

REQUIREMENTS SPECIFICATION DOCUMENT

**Non-VA Care Claims Processing Enhancements Computerized
Patient Record System (CPRS) Interface to Healthcare Claims
Processing (HCP)**



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1. INTRODUCTION

The requirements in this document detail the enhancements to the VistA Consult-HCPS bi-directional interface.

1.1. Purpose

This document specifies the requirements for the Non-VA Care Interface Support (NVCIS) Program in regard to the Veterans Health Information Systems and Technology Architecture (VistA) CPRS and Consult/Request Tracking applications. This document is intended for the Department of Veterans Affairs (VA) Purchased Care Business Office, Financial Services Center (FSC) development team, and the NVCIS development and integration team.

1.2. Scope

The Veteran's Health Administration (VHA) is one of the world's largest health care delivery organizations. As part of an integrated strategy to provide Veterans with timely access to quality health care services, VA healthcare facilities are authorized to pay for health care services acquired from Non-VA health care providers. These services may be provided to eligible Veterans from Non-VA health care providers when VA determines medically necessary services are not available from VA on a timely basis, in an emergency, or when VA or other Federal facilities are not feasibly available. VA manages the authorization, claims processing, and reimbursement for services acquired from Non-VA health care providers through the Purchased Care Program.

The Purchased Care Non-VA Care (Fee Basis) Program has seen exponential growth in the past five years, from \$3.8B in annual expenditures to an excess of \$4.8B in FY13. Until recently, these services were managed utilizing a VistA Fee Basis software product, which was initially developed twenty five years ago. It has had few updates towards modernization and could not accept the industry standard Electronic Data Interchange (EDI) transaction set which meant staffs were required to manually enter every request for payment. Given the huge financial impact of the program, this manual processing represented a significant financial vulnerability in addition to a significant work burden.

To address the identified problems, the VHA Chief Business Office (CBO), for Purchased Care has developed a comprehensive set of requirements to outline a vision for the future state of the Purchased Care Program. In order to meet the long term business requirement, VA will need to execute full business process re-engineering, move to one claims processing system, and make the organizational changes necessary to support these program requirements. The CBO is managing multiple programmatic changes to meet both long-term needs as well as interim requirements in both care coordination and claims processing. Claims processing covers the efficient processing, payment or denial of health care claims submitted by Non-VA providers to include assurance that systems are in place to accurately adjudicate and pay claims.

In order to meet the long-term vision, the CBO has partnered with the Financial Services Center (FSC) in Austin, TX to develop a centralized HCP system. HCP will first be deployed to

Indianapolis in Q2FY14, followed by incremental updates, and finally a complete national deployment by the end of 2015.

The current integration of multiple VistA functionalities for Non-VA claims processing and referral/authorization is not sufficient to assure that appropriate estimation and obligation information is current, transparent and available for decision making during Non-VA referral/authorization and claims processing. In order to address this, VA is looking to make improvements in CPRS interfaces.

1.3. Assumptions and Dependencies

1.3.1. Assumptions

- This document describes the requirements pertaining to the CPRS-HCP electronic interface.
 - It is assumed that the requirements described in this document do not include changes to the CPRS user interface.
 - It is also assumed that the requirements described in this document do not include changes to the HCP software. Any necessary HCP software changes will be separately managed by the HCP project team.
- The requirements outlined in this document are high level and will be further detailed during the design phase.
- Timeliness of acknowledgement message transactions is dependent on normal system operations from systems in which they are sent and received. If systems are down or are not operating at optimum levels, message transactions will be impacted.
- When referral updates and status updates are received from HCP, CPRS shall alert the VA Provider utilizing existing CPRS alert functionality. Details regarding the electronic interface transactions that will trigger this functionality will be provided in design documentation.

