

VHA Point of Service (VPS) Kiosks Phase II
System Design Document
for
Enhancement VPS*1*4



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1 Introduction

The vision of the Chief Business Office (CBO) is to streamline and improve patient administrative processes across the Department of Veterans Affairs (VA) healthcare network and to provide standard, easy-to-use capabilities for Veterans, beneficiaries, clinic staff and employees to access and update information and perform business transactions. The Veterans Health Administration (VHA) has identified that self-service kiosks provide the capabilities to meet this vision.

In terms of self-service and improved customer service, kiosks reduce the need for staff to perform transactions that customers would otherwise be willing to perform on their own, enhance privacy, and in the future allow for presentation to support multiple languages. They also help improve process efficiencies by increasing processing during peak bandwidth periods without requiring significant increases in staff and allowing integration of several processes that allow customers to perform multiple transactions without having to engage different VA staff multiple times. Kiosks also improve collection of critical information because of their ability to hold to a script and offer the ability to reliably collect critical information

The VHA Point of Service (Kiosks) Phase II project consists of six (6) separate task lines (covering requirements, design, development, initial operating capability (IOC), and deployment). They are:

- **VPS*1*4:** Harris will enhance the capabilities of existing remote procedure calls (RPC) or create new RPCs in support of interfaces with: 1) Howdy, 2) Clinical Reminders Integrating Kiosk (CRIK), 3) Get Patient Demographics, and 4) Specimen Wristband Labels.
- **VPS*1*5:** Harris will enhance the capabilities of existing RPCs or create new RPCs in support of interfaces with: 1) Appointment status integration, and 2) Clinical Surveys.
- **VPS*1*3:** Harris will enhance the capabilities of existing RPCs or create new RPCs in support of interfaces with: 1) Medication Review and Allergy Review (MRAR).
- **After Visit Summary (AVS):** Harris will enhance the existing Class-2 software and convert it to Class-1 and will integrate it with the self-service kiosks.
- **Voluntary Service System (VSS):** Harris will integrate the enter/edit hours and meal voucher coupon capabilities with the self-service kiosks.

1.1 Purpose

This System Design Document (SDD) translates the requirements listed in the corresponding Requirements Specification Document (RSD) into technical design specifications. It identifies the system architecture, describes hardware, software, communication, and interface components.

The intended audience of this document includes the Product Development (PD), Software Quality Assurance (SQA), the CBO, and staff at the Office of Information & Technology (OI&T)

This SDD covers the Veterans Health Information Systems and Technology Architecture (VistA) patch enhancements with new versions created and material added as successive task lines are executed. The initial version covers VPS*1*4 only. VPS*1*5 and VPS*1*3 will be added to this document in a later version. Separate SDDs will address AVS and VSS integration.

1.2 Identification

This document provides information about VHA Point of Service (Kiosks) Phase II Enhancement VPS*1*4.

1.3 Scope

Features and capabilities identified and described in this document are intended to support interaction with VHA administrative, patient management, and clinical systems as well as with other national VA systems.

The VPS system will utilize, wherever possible, the existing VistA Remote Procedure Broker implementation resident on all VistA instances. Access to VistA Remote Procedure Brokers and VA data sources will be facilitated by calls to the VistA RPC Broker software by RPCs.

The scope of VPS*1*4 will include:

1. **Howdy Computerized Phlebotomy Lab process (Howdy):** this effort is to analyze, define, and document the implementation design of the integration between the VPS program and the Howdy Traditional and Print at Point of Collection (PPOC) software.
2. **Clinical Reminders Integrating Kiosks (CRIK) – Phase 1:** this effort is to analyze, define, and document the implementation design of the integration between the VPS program and Clinical Reminders. This integration is intended to improve delivery of a patient care preventative health component and clinician access to patient information. The Clinical Reminders function helps remind the patient and clinician of important care needed so preventative health care can be arranged.
3. **Enhanced VPS Get Patient Demographics RPC:** VetLink currently receives 100+ data elements from VistA for each patient being serviced during a kiosk interaction. This work effort would analyze, define, and document the implementation design of the additional data elements to the current call and/or create an additional call specific to the grouping of information (i.e., a Orders only RPC) being requested from VistA.
4. **Specimen / Wristband Label (Vista Printing Phase 2):** this effort is to analyze, define, and document the implementation design of the integration between the VPS program and existing wristband printing and label printing (i.e., specimen labels). The print jobs would also have additional elements added to them, to include barcodes in instances where none yet exist. The integration will allow the kiosk server to initiate additional VistA print jobs at the kiosk group level and/or the clinic level.

1.4 Constraining Policies, Directives and Procedures

This SDD is constrained by the following policies, directives, artifacts, and procedures.

Policies and Directives:

- PMAS Guide v4.0, (VAIQ 7023849) Assistant Secretary for Information and Technology (005) Release Memorandum, dated September 17, 2010
- SEDR Process
- One-VA TRM – Data, Service, Technical (FSAM)
- PMAS Project Documentation Portal
- C&A Division Webpage

VA-generated Artifacts:

- Business Requirements Document
- Project Charter

VA Standard Procedures:

- ProPath Version 8, PRP-2.3, Create System Design Document
- PMAS Readiness Checklist

1.5 User Characteristics

Not applicable because VPS*1*4 system is machine-to-machine interface only.

1.6 Relationship to Other Documents and Plans

This document is part of a document set that, together, help define VPS*1*4:

1. Acceptance Criteria Plan
2. Contract Information
3. Integrated Project Team Charter
4. Enterprise Project Structure
5. Outcome Statement
6. Project Charter
7. Project Management Plan
8. Project Quad Chart
9. Project Schedule
10. Veterans Point of Service (VPS) Requirements Specification Document (RSD) for Phase 1*4
11. Risk Log
12. System Design Document

1.7 Definitions, Acronyms, and Abbreviations

Definitions, acronyms, and abbreviations can be found in Appendix A.4.

1.8 References

- VHA Point of Service (Kiosks) Phase II FY14 OIT PD BRD, Version 2.0 (May 2014)
- 20090210 VHA Point-of-Service Initiative BRD, Version 1.6 (May 2009)
- Howdy Computerized Phlebotomy Login Process C3-C1 Conversion Project Technical Manual, Laboratory Patch LR*5.2*405 (January 2012)
- Clinical Reminders Version 2.0 PRXM*2.0*4 Technical Manual (October 2006)
- Patient Information Management Systems (PIMS) Patient Registration, Admission, Discharge, Transfer, and Appointment Scheduling Technical Manual, (November 2013)
- VPS Phase II Enhancement VPS*1*4 RSD, Version 0.02 (June 2014)

2 Background

The VHA has identified that kiosks, as a process transformation, offer the opportunity to introduce significant business improvements in various process areas. In terms of self-service and improved customer service, kiosks reduce the need for staff to perform transactions that customers would otherwise be willing to perform on their own, enhance privacy in collection of critical information, and in the future allow for presentation to support multiple languages. They also help improve process efficiencies by allowing for increased processing during peak bandwidth periods without requiring significant increases in staff and allowing integration of several processes that allows customers to perform multiple transactions without having to engage different VA staff multiple times. Kiosks also improve collection of critical information because of the sense of increased privacy by the Veterans when entering the information into a kiosk instead of to a staff member.

2.1 Overview of the System

The Enhancement VPS*1*4 system offers the opportunity to introduce enhanced business and patient service improvements in various process areas. In terms of self-service and improved customer service, Enhancement VPS*1*4 reduces the need for staff to manually retrieve patient data using legacy VistA “roll and scroll” transactions, provides enhanced privacy in the collection of patient personal information, and provides process efficiencies during peak bandwidth periods. This enhancement effort integrates VistA Howdy Computerized Phlebotomy Lab Process Integration, Clinical Reminder Integration functionality with VPS Kiosks, expands the data elements of the VPS GET PATIENT DEMOGRAPHICS RPC, and provides new specimen and wristband label printing capabilities.

2.2 Overview of the Business Process

The VPS system supports an end-to-end patient self-service appointment check-in process. The point of service system supports interaction with VHA administrative, patient management and clinical systems.

The point of service system interacts with core VHA systems/processes. In the notional process view, a patient seeks care from VA. Upon arrival at a VA Health Care facility, a patient will access the kiosk system, perform required data updates, and review processes in a self-service manner. The patient verifies their identity and authority to access the kiosk system through a secure authorization process. The patient will verify certain personal demographic and insurance information and provide updates where needed. With enhancement VPS*1*4, the patient will have additional information available for them such as orders, consults, appointment statuses, etc. VPS*1*4 will also disclose their clinical reminders to help patient to recall all their issues during that visit. The patient will view selected appointments and perform various actions on those appointments.

The check-in activity by the patient will trigger updates to visit and demographic data and verify inclusion of the patient on the Bingo board report. A separate kiosk configuration will allow a patient to complete a post-appointment satisfaction survey.

With enhancement VPS*1*4, VPS system will also support HOWDY processes. It will allow patient to perform accessioning of ordered lab tests and specimen label printing after check-in process.

VPS*1*4 system will also provide specimen and wristband label printing functionalities. Staff can initiate the printing jobs at the kiosk group level and/or clinic level.

2.3 Business Benefits

Patients' comfort level with information technology and the desire to be more involved in their health care process is increasing. Currently, patients must engage support staff in every step of the process as part of their visit to a facility, which impacts the time staff can focus on solving issues and working non-routine activities. The capture and update of key demographic and insurance information is not always completed.

