

Department of Veterans Affairs

Pharmacy Product System - National

Requirements Specification Document



Date

Version 2.0

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Revision History

Date	Revision	Description	Author
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1. Introduction

Pharmacy applications and systems are some of the oldest technologies in the Veterans Health Information Systems and Technology Architecture (VistA) system. The Veterans Health Administration (VHA) has identified system limitations and cumbersome, inconsistent pharmacy processes as a weakness in its ability to provide efficient pharmaceutical services across the VHA continuum. In 2001, First Consulting Group, an external contractor, conducted a functionality assessment of pharmacy applications and operations to determine the viability of maintaining the status quo of current technology supporting VHA Pharmacy operations, taking into account agency goals and priorities. This analysis, presented in the Final Report of the VA Pharmacy Application Assessment Project (dated July 20, 2001), identified several fundamental problems with the current system and recommended that VHA Pharmacy Systems technology and operational processes change from a dispensing and labeling focus to a patient-centric care focus. A proposal to proceed with the VHA PEPS (formerly PRE) project was presented to VHA and subsequently approved on April 16, 2002.

The Future Business Process Model (FBPM), published in September 2004, presents the overall operational concept for the pharmacy processes which the overall PEPS project supports. The design of the operational concept presented in the FBPM focuses on achieving an enterprise-wide patient-centric pharmacy care system. The operational concept includes:

- ✓ Integrating Inpatient and Outpatient Pharmacy Care – This results in a single, combined view of a patient’s healthcare. The combined view provides the caregiver with quick access to pertinent information about a patient’s outpatient and inpatient medications.
- ✓ Integrating On-Site and Off-Site Pharmacy Care – This addresses a new capability to access and incorporate pertinent healthcare information from VHA and non-VHA healthcare facilities, providing the caregiver a complete picture of the Patient’s Medication Profile.
- ✓ Integrating Pharmacy into the Patient Care Team – This specifically addresses the vision of fully integrating pharmacy operations with the various other operations dealing with patient care, such as order entry, administration, and clinical monitoring.
- ✓ Integrating Inventory and Supply Management in Patient Healthcare – This incorporates inventory and supply concepts (e.g., par levels, reorder points, usage data, forecasting) to ensure that required medical supplies are available in the right form, at the right time, and in the right place.
- ✓ Integrating Process Management into Patient Healthcare – This provides the capability to assess the status of pharmacy operations and to make improvements continuously based on evidence garnered throughout the pharmacy processes.

Implementing the operational concept outlined above will help transform the current pharmacy from a supply-fill-deliver organization to an OneVA pharmacy (providing world-class service to Veterans and their families through the effective management of people, technology, process, and financial resources) that is a valued member of the VHA’s patient-care team.

The objective of the Pharmacy Product System (PPS) project is to facilitate the improvement of pharmacy operations, customer service, and patient safety for the VHA. The PPS project will help address the identified goals and vision for the VHA Pharmacy System.

The goal for the overall PPS project is a seamless and integrated nationally supported system that is an integral part of the Technical Reference Manual (TRM) compliant environment. To meet this goal, the PPS project will enhance pharmacy data exchange, as well as clinical documentation capabilities, in a truly integrated fashion to improve operating efficiency and patient safety. Additionally, it will provide a flexible technical environment to adjust to future business conditions and to meet patient needs in the clinical environment. Achieving this goal will enable resolution of current pharmacy issues, improve patient safety, and facilitate long-term process stability.

1.1. Purpose

The PPS versions have the following main goals:

PPS-N Version 1.0 & PPS-N Data Migration Version 1.0: These efforts began the process to perform drug data management in the reengineered environment while maintaining continuity with the legacy National Drug File Management System (NDFMS). These efforts focused on migrating the 12 national Pharmacy Drug files into the national enterprise level product system and constructed tools to manage and update the system.

PPS-N Version 2.0: This effort will focus on constructing functionality to update the local copy of the NDF Vista files using the PPS-N data eliminating the need for NDFMS to include the patches. The new functionality will eliminate the need to update the national NDF files, increase the timeliness of the local copy of the NDF Vista files, and increase the efficiency of the NDF/local drug file (#50) matching process. In addition, this effort will correct anomalies, defects, and user interface issues which are critical or require minimal effort to fix.

PPS-N Version 3.0: This effort will continue to improve operations and to correct anomalies, defects, and user interface issues that exist in the PPS-N system. In addition, this effort will augment product types and track hazardous waste thus adding functionality needed for the next generation electronic health record. Additional product types include compound, investigational, partial dose, unit dose, IV, IV additive, IV solution, and electrolyte.