1.3.2. Dependencies

- Project dependency: Interfacing Partners will be prepared to receive and send interface transactions in accordance with the NVCIS project schedule.
- The following external partners must be able to accommodate the modifications made within the VistA, CPRS, and Consult/Request Tracking applications within the deadlines for the NVCIS project:
 - HCP
 - FSC

1.4. Acronyms and Definitions

1.4.1. Acronyms

Term	Definition
ANSI	American National Standards Institute
BRD	Business Requirements Document
CBO	Chief Business Office
CHUI	Character-based User Interface
CI/ST	Component Integration/System Test
COTS	Commercial Off-The-Shelf
CPRS	Computerized Patient Record System
EDI	Electronic Data Interchange
ERR	Enterprise Requirements Repository
FSC	Financial Services Center
GUI	Graphical User Interface
HCP	Healthcare Claims Processing (See also, RAS)
HIPAA	Health Insurance Portability and Accountability Act
HL7	Health Level 7
IFCAP	Integrated Funds Control, Accounting, and Procurement
IRM	Information Resources Management
ISO	Information Security Officer
IT	Information Technology
MS	Microsoft
MUMPS or just M	Massachusetts General Hospital Utility Multi-Programming System
NVCIS	Non-VA Care Interface Support
PII	Personally Identifiable Information
PMAS	Project Management Accountability System
PVID/DFN	Private Voluntary Identifier/Data File Number
QA	Quality Assurance
RAS	Referral and Authorization System (See also, HCP)
RSD	Requirements Specification Document
SAC	Standards and Conventions

Term	Definition
TRM	Technical Reference Model
VA	Department of Veterans Affairs
VHA	Veteran's Health Administration
VistA	Veterans Health Information Systems and Technology Architecture

1.4.2. Definitions

Term	Definition
Addendum	The inclusion of additional information to the source document. Addenda clarify information in the source document by adding details or information that was omitted from the original document. An addendum is not initiated by the patient.
Authorization	Issuance of a 7079/7078 approval to allow a Veteran to be seen in the community. A charge to an obligation does not occur until a payment is issued.
Non-VA Provider	A provider outside of VA who renders care to a patient eligible for VA services and receives payment via a contract or fee basis.
Obligation	Established by the non-VA program office based on services which have been authorized. VA Fiscal establishes control points, and the service establishes the obligation.
Referral	The process of sending a Veteran from one practitioner to another for health care services.

1.5. References

The following reference documents served as inputs to this Requirements Specification:

1. FY11-13 Health Care Efficiency Initiative Operating Plan
2. Expanded Fee Pilot CPRS Integration Referral and Authorization Business Requirements Document (BRD)
[http://\[REDACTED\]](http://[REDACTED])
3. Business Architecture Document: CPRS Interface



BADCPRS Interface
Chapter.rtf

4. VHA Strategic Goals and Power of Performance Goals
[http://\[REDACTED\]](http://[REDACTED])
5. Project Management Accountability System (PMAS)
[http://\[REDACTED\]](http://[REDACTED])
6. ProPath
[http://\[REDACTED\]](http://[REDACTED])

2. OVERALL DESCRIPTION

The current Referral and Authorization process for the Non-VA Care Program is out-dated and inefficient, and is not integrated with CPRS, resulting in serious weaknesses in the internal controls needed to assure that outpatient Non-VA Care is properly justified and authorized. CBO has identified the business need to create an integrated end-to-end future-state claims processing system to include the standardization and automation of the Referral and Authorization application for all of Purchased Care.

This document details the requirements for the following CPRS interfaces in accordance with the contract:

- VistA Consult-HCP Bidirectional Interface

The CPRS enhancement specifications to support the HCP interface are described in detail in the following sections.

2.1. Accessibility Specifications

The following table indicates these specifications adhere to all Section 508 requirements. VHA recognizes that these are legal requirements, which cut across an Enterprise for all developed Electronic & Information Technology. To assure that these requirements are met, they are addressed through the Enterprise-level requirements maintained by VHA Health Information Technology, Software Engineering and Integration, Enterprise Requirements Management.

Table 1: Accessibility Specifications

Req. ID	Requirement
C-ACC-001	The CPRS Interface Enhancements shall comply with section 508 requirements as covered at http://[REDACTED] .

2.2. Business Rules Specifications

The business rules defined for the CPRS enhancements portion of the NVCIS project (see References 3, Section 1.5)

1. **Consult data to HCP Rule:** The HCP system requires notification when a signed Consult is filed from CPRS, status changes are made to the consult, or the consult is cancelled/discontinued. The message to HCP must include a minimum set of data.

2. **HCP updates to Consults Rule:** CPRS/Consults will accept updates to consults, i.e., status changes, comments, and addendums, and alert the appropriate personnel when updates are performed by HCP.