Having some level of control and a visual response that can be provided by kiosk stations can lead to increased satisfaction of our patients visit. The ability to allow the patient to complete routine tasks via self-service will free up support staff to focus on issues that are more complex. VHA is seeing an increase in the utilization of Point of Service Software via kiosks; however, there is no nationwide regulation of services or standards resulting in kiosk services not being implemented consistently throughout the country.

A nationwide regulation would bring about:

1. Improved veteran satisfaction
2. Improved veteran access to healthcare information
3. Improved currency of patient demographic, insurance and administrative information
4. Improved efficiency of VAMC based administrative processes
5. Reduced costs to collect first party revenue

Standardized implementation of kiosks nationwide allows efficient flow of patients throughout the facility while enabling the ability to capture key demographic and insurance information through patient self-service.

2.4 Assumptions and Constraints

2.4.1 Design Assumptions

This section identifies assumptions for the VPS System. Table 1 provides a grouped listing of assumptions.

Table 1 – Assumptions

Group	Name	Description
Vista	Patient Data Authoritativeness	VistA system will serve as the authoritative source for demographic, enrollment, appointment, clinical reminders, lab order, and health information utilized by point of service transactions.
	Vista changes	Implementation should require minimal changes to authoritative systems. Phase II should require few if any changes and subsequent phases may increase the scope of requested changes to authoritative systems but should look to utilize existing functionality where it is currently available and sufficient.
Integration	Services Integration	Point of Service kiosk system will integrate with RPC Broker software to access existing legacy VistA including enrollment, identity management, medication, adverse reaction file, pharmacy, and demographics services.

Group	Name	Description
Program Governance	Business Review	VPS PMO will review / approve design-development artifacts, to include iteration/release plans, design artifacts, traceability artifacts. Additionally, VPS PMO will coordinate acceptance testing, procurement deliverables, and implementation assistance and planning.
	Architectural Review	Eventual design artifacts derived from identified capabilities and subsequent detailed use cases will be subject to review/approval by applicable review architectural review authorities.

2.4.2 Design Constraints

VPS*1*4 will use existing VistA routines to provide functionality when possible. All functionality for those components not provided by existing VistA routines will be implemented as RPCs using the Massachusetts General Hospital Utility Multi-Programming System (MUMPS).

The VPS*1*4 RPCs will apply no data transformations. All data read and written will be in FileMan format.

2.4.3 Design Trade-offs

Not applicable to the VPS Kiosk project.

2.5 Overview of the Significant Requirements

2.5.1 Overview of Significant Functional Requirements

The following Table 2 – shows the defined features, properties, or behaviors of the system.

Table 2 – Functional Requirements

Module	Discussion
Enhanced VPS GET Patient Demographics RPC	The VPS*1*4 system will add additional data elements to the current call and/or create an additional call specific to the grouping of information (i.e., an Orders only RPC) being requested from VistA. Examples include the patient's service-connected status, previous appointments, other meta-data relating to appointments (canceled date, user who canceled appointment, reason for cancelation, etc...), information about orders, consults, etc...
Howdy Computerized Phlebotomy Lab Process	The VPS*1*4 system will integrate Howdy Traditional and Print at Point of Collection (PPOC) process into the system. Traditional Howdy allows scanning of the patient Veteran Identification Card (VIC) with accessioning of ordered lab tests and immediate printing of specimen labels. Howdy PPOC allows scanning of the patient VIC card with accessioning of ordered lab test but no printing of specimen labels. Labels are printed at the time the phlebotomist collects the specimen. Both versions capture tracking times for turn-around times.
Clinical Reminder Integrating Kiosks (CRIK) – Phase 1	The VPS*1*4 system will integrate Clinical Reminder into the system. This will allow Veterans to view their clinical reminders. This will help patients to recall all their issues during the visit and give the opportunity for the patient to take advantage of any needed care during this visit.

Module	Discussion
Specimen / Wristband Label (VistA Printing Phase 2)	The VPS*1*4 system will provide additional VistA printing jobs (specifically wristband printing and specimen label printing) at the kiosk group level and/or the clinic level. The print jobs would use existing print routines but also have additional elements added to them, to include barcodes in instances where none yet exists. This would tie in to existing kiosk activity where a check-in may require additional print jobs.

2.5.2 Overview of Functional Workload / Performance Requirements

Functional workload/performance has not been identified at this time.

2.5.3 Overview of Operational Requirements

2.5.3.1 Scalability

System will be fully integrated via RPC Broker software with existing systems within VistA. VistA instances may be located locally at the facility or in remote data centers as either an integrated or a single instance per site database.

2.5.3.2 Accuracy and Failure

The application will validate that data entered fully conforms to stated business rules. Any failure to meet system of record business rules will be considered an inaccurate entry.

2.5.4 Overview of the Technical Requirements

The project will be developed in accordance with the VistA architecture and the VA Technical Reference Mapping standards. Please refer to the following for the complete list of standards used:

2.5.5 Overview of the Security or Privacy Requirements

Requirements that will have to be taken into account are:

1. System will comply with all privacy and security features as mandated by VA, Federal, State, and Local regulations.
2. System will comply with federal guidelines on PHI (HIPAA) - [REDACTED]
3. Privacy - System will adhere to all VA requirements for Release of Information (ROI) - [REDACTED]

2.5.6 Overview of System Criticality and High Availability Requirements

VPS*1*4 system is an RPC development project. It will not impact the current system criticality and high availability.

2.5.7 Single Sign-on Requirement

VPS*1*4 system does not have any sign-on requirements.

2.5.8 Requirement for Use of Enterprise Portals

Use of Enterprise Portals requirements are not applicable for VPS*1*4.

2.5.9 Special Device Requirements

There are no new special device requirements for VPS*1*4.

2.6 Legacy System Retirement

Not applicable.

3 Conceptual Design

3.1 Conceptual Application Design

3.1.1 Application Context

The following Figure 1 represents the context in which the VPS*1*4 provides Application Programming Interfaces (API) to the Kiosk Server to retrieve from and store information into a VistA instance.

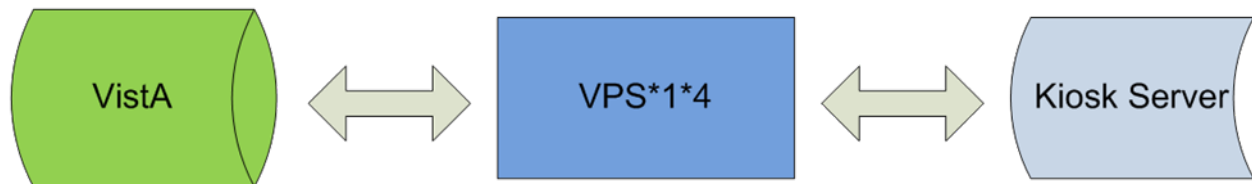


Figure 1 – Application Context Diagram

3.1.2 High-Level Application Design

The VPS system will support interaction with VHA administrative, patient management, and clinical systems as well as with other national VA systems. VPS*1*4 interacts with legacy VistA applications.

The VPS system will integrate with RPC Broker software to access existing local integration brokers within VistA. Existing business rules and validations for data updates will be enforced for kiosk-entered data.

3.1.3 Application Locations

VPS*1*4 will be located on VistA production servers across VAMC facilities.

3.2 Conceptual Data Design

3.2.1 Project Conceptual Data Model

No new files or fields are created by the VPS*1*4 system.

3.2.2 Database Information

No new database is created, replaced, interfaced with, or modified (i.e., add or delete tables or add or delete columns to a table) by the VPS*1*4 patch enhancement.

3.2.3 User Interface Data Mapping

This section is not applicable. The VPS*1*4 system is a machine-to-machine interface only.

3.2.3.1 Application Screen Interface

This section is not applicable. The VPS*1*4 system is a machine-to-machine interface only.

3.2.3.2 Application Report Interface

This section is not applicable. The VPS*1*4 system is a machine-to-machine interface only.

3.2.3.3 Unmapped Data Element

No unmapped data elements are created by the VPS*1*4 patch enhancement.

3.3 Conceptual Infrastructure Design

3.3.1 System Criticality and High Availability

VPS*1*4 system is an RPC development project. It will not impact the current system criticality and high availability.

3.3.2 Special Technology

No special technology is required for VPS*1*4.

3.3.3 Technology Locations

VPS*1*4 will be located on VistA production servers across VAMC facilities.

3.3.4 Conceptual Infrastructure Diagram

3.3.4.1 Location of Environments and External Interfaces

Figure 2 depicts the environments and external interfaces for VPS systems. The VPS*1*4 patch enhancement is shown as a collection of RPCs at the bottom of the image.