PPS-L Version 1.0: This increment will further develop and elaborate on requirements for future PPS increments which will focus on adding a Pharmacy Product System at the local sites allowing the local systems access to the data contained in PPS-N. The local sites will be allowed to add limited local data through the PPS System or the Pharmacy Data Management (PDM) options. The national and local systems will synchronize to assure consistency of data. This increment will include migrating and synchronizing local drug data, and developing analysis and data management tools to manage the records affecting PPS-L. Finally, housekeeping functions such as correcting issues with the PPS system will also be accomplished.

PPS-L Version 2.0: This effort will expand the PPS functionality to include everything needed to eventually retire the NDF and PDM systems. Retirement of the PDM and NDF systems will happen in future increments after the following occurs:

- All local sites fully migrate local pharmacy data to the PPS system.
- The PPS system is meeting all the local needs provided by the retiring systems.
- Packages such as Inpatient Pharmacy, Outpatient Pharmacy, Bar Code Medication Administration (BCMA), and Computer-based Patient Record System (CPRS) move dependencies from the retiring systems to PPS.
- The system provides the ability for outside entities using the software through the Freedom of Information Act to migrate to the new system.

Additionally, housekeeping functions such as correcting issues with the PPS system will also be accomplished during this increment.

This document will cover both the functional and technical requirements for the Pharmacy Product System National effort.

This document is intended for the users who will verify the requirements are correct, the developers who will be creating the system and the testers who will be validating the requirements are met.

1.2. Scope

PPS is based on a service-oriented architecture and differs significantly from that of the legacy M-based VistA system. PPS has a three-tiered architecture that distinctly identifies a Presentation Tier (responsible for user interactions), a Business Logic Tier (where the business logic presides), and a Data Persistence Tier (responsible for short-term and long-term data persistence).

The PPS environment provides for the ability to manage pharmacy-specific data across the enterprise, ensuring that all facilities are using the same base data for their operations. The advantages of PPS over the legacy system are numerous. The new system will reduce the redundancy of information stored within legacy Pharmacy components by making use of enterprise services that provide access to authoritative sources of data, such as a Commercial-Off-The-Shelf (COTS) database. PPS will ease system implementation and maintenance, improve system performance, promote vendor independence, and provide for a pharmacy system that is scalable within the VA enterprise.

The PPS-N V2.0 effort will be covered in this document. Refer to the References (section 1.4) for additional documents.

1.3. Acronyms and Definitions

Acronyms

The following acronyms are used in this Document.

Term	Definition
ADPAC	Automated Data Processing Application Coordinator
BCMA	Bar Code Medication Administration

Term	Definition
CCOW	Clinical Context Object Workgroup
CMOP	Consolidated Mail Outpatient Pharmacy
COTS	Commercial-Off-The-Shelf
CPRS	Computer-based Patient Record System
CRUD	Refers to the database operations of create, read, update and delete
DATUP	Data and Table Update Process
DMG	Data Mapping Guide
EPL	Enterprise Product List
EPL-L	Enterprise Product List-Local
EPL-N	Enterprise Product List-National
FBPM	Future Business Process Model
FDB	First DataBank
GUI	Graphical User Interface
ICD	Interface Control Document
IPT	Integrated Project Team
J2EE	Java 2 Enterprise Edition
KAAJEE	Kernel Authentication and Authorization for J2EE
MOCHA	Medication Order Check Healthcare Application
MUMPS	Massachusetts General Hospital Utility Multi-Programming System
NLM	National Library of Medicine
NDC	National Drug Code
NDF	National Drug File
NDFMS	National Drug File Management System
NDF-RT	National Drug File-Reference Terminology
PDM	Pharmacy Data Management
PECS	Pharmacy Enterprise Customization Service
PEPS	Pharmacy Enterprise Product System
PPS	Pharmacy Product System
PPS-L	Pharmacy Product System - Local
PPS-N	Pharmacy Product System - National
RPC	Remote Procedure Call
RSD	Requirements Specification Document

Term	Definition
RxNorm	Normalized naming system for generic and branded drugs
SDD	System Design Document or Software Design Documents
SDE	Service Delivery and Engineering
SDS	Standard Data Service
SQL	Standard Query Language
SRS	Software Requirements Specification
STS	Standards and Terminology Services
SwRI	Southwest Research Institute
TBD	To Be Determined
TRM	Technical Reference Manual
TSPR	Technical Services Project Repository
UD	Unit Dose
VA	Department of Veterans Affairs
VETS	VHA Enterprise Terminology Service
VHA	Veterans Health Administration
VUID	VHA Unique Identifier

Definitions

Term	Definition
Authentication	The process of proving that a user is who they say they are. This is done by forcing the user to enter a password known only to the user.
Authorization	The process of proving that the user has the right's to perform the task they are trying to perform. This is done by the user having permission in the system to perform the task.

