authorization.

2.12 Scope of Integration

VLER Core consists of multiple collaborating components operating within distinct organizations and network boundaries. This section provides a high-level view of primary subsystems that enable bi-directional information exchange.

Figure 2-1 below, provides a simplified VLER Core deployment view.

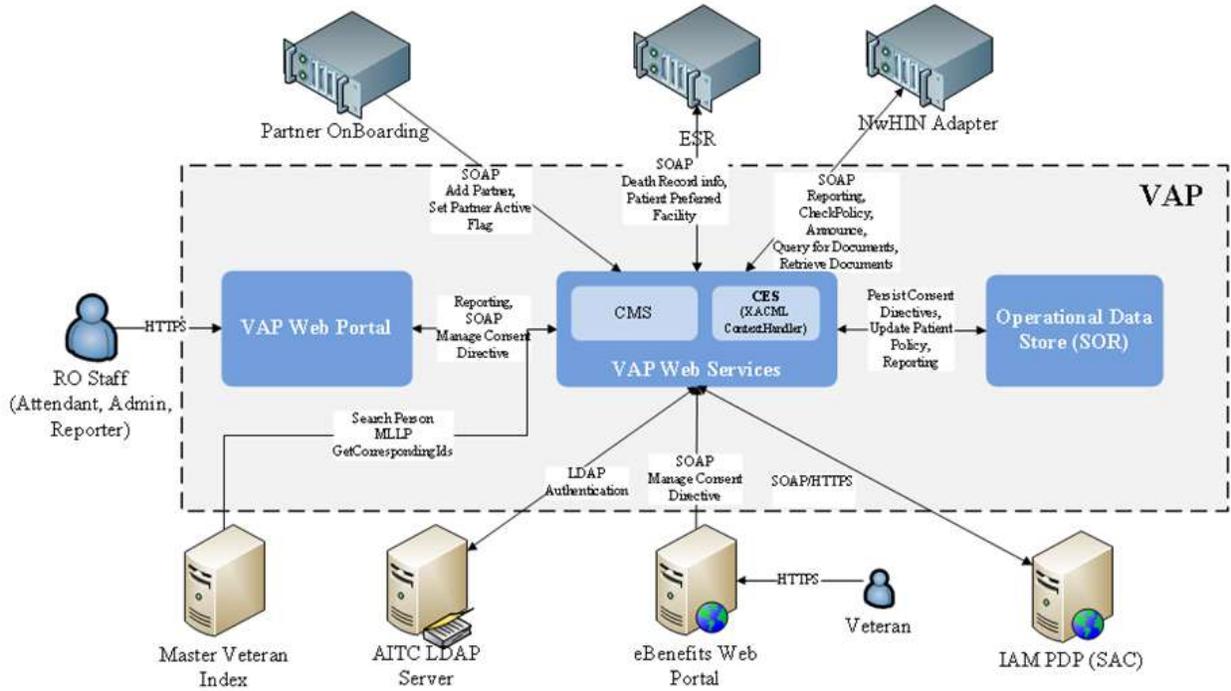


Figure 2-1: Simplified As-Is VLER Core Deployment View

Figure 2-2: Future Versions Integrated Application Deployment View below is a high-level representation of the planned architecture and integration for VLER Core.