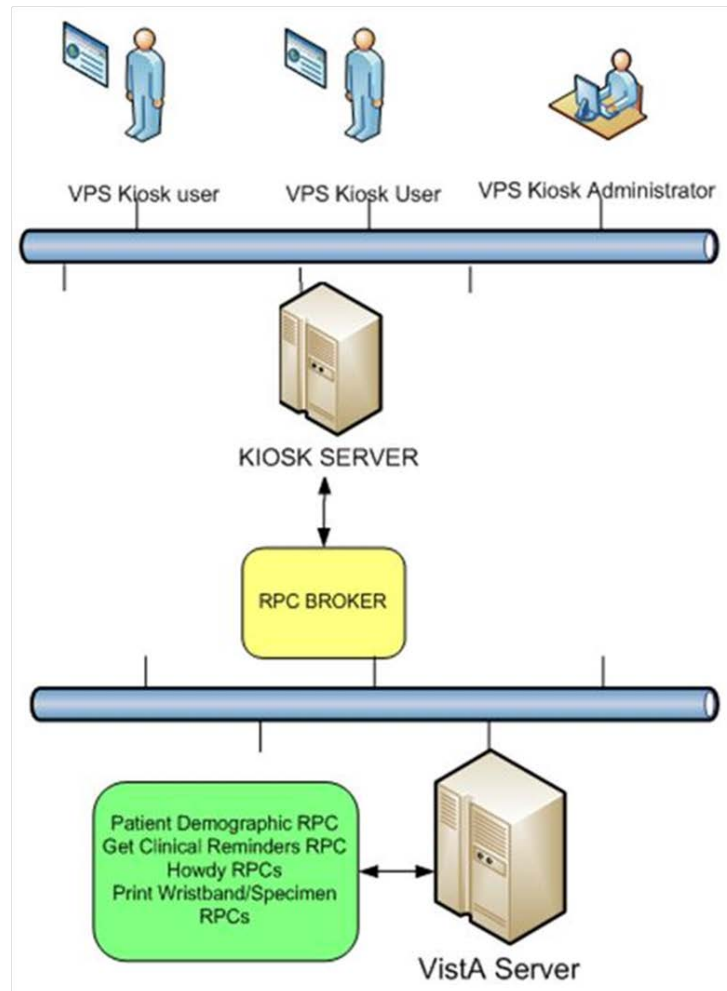


Figure 2 – VPS*1*4 Environments and External Interfaces

3.3.4.2 Conceptual Production String Diagram

This section is not applicable to VPS*1*4.

4 System Architecture

4.1 Hardware Architecture

No hardware changes are required for the VPS*1*4 effort.

4.2 Software Architecture

The VPS*1*4 system will consist of multiple VPS integration modules. The following table describes each module that comprises the completed system.

Table 3 – VPS*1*4 Components

Howdy Computerized Phlebotomy Lab process Integration	
Traditional Howdy	Allows scanning of the patient Veteran Identification Card (VIC) with accessioning of ordered lab tests and immediate printing of specimen labels.
Howdy PPOC	Allows scanning of the patient VIC with accessioning of ordered lab test but no printing of specimen labels. Labels are printed at the time the phlebotomist collects the specimen.
Both Howdy Versions	Captures tracking times for turn-around times.
Specimen / Wristband Label (VistA Printing Phase 2)	
Specimen and Wristband Label	Allows kiosk or staff user the ability to print Wristband and specimen labels. This includes barcodes in instances where none yet exists.
Clinical Reminder Integrating Kiosks (CRIK)	
Patient's perspective	Enables the patient to accurately discuss and verify their past and current health status with their clinician.
Staff's perspective	Allows staff to view and verify patient health history and review any Clinical Reminders that are listed as "Due Now" during the current visit
Clinician's perspective	Allows the clinician to access the patient's current and past Clinical Reminders history
Enhanced VPS Get Patient Demographics RPC	
Additional Data	This RPC adds additional data elements to the current call and/or creates an additional call specific to the grouping of information (i.e., an Orders only RPC) being requested from VistA. Examples include the patient's service-connected status, previous appointments, other meta-data relating to appointments (canceled date, user who canceled appointment, reason for cancelation, etc...), information about orders, consults, etc...
Patient's perspective	This additional information will be leveraged to present information to patients about their healthcare encounter (where applicable), inform patients the next steps to take as it relates to their encounter, and provide patients with additional access to their personal record.
Staff's perspective	This additional information will be used by VetLink to provide administrative staff with more information about the patients presenting for care. Additionally, it will be leveraged to present information to staff about the next steps to take as it relates to their encounter.

4.3 Network Architecture

No network changes are required for the VPS*1*4 effort.

4.4 Service Oriented Architecture / ESS

VPS*1*4 system are collection of public APIs (VistA RPCs). Figure 2 – VPS*1*4 Environments and External Interfaces and Figure 3 – Production String Diagram illustrate the interconnections and external interfaces in VPS system as a whole.

4.5 Enterprise Architecture

VPS*1*4 system adheres to the VA Technical Reference Model (TRM)/ Standards Profile (SP) the same way previous patches adhere to the approved standards and rules.

The current TRM/SP is located VA Enterprise Architecture (EA) v2.1 at [REDACTED]

5 Data Design

5.1 DBMS Files

No new files or fields are created or modified in the VPS*1*4 effort.

5.2 Non-DBMS Files

No non-database management system files are created or modified in the VPS*1*4 system.

5.3 Data View

This section is not applicable to this development effort.

6 Detailed Design

6.1 Hardware Detailed Design

VPS*1*4 system is an RPC development project. No new hardware is required for this effort.

6.2 Software Detailed Design

6.2.1 Conceptual Design

VPS*1*4 RPCs will be developed using standard Vista RPC development techniques. The underlying codes will be written in the M language. Those RPCs and routines will be packaged as standard KIDS build.

6.2.1.1 Product Perspective

Figure 2 – VPS*1*4 Environments and External Interfaces and Figure 3 – Production String Diagram shows VPS*1*4 in perspective with other related VPS components.

6.2.1.1.1 User Interfaces

Not applicable. VPS*1*4 system is a machine-to-machine interface only.

6.2.1.1.2 Hardware Interfaces

Not applicable. VPS*1*4 system is an RPC development effort only.

6.2.1.1.3 Software Interfaces

As with any other RPC development effort, the VPS*1*4 patch enhancement will interface with VistA Kernel and FileMan.

6.2.1.1.4 Communications Interfaces

The communications architecture for this application utilizes the VA Wide Area Network (WAN) for access to the local VistA system via RPC Broker software.

6.2.1.1.5 Memory Constraints

There are no special memory constraints other than the existing memory constraints associated with any RPC development effort or executing RPC in VistA environment.

6.2.1.1.6 Special Operations

There are no special operations associated with VPS*1*4 development effort.

6.2.1.2 Product Features

Table 2 – Functional Requirements describes product features developed in the VPS*1*4 patch enhancement effort.

6.2.1.3 User Characteristics

Not applicable because all software is machine-to-machine only.

6.2.1.4 Dependencies and Constraints

VPS*1*4 has no special dependencies and constraints that will limit the developer's options other than existing dependencies and constraint of VistA RPC development tool.

6.2.2 Specific Requirements

6.2.2.1 Database Repository

There is no special database repository required for VPS*1*4. The system will interact with existing VistA database. The RPCs will retrieve and update data stored in VistA database using standard mechanism.

6.2.2.2 System Features

Table 3 – VPS*1*4 Components details VPS*1*4 system features.

6.2.2.3 Design Elements - Remote Procedure Call (RPC)

6.2.2.3.1 Required Parameters

In the event that a required input parameter is missing in an RPC call, the system will return the error message "Required parameter missing" and will identify the missing parameter.

6.2.2.3.2 Howdy Computerized Phlebotomy Lab Process Integration

This component integrates the Howdy traditional queued printing (non-Bar Code Expansion) and non-queued (Bar-Code Expansion) Print at Point of Collection (PPOC) functionality into VetLink. This capability provides improved/enhanced patient satisfaction with check-in and lab collection activities. The following RPCs are required for the Howdy Integration.

6.2.2.3.2.1 Get Howdy Sites RPC

Table 4 below describes Get Howdy Sites RPC.

Table 4 – VPS GET HOWDY SITES RPC

RPC Name	VPS GET HOWDY SITES
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.2.1
Input Parameters	None
Result	<p>List of Howdy Site File Return Value Type: ARRAY Result Format: VPSHY(0) = 1 (Success) or -1 (Fail) flag ^ Error Message VPSHY(1..n) = HOWDY SITE FILE IEN ^ HOWDY SITE FILE NAME</p> <p>Example: VPSHY(0) = 1 VPSHY(1) = 2 ^ VAMC SITE ONE VPSHY(2) = 5 ^ VAMC SITE TWO</p> <p>If site not found VPSHY(0) = -1 ^ NO SITE FOUND</p>
Routine Name	ROUTINE: VPSHY01 TAG: GETSITES
Data Dictionary & Global References	File#: 69.86 Global: ^LRHY(69.86)
Related Integration Agreements	Integration Agreement with Howdy package is required Global: ^LRHY(69.86,"B",NAME,D0)

6.2.2.3.2.2 Get Howdy Site Printers RPC

Table 5 below describes Get Howdy Site Label Printers RPC.

Table 5 – VPS GET HOWDY SITE LABEL PRINTERS

RPC Name	VPS GET HOWDY SITE LABEL PRINTERS
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.2.2
Input Parameters	Howdy Site File IEN (Internal Entry Number) Parameter Type: LITERAL
Result	<p>List of Howdy Site's Printers Return Value Type: ARRAY Result Format: VPSHY(0) = 1 (Success) or -1 (Fail) flag ^ Error Message VPSHY(1..n) = HOWDY DEVICE IEN ^ HOWDY DEVICE NAME</p> <p>Example: VPSHY(0) = 1 VPSHY(1) = 2 ^ HOWDY PRINTER ONE VPSHY(2) = 5 ^ HOWDY PRINTER TWO</p> <p>If site not found VPSHY(0) = -1 ^ SITE NOT SELECTED If device not found VPSHY(0) = -1 ^ NO DEVICE FOUND</p>
Routine Name	ROUTINE: VPSHY01 TAG: GETHYPR
Data Dictionary & Global References	<p>File#: 69.86 (Howdy Site File) Global: ^LRHY(69.86)</p> <p>File#: 3.5 (Device) Global: ^%ZIS(1</p>
Related Integration Agreements	<p>New Integration Agreement with HOWDY package is required File #69.86 Global: ^LRHY(69.86,D0,10,"B",NAME,D0)</p> <p>DBIA# 2963 File #3.5 (DEVICE) Global: %ZIS(1, Usage: CONTROLLED SUBS</p>

6.2.2.3.2.3 Get Howdy Bingo Board RPC

Table 6 below describes Get Howdy Bingo Board RPC.