2.3. Design Constraints Specifications

The following constraints will affect this project:

- Health Insurance Portability and Accountability Act (HIPAA) Compliance mandates for EDI transactions
- American National Standards Institute (ANSI) X12 278 – Health Care Services Review standards
- The Health Level 7 (HL7) Version 2.5 standards
- VA Standards and Conventions for Massachusetts General Hospital Utility Multi-Programming System (MUMPS or just M) development
- VA Standards and Conventions for Graphical User Interface (GUI) development
- VA Technical Reference Model (TRM)

2.4. Disaster Recovery Specifications

There are no specific disaster recovery specifications for this project. The disaster recovery specifications pertaining to any VistA system is applicable to this project.

2.5. Documentation Specifications

All applicable ProPath documentation and VistA documentation must be completed to support the VA's national release process. At a minimum, the following documentation shall be generated:

1. Requirements Specification Document
2. Requirements Traceability Matrix
3. System Design Document
4. Interface Control Document
5. Primary Developer checklist
6. Secondary Developer Checklist
7. Software Quality Assurance (SQA) Checklist
8. Product Component Testing Results
9. Software Source Code
10. Master Test Plan
11. Test Evaluation Document
12. Production Operations Manual
13. User Guide

14. Technical Manual
15. Security Guide
16. CI/ST Defect Log
17. CI/ST Evaluation Summary
18. CI/ST Execution Log
19. User Functionality Defect Tracking Spreadsheet
20. User Functionality Defect Log
21. User Functionality Evaluation Summary
22. User Functionality Execution Log
23. Deployment Plan
24. Version Description Document
25. Defect Resolution Plan
26. Defect/Fix Status Report
27. Final Software Source Code
28. Initial Operating Capability Entry Request and Exit Summary
29. Package/Patch Completion Transition Document
30. National Deployment Addendum Issue Brief
31. Software Release Request
32. Knowledge Transfer Training Material

2.6. Functional Specifications

CPRS will interface with the HCP Referral and Authorization (RAS) system hosted by FSC. RAS is built using Commercial Off-The-Shelf (COTS) business process management software - the PegaRULES Process Commander. To the NVCIS project, the acronyms HCP and RAS are interchangeable and mean the future state Non-VA Medical Care (NVC) authorization system.

The following sections describe the requirements in detail.

Note: these requirements originated from the Non-VA Care Claims Processing Enhancements – Computerized Patient Record System (CPRS) Requirements Specification Document issued in July 2013. As that original set of requirements was refined for this document, some requirements were merged or deleted. Where that occurred, the original numbering sequence was preserved and the requirements were not renumbered. This explains any gaps in the contiguous numbering sequence of the requirements.

2.6.1. CPRS Interface to HCP

Table 2: CPRS to HCP/RAS Interface Requirements

Req. ID	Requirement
C-HCP-1	CPRS shall provide an interface to HCP.
C-HCP-2	CPRS-HCP messages require acknowledgement.
C-HCP-3	The CPRS-HCP interface shall support bi-directional data transfer.
C-HCP-5	Acknowledgement messages shall be returned in less than one minute from the time the message is sent. <i>Assumption: Message transactions are dependent on normal system operations from systems in which they are sent and received. If systems are down or are not operating at optimum levels, message transactions will be impacted.</i>
C-HCP-6	The CPRS-HCP interface shall transmit CPRS consult record data to HCP.
C-HCP-7	The CPRS-HCP interface shall transmit only CPRS consultations for which the required data fields have been completed.
C-HCP-8	CPRS shall provide the capability to configure which Referral Templates are sent to HCP. This configuration is Station specific.
C-HCP-8.1	CPRS shall provide the capability to configure which Referral Templates are sent to HCP.
C-HCP-8.2	CPRS Referral Templates to be sent to HCP shall be configurable at the Station level.

