

**Virtual Lifetime Electronic Record (VLER)
Data Access Service (DAS)**

Requirements Specification Document (RSD)



March 2012

Revision History

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Pre-Decisional

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 DAS project. Included are traces to New Service Requests (NSR), Business Requirements Documents (BRD), Remedy Tickets, and Backlog List, which drive the specification gathering processes. The VLER DAS 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 user is asked to access these documents for the specification details.

Epic and User Stories will be refined and developed within the framework of the Agile methodology, which is based on a series of 30-day iterations. Within the Agile methodology, each business need documented in the VLER DAS Backlog will be mapped to one or more Epic, User, or Technical Stories, or Use Cases. Each Epic Story will be broken down into the appropriate User Stories, which will then be further developed into Use Cases, and Technical Stories.

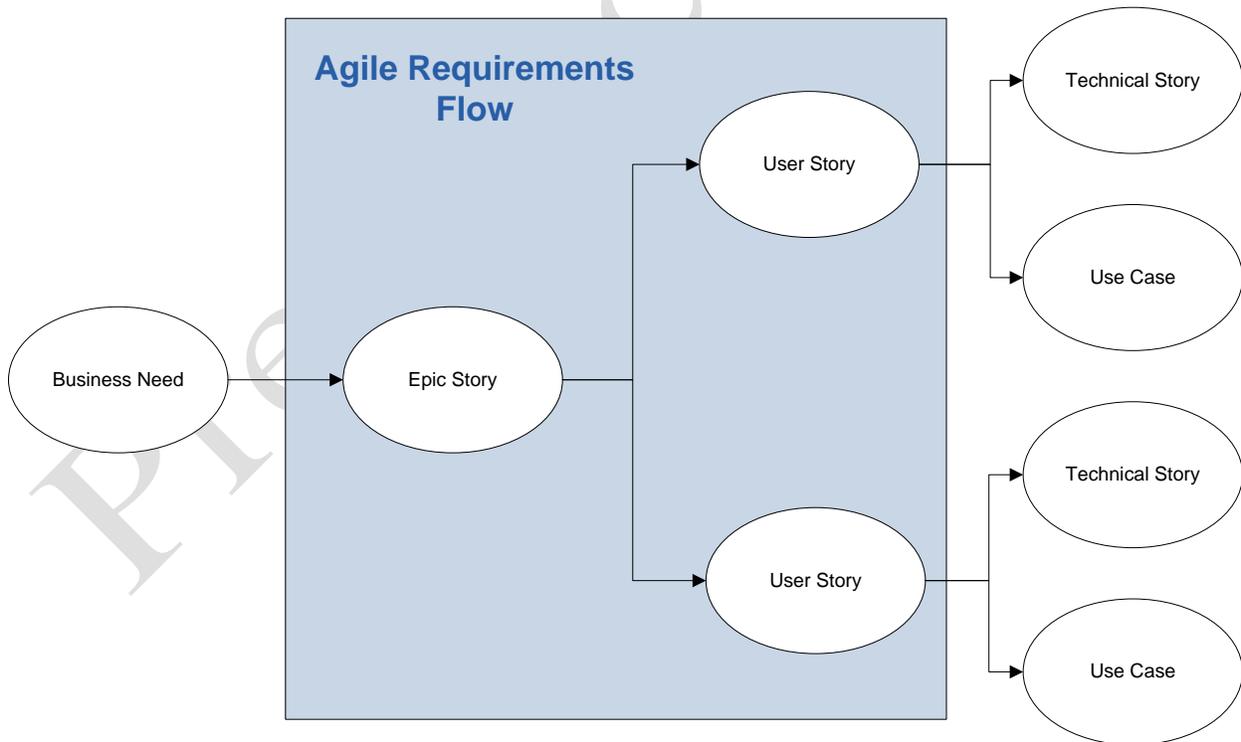


Figure 1-1: Agile Requirements Flow

Pre-Decisional

1.2 Naming Conventions

The following naming conventions were adapted to better track Agile artifacts as follows:

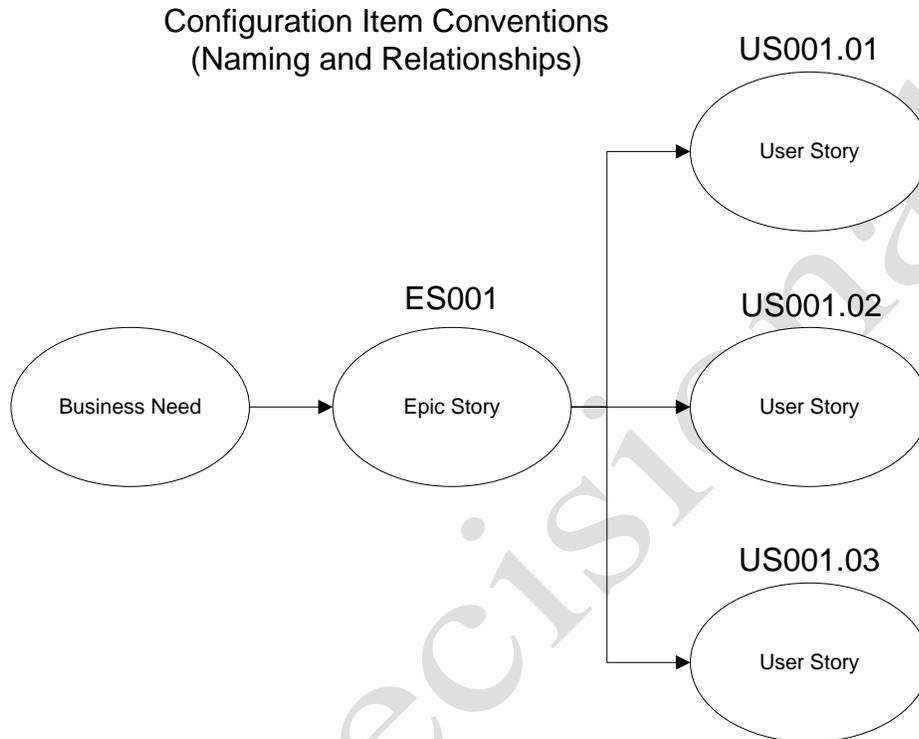


Figure 1-2: Agile Methodology Requirements Mapping

Epic Story and User Story naming conventions are as follows:

ES001 – (name of Epic Story)

This alphanumeric indicates that it is an Epic Story, the sequence of the Epic Story created within the VLER DAS project, and the title of the Epic Story.

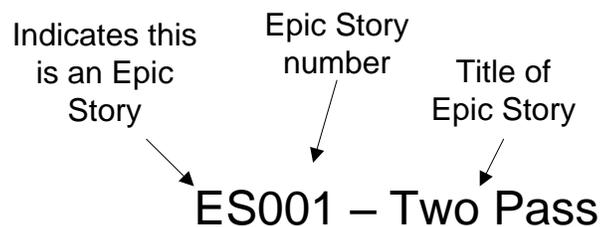


Figure 1-3: Epic Story Naming

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 VLER DAS project, and that this is the first User Story within the Epic Story.

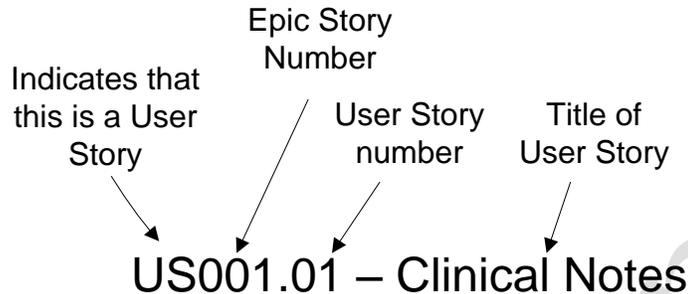


Figure 1-4: User Story Naming

1.3 Agile Requirements Workflow

Figure 1.5 reflects the workflow for the development of Agile requirements within the VLER DAS Software Engineering Team. The Epic and User Stories will be refined and approved formally by the Product Owners. Epic Stories will be expanded into User Stories, Use Cases, and Technical Stories. Use Cases, and Technical Stories will be approved only within the VLER DAS Software Engineering Team. The Requirements Traceability Matrix (RTM) will be updated as Epic Stories, User Stories, Use Cases, and Technical Stories are approved. (Section 1.7 Requirements, contains locations for these deliverables)