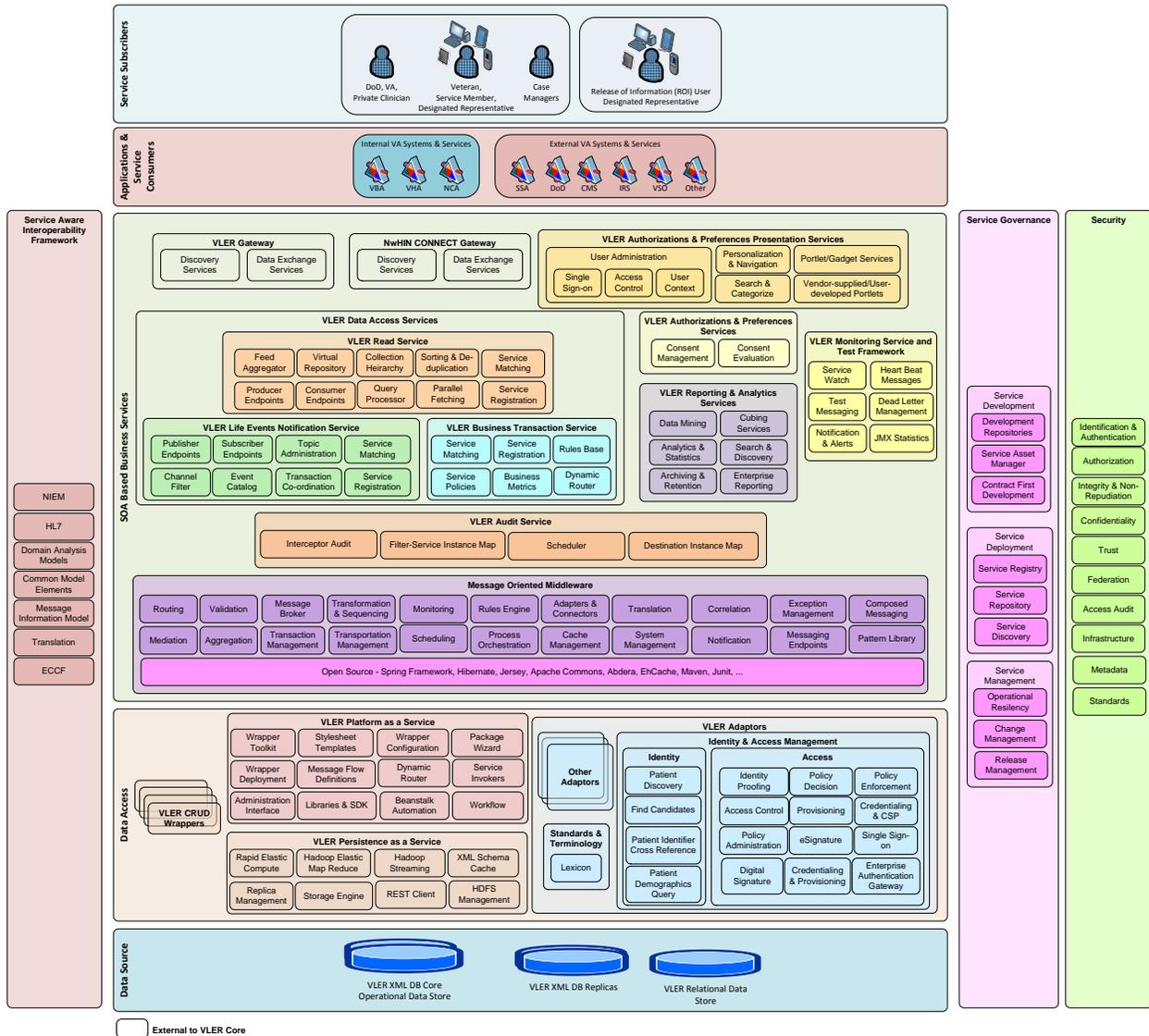


Figure 2-2: Future Versions Integrated Application Deployment View

2.13 Security Specifications

All changes, including software functionality and hardware architecture, must be configured and tested to ensure the “as accredited” security model and risk level are maintained in accordance with the VHA System Security Authorization Agreement.

For detailed security specifications, refer to the VLER Core System Security Plan under VLER Core SharePoint Location: Security > System Security Plan

2.14 System Features

For information regarding the as-is system features, please refer to the User Stories for VLER Core products located in the SharePoint locations for each product:

VLER Core SharePoint location: Requirements > User Stories

Core Authorization SharePoint Location: Shared Documents > Increments > Increment [number] > User Stories

2.15 Usability Specifications

Usability specifications pertain to systems with a GUI and do not apply to VLER Core. VLER Core consists of middleware; therefore, usability specifications do not pertain to VLER Core software deliverables (no GUI).

3. Applicable Standards

See 4.1 Communications Interfaces for information about the data standards that VLER Core supports.

4. Interfaces

4.1 Communications Interfaces

VLER Core communicates using the following data standards:

- CCR/CCD - C32, C62, C48, C84, C83, C37
- Communications Hardware Interface (CHI) Health Insurance Portability and Accountability Act (HIPAA)
- Delimited Text
- Digital Imaging and Communications in Medicine (DICOM)
- Electronic Data Interchange (EDI), X12
- Health Level 7 (HL7) V 2.x, 3.x, HL7 CDA
- Integrating the Healthcare Enterprise (IHE) Cross-Community Access (XCA)
- National Council for Prescription Drug Programs (NCPDP)
- RxNORM, Logical Observation Identifier Names and Codes (LOINC), Systematized Nomenclature of Medicine (SNOMED), iCD-9, CPT
- Veterans Health Information Model (VHIM) 2.x
- Extensible Markup Language (XML)
- Hyper Text Transfer Protocol (HTTP)

For detailed information about the interfaces for each VLER Core product refer to the SDD for that product.

NOTE: VLER Core SharePoint Location: Analysis and Design > Software Design Document
Core Authorization SharePoint Location: Shared Documents > Increments > Increment
[number] > Final > ArchitectureAnalysisandDesign

4.2 Hardware Interfaces

For detailed information about the interfaces for each VLER Core product refer to the Interface Control Document (ICD) for that product.

NOTE: VLER Core SharePoint Location: Analysis and Design > ICDs
Core Authorization SharePoint Location: Shared Documents > Increments > Increment
[number] > Final > ArchitectureAnalysisandDesign

4.3 Software Interfaces

For detailed information about the interfaces for each VLER Core product refer to the ICD for that product.

NOTE: VLER Core SharePoint Location: Analysis and Design > ICDs
Core Authorization SharePoint Location: Shared Documents > Increments > Increment
[number] > Final > ArchitectureAnalysisandDesign

4.4 User Interfaces

VLER Core consists of middleware; therefore, user interfaces do not pertain to VLER Core software deliverables (no GUI).

5. Legal, Copyright, and Other Notices

Not applicable (N/A).

6. Purchased Components

No new components will be purchased for this phase of the project.

7. User Class Characteristics

Intended users of this product consist of DoD and VA health care clinicians, care coordinators, benefits adjudicators, and other staff for multiple existing and emerging purposes including disability claims processing and the treatment and care of active duty and retired service personnel, to include:

Healthcare:

- Dietitians
- Doctors
- Education Specialists
- Nurses

- Social workers
- Pharmacists
- Physicians' assistants

Benefits:

- Adjudicators
- Care/case coordinators
- Care/case managers
- Compensation and Pension (C&P) clinicians

Authorization:

- Release of Information (ROI) Attendants
- ROI Operators
- ROI Administrators
- Clinicians

8. Estimation

Story points and function points are determined for each User Story and recorded in the User Story.

Appendix A - Acronyms

Term	Definition
AITC	Austin Information Technology Center
BRD	Business Requirements Document
CHI	Communication Hardware Interface
DAS	Data Access Services
DICOM	Digital Imaging and Communications in Medicine
DoD	Department of Defense
EDI, X12	Electronic Data Interchange
ES	Epic Story
GUI	Graphical User Interface
HDR	Health Data Repository
HIPAA	Health Insurance Portability and Accountability Act
HL7	Health Level 7
HTTP	Hyper Text Transfer Protocol
IHE	Integrating the Healthcare Enterprise
LOINC	Logical Observation Identifier Names and Codes
NCPDP	National Council for Prescription Drug Programs
ROI	Release of Information
RSD	Requirements Specification Document
RTM	Requirements Traceability Matrix
SDD	System Design Document
SNOMED	Systematized Nomenclature of Medicine
US	User Story
VA	Department of Veterans Affairs
VBA	Veterans Benefits Administration
VCA	Veterans Capability Area
VHA	Veterans Health Administration
VHIM	Veterans Health Information Model
VLER	Virtual Lifetime Electronic Record
XCA	Cross-Community Access
XML	Extensible Markup Language

Attachment A - Approval Signatures

REVIEW DATE:

SCRIBE:

X

Steven Lee Green
FIST Program Manager



Email with Steven Green's approval:

RE Formal Review VLER Core RSD - Steven Green.msg

X

William G. (Dusty) Jackson
Business Owner Representative



Email with Dusty Jackson's approval:

RE Formal Review VLER Core RSD - Dusty Jackson.msg