1.4. References

The following relevant system documentation can be found on the Technical Services Project Repository (TSPR) in the [PPS-N Notebook](#):

- PPS-N V1.0 RSD
- PPS-N V1.0 SDD
- PPS-N V1.0 ICD
- PPS-N V1.0 Data Migration RSD
- PPS-N V1.0 Data Migration SDD
- PPS-N V1.0 DMG

The following relevant system documentation can be found on the Pharmacy SharePoint Site under the [PPS link](#) for each version:

- PPS-N V3.0 RSD
- PPS-L V1.0 RSD
- PPS-L V2.0 RSD

The following relevant system documentation can be found on the Pharmacy SharePoint Site in the [PPS Product Level Documents folder](#):

- PRE Security Plan
- PRE Coding Standards
- PRE V1.0 SRS
- PRE V1.0 SDD1
- PRE V1.0 SDD2
- PRE V1.0 SDD3

The following relevant reference materials can be found on the Pharmacy SharePoint Site in the [March 2009 PRE v1.0 Additional Types Workshop folder](#):

- Compound_Storyboards_V1.0.pptx
- Investigational_Storyboards_V2.0.pptx
- IV_Storyboards.pptx
- MAD_Compounds.doc
- MAD_IV.doc
- MAD_Non_Primary.doc
- MAD_Supply_Investigational_Other_Types.doc
- Non-Primary_Storyboards.pptx

The following relevant Program Level reference materials can be found on the Pharmacy SharePoint Site in the [Over-Arching Documents folder](#):

- PEPS Style Guide

Additional references include:

- [PMAS Portal](#)
- [ProPath Site](#)
- [TSPR Project Repository](#)
- [Technical Reference Model](#)
- [Rational ClearQuest](#)
- [Release Management](#)
- [Requirements Management Repository Program](#)
- [VA Section 508 Site](#)

2. Overall Description

2.1. Accessibility Specifications

This application must comply with the Section 508 Technical Standards checklists. In addition to the Accessibility Specifications listed in the checklists, the application must pass an inspection by the VA 508 compliance group and get their certification. This application will not make use of the Clinical Context Object Workgroup (CCOW) interfaces and has no requirements for the CCOW standards.

2.2. Business Rules Specifications

Known business rules are documented in PPS-N V1.0 RSD.

Additional business rules will need to be defined for the Functional Specifications listed in section 2.6. Rules were documented in PRE V1.0 SRS. This document was an earlier attempt to explore the requirements for PPS-N and PPS-L (referred to in this document as National PEPS and Local PEPS) and offers insight when refining the current requirements.

2.3. Design Constraints Specifications

System constraints fall into two categories, approved tools and pre-existing system architecture. PPS will only use tools that have been pre-approved and are on the TRM approved tool list. The sections below discuss some of the major tools and components that comprise the system.

Approved Tools

PPS tools are from the list of approved tools provided in the TRM. The list includes but is not limited to the following:

- WebLogic
- Java version
- Oracle version
- Spring Framework
- J2EE
- RoboHelp
- Hibernate
- Caché

Pre-existing Architecture

The PPS system shall be constrained by the TRM compliant architecture to ensure system compatibility with other TRM compliant applications. The libraries and applications used include but are not limited to the following:

- KAAJEE

- VistA Link
- NDFMS
- VistA

2.4. Disaster Recovery Specifications

The PPS-N system is architected to fit within the overall PEPS architecture. A program level disaster recovery plan is being written that includes PPS-N, PECS, MOCHA and DATUP. The plan will need to be reevaluated for updates throughout the lifecycle of the project with the inclusion of PPS-L.

SUP93	While PPS is only accessed by national level pharmacy managers, in the event of a disaster, the business customer expects PPS to be restored within 3 days or less. When PPS becomes accessed by local site level pharmacy managers, in the event of a disaster, the business customer expects PPS to be restored within 24 hours or less.
Elaboration	None.

2.5. Documentation Specifications

Documentation will include all PMAS required IT Project Artifacts for Milestones 1 & 2, Assessment & Authorization, Operational Readiness Review, Independent Testing, and National Release. PMAS documentation is updated regularly and the project will comply with all updates based on the PMAS guidelines. In addition to the PMAS required IT project artifacts, the documentation will include the Project Schedule, Quality Assurance Plan, and Customer Acceptance Form. Finally, the system shall provide context-sensitive help on each screen.

The PPS project is part of the overall PEPS series of projects. It will not have a separate Security Plan Document that is specific to PPS. The PPS security will follow all the same processes and procedures that the other PEPS applications use.

As the PEPS program continues to move forward with enhancement to the applications (PECS and PPS), the changes will be documented and their effect on the security profile of the system will be evaluated. The PPS system will follow the same evaluation process as the other application in the PEPS program. This is to ensure that PPS does not do anything that would cause the ATO to become null and void. The PEPS program uses the SRR/Security Checklist while working with the security teams to obtain proper signatures prior to each new increment/enhancement being released.

2.6. Functional Specifications

The following list of Requirement Specification Documents (RSD) and System Design Documents (SDD) provides an overall view of the PPS system. The RSDs work in concert to give an overall view of the planned system. The PPS versions build off each other to produce an overall PPS system. Requirements in PPS-N V1.0 will continue to apply to the future PPS system except where modifications are needed to meet the additional requirements.

- PPS-N V1.0 RSD
- PPS-N V1.0.10 SDD
- PPS-N V1.0 Data Migration RSD
- PPS-N V1.0 Data Migration SDD
- PPS-N V3.0 RSD
- PPS-L V1.0 RSD
- PPS-L V2.0 RSD

The Data Mapping Guide (DMG) in addition to giving a view of the data for PPS-N V1.0 also provides initial listings of local data fields for PPS-L:

- PPS-N V1.0 DMG

The Software Requirements Specification (SRS) document and Software Design Documents (SDD) were an earlier attempt to explore the requirements for PPS-N and PPS-L (referred to in this document as National PEPS and Local PEPS) and offer insight when elaborating the current requirements.

- PRE V1.0 SRS
- PRE V1.0 SDD1
- PRE V1.0 SDD2
- PRE V1.0 SDD3

Lessons learned found on [Rational ClearQuest](#) will help give guidance when elaborating requirements.

Change Requests (CRs) and Code Change Requests (CCRs) can be found in the [Rational ClearQuest](#) repository. This repository shall be updated throughout the lifecycle of the project.

Requirements will be refined and modified during the increments. The development team will work with the customer using tools such as use cases and story boards to further elaborate requirements. These tools are to be included in updated versions of this document.

Functional Requirements

Replace NDFMS Updates to Local VistA

The system shall include all functionality needed to retire the Legacy National Drug File Management System (NDF MS) so that no more monthly NDF MS patches or other NDF MS patches are needed to be sent because PPS-N will be able to replace the patching process and functionality provided by those patches.

- Notification of site personnel of the PPS-N updates so that VistA will notify site personnel of need to update.

- Ability to send messaging to coordinate to ensure that local VistA systems are paused until the updates are processed.
- Ability to monitor both local and national level sites to ensure they have been updated.
- Support for Consolidated Mail Outpatient Pharmacy (CMOP) updates. CMOP is updated using NDF patches.
- Update of local site NDF files
- National monitoring of local NDF updates.
- Ability to assign an alternate VA product for automatic rematch at the local level.
- Ability to assign alternate(s) VA product as a suggested rematch.
- Option that allows the Pharmacy Automated Data Processing Applications Coordinator (ADPAC) the ability to update the local NDF files. Including the ability to schedule the update on a weekly or daily basis at a specific time.
- Validate that all background jobs are firing correctly after an update occurs. For example allergy update, class update, unmark items form CMOP, Clinical Reminder update.
- Create e-mail messages for updates consisting of the following:
 - Informational messages that consist of at a minimum:
 - New products added since last update.
 - Formulary changes (excludes new entries).
 - Exclude from drug-drug interaction (excludes new entries).
 - Exclude from dosing edits (excludes new entries).
 - VA Class changes (excludes new entries).
 - Site specific messages
 - Items unmatched due to update. Including when possible the suggested edit. Suggested edit will be the comment when the change is made by PPSN manager.
 - Items automatically rematched due to national change.
 - Allergies updated.
 - Inactivation report. On a weekly basis a VistA routine will look at PPSN for items with a future proposed inactivation date. The system will check to see if the site has active file #50 entries matched to the VA product that is going to be inactivated. VistA will create a message listing these active file #50 entries and the number of active Rx's associated with them.
- Include functionality within PPS-N to handle Patient Medication Information (PMI)/Warning label files and include in local update process

Support for RxNorm fields

The system shall include all functionality required to support RxNorm fields within PPS-N

- Ensure that PPS-N stores the following RxNorm Fields (RXCUI, TTY, STR and SUPPRESS). (in the EPL-N database) (?)
- Ensure that PPS-N allows the user to add, view, and edit the following RxNorm Fields (RXCUI, TTY, STR and SUPPRESS).
- The system shall provide a report for support of RxNorm-NDFRT update. (RxNorm, a standardized nomenclature for clinical drugs, is produced by the National Library of Medicine. In this context, a clinical drug is a pharmaceutical product given to (or taken by) a patient with a therapeutic or diagnostic intent. In RxNorm, the name of a clinical drug combines its ingredients, strengths, and form.)
- The system shall ensure that PPS-N 2.0 includes a method to update the data for the RxNorm fields either using STS web service (if available) or using a direct API to RxNorm itself.

Additional Requirements

- The contractor shall ensure that PPS include in the database and GUI fields with add/view/edit as required allowing NCPDP messages that will be used in future increments.
- Interface with Standards and Terminology Services (STS) to support real-time VA Unique Identifier (VUID) assignments
- The system shall update the VA Product Identifier numbering sequence to add more numbers. (aka – CMOP ID)
- Provide support within PPS-N for the future (PPS-N 3.0 or later) addition of the following record types:
 - Investigational items.
 - Compounded items.
 - Partial, i.e. half tablets.
 - Additional hazardous waste fields
 - Product specific thresholds for inclusion of expired orders in order checks.
- Support for known anomalies, defects, or user interface issues found during use of the system.

2.7. Graphical User Interface (GUI) Specifications

This section describes the standard that the GUI for the PPS effort needs to support. The system will comply with **Section 508 guidelines as specified in Section 2.1**. The PPS user interface will also follow the guidelines in the PEPS Style guide.

SUP88	The System shall be designed to work in a screen resolution of 1280 X 1024.
Elaboration	None.
SUP89	The System shall be designed to work with Internet Explorer 9.
Elaboration	Note that Browser settings may affect how font and graphics are displayed

2.8. Multi-Divisional Specifications

The system shall:

- Allow a user to create, read, update, and delete data across location domains according to the user's permissions
- Filter data according to a user's permissions (e.g., display only data for a site, all sites, national level data, etc.)
- Support multi-site operations where VA may be sharing the instance with a non-VA entity such as Department of Defense (DoD) or the Indian Health Service (IHS)
- Not bind the allowable health care entities to be only VA (remember, VA pharmacy systems will be used by other entities through the Freedom of Information Act and the package must support the continued functionality through OSEHRA)

2.9. Performance Specifications

Performance software requirements specify how quickly or efficiently something must occur in the system. It is expected that this version of PPS will have several performance requirements relating to system performance. These may include performance related to the searching of items, adding or removing items, data updates, and retrieval of drug item information and returning it to a source outside of PPS. These requirements will be detailed in a future version of this document.

The PPS system will need to adhere to the general 2-3 second load characteristics of web page applications.

SUP90	The simple search page shall respond in less than two seconds for at least 90% of the simple searches when a single user is accessing the system.
Elaboration	None.
SUP91	The system shall allow a trained PPS National Manager to create an NDC and product from a pre-existing template in no more than four minutes from the start of the add process.
Elaboration	None.

SUP92	The system shall allow a trained PPS National Manager to create a new Product from a chosen FDB Packaged Drug in no more than four minutes from the start of the add process.
Elaboration	None.
SUP TBD	The PPS-L shall allow a trained local ADPAC to create a new PPS product from a pre-existing template in no more than four minutes from the start of the add process.
Elaboration	None.

2.10. Quality Attributes Specifications

The supportability, maintainability, portability, testability, and reusability specifications of the system are being developed.

The system will comply with the PRE Coding Standards document. The project will utilize PMD and CheckStyle automated tools to ensure compliance to the defined standards referenced in this document.

2.11. Reliability Specifications

The system shall be available 24/7, with exception made for required system maintenance activities. Required maintenance activities shall be scheduled for known periods of decreased system utilization.

Additional specifications will be determined as requirements are elaborated with the advice of SDE.

2.12. Scope of Integration

Interfaces include but are not limited to those detailed below.

The PPS code will interact with NDFMS, the VHA Enterprise Terminology Service (VETS) Standard Medication Route retrieval web service, and the FSS pricing information via a JDBC connection. This document and the corresponding Interface Control Document and System Design Document will include the NDFMS RPC information.

The interface with the VETS web service will be through the specification published by the VETS application. A Memorandum of Understanding (MOU) or Inter-service Agreement (ISA) will need to be written to cover this agreement.

The interface with the FSS database will be through a JDBC connection setup on the PPS web logic server. A SQL statement will be written to retrieve FSS data directly from the FSS database. A Memorandum of Understanding (MOU) or Inter-service Agreement (ISA) will need to be written to cover this agreement.

The interface with VistA functionality is touched upon in the PRE V1.0 SRS which can be used as a starting point in determining the requirements.

2.13. Security Specifications

The PPS Code will use the KAAJEE software for authentication and authorization. In NDFMS, the PPS-N System User will be given access to the PPS MUMPS RPCs.

Additional specifications will be determined as requirements are elaborated with the advice of SDE.

SUP32	The system shall grant access to service component functions and data only to authorized service users.
Elaboration	None.
SUP34	The system shall time out when a user has been inactive for the time configured during the web logic installation.
Elaboration	Set a default time of ten minutes
SUP37	The system shall use KAAJEE for user authentication and authorization.
Elaboration	Note KAAJEE relies on an SDS database being available.

2.14. System Features

System features will be developed through elaborating the **Functional Requirements in section 2.6.**

2.15. Usability Specifications

This section composes the usability requirements for the system. Usability requirements are different from the **Accessibility requirements which are represented in Section 2.1**. These requirements are for the ‘convenience’ of the user to make the application more intuitive. They do not represent features of the system, instead they represent items that are in place to make the system easier to use.

Usability requirements can be subjective and not objective and therefore, can be very difficult to pass in a verification test. These requirements will not be tested in the Acceptance Test but will be deferred and tested as part of the user functional testing.

Additional requirements will be added as the requirements are elaborated.

SUP81	The system shall identify the user location in the application by providing descriptive location names on the focus screens.
Elaboration	None.
SUP82	The system shall provide a breadcrumb path to track and identify the user's location within the application.
Elaboration	The beginning position of the breadcrumb is the functional item selected using the menu or the start of a new functional flow. Every page that is visited during that functional flow is recorded. For display purposes, only the beginning position and the last five pages visited are shown. If the user clicks one of the

	items in the breadcrumb, that page will become the current page and the breadcrumb will reset accordingly to display once again the beginning position and the most recent five pages
SUP83	The system shall provide buttons consistent within the context of the application.
Elaboration	None.
SUP85	The system shall provide notification when a timed response is required and provide sufficient time for the user to respond.
Elaboration	Note: This is only related to the system logging the user out of the system. The sufficient time is described as one minute.

3. Applicable Standards

The system will be required to meet all applicable Enterprise Level Requirements as noted by the [Requirements Management Repository Program](#) and documents as noted in section 2.0 of the T4 Basic PWS.

This system does not contain any patient or provider information so compliance with directives related to safeguarding patient and privacy information do not apply. Access to the system is provided by the VA produced KAAJEE application and therefore, this application will only show that it is using the KAAJEE application for access control as proof of adhering to Security standards.

4. Interfaces

PPS-N's known interfaces are detailed in the PPS-N 1.0 Interface Control Document. Additional interface details will be determined as requirements are elaborated.

4.1. Communications Interfaces

See section 4.

4.2. Hardware Interfaces

See section 4.

4.3. Software Interfaces

See section 4.

4.4. User Interfaces

See section 4.

5. Legal, Copyright, and Other Notices

Legal, copyright, and other notices are still under development.

PPS currently does make use of open source code libraries and must adhere to the standards defined for using open source code files such as not modifying the open source code classes without giving credit in the class header for the source of the class.

6. Purchased Components

Components purchased for PPS are being prepared at the program level and are not recorded in this document.

7. User Class Characteristics

The user community at the national level that will be accessing this system is composed of those who have significant domain knowledge of drug based management systems.

The system at the local level is targeted for Pharmacy ADPACs.

8. Estimation

The specific details regarding the estimations are still under development.