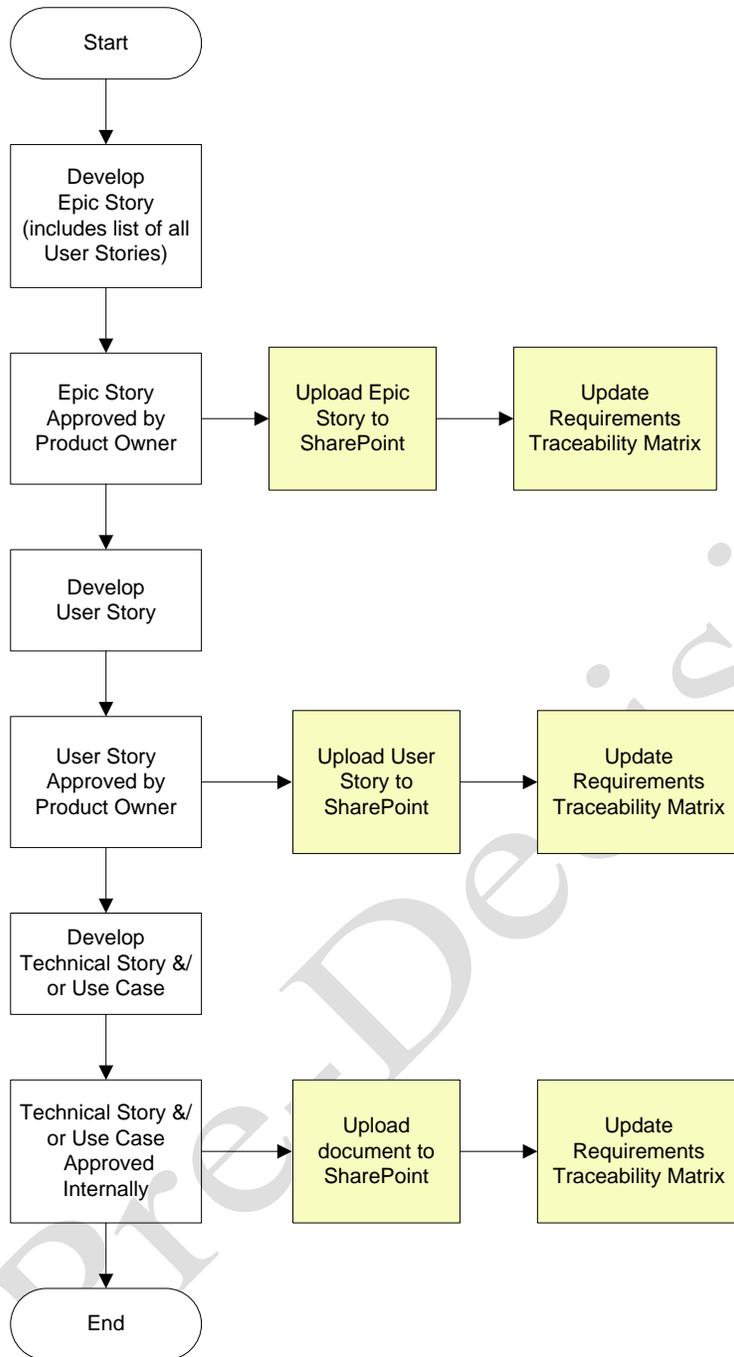


Figure 1-5: Agile Requirements Workflow

1.4 Scope

VLER DAS is a system of middleware used to transport clinical and non-clinical information between Producer and Consumer applications. The VLER DAS project implements an infrastructure and architecture for secure electronic sharing of medical, benefits, and administrative information between Veterans Health and Benefits Administrations (VHA/VBA) and DoD systems. VA and DoD clinicians, benefits staff members, and other consumers of VCA2 and 3 information.

1.5 Acronyms

See Appendix A – Acronyms.

1.6 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 DAS BRD 5Mar2012 v2.1
- VLER DAS SSD
- VLER DAS Backlog
- New Service Request 20120303
- Epic, User, Technical Story, Use Case, and RTM Locations

Overall Specifications

1.7 Requirements

1.7.1 Business Needs/Backlog

Business Needs are documented in the VLER DAS Prioritized Backlog located on SharePoint. The backlog is a prioritized project list as defined by the Product Owner. Every item has been deemed “Required” by the VLER DAS Business Owners. Any requirements that were “Optional” have been tabled for later analysis and prioritization.

NOTE: DAS SharePoint location: Project Management > Backlog

1.7.2 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 brief compliance and user acceptance criteria that tell the development team what is expected.

NOTE: DAS SharePoint location: Requirements > Epic Stories

1.7.3 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 that are stand-alone will be identifiable by the US000 in the first part of the user story name. They contain brief compliance and user acceptance criteria that tell the development team what is expected

NOTE: DAS SharePoint location: Requirements > User Stories

1.7.4 Use Cases

Use Cases describe business requirements that are overarching and technical in nature. The technical nature can describe system behavior or process flow for example. Use Cases can apply to one or more User Stories. They contain brief compliance and user acceptance criteria that tell the development team what is expected

NOTE: DAS SharePoint location: Requirements > Use Cases

1.7.5 Technical Stories

Technical stories describe work that needs to be done by the technical team 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 do that does not relate directly to a user story.