Table 6 – VPS GET HOWDY BINGO BOARD RPC

RPC Name	VPS GET HOWDY BINGO BOARD
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.2.3
Input Parameters	Howdy Site File IEN (Internal Entry Number) Parameter Type: LITERAL
Result	<p>List of Howdy Site's Printers Return Value Type: ARRAY Result Format: VPSHY(0) = 1 (Success) or -1 (Fail) flag ^ Error Message VPSHY(1..n) = BINGO BOARD DEVICE IEN ^ BINGO BOARD NAME</p> <p>Example: VPSHY(0) = 1 VPSHY(1) = 2 ^ HOWDY BINGO BOARD ONE VPSHY(2) = 5 ^ HOWDY BINGO BOARD TWO</p> <p>If site not found VPSHY(0) = -1 ^ SITE NOT SELECTED If device not found VPSHY(0) = -1 ^ NO BINGO BOARD DEVICE FOUND</p>
Routine Name	ROUTINE: VPSHY01 TAG: GETHYPRT
Data Dictionary & Global References	<p>File#: 69.86 (Howdy Site File) Global: ^LRHY(69.86)</p> <p>File#: 3.5 (Device) Global: ^%ZIS(1)</p>
Related Integration Agreements	<ol style="list-style-type: none"> 1. New Integration Agreement with HOWDY package is required Global: ^LRHY(69.86,D0,54,"B",NAME,D0) 2. DBIA# 2963 File #3.5 (DEVICE) Global: %ZIS(1, Usage: CONTROLLED SUBS

6.2.2.3.2.4 Howdy Patient Check-in RPC

Table 7 below describes Howdy Patient Check-in RPC

Table 7 – VPS HOWDY PATIENT CHECK-IN RPC

RPC Name	VPS HOWDY PATIENT CHECK-IN
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.2
Input Parameters	<ol style="list-style-type: none"> 1. Patient Identifier Type <ol style="list-style-type: none"> a. Parameter Type: LITERAL b. Valid Type: <ul style="list-style-type: none"> • SSN (Social Security Number) • DFN (VistA Patient Internal ID) • ICN (VHA Integration Control Number) • VIC/CAC (Veterans Identifier Card/Common Access Card) 2. Patient Identifier Value for the Patient ID type <ol style="list-style-type: none"> a. Parameter type: LITERAL 3. Site IEN <ol style="list-style-type: none"> a. Parameter Type: LITERAL 4. Type <ol style="list-style-type: none"> a. Parameter Type: LITERAL b. 1 = Traditional; 2 = PPOC 5. Device IEN <ol style="list-style-type: none"> a. Parameter Type: LITERAL
Result	<p>Result Format: RESULT(0) = Success or Fail flag</p> <p>Example: RESULT(0) = 1 (Success) RESULT(0) = -1^No record for this person RESULT(0) = -1^No Lab Data Available... Please check with clerk at the Desk. RESULT(0) = -1^Please check with clerk at the Desk" (when multiple orders) RESULT(0) = -1^No Orders found. Please check with clerk at the Desk" (when no orders for the date range)</p>
Routine Name	ROUTINE: VPSHDY1 TAG: PTCHKIN
Data Dictionary & Global References	^LRHY(69.86 ^LRO(69 ^LAB(60 ^LAB(62 ^DPT

Related Integration Agreements	<ol style="list-style-type: none"> 1. New Integration Agreement with HOWDY package is required File #69.86 Global: ^LRHY(69.86, Routine: LRHYBLD 2. DBIA# 2407 File: #69 Global: ^LRO(69,D0,1, Global: ^LRO(69,D0,1,"AA" Global: ^LRO(69,D0,1,D1,2,"B" Global: ^LRO(69,D0,1,D1,2, Global: ^LRO(69,"C", Usage: Controlled Subscription 3. New Integration Agreement with LAB package is required Global: ^LRO(69,D0,1,D1,4 4. DBIA# 10054 Global: ^LAB(60,D0,0 Usage: Supported 5. DBIA# 2389 Global: ^LAB(62,D0,0 Usage: Private 6. DBIA# 10035 Global: ^DPT(D0,"LR" Usage: Supported 7. DBIA# 558 Routine: PT^LRX Usage: Private
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6.2.2.3.2.5 Howdy Find Labs Orders RPC

Table 8 below describes HOWDY Find Lab Orders RPC

Table 8 – VPS HOWDY FIND LABS ORDERS RPC

RPC Name	VPS HOWDY FIND LAB ORDERS
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.2
Input Parameters	Patient Identifier Type Parameter Type: LITERAL Valid Type: SSN (Social Security Number) DFN (VistA Patient Internal ID) ICN (VHA Integration Control Number) VIC/CAC (Veterans Identifier Card/Common Access Card) Patient Identifier Value for the Patient ID type Parameter type: LITERAL Site IEN Parameter Type: LITERAL

Result	<p>Result Format:</p> <p>RESULT(0) = Success or Fail flag</p> <p>Example:</p> <p>RESULT(0) = 1 (Success)</p> <p>RESULT(0) = -1^No record for this person</p> <p>RESULT(0) = -1^No Orders found</p> <p>RESULT(1...n) =</p>
Routine Name	<p>ROUTINE: VPSHDY1</p> <p>TAG: FINDLAB</p>
Data Dictionary & Global References	<p>^LRHY(69.86,</p> <p>^LRO(69,</p> <p>^LAB(60,</p> <p>^LAB(62,</p> <p>^DPT</p>
Related Integration Agreements	<ol style="list-style-type: none"> 1. New Integration Agreement with HOWDY package is required File: 69.86 Global: ^LRHY(69.86, 2. DBIA# 2407 File: #69 Global: ^LRO(69,D0,1, Global: ^LRO(69,D0,1,"AA" Global: ^LRO(69,D0,1,D1,2,"B" Global: ^LRO(69,D0,1,D1,2, Global: ^LRO(69,"C", Usage: Controlled Subscription 3. New Integration Agreement with LAB package is required Global: ^LRO(69,D0,1,D1,4 4. DBIA# 10054 Global: ^LAB(60,D0,0 Usage: Supported 5. DBIA# 2389 Global: ^LAB(62,D0,0 Usage: Private 6. DBIA# 10035 Global: ^DPT(D0,"LR" Usage: Supported 7. DBIA# 558 Routine: PT^LRX Usage: Private

6.2.2.3.2.6 Howdy Accession Lab Orders RPC

Table 9 below describes Howdy Accession Lab Orders RPC.

Table 9 – VPS HOWDY ACCESSION LAB ORDERS RPC

RPC Name	VPS HOWDY ACCESSION LAB ORDERS
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Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.2
Input Parameters	<ol style="list-style-type: none"> 1. Patient SSN <ol style="list-style-type: none"> a. Parameter Type: LITERAL 2. Site IEN <ol style="list-style-type: none"> a. Parameter Type: LITERAL 3. Device IEN <ol style="list-style-type: none"> a. Parameter Type: LITERAL 4. Order IENs <ol style="list-style-type: none"> a. Parameter Type: LITERAL b. Format: IEN1 ^ IEN2 ^ IEN3...
Result	Result Format: RESULT(0) = Success or Fail flag Example: RESULT(0) = 1 (Success) RESULT(0) = -1^No record for this person RESULT(0) = -1^Order not found
Routine Name	ROUTINE: VPSHDY1 TAG: ACCSNLAB
Data Dictionary & Global References	^LRO(69, ^LR
Related Integration Agreements	<ol style="list-style-type: none"> 1. DBIA# 2407 File: #69 Global: ^LRO(69,D0,1, Global: ^LRO(69,"C", Usage: Controlled Subscription 2. DBIA# 525 Global: ^LR(D0,0 Usage: Controlled Subscription 3. DBIA# 558 Routine: PT^LRX Usage: Private

6.2.2.3.3 Specimen / Wristband Label (VistA Printing Phase 2)

VPS*1*4 will provide RPCs that print patient wristband labels and patient labels to be affixed on specimens. This will provide improved clinic staff productivity by eliminating the need to access a separate VistA session to generate print jobs. The following RPCs will be called by VetLink to print those labels.

6.2.2.3.3.1 Print Wristband Label RPC

Table 10 below describes Print Wristband Label RPC.

Table 10 – VPS PATIENT WRISTBAND PRINT RPC

RPC Name	VPS PATIENT WRISTBAND PRINT
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.4.3
Input Parameters	<ul style="list-style-type: none"> b. Patient Identifier Type c. Parameter Type: LITERAL d. Valid Type: <ul style="list-style-type: none"> • SSN (Social Security Number) • DFN (VistA Patient Internal ID) • ICN (VHA Integration Control Number) • VIC/CAC (Veterans Identifier Card/Common Access Card) c. Patient Identifier Value for the Patient ID type b. Parameter type: LITERAL d. Bar Code Type a. Parameter Type: LITERAL b. Valid Type: <ul style="list-style-type: none"> • SSN (Social Security Number) • EDIPI (Electronic Data Interchange Personal Identifier) e. Output Device (Name of the VistA printer used to print wristband label) a. Parameter type: LITERAL
Result	<ul style="list-style-type: none"> 1. Successful or Failure Message <ul style="list-style-type: none"> a. Return Value Type: SINGLE VALUE b. Success Message: 0 e. Failure Message: -1^Error Message <p>Example Failure Message:</p> <ul style="list-style-type: none"> -1^NO DEVICE SENT -1^NO PATIENT SENT -1^PATIENT 100 NOT FOUND -1^NO WARD -1^DEVICE IN USE – TRY LATER
Routine Name	ROUTINE: VPSWRIST TAG: WRISTB
Data Dictionary & Global References	^DPT

Related Integration Agreements	<ol style="list-style-type: none"> 1. DBIA# 10061 Routine/References: INP^VADPT Usage : SUPPORTED 2. DBIA# 10035 File #2 (PATIENT) Global: ^DPT Usage: SUPPORTED 3. DBIA# 5905 Routine/References: SET^DGPWB \$\$DIVISION^DGPWB Usage: PRIVATE 4. DBIA# 2119 Routine/References: OPEN^%ZISUTL USE^%ZISUTL CLOSE^%ZISUTL Usage: SUPPORTED 5. DBIA# 5888 Routine/References:RPCVIC^DPTLK Usage: SUPPORTED 6. DBIA# 2701 Routine/References: \$\$GETDFN^MPIF001 Usage: SUPPORTED
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6.2.2.3.3.2 Print Patient Label to affix on Specimen Container RPC

Table 11 below describes Print Patient Label RPC. This label will be affixed on Specimen container.

Table 11 – VPS PRINT PATIENT LABEL RPC

RPC Name	VPS print patient label
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.4.1

Input Parameters	<ol style="list-style-type: none"> 1. Patient Identifier Type <ol style="list-style-type: none"> a. Parameter Type: LITERAL b. Valid Type: <ul style="list-style-type: none"> • SSN (Social Security Number) • DFN (VistA Patient Internal ID) • ICN (VHA Integration Control Number) • VIC/CAC (Veterans Identifier Card/Common Access Card) 2. Patient Identifier Value for the Patient ID type <ol style="list-style-type: none"> a. Parameter type: LITERAL 3. Bar Code Type <ol style="list-style-type: none"> a. Parameter Type: LITERAL b. Valid Type: <ul style="list-style-type: none"> • SSN (Social Security Number) • EDIPI (Electronic Data Interchange Personal Identifier) 4. Include Location Flag (Print Location Type) <ol style="list-style-type: none"> a. Parameter type: LITERAL b. Valid Type: <ul style="list-style-type: none"> • 1 : Include Location on the label • 0: Exclude Location on the label 5. Label Count (How many labels to print) <ol style="list-style-type: none"> a. Parameter type: LITERAL b. Valid Type: 1 to 250 6. Lines per label (maximum lines per label) <ol style="list-style-type: none"> a. Parameter type: LITERAL b. Valid Type: 6 to 25 7. Output Device (Name of the VistA printer used to print wristband label) <ol style="list-style-type: none"> a. Parameter type: LITERAL
Result	<ol style="list-style-type: none"> 1. Successful or Failure Message <ol style="list-style-type: none"> a. Return Value Type: SINGLE VALUE b. Success Message: 0 c. Failure Message: -1^Error Message Example Failure Message: -1^NO DEVICE SENT -1^NO PATIENT SENT -1^PATIENT 100 NOT FOUND -1^WARD LOCATION IS UNDEFINED -1^LABEL COUNT IS UNDEFINED -1^LINES PER LABEL IS UNDEFINED -1^DEVICE IN USE – TRY LATER -1^INVALID NUMBER OF LABELS COUNT -1^INVALID NUMBER OF LINES PER LABEL
Routine Name	ROUTINE: VPSRLBLS TAG: LABEL
Data Dictionary & Global References	^DPT

Related Integration Agreements	<ol style="list-style-type: none"> DBIA# 10061 Routine/References: INP^VADPT Usage : SUPPORTED DBIA# 10035 File #2 (PATIENT) Global: ^DPT(Usage: SUPPORTED DBIA# 5904 Routine/References: START^DGPLBL Usage: PRIVATE DBIA# 2119 Routine/References: OPEN^%ZISUTL USE^%ZISUTL CLOSE^%ZISUTL Usage: SUPPORTED DBIA# 5888 Routine/References: RPCVIC^DPTLK Usage: SUPPORTED DBIA# 2701 Routine/References: \$\$GETDFN^MPIF001 Usage: SUPPORTED
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6.2.2.3.3.3 VistA Printers Retrieval RPC

The following table describes Output Device retrieval RPC to return list of the first 20 VistA printers starting with an input device so that the RPC can be used in the VPS Kiosk application for printer selection. This RPC may be called repetitively starting with the last device to get the desired printer.

Table 12 – ORWU DEVICE RPC

RPC Name	ORWU device
Enhancement Category	EXISTING RPC
RTM(RSD)	RSD section 2.6.4.4
Input Parameters	<ol style="list-style-type: none"> Start From Device (Return list of devices start with this value) <ol style="list-style-type: none"> Parameter Type: LITERAL Direction Flag (Return in ascending or descending order) <ol style="list-style-type: none"> Parameter Type: LITERAL Valid Value: <ul style="list-style-type: none"> 1: Ascending Order -1: Descending Order
Result	<ol style="list-style-type: none"> List of 20 printers start with the "Start From Device" input parameter <ol style="list-style-type: none"> Return Value Type: ARRAY
Routine Name	ROUTINE: ORWU TAG: DEVICE

Data Dictionary & Global References	^%ZIS(1)
Related Integration Agreements	<ol style="list-style-type: none"> 1. DBIA# 10114 File #3.5 (DEVICE) Global: ^%ZIS(1) Usage: Supported 2. DBIA# 1837 Remote Procedure: ORWU DEVICE Custodial package: ORDER ENTRY/RESULTS REPORTING Usage : PRIVATE 3. DBIA# 10035 File #2 (PATIENT) Global: ^DPT(Usage: SUPPORTED 4. DBIA# 5904 Routine/References: START^DGPLBL Usage: PRIVATE 5. DBIA# 2119 Routine/References: OPEN^%ZISUTL USE^%ZISUTL CLOSE^%ZISUTL Usage: SUPPORTED 6. DBIA# 5888 Routine/References: RPCVIC^DPTLK Usage: SUPPORTED 7. DBIA# 2701 Routine/References: \$\$GETDFN^MPIF001 Usage: SUPPORTED

6.2.2.3.4 Detailed Processes of Clinical Reminders Integrating Kiosks (CRIK) – Phase 1

To integrate with Clinical Reminders, VPS*1*4 will provide RPCs that extract a patient's clinical reminders from associated VistA files for presentation to clinic staff. This capability enhances the ability of clinic staff to complete clinical reminder activities and reduce the number of past due clinical reminders.

6.2.2.3.4.1 Get Clinical Reminders RPC

Table 13 below describes Get Clinical Reminders RPC.

Table 13 – Get Clinical Reminders RPC

RPC Name	VPS GET CLINICAL REMINDERS
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.1
Input Parameters	<ol style="list-style-type: none">1. Patient IEN<ol style="list-style-type: none">a. Parameter Type: LITERAL2. Division IEN<ol style="list-style-type: none">a. Parameter type: LITERAL3. Service IEN<ol style="list-style-type: none">a. Parameter type: LITERAL4. Location IEN<ol style="list-style-type: none">a. Parameter type: LITERAL5. User Class IENs<ol style="list-style-type: none">a. Parameter type: LITERAL6. User IEN<ol style="list-style-type: none">a. Parameter type: LITERAL
Result	<ol style="list-style-type: none">1. If successful returns a list of “Due Now” Clinical Reminders for a given patient<ol style="list-style-type: none">a. Return Value Type: Arrayb. Result Format: RESULT(1..n) = IEN^NAME^DUEDATE^LASTDATE^PRIORITY^STATUS IEN : Clinical Reminder Internal Entry Number NAME: Clinical Reminder Name DUEDATE: Reminder Due Date LASTDATE: Last Performed Date PRIORITY: Priority Status: Statusc. Example: 518085^Colorectal Cancer Screen^DUE NOW^^2^1 518080^Influenza Vaccine ^3031023.1115^3021023.1115^1^1 46^Hepatitis C Antibody Testing^DUE NOW^^2^1 120^CO-DEPRESSION SCREEN/FU ASSESSMENT^DUE NOW^^2^1
Routine Name	ROUTINE: VPSPTCR TAG: REMIND
Data Dictionary & Global References	

Related Integration Agreements	<ol style="list-style-type: none"> 1. DBIA# 2263 Routine/References: GETLST^XPAR GETWP^XPAR Usage : SUPPORTED 2. DBIA# 2051 Routine/References: FIND1^DIC Usage : SUPPORTED 3. DBIA# 2056 Routine/References: GET1^DIQ Usage : SUPPORTED 4. DBIA# 2182 Routine/References: MAIN^PXRM Usage: CONTROLLED SUBSCRIPTION 5. DBIA# 3333 Routine/References: CATREM^PXRMAPI0 Usage: CONTROLLED SUBSCRIPTION
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6.2.2.3.5 Detailed Processes of Enhanced VPS Get Patient Demographics RPC

VPS*1*1 currently exchanges/provides VetLink basic patient demographic data such as name, address, gender, and insurance coverage. VPS*1*4 will expand the demographic data provided to VetLink. The addition data provided in VPS*1*4 will enhance the ability of outpatient clinic staff to respond to patient questions and health care concerns.

6.2.2.3.5.1 Enhanced Get Patient Demographics RPC

Table 14 below describes the Enhanced Get Patient Demographics RPC.

Table 14 – Enhanced Get Patient Demographics

RPC Name	VPS ENHANCED GET PATIENT DEMOGRAPHICS
Enhancement Category	NEW RPC
RTM(RSD)	RSD section 2.6.1
Input Parameters	<ol style="list-style-type: none">1. Patient Identifier Type<ol style="list-style-type: none">a. Parameter Type: LITERALb. Valid Type:<ul style="list-style-type: none">• SSN (Social Security Number)• DFN (Vista Patient Internal ID)• ICN (VHA Integration Control Number)• VIC/CAC (Veterans Identifier Card/Common Access Card)2. Patient Identifier Value for the Patient ID type<ol style="list-style-type: none">a. Parameter type: LITERAL3. Categories: multiple group of fields to return.<ol style="list-style-type: none">a. Parameter Type: LITERALb. Valid Groups:<ol style="list-style-type: none">1 - Appointment (Date Range)2 - Lab Orders (Date Range)3 – Consults4 – Radiology (Date Range)5 - Problem6 – Patient Characteristicsc. Date Range Format: FILEMAN FROM DATE:FILEMAN TO DATEd. Each category is delimited by “;” <p>Input Parameter Format: PATIENT ID TYPE^PATIENT ID^CATEGORIES</p> <p>Sample Input parameter with date range SSN 555555555 1:3140101:3141231;6;3;2:3140601:3140630</p> <p>For patient with SSN 555555555 return</p> <ol style="list-style-type: none">a. appointments start from 1/1/2014 to 12/31/2014b. patient demographic informationc. Patient's consultsd. Lab orders start from 6/1/2014 to 6/20/2014

Result	<p>If successful returns a list of demographic, enrollment, and clinic data including scheduled appointment, order, consult, imaging, and auditing information for the identified patient</p> <p>Return Value Type: ARRAY</p> <p>Result Format:</p> <p>VPSARR(1..n) = FILE^IEN^FLD^FLDVAL FILE : File Number IEN : Internal Entry Number FLD: Field Number FLDVAL: Field Value</p> <p>Example:</p> <p>ELIGIBILITY STATUS DATE VPSARR(1) = 2^100^.3612^3001231</p> <p>MEANS TEST STATUS VPSARR(2) = 2^3^.14^EXEMPT</p> <p>Error Format VPSARR(1) = -1 ^ Error Message</p> <p>Error Example: VPSARR(1)= -1^SSN, DFN,ICN,OR VIC/CAC IS REQUIRED</p>
Routine Name	<p>ROUTINE: VPSRPC1 TAG: GETGRPS</p>
Data Dictionary & Global References	<p>Global References:</p> <p>^AUPNPROB("AC",) ^AUPNPROB ^AUTNPOV ^DPT ^DIC(5 ^DIC(8 ^DIC(9.4 ^DIC(21 ^DIC(22 ^DIC(23 ^DIC(31 ^DG(391 ^DGEN(27.11 ^DGMT(408.31 ^DG(408.32 ^LAB(60 ^LAB(62.5 ^LEX(757.01 ^LRO(69 ^IBA(354 ^ICD9 ^PXD(811.9 ^ORD(100 ^SC ^SD(409.2 ^RAO(75.1 ^VA(200 ^%ZIS(1</p> <p>New Fields to return PATIENT(#2): ELIGIBILITY STATUS DATE #.3612 MEANS TEST STATUS #.14 PERIOD OF SERVICE (.32,2) FUGITIVE FELON FLAG #1100.01 PATIENT TYPE #391</p>

	<p> POW STATUS #.525 POW CONFINEMENT LOCATION #.526 POW FROM DATE #.527 POW TO DATE #.528 POW STATUS VERIFIED #.529 CURRENT PH INDICATOR #.531 CURRENT PURPLE HEART STATUS #.532 CURRENT PURPLE HEART REMARKS #.533 EXCLUDE FROM FACILITY DIR #109 ENROLLMENT CLINIC (#2.001) CURRENT STATUS (2.001,1) DATE OF ENROLLMENT (2.011, .01) OPT OR AC (2.011,1) SERVICE (2.011,2) DATE OF DISCHARGE (2.011,3) REASON FOR DISCHARGE (2.011,4) REVIEW DATE (2.011,5) CONFIDENTIAL ADDRESS ACTIVE #.14105 CONFIDENTIAL STREET [LINE 1] #.1411 CONFIDENTIAL STREET [LINE 2] #.1412 CONFIDENTIAL STREET [LINE 3] #.1413 CONFIDENTIAL ADDRESS CITY #.1414 CONFIDENTIAL ADDRESS STATE #.1415 CONFIDENTIAL ADDRESS COUNTY #.14111 CONFIDENTIAL ADDRESS ZIP CODE #.1416 CONFIDENTIAL ADDR POSTAL CODE #.14115 CONFIDENTIAL ADDR COUNTRY #.141165 CONFIDENTIAL START DATE #.1417 CONFIDENTIAL END DATE #.1418 CONFIDENTIAL PHONE NUMBER START DATE #. CONFIDENTIAL ADDRESS CATEGORY (MULTIPLE 2.141, .01) LABORATORY REFERENCE #63 MISSING PERSON DATE #.153 MISSING OR INELIGIBLE #.16 MISSING PERSON TWX SOURCE #.1657 MISSING PERSON TWX CITY #.1658 MISSING PERSON TWX STATE #.1659 SERVICE CONNECTED (MULTIPLE 2.04,3) SC AWARD DATE #.3012 EFF. DATE COMBINE SC% EVAL #.3014 UNEMPLOYABLE #.305 ADDRESS CHANGED DT/TM #.1113 TEMPORARY ADDRESS CHANGE DT/TM #.12113 CONFIDENTIAL ADDR CHANGE DT/TM #.14112 RESIDENCE NUMBER CHANGE DT/TM #.1321 PAGER NUMBER CHANGE DT/TM #.1113 CELLULAR NUMBER CHANGE DT/TM #.139 EMAIL ADDRESS CHANGE DT/TM #.136 E-CONTACT CHANGE DATE/TIME #.3322 E2-CONTACT CHANGE DATE/TIME #.3322 DESIGNEE CHANGE DATE/TIME #.3323 PRIMARY NOK CHANGE DATE/TIME #.2121 SECONDARY NOK CHANGE DATE/TIME #.2122 RATED DISABILITIES (#2.04) SERVICE CONNECTED #.2 EXTREMITY AFFECTED #4 DISABILITY % #2 SERVICE CONNECTED #3 ORIGINAL EFFECTIVE DATE #5 CURRENT EFFECTIVE DATE #6 </p>
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	<p>APPOINTMENTS (#2.98)</p> <p>APPOINTMENT DATE/TIME #.001</p> <p>CLINIC #.01</p> <p>STATUS #3</p> <p>NOSHOW/CANCELLED BY #14</p> <p>NO SHOW/CANCELLED DATE/TIME #15</p> <p>CANCELLATION REASON #16</p> <p>CANCELLATION REMARKS #17</p> <p>PATIENT ENROLLMENT (#27.11)</p> <p>PRIMARY ELIGIBILITY CODE #.368</p> <p>SERVICE CONNECTED? #.301</p> <p>SERVICE CONNECTED PERCENTATE #.302</p> <p>AEL;0</p> <p>ENROLLMENT DATE #.1</p> <p>EFFECTIVE DATE #.08</p> <p>ENROLLMENT PRIORITY #7</p> <p>SOUTHEAST ASIA CONDITIONS ("E",13)</p> <p>LABORATORY ORDER ENTRY (\$69)</p> <p>DATE/TIME OF COLLECTION #5.5</p> <p>TEST/PROCEDURE #.01</p> <p>ORDER # (NUMBER) #9.5</p> <p>URGENCY #1</p> <p>STATUS #8</p> <p>BILLING PATIENT (#354)</p> <p>COPAY INCOME EXEMPTIONS STATUS #0.4</p> <p>REMINDER DEFINITION (#811.9)</p> <p>PRIORITY #1.91</p> <p>PRINT NAME #1.2</p> <p>INACTIVE FLAG #1.6</p> <p>USAGE #103</p> <p>EXPRESSIONS (#757.01)</p> <p>CANCELLATION REASONS(\$409.2)</p> <p>MEANS TEST STATUS (#408.32)</p> <p>ICD DIAGNOSIS (#80)</p> <p>LABORATORY TEST (#60)</p> <p>DISABILITY CONDITION(#31)</p> <p>PRIMARY ELIGIBILITY CODE (#8)</p> <p>PERIOD OF SERVICE (#23)</p> <p>POW PERIOD (#22)</p> <p>BRANCH OF SERVICE (#23)</p> <p>ANNUAL MEANS TEST (\$408.31)</p> <p>HARDSHIP #.2</p> <p>PROBLEM (#90000011)</p> <p>DIAGNOSIS #.01</p> <p>DATE LAST MODIFIED #.03</p> <p>PROVIDER NARRATIVE #.05</p> <p>FACILITY #.06</p> <p>DATE ENTERED #.08</p> <p>STATUS #.12</p> <p>PROBLEM #1.01</p> <p>CONDITION #1.02</p> <p>ENTERED BY #1.03</p> <p>RECORDING PROVIDER #1.04</p> <p>RESPONSIBLE PROVIDER #1.05</p>
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	PROVIDER NARRATIVE (#99999999.27)
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Related Integration Agreements	<ol style="list-style-type: none"> 1. DBIA# 10061 Routine: VADPT Usage : SUPPORTED 2. DBIA# 10035 File #2 (PATIENT) Global: ^DPT Usage: SUPPORTED 3. DBIA# 4433 Routine: SDAMA301 Usage: SUPPORTED 4. DBIA# 10114 File #1 (DEVICE) Global: ^%ZIS(1 Usage: SUPPORTED 5. DBIA# 248 File #4.2 (DOMAIN) Global: ^DIC(4.2 Usage: CONTROLLED SUBS 6. DBIA# 10056 File #5 (STATE) Global: ^DIC(5 Usage: SUPPORTED 7. DBIA# 10048 File #9.4 (PACKAGE) Global: ^DIC(9.4 Usage: SUPPORTED 8. DBIA# 427 File #8 (ELIGIBILITY CODE) Global: ^DIC(8 Usage: CONTROLLED SUBS 9. DBIA# 913 File #21 (PERIOD OF SERVICE) Global: ^DIC(21 Usage: CONTROLLED SUBS 10. DBIA# 935 File #22 (POW PERIOD) Global: ^DIC(22 Usage: CONTROLLED SUBS 11. DBIA# 1385 File #23 (BRANCH OF SERVICE) Global: ^DIC(23 Usage: CONTROLLED SUBS 12. DBIA# 2462 File #27.11 (PATIENT ENROLLMENT) Global: ^DGEN(27.11 Usage: CONTROLLED SUBS 13. DBIA# 142 File #31 (DISABILITY CONDITION) Global: ^DIC(31 Usage: CONTROLLED SUBS
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	<p>14. DBIA# 10040 File #44 (HOSPITAL LOCATION) Global: ^SC Usage: SUPPORTED</p> <p>15. DBIA# 5388 File #80 (ICD DIAGNOSIS) Global: ^ICD9(Usage: SUPPORTED</p> <p>16. DBIA# 10060 File #200 (NEW PERSON) Global: ^VA(200 Usage: SUPPORTED</p> <p>17. DBIA# 1112 File #391 (PATIENT TYPE) Global: ^DG(Usage: CONTROLLED SUBS</p> <p>18. DBIA# 968 File #408.31 (ANNUAL MEANS TEST) Global: ^DGMT(408.31 Usage: PRIVATE</p> <p>19. DBIA# 4941 File #408.32 (MEANS TEST STATUS) Global: ^DG(408.32 Usage: CONTROLLED SUBS</p> <p>20. DBIA# 457 File #757.01 (EXPRESSIONS) Global: ^GMP(757.01 Usage: SUPPORTED</p> <p>21. DBIA# 2182 Routine/References: PXR Usage: CONTROLLED SUBS</p> <p>22. DBIA# 326 File #9000011 (PROBLEM) Global: ^AUPNPROB Usage: PRIVATE</p> <p>23. DBIA# 5905 Routine/References: SET^DGPWB DIVISION^DGPWB Usage : PRIVATE</p> <p>24. DBIA# 5888 Routine/References: RPCVIC^DPTLK Usage : SUPPORTED</p> <p>25. DBIA# 2701 Routine/References: GETDFN^MPIF001 Usage: SUPPORTED</p> <p>26. DBIA# NEW REQUEST Routine/References: PCDETAIL^ORWPT1 Usage: PRIVATE</p>
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	<p>27. DBIA# 1671 Routine/References: LIST^ORQQCN Usage: CONTROLLED SUBS</p> <p>28. DBIA#: 1672 Routine/References: DETAIL^ORQQCN Usage: CONTROLLED SUBS</p> <p>29. DBIA# 2043 Routine References: EN1^RAO7PC1 Usage: SUPPORTED</p>
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6.2.2.3.5.2 Get2 Patient Demographics RPC