Req. ID	Requirement
C-HCP-9	<p>CPRS shall transmit the following data elements, at a minimum, to HCP for filing the referral:</p> <ul style="list-style-type: none"> • VIP indicator (sensitive records) • VA Facility Id • VA Provider Information • VA patient identifier (PVID, DFN) • Referral Template Name (or ID) • Template version • Status • Common elements from the Referral Templates • Other Referral Template specific fields <p><i>Note: The complete list of data elements will be contained in the Interface Control Document (ICD)</i></p>
C-HCP-13	<p>The CPRS-HCP Interface shall transmit the Veteran's "sensitive" record indicator from CPRS.</p> <p><i>Note: VIP INDICATOR = "R"</i></p>
C-HCP-15	<p>For a referral that has been submitted to HCP, CPRS shall provide the capability to update a comment or addendum.</p> <p><i>Note: Upon update to a comment or addendum for a referral previously submitted to HCP, CPRS will send the entire updated referral (with all comments and addendums) to HCP.</i></p>
C-HCP-15.1	For a referral that has been submitted to HCP, the CPRS-HCP interface shall transmit an update to a CPRS comment.
C-HCP-15.2	For a referral that has been submitted to HCP, the CPRS-HCP interface shall transmit an update to a CPRS addendum.
C-HCP-17	The CPRS-HCP interface shall transmit a referral status change for a referral that has been sent to HCP.
C-HCP-19	CPRS shall receive referral updates from the CPRS-HCP interface.
C-HCP-20	Referral updates from HCP shall be limited to adding or updating the comments and addendums, and receiving status updates.
C-HCP-20.1	The CPRS-HCP interface shall allow referral comments added by HCP to be transmitted to CPRS.

Req. ID	Requirement
C-HCP-20.2	The CPRS-HCP interface shall allow referral comments updated by HCP to be transmitted to CPRS.
C-HCP-20.3	The CPRS-HCP interface shall allow referral addendums added by HCP to be transmitted to CPRS.
C-HCP-20.4	The CPRS-HCP interface shall allow status updates to be transmitted from HCP to CPRS.
C-HCP-21	When referral updates and status updates are received from HCP, Vista shall store the updates.
C-HCP-22	When referral updates and status updates are received from HCP, CPRS shall alert the VA Provider. <i>Assumption: This will employ existing CPRS functionality. Details will be provided in design documentation.</i>
C-HCP-23	When a referral status of "rejected," and a rejection message, is received from HCP, CPRS shall alert VA providers with the rejection message so that they can correct or cancel the consult.
C-HCP-24	The CPRS-HCP interface shall support the transmission of rejected referrals needing resubmission.
C-HCP-25	When a Consult is canceled or discontinued in CPRS, CPRS will send a status update to HCP.
C-HCP-25.1	When a Consult is canceled in CPRS, the CPRS-HCP interface will send a status update to HCP.
C-HCP-25.2	When a Consult is discontinued in CPRS, the CPRS-HCP interface will send a status update to HCP.
C-HCP-26	All messages from CPRS to HCP shall include the Consult ID so that HCP can associate the updated consults with the original consult.

2.7. Graphical User Interface (GUI) Specifications

Section 508 of the Rehabilitation Act of 1973 and Rehabilitation Act Amendments of 1998 both mandate that all software developed by federal agencies allow access to, and use of information and data by individuals with disabilities. Any CPRS GUI changes will be coded to assure Section 508 Compliance with respect to the requirements of the Section 508 Checklist for Software Applications and Operating Systems. See Section 2.1 for links to guidance documents.

2.8. Multi-Divisional Specifications

The CPRS and Consult/Request Tracking applications shall use existing multi-divisional functionality and shall continue to operate in a multi-division and/or multi-site environment. Messages to external systems (e.g., HCP) will contain sending facility information.

2.9. Performance Specifications

Table 4 depicts the performance specifications for the VistA CPRS enhancements.

Table 3: Performance Specifications

Req. ID	Requirement
PERF-030	VistA Consult and future state HCP shall be able to support a minimum of 1 million record exchanges per year.

2.10. Quality Attributes Specifications

The software shall be released with zero high or medium impact defects. Test defect logs will be submitted after internal Quality Assurance (QA) and site testing for VA review.

2.11. Reliability Specifications

The CPRS and Consult/Request Tracking modules are integrated parts of the overall VistA system that exists at each site and will be subject to VistA reliability standards.

2.12. Scope Integration

There are multiple systems and interfaces affected by the different functionalities being updated throughout this Requirements Specification Document (RSD). These systems and interfaces are listed in Section 4 below.