NOTE: DAS SharePoint location: Requirements > Technical Stories

1.7.6 Requirements Traceability Matrix

The Requirements Traceability Matrix (RTM) maps the Epic Stories, User Stories, Technical Stories, Use Cases 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: DAS SharePoint location: Requirements > RTM

1.7.7 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: DAS SharePoint location: Requirements > Data Mapping Files

1.8 VLER DAS External System Interface Requirements

1.8.1 Related Projects/NSR

Related requests include: ISI

1.9 To Be Specifications/Models

Refer to VLER DAS SDD for a description of VLER DAS deliverables.

1.10 Accessibility Specifications

VLER DAS consists of middleware; therefore, Accessibility Specifications are out of scope for this document.

1.11 Business Rules Specifications

Business Rules will be documented in Epic and User Stories.

1.12 Design Constraints Specifications

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

1.13 Disaster Recovery Specifications

The disaster recovery plan is managed by the Health Data Repository Team.

1.14 Graphical User Interface (GUI) Specifications

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

1.15 Multi-Divisional Specifications

The VLER DAS is middleware enabling the sharing of data with connected producers and consumers. The multi-divisional specifications are managed through the graphical user interface and are outside the scope of VLER DAS.

1.16 Performance Specifications

Performance specifications will be documented in Agile artifacts.

1.17 Quality Attributes Specifications

Acceptance Criteria constitute the quality specifications and are documented within the Agile artifacts.

1.18 Reliability Specifications

1.18.1 Uptime Monitoring

HDR manages uptime monitoring for the VLER DAS.

1.18.2 Fault Tolerance

HDR manages fault tolerance for the VLER DAS.

1.18.3 Maintenance

HDR and AITC manage and perform maintenance for the VLER DAS.

1.19 Scope of Integration

VLER DAS is a set of applications, which consist 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.

Error! Reference source not found.-1, below, provides a simplified VLER DAS deployment view.

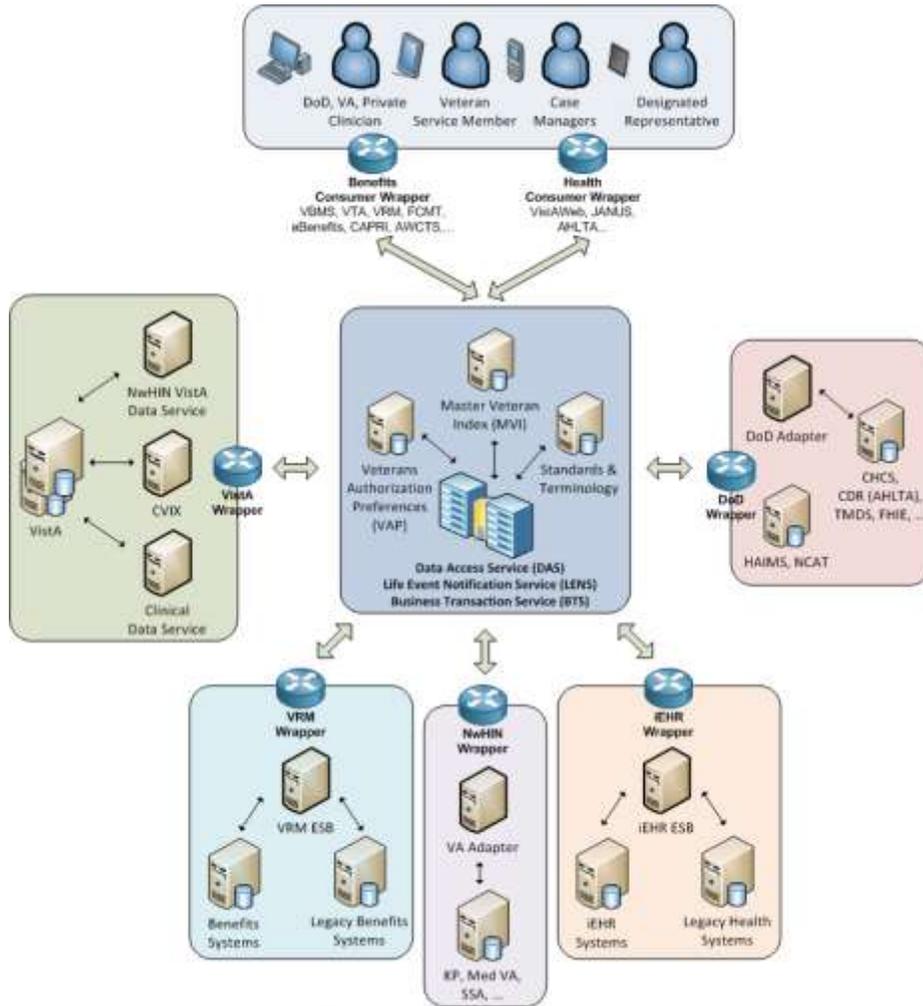


Figure 0-1: Simplified As Is VLER DAS Deployment View

1.20 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. Refer to the *VLER DAS System Security Plan* under [DAS> Project Management > PMAS > System Security Plan](#) for additional details.

1.21 System Features

For information regarding the as-is system features, please refer to the *BHIE Architecture Assessment Report* on the BHIE SharePoint site under [DAS> Analysis and Design > Software Design Specifications](#).

1.22 Usability Specifications

Usability specifications do not apply because the VLER DAS system is middleware only.

2 Interfaces

2.1 Communications Interfaces

VLER DAS communicates using the following data standards:

- CCR/CCD - C32, C62, C48, C84, C83, C37
- CHI (HIPAA)
- Delimited Text
- DICOM
- EDI, X12
- HL7 V 2.x, 3.x, HL7 CDA
- IHE XCA
- NCPDP
- RxNORM, LOINC, SNOMED, iCD-9, CPT
- VHIM 2.x
- XML

Refer to the *Architecture Assessment Report* on the VLER DAS SharePoint site under [DAS> Analysis and Design > > Software Design Document](#) for detailed information on interfaces.

2.2 Hardware Interfaces

Refer to the *Software Design Document* on the VLER DAS SharePoint site under [DAS> Analysis and Design > Software Design Document](#) for detailed information on interfaces.

2.3 Software Interfaces

Refer to the *Architecture Assessment Report* on the VLER DAS SharePoint site under [DAS> Analysis and Design > Software Design Document](#) for detailed information on interfaces.

2.4 User Interfaces

Refer to the *Architecture Assessment Report* on the VLER DAS SharePoint site under [DAS> Analysis and Design > Software Design Document](#) for detailed information on interfaces.

3 Legal, Copyright, and Other Notices

Not Applicable.

4 Purchased Components

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

5 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

6 Estimation

Epic, User, Use Cases and Technical Stories will determine story points and function point counts.

A. Appendix A – Acronyms

Acronym	Definition
ADT	Admission Discharge Transfer
AITC	Austin Information Technology Center
ASC	ASCII (file name extension)
AVI	Audio Video Interleave (multimedia container format)
BHIE	Bidirectional Health Information Exchange
BRD	Business Requirements Document
CPRS	Computerized Patient Records System
DAS	Data Access Service
DCM	DICOM File Format (file extension; medical imaging)
DoD	Department of Defense
ES	Epic Story
FHIE	Federal Health Information Exchange
GUI	Graphical User Interface
HDR	Health Data Repository
HITSP	Healthcare Information Technology Standards Panel
HTM	Hyper Text Markup (file extension)
HTML	Hyper Text Markup Language (and file extension)
JDBC	Java Database Connectivity
JNDI	Java Naming and Directory Interface
JPG	Graphics file type/extension (lossy compressed 24 bit color image storage format developed by the Joint Photographic Experts Group)
MP3	Moving Picture Experts Group Layer-3 Audio (audio file format/extension)
MP4	Moving Picture Expert Group-4 (audio file format/extension)
MPEG	Moving Picture Experts Group (file extension)
MPG	MPEG format file (file name extension)
NwHIN	Nationwide Health Information Network
NSR	New Service Request
OED	Office of Enterprise Development

Acronym	Definition
OI&T	Office of Information and Technology
PDF	Portable Document Format
RDV	Remote Data View
RPC	Remote Procedure Call
RSD	Requirements Specification Document
RTF	Rich Text Format
RTM	Requirements Traceability Matrix
SADR	Standard Ambulatory Data Record
TGA	Targa (file name extension)
TIF	Tagged Image File (file name extension)
TXT	Text File (file name extension)
US	User Story
VA	Department of Veterans Affairs
VBA	Veterans Benefits Administration
VHA	Veterans Health Administration
VLER	Virtual Lifetime Electronic Record
WAV	Windows Wave (audio format/file extension)

Attachment A – Approval Signatures

X

Steven Green
Program Manager

X

Joan P. Cohen
Business Sponsor