Table 15 below describes the Get2 Patient Demographics RPC.

This RPC is modified to return additional patient demographic fields as described in the Enhanced patient Demographic RPC.

Table 15 – GET2 PATIENT DEMOGRAPHICS RPC

RPC Name	VPS GET2 PATIENT DEMOGRAPHICS
Enhancement Category	modified RPC
RTM(RSD)	RSD section 2.6.1
Input Parameters	<ol style="list-style-type: none"> 1. Patient Identifier Value for the Patient ID type <ol style="list-style-type: none"> a. Parameter type: LITERAL 2. Patient Identifier Type <ol style="list-style-type: none"> a. Parameter Type: LITERAL b. Valid Type: <ul style="list-style-type: none"> o SSN (Social Security Number) o DFN (VistA Patient Internal ID) o ICN (VHA Integration Control Number) o VIC/CAC (Veterans Identifier Card/Common Access Card) <p>Input Parameter Format: PATIENT ID^ PATIENT ID TYPE</p> <p>Sample Input parameter DFN 5555</p> <p>For patient with DFN return information for all categories</p> <ol style="list-style-type: none"> 1 - Appointment (Date Range) 2 - Lab Orders (Date Range) 3 – Consults 4 – Radiology (Date Range) 5 - Problem 6 – Patient Characteristics <p>Starting date in the date range will be defaulted to the default values used in CPRS. Ending date will be defaulted as the end-date (last FileMan valid date)</p>
Result	Same as VPS ENHANCED GET PATIENT DEMOGRAPHICS
Routine Name	ROUTINE: VPSRPC1 TAG: GETDATA2
Data Dictionary & Global References	Same as VPS ENHANCED GET PATIENT DEMOGRAPHICS

Related Integration Agreements	Same as VPS ENHANCED GET PATIENT DEMOGRAPHICS
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6.2.2.3.5.3 Get Patient Demographics RPC

Table 16 below describes the Get Patient Demographics RPC.

This RPC is modified to return additional patient demographic fields as described in the Enhanced Patient Demographic RPC.

Table 16 – GET PATIENT DEMOGRAPHICS RPC

RPC Name	VPS GET PATIENT DEMOGRAPHICS
Enhancement Category	modified RPC
RTM(RSD)	RSD section 2.6.1
Input Parameters	<p>Patient SSN Parameter type: LITERAL</p> <p>Input Parameter Format: PATIENT SSN</p> <p>Sample Input parameter 555667777</p> <p>For patient with SSN 555667777 return information for all categories</p> <ol style="list-style-type: none"> 1. Appointment (Date Range) 2. Lab Orders (Date Range) 3. Consults 4. Radiology (Date Range) 5. Problem 6. Patient Characteristics <p>Starting date in the date range will be defaulted to the default values used in CPRS. Ending date will be defaulted as the end-date (last FileMan valid date)</p>

Result	Same as VPS ENHANCED GET PATIENT DEMOGRAPHICS
Routine Name	ROUTINE: VPSRPC1 TAG: GETDATA
Data Dictionary & Global References	Same as VPS ENHANCED GET PATIENT DEMOGRAPHICS
Related Integration Agreements	Same as VPS ENHANCED GET PATIENT DEMOGRAPHICS

6.2.2.3.6 Options

There are no new options required for the VPS*1*4 development effort.

6.2.2.3.7 Protocols

There are no new protocols required for the VPS*1*4 development effort.

6.3 Network Detailed Design

Not applicable in the VPS*1*4 development effort.

6.4 Service Oriented Architecture / ESS Detailed Design

Service Oriented Architecture (SOA) is not applicable in VPS*1*4 development effort.

7 External System Interface Design

7.1 Interface Architecture

Interfaces to VistA are described in Section 6. To summarize, the following areas of Vista are interfaced with via the RPC Broker:

1. Registration
2. Scheduling
3. Integrated Billing
4. Clinical Reminder

5. Howdy
6. Laboratory
7. Problem
8. ICD
9. Reminder Definition

7.2 Interface Detailed Design

7.2.1 VPS System and VistA (Update)

This section provides notional views of interactions between the front-end kiosk accessed by the patient, the kiosk server, the RPC Broker, and the VistA applications supporting the registration, check-in (Howdy), and clinical applications.

Figure 4 provides a notional view of the interactions between the VPS system and the Vista data for update purposes. Select fields may be updated by the Veteran via the server.

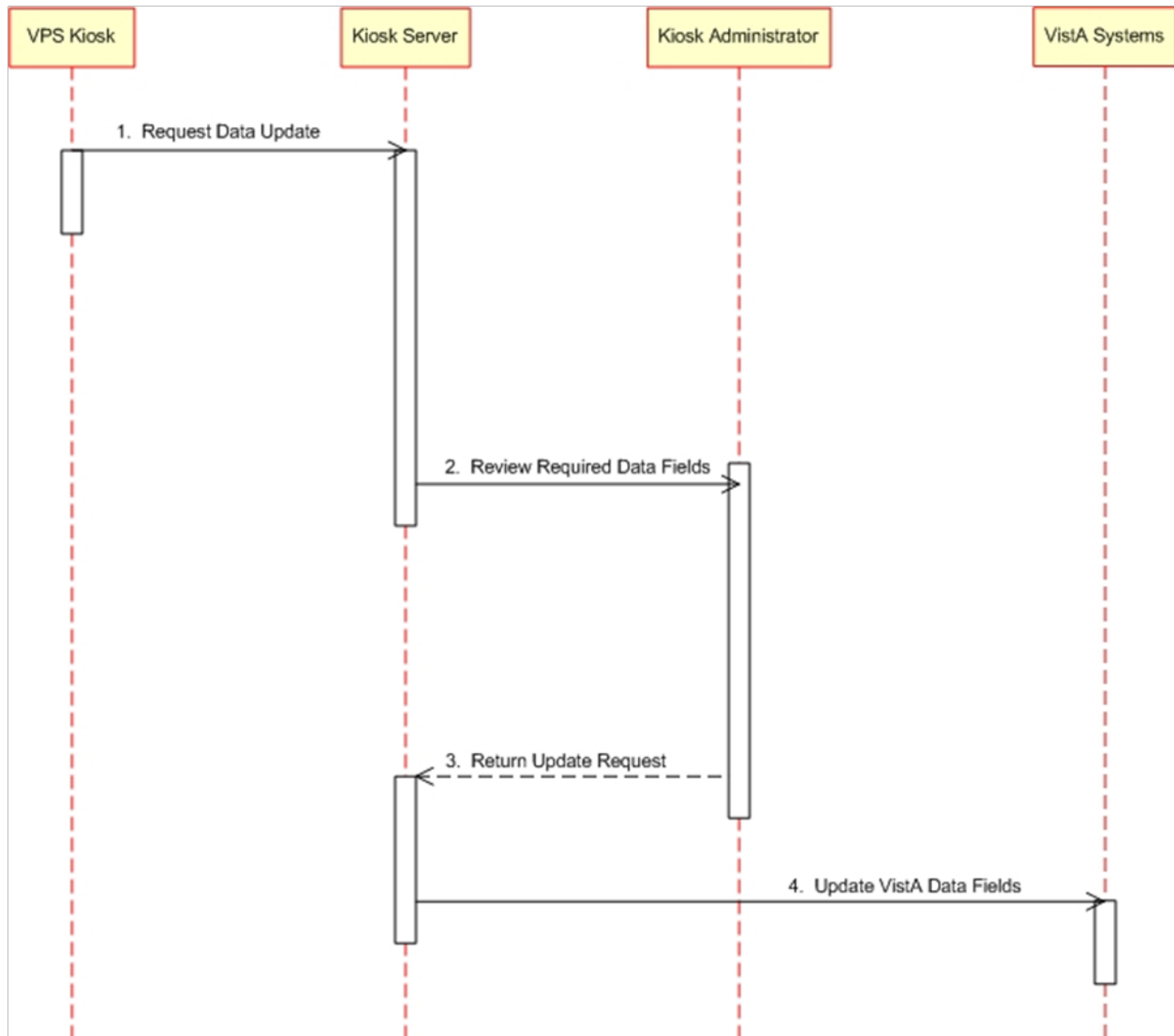


Figure 3 – VPS and VistA Interface (Update)

7.2.2 VPS and Vista – Access/Read

The kiosk server will utilize the RPC Broker to access and retrieve VistA data as appropriate (see Figure 5). Patient data will be temporarily stored on the kiosk server for utilization during the patient's session. Timing and retention of data on the server will be function and implementation specific. Patient record retrieval will utilize various patient identifier such as SSN, DFN, ICN, and VIC/CAC to pull information from the determined VistA system.

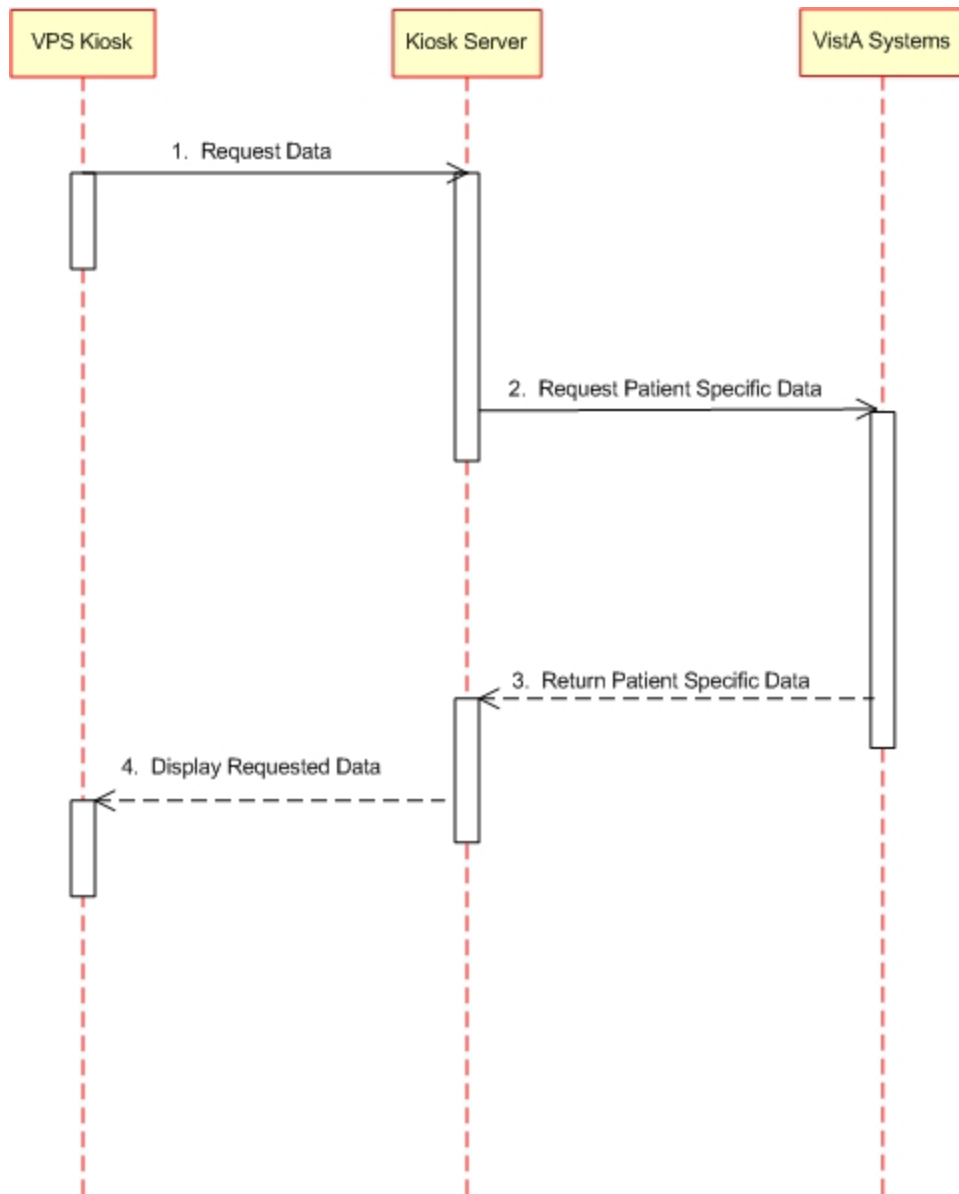


Figure 4 – VPS and VistA Interface (Access/Read)

8 Human-Machine Interface

There is no human-to-machine interface introduced with VPS*1*4. All interaction is machine-to-machine.

8.1 Interface Design Rules

8.2 Inputs

8.3 Outputs

8.4 Navigation Hierarchy

9 Security and Privacy

As with previous patches, VPS*1*4 will comply with all privacy and security features as mandated by VA, Federal, State, and Local regulations. The System will comply with federal guidelines on PHI (HIPAA) - [REDACTED] and will adhere to all VA requirements for Release of Information (ROI) - [REDACTED]

Attachment A – Approval Signatures

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

Signed:

Date:



IPT Chair and IT Project Manager

Signed:

Date:



Business Sponsor

A. Additional Information

A.1. RTM

RTM is not available at this time.

A.2. Packaging and Installation

Packaging and Installation document is not available at this time.

A.3. Design Metrics

Design Metrics is not available at this time.

A.4. Acronym List and Glossary

Table 17 - Glossary of Terms

Term	Meaning
AVS	After Visit Summary
BRD	Business Requirements Document
CAC	Common Access Card
CBO	Chief Business Office
CBOC	Community Based Outpatient Clinics
CDW	Corporate Data Warehouse
CPRS	Computerized Patient Record System
CRIK	Clinical Reminders Integrating Kiosks
DBIA	Integration Agreement between Subscriber and Custodial packages. The agreements are stored in VA FORUM database
DFN	VistA Patient Internal ID
ESS	Environment and External Interface
GUI	Graphic User Interface
HIPAA	Health Insurance Portability and Accountability Act of 1996
ICD	International Classification of Diseases
ICN	VHA Integration Control Number
IOC	Initial Operating Capability
IT	Information Technology
PIMS	Patient Information Management Systems
PPOC	Print at Point of Collection
MRAR	Medication Review and Allergy Review
MT	Means Test
NIST	National Institute of Standards and Technology
NPI	National Provider Identifier
OED	Office of Enterprise Development
OHI	Office of Health Information
OI&T	Office of Information Technology

Term	Meaning
PHI	Protected Health Information
RPC	Remote Procedure Call
ROI	Release of Information
RSD	Requirements Specification Document
SDD	System Design Document
SOA	Service Oriented Architecture
SQA	Software Quality Assurance
SRS	System Requirements Specification
SSN	Social Security Number
SSO	Single Sign On
TRM/SP	Technical Reference Model/Standards Profile
VA	Department of Veterans Affairs
VAMC	VA Medical Center
VHA	Veterans Health Administration
VIC	Veteran Identification Card
VISN	Veterans Integrated Service Network
VistA	Veterans Health Information System and Technology Architecture
VPS	VA Point of Service

A.5. Required Technical Documents