2.13. Security Specifications

These specifications adhere to all VA and VHA security requirements. Cross-cutting security requirements are contained in the VA Enterprise Requirements Repository (ERR).

2.14. System Features

Existing VistA applications are being modified for this enhancement.

2.15. Usability Specifications

VistA roll-and-scroll and GUI modifications to be executed will be coded with requirements specifications and usability in mind. Design specifications will take current and proposed user

workflow into account in order to make transition to the enhanced software and training needs as simple as possible. GUI software shall comply with requirements in the 508 checklists found at [http://\[REDACTED\]](http://[REDACTED])

3. APPLICABLE STANDARDS

All development must be compliant with the following standards.

- ANSI X12 278 – Health Care Services Review standards
- The HL7 Version 2.5 standards
- VA Standards and Conventions for M development
- VA Standards and Conventions for GUI development

4. INTERFACES

The following sections describe the interface specifications.

4.1. Communications Interfaces

The following communication interfaces will be utilized during development:

- Non-VA Provider Referral Request Enhancement – ANSI X12
- CPRS-HCP Interface – HL7

4.2. Hardware Interfaces

No special hardware is required for this effort.

4.3. Software Interfaces

CPRS and Consults require the following versions (or higher) of VA software packages for proper implementation (See Table 5). The software listed is not included in this build and must be installed for the build to be completely functional:

Table 4: CPRS Versioning

Application	Version
Adverse Reaction Tracking	4.0
BCMA	3.0
Decision Support System	3.0
Fee Basis	3.5
Integrated Funds Control, Accounting, and	5.0
Inpatient Medications	5.0
Integrated Billing	2.0
Kernel	8.0
Laboratory	5.2
Mailman	7.1
National Drug File	4.0
Nursing	4.0
Order Entry/Results Reporting	3.0
Outpatient Pharmacy	7.0
Patient Information Management Systems	5.3
Pharmacy Data Management	1.0
RPC Broker (32-bit)	1.1
Text Integration Utilities	2.0
Toolkit	7.3
VA FileMan	22.0
VistA Imaging	3.0
Accounts Receivable	4.5
Fee Basis	3.5
HL7	1.6
Integrated Funds Control, Accounting, and Procurement	5.0
Kernel	8.0
Mailman	7.1
RPC Broker (32-bit)	1.1
Toolkit	7.3
VA FileMan	22.0

4.4. User Interfaces

The CPRS and Consult/Request Tracking applications utilize both a Character-based User Interface (CHUI) and GUI. The Consult/Request Tracking GUI is accessed via CPRS. HCP/RAS utilizes a GUI.

To maintain consistency within and across VistA, the CPRS and Consult/Request Tracking user interface and design elements will conform to the Standards and Conventions (SAC) standards. The interface employs characteristics as close to Microsoft (MS) Windows-based applications as possible. Users will find that some functionality may not be common to MS Windows-based applications, but common to VistA. Standard VA FileMan lookups are used at prompts when required.

5. LEGAL, COPYRIGHT, AND OTHER NOTICES

Not applicable.

6. PURCHASED COMPONENTS

Not applicable.

7. USER CLASS CHARACTERISTICS

VA Providers (including residents, attending providers, and so forth), Non-VA Providers, HCP Clerks, Consult/Request Tracking Users, and Information Resources Management (IRM) will be using these application enhancements.

8. ESTIMATION

To be included at a later date.

Table 5: Function Point Analysis Results Table

Project Software Functional Size and Size-Based Effort and Duration Estimate						
	Application					
ITEM	A	B	C	D	E	TOTAL
Counted Function Points						
Estimated Scope Growth						
Estimated Size at Release						
Size-Based Effort Estimates					Labor Hours	Probability
Low Effort estimate-with indicated probability, project will consume no more than:						
High Effort estimate-with indicated probability, project will consume no more than:						
Size-Based Duration Estimates					Work Days	Probability
Low Duration estimate-with indicated probability, project will consume no more than:						
High Duration estimate- with indicated probability, project will consume no more than:						

9. APPROVAL SIGNATURES

REVIEW DATE: *<date>*

SCRIBE: *<name>*

Signed:

Date:

Chair, Business Sponsor

Date:

Date:

